KIRKLAND

Transportation Strategic Plan

DRAFT - Subject to Change

CITY OF KIRKLAND WASHINGTON

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1. Introduction

The Kirkland Transportation Strategic Plan (TSP) represents a comprehensive citywide vision for the City's future transportation system to be more safe, connected, and multimodal. The goals, policies, projects, and programs in this Plan will support the City's vision for growth in the Kirkland 2044 Comprehensive Plan and will define the future of transportation in Kirkland for the next 20 years.

The TSP addresses the present and future of Kirkland's transportation system, considering how people get around today and how that may change in the future. With limited roadway space and changing travel patterns, Kirkland's transportation system will accommodate people walking, rolling, bicycling, riding transit, and driving for all types of trips with a focus on safety. The vision for Kirkland's transportation system is safe, connected, and multimodal.

> **City Council Balanced Transportation Goal**
>
> **Reduce reliance on single-occupancy vehicles and improve connectivity and multimodal mobility in Kirkland in ways that maintain and enhance safety, travel times, health, and transportation choices.**

1.1. Relationship to the Comprehensive Plan and City Programs

The TSP is a plan for the next 20 years and was developed in coordination with the Comprehensive Plan that connects the vision for the future of Kirkland's transportation system to the City's 20-year growth strategy and sustainability elements. The goals and policies of the TSP are reflected in the Transportation Element of the Comprehensive Plan. Forecasts for housing and employment growth from the Land Use Element of the Comprehensive Plan were used to predict traffic volumes and future traffic operations which informed the development of projects in the TSP.

The set of transportation projects and programs that are expected to be funded through 2044 based on the City's financial plan are incorporated in the Capital Facilities Element of the Comprehensive Plan. The full list of capital projects in the TSP will be reviewed as part of annual updates to the City's six-year Capital Improvement Program (CIP) and the Transportation Improvement Program (TIP). These projects reflect an emphasis on active transportation, multimodal and safety projects.

1.2. Approach

The previous functional plan for Kirkland's transportation system, the 2015 Transportation Master Plan (TMP), included a framework for decision making that reflected a hierarchy of modes which prioritizes more vulnerable road users. This hierarchy prioritized four primary modes of travel in the city in the following order: (1) walking, (2) bicycling, (3) transit, (4) driving. This hierarchy is intended to help ensure that the needs of all users are considered in the City's transportation planning process, help guide decision making on future investments in the transportation system and ensure the safety and comfort of people using all modes of travel

Kirkland is committed to achieving **Vision Zero**, which is a term used to describe the goal for zero transportation related deaths or serious injuries. The safety of all road users is fundamental to the future of Kirkland's transportation system. To achieve this goal, the City has adopted a **Safe System**

Approach to community planning and implementation. The U.S. Department of Transportation (USDOT) developed the Safe System Approach to address roadway safety and achieve vision zero goals of safe transportation for all, particularly those walking, rolling, and bicycling regardless of age or ability. The Safe System Approach works by focusing on the design and management of transportation systems to reduce the risk of injury from human error. The Safe System Approach requires a human-centered culture that places safety at the center of road system investment decisions. Kirkland will use this approach as overarching guidance for planning and investing in the City's transportation system.

death and serious injuries are unacceptable · humans make mistakes
humans are vulnerable · responsibility is shared · safety is proactive · redundancy is crucial
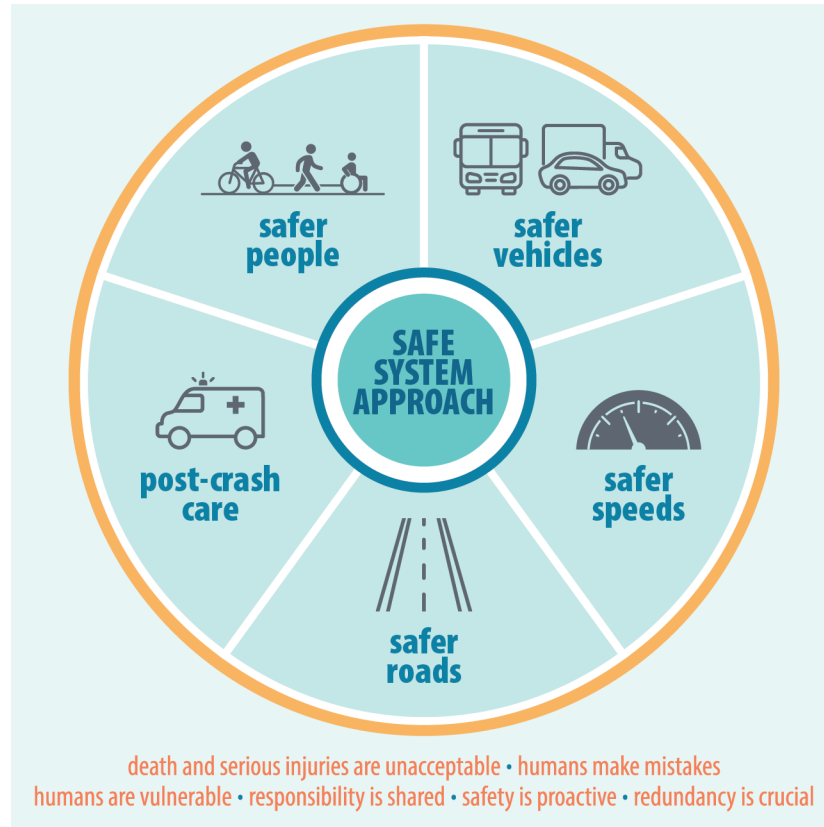
Complete Streets is a comprehensive approach to transportation planning and street design that prioritizes safe and accessible transportation for all users. This includes people walking, rolling, bicycling, riding transit and driving with an emphasis on facilities for people of all ages and abilities. The goal is to create streets that accommodate all modes of transportation, ensuring safety, efficiency, and convenience for everyone. By integrating features like bike lanes, wider sidewalks, crosswalks, and public transit facilities, the Complete Streets approach aims to foster inclusive and sustainable communities.

20–25% of Washingtonians can't or don't drive, and all of us are pedestrians at some point in every trip. Complete Streets give everyone the freedom to move in whichever way works for them.

Making streets safer for our children to walk or roll to school gives them healthy movement and charges them up for a day of learning, gives parents some time back, and cuts down on vehicle traffic to make it smoother and safer for everyone.

Even some Washingtonians who can drive would prefer not to. People aged 16–34 are driving 23% fewer miles than young people previously did, bicycling 24% more miles, and using transit up to 40% more miles.

Image Source: WSDOT

Kirkland was the first city in Washington State to adopt a complete streets ordinance. The City has continued to amend the Complete Streets Ordinance to incorporate the goals and policies of the TSP and to reflect more current best practices in the design and implementation of Complete Streets, including consideration of all transportation modes.

> **Kirkland Complete Streets Ordinance**
>
> *KMC 19.08.055*
>
> **The safe, convenient and comfortable travel of people of all ages and abilities traveling by any combination of foot, bicycle, transit, or motor vehicle shall be accommodated to the maximum extent practical in the scoping, planning, development, and construction, operation and maintenance of all transportation facilities, including the creation of new transportation linkages in order to create a more connected community-wide transportation network.**

1.3. Transportation Concept

The City will offer a safe, accessible, well maintained and fully connected transportation system for everyone that lives in, works in, or visits Kirkland. The safety of all road users is fundamental to the future of Kirkland's transportation system and to creating a safe and welcoming environment for people walking, rolling, bicycling, riding transit, and driving. in addition to people driving. Active transportation connections designed for all ages and abilities and access to frequent and reliable transit can offer a range of transportation choices for all kinds of trips. The 20-year transportation network will serve the community's transportation needs and the safety of people getting around Kirkland on foot, by bike, on transit, and in cars. The Transportation Strategic Plan seeks to invest in all modes of transportation by:

- Funding maintenance and preservation of existing and new facilities as a priority.
- Focusing comprehensively on safety.
- Emphasizing greater support for bicycle and pedestrian modes.

- Actively partnering with agencies and groups to improve the local and regional transportation system.

- Making sure growth is on pace with construction of multimodal transportation projects.

Sustainability is embedded in the principles and goals of the TSP through a focus on environmentally sustainable transportation and financially sustainable investments in sound maintenance and new facilities that offer the greatest benefit to the community. Kirkland's active partnerships with transit service providers and other agencies will be integral to the implementation of the TSP, and the community's vision for the future of transportation in Kirkland.

2. Related Plans and Studies

The City has developed a variety of modal specific planning documents that have informed the projects, goals and policies in the TSP. The modal plans summarized in this section have both contributed to the development of the TSP but in some cases, provide more specific detail and are intended to continue to be relevant and referenced for those specific topics or modes. In cases where there are conflicts between plans, the TSP will trump other plans, as it is the most up-to-date and significant plan used for transportation planning.

2.1. Vision Zero (2022)

The City of Kirkland's first *Vision Zero Action Plan* was developed to achieve the Kirkland City Council's Vision Zero goal as well as to provide additional focus on eliminating all transportation-related serious and fatal injuries in the city. The City Council adopted a zero fatality, zero serious injury safety goal as a part of Kirkland's previous 2015 TSP. The TSP and the Comprehensive Plan's Transportation Element both include the Safety Goal T-0 stating that by 2035, all transportation-related fatal and serious-injury crashes are eliminated in Kirkland. The Vision Zero Action Plan was adopted in June 2022 to guide progress toward this goal. Vision Zero focuses on a Safe System Approach, which focuses on improving the systems in place and addressing reoccurring safety issues at the root cause.

The Vision Zero Action Plan:
- Evaluates crash data to identify areas with crash patterns and indicators.

- Prioritizes safe street design, operations, and investments.

- Prioritizes building a robust and transparent data framework for evaluating and sharing crash data in the future.

- Promotes and institutionalizes a culture of safety.
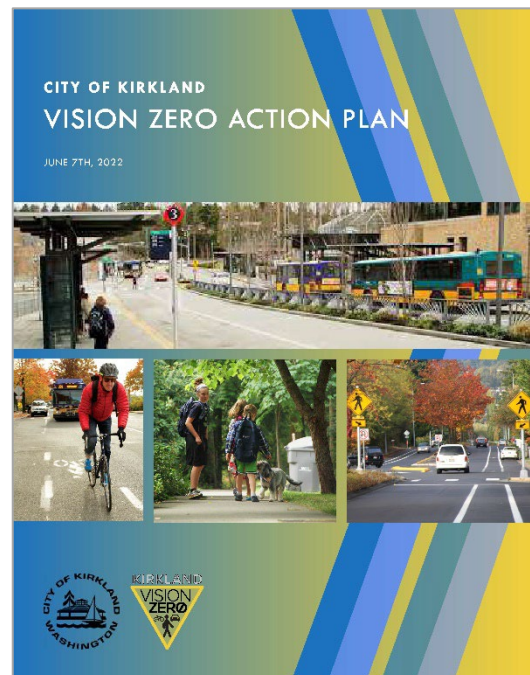
2.2.   Active Transportation Plan (2022)

The Active Transportation Plan (ATP), adopted in June 2022, reaffirms Kirkland's commitment to a multimodal system of transportation choices by providing network and infrastructure improvement recommendations to enable people of all ages and abilities to safely walk, bike, and roll in Kirkland. The implementation of these recommendations is intended to increase the number of people using active modes for transportation, which provides benefits for public health and the environment and reduces traffic congestion. This also addresses the City Council goal for more balanced transportation and reduced reliance on single-occupancy vehicles.

The three primary goals of the plan are:
- Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.

- Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such as activity centers, parks, and transit.

- Encourage and incentivize more people to walk and bike and encourage safe behavior for all users of the transportation system.
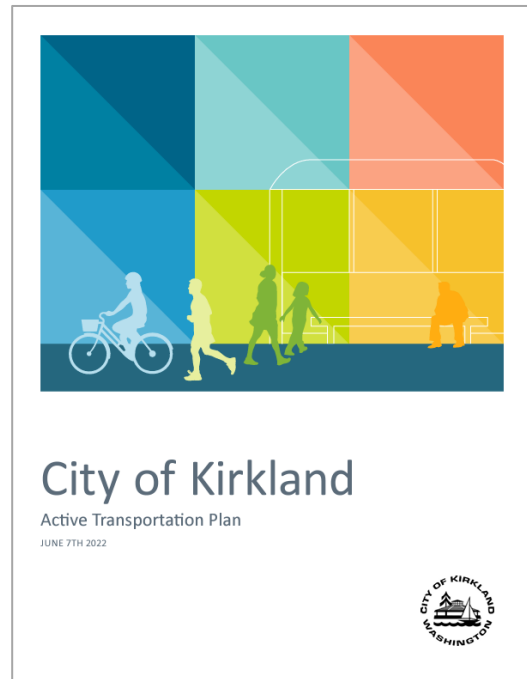
2.3.   Sustainability Strategic Plan (2020)

The primary purpose of the City's Sustainability Strategic Plan (SSP), previously called the Sustainability Master Plan, can be found in the definition of the word "sustainability," which is about meeting the needs of the present without compromising the ability of future generations to meet their needs. The major needs of the community are cleaner air and water, healthier food to eat, expanding housing options that allow people of all economic means to live in the city, and furthering a more equitable and socially just city that is welcoming and inclusive of all people. The creation of the SSP is the fulfillment of a 2019-2020 Council work plan goal, which was derived from the Environment Element of Kirkland's Comprehensive Plan and builds on Kirkland's progressive environmental heritage.
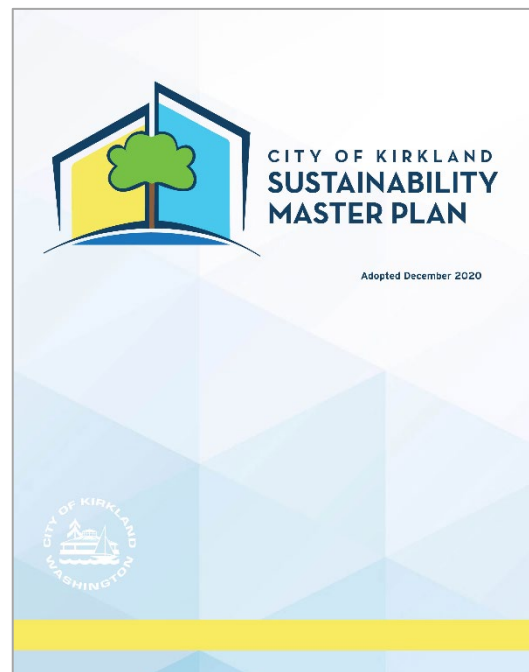
2.4. Safer Routes to School Action Plans (2020)

The Safer Routes to School Action Plans were developed in cooperation with the Lake Washington School District, law enforcement, design professionals, students, parents, and neighborhood associations. The City Council adopted the plans in September 2020, which identify key steps to make walking, bicycling, and riding the bus to school safer, more convenient, and fun. The Action Plans lay out attainable goals and actions to:

City of Kirkland
Safer Routes to School Action Plans

JULY 2020 DRAFT

- Engage all demographic groups to ensure safe, healthy, and fair outcomes for all students, including students from low-income families, students of color, and students with disabilities.

- Fill gaps in the sidewalk network and improve crosswalks to make it safer to walk and bike to schools and to bus stops.

- Improve traffic circulation in and around schools through traffic calming, education, and enforcement.

- Promote the benefits and provide incentives to encourage more students to walk, bike, bus, and carpool to school.

- Educate students, parents, and the community about road safety rules for all modes of transportation to reduce collisions and make it safer for all students.

- Deter unsafe driver, pedestrian, and bicyclist behaviors through safe street design, education, meaningful police-community relationships, and enforcement.

2.5. Intelligent Transportation System Plan (2020)

The Intelligent Transportation System (ITS) Plan, adopted in May 2020, establishes operational goals of resiliency, reliability, and responsiveness, and provides increased transparency to continuously measure and report on performance. ITS is used in Kirkland to provide efficient, multimodal, transportation mobility aligned with the City's goals and policies.

ITS consists of four different core components, working concurrently to achieve the operational goals.

The four core components are:

City of Kirkland
Intelligent Transportation Systems (ITS) Plan

January 2020

Prepared for:
City of Kirkland

Prepared by:
Smart City Traffic LLC

- **Field Elements:** Consist of traffic signal controllers/and associated equipment, closed-circuit television (CCTV) cameras, and multimodal detection.

- **Communications Network:** Includes the media (fiber, cellular, or other), equipment, and software to manage communications from the Traffic Management Center (TMC)to the field and between traffic signals.

- **Systems and Software:** Provide traffic signal control, system health monitoring, video management, CCTV camera control, and other functions.

- **Staff and Skills:** Encompass the staff hours and skills needed to operate and maintain the ITS elements.

2.6.   Transit Implementation Plan (2019)

The Kirkland Transit Implementation Plan (KTIP) focuses on transit improvements in Kirkland to connect residents and visitors with where they are travelling as efficiently and reliably as possible. The Plan incorporates the work of the regional King County Metro (Metro) and Sound Transit plans and uses previously collected community input that was used to develop the City's Transportation Strategic Plan in 2015. The KTIP was developed based on input from the community during outreach efforts between Fall 2017 and Fall 2018. The KTIP builds on the goals of the 2015 TSP and is the result of a yearlong process that involved local partners, transit agencies, community members, and comprehensive technical analyses to prioritize and identify transit access and speed and reliability projects. Several projects from this plan have already been implemented by the City and in coordination with Metro and other partners (such as the operational improvements at the South Kirkland Park and Ride in coordination with Metro and the City of Bellevue).

CITY OF KIRKLAND
**TRANSIT
IMPLEMENTATION PLAN**
MARCH 2019

3. Existing Conditions

3.1. Pedestrian Facilities

Facilities for people walking and rolling in Kirkland include sidewalks, neighborhood greenways, on-street walkways, and separated trail or shared-use path facilities. Table 3-1 shows sidewalk and on-street walkway availability in mileage on arterial and collector roadways. Sidewalks are provided on many of Kirkland's streets but are intermittent or on one side only in some areas, as shown in Figure 3-1.

TABLE 3-1. EXISTING SIDEWALK FACILITIES ON ARTERIALS AND COLLECTORS

Facility Type	Miles
Both sides	45.1
One side	21.2
None	10.7

Some sidewalk gaps exist on designated school walk routes as well as on arterials, including significant gaps along Juanita Drive, 132nd Avenue NE, and 100th Avenue NE. Kirkland is working to address gaps in the sidewalk network through the City's Sidewalk Completion Program and other ongoing programs for pedestrian safety. Extruded curb treatments have been used as interim pedestrian facilities within the Finn Hill and North Juanita neighborhoods. These interim strategies help define walkways until sidewalks are installed. Kirkland Zoning Code Chapter 110 requires public improvements, including sidewalks, in the right-of-way adjacent to new development, based on street classification. Kirkland also has a number of other paved and unpaved trails and pathways that connect street ends and neighborhoods (see Figure 3-2). Additional sidewalks are being built through the Transportation Benefit District funding, grants, and private development agreements.

The Rose Hill greenways on NE 75th Street and 128th Avenue NE serve as key pedestrian-bicycle corridors through the North and South Rose Hill neighborhoods. Neighborhood greenways are a select network of low-speed, low-volume residential streets that are prioritized for walking and bicycling through the use of signage, pavement markings, and traffic calming and control devices.

The Cross Kirkland Corridor (CKC) is a 5.75-mile, crushed-gravel, interim trail that provides an important pedestrian and bicycle connection to local destinations and a larger regional trail network. The CKC is part of the regional Eastrail corridor, a 42-mile rail-to-trail corridor spanning from Renton to Snohomish County, with a spur to Redmond. The Eastrail is currently under development with several sections open, including the CKC. As a 10-foot-wide separated facility, the CKC currently provides a connection through the city for all active transportation modes. The long-term vision in the Cross Kirkland Corridor Master Plan is to use the 100-foot-wide corridor for multimodal use, which could include a paved shared-use path, or transit uses to improve accessibility for all users. The Totem Lake Connector bridge, completed in July 2023, connects two sections of the CKC with a bicycle and pedestrian bridge over the intersection of Totem Lake Boulevard NE and NE 124th Street, which is Kirkland's largest and busiest intersection.

FIGURE 3-1. EXISTING SIDEWALK AVAILABILITY ON MAJOR ROADWAYS

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap

Sidewalk Availibility (2023)

Arterials and Collectors

— Both Sides
— One Side
••• None
▭ Kirkland City Boundary

0   0.75   1.5 Miles

FIGURE 3-2. EXISTING PEDESTRIAN FACILITIES

FIGURE 3-2. EXISTING PEDESTRIAN FACILITIES

Legend:
- 🏫 Public School
- **Existing Pedestrian Facilities**
  - Sidewalk
  - Trails
  - Shared Use Path
  - Neighborhood Greenway
  - School Walk Route
  - Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap

3.2. Bicycle Facilities

Kirkland's bicycle network consists of on-street bicycle lanes, buffered bicycle lanes, protected bicycle lanes, shared-use paths, and shared on-street facilities, such as neighborhood greenways, as well as green conflict zone markings at intersections (Figure 3-3). Bicycle lanes are the most prevalent bicycle infrastructure type within the city (Table 3-2).

TABLE 3-2. EXISTING BICYCLE FACILITIES

Facility Type	Miles
Bicycle lane	56.8
Buffered bicycle lane	8.8
Protected bicycle lane	0.3
Shared-use path	0.7
Neighborhood greenway	3.4
CKC	5.7

The regional Lake Washington bicycle loop provides a route around Lake Washington via a combination of trails and on-street facilities. Within Kirkland, the Lake Washington loop is served by on-street bicycle lanes, buffered bicycle lanes, and shared lanes along Lake Washington Boulevard, Market Street, and Juanita Drive. The CKC serves as a major north-south bicycle corridor within the city, connecting to the Eastrail at both the north and south ends, the SR 520 trail in Bellevue to the south, and the Redmond Central Connector to the north.

The Rose Hill greenways on NE 75th Street and 128th Avenue NE are key bicycle corridors. Neighborhood Greenways are a select network of low-speed, low-volume residential streets prioritized for walking and bicycling through the use of signage, pavement markings, and traffic calming and control devices.

Gaps in the bicycle network are present along several principal arterials, including NE 85th Street, NE 124th Street, and 100th Avenue NE. Ongoing construction projects in Kirkland are working to address these gaps and improve existing facilities, with planned protected bicycle lanes on 100th Avenue NE and 124th Avenue NE as well as a shared-use path on NE 85th Street . Additionally, the new I-405 interchange at NE 132nd Street will feature a shared use path through the roundabout, and at the

interchange at NE 85th Street, there will be wide shared sidewalks to reach the future Stride S2 Line bus rapid transit station.

Public short-term bicycle parking is available within the city, concentrated primarily in downtown Kirkland. The Kirkland Public Works Department has established guidelines for bicycle parking at both on- and off-street locations in Policy R-36. Kirkland Zoning Code Chapters 57 and 105 also include bicycle parking and covered bicycle storage requirements for new development.

FIGURE 3-3. EXISTING BICYCLE FACILITIES
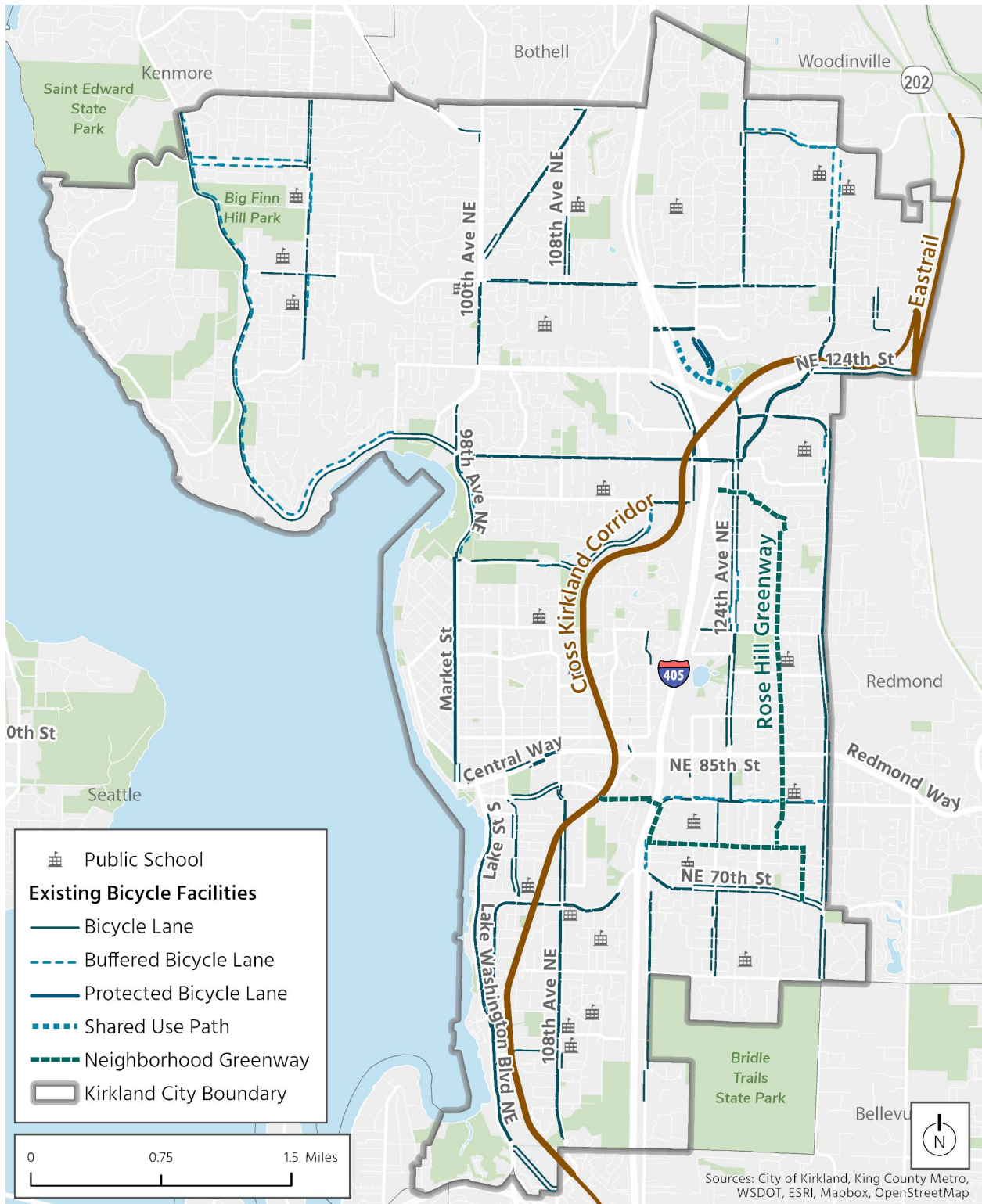
3.3. Transit

Transit Service and Ridership

Kirkland is served by transit routes that connect to Seattle, Lynnwood, Bellevue, Redmond, and other eastside destinations in King County. Metro, Sound Transit, and Community Transit provide transit service within Kirkland. The transit service provided by Metro is guided by three primary policy documents: Metro Connects, King County Metro Service Guidelines, and King County Metro Strategic Plan for Public Transportation.[1] These policy documents assist Metro in providing service countywide, including Kirkland. Metro and local jurisdictions coordinate closely, but Metro, as the transit agency, is ultimately responsible for the type and quality of the transit service provided.

Three Metro routes and one combined route (Route 230/231) in Kirkland provide bus service with 15-minute frequencies, considered frequent service, as shown in Table 3-3. Six routes serve Kirkland all day, with frequencies of 30 minutes or more. All-day and peak-only bus routes in Kirkland are shown in Figure 3-4. Several other bus routes serving Kirkland operate only at certain times of day, including peak-only commuter routes and dedicated routes that serve schools once a day.

TABLE 3-3. BUS TRANSIT SERVICE

Frequency and Service Hours	Bus Routes
Frequent all-day routes	Metro Routes: 255, 245, 250, 230/231 (combined from NE 132nd Street to Downtown)
All-day routes	Metro Routes: 225, 239, 249, 230/231 (north of NE 132nd Street)
	Sound Transit Route: 535
Peak-only routes	Metro Routes: 257, 311
	Sound Transit Route: 532
	Community Transit Route: 424
Dial-a-Ride (DART)	Metro Route: 930
Custom routes	Metro Routes: 893, 895, 981, 986

Kirkland has three transit centers: Kirkland Transit Center in downtown, Totem Lake Transit Center, and the Totem Lake Freeway Station in the median of I-405. There are also three park and rides in Kirkland: Kingsgate Park & Ride (502 stalls), Kirkland Way Park & Ride (20 stalls) which may be repurposed as part of the NE 85th Station Area, and the South Kirkland Park & Ride (785 stalls). The routes that connect to amenities available at these transit centers and park and rides are shown in Table 3-4.

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[1] https://kingcounty.gov/en/dept/metro/about/policies

TABLE 3-4. ROUTES SERVING TRANSIT FACILITIES IN KIRKLAND

Transit Facility	Bus Routes
Kirkland Transit Center	Metro Routes: 230, 231, 239, 245, 250, 255
Totem Lake Transit Center	Metro Routes: 225, 239, 255, DART 930
Kirkland Freeway Station	Metro Routes: 311 Sound Transit Routes: 532, 535 Community Transit Route: 424
Kirkland Way Park & Ride	Metro Routes: 239, 250
Kingsgate Park & Ride	Metro Route: 257, 225, DART 930
South Kirkland Park & Ride	Metro Routes: 249, 250, 255

Additionally, Kirkland benefits from flexible transit programs, such as Community Van and Metro Flex. These programs complement fixed-route bus service in Kirkland because they do not adhere to fixed schedules or routes. The Community Van program provides 6-passenger and 12-passenger vans for prescheduled rides involving a minimum of two passengers plus a volunteer driver. Trip destinations can be anywhere within a 2-hour drive of Kirkland and can occur during the daytime, evenings, and weekends. Metro Flex is an on-demand transit service in King County that offers affordable, accessible, and comfortable minivan rides to various local destinations. Within Kirkland, Metro Flex operates in the Juanita service area, which includes Juanita, Finn Hill and parts of Totem Lake, as shown in Figure 3-5. Metro Flex operates in the Juanita service area from 7 a.m. to 7 p.m. on weekdays only.

FIGURE 3-4. TRANSIT NETWORK

Transit Routes
— King County Transit Route
— Sound Transit Route
— Community Transit Route
P Park & Ride
T Transit Center
⬜ Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro,
WSDOT, ESRI, Mapbox, OpenStreetMap

FIGURE 3-5. METRO FLEX SERVICE AREA

Metro Flex
- Juanita Service Area
- **P** Park & Ride
- **T** Transit Center
- Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
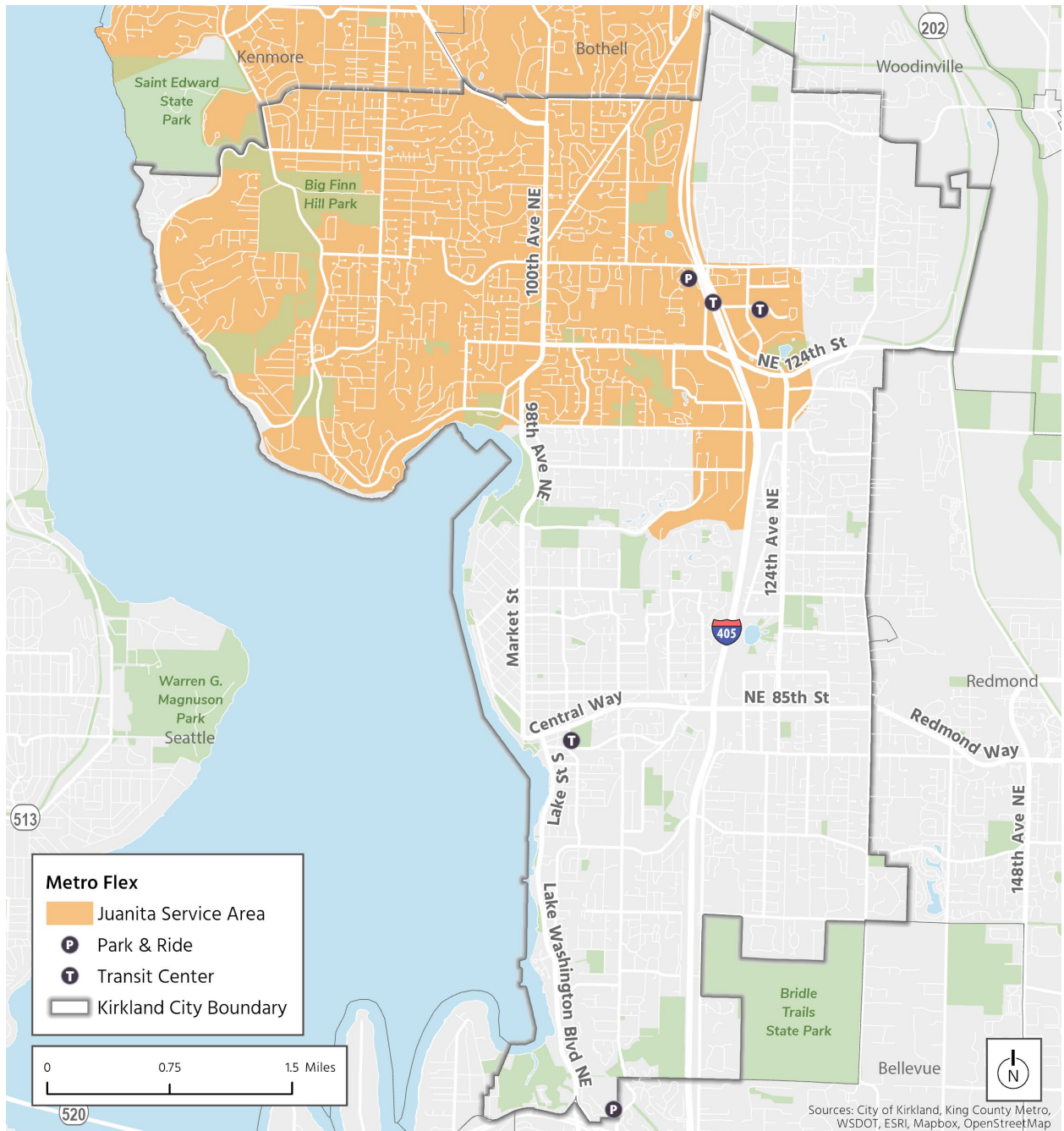
Transit Amenities

Transit amenities in Kirkland include shelters at bus stops and bicycle parking. Of the 30 bus stops with the highest ridership in the city, 27 have shelters as of 2023, as shown in Figure 3-6. Bicycle parking near transit stops can improve access to transit. City-owned, short-term bicycle parking is available primarily downtown, near the Kirkland Transit Center. Both the South Kirkland Park & Ride and the Kingsgate Park & Ride also have bicycle lockers. Kirkland maintains a practice bus bicycle rack at the Kirkland Transit Center for passengers to build confidence loading and unloading their bicycles on bicycle racks on the front of buses.

Kirkland's transit centers and park and rides tend to have more amenities than standard bus stops because they are served by multiple routes and are transfer points for transit riders. The amenities at the city's transit centers and park and ride facilities are described in Table 3-5. The highest ridership stops in the city are located primarily at these facilities, with the highest numbers of boardings as of spring 2023 occurring at Kirkland Transit Center, Totem Lake Transit Center, and South Kirkland Park & Ride.

TABLE 3-5. KIRKLAND TRANSIT CENTERS AND PARK AND RIDES

Transit Facility	Amenities
Kirkland Transit Center	Shelters, seating, restrooms, bicycle parking, electric vehicle (EV) charging
Totem Lake Transit Center	Shelters, seating
Kirkland Way Park & Ride	Parking
Kirkland Freeway Station	Shelters, seating
Kingsgate Park & Ride	Parking, shelters, seating, bicycle parking
South Kirkland Park & Ride	Parking, shelters, EV charging, bicycle parking

Apart from these facilities, some individual bus stops see high numbers of boardings. These include stops along NE 85th Street and NE 70th Street in Rose Hill and along Central Way and Kirkland Way in downtown Kirkland.

FIGURE 3-6. TRANSIT AMENITIES

Sound Transit Stop
Community Transit Stop
King County Transit Bus Stop
Stop with shelter
Stop without shelter
Transit Routes
King County Transit Route
Sound Transit Route
Community Transit Route
P Park & Ride
T Transit Center
Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
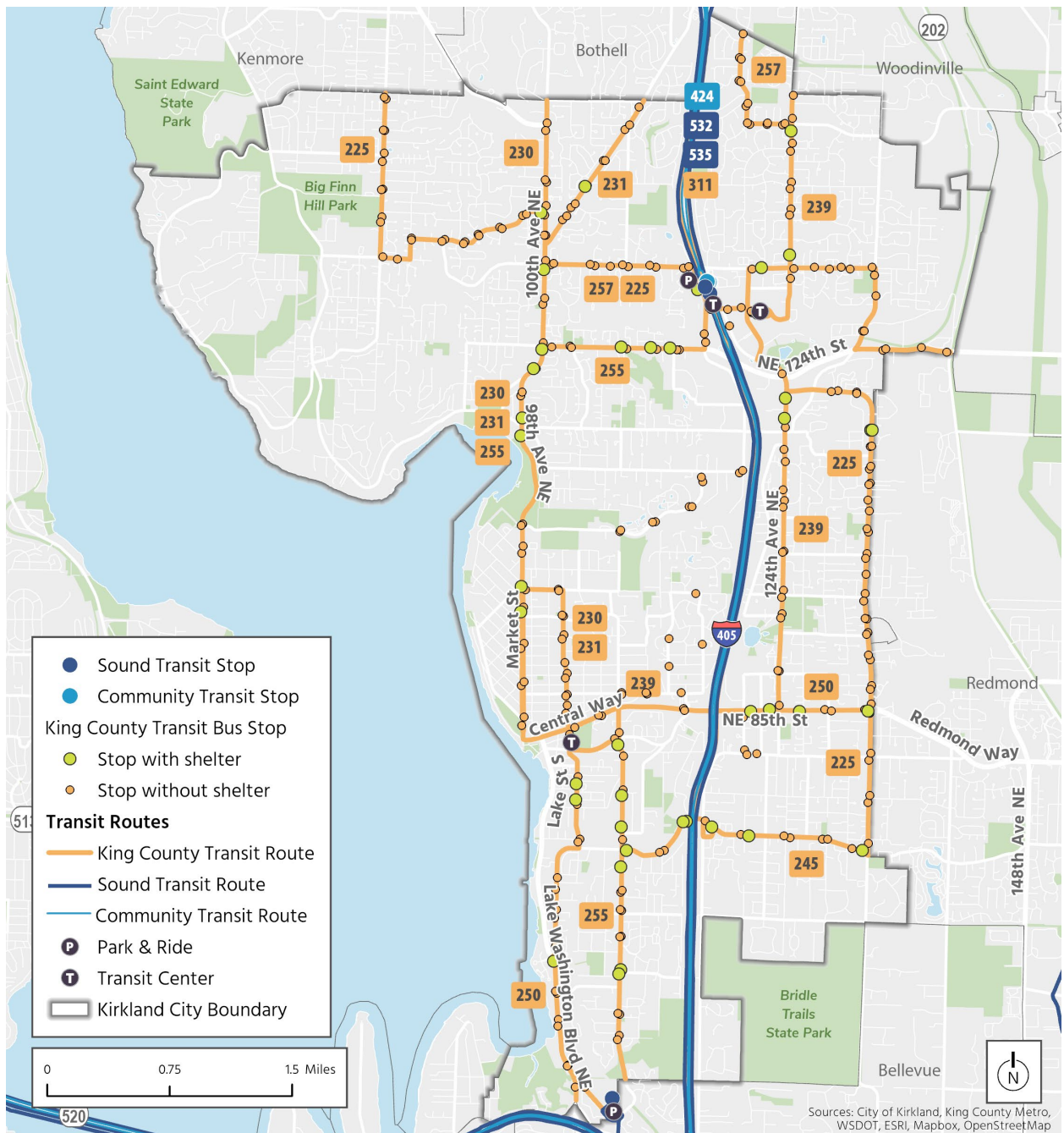
Transit Access and Equity

Providing an accessible multimodal transportation system is key to creating an equitable and accessible community for all. Limited access to transit in Kirkland is a factor that contributes to dependence on driving and leaves those without access to a car with fewer options to get around.

Not all neighborhoods in Kirkland have access to frequent and reliable transit within walking distance. Pedestrian access to Kirkland's all-day and peak-only transit routes were analyzed using quarter-mile and half-mile distance of transit stops, roughly equal a 5-minute and 10-minute walk, respectively (shown in Figure 3-7). Finn Hill currently represents the area with the largest gap in transit service coverage in the city. The Finn Hill neighborhood, in the northwest corner of Kirkland, was part of the 2011 annexation into the city. Kingsgate, in the northeast corner of the city, portions of the Juanita and Norkirk neighborhoods near the center of the city, and the Bridle Trails neighborhood in the southeast corner of the city also have gaps in transit service coverage.

Metro identifies areas with certain demographic a potential demand for extra services to ensure equitable transit access. These Equity Priority Areas are defined as census block groups exhibiting above-average demographic representation of certain populations including:

- People of color
- People with low/no income
- People with a disability
- Households with low English proficiency
- People who are born outside the U.S.

Metro also considers route-level "Opportunity Index" (shown in Figure 3-8) scores to prioritize potential investments and reductions to transit service. Routes with more stops in Equity Priority Areas have a higher Opportunity Index score, indicating the greater need for transit.

Most census tracts located entirely or partially within Kirkland rated high on the overall opportunity index. Areas north of downtown in the Market, Norkirk, and Juanita neighborhoods had an overall opportunity index score of moderate, and one section of Rose Hill scored low on the Opportunity Index. In terms of the transportation index, which includes only measures of mobility and access, almost all of Kirkland rated high or very high, except for tracts located primarily in Finn Hill that rated moderate.

FIGURE 3-7. TRANSIT SERVICE WALKSHEDS

All-Day Transit Service Walksheds

- Frequent all-day routes
- All-day routes (combine for frequent service)
- 1/4 mi from transit stop
- 1/2 mi from transit stop
- All-day routes
- 1/4 mi from transit stop
- 1/2 mi from transit stop
- **P** Park & Ride
- **T** Transit Center
- Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap

FIGURE 3-8. TRANSIT OPPORTUNITY SCORES

KCM Transit Opportunity Index

Opportunity Index Score (1-5)

— 1 - Lower need for Transit

— 2

— 3

— 4 - Greater need for Transit

Ⓟ Park & Ride

Ⓣ Transit Center

☐ Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
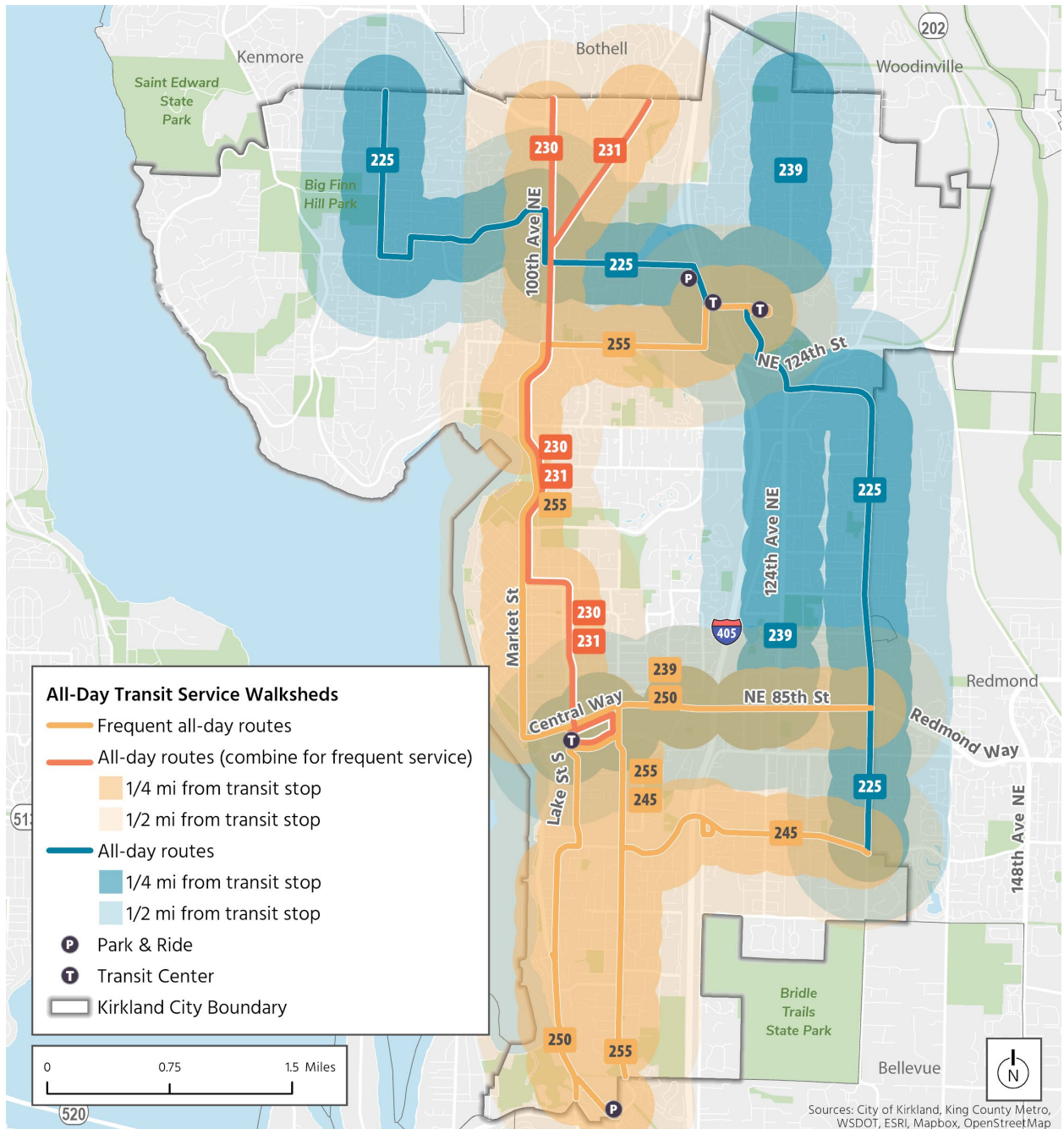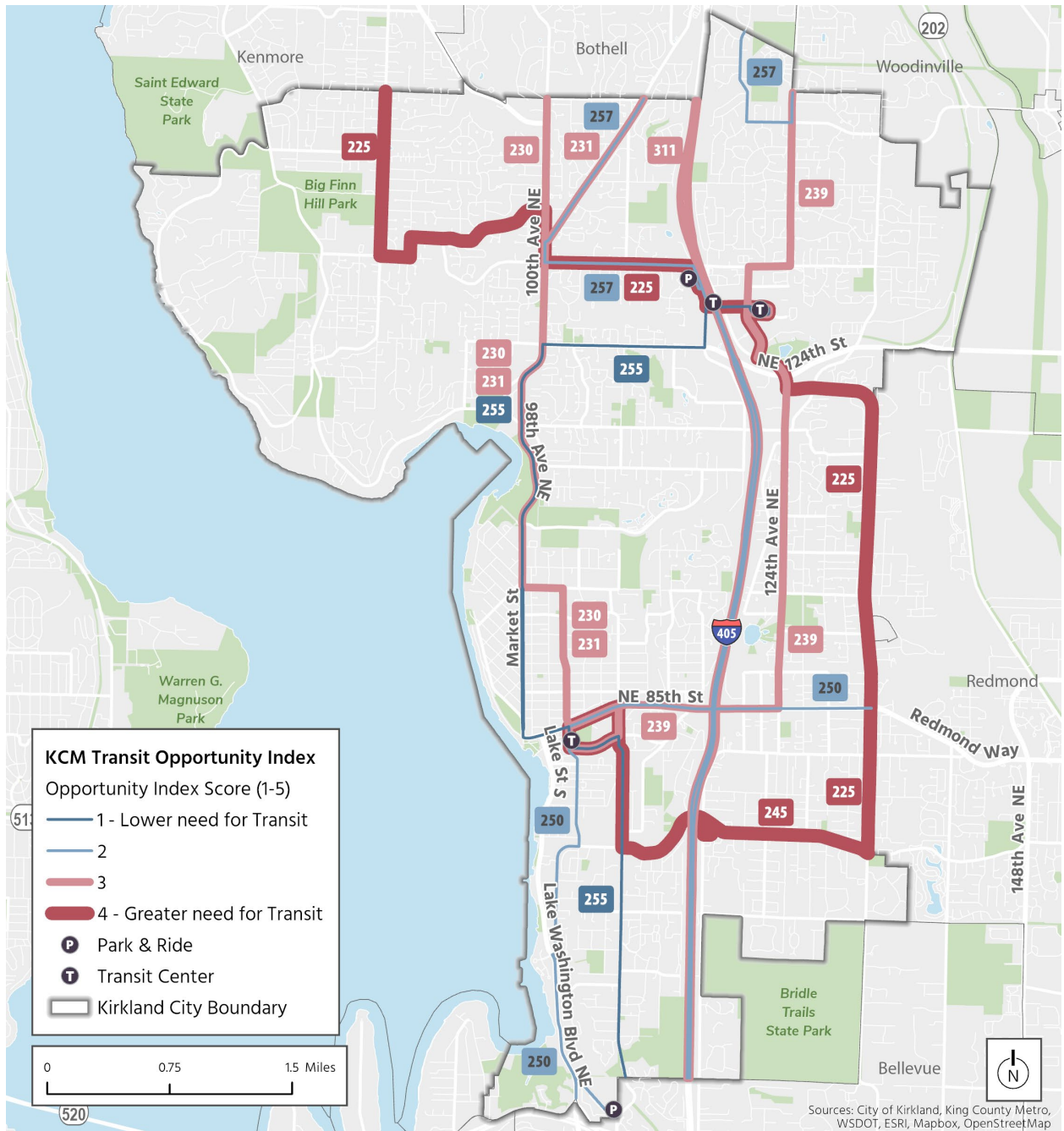
3.4. Motor Vehicles

Streets within the city are categorized by federal functional classifications to help define their intended use and desired character within the street network, as shown in Figure 3-9. Functional classification is set using a variety of factors, including roadway design, speed, capacity, and relationship to present and future land use and development. It also serves as a practical indicator of traffic volume and number of lanes.

The classifications used within the city include:

- **Freeways** that provide high-speed connections between regional destinations.

- **Principal arterials** that connect to major commercial areas and other cities.

- **Minor arterials** that serve major traffic generators that are not served by principal arterials.

- **Collector streets** that provide connections between arterials and local streets.

- **Local streets**, or neighborhood access streets that provide access to residential areas, businesses, and other local areas.

I-405 is the only freeway in Kirkland and runs north-south through the center of the city. Principal arterials in Kirkland include major north-south streets, such as 100th Avenue NE, 98th Avenue NE, Market Street, Lake Washington Boulevard NE, and 124th Avenue NE, and major east-west streets, such as NE 132nd Street, NE 124th Street, NE 116th Street, and NE 85th Street. Posted speed limits within the city generally correlate with roadway functional classification. Although not owned and maintained as a part of the City's road network, I-405 has the highest posted speed limit: 60 mph. Major and minor arterials generally have a posted speed limit of 30 or 35 mph. Collectors have posted speed limits of 30 or 25 mph, and neighborhood access roadways have posted speed limits of 25 mph. Neighborhood greenways and school zones have a posted speed limit of 20 mph.

FIGURE 3-9. ROADWAY NETWORK

Roadway Functional Class

- Interstate
- Principal Arterial
- Minor Arterial
- Collector
- Neighborhood Access
- Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
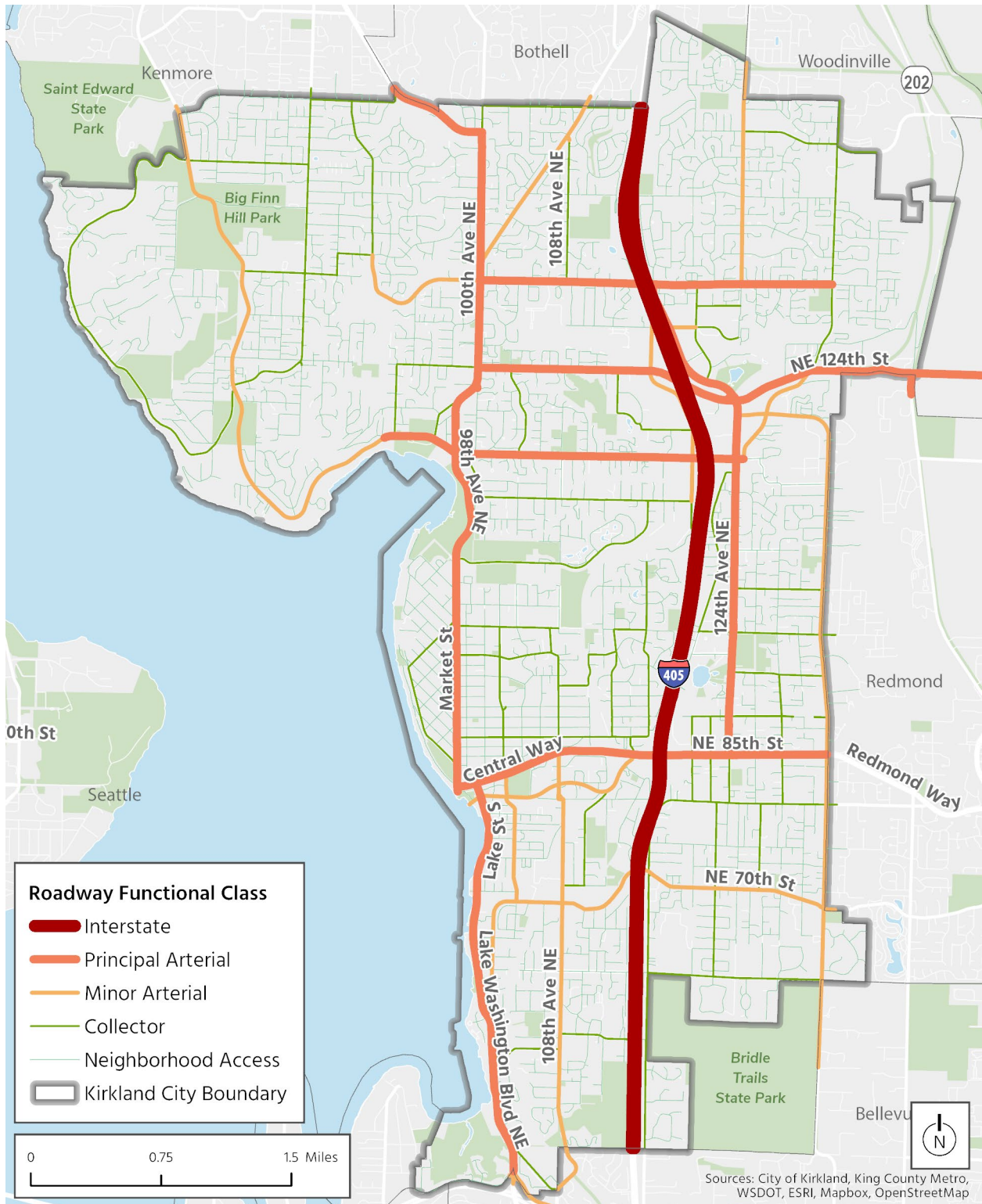
Traffic

Kirkland Public Works Department tracks average daily traffic annually and adjusts for seasonal patterns in weekday traffic variation. Figure 3-10 shows the annual average daily traffic volumes on Kirkland's arterial roadways as of 2022. In 2022, the highest daily traffic volumes were along NE 85th Street, NE 124th Street, and 100th Avenue NE.

FIGURE 3-10. ANNUAL AVERAGE DAILY TRAFFIC VOLUMES

Annual Average Daily Traffic (2022)

- Under 10,000
- 10,000 - 15,000
- 15,000 - 20,000
- 20,000 - 25,000
- Over 25,000
- Kirkland City Boundary

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
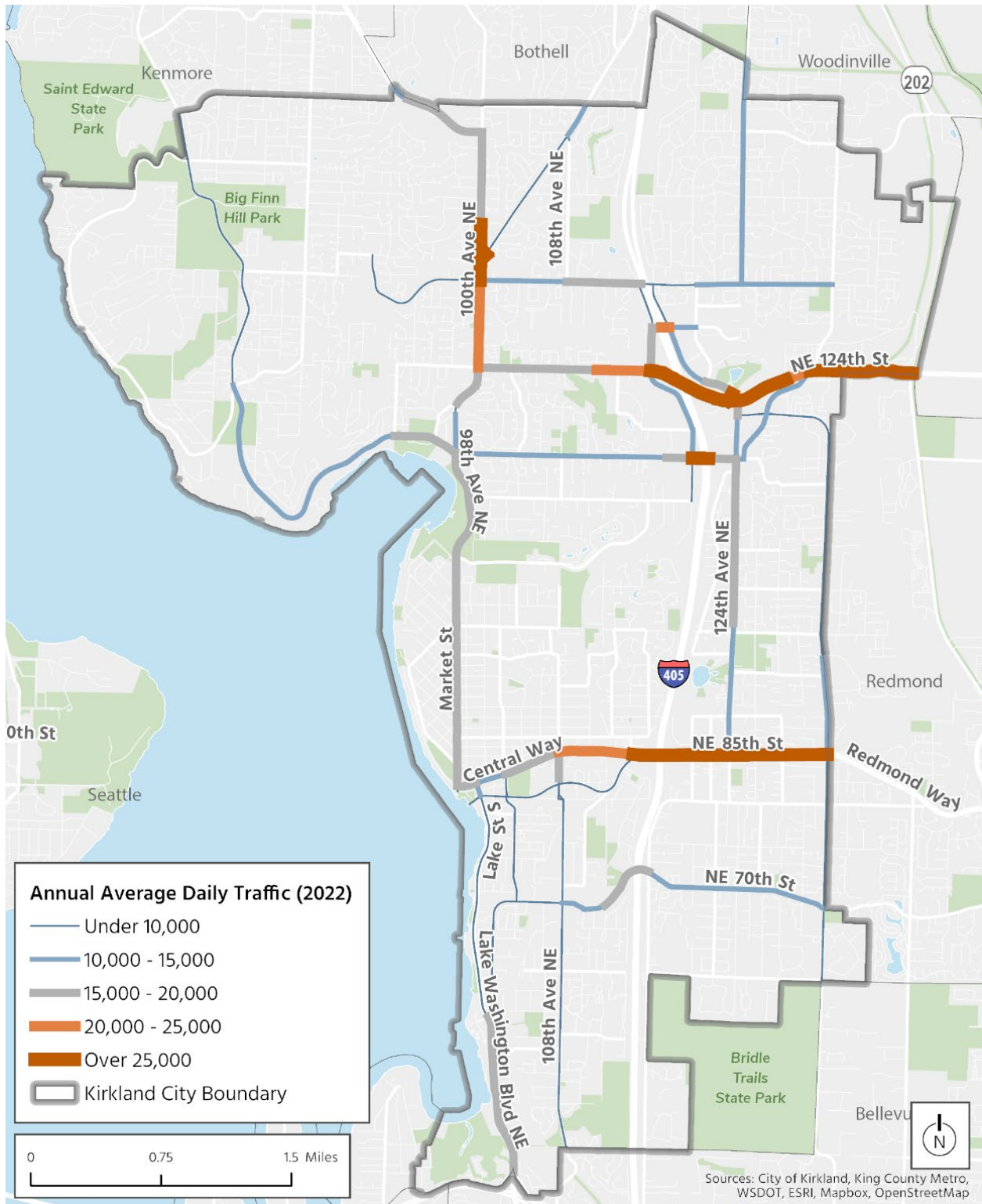
A primary purpose of the traffic analysis for the TSP and Transportation Element is to ensure that the 20-year plan and vision for transportation adequately supports the envisioned land use over the same period. Traffic conditions were analyzed at 38 intersections throughout the city. The model included data from 2022 to assess congestion at each intersection during the morning (AM) and evening (PM) peak hour traffic periods. Intersections were selected by the City of Kirkland to capture needs at major intersections.

Traffic operations were evaluated using a method called intersection level of service (LOS), which used Highway Capacity Manual (HCM) 6 methodology where available and HCM 2000 otherwise, as shown in Table 3-6. LOS ranges from A to F in which rankings are based on the overall delay at a given intersection in units of seconds of delay per vehicle. LOS A represents the best conditions with minimal amount of delay, and LOS F represents the worst conditions with severe congestion and delay. Additional information about LOS for the future network and land use assumptions can be found in Section 5.9.

TABLE 3-6. INTERSECTIONS LOS METHODOLOGIES

Level of Service (LOS)	Average Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	

Source: Highway Capacity Manual, 6th Edition

The following intersections operate at LOS E or lower during the AM peak period (Figure 3-11):

- Intersection 24: NE 124th Street and 116th Avenue NE/I-405 on-ramp
- Intersection 25: NE 124th Street and Slater Avenue/132nd Place
- Intersection 27: NE 132nd Street and 116th Way NE
- Intersection 28: NE 132nd Street and Totem Lake Boulevard

The following two intersections operate at LOS E during the PM peak period (Figure 3-12):

- Intersection 24: NE 124th Street and 116th Avenue NE/I-405 on-ramp
- Intersection 25: NE 124th Street and Slater Avenue/132nd Place
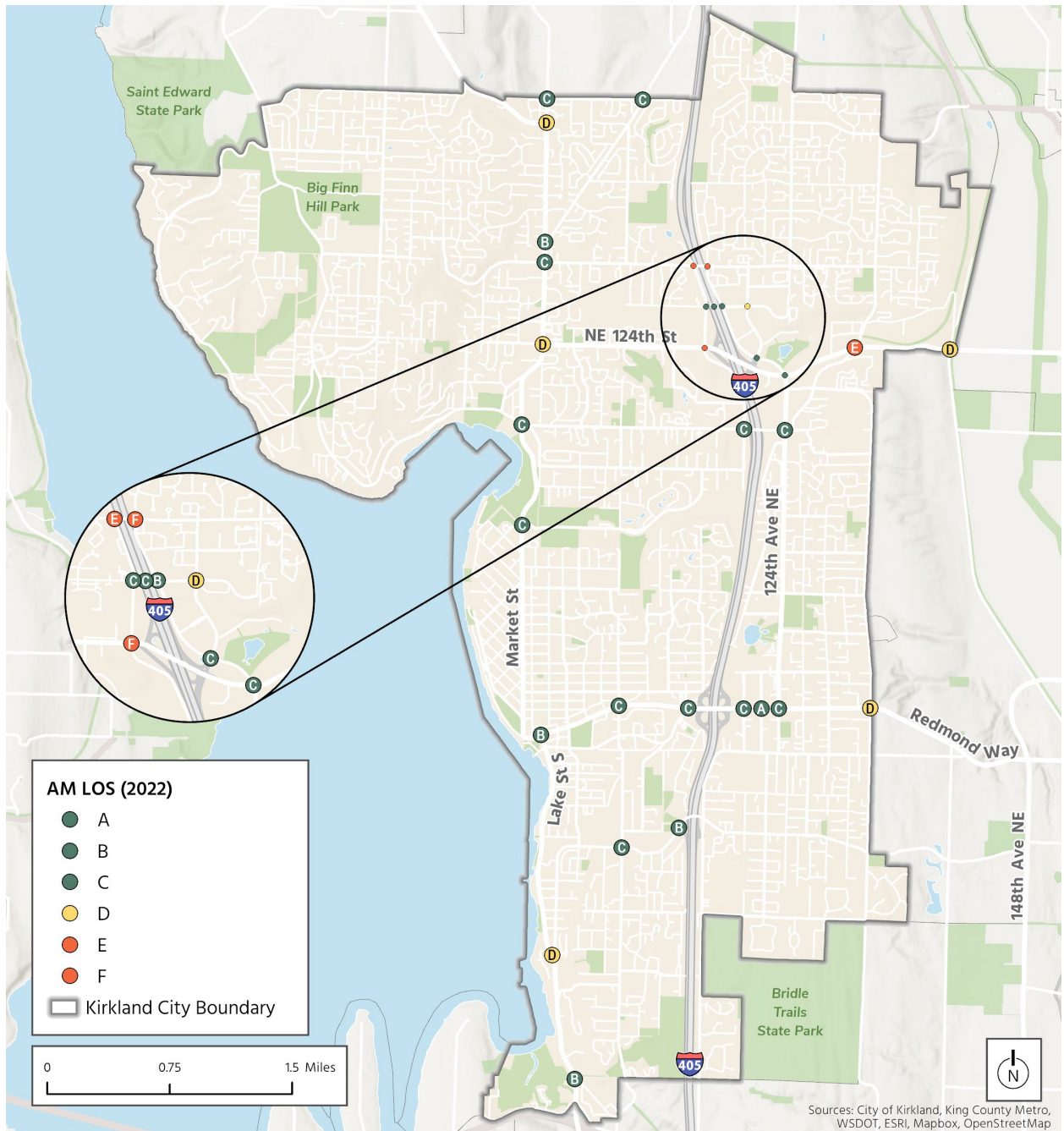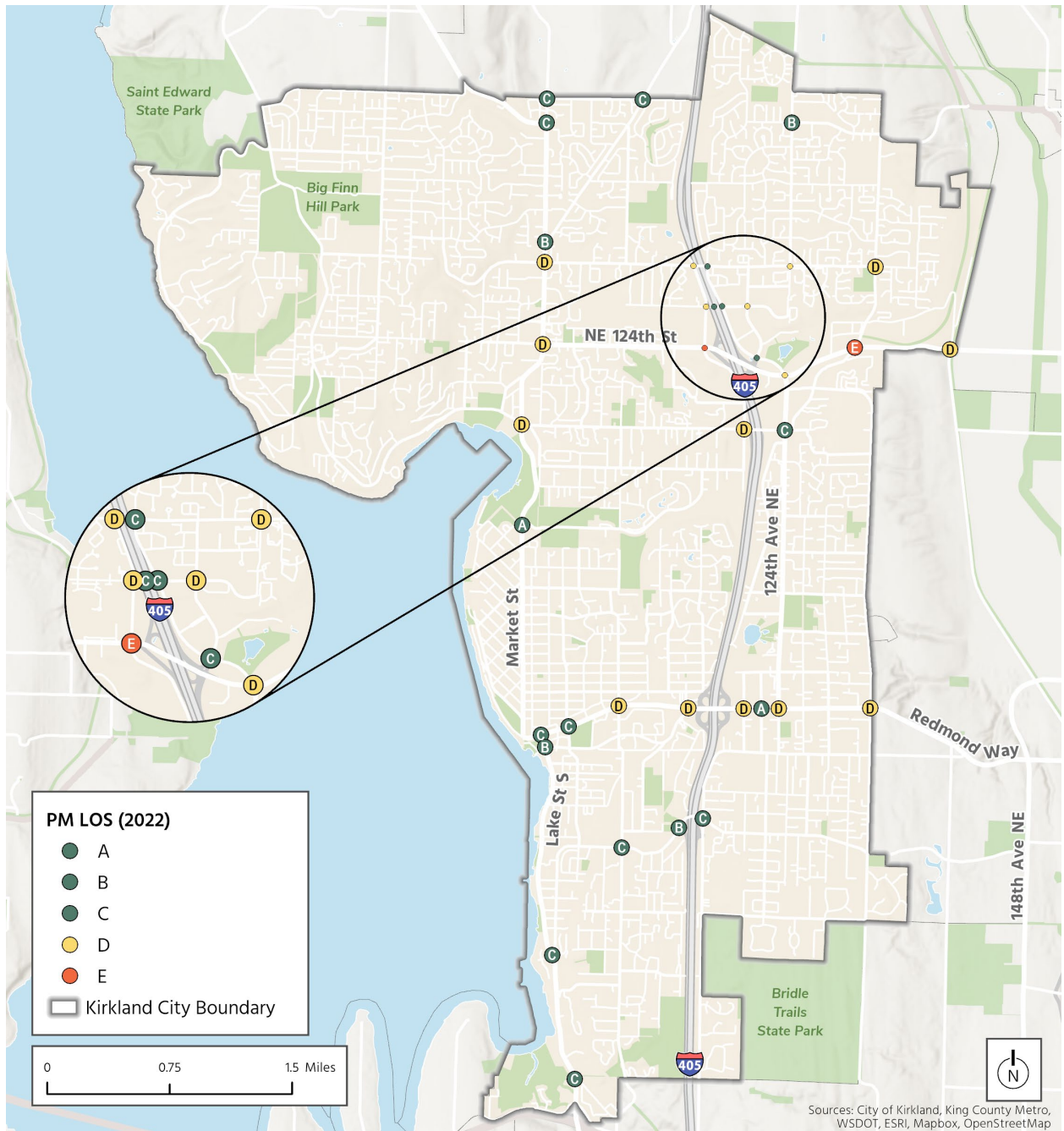
3.5.   Freight

As Kirkland continues to grow and embrace a multimodal transportation system, ensuring that freight vehicles can move goods safely and efficiently is important. Manufacturers, large retailers, wholesalers, and warehousing and distribution companies rely on access to a well-performing network of freeways and major arterials. Small retailers, restaurants, and other businesses rely on delivery vehicles that must circulate on both regional freeways and arterials as well as local streets. Delivery vehicles must also be able to access spaces for loading and unloading near businesses. Freight vehicle sizes range from small vans to large tractor-trailer units.

WSDOT has developed the Washington Freight and Goods Transportation System (FGTS) to classify streets that are important to the movement of freight in the state. The FGTS defines corridors in tiers based on the annual freight tonnage moved. Within Kirkland, streets are classified as T-1 through T-4, shown in Figure 3-13.

I-405 is classified as a T-1 truck corridor, carrying the highest volume of freight; however, much of this freight volume passes through and does not travel along City streets. Two sections of principal arterials within city limits are classified as T-2 truck corridors. Several arterials are classified as T-3 truck corridors, and one collector street is classified as a T-4 truck corridor. Downtown Kirkland and Totem Lake have large retail areas that are important catalysts of freight in Kirkland with businesses that rely on deliveries to meet consumer needs. There are some manufacturing and industrial land uses that may have specific freight needs primarily in an Industrial Mixed-Use zone along the CKC.

The widespread adoption of e-commerce, particularly during and following the COVID-19 pandemic, has led to a transformation in goods movement. One of the most tangible parts of this shift in consumption patterns is the increased frequency of home deliveries. With more freight deliveries per person and more freight traffic navigating urban areas, delivery vehicles have changed, with more cargo vans and personal vehicles delivering packages to consumers.

4 TIERS OF FREIGHT TRUCK CORRIDORS

Classification: Tonnage (per year)

T-1: More than 10 million tons

T-2: 4 -10 million tons

T-3: 300.000 - 4 million tons

T-4: 100.000 - 300.000 tons

FIGURE 3-13. FREIGHT NETWORK (2023)

**Freight & Goods
Transportation System**

— T-1 Corridor
— T-2 Corridor
— T-3 Corridor
— T-4 Corridor
☐ Kirkland City Boundary

0   0.75   1.5 Miles
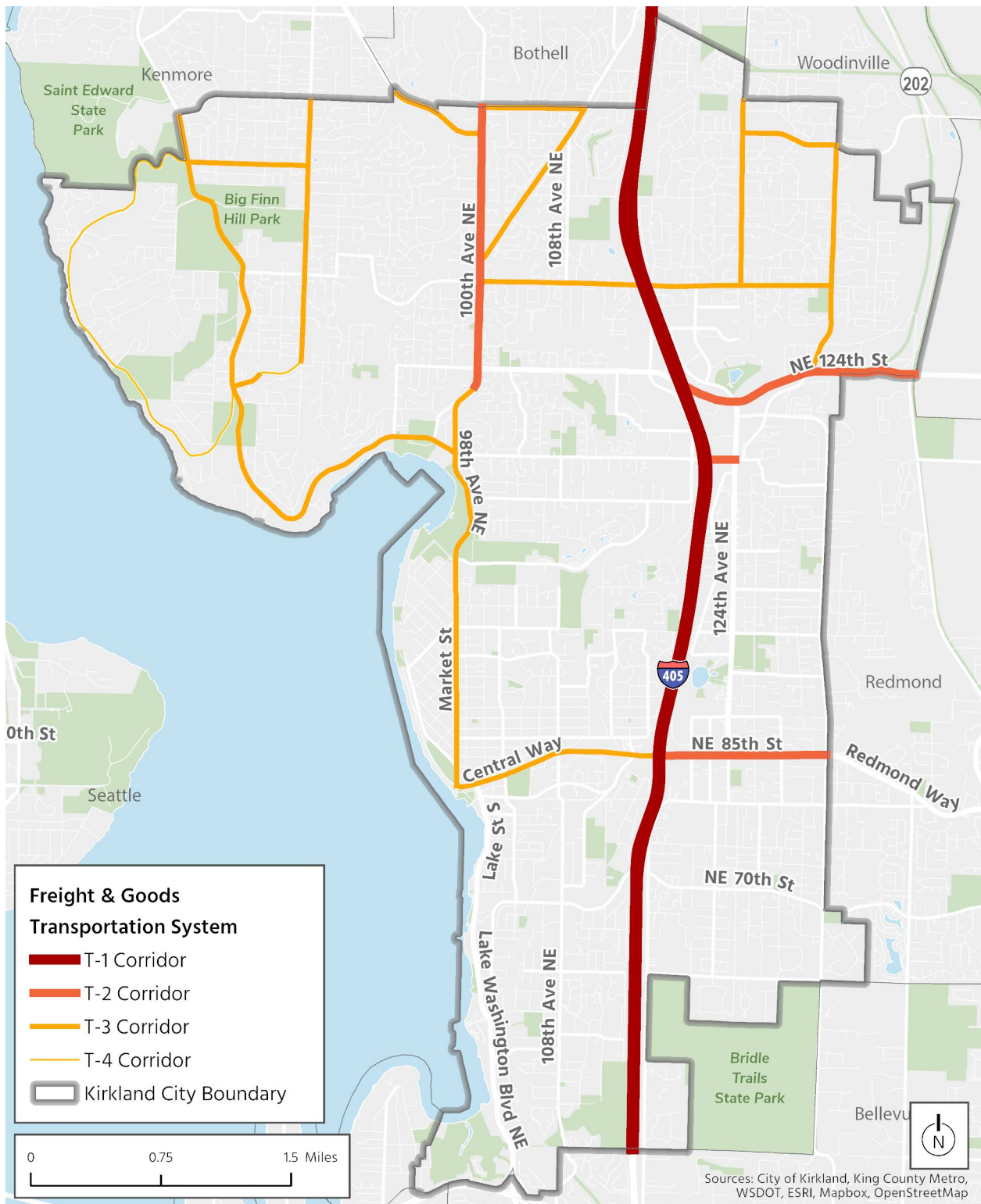
3.6. Safety

Crash History

Between 2018 and 2022, there were 3,405 crashes on Kirkland streets (excluding the interstate system). Table 3-7 summarizes the total crashes by severity level and location type, and Figure 3-14 shows the location of all crashes during the same time frame. Over 59% of crashes occurred at intersections. During this period, eight fatal crashes and 52 serious-injury crashes occurred, with more occurring at intersections. In addition to these totals, several crashes have occurred outside of public roadways, including four fatal and five serious injury crashes in parking lots. Most crashes in Kirkland (70%) did not result in an injury.

TABLE 3-7. CRASHES BY SEVERITY (2018–2022)

	Segments	Intersections	Total
Fatal	3	5	8
Serious injury	19	33	52
No injury	1,015	1,377	2,392
Total	1,410	1,995	3,405

FIGURE 3-14. ALL CRASHES (2018–2022)

All Kirkland Crashes (2018-2022)

Crash Type

- 🔴 Fatal
- 🔴 Serious Injury
- 🟠 Minor Injury
- 🟡 Possible Injury
- ◦ No Injury
- • Unknown
- ▭ Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
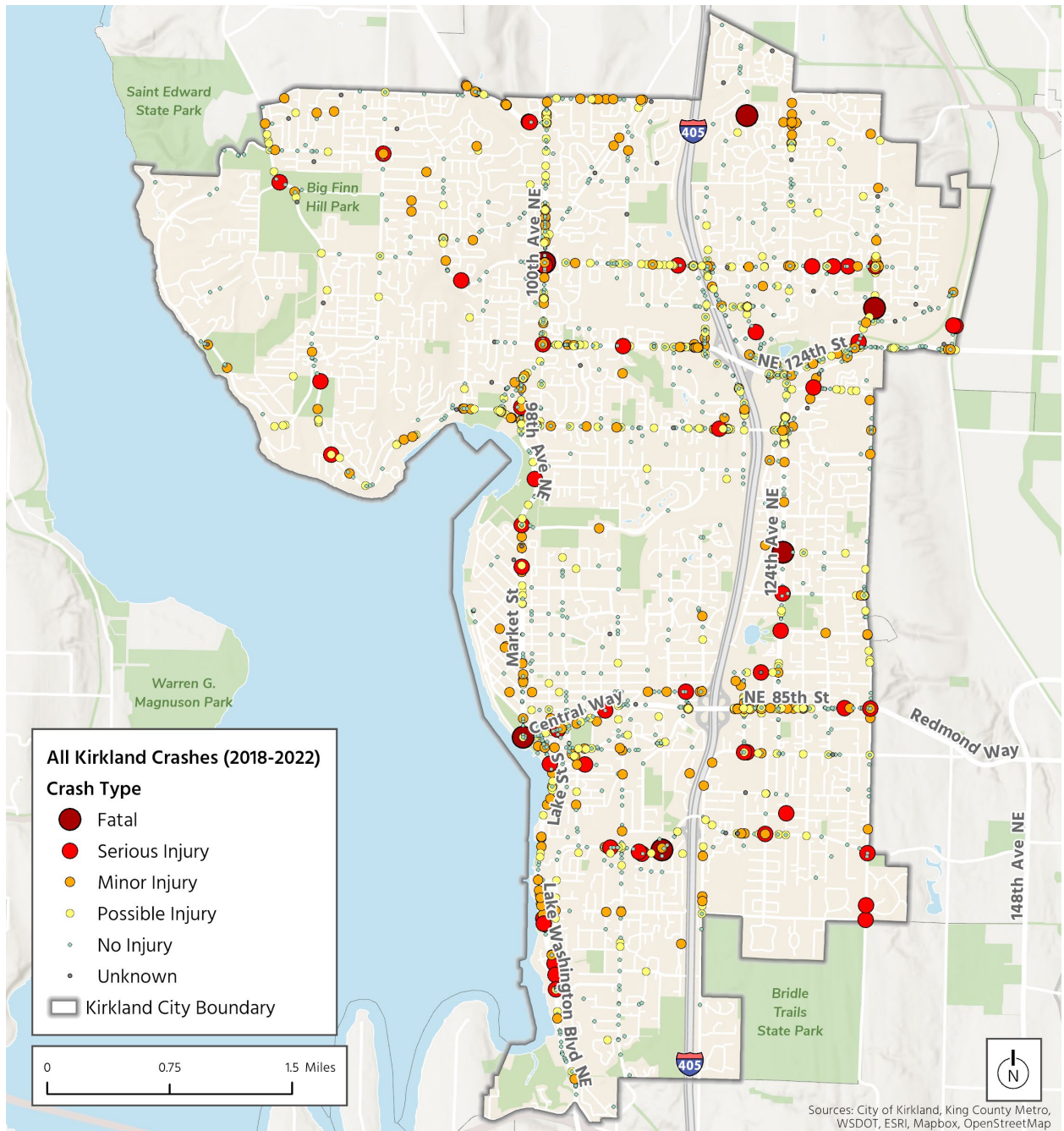
Crash rates provide a metric for assessing the relative safety of a segment or intersection based on the level of exposure (i.e., traffic volumes and roadway mileage). These rates provide the City with a basis for prioritization and a comparison of locations within a network based on fatal and serious injury crashes. Segment crash rates are calculated by total crashes per million vehicle miles traveled along the segment, and intersection crash rates are calculated by total crashes per million entering vehicles at an intersection. Figure 3-15 shows the crash rates along key and arterial corridors, and Figure 3-16 shows the crash rates at major intersections within the city.

In general, the areas with the highest arterial crash rates are along Lake Street S/Lake Washington Boulevard NE, Central Way, and Kirkland Avenue in downtown Kirkland, as well as along NE 124th Street, 120th Avenue NE, and Totem Lake Boulevard in the Totem Lake area. These are also generally where traffic volumes are higher. Crash rates at intersections are generally highest adjacent to I-405 and along Juanita-Woodinville Way NE. Those adjacent to I-405 are also generally where traffic volumes tend to be higher.

FIGURE 3-15. CRASH RATES ON MAJOR ARTERIALS (2018-2022)
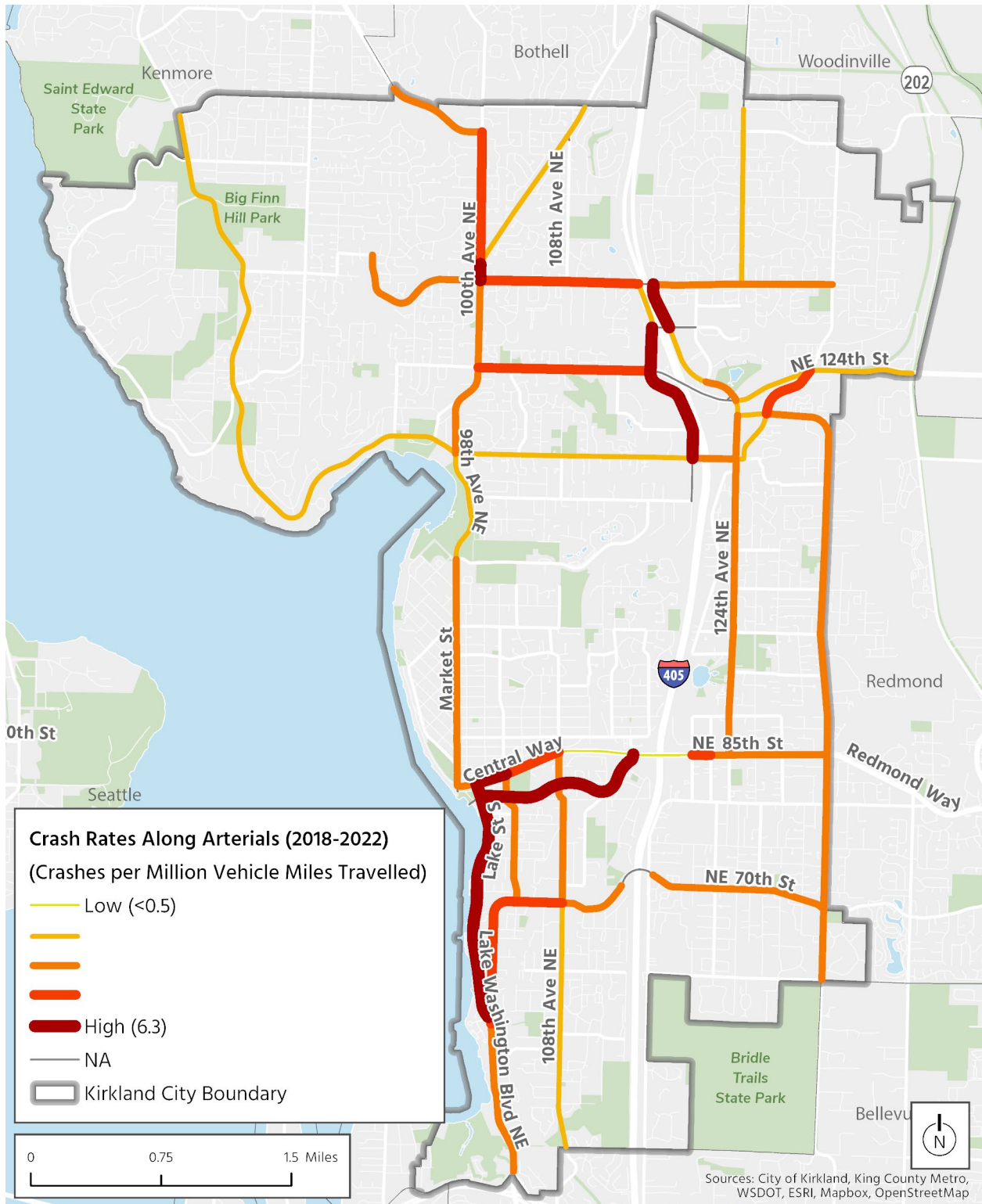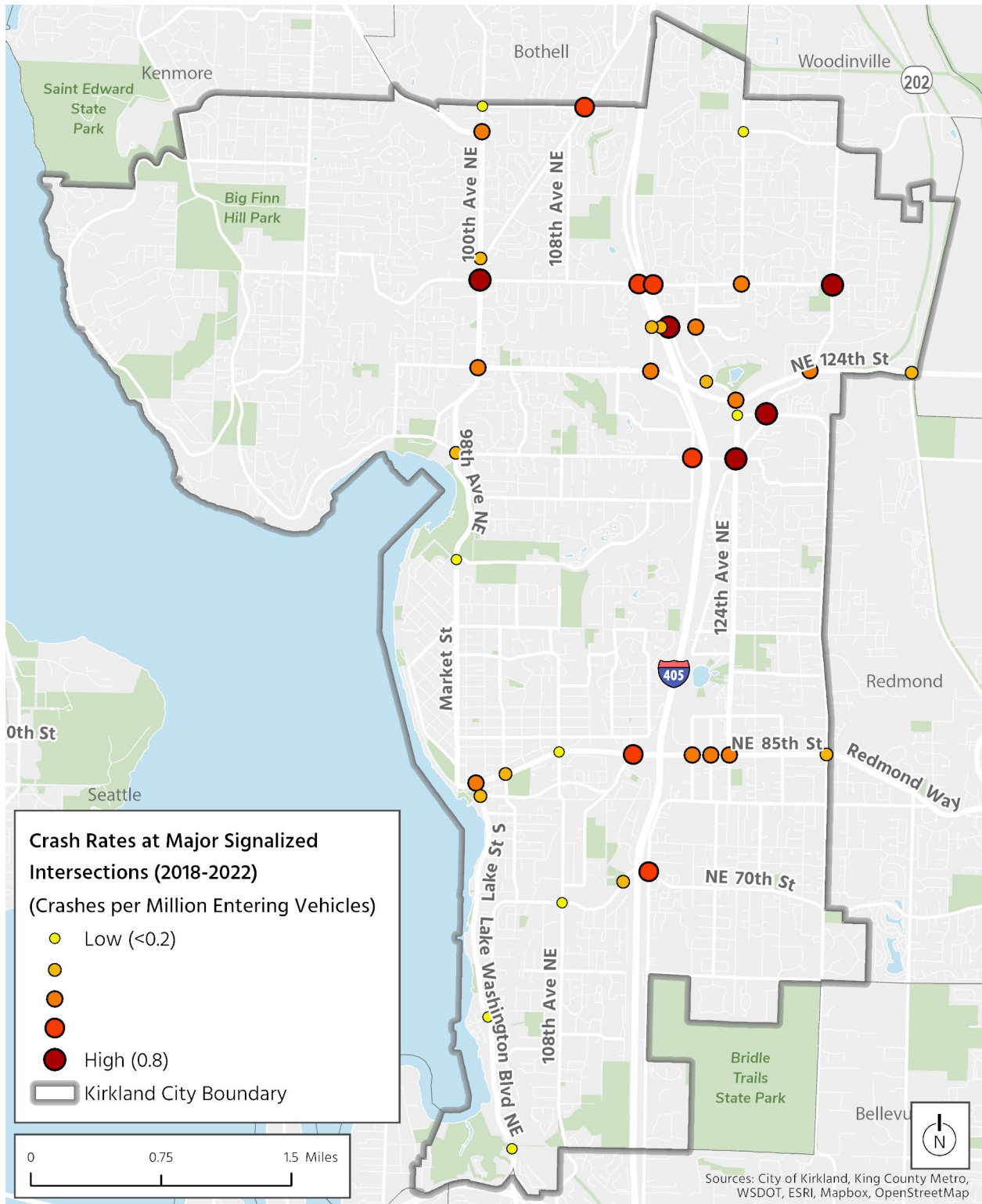
Crash Rates Along Arterials (2018-2022)

(Crashes per Million Vehicle Miles Travelled)

Low (<0.5)

High (6.3)

NA

Kirkland City Boundary

0   0.75   1.5 Miles

FIGURE 3-16. CRASH RATES AT MAJOR SIGNALIZED INTERSECTIONS (2018-2022)

Active Transportation Crash History

Pedestrians and bicyclists are the most vulnerable roadway users because they are less protected than users within vehicles. For the purposes of this discussion, the term "pedestrians" is intended to include people walking and rolling, meaning using mobility devices such as walkers, wheelchairs, or other power-driven devices. The chance of a vulnerable user surviving a collision with a car decreases drastically as speed increases. When comparing crash rates with the share of roadway trips by other transportation modes, pedestrians and bicyclists make up a disproportionate rate of fatal and serious-injury collisions. Vulnerable-user crashes are only 6% of the total crashes but make up 55% of the fatal and serious injury crashes. Vulnerable users tend to only make up fewer than 15% of total trips (10% to 12% of trips total on average) in general.

Table 3-8 summarizes the pedestrian- and bicyclist-related crashes in public right-of-way by severity, while Table 3-9 shows the distribution between segments and intersections. Most pedestrian- and bicyclist-related crashes were minor-injury crashes (46%) or possible-injury crashes (27%). There were three fatal pedestrian crashes and no fatal bicyclist-related crashes between 2018-2022. Just under 15% of crashes were serious-injury crashes. There have been several fatal and serious injury crashes in parking lots not shown in this table. These are addressed through policy actions to coordinate with private developments and property owners on parking lot safety.

The majority of pedestrian- and bicyclist-related crashes occurred at intersections (64%). Over 60% of pedestrian- and bicyclist-related crashes involved a turning vehicle.

TABLE 3-8. PEDESTRIAN AND BICYCLIST CRASHES BY SEVERITY (2018–2022)

	Pedestrian Involved	Bicyclist Involved	Total
Fatal	3	0	3
Serious injury	19	11	30
Minor/non-disabling injury	38	55	93
Possible injury	35	20	55
No injury	8	12	20
Total	103	98	201

TABLE 3-9. PEDESTRIAN AND BICYCLIST CRASHES BY LOCATION (2018–2022)

	Pedestrian Involved	Bicyclist Involved	Total
Segments	38	31	69
Intersections	62	59	121
Total	100	90	190

Pedestrian crashes occurred throughout Kirkland, with most in urban areas with higher pedestrian volumes. There was some general clustering in downtown Kirkland and the Totem Lake area (including some higher-severity crashes), similar to total crashes and higher segment crash rates. There was also some clustering along NE 85th Street, east of I-405. Very few locations experienced more than one pedestrian crash during this period, but some of the key locations that did include along NE 124th Street, 120th Avenue NE, NE 85th Street, and 124th Avenue NE. Figure 3-17 and Figure 3-18 show all crashes from 2018-2022 involving pedestrians and bicyclists, respectively. Vehicle sizes are also increasing that can reduce visibility and severity based on the weight of the vehicle when involved in crashes.

THE LIKELIHOOD OF FATALITY INCREASES EXPONENTIALLY WITH VEHICLE SPEED

23 mph — 10%
32 mph — 25%
50 mph — 75%

The *Highway Safety Manual* reports that a **1 mph reduction in operating speeds can result in a 17% decrease in fatal crashes.**

Data from nacto.org; National Association of City Transportation Officials
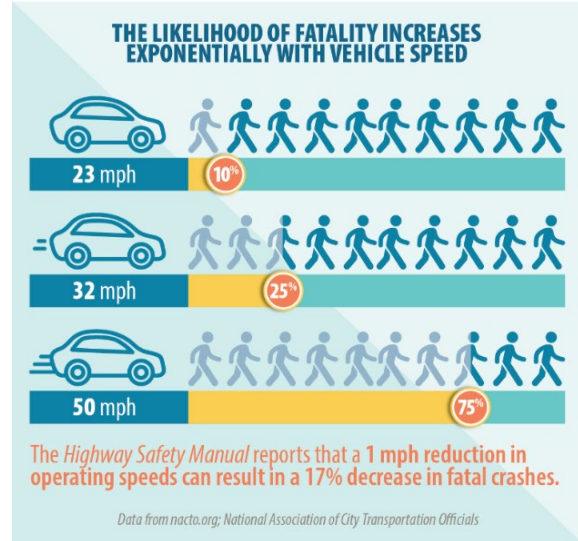
Bicyclist-related crashes also occurred throughout Kirkland, but there was more prominent clustering when compared to pedestrian crashes. The key areas with bicyclist-related crashes are in downtown Kirkland along Lake Street S/Lake Washington Boulevard NE as well as in the Juanita area. The Vision Zero Plan[2] includes additional analysis on contributing factors for bicycle and pedestrian crashes.

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[2] https://www.kirklandwa.gov/files/sharedassets/public/public-works/transportation/plans-and-studies/vision-zero-action-plan/final_vzap_2022-ver4.pdf

FIGURE 3-17. PEDESTRIAN CRASHES (2018 – 2022)

Pedestrian Crashes (2018-2022)

Crash Type

- Fatal
- Serious Injury
- Minor Injury
- Possible Injury
- No Injury
- Unknown
- Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
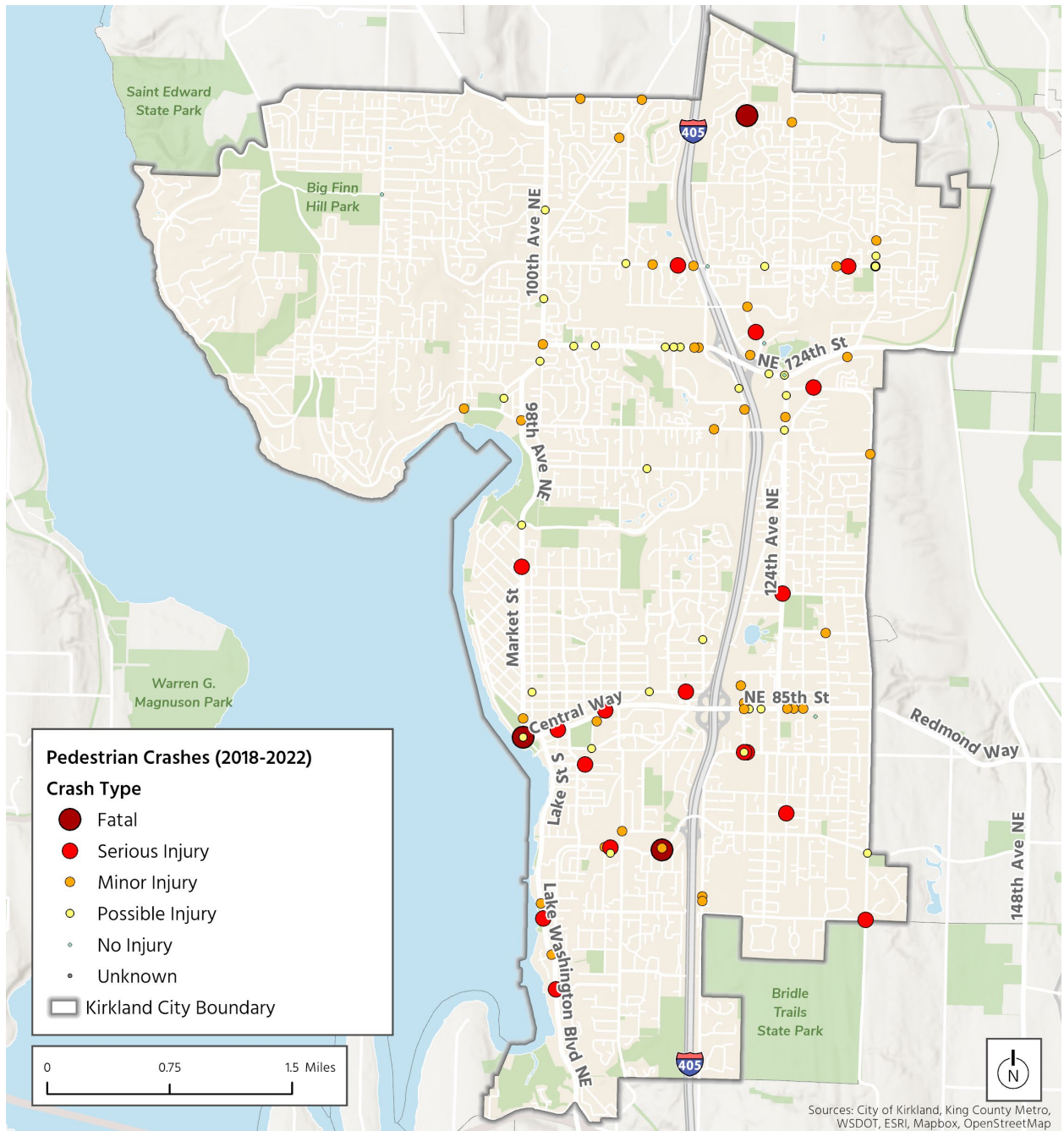
FIGURE 3-18. BICYCLE CRASHES (2018 – 2022)

Bicycle Crashes (2018-2022)
Crash Type
- Fatal
- Serious Injury
- Minor Injury
- Possible Injury
- No Injury
- Unknown
- Kirkland City Boundary

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
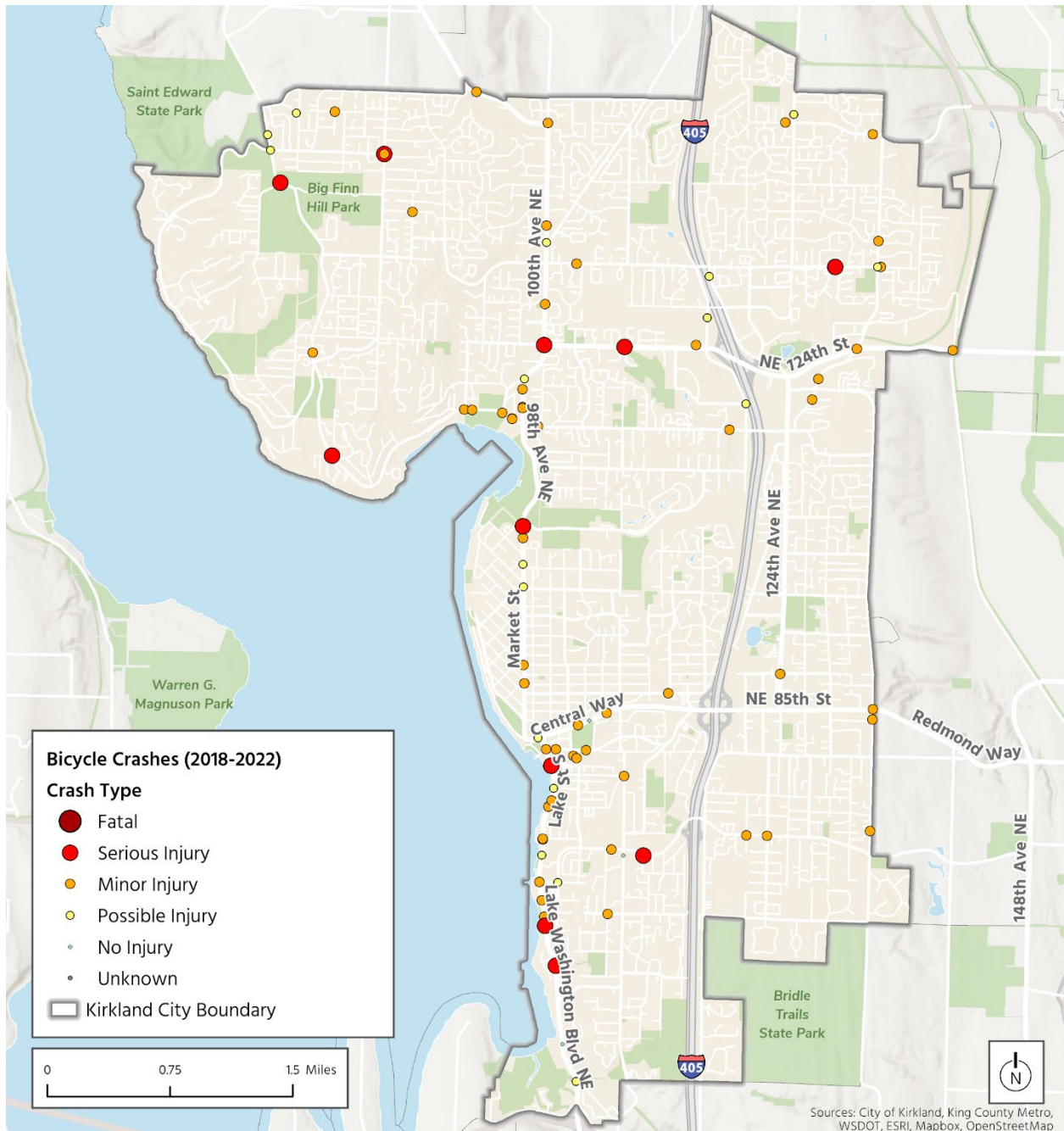
3.7. Operations and Management

Intelligent Transportation System

The City of Kirkland's ITS Plan establishes operational goals of resiliency, reliability, and responsiveness, and it provides increased transparency to continuously measure and report on performance. ITS is used in Kirkland to provide efficient, multimodal mobility that is aligned with the City's goals and policies. ITS consists of four core components working concurrently to achieve the operational goals.

The four core components are:

- **Field Elements:** Consist of traffic signal controllers/and associated equipment, CCTV cameras, and multimodal video detection.

- **Communications Network:** Includes the media (fiber, cellular, or other), equipment, and software to manage communications from the TMC to the field and between traffic signals.

- **Systems and Software:** Provide traffic signal control, system health monitoring, video management, CCTV camera control, and other functions.

- **Staff and Skills:** Encompass the staff hours and skills needed to operate and maintain the ITS elements.

ITS operations can support modal balance through deployment of active transportation and transit technology. ITS infrastructure in Kirkland is shown in Figure 3-19.

FIGURE 3-19. ITS INFRASTRUCTURE
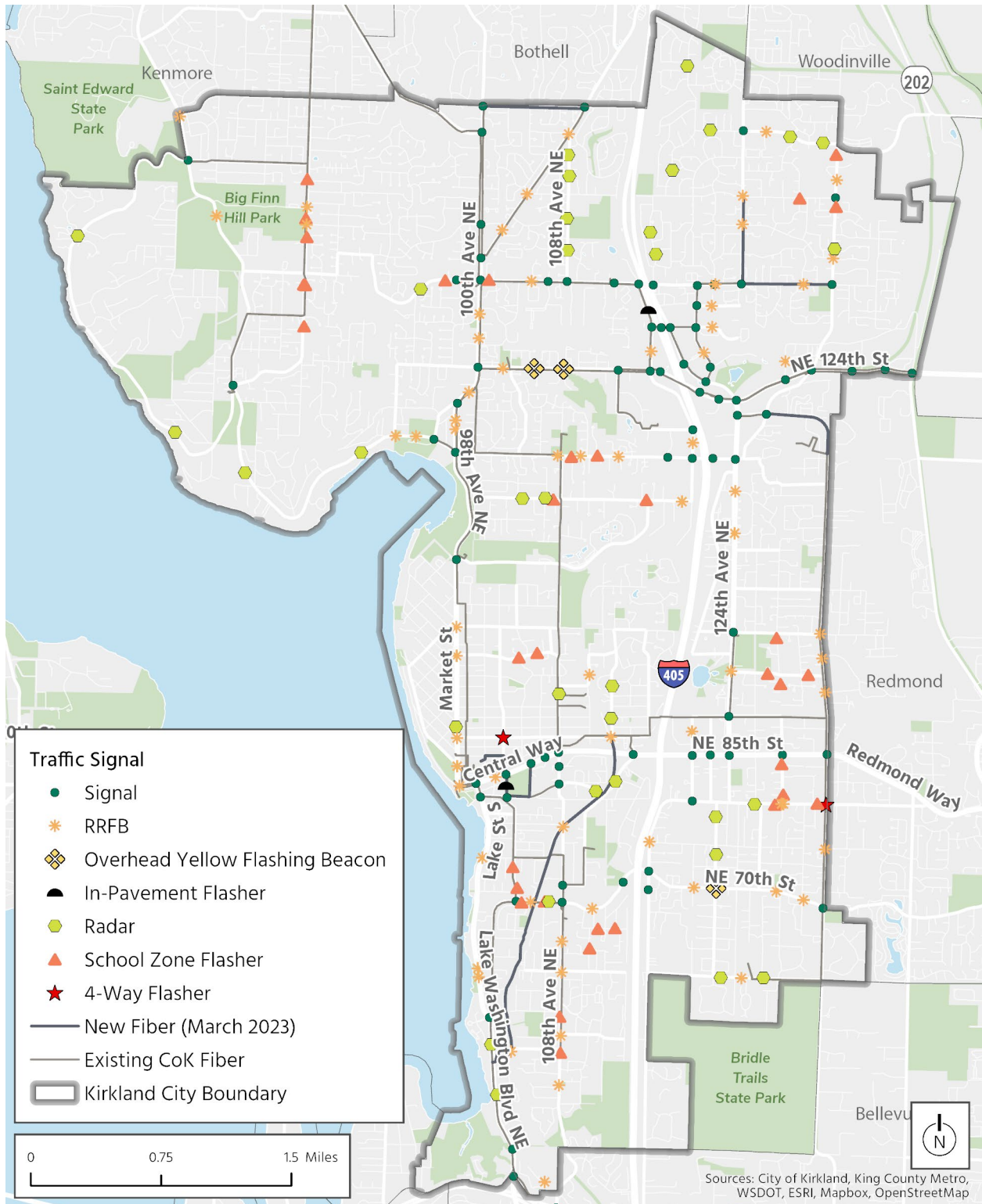
Traffic Control Devices

The traffic control devices present in Kirkland's system include signalized intersections, rectangular rapid-flashing beacons (RRFBs), overhead yellow flashing beacons, in-pavement flashers (to be phased out), radar feedback speed signs, school speed zone flashing beacons, and four-way flashing beacons, shown in Figure 3-20.

FIGURE 3-20 EXAMPLES OF TRAFFIC CONTROL DEVICES IN KIRKLAND
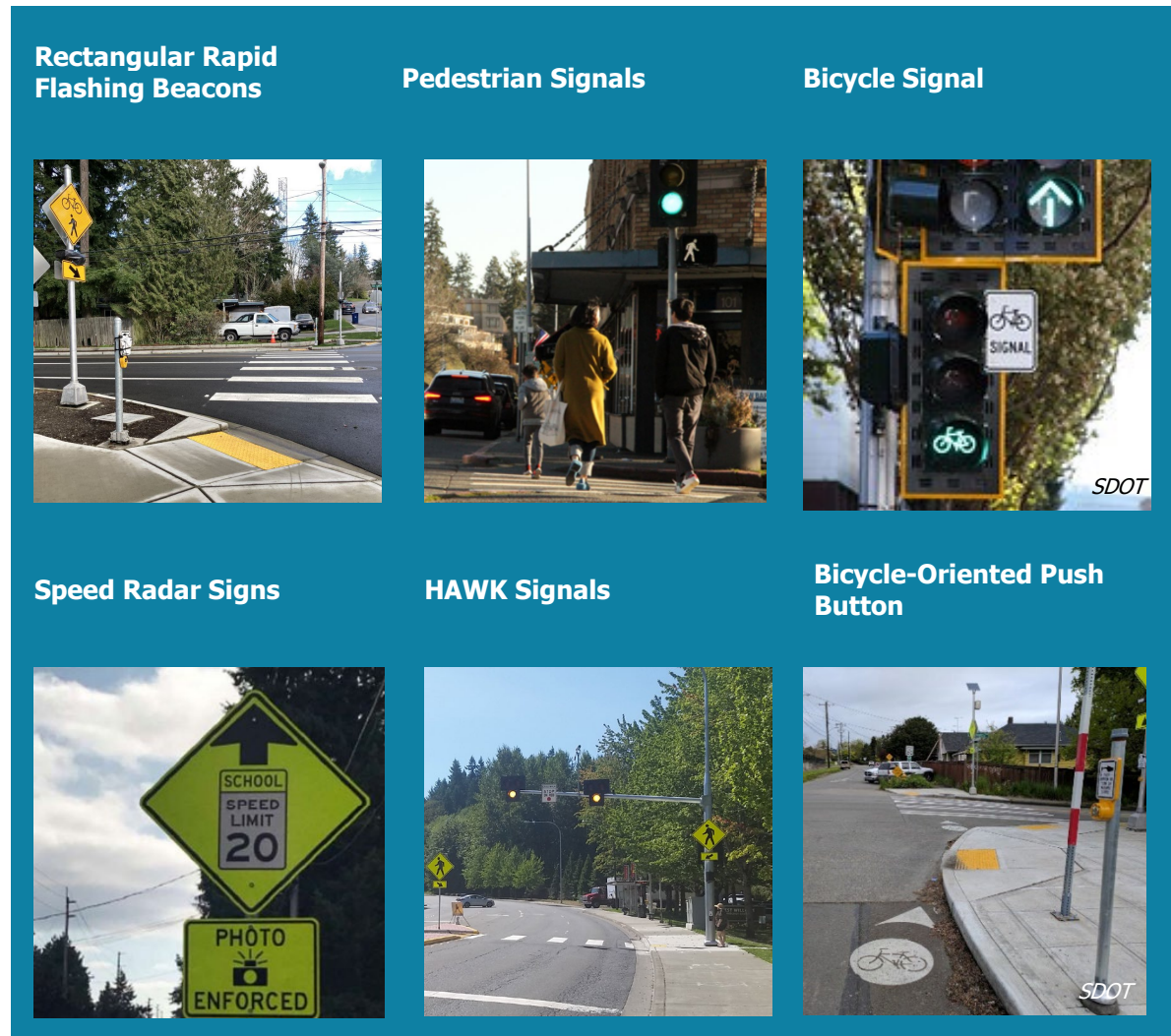
The City currently owns and operates around 70 traffic signals at intersections throughout the City, primarily along arterial streets. Traffic signals are an important feature for safety and operations that assign right-of-way to require conflicting vehicular, pedestrian, and bicycle traffic to stop and proceed in an orderly manner. The City currently uses video detection for vehicles and bicycles at its traffic signals, along with pushbuttons for pedestrians in the style of Accessible Pedestrian Systems.

The City currently employs safety-focused phasing at its traffic signalized intersections. This includes leading pedestrian intervals, which provides people who are walking and rolling a three- to seven-second head start in the crosswalk prior to the beginning of the vehicle phase to increase awareness and visibility to drivers making permissive turns. Additionally, the City uses flashing yellow arrow phasing on all new intersections with dedicated turn lanes and protected-permissive phasing, which allows the removal of

conflicts between pedestrians and left-turning vehicles. When feasible given operational constraints, the City employs pedestrian recall at specific intersections, which means people walking and rolling do not have to actuate the pedestrian pushbutton to get service at the traffic signal.

The City uses over 70 RRFBs, which are enhanced pedestrian safety features to provide additional indication to drivers that pedestrians are using a midblock or uncontrolled crosswalk. Additionally, over the next several years, the implementation of a high-intensity activated crosswalk (HAWK) system is planned at several locations. HAWK signals provide a regulatory method of control to stop vehicular traffic to provide people walking, rolling, and bicycling a safer crossing environment. The locations with planned HAWK signal systems include the following: the CKC crossing at Slater Avenue NE/NE 132nd Street; 100th Avenue NE mid-block near NE 140th Street; 124th Avenue NE between NE 116th Street and NE 124th Street; NE 124th Street between 100th Avenue NE and 113th Avenue NE; and Juanita Drive at NE 132nd Street.

Planned transportation improvement projects with operational improvements for bicyclists include the integration of bicycle signals as part of the 124th Avene NE and 100th Avenue NE corridor projects. For bicycle detection, bicycle-oriented push buttons to activate signals or RRFBs have been and will continue to be integrated for Neighborhood Greenways that cross major arterial streets. At signalized intersections, the City currently uses video detection technology and continues to explore new technologies that have accurate detection and counting of bicycle users. Traffic control infrastructure in Kirkland is shown in Figure 3-21.

FIGURE 3-21. TRAFFIC SIGNAL INFRASTRUCTURE
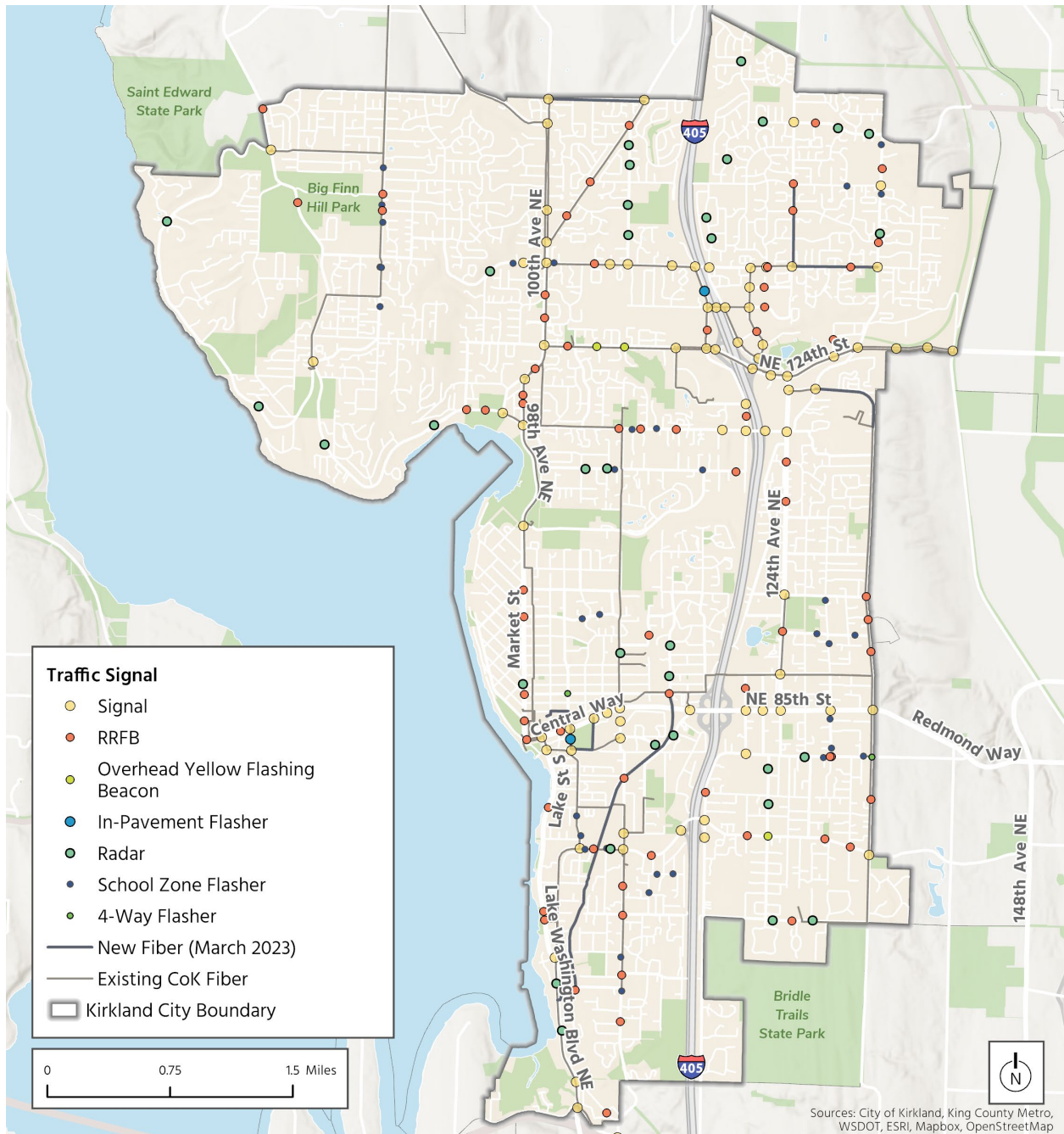
Physical Traffic Calming Devices

Physical traffic calming devices in Kirkland include signs, striping, 25-mph pavement markings, neighborhood traffic circles, speed humps, speed cushions, raised crosswalks, curb extensions, and medians, shown in Figure 3-22.

FIGURE 3-22. NEIGHBORHOOD TRAFFIC CONTROL

Traffic Calming Devices

- Speed Cushion
- Speed Hump
- 25 MPH Transverse Pavement Marking
- Speed Radar Feedback Sign
- Traffic Circle
- Raised Crosswalk
- Median
- Kirkland City Boundary

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
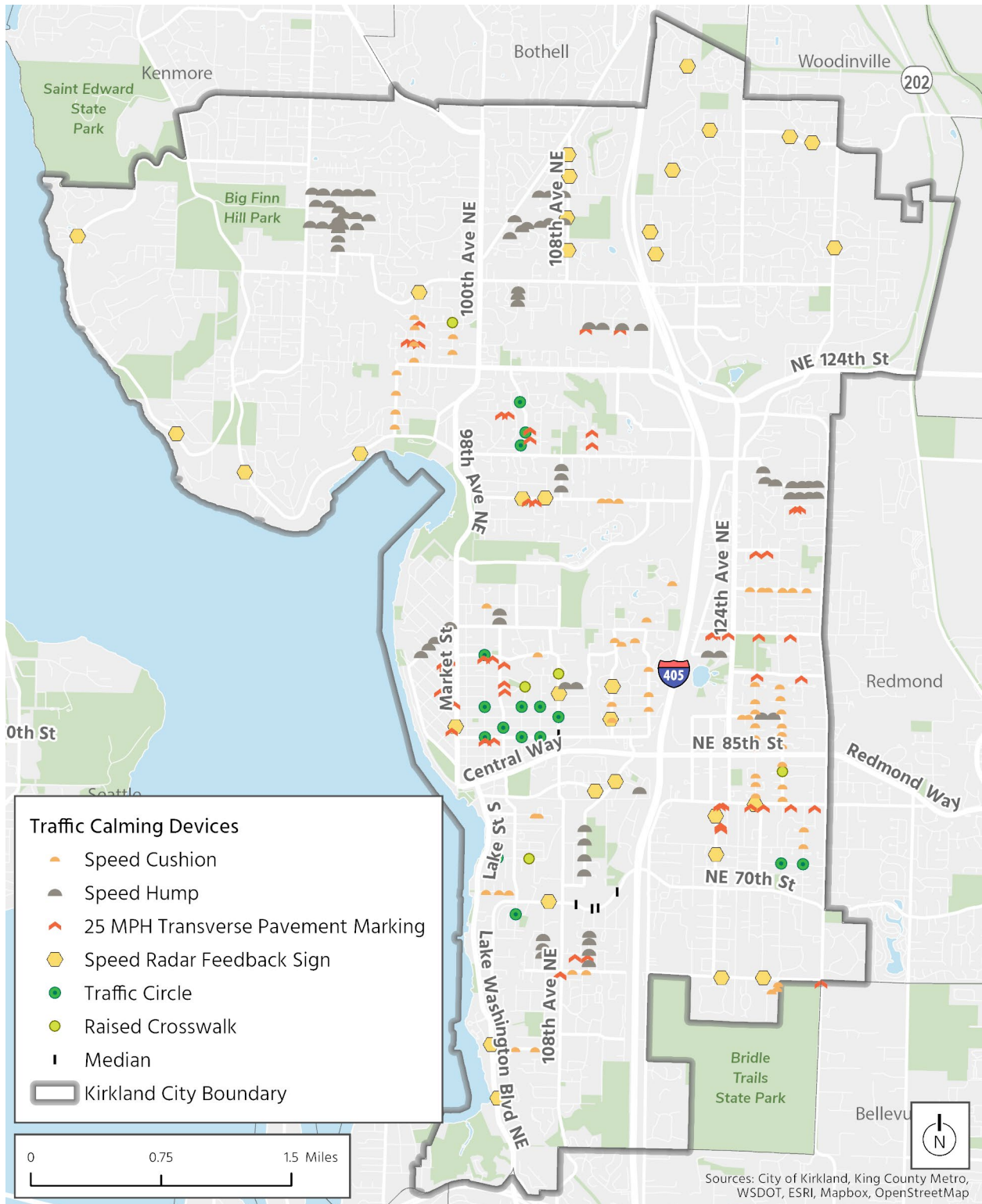
Transportation Demand Management

Kirkland has several employers that fall under the requirements of Washington's Commute Trip Reduction (CTR) law to address traffic congestion and encourage employees to take non-drive-alone trips to work.

Kirkland has several Transportation Demand Management (TDM) programs, which include education and encouragement programs, since school trips are not typically single-occupancy vehicle trips. The City has a Congestion Mitigation and Air Quality (CMAQ) grant agreement with King County that utilizes federal funds for most of Kirkland's TDM work. The existing TDM programs consist of:

- Educational campaigns (e.g., promoting transit use).

- Preloaded ORCA card incentives.

- Improving administration of CTR program and TMP/TDM programs.

- Improving monitoring and enforcement of transportation management plans for eligible properties within city limits.

- Conducting a mode split survey of residents and employees.

- Maintaining Kirkland Green Trip (KGT) website and email marketing.

In addition to the TDM programs, the City supports Bike Everywhere Month and Walk and Roll to School Day events to encourage replacing single-occupancy and short trips by the use of other transportation modes. The City owns quick-build event bike racks that are used at events to provide bike parking for attendees and can be lent out for other community events.

The City supports King County's Community Van program, which provides three passenger vans within Kirkland and Kenmore for prescheduled rides. This program supplements trips that are not well serviced by bus for those who do not have access to a motor vehicle and requires a minimum of two passengers in addition to the driver.

In addition, the City has established a Transportation Management Program (TMP) required of private employers as a condition of approval for large commercial developments to implement a TDM program to reduce the number of trips generated by the development and encourage the use of alternative transportation options. If a development is approved to provide less parking than code requirements, it is also obligated to implement a TDM program. These TMPs are recorded and associated with the respective properties, ensuring compliance with the transportation-related conditions and facilitating sustainable transportation.

Since the 2015 Transportation Master Plan update, the number of participating employers in the CTR program has remained steady at 12 locations, though 16 employers participated in 2015. Prior to 2022, the state budget did not increase funding, so the City has not expanded the program significantly since 2015. More funding was approved in 2022, which will aid in expanding Kirkland's CTR programs. Additionally, there are currently 32 properties within the city that have active Transportation Management Plans practices. Figure 3-23 shows the TDM and CTR sites as of 2023.

FIGURE 3-23. TDM AND CTR SITES

TMP & CTR Sites
- CTR Only
- TMP Only
- CTR and TMP
- Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro,
WSDOT, ESRI, Mapbox, OpenStreetMap
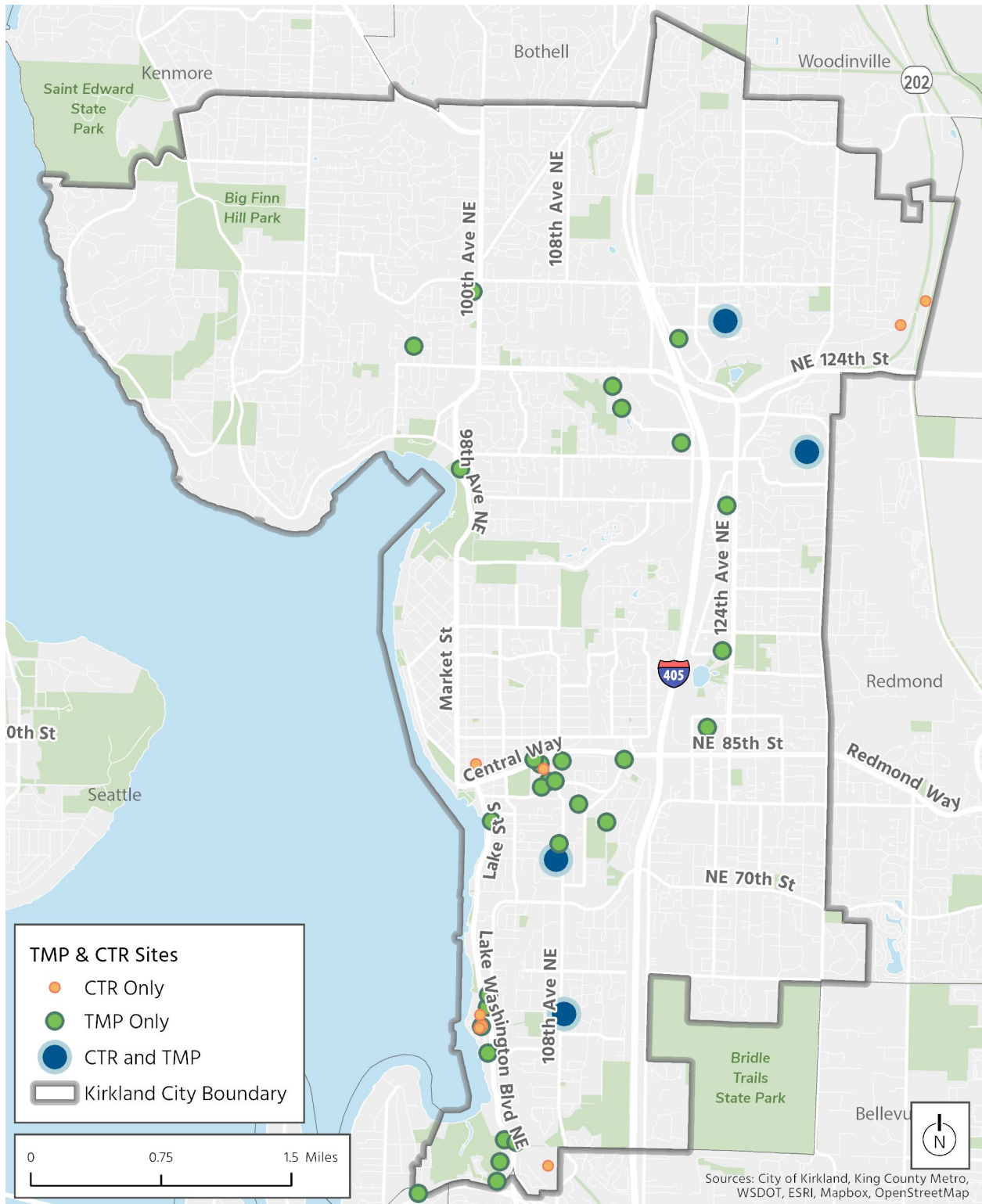
Regulated Parking

A majority of the City's regulated on-street parking and loading zones are located downtown and in small sections of Juanita and Totem Lake. On-street parking elsewhere in Kirkland is generally unregulated. The City owns several off-street parking lots within the downtown area as well as the Peter Kirk Municipal Garage (Figure 3-24).

The City of Kirkland has a Downtown Employee Parking Program which allows participating employees to park in designated areas managed by the City at no cost. There are designated parking stalls for the program in the Peter Kirk Municipal Garage, the Wester Lot at 120 3rd Avenue, and along Lake Avenue W. The City is currently conducting a Downtown Parking Monitoring project which is collecting parking occupancy data to understand utilization and turnover rates on public streets and public parking lots downtown.

As a response to the COVID-19 pandemic, the City created flexible permitting options to help local businesses adapt. Local businesses could apply for sidewalk café permits, temporary pickup/takeout stall permits, outdoor café permits, temporary parklet permits, and permits to use adjoining private parking stalls for temporary seating or retail space. The flexible permitting options led to a successful Evenings on Park Lane initiative, which closed the west end of Park Lane and Main Street to vehicles on summer evenings. The City also established 15-minute stalls downtown, though adherence and enforcement are ongoing challenges. During peak hours when public parking is near capacity, the 15-minute stalls have been misused more frequently.

FIGURE 3-24. REGULATED PARKING

Transit Facility

P Park & Ride

T Transit Center

Regulated On-Street Parking

━━━ Parking

━━━ Loading Zone

━━━ ADA Parking

▨ Peter Kirk Municipal Garage

▢ Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
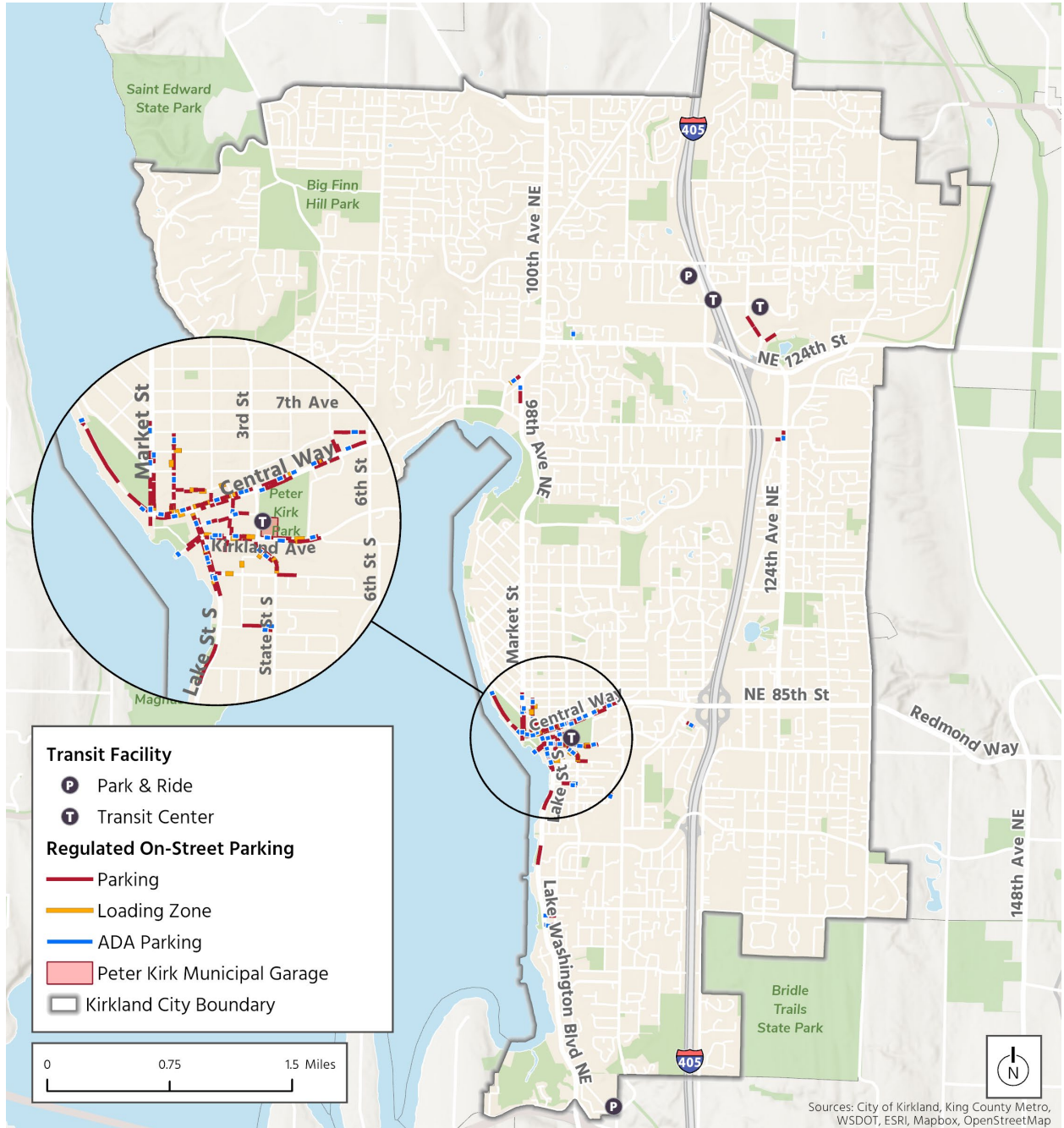
Pavement

The Pavement Condition Index (PCI) describes how deteriorated street pavement is. The City of Kirkland repaves up to 10 lane-miles of its more traveled streets every year and applies a slurry seal to protect and extend the roadway surface between repavings. The Capital Improvement Program includes resurfacing approximately half of those lane-miles, while the other half is funded by the Streets Levy, which voters approved in 2012. Applying a slurry seal can extend the good condition of local roadways for 5 to 10 years. Repaving a street can extend its useful life by 10 to 20 years. Kirkland's current PCI is shown in Figure 3-25. Kirkland's goal for its street-preservation program is to improve the score of its arterial network to 70 (Category I—Very good) on the Pavement Condition Index.

FIGURE 3-25. PAVEMENT CONDITION INDEX
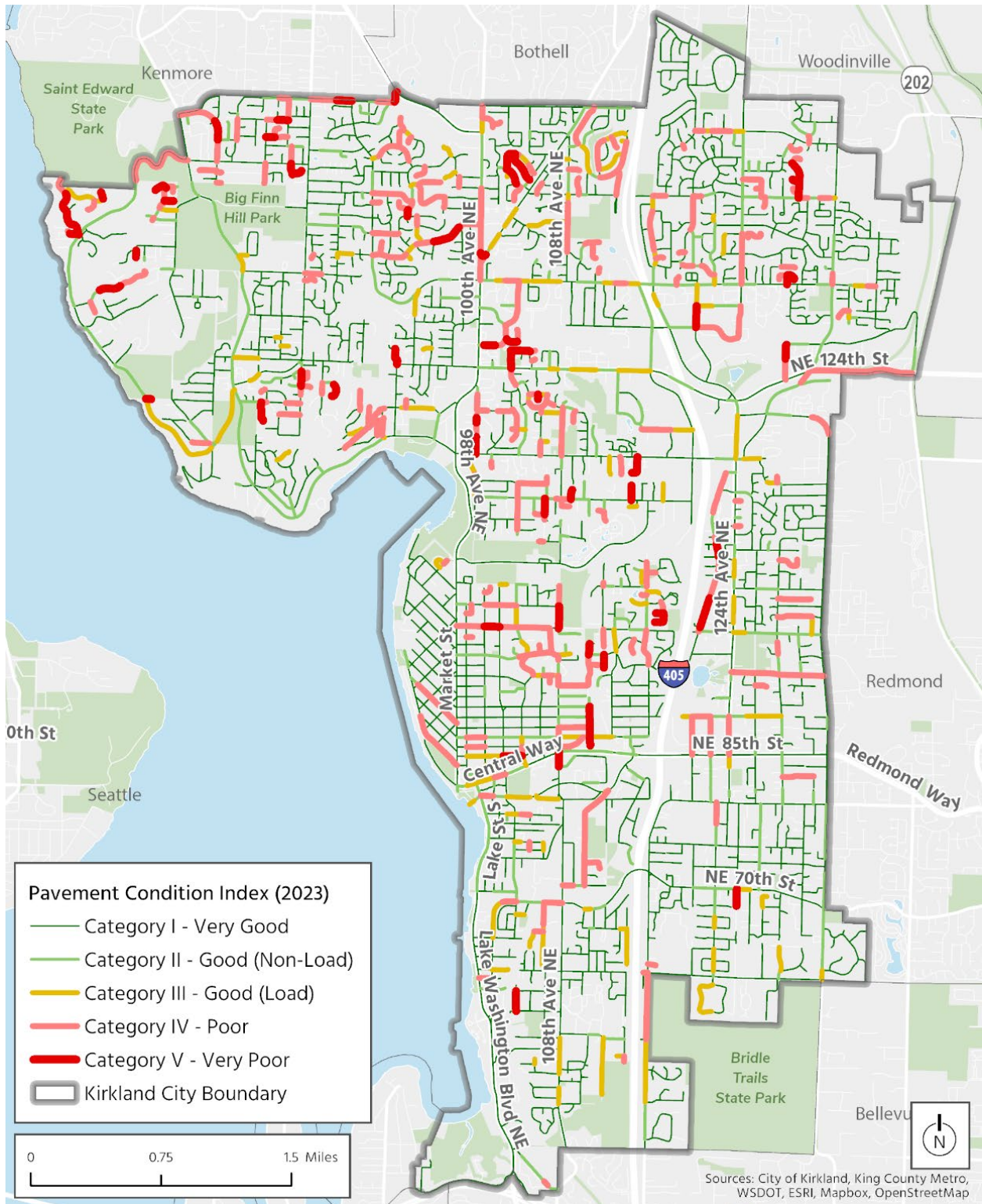
3.8. Environmental Sustainability

Stormwater

Most of Kirkland is within the Lake Washington watershed, and like all cities bordering the lake, Kirkland impacts the quality and health of the lake and streams that flow into Lake Washington through runoff and other impacts. As a shared resource, collaboration with neighboring cities is vital to protecting the watershed. Kirkland faces water and habitat challenges associated with urbanization. More than 119 acres of City-owned natural areas and open-space parklands have been enrolled in restoration, shown in Figure 3-26.

Greenhouse Gas Emissions

Greenhouse gas (GHG) emissions result from the combustion of fossil fuels, such as gasoline, diesel, coal, and pipeline gas (also known as natural gas). Transportation remains the largest contributor of greenhouse gas emissions in Washington, showing a slight increase from 2018 to 2019 of less than 3%, or 4.8 million metric tons (MMT), reaching 40.3 MMT of CO_2e. As of 2017, community GHG emissions have fallen about 25% from a 2007 baseline. Gas-powered cars contribute to half of Kirkland's GHG emissions each year.

Fish Passage

The City's 2023 Surface Water Master Plan outlines the implementation of groundwater management, which can reduce the risk of landslides, improve water quality and fish passage in the city's waterways, and protect recreation opportunities, including fishing. There are five publicly owned culverts that represent significant barriers to fish passage. Denny Creek has a long segment that is subject to landslide hazards but is in good condition regarding fish habitat. The culvert located on Juanita Drive is a complete barrier to fish passage. The lower reach of Holmes Point Creek has significant barriers to fish passage and has an armored channel with little streamside vegetation.

FIGURE 3-26. ENVIRONMENTAL FEATURES
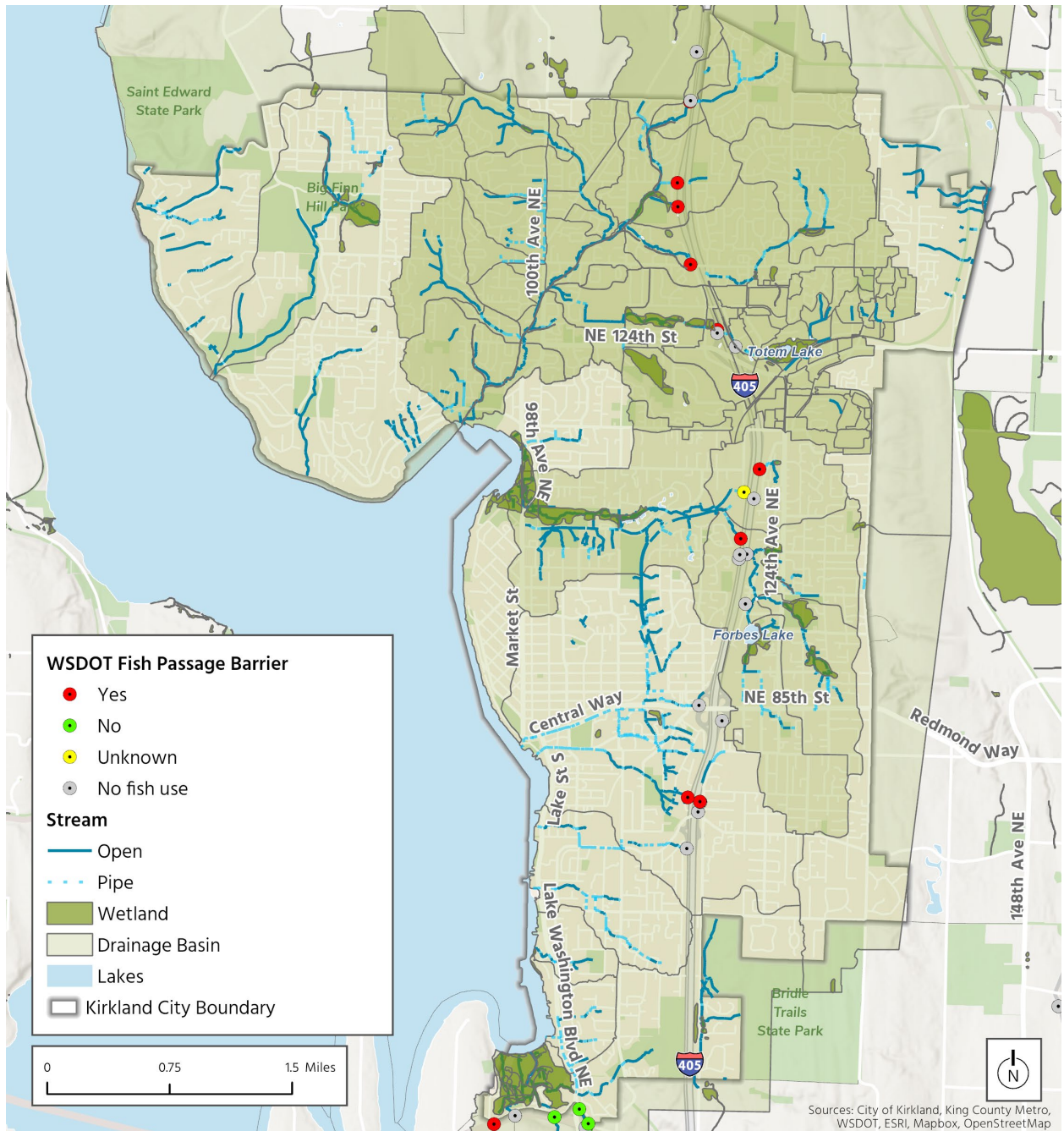
4. Community Engagement

4.1. Public Engagement

Transportation and Land Use Survey

The initial outreach for the TSP was coordinated with the Comprehensive Plan outreach, specifically with the land use element since transportation and land use are intricately linked. This included the Transportation and Land Use survey which was open for several months from March through June 2023. The survey asked questions about commute patterns and typical travel modes as well as interest in using other modes (such as what would influence a person to take another mode of travel). There were over 500 responses to the survey. A summary of public engagement and comments is in Appendix A.

Focus Groups

Reflecting Kirkland's emphasis on reaching priority populations, the Community Engagement Plan recommended several focused conversations with targeted recruitment to underrepresented groups. Larger community-wide discussions, which tend to attract people more comfortable with City planning processes, were paired with two focused conversations that recruited priority populations to lift their often-underrepresented perspectives.

Recruitment for the focus groups started with priority populations, but anyone interested was welcome. There was a lot of interest in both the Transportation and Land Use focus groups, which met twice in May 2023, and had twenty-three people attend the first session and fourteen people attend the second. The people in the focus group ranged in age from 25-65+, were almost 60% white, 40% BIPOC, had almost 30% representation from the LBGTQIA+ community and included a wide range of incomes. About 50% of the focus group participants identified as having a household income of over $100,000 per year (22% preferred not to answer). Participants were almost split 50/50 by identified gender (one person preferred not to answer).

The first focus group session gave an overview of the Land Use and Transportation Elements, shared the Guiding Principles from the 2015 Transportation Plan and asked for thoughts on the future of transportation (changes, desires, challenges, etc.). The guiding principles were then refined.

At the second session, the group reviewed the revised guiding principles and offered additional comments. The updated guiding principles reflect the feedback received from the first two focus group meetings and were used to develop the goals and policies in the TSP.

Initial Community Engagement

A Community Engagement Plan was developed for both the Comprehensive Plan and the Transportation Strategic Plan. Beginning in early 2023, staff conducted a substantial number of public outreach and community engagement activities to implement the community engagement plan. Below is a summary of community engagement activities during the early stages of the TSP plan development:

- Development of a Community Engagement Plan for the entire Comprehensive Plan Update effort.

- Equity Review Report of existing Comprehensive Plan elements.

- Project webpage updates and listserv email announcements.

- Transportation and Land Use survey.

- Focus Group recruitment focused on priority populations.

- Focus Group meetings for Transportation and Land Use elements.

- Publication of informational handouts (included introduction materials translated into the four most common languages in the City besides English).

- Presentations to community groups, Boards, Commissions (Planning Commission, Transportation Commission, Youth Council, Senior Council, Human Services Commission), and Kirkland Alliance of Neighborhoods.

- Community events (Town Hall on Bikes, Eastside for All event, Kirkland City Hall for All event).

- Tabling events (seasonal events, Evergreen Health Fair, City Hall for All).

- Class projects with Lake Washington High School and student surveys.

- Community-wide visioning event (January 2023).

- Virtual Community-wide meeting (June 2023) specific to the TSP.

Transportation Commission

Staff has been working closely with the Transportation Commission, which has spent a significant portion of its work program, almost two years, on the TSP. The Transportation Commission has held three workshops on the TSP, including at the May 2023, June 2023, and September 2024 meetings. On October 25, 2023, a joint meeting was held with the Transportation Commission and the Planning Commission to discuss the land use related policies and land use related project prioritization measures.

The Transportation Commission continued to work with staff throughout 2024 leading to the development of the draft and final TSP.

City Council

Staff has also worked very closely with Council on the development of the TSP by presenting and hearing feedback during six study sessions starting in September 2023. These discussions included reporting on what was heard through various public engagement processes, the goals and policies update, project list development, and mapping.

Project List Outreach

One requirement for the Comprehensive Plan is to have a fiscally constrained project list that balances identified projects with projected local revenue over the 20-year horizon. There are over 430 projects that have been identified through various plans and processes in addition to projects that would fall under a program (such as over 1,600 sidewalk gaps). A public engagement map[3] of these was launched in February 2024 which allowed people to comment on any specific project in the map or add a new comment to any location on the map.

Comments were used in the following ways:

- Synthesized to communicate themes.

- Identified as service requests which are managed by city staff as part of day-to-day duties.

- Identified as a project for consideration into the CFP.

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[3] Public Engagement Webmap for projects: https://dks.mysocialpinpoint.com/kirkland/map#/

Overall, there were over 1,204 unique users who made 2,655 reactions in the form of likes/dislikes and comments with 1,928 'likes', 315 'dislikes' and 358 specific comments on 196 projects. A more specific summary can be found in Appendix A.

Public Hearings

A public hearing was held with the Planning Commission on the Transportation Element of the Comprehensive Plan. Following public testimony, the Planning Commission recommended to Council the Transportation Element with a few minor changes. Additionally, a public hearing for the full TSP was held with the Transportation Commission.

5. Transportation Vision, Goals, and Policies

The vision for the future of Kirkland's transportation system was formed around ten goals that were refined with the City of Kirkland Transportation Commission and City Council. Each goal represents a key piece of the future of transportation in Kirkland. The TSP's broader goals are paired with policies aim to advance that goal. Specific strategies help direct implementation of the policies under each goal and bring together different components of implementation including projects and programs, data collection and monitoring, engagement and partnerships, and refinements to City policies and standards.

5.1. Safety

Safety is the City's highest transportation priority. Safety is integrated into every transportation project at each stage of planning, engineering, and implementation. While design best practices and the types of safety improvements have changed and continue to improve over time, as new projects are introduced to the transportation network the latest design and engineering approach is integrated into Kirkland standards. A safety focus is applied to all transportation improvements to support the City's most vulnerable road users, namely people walking, rolling, and bicycling. For instance, current

Best practices generally separate modes of travel in space and time as much as practical, including separating pedestrian and bicycle facilities, using Leading Pedestrian Intervals (LPIs) at traffic signalized intersections, enhanced crosswalk designs, and more. This is in alignment with Kirkland's Vision Zero Action Plan, adopted in 2022, which states a goal of eliminating fatal and serious injury crashes by 2035.

The City's Vision Zero goal and Action Plan align with the United States Department of Transportation's (U.S. DOT) Safe System Approach as the guiding paradigm to address roadway safety. The Safe System Approach acknowledges that humans make mistakes, and that death and serious injuries are unacceptable. Thus, there needs to be multiple redundant safety measures in place to both prevent crashes from happening in the first place, and minimize the harm caused to those involved when crashes do occur. It is a holistic and comprehensive approach that provides a guiding framework to make the transportation system safer for people.

Providing a safe transportation system requires a multi-faceted approach including engineering, education, and enforcement. The City incorporates the Safe System Approach during daily operations and in project planning and design to promote safer driving behavior and reductions in potential future crashes for all modes. The engineering team utilizes the Federal Highway Administration's (FHWA) Proven Safety Countermeasures as remedies for locations where crashes have occurred in the past as well as crash prevention measures for new facilities. Enforcement plays a role in ensuring safe driving behavior, while education rounds out the multi-faceted approach by focusing on proactive engagement of road users to encourage safe behavior.

Related Plans

The City of Kirkland adopted a zero fatality and zero serious injury goal for the transportation system in 2015. To implement a Safe System Approach to vision zero and transportation safety, the City developed the **Vision Zero Action Plan**, adopted in 2022, that includes strategies to prioritize safety in design, operations, data analysis, and culture within the City. The Safe System Approach is integrated into the transportation concept for this Plan and reflected in the vision, policies, and project priorities.

The **Active Transportation Plan**, adopted in 2022, reaffirmed the City's commitment to a multimodal transportation system. One of the key findings from the engagement process for the ATP embraces safety of the City's pedestrian and bicycle network as one of in the primary goals of the Plan. One of the key findings from engagement for the ATP was that the perception of safety was consistently identified as the primary consideration for deciding to walk or bicycle for a trip. The ATP prioritizes safety for the most vulnerable users of the transportation system, i.e., people walking, rolling, and bicycling.

The **Safer Routes to School Action Plans** were developed in cooperation with the Lake Washington School District, law enforcement, design professionals, students, parents, and neighborhoods. The City Council adopted the plans in September 2020. The action plans identify key steps to make walking, bicycling, and riding the bus to school safer, more convenient, and fun. The action plans lay out achievable goals and actions to support walking and bicycling to school through engagement, equity, education, encouragement, enforcement, engineering and evaluation. These plans include projects to improve safety along routes to school, tracking project implementation and performance, continued engagement and promotion of walking and bicycling to school, and active partnerships with the Lake Washington School District.

Ongoing Work

One of the objectives in the Vision Zero Action Plan is to promote and institutionalize a culture of safety, including public education and outreach with the goals of reducing distracted driving, encouraging safer vehicle operating speeds, encouraging a shared sense of humanity (i.e., decreasing road rage), education on common signing and markings, education on traffic laws, and more. In the coming years, the City hopes to accomplish this by distributing informational flyers at events, using social media and other online methods to distribute information, and potentially with other public meeting forums to be determined. The City also plans to publish a public-facing crash data dashboard webpage, which will be a transparent and objective way to inform Kirkland's community members of crashes and crash patterns. For enforcement, Transportation staff frequently works with the Police Department to help with targeted vehicle speed enforcement and identifying areas of the City with frequent violations of other traffic laws. The City also operates an Automated Safety Camera Program in four school zones.

The goal of the automated safety camera program is to reduce vehicle speeds in school zones and increase safety for people walking, rolling, and bicycling to and from school. In 2024, new legislation was passed to allow automated enforcement using traffic safety cameras in more areas outside of school zones, and the City is interested in exploring those options in the future to reduce vehicle speeds and encourage safer driver behavior in areas with high activity of people walking, rolling, and bicycling. The City has also been working with Lake Washington School district to implement recommendations from the School Traffic Circulation Safety Study which evaluated circulation at several schools using drone cameras.

Vehicle operating speeds are directly correlated with safety. In 15% of fatal and serious crashes in Kirkland, exceeding the speed limit is a contributing factor and approximately 70% of fatal and severe crashes occurred on City streets with a posted speed limit of 30 mph or more (WSDOT 2018-2022). The City is currently undertaking a vehicle operating speed study and speed limit policy update as a part of

the Kirkland Safety Action Plan that is expected to be complete in 2025. The Kirkland Safety Action Plan in development with USDOT Safe Streets and Roads for All (SS4A) Grant Program funding awarded in 2023 through the Puget Sound Regional Council (PSRC). The plan will work in concert with and include references to the City's two other transportation safety plans: Vision Zero Action Plan, and the Local Road Safety Plan (LRSP). This effort will also include assessing near-misses at key intersections.

Kirkland's LRSP is updated approximately every two years and includes data on fatal and serious injury crashes, identifies priority locations to address safety issues, and identifies projects in the current Capital Improvement Plan (CIP) to address them. With regular updates to the LSRP, new high-crash locations may be identified as top safety priorities where safety interventions are not currently planned in the TSP or CIP. The City works to incorporate projects that respond to emergent safety needs in the CIP, and grant funding through the WSDOT City Safety Program can help the City fund and implement new safety measures. Over the last several years, many of Kirkland's safety improvement projects have used this funding source for implementation, including new HAWK signals, RRFBs and channelization projects.

The Neighborhood Safety Program (NSP) was established 2014 to help re-energize Neighborhood Associations and empower them to work collaboratively to identify, prioritize, and address pedestrian and bicycle safety issues in Kirkland neighborhoods. Eligible projects fall into the following categories:

- Bicycle facility: Bike lanes or trails.
- Crosswalks: New crosswalks, improved crosswalk ramps (ADA), crosswalk islands, and rapid flashing beacons.
- Intersection Improvements: Signage, parking, and pedestrian "bump outs."
- Traffic Calming: Radar speed signs, speed cushions
- Walkway and Trail: Gravel trails, steps, curb, and traffic delineators.
- Streetlights: On existing utility pole or installing a light new pole.

Neighborhoods, in collaboration with the City, identify and vote on eligible projects to be funded for implementation. This grassroots approach engages residents in improving safety in their neighborhoods while also promoting safe travel behavior.

The Neighborhood Traffic Control Program (NTCP) was established in 1993 to address concerns about high traffic volumes and speeds on residential streets. The program offers solutions ranging from low-level intervention measures, such as pavement markings and striping, signage, and deploying portable speed radar trailers, to high-level intervention measures, such as the installation of speed cushions, traffic circles, and curb bulbs. The level of intervention for different areas of concern is determined through City studies of vehicle speeds and volumes. This program also addresses other traffic-related safety concerns on non-arterial neighborhood streets such as traffic volume increases, construction traffic impacts, and impeded sight lines due to overgrown vegetation.

Goal T-1: By 2035 eliminate all transportation related fatal and serious injury crashes, while reducing all crashes in Kirkland.

Safety for people traveling in Kirkland remains the first goal of the Transportation Strategic Plan. Kirkland's future transportation system should be safe and accessible for people of all ages and abilities, using any mode of travel. Investments in the future of Kirkland's transportation system will prioritize the safety of people walking, rolling, and bicycling.

To achieve this goal, the safety policies focus on implementing the Vision Zero Action Plan, a Safe System Approach, complete streets, data collection, and regular performance monitoring and creating a culture of safety within the City, community, and other partner agencies.

Policy T-1.1: Implement the Vision Zero Action Plan and track progress annually.

Kirkland will focus on implementation of the Vision Zero Action Plan and track progress toward the goal of zero traffic fatalities or serious injuries. The City will continue to make strides toward the goals of the Vision Zero Action Plan through various strategies defined by the plan's objectives. Strategies in the Vision Zero Plan include of safe street design, changes to traffic operations that enhance safety, data collection and analysis, and a culture of safety through education and partner and engagement, all of which contribute to the safety of users of Kirkland's transportation system. Specific actions to implement Policy T-1.1 and support the Vision Zero Action Plan include:

a) Improve the City's webpage interface to provide more transparent data to the public (web-map, dashboard).

b) Track progress annually and report to the Council every 2 years.

c) Update the City's Local Road Safety Plan every 2 years with updated crash data that identifies safety issues and contributing factors, proposes specific countermeasures, and identifies safety improvement projects.

d) Regularly update the Vision Zero Action Plan and policies.

Policy T-1.2: Implement the principles of a Safe System Approach by prioritizing safe street designs and strategies.

The City will continue to use the Safe System Approach to guide the design of transportation projects and improvements and inform decision making. To integrate the principles of this approach with design and decision-making, the City will review its design standards and policies to implement national best practices and incorporate new and emerging and technologies to make people in Kirkland and users of the transportation system safer. Actions to implement Policy T-1.2 and continually improve city policies, design standards, development of safety interventions and practices include:

a) Revise the City's existing design standards with best practices and innovation using national sources on design. Be a leader in implementing safety as standard practice.

b) Evaluate and update the policy for setting speed limits to lower speeds and encourage safer travel behavior.

c) Equip all City fleet vehicles with safety-related devices and technology that identifies dangerous driving behaviors.

d) Reduce emergency vehicle response times with technology (GPS-based) Intelligent Transportation Systems solutions.

e) Conduct near-miss analysis at select intersections, improve methods to record reported safety issues, and explore additional data sources.

f) Make roundabouts the default design for new intersections or major intersection improvements, unless shown to be infeasible.

Policy T-1.3: Advance the City's Complete Streets ordinance by accommodating all modes of travel in transportation system projects.

Kirkland's Complete Streets Ordinance was first adopted in 2006 and was last updated in 2016 following the 2015 Transportation Master Plan. The City will review and amend the ordinance to reflect changes in

national best practices over the past decade and will continue to support implementation of the Complete Streets Ordinance and will use the ordinance to emphasize safety as an integral part of design to Policy T-1.3.

a) Update the City's Complete Street ordinance as set forth in Kirkland Municipal Code (KMC) Section 19.08.055 to be consistent with current national best practices.

b) Ensure that safety is the first lens through which all capital transportation projects are designed.

Policy T-1.4: Build a robust and transparent data framework.

Kirkland will also strive to improve the collection and availability of collision and safety data to help guide future decision making. More robust data will help the City evaluate safety and risks for the most vulnerable users of Kirkland's transportation system and can improve understanding of effective safety interventions for City staff and the community. Specific areas to improve the City's safety and data analytics and advance Policy T-1.4 include:

a) Seek opportunities to improve collision data collection and analysis, such as adding sources, addressing data anomalies, and reporting and database improvements.

b) Seek innovations in technology to improve understanding of contributing factors and preventative measures.

c) Collect before/after data for safety improvement projects.

d) Conduct risk exposure analysis for vulnerable users as a preventative measure.

e) Implement technology systems to support performance monitoring and studies of the transportation system, including data storage and analytics.

Policy T-1.5: Promote and institutionalize a culture of safety.

A culture of safety prioritizes the safety and wellbeing of all people traveling in Kirkland and facilitates learning about and understanding the causes of crashes. The City will work to establish a culture of safety within city departments, the broader community, and partner agencies through training and education. This policy is also a core objective of the Vision Zero Action Plan and the specific actions to establish a Culture of Safety and work toward Policy T-1.5 are consistent with and supplement the strategies defined in that document and include:

a) Implement a comprehensive staff training program to encourage a culture of safety across relevant departments.

b) Educate the public on Vision Zero and factors contributing to crashes (e.g. human behavior, season/weather, speed) as well as rules of the road. Coordinate with City departments on messaging and opportunities to educate the public.

c) Coordinate with the Planning and Building Department and with private businesses to improve safety in private parking lots by implementing measures such as dedicated pedestrian pathways, speed control, and lighting.

d) Work with developers and contractors to improve implementation of safe routes for pedestrians and bicyclists through construction zones.

e) Work with schools and police resource officers to enhance traffic safety education in schools including bicycle and pedestrian education.

f) Work with the Lake Washington School District and other schools to improve circulation in and around schools at pick-up and drop-off times.

g) Identify opportunities to implement a culture of safety along the Cross Kirkland Corridor and to reduce speeds and potential conflicts.

Projects & Programs

The TSP will focus investments in Kirkland's future transportation system on proven safety interventions where they are needed most. To advance the City's goal to end traffic injuries and fatalities, potential projects were prioritized for funding and implementation based on safety benefits. All roadway projects in the City of Kirkland will include multimodal elements to create a safer and more comfortable environment for people walking and bicycling, consistent with the safe system approach. Nearly half of the annual funding for transportation programs is allocated to programs intended to improve safety for the most vulnerable users of Kirkland's transportation system including the Street Levy Pedestrian Safety, Vision Zero Safety Improvement, and Neighborhood Safety Improvement programs.

PROGRAMS

Various programs are proposed to be funded to allow the City to continue to work on safety improvements while having flexibility to respond to community concerns and updated crash data. These programs include:

- **Crosswalk Upgrade Program:** Opportunity fund for crosswalk improvements and upgrades including lighting, rapid flashing beacons, etc.
- **Arterial Traffic Calming Program:** Arterial traffic calming such as speed radar signs, counts, etc.
- **Street Lighting Design Improvements:** Proactively identify new areas for design and implementation of new streetlights.
- **Citywide Accessibility Improvements:** An opportunity fund for implementation of a wide range of accessibility improvements, as developed by the Accessibility Transition Plan.
- **Vision Zero Safety Improvement** - An opportunity fund for improvements to implement Vision Zero related projects.

5.2. Active Transportation

Related Plans

The City's **Active Transportation Plan**, adopted in 2022, reaffirms the City's commitment to walking, rolling, and bicycling as part a multimodal transportation system. The ATP is built around three primary goals:

- Create a safe, connected pedestrian network where walking is a comfortable and intuitive option as the first choice for many trips.
- Create a connected bicycle network that accommodates people of all ages and abilities to get to destinations such as activity centers, parks, and transit.
- Encourage and incentivize more people to walk and bike and encourage safe behavior for all users of the transportation system.

The principal focus of the ATP is a safe and comfortable walking and rolling environment on the pedestrian network to support the City's 10-minute neighborhood concept, and an all ages and ability bike network. The ATP's pedestrian network analysis includes analysis of major sidewalk gaps and street crossings enhancements. The bicycle network analysis includes network gaps and connectivity and

identifies areas that are currently not well served by low-stress bike facilities such as Totem Lake, Highlands, Finn Hill, and portions of other Kirkland neighborhoods. Recommended bicycle and pedestrian improvements from the ATP were included in the project prioritization process for the TSP.

Other related plans emphasize the safety of the bicycle and pedestrian networks, and implementation of systems based and focused approaches to improve safety for people walking, rolling and bicycling. The **Vision Zero Action Plan**, adopted in 2022, outlines concrete steps the City will take to meet its goal of zero traffic injuries or fatalities. The plan focuses on addressing vehicle collisions that result in fatalities or serious injuries , and crashes involving vulnerable road users - people walking, rolling, and bicycling. The Vision Zero Action Plan includes many of the same strategies and actions proposed in the ATP, which would make walking, rolling and bicycling in Kirkland safer. Many safety countermeasures, including changes to roadway design and traffic calming to reduce speeds would also make motorists in Kirkland safer, reducing the likelihood of injuries and fatalities from all crashes.

The **Safer Routes to School Action Plans** prioritize the safety of children and families walking, rolling, and bicycling to schools in Kirkland. The action plans outline strategies to support walking, rolling and bicycling to school including continued community engagement and education. The plans also include a set of projects with targeted design interventions to improve safety along routes to schools. These projects are consistent with improvements to the pedestrian and bike network proposed in both the Vision Zero Action Plan and ATP, with recommendations for enhanced crossings, lighting, and new sidewalks.

Goal T-2: Create and maintain a high-quality network of complete and connected low-stress walking, rolling, and bicycling facilities, including sidewalks, trails, crosswalks, and bikeways making active transportation a first choice for many trips.

Kirkland is committed to creating safe, complete, and connected pedestrian and bicycle networks throughout the city. The City will continue to prioritize investments that support walking, rolling, and bicycling and create a safer transportation system. This includes filling critical sidewalk gaps that currently impede access and disrupt pedestrian travel and building out a bicycle network for people of all ages and abilities to have low-stress connections to destinations and between neighborhoods.

To achieve this goal, the active transportation policies focus on implementing the Vision Zero Action Plan, Safe System Approach, Active Transportation Plan (ATP), complete streets, data collection, regular performance monitoring, and creating a culture of safety within the City, community, and other partner agencies.

Policy T-2.1: Make walking, rolling, and bicycling safer, easier, accessible, and more convenient.

Kirkland will redouble its efforts to make walking, rolling and bicycling safer and more convenient, through implementation of current plans, and strategies to connect and bridge or remove barriers in the pedestrian and bicycle networks. City policy and procedures for bike parking, crosswalk installation, traffic operations and project prioritization will be re-evaluated as Kirkland considers new policy guidance and updates to existing policies and practices. The City will also focus on program implementation to improve Kirkland's bicycle and pedestrian networks and support the City's continuing safety efforts for active transportation. Specific actions to implement Policy T-2.1 include:

a) Identify and remove barriers to walking and rolling, such as evaluating and addressing major barriers, reducing sidewalk blockages, and assessing pedestrian gaps and maintenance needs.

b) Create a strategy to increase the supply of public bicycle parking in Kirkland through a dedicated bicycle parking program and incentives for businesses to increase bicycle parking supply.

c) Work with the Planning and Building Department to develop a comprehensive bicycle parking policy to ensure adequate end-of-trip facilities, including bicycle charging stations, are available.

d) Develop policies that will create regulations and incentivize micromobility programs, such as bicycle- or scooter-share, electric-car sharing, and micromobility hubs.

e) Implement the objectives and strategies from the ATP.

f) Continue to support the Pedestrian Flag program; measure and improve its performance.

g) Develop prioritization methods for the selection and implementation of safety enhancements at crosswalks.

h) Adopt traffic signal operational procedures that include practices such as advance pedestrian phases, dedicated bicycle signals, generous walk intervals, and protected left turn phasing.

i) Develop a design standard for protected intersections in the roadway preapproved plans for consistent implementation.

j) Implement lighting improvements for safety at crosswalks through a crosswalk lighting program.

k) Update the City's Crosswalk Installation Policy.

Policy T-2.2: Prioritize, design, construct, operate, and maintain a connected network of pedestrian and bicycle facilities in a manner that maximizes safety and mobility to promote an active and healthy community for people of all ages and abilities.

Kirkland will continue to prioritize investments in active transportation and will work toward its vision for safe and complete bicycle and pedestrian networks. The City will focus on design and implementation of projects that close critical gaps in the bicycle and pedestrian networks and connections to transit. National best practices will be incorporated into updated standards for active transportation facilities and will help the City vet solutions for context-specific investments and interventions. Related city programs can help support implementation of complete networks of greenways, separated bike facilities and dedicated pedestrian spaces. Actions that support implementation of the City's connected bicycle and pedestrian networks in Policy T-2.2 include:

a) Develop a dedicated sidewalk program for infilling high-priority sidewalk gaps.

b) Construct the projects in the Safer Routes to School Implementation Plan.

c) Recognize national best practice resources such as the National Association of City Transportation Officials and the American Association of State Highway and Transportation Officials pedestrian and bicycle design guidelines by adopting them into preapproved plans.

d) Use context-sensitive best practice design for walking and bicycling facilities, prioritizing the safety of these users.

e) Prioritize first- and last-mile walking and bicycling connections to transit, recognizing active transportation modes are critical for supporting transit ridership.

f) Periodically update pedestrian and bicycle facilities design requirements citywide and for various areas/zones in the city, including sidewalks, crosswalks, bicycle facilities, and intersections.

g) Grow a system of separated bicycle facilities, including protected intersections.

h) Prioritize and construct a network of Neighborhood Greenways.

i) Update the guidelines for Neighborhood Greenways from lessons learned from implementation and as best practice designs change.

j) Establish a procedure to evaluate the operational and safety impacts of Greenways before and after project implementation.

k) To the extent feasible, leverage annual maintenance programs, such as pavement preservation and striping, to opportunistically build out active transportation infrastructure identified in the ATP or implement other safety improvements.

Policy T-2.3: Make walking, rolling and bicycling more intuitive and easier to navigate.

Kirkland's pedestrian and bicycle networks consist of different types of facilities and the city's efforts to expand and improve bicycle, and pedestrian connections will include greenways, protected bike lanes, sidewalks, and multi-use trails. Maps signage and wayfinding are important features of clear and legible network of facilities that help people walking, rolling, and bicycling in Kirkland navigate these facilities and connect people to their destinations. Signage in and of itself does not create quality facilities, but they can help make connections between different bike and pedestrian routes clear, and help people find the best route to get them where they need to go. Actions that would help make the City's bicycle and pedestrian networks easier to navigate and support implementation of Policy T-2.3 include:

a) Improve wayfinding to and from the Cross Kirkland Corridor (CKC) with a comprehensive recreational trail wayfinding system coordinated with the branding and signage of the Eastrail.

b) Ensure the network of greenways and the bicycle route system are well signed and easily navigable.

c) Improve pedestrian orientation to parks, amenities, and local businesses with maps and signage.

d) Develop a pedestrian wayfinding system for downtown, within urban centers, and along Lake Washington.

e) Regularly update public pedestrian and bicycling maps.

f) Coordinate with other departments on pedestrian and bicycle maps for economic development purposes.

g) Develop a tier of destinations to inform a wayfinding system based on distance and mode.

h) Evaluate various forms of wayfinding, including virtual/electronic navigation, such as using apps and QR codes, maps (both printed and online), and physical signs. Ensure wayfinding materials are available in multiple languages and other accessible formats.

Policy T-2.4: Develop signature walking, rolling, and bicycling facilities along the CKC and Lake Washington with ample connections to the rest of Kirkland and the region.

Signature walking, rolling, and bicycling facilities in Kirkland should be accessible for everyone who lives in, works in, or travels through Kirkland. The Cross Kirkland Corridor and Washington Boulevard Promenade are signature corridors that serve both and City icons and key connections between Kirklands neighborhoods and to regional facilities and destinations. Both corridors uniquely reflect the City and it's natural and built environment and will serve a range of uses with transportation, environmental and economic benefits for the City. To support connections along these two facilities and implement Policy T-2.4, the City will:

a) Develop an action plan that outlines priorities and actions to implement the Cross Kirkland Corridor Master Plan vision as well as the Connect, Construct, Complete vision for the Eastrail Corridor.

b) Work with the community to identify the best design for the Lake Washington Boulevard Promenade using options provided by the Lake Washington Boulevard Promenade Study.

Policy T-2.5: Make walking, rolling, and bicycling to and from school safer and easier.

Kirkland will encourage walking, rolling and bicycling to school through educational and promotional programs. The City is committed to sustained engagement for young people and implementation of SRTS strategies that go beyond infrastructure to achieve the goals of the Safer Routes to Schools Action Plans. These initiatives will encourage students to bike and walk, improve safe bicycling and walking skills, and support more equitable outcomes for students of color and students from low-income families. Actions that the City will take to make walking and bicycling to school easier and safer in support of Policy T-2.5 include:

a) Implement automated enforcement of school zones citywide.

b) Implement the Safer Routes to School Action Plans that include actions under the categories of engagement, equity, education, encouragement, enforcement, engineering, evaluation.

c) Help youth to be able to walk, roll, or bike to activities by connecting places such as schools to parks and practice fields and through encouragement programs.

Policy T-2.6: Grow the citywide multimodal count program.

To support these projects and evaluation of the effectiveness of the effectiveness of Kirkland's projects, programs and policies, the City will work to expand its multimodal count program. This will help better understand active transportation needs and help city staff track mode-split goals and multimodal level of service at the citywide scale. Expansion of the multimodal count program in Policy T-2.6 would be implemented through one primary action:

a) Expand capabilities in gathering bicycle and pedestrian count data to better inform mode-split goals, effectiveness of projects and project identification, trip generators, and multimodal level-of-service evaluations.

Pedestrian Vision

Walking supports a healthy, livable community through increased social interaction, commerce, and improved health outcomes. Pedestrians, including people who use wheelchairs or other mobility aids, are the highest priority on Kirkland's transportation network because every traveler is a pedestrian at some stage of their trip. As a cornerstone of Kirkland's transportation system, substantial investments have been made in the pedestrian network through the creation of lakefront walkways and boardwalks, use of innovative crossing treatments such as Rectangular Rapid Flashing Beacons (RRFBs), High intensity Activated Crosswalks (HAWKS), raised crosswalks, and through the purchase of the Cross Kirkland Corridor for use as a multimodal transportation corridor.

Providing walking and rolling access to schools, parks, transit and other amenities remains a high priority for the City, and infrastructure needs have been identified through various planning processes. Focusing on what makes a great walking environment – accessibility, safety, comfort, clarity, completeness - and applying these concepts throughout Kirkland is fundamental. The planned pedestrian network aims to fill critical sidewalk gaps and enhance street crossings that impede access, or otherwise disrupt safe and comfortable pedestrian travel.

Accessibility improvements including curb ramps, accessible pedestrian signals and push buttons as well as other essential infrastructure that improves access for persons with disabilities are acknowledged in the City's Pathway to Transition, a document which summarizes the compliance requirements of Title II of the Americans with Disabilities Act (ADA), outlines actions needed to meet those requirements, and the City's self-assessment results. The Safer Routes to School Action Plans identify safety improvements specifically for improving walking and bicycling access to schools, such as sidewalks, crossing improvements, and lighting improvements. Many of these projects also improve access to other nearby

destinations. Pathway and trail connections are identified in the Parks, Recreation and Open Space Plan, which is a six-year strategic plan for managing and enhancing park and recreation services, including a vision for shared-use trail connections and signature trails throughout the city. The City has also developed a Citywide Transportation Connections Map that identifies potential street and pathway connections through public and private property to improve overall network connectivity. The Cross Kirkland Corridor, a regional multimodal trail that contributes significantly to Kirkland's pedestrian network, has its own strategic plan document with a vision for access points, amenities, cross sections, and character zones. More work is being done by the City and its partners to improve connectivity to the trail such as the Totem Lake Connector bridge and more localized neighborhood improvements such as artwork, stair connections, and wayfinding signage. The Active Transportation Plan identified sidewalk and crossing gaps, lighting and accessibility improvements and provides a detailed prioritization framework that will continue to be used to prioritized pedestrian improvements. The City's sidewalk maintenance and street preservation programs are critical to ensuring Kirkland's pedestrian facilities remain accessible for all.

Projects that remove barriers to historically underserved populations such as low-income and senior populations are especially important. Often these communities have lower auto-ownership rates and therefore draw substantial benefit from pedestrian improvements. Young people should also be considered in the design of the pedestrian network for all types of trips, not just for the journey to school. Because it bisects the City from north to south, I-405 is a barrier to pedestrian travel and should be made more permeable with safe and comfortable connections across the highway. These connections could include new bridges and improved pedestrian facilities at interchanges and access ramps. Other projects to increase pedestrian access such as connections between culs-de-sac and dead-end streets and access to the Lake Washington waterfront should be planned and implemented. Many of these connections are built with new development. Kirkland's pedestrian vision network and potential intersection improvements are shown in Figure 5-1.

FIGURE 5-1. PEDESTRIAN VISION NETWORK AND INTERSECTION IMPROVEMENTS

FIGURE 5-1. PEDESTRIAN VISION NETWORK AND INTERSECTION IMPROVEMENTS
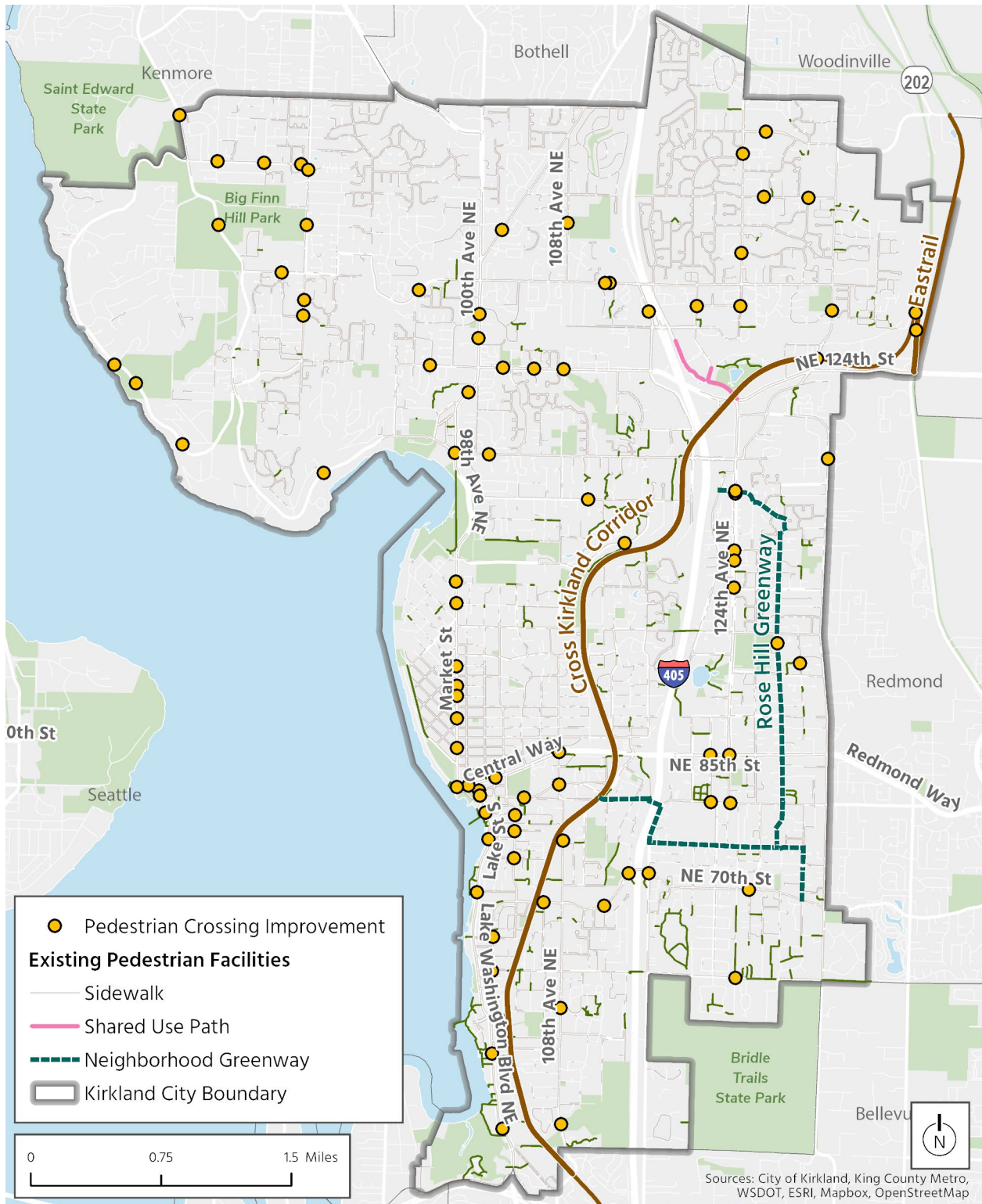
Bicycle Vision

Bicycling is an integral part of the transportation system and is a clean, healthy, and efficient way to make many trips in a livable city. While the use of motor vehicles is a necessity for many people and for the facilitation of goods and services, many vehicle trips can be reduced by more people using bicycles or other wheeled mobility devices to get around.

According to the Bureau of Transportation Statistics, 52% of all trips are less than three miles and 28% are less than one mile in length. If bicycling is not feasible for longer trips, trips one-to-three-mile in length are opportunities for cleaner and healthier ways for people to get around Kirkland.

New technologies can help to bicycling and other clean and healthy forms of transportation be a more viable and attractive mode of transportation for more people. Use of electric bicycles and other electric-powered mobility devices has significantly increased in recent years. These options particularly useful for trips up and down hills that, even in urban areas of the Puget Sound Region, can be quite steep

The term 'all ages and abilities' refers to places where the majority of people feel comfortable riding a bike or other type of wheeled mobility device. This includes places where people would be willing to bring their kids along or for anyone that is less confident riding in bicycle lanes near motor vehicles. The term 'all ages and abilities' network includes neighborhood greenways, protected bicycle lanes and shared use pathways and/or trails.

Completed networks are important because if one segment of a trip is uncomfortable, the entire trip may not be feasible for some people. To unlock the potential of bicycling, the existing network of on-street bicycle lanes should be improved with facilities that people of all ages and abilities find safe and welcoming. A large toolbox of options including, but not limited to, buffering and or widening bike lanes, creating physical separation from traffic, and building Neighborhood Greenways and off-street trails can be used to build out a safe bicycle network. Bicycle facility types and comfort level based on separation are shown in Figure 5-2.

FIGURE 5-2 BICYCLE FACILITY TYPES AND COMFORT LEVEL

Shared-Use/Side Path | **Separated Bike Lane** | **Bicycle Boulevard**

MOST COMFORTABLE

BIKEWAY CLASS I | IV | III (bike blvd.)

Buffered Bike Lane | **Bike Lane** | **Shared Roadway**

LEAST COMFORTABLE

II (with buffer) | II | III
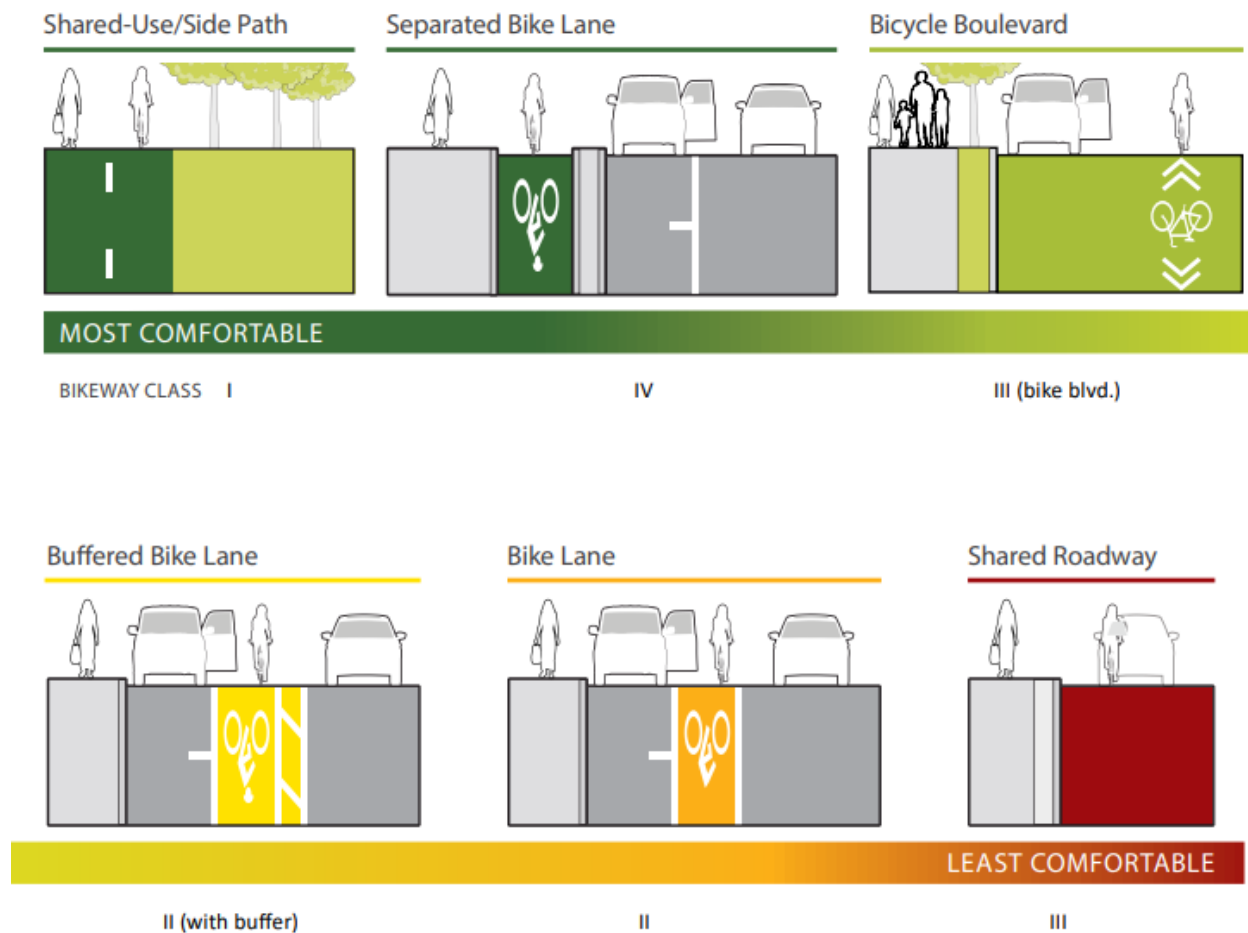
For bicycling to be a viable and attractive option for people of all ages and abilities to make a wide variety of trips, bicycle parking and end of trip facilities must also be widely available, not just in commercial area, but also at parks and transit facilities. Wayfinding including signage and pavement markings for the bicycle network should be applied consistently and predictably. Kirkland's terrain means that special treatments for bicycles like runnels should be considered at stairways and ramps for steep grades to help cyclists get up and down elevation changes.
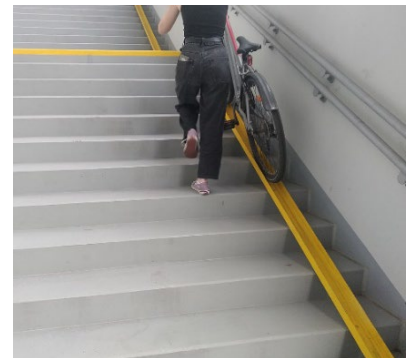
There is strong support in the Kirkland community for building a bicycle network that people of all ages and abilities would feel comfortable using. The planned bicycle network includes low-stress facilities such as neighborhood greenways, protected bike lanes, and buffered or conventional bike lanes on lower speed streets. Where there is sufficient right-of-way space, this plan also recommends upgrading existing bike lanes to buffered or protected bike lanes.

On high-speed, high-volume streets such as arterials where bikeway connections are critical to link the network or reach key destinations, protected bike lanes provide physical separation and protective barriers from vehicle traffic. Protected bike lanes may be configured as raised above the roadway at the sidewalk level, or at the roadway level with in-street barriers such as parallel parking, planter boxes,

extruded curbs, or striped buffer with delineator posts. It is important to note that with all protected facilities, maintenance will be a key factor in ensuring the facilities remain free of debris and the separation mechanism can be replaced or repaired if needed. This comes with additional, and sometimes unforeseen, costs. Protected bike lanes may also be configured as a one-way facility on either side of the roadway, following the direction of the vehicle travel lanes, or may be configured as a two-way facility on one side of the roadway. Protected bike lanes are distinct from trails or sidewalks as they are exclusively designated for bicycle travel.

A smaller portion of the planned network includes buffered bike lanes, and where there are significant space constraints, conventional bike lanes and sharrows (bike symbol pavement markings), though these are less preferable treatments. As projects are implemented, connections to and through intersections are critical to ensure a safe and comfortable bicycle trip. These are spaces where there is greater interaction between bicyclists and other modes and therefore where most crashes occur. These spaces present the opportunity for low-cost treatments that have a high benefit. The ATP and the TSP outline future bicycle network connections that support connections to destinations (centers, parks, schools) with the goal of building a connected network. Kirkland's bicycle vision network is shown in Figure 5-2.

FIGURE 5-3. BICYCLE VISION NETWORK

Legend:

Kirkland City Boundary

Bicycle Vision
- Bicycle Lane
- Buffered Bicycle Lane
- Protected Bicycle Lane
- Neighborhood Connection
- Shared Use Path
- Neighborhood Greenway

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
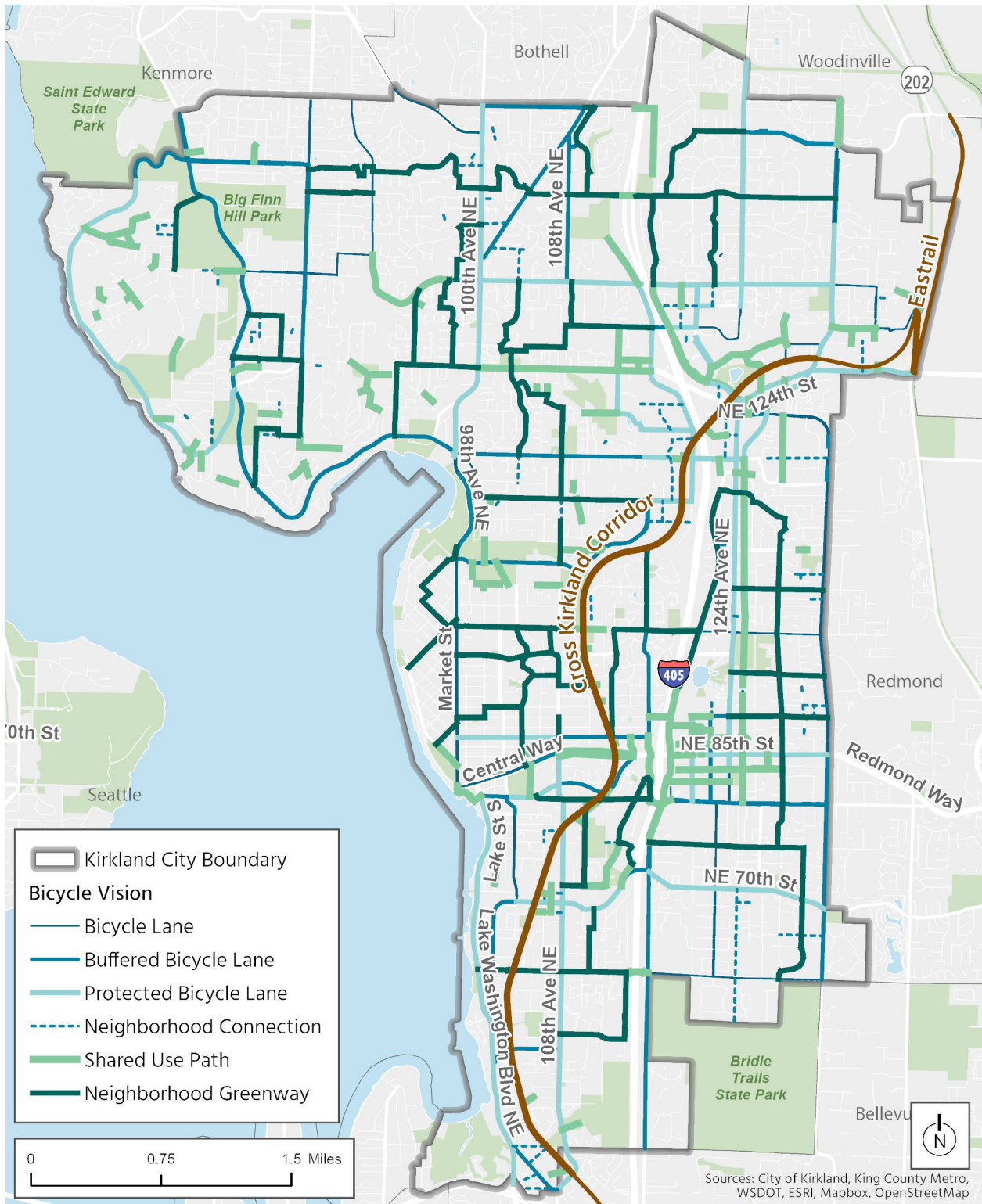
Greenways

Neighborhood Greenways are a select network of low speed, low volume residential streets prioritized for walking and bicycling with signage, pavement markings, traffic calming, and traffic control measures. The purpose of a Neighborhood Greenway is to provide a route for people of all ages and abilities to feel safe walking, bicycling, and rolling as a comfortable alternative to bike lanes on busy arterials. Neighborhood Greenways are an important part of the citywide bicycle network to connect neighborhoods, schools, parks, regional trails, and other destinations.

In 2017-2018, the City developed the Kirkland Neighborhood Greenways Guide for Implementation[4] in coordination with an external stakeholder advisory group and the Transportation Commission. This document functions as a standards document for Neighborhood Greenways and includes a conceptual network map with considerations for final routing through the design process, design details, prioritization of individual greenway projects, outreach schedule, and lastly performance measures to monitor the success of Neighborhood Greenways. These performance measures include 20 mph 85th percentile vehicle speeds (meaning 85% of vehicles are traveling at or below 20mph), a maximum average daily traffic of 2,000 vehicles per day, 100% safe intersection crossings, and a 1% annual increase in use of active transportation modes after construction.

Together with the guidelines document in 2017, design was initiated for the first two Neighborhood Greenways in Kirkland, 128th Avenue NE and NE 75th Street in the North and South Rose Hill neighborhoods. Through design, implementation and continued monitoring on both new Neighborhood Greenways, and the design process for a third greenway, the City has a number of lessons learned to incorporate in updates to the Neighborhood Greenways Guide for Implementation. An update to this guide will satisfy a number of actions identified to implement the policies in this section. Kirkland's vision for the future of the greenway network, including all Neighborhood Greenways that will be evaluated for funding as part of the Neighborhood Greenways program is shown in Figure 5-3.

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[4] https://www.kirklandwa.gov/files/sharedassets/public/v/1/public-works/pdfs/kirkland-neighborhood-greenways-guide-for-implementation.pdf

FIGURE 5-4. GREENWAYS VISION NETWORK
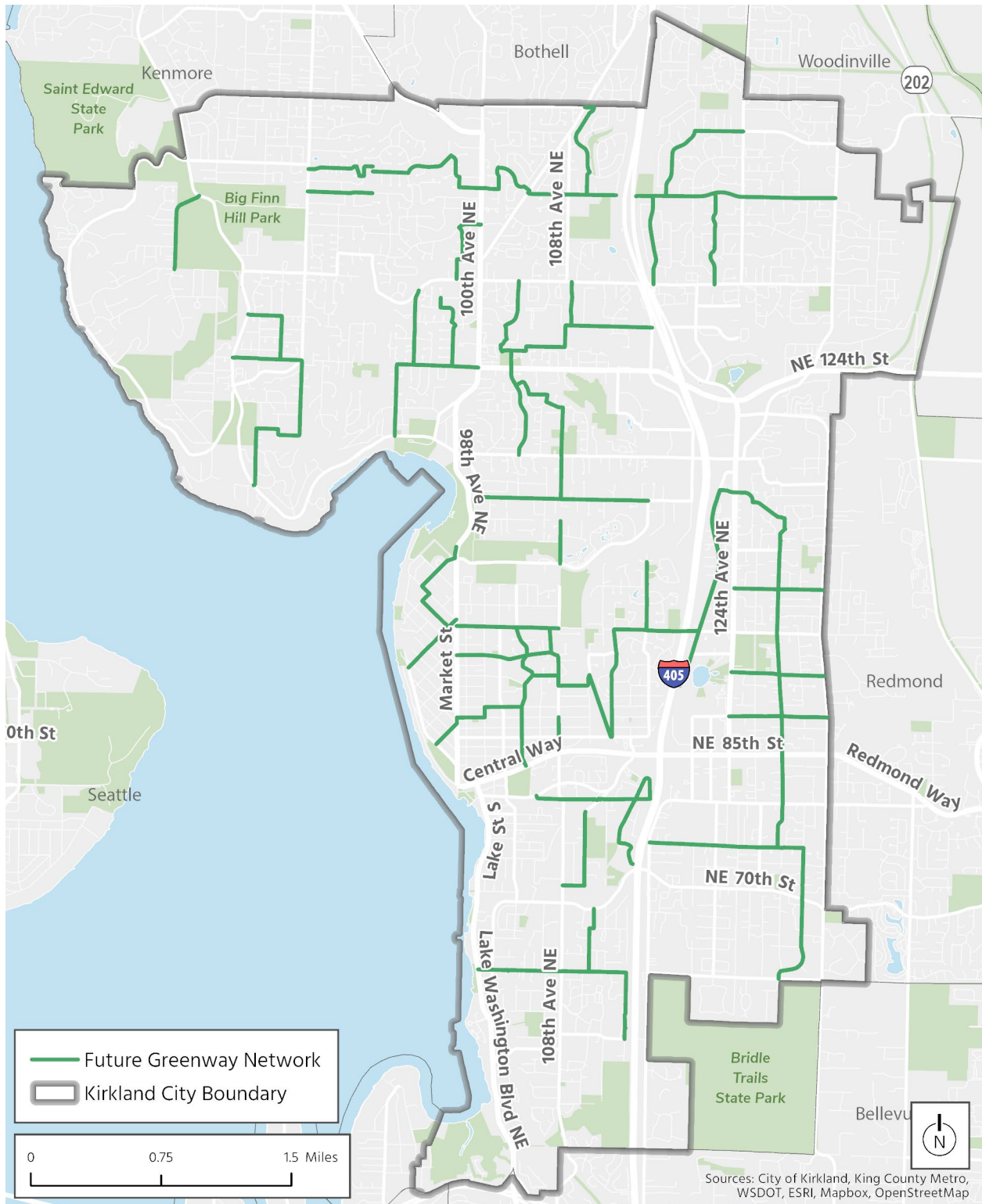
Projects & Programs

The City will continue to prioritize and invest in safe and accessible bicycle and pedestrian networks as a core part of the multimodal transportation system. Through the TSP planning process, potential projects were prioritized for funding and implementation based how they would benefit people walking, rolling and biking, and many of these high priority pedestrian and bike projects also included features that would further the City's broader safety goals.

Project implementation will emphasize the low-stress facilities to help complete the pedestrian and bicycle networks and meet the City's vision for active transportation. For the pedestrian network, these projects will include filling sidewalk gaps through the Sidewalk Completion Program and intersection improvements that make pedestrian crossings easier and safer. For the bike network, potential projects emphasize facilities that are more comfortable to cyclists that are less tolerant of traffic stress.

- **Neighborhood Greenways:** a low speed, low vehicle volume residential street with traffic calming features, roadway markings, and signage that provides a safe and comfortable environment for people of all ages and abilities to walk or bike.

- **Protected Bike Lanes:** dedicated bike lanes that provide physical separation and protective barriers from vehicle traffic for all ages and abilities bicycle travel.

- **Buffered Bike Lanes:** dedicated bike lanes with a buffer space separating bicycles from adjacent vehicular traffic but does not include a physical barrier between bicycle and vehicle traffic.

All roadway projects in the City of Kirkland will include multimodal elements that would improve or create new connections for people walking and bicycling. A significant portion of the funding for transportation programs is allocated to programs that support active transportation and safety including the Crosswalk Upgrade, Street Lighting Design Improvements, Sidewalk Completion, and Citywide Greenway Network programs.

5.3.   Public Transit

Related Plans

The City of Kirkland is responsible for maintaining the streets on which transit travels and can help improve transit speed and reliability through roadway, signal and other improvements. The City can also make improvements to public infrastructure around transit facilities in waiting areas on Kirkland's public streets. Kirkland's active transportation projects can also improve access to transit with better pedestrian and bicycle connections to transit facilities.

Sound Transit and Metro are both planning major investments in frequent transit in the City of Kirkland in the future. Sound Transit's Stride S2 BRT line will run from Lynnwood to Bellevue on I-405 through Kirkland, connecting the Lynnwood City Center and Bellevue Transit Center light rail stations, now known as the Sound Transit Stride BRT project. This BRT line would stop at the Brickyard Park & Ride, at the Totem Lake/Kingsgate Station, and at the NE 85th Street/I-405 Station Area in Kirkland and is expected to begin service in 2028. Metro is also planning an expansion of RapidRide BRT service in Kirkland with the RapidRide K Line, currently in design. The RapidRide K Line would connect the Totem Lake and Kirkland Transit Center with downtown Bellevue, terminating at the Eastgate Park & Ride. Service on the RapidRide K Line is expected to bring more frequent, reliable bus service to Kirkland in 2030.

The **Kirkland Transit Implementation Plan** (KTIP) was developed through extensive community outreach and incorporates the work of transit providers and partner agencies including Metro, Sound Transit, and WSDOT. The plan identifies the key strategies and capital projects designed to enhance transit connections including signal improvements, queue jumps, stop consolidation and relocation, and potential transit lanes and access improvements. The projects identified in the KTIP were prioritized for

future funding as part of the TSP update process, but the projects the City will ultimately pursue to improve transit in Kirkland will depend on project implementation from partner agencies including Metro.

Metro is currently planning to restructure bus service in Kirkland and across the Eastside as part of the **East Link Connections** project. Through this planning process, Metro will integrate bus service with Sound Transit's the East Link Extension (2 Line) between Seattle and Redmond with an emphasis on connections to nearby stations at Redmond Technology Center and Bellevue Transit Center. The first portion of the East Link Extension (2 Line) between Bellevue and Redmond opened on April 27, 2024. The restructured routes will come into effect when the connection to Seattle, which is anticipated to open in 2025.

Goal T-3: Support and promote a transit system as a high value option for many trips.

Kirkland will support a reliable, accessible, and frequent transit network throughout the city that is a convenient option not only for travel to and from work, but also for recreation and other daily needs for anyone in Kirkland. While the City does not control transit service and facilities that serve Kirkland, it influences how well-utilized transit will be through its land use decisions and local transportation improvements. The City will help create a built environment that supports transit not only through a coordinated land use concept, but also by building access to transit improvements and providing amenities, such as pedestrian-scale lighting, which contribute to a more comfortable experience at transit stops. Active partnerships with transit providers, including King County Metro and Sound Transit, will be critical to the success of the City's efforts to improve the transit network.

Over the 20-year planning horizon, Kirkland strives to retain existing service, restore suspended service, implement the King County Metro RapidRide K Line service, support other transit-supportive capital projects to enhance service speed and reliability, make transit a more attractive mode choice, and retain flexible transit services such as Metro Flex. As Kirkland has grown and diversified, transit service has become an increasingly important feature of the transportation system and an integral part of Kirkland's efforts to be inclusive and sustainable.

To achieve this public transit goal, Kirkland's transit policies focus on improving active transportation infrastructure connecting to transit, amenities that create a better experience for transit riders, support for TDM and promoting transit services, and analysis of options for new facilities and local transit needs.

Policy T-3.1: Plan and construct an environment supportive of frequent and reliable transit service in Kirkland.

Transit that serves people who live, work and visit Kirkland operates primarily on City streets. The City will play an important role in supporting transit through speed and reliability improvements, enhanced transit facilities and better connections to transit. The KTIP, adopted in 2019, is a framework for local investments in the transit system that are coordinated with the transit agencies that serve Kirkland. Implementation of the projects and programs in the KTIP and access to transit improvements will help expand transit ridership, support more reliable operations and create a better passenger experience for people riding transit in Kirkland. Actions that the City will take to make Kirkland more supportive of frequent and reliable transit in support of Policy T-3.1 include:

a) Implement Kirkland's Transit Implementation Plan.

b) Identify and implement access and safety projects that connect to existing transit services.

c) Plan for capital improvements that support access to planned future transit service, such as King County Metro's K Line RapidRide Project and Sound Transit's Stride Bus Rapid Transit Program along I-405.

d) Plan for capital and access improvements as part of analysis of future conditions and transit needs.

Policy T-3.2: Support safe and comfortable passenger facilities.

Kirkland will continue to improve passenger facilities for transit riders in coordination with transit agencies. The City will work to ensure the location of stops and plans for future service are coordinated with nearby land uses and improve access and safety near transit stops to help support a connected transit system. Kirkland will also partner with transit agencies to improve local transit amenities and improve bicycle parking at transit centers. Specific actions to implement Policy T-3.2 include:

a) Add transit stops to the evaluation of crosswalk lighting.

b) Evaluate access improvements at bus stops, such as ramp modifications and missing sidewalks.

c) Work with transit agencies on stop improvements, such as stop placement, coverage, access, and amenities.

d) Work with transit agencies to improve bicycle parking at transit centers, such as the addition of bicycle lockers.

e) Incorporate transit stop access improvements into project prioritization.

Policy T-3.3: Prioritize active transportation networks that connect to transit service, providing the critical first and last connections making transit feasible for more people.

Walking, bicycling, and rolling should be the first choice for people accessing transit in Kirkland. To make this possible, Kirkland will prioritize investments in pedestrian and bicycle facilities that connect to transit hubs, stops and corridors, and support more walking and bicycling to transit. The City should continue to work with transit agencies to locate stops near access points to major pedestrian and bicycle facilities. Specific actions to implement Policy T-3.3 include:

a) Prioritize the construction of pedestrian and bicycle facilities that improve access to transit stops and hubs.

b) Coordinate prioritization and construction of pedestrian and bicycle facilities with transit agencies.

c) Pursue mobility share options that provide the first/last mile access to transit.

Policy T-3.4: Support transit-oriented development (TOD) and initiatives, including internal and external coordination and development of specific TOD guidelines for transportation facilities.

TOD is compact, mixed-use development near transit stops. Supporting walkable and sustainable around transit can help Kirkland create a more walkable environment and encourage transit ridership. The NE 85th Street Station Area Plan identified strategies to effectuate TOD at the future NE 85th Street station on the Stride S2 Line, a key investment in regional transit east of Downtown Kirkland. Specific actions to implement Policy T-3.4 include:

a) Implement strategies identified in the NE 85th Station Area Plan, including prioritizing access improvements and ensuring roadway design standards are met.

b) Identify other areas and initiatives to support transit-oriented development.

Policy T-3.5: Support and expand TDM and commute trip reduction (CTR) programs to meet adopted goals for non-drive-alone trips.

Kirkland has several employers that fall under the requirements of Washington's Commute Reduction (CTR) Law and has established goals for several measures such as vehicle miles traveled (VMT) and drive alone trips for these employers. Kirkland established citywide mode share goals for peak hour trips in the transportation element of the Comprehensive Plan, including a 25% transit mode share target and a 49% drive along mode share target. Specific actions to support the City's mode share goals and implement Policy T-3.5 include:

a) Create targeted programs that monitor and encourage increases in non-drive-alone travel rates.

b) Develop codes and policies to support micromobility and ridesharing.

c) Maintain the City's CTR and Growth and Transportation Efficiency Center plans to comply with state and regional requirements and guidelines, particularly at the work sites of large employers and other locations as appropriate.

d) Incentivize all trip reduction efforts in addition to CTR efforts.

e) Require new developments to establish transportation demand management plans.

f) Update requirements for the types of developments that are subject to transportation management plans and the elements that make up such plans.

Policy T-3.6: Pursue transit on the Cross Kirkland Corridor (CKC).

The long-term vision for the CKC includes considerations for high-capacity transit, and a key tenet of the CKC Master Plan is a corridor that may one day include transit service. The corridor's adaptive design can accommodate future transit investments with preservation of right-of-way and utilities infrastructure. Future transit service parallel to the trail will require thoughtful design around separation, with buffers and physical separation that are integrated the trail features and amenities. In the future, Kirkland will work to implement transit in a way that creates an integrated corridor experience, regardless of the mode, technology, or infrastructure that is eventually implemented along the corridor. Specific actions to implement Policy T-3.6 include:

a) Implement transit or innovative flexible transit service on the CKC in keeping with the Cross Kirkland Corridor Master Plan.

b) Study and identify the options for transit and/or micromobility connections by using the CKC as a corridor option.

Policy T-3.7: Promote the use of transit as a viable option for both commute and non-commute trips to increase ridership and expand service.

Transit should be a convenient option for both work and recreational trips. Kirkland will promote transit ridership and advocate for more frequent and reliable transit service. The City will continue to engage with and inform the community about changes in transit options as the transit system changes and regional investments in transit serving Kirkland begin service. Specific actions to implement Policy T-3.7 include:

a) Increase educational and awareness-raising efforts to communicate existing transit options.

b) Increase opportunities for people to access ORCA card transit passes.

Policy T-3.8: Improve transit service in Kirkland.

While the City does not operate transit within Kirkland, it can play a critical role in improving transit service to Kirkland. The City can evaluate future transit needs based on future growth planned for in the Comprehensive Plan and specific community needs for underserved communities, older adults, and communities of color within the City. Kirkland's work to study current and future transit needs can help the City advocate for investments in improved transit service in Kirkland. Specific action to implement Policy T-3.8 include:

a) Conduct a transit needs study that evaluates future transit needs, helps the City advocate for better service regionally, and identifies potential alternative transit services, such as circulator services and private shuttles. Particular focus should be placed on transit dependent populations, such as seniors.

b) Develop a cohesive and impactful transit strategy to persuade decision-makers of the benefits of investing in greater future transit service in Kirkland.

c) Evaluate public funding support to enhance existing transit service to be more reliable, frequent, and connected or expanded to reach underserved areas in Kirkland.

Transit Strategy

As the City continues to grow in population, it plays an increasingly larger role in regional mobility with two designated urban centers creating more jobs and housing opportunities, driving greater demand for transportation options to get from one place to another. A foundational solution to these critical mobility challenges is fast, reliable, and frequent public transit service.

Over the 20-year planning horizon, in coordination with transit service providers, Kirkland strives to retain existing transit service, including flexible on-demand services such as Metro Flex; restore any suspended or reduced service due to the COVID-19 pandemic; implement two new bus rapid transit routes with the King County Metro RapidRide K Line and the Sound Transit STRIDE; coordinate on transit connections to the new Sound Transit LINK light rail and support other transit-supportive capital projects to enhance passenger access or service speed and reliability to make transit a more attractive and convenient mode choice. As Kirkland has grown and diversified, there is increasing demand for transit options and transit service has become an increasingly important component of the planned transportation system and planned land use. Supportive land use is an integral part of Kirkland's strategy and efforts to be inclusive and sustainable.

TRANSIT SUPPORTIVE POLICIES IN KIRKLAND

Transit and land use are intricately linked. Kirkland has committed to transit-supportive policies including transit-supportive density, which can be seen in planning efforts for the NE 85th St Station Area Plan. Transit is critical to ensuring that these land use policies work and support areas where people can walk, bicycle or take transit to get to where they need to go. Through these transit-supportive policies, Kirkland has invested in becoming a complete community, offering everyone easier access to the necessary daily services and amenities. Much of this is predicated on frequent and reliable transit to support the land uses that Kirkland has implemented.

Housing Density and Diversity

Kirkland has spent the past decade implementing smart growth policies. Density has been focused in two regionally designated urban growth centers linked by transit: Totem Lake and Greater Downtown/NE 85th Street Station Area. Thousands of units of housing and hundreds of thousands of square feet of commercial and retail space have been built in both centers. Future jobs and housing growth is

anticipated to continue in these urban centers as well as along frequent transit routes. Both the Totem Lake and Downtown centers are built around existing transit centers. The NE 85th St Station Area will soon have a Sound Transit BRT station on I-405 that will serve commuters connecting throughout the region with frequent and reliable service.

Furthermore, Kirkland has mandatory affordable housing requirements in both centers. In particular, the NE 85th Street Station Area has some of the most aggressive affordability requirements in the region.

Kirkland is a founding member of the partnership between King County and East King County Cities, A Regional Coalition for Housing (ARCH), and is a leader in the creation of affordable housing. There are over 1,000 units of affordable housing under construction in Kirkland right now, all in the urban centers near transit centers. While other communities fight against the creation of affordable housing in their communities, Kirkland embraces and implements it in a meaningful way. Considerations for additional transit service throughout King County should take these actions into account.

The thousands of new lower-income residents will be able to live where they work and will need transit to thrive, consistent with both the City's and King County equity goals. These Kirkland residents will ride transit to get where they need to go.

Sustainability

Kirkland has been a strong regional partner in combatting and adapting to climate change. Kirkland has adopted its own emissions reduction targets, is a member of King County Cities Climate Collaborate, K4C, and has adopted a comprehensive Sustainability Strategic Plan to accomplish climate resilience and many related environmental goals.

These sustainability goals are woven throughout Kirkland's comprehensive plan, which prioritizes urban centers, and walkable 10-minute neighborhoods linked by transit.

Transportation

The TSP includes Goal T-3 to Support and promote a transit system as a high value option for many trips. This includes policies and actions to support transit and passenger facilities, transit-oriented development and includes a transit needs study.

Studies and Emerging Topics

SERVICE STUDIES & TRANSIT GROWTH

Kirkland will evaluate current and future transit services needs in the city's neighborhoods and communities to help inform discussions with transit agencies. As the City implements the Comprehensive Plan community transit needs may change over time.

According to Metro's Long Range Transit Plan, Metro Connects, increased frequent transit service, such as Rapid Ride or frequent local routes, is supported by local land use and planning. Metro's Service Guidelines outline how land use characteristics around transit routes can help support transit demand, focusing on four key attributes of the built environment.

- **Density:** More people and activities in an area, in particular housing and jobs, increase the number of potential riders.

- **Mix of uses:** More varied land uses in an area increase the number of potential origins and destinations, including homes, work, school, shopping, medical, and transit connections, at all times of day.

- **Connections**: More compact development with good walking and bicycling connections creates better access to nearby transit service.

- **Transit supportive policies and programs**: Policies and programs, including development regulations, affordable housing incentives and other policies to support TOD can improve access for all people and create equitable transit-oriented communities in the future.

King County Metro's Service Guidelines establish measures for setting future service levels. Land use factors, particularly density of households and population within one-quarter mile, make up half of the overall score in setting future service levels. The guidelines describe land use characteristics that support RapidRide and all-day frequent transit at a density of over 20 housing units or jobs per acre with a mix of many land uses and land use that supports peak frequent transit service at a density of over 15 housing units or jobs per acre and a moderate mix of land uses.

One of Metro's planning priorities is to grow transit countywide. The Service Guidelines identify candidate routes for investment in the interim network as well as the existing transit network. Metro projects future service needs and sets target service levels in the annual System Evaluation Report. These targets are based on the service guidelines growth methodology, which considers land use, equity, and geographic value (connections to transit centers and regional growth centers). Land use factors account for half of the scoring on this methodology because they demonstrate potential transit demand on the route, equity factors and potential geographic value both account for one quarter of scoring on Metro's growth methodology. Metro can also set service levels to higher targets in response to overcrowding, transit reliability challenges and partner funding.

Demand for service growth is expected to exceed Metro's capacity to expand annually or in the agency's biennial budget cycle. Metro prioritizes service needs based on the same factors used to project service needs, but places greater emphasis on equity in determining where to invest in transit service. The prioritization process is based on equity, land use, and geographic value, in that order. Each route's score on these factors helps determine its priority for investment. This prioritization aligns with Metro's values of advancing equity and addressing climate change.

FLEXIBLE TRANSIT SERVICES

Kirkland has access to flexible transit options like Community Van and Metro Flex, which enhance the fixed-route bus services by offering more adaptable schedules and routes. Community Van provides 6- and 12-passenger vans for arranged rides with at least two passengers and a volunteer driver, available within a 2-hour drive of Kirkland. Metro Flex is an on-demand service in King County, offering affordable minivan rides in the Juanita area (including Juanita, Finn Hill, and parts of Totem Lake). In the next 20 years, Kirkland plans to support expansion of flexible transit services like Community Van and MetroFlex and will actively explore options the City can implement independently or in partnership with transit service providers, such as community shuttles. As the city grows and diversifies, transit options including flexible services that offer more first- and last-mile options will be a key part of Kirkland's inclusive and sustainable transportation system.

Projects & Programs

The TSP will focus investments in the public transit system on expanding ridership, enhancing passenger experience, and advocating for improved transit service. To advance Kirkland's goals for public transit improvements, potential projects were prioritized for funding and implementation based on potential connections frequent, local, or future transit.

The City will continue to invest in transit speed and reliability in partnership with Metro and Sound Transit. Speed and reliability enhancements will be coordinated with changes to the bus network as part of the East Link Connections project and with the RapidRide K Line project after an alternative is selected for construction. Projects to create more complete pedestrian and bike networks, particularly around frequent transit, will also help extend the reach of transit services and provide last-mile options for people traveling in Kirkland.

5.4.   Vehicle Network Management

Vehicle travel currently is the predominant mode of travel in Kirkland and will continue to be a significant component of the transportation system. This includes people making trips in their personal vehicles for access to goods and services, and vehicles that maintain and support daily life in Kirkland, such as for postal services, deliveries, garbage pick-up, maintenance, etc.

In peak travel periods there is congestion at many signalized intersections throughout Kirkland, which is attributable to the strong local and regional economy, but also the fact that Kirkland is a desirable place to live and recreate. The City has grown significantly in recent years, which has put strain on the transportation system for residents to get around town easily at certain times of day. Kirkland's transportation system is not only used for residents and visitors, but also for people passing through as the City's roadway network provides several arterials connecting from the interstate system as well as to and between neighboring cities of Bellevue, Bothell, Kenmore, and Redmond.

It is important for the City to prioritize non-vehicular modes of transportation because the more trips that can be accomplished by walking, bicycling, or taking transit, the less congested the roadways are for people that need to drive. In addition to supporting mode shift, maximizing operational efficiencies of the vehicle network is another way to better manage congestion. Intelligent Transportation Systems (ITS) is an important component to maximize efficiency and ensure the transportation system is resilient and dependable.

Related Plans

Kirkland's ITS Plan includes three goals for system management:

- Reliable. The operation and delivery of services supported by ITS will be highly reliable. The goal is for there to be no traffic signal malfunctions due to causes that are within the City's control.

- Resilient. When malfunctions occur (or damage to ITS infrastructure), the response and correction time will be as short as possible.

- Responsive. ITS will be responsive to identified operational needs.

In order to achieve these goals for system management, improvements in Kirkland's communications network, systems and software, detection devices, and staffing are all needed. In addition to actual system efficiency such as synchronizing signals and implementing transit signal priority, better monitoring systems such as evaluating near-misses at intersections, and traffic counts for all modes will improve management of the roadway system.

The ITS Plan is designed to not only meet today's needs, but to meet the multimodal demands of a growing city. Implementing the ITS plan will provide future ready ITS systems, field devices, staff, and communications network to meet the needs and expectations of the traveling public. The TSP goals and policies are aligned to support the implementation of the ITS Plan. This is also aligned with Kirkland's Smart Cities Plan.

Goal T-4: Provide for efficient and safe vehicular circulation, recognizing congestion is present during parts of most days.

Kirkland has long recognized that attempts to build the City's roadway network out of congestion does not align with the City's overall vision for the built environment. Congestion is expected to be present on the busy roadways in Kirkland in the foreseeable future. Rather than solely focusing on expanding capacity, Kirkland will seek to maximize operational efficiency and safety on the City's roadway network through strategic investments in management of the overall roadway system. Kirkland's systemwide approach to management of the vehicular network and parking system will support Kirkland's overall land use vision. Strategic investments in the safety and efficiency of the network will benefit people using other transportation modes and advance the City's goals for safety of more vulnerable roadway users and a transit network that is a convenient option for a wide variety of trips.

To achieve this goal, the following vehicle network policies focus on implementation of Intelligent Transportation Systems (ITS) and curb space management to effectively manage the vehicular system. Policies to prioritize and target capital investments in the vehicular network would integrate land use, traffic calming, and safety considerations to benefit all roadway users.

Policy T-4.1: Make strategic investments in intersections and street capacity to support existing and planned future land uses.

a) Using the priorities in this plan, prioritize and construct intersection and roadway projects.

b) As needed, review and update street networks and street design concepts for urban centers and areas with existing and potential future growth.

Policy T-4.2: Implement the ITS Plan.

a) Establish procedures to evaluate the operational and safety performance of ITS.

b) Reduce potential for major signal malfunctions. Increase robustness of network to limit the potential for a loss of access to intersection resources.

c) Increase potential to respond quickly to equipment and system malfunctions and increase recovery options.

d) Implement systems and detection to operate signals to respond to transient fluctuations in demand, including freeway incidents, surface-street incidents and closures, and school operations.

e) Improve emergency services response times, including increasing route selection capabilities, options to speed signal recovery, and provide data and analysis tools to evaluate usage and effectiveness.

f) Better serve a balance of multimodal operations.

g) Pursue grant funds to implement the ITS Plan.

Policy T-4.3: Take an active approach to managing on-street and off-street parking, with updated curb management policies.

a) Regularly monitor parking occupancy, turnover, and other factors by investing in continuous parking tracking technology or periodically undertaking parking studies.

b) Develop a curb management strategy to effectively, efficiently, and safely use curb space. This strategy should support transportation and placemaking initiatives by considering mobility, access, and placemaking, as well as storage and turnover of vehicles along the curb space.

c) Evaluate City-owned on-street and off-street parking policies related to regulations of time-limited parking and pricing.

d) Coordinate with the Planning and Building Department on parking policies within the zoning code to update requirements for parking minimums, electric vehicle charging stations, and bicycle parking.

e) Periodically update the Public Works policies related to innovations for parking policy and curb management practices.

f) Continue to improve wayfinding and customer information to direct drivers to available parking and communicate parking policies in parking regulated areas.

g) Implement a paid parking program in areas that have high parking demand, such as Downtown Kirkland and parking lots associated with public parks.

Policy T-4.4: Mitigate negative impacts of motor vehicle traffic on neighborhood streets.

a) Implement traffic calming measures, interventions to reduce cut-through traffic, speed reduction, and similar approaches through additional investment in the Neighborhood Traffic Control Program.

Policy T-4.5: Identify roadway improvements that address safety patterns, crash history or injury preventative measures supporting Kirkland's Vision Zero goal.

a) Use crash data, near-miss analysis, and other traffic-related data to identify countermeasures to promote safety and prevent collisions.

Policy T-4.6: Clarify truck and freight networks within the city beyond the established freight routes.

a) Define the difference between freight and truck priority corridors as related to Kirkland's transportation network.

b) Designate freight and/or truck corridors and create maps and a platform for communicating these networks to freight and delivery service providers.

c) Identify freight and truck routes that minimize conflicts with people walking, rolling, and bicycling and with transit operations.

Freight and Trucks

As part of managing the vehicle network, considering freight and truck movements is an important element to managing the transportation network. Aside from major freight corridors such as I-405 and major arterials such as NE 85th St, access to goods and services require deliveries from trucks and larger vehicles. The management of curb space to facilitate parking and deliveries is a critical component to managing public right-of-way and curb space. These policies and actions outline what the City will work on to better facilitate freight and truck movements in Kirkland.

Curb Management

Competition for use of curb space is becoming increasingly important and complex. Curb management needs are constantly changing as people change the way they use the transportation system and access destinations. Kirkland curb space has a number of competing needs for car- or ride-sharing, delivery and goods movement, pick-up and drop-off trips, transit stops and access, and bike and pedestrian infrastructure Other curb uses such as parklets or restaurant seating have become increasingly popular in recent years. The City plans to evaluate the use of curb space and define policies through a future curb management strategy.

Curb management is the organization of a wide range of public activities and infrastructure features that are found along the edge of the public right-of-way, typically the sidewalk curb of a public street. Those activities include travel lanes, parking (general, temporary and ADA), transit stops, electric charging stations, utilities, delivery services and loading zones, app-based ride-hailing services, sidewalks, bike lanes, bike parking, parklets, street cafes, or other business activities.

The City is seeing an increased demand for a large and growing number of curbside uses which has resulted in increased competition for curb access. Curb management refers to the policies, systems, services, and strategies that support, regulate, and prioritize all of these activities at the curb. The Transportation goals and policies identify an action to develop a curb management strategy which will provide context and strategies to better manage and prioritize how the curb is used and inform future parking policy. It will also outline policies that will guide the decision-making process for changes in curb use based on new projects or changing priorities.

Curb space is varied and has unique local conditions through Kirkland. Efficient use of curb space is essential to support major transportation corridors and growing regional centers, particularly as technology evolves and new mobility services come to Kirkland. As Kirkland grows, the City needs to plan for the use of this important space for the community and ensure the best plan is in place for its utilization.

Projects & Programs

The TSP is focused on multimodal improvements to the transportation system, including projects to improve the function of the vehicle network. Many of the City's planned investments in vehicular circulation and capacity in the future will be at intersections and include signal projects, intersection reconfiguration with safety and multimodal features, or projects to meet future needs from growth based on the City's concurrency standards for vehicles (see Section 5.9). Other investments in the vehicular network will be corridor projects along specific segments of Kirkland roadways including new connections and roadway reconstruction with new or improved multimodal infrastructure. All roadway projects that have been identified for funding in the TSP include multimodal elements that would benefit people using other modes of travel as well as people driving. Vehicle network projects included in the TSP are shown in Figure 5-4.

FIGURE 5-5. VEHICLE NETWORK PROJECTS

Vehicle Projects

△ Concurrency Project

Status

● Funded
● Partially Funded
● Unfunded

Status

— Funded
— Unfunded
▢ Kirkland City Boundary

0   0.75   1.5 Miles

Sources: City of Kirkland, King County Metro, WSDOT, ESRI, Mapbox, OpenStreetMap
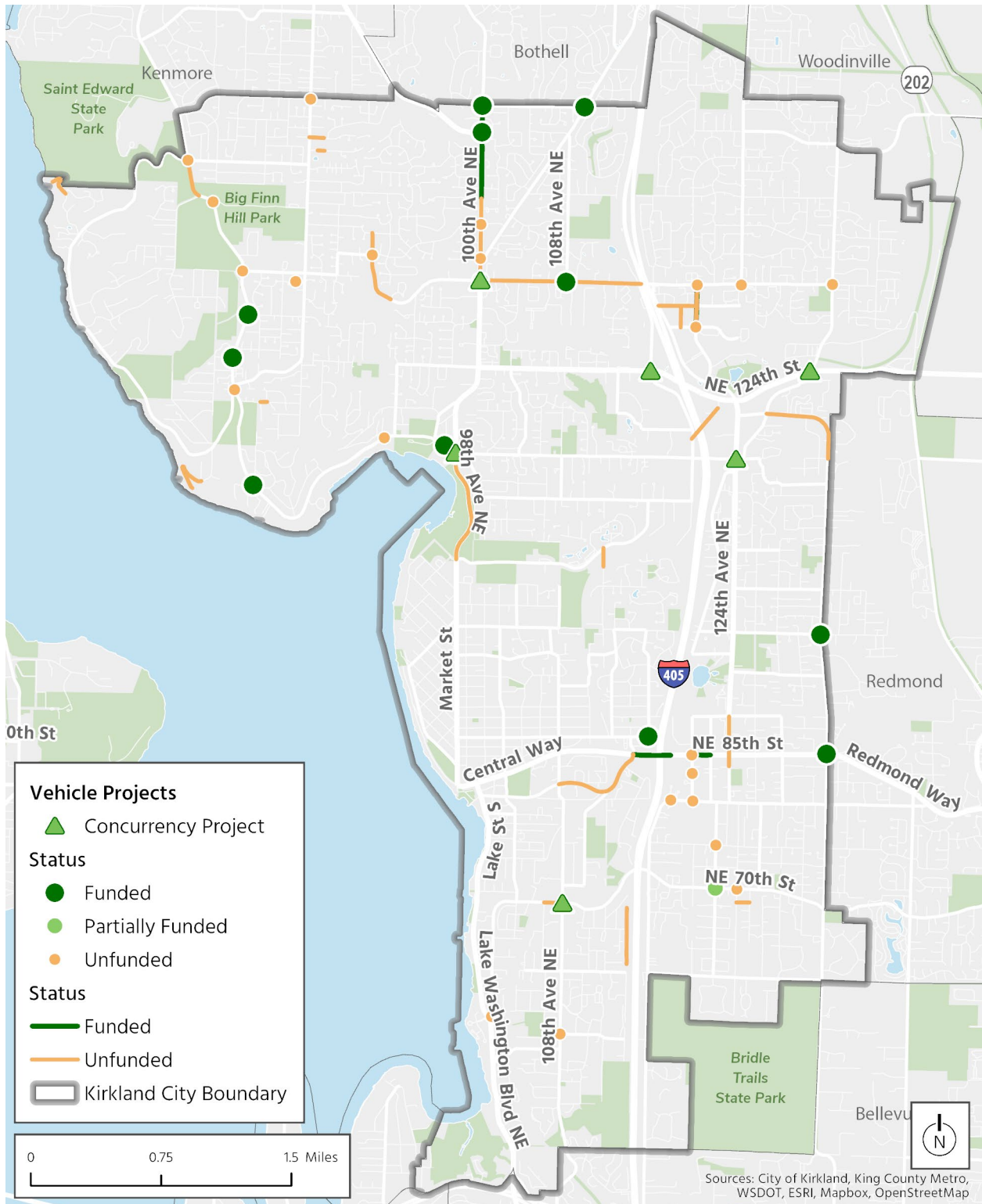
5.5. Technology and Emerging Practices

Related Plans

The City is positioning itself to be a leader in adopting emerging technologies to further its transportation goals. The key program promoting citywide adoption of emerging technologies is the **Smart City Master Plan,** adopted in 2023. This plan outlines initiatives and projects to improve quality of life across all aspects of city governance through technology. The Plan is composed of five key initiatives: program operations, data management, technology expansion, city operations and community engagement, and mobility management. Under mobility management, four specific projects are identified that seek to incorporate emerging technologies: special event solutions, supporting downtown parking management, bicycle/pedestrian mobility enhancements, and support for EV expansion. The TSP Policy T-5.3 specifically calls for supporting the goals and initiatives of the Kirkland Smart City Master Plan.

Several other plans also promote adoption of technologies and emerging practices specific to the transportation system. The **Intelligent Transportation System Plan,** adopted in May 2020, establishes how ITS can be used to improve transportation efficiency, multimodal access, and mobility. The Plan provides recommendations for how the City can be ready for new transportation technologies for on- and off-street systems, parking management and pricing, and communications. The Plan also includes two white papers on preparing for automated vehicles and technology for parking systems.

The **Active Transportation Plan,** adopted in June 2022, outlines how the City will implement a multimodal transportation system and enable safe and accessible walking, bicycling, and rolling in Kirkland for people of all ages and abilities. The Plan includes objectives, strategies, and a supportive goal addressing technology for the active transportation system:
- **Strategy 1-5-2:** Identify opportunities to utilize technology and signals to increase pedestrian safety at signalized intersections such as passive detection, leading pedestrian intervals, or pedestrian only "scramble" phases.
- **Objective 2-6:** Explore opportunities to utilize technology to improve bike safety and accommodation.
- **Objective 2-8:** Explore opportunities to implement a bike share program and consider adding electric foot scooter share or other micro-mobility technologies.
- **Supportive Goal S3:** Utilize technology to support safety measures and supplement safe networks.

Goal T-5: The transportation system should be flexible and equipped to adapt to new technologies and innovative solutions that expand mobility choices for people in Kirkland.

Innovations in technology and emerging practices can be a valuable tool in achieving the City's transportation goals. Electric vehicles can help the City achieve its climate and sustainability goals alongside programs to reduce vehicle miles traveled and encourage use of other modes. New micromobility options with sustainable power sources, such as electric bicycles and scooters, are expanding the ways people travel. These technologies and other innovative practices in data collection and analysis can help inform design and decision-making around transportation projects.

To achieve this goal, the following policies focus on supporting new technologies, mobility choices, and integrating new practices and methods into transportation planning.

Policy T-5.1: Support technology innovations that reduce greenhouse gas emissions and transportation modes that reduce single occupancy vehicle use.

Kirkland will prioritize technological innovations that support goals for reducing greenhouse gas emissions and single occupancy vehicle use. The City will support investments in public electric charging stations for vehicles and micromobility services and provide incentives for private charging infrastructure. Building communication network infrastructure will help streamline information sharing for connected vehicles (CVs). Development of rules, regulations, and policies for micromobility services like e-bicycles will ensure that they are operated safely and equitably. Specific actions to implement Policy T-5.1 include:

a) Increase and incentivize both public and private electric charging stations for vehicles and other electric devices (e.g. bicycles, scooters).

b) Improve communication networks such as public Wi-Fi or fiber to improve City operations and to facilitate public services and information.

c) Develop definitions, policies, and regulations related to the use of e-bicycles and other electric micromobility devices that address locations of use, safety, education, and enforcement.

Policy T-5.2: Position Kirkland to support future technologies that may be developing or yet to be realized such as autonomous vehicles.

Kirkland is aiming to be a leader in adoption of emerging transportation technologies and practices. While difficult to anticipate their impacts to the city and residents, Kirkland will position itself to be a leader by aligning and prioritizing infrastructure upgrades with emerging technologies and exploring opportunities for future technologies to increase quality of life and advance the City's goals. This includes yet to be realized technologies like autonomous vehicles and supporting advancements in existing technologies, like ITS. Specific actions to implement Policy T-5.2 include:

a) Upgrade infrastructure to support and align with emerging technologies.

b) Explore opportunities for future technologies that advance City goals.

Policy T-5.3: Support Kirkland's Smart City Plan goals and initiatives.

Kirkland's Smart City Master Plan describes how the City will use technology to improve quality of life and enhance governance. The plan includes specific actions for the transportation system regarding parking management, bicycle and pedestrian mobility, and supporting EVs. To implement the goals and initiatives of the Smart City Master Plan, Kirkland will seek support in the form of funding and partnerships and improve efforts on data collection, management, and sharing. Specific actions to implement Policy T-5.3 include:

a) Actively seek funding, partnerships, and opportunities for technology expansion.

b) Improve Kirkland's data collection, management, and sharing for crash data, traffic operations, and other transportation data.

Emerging Technologies

Kirkland already takes an active role integrating technology in the transportation system, especially through ITS projects and programs. However, these technologies will evolve over time, and for the City to continue being a leader in emerging practices, it is critical to understand the challenges and opportunities for different technologies. This section describes different emerging transportation technologies to build a shared understanding of their potential impacts on the City and approaches to implementing projects and programs.

- **Intelligent Transportation Systems (ITS)** – ITS describes a range of technologies that improve transportation system operation and efficiency and is generally composed of four different types of assets: traffic control systems, communication tools, data management systems, and traffic management tools. Used in combination, these assets can provide specific benefits to the transportation system in terms of shorter travel times, GHG emissions reductions, safety, transportation choices, and parking management. Challenges for ITS are ensuring systems are up to date and that there is staffing and expertise available to maintain the systems. ITS investments risk falling out of use if there isn't regular capital investment and consistent operational funding. The City's current ITS Plan places an emphasis on a future-proofed system that can respond to future changes in ITS technology and adequate staffing.

- **Autonomous vehicles (AVs)** – AVs offer the prospect of dramatic improvements to the transportation system as a whole and may have benefits for traffic safety, travel time, as well as opening new opportunities for ride-hailing services and transit. The Society of Automotive Engineers (SAE) has identified six levels of automation to describe the range of human involvement from no automation to full automation. Most new vehicles on the market provide some level of automation, such driver assistance features that regulate speed and emergency breaking features. Fully autonomous vehicles are likely a long way from being available to the public, but they have seen limited rollouts through Waymo, a ride-sharing service, in Phoenix, AZ, San Francisco, and Los Angeles, CA. While these technologies have potential benefits to the transportation system, they also come with challenges. For one, AVs would not address issues related to traffic congestion and GHG emissions reductions on their own. Second, it is difficult to anticipate when fully autonomous vehicle technology will be widespread, making it hard for the City to fund efforts for adoption and accommodation of AVs. Appendix A in the City of Kirkland ITS Plan includes a white paper that provides additional detail and considerations regarding AVs.

- **Connected vehicles (CVs)** – CVs generally refer to vehicles that use communication technology to provide advance notification of incidents and/or events in proximity to them. Notifications can alert vehicles about slowed or stopped vehicles ahead, an approaching emergency vehicle, hazardous weather conditions, and general travel information. CV features can also help transit operations and emergency response through applications like traffic signal priority. A key challenge with CVs is the rapid advancement in technologies. While taking advantage of these advancements can help improve transportation operations, it is difficult to stay up to date and ensure there is funding, staffing, and expertise available to implement and improve upon existing plans, projects, and programs.

- **Electric vehicles (EVs)** – EVs refer to vehicles that utilize electricity for propulsion. Widespread adoption of EVs in place of traditional internal combustion engine (ICE) vehicles can contribute greatly towards the City's sustainability and GHG reduction goals. Personal EVs are becoming increasingly accessible and affordable as technology matures. Increasing the share of personal EVs compared to ICE vehicles will help lower emissions and reduce travel costs on a household level. However, conversion of freight and transit vehicles to EVs offers potential bigger potential gains. Kirkland can encourage adoption and use of EVs by residents and businesses by providing infrastructure and incentives like public vehicle charging stations or priority parking for EVs. While EVs offer significant environmental benefits, they don't inherently reduce congestion or resolve issues of transportation safety.

Micromobility

Micromobility is a broad term that refers to the suite of personal transportation programs like bike shares, scooter shares, and car shares. Micromobility enables people to travel short distances using a shared device, usually for a fee, accessed through a smartphone app. While often operated by a private service, micromobility operators typically partner with local jurisdictions to develop rules and regulations that respond to the community's priorities and concerns. There are several operators of micromobility services

in the Puget Sound region, such as Lime and Bird, which provide electric bikes (e-bikes) and electric scooters (e-scooters). Investing in micromobility can pay enormous dividends to Kirkland's transportation system and quality of life by encouraging a shift to active transportation modes, relieving congestion, reducing GHG emissions, and lowering household transportation costs.

E-bikes and e-scooters have seen a surge in popularity and availability as battery technology advances. This has made it easier and cheaper to roll out micromobility services to new communities. To take advantage of this, Kirkland can consider incentives for public e-bike and e-scooter charging infrastructure, provide subsidies for using micromobility services (especially for underserved populations), and develop safe, connected active transportation facilities. Micromobility can be a powerful tool to achieve the City's transportation goals but has the potential to introduce adverse impacts. Rules and regulations are necessary to ensure that micromobility devices are stored/docked properly, are regularly maintained and safe to operate, and serve communities equitably.

Projects & Programs

ITS is an important component of the City's plans to achieve modal balance through intersection and signal improvements throughout Kirkland. ITS is a component of multimodal projects to create protected spaces for people walking, rolling and bicycling in Kirkland including protected intersections and pedestrian signal phasing, crossing treatments, and signal modifications. Corridor projects that include bicycle and pedestrian facilities such as protected bike lanes and expanded sidewalks can also implement ITS improvements as part of the overall project. Transit speed and reliability improvements such as queue jumps, and signal priority also integrate ITS features to improve transit service through Kirkland. Key projects that would include ITS features from the TSP.

A number of projects in the consolidated project list for the TSP includes ITS elements. Key projects from the considered for funding and implementation as part of the TSP include:

- Protected intersection improvements at 6th Street and NE 85th Street/Central Way, 6th Street and Kirkland Way, NE 85th Street and 122nd Avenue NE, and at NE 85th Street and 124th Avenue NE.
- Queue jumps at Market Street and 98th Avenue NE.
- Protected bike lanes and multimodal improvements to NE 132nd Street.
- Intersection and signal improvements on 120th Avenue NE and 6th Street.

5.6.   Maintenance and Preservation

Goal T-6: Ensure adequate resources to preserve and maintain the existing and future transportation system.

As Kirkland continues to expand and improve connections on its transportation network, the City will also prioritize maintenance of existing infrastructure. Keeping the City's transportation infrastructure in a state of good repair with regular maintenance will extend the lifetime of City-owned facilities and preserve budgets by reducing the number of necessary capital projects to replace aging infrastructure. Kirkland currently has funded programs dedicated to maintaining the City's transportation assets, including roadway paving and striping, traffic signals, and sidewalks and pedestrian facilities. The effectiveness of these City maintenance programs depends on available funding and asset management systems.

Kirkland will plan for maintenance needs through regular inventories of existing facilities and assessment of their condition and will integrate maintenance considerations into decision-making for capital projects. Additionally, as roadways are repaved or restriped, the City will continue to opportunistically implement

safety improvements for all modal users through minor geometric or striping changes as these maintenance budgets allow.

To keep the infrastructure that people traveling in Kirkland rely on in good condition, the following policies focus on funding and asset management systems as well as planning for the life cycle costs of investments in the transportation system.

Policy T-6.1: Prioritize maintenance, operation, and preservation of existing infrastructure and ensure this is adequately resourced.

a) Identify and sustain reasonable maintenance funding levels for the complete set of transportation assets.

b) Develop and maintain inventories of assets that require maintenance, such as pavement markings, traffic signals, and sidewalks.

c) Identify and implement improvements to asset management systems.

d) Ensure regular sweeping of existing bicycle facilities and invest in a more efficient bicycle lane sweeper that requires fewer staff resources and covers a larger area.

Policy T-6.2: Plan for and incrementally increase maintenance resources in line with additional assets as new facilities are built and as the city grows.

a) Ensure growing inventory of system assets are matched with adequate maintenance levels.

b) Develop lifecycle costs for capital and maintenance projects.

c) Adequately fund maintenance so that maintenance does not become the driver of decision-making for future projects.

d) Ensure the preservation program is adequately funded to meet pavement condition targets.

Policy T-6.3: Maximize the useful lifetime of the transportation network at optimum lifecycle cost.

o Identify opportunities to minimize lifecycle costs through technology and innovations (e.g., roundabouts instead of signals).

Projects & Programs

The Public Works Streets Division performs everyday maintenance and operation of the facilities in public rights-of-way. The Transportation Division sign and signal shop also spends a large portion of their budget and time maintaining and replacing signs, signals, and managing signal cabinets and associated technology. There are several ways in which the City funds and conducts maintenance of the right-of-way.

The 2012 Street Levy raises about $2.7 million per year over the next 20 years. 5% of the levy is set aside for school walk routes and 5% for the neighborhood safety program. The remainder will be added to the approximately $1.75 million of annual non-levy funding for pavement maintenance. This funding is set aside by policy for pavement maintenance.

Some maintenance elements are also funded by the Capital Improvement Program through contracted work. These include pavement maintenance, pavement markings, and sidewalk maintenance. Higher quality bicycle facilities often require more pavement markings, and their maintenance warrants an increase in the maintenance budget.

The City conducts an inventory of all City streets, alleys and parking lots (pavement assets) and collects information about the pavement condition of all arterial and collector streets every 2 years and the remaining pavement condition of the rest of the pavement assets every 4 years. We continuously monitor the pavement condition of all pavement assets using our pavement management program.

The City repaves with overlay or slurry seals up to 10 lane-miles of streets every year. Repaving a street can extend its useful life by 8 to 20 years depending on the pavement treatment. Kirkland's goal for its street preservation program is to improve the score of its arterial network to 70 on the Pavement Condition Index. The street network's Pavement Condition Index (PCI) score at the end of 2015 was 65.4. In 2023, the PCI of arterial streets was 71.

5.7.   Equity

Background

The City of Kirkland's values related to equity are supported by legislation from City Council and form the foundation for the city:

- Resolution R-5240 – declaring Kirkland a safe, inclusive, and welcoming community for all people.
- Resolution R-5434 – ensuring the safety and respect of Black people, committing to examining and dismantling interpersonal, institutional, and structural racism in Kirkland.
- Resolution R – 5548 – adopting the Diversity, Equity, Inclusion, and Belonging (DEIB) 5-Year Roadmap.

The City's values are also reflected in the City Council Goals with Inclusive and Equitable Communities at the top. The DEIB Roadmap covers a broad range of city functions from leadership, operations and services, plans and budgets, to workplace/force. The Roadmap specifically called for the utilization of an equity-centered, third-party review of the City's Comprehensive Plan and other long-range planning processes (Goal 4.2).

Equity in the TSP Planning Process

As part of the development of the Comprehensive Plan and the Transportation Strategic Plan, an Equity and Engagement Program Review was conducted to support equitable planning and to assess how local planning can mitigate displacement of vulnerable populations, support inclusive engagement, and improve access to resources and opportunities for the whole community. This was an integral piece of the Community Engagement Plan that outlined strategies and approaches for engaging the public and gathering input for the Comprehensive Plan. The Equity and Engagement Program Review report also identified opportunities to address equity in the Comprehensive Plan and the Transportation Strategic Plan.

For the Transportation Strategic Plan, these recommendations were incorporated into the public engagement process and into the goals and policies for the updated Transportation Element and TSP. An example of how these recommendations shaped the TSP is the use more inclusive terms such as 'walk, bike and roll' to account for people who use strollers, are in wheelchairs or use other types of mobility devices. The TSP also addresses people who walk, bike and roll as the most vulnerable users of the transportation system because they are the most likely to be injured or severely injured when involved in a collision and because some people may not have a choice other than to walk, bike, roll and to take transit to get to where they need to go. Developing a multimodal transportation system and connected networks for people of all ages and abilities is one of the primary outcomes the TSP aims to achieve.

Equity was also incorporated in the transportation project prioritization framework. The City developed a Capital Improvement Program Equity to geographically prioritize transportation projects that support areas of the city with higher populations of lower incomes, people of color, foreign born people or those with limited English proficiency and in areas with poor health outcomes.

Goal T-7: The transportation system should address the mobility needs of all people, regardless of age, ability, socioeconomic status, or background while prioritizing the needs of the most vulnerable users to advance the City's commitment to diversity, equity, inclusion, and belonging.

The way Kirkland communicates with and invests in the community reflects the City's commitment to DEIB. The investments that Kirkland makes in the future transportation system should meet the needs of everyone traveling in Kirkland. Regardless of age, ability, socio-economic status, or background, everyone should be able to get around safely and comfortably.

The following policies are intended to achieve this goal and focus on prioritizing underserved or underrepresented groups.

Policy T-7.1: Create an equitable transportation system that provides mobility for all users and addresses historical inequities in the transportation system.

a) Update the ADA Transition Plan for transportation facilities. Fund improvements to address deficiencies identified in the plan that allows for completion of an accessible network in a timely manner.

b) Implement a 20-year transportation capital improvements list that invests in multimodal transportation in equity priority areas.

Policy T-7.2: Implement transportation programs and projects in ways that improve mobility for marginalized communities.

a) Prioritize transportation projects and programs that support people who experience mobility challenges and those who are most vulnerable when traveling (people walking, rolling, and bicycling).

b) Engage with people who experience challenges navigating the transportation system to identify accessibility needs. Implement improvements or accommodations identified through this engagement (e.g., passive detection at signals), recognizing that the transportation system is often designed for able-bodied people.

c) Align priorities with the DEIB Roadmap and improve engagement with populations identified in the DEIB roadmap on near and long-term projects and programs.

d) Ensure inclusion of vulnerable populations in community engagement efforts for transportation planning and transportation capital projects.

e) Use tools such as the Capital Improvement Program Equity Mapping Tool or other coordinated equity tools to assist with project prioritization.

f) Provide services to support the attendance and participation of historically underrepresented populations.

5.8. Sustainability

Background

The Sustainability, Climate, and Environment (SCE) Element of the Comprehensive Plan defines sustainability as meeting our present needs while ensuring future generations can meet own needs. To become a more sustainable city, we need to consider the long term and wide-ranging impacts of our actions and to evolve, strengthen and expand our policies and programs to adapt to new situations. The three key areas of sustainability are:

- **Ecological Sustainability**: Protect natural systems and built structures protect habitats, water supply, creates a healthy environment, and promotes energy efficiency.

- **Economic Sustainability**: Build strong economy that is able to support our entire community and seeks to solve environmental issues and not compromise the environment in which we live.
- **Social Sustainability**: Provide a sense of community to our residents, supports basic health and human service needs, and is proactive is creating opportunities and providing resources for those who are unhoused, unemployed, underemployed, and vulnerable so that they can have a pathway to participate in greater opportunities and enjoyment of the community.

Transportation touches all of these key areas such as the impact of emissions on air quality or tire wear on water systems (ecological), the link to land use related to the facilitation and access to goods and services (economic) and access to jobs, housing and health care (social). GHGs from transportation sources represent 37% of Kirkland's GHG emissions as of 2022.

Reducing vehicle emissions and other pollutants enhances public health, especially for vulnerable community members. One way to accomplish this is to reduce both the number and length of trips people take in automobiles, particularly single-occupancy trips. Kirkland's Sustainability Strategic Plan (SSP) looks to achieve the following four elements of the Transportation and land use focus area:

1. Smart Compact Growth
2. Active Transportation
3. Public Transportation
4. Shared Mobility

The SCE Element of the Comprehensive Plan also includes policies to move the community toward electrification and away from fossil fuels. Support for Electric Vehicle (EV) adoption and infrastructure such as EV charging stations, and for other mobility options such as bicycles and scooters are integrated into the element's goals and policies. Kirkland's SSP is the functional plan that contains actions that implement many of the goals and policies in the SCE Element, including goals for transportation and land use.

The TSP addresses these focus areas for transportation through goals and policies throughout the plan. While the Sustainability Goal T-8 focuses on reducing environmental impacts directly from transportation, these focus areas are achieved through policies under several TSP goals in addition to the sustainability goal such as land use, active transportation, transit and maintenance. Sustainable transportation is closely related to land use which is why the transportation and land use planning processes are coordinated through public engagement, plan development and project identification and analysis.

Goal T-8: Minimize transportation environmental impacts through mode shift, stormwater mitigation, and other greenhouse gas (GHG) reduction efforts.

Kirkland's transportation system is a key part of meeting the City's climate goals. Kirkland will accelerate its climate response and efforts to reduce GHG emissions through new strategies to promote more sustainable modes of travel and encourage shifts to transit or active transportation. Kirkland will also strive to minimize potential impacts to water and air quality from the transportation system through support for sustainable transportation modes and reductions in vehicle miles traveled.

Mode-share goals are a required policy element for Regional Growth Centers designated by the Puget Sound Regional Council. Kirkland has two Regional Growth Centers, also referred to as Urban Centers: Greater Downtown, which includes the NE 85th Street Station Area, and Totem Lake. The City established mode-share targets for Greater Downtown as part of the Moss Bay Neighborhood Plan and NE 85th Street Station Area Plan and for Totem Lake in the Totem Lake Business District Plan. New citywide mode-share targets are shown in Table 5-1.

TABLE 5-1. CITYWIDE MODE-SHARE GOALS FOR PEAK HOUR TRIPS

Transportation Mode	Mode-Share Goal
Walk	12%
Bicycle	2%
Transit	25%
Carpool (2+)	12%
Drive alone	49%

Policy T-8.1: Support transportation modes that are energy efficient and that improve system performance.

a) Include electric bicycle parking recharge stations in the development of vehicular electric charging projects and programs.

b) Identify locations and collaborate with transit providers to provide secure bicycle parking at transit hubs.

c) Develop requirements for new development to provide outlets for electric vehicle charging with bicycle storage.

Policy T-8.2: Update policies and standards for all modes to achieve mode-share goals.

a) Meet the established mode-share goals for Kirkland's PSRC-designated regional centers and citywide goals based on evolving land use patterns.

Policy T-8.3: Minimize the environmental impacts of transportation facilities, especially transportation's contribution to air and water pollution.

a) Design and implement new and retrofitted transportation facilities with stormwater system improvements to reduce roadway runoff pollution into natural drainage systems and the waters of the Puget Sound.

b) Coordinate transportation improvements and programs with goals from the Sustainability Master Plan and the Sustainability, Climate and Environment Chapter of the Comprehensive Plan to meet the City's GHG targets.

c) Report on reductions in vehicle miles traveled.

d) Support alternative fuels/electric fleet technologies.

e) Support policies and initiatives that incentivize shorter trip distances and shifts to non-drive-alone modes.

Policy T-8.4: Implement transportation-related actions identified in Kirkland's Sustainability Strategic Plan.

a) Include smart growth principles in all City planning practices, such as creating walkable neighborhoods.

b) Continue supporting the 10-Minute Neighborhoods concept in Kirkland.

c) Achieve the King County Cities Climate Collaboration goal of reducing driving per capita by 20% by 2030 and 50% by 2050, compared to 2017 levels.

d) Continue to build walking and bicycling transportation networks so that people of all ages and abilities can comfortably get to where they need to go.

e) Grow annual average weekday transit ridership.

f) Promote current shared mobility programs and services.

g) Establish new shared mobility options.

Policy T-8.5: Safeguard the transportation system against disaster.

a) Develop and keep current strategies for preventing and recovering from disasters that impact the transportation system.

b) Coordinate the Transportation Strategic Plan with the Smart Cities initiative, considering greater resiliency of the transportation system.

5.9. Link to Land Use

Related Plans

The land use element of the **Comprehensive Plan** establishes a framework for growth in Kirkland through 2044. The future land use map and policies for future growth in housing and employment are designed to meet Kirkland's growth targets, which are allocated by King County based on regional growth forecasts from PSRC. This element is the first step in planning for growth on key transit corridors, which include sections of existing frequent transit routes in Kirkland and will help guide future zoning amendments that support growth around transit.

Kirkland's **Sustainability Strategic Plan** (SSP) links land use and transportation together. The SSP strategies for implementation smart growth principles to encourage a mix of building types and uses and expanded access built around compact or more transit-oriented neighborhoods. Land use goals and strategies in the SSP are paired with strategies to improve active transportation and public transit in Kirkland. These goals have been integrated into the Comprehensive Plan and accompanying environmental analysis. The goals of the SSP for active transportation and transit closely align with the goals described in Sections 5.2 and 5.3 of this document.

Goal T-9: Coordinate transportation and land use planning and policies to ensure future growth is supported and sustained by a livable, walkable, connected, and transit-oriented city.

Transportation and land use are closely tied together. The land use element of the Comprehensive Plan informs strategic investments in Kirkland's transportation system, and the transportation system shapes land use decisions. Both transportation infrastructure and the form of development influence how people perceive their neighborhoods and how they get around. Transportation investments should help Kirkland grow in a way that is consistent with the community's vision for the future. The Land Use Element of the Comprehensive Plan focuses future development around frequent transit in Kirkland, both in Urban Centers and along key transit corridors. The Transportation Element will support the land use vision by addressing the transportation needs of new residents and workers in Kirkland over the 20-year planning horizon.

Kirkland will support the vision for future growth in the Land Use element of the Comprehensive Plan with the following policies that align capital projects and design with land use and coordinate transportation priorities with development.

Policy T-9.1: Support land use by identifying a fiscally constrained 20-year transportation capital projects list that supports anticipated growth through 2044 and aligns with growth targets.

The Growth Management Act (GMA) requires that transportation projects, programs, and strategies to accommodate developments be in place when a development is constructed or within 6 years. The fiscally constrained capital projects list was developed to support anticipated growth anticipated from the land use element of the Comprehensive Plan. Future projects and programs that were included in the fiscally constrained project list address potential impacts of development on the transportation system and help improve safety and access for people walking, rolling and bicycling in Kirkland. Specific actions to implement Policy 9.1 include:

a) Coordinate with the Planning and Building Department to ensure transportation projects support growth and development.

b) Ensure projects identified for the 6-year Transportation Improvement Program are aligned with and support growth.

c) Revise the Impact Fee Program to support the vision of the Transportation Strategic Plan and reflect planned capital investments.

Policy T-9.2: Focus on transportation system developments that expand and improve walkable and bikeable neighborhoods.

Future investments in Kirkland's transportation system focus on connections to the City's urban centers in Greater Downtown and Totem Lake and on connections to key destinations and commercial corridors. Improvements in the NE 85th Street Station Area have a dedicated revenue stream to support local investments in neighborhood connections as the station area develops into a compact and walkable transit-oriented community. Citywide transportation improvements prioritize key connections and gaps in the city's networks to expand walkable and bikeable neighborhoods and connect people to the places they travel to every day. Specific actions to implement Polic T-9.2 include:

a) Prioritize transportation system improvements in areas with greater residential and employment densities to expand and improve walkable and bikeable neighborhoods.

b) Coordinate with the Planning and Building Department on bicycle parking requirements and other policies related to development.

Policy T-9.3: Design streets in a manner that supports and is coordinated with future land use plans.

Design for streets, paths, trails and other transportation infrastructure should not only reflect the context and character of Kirkland's neighborhoods as they are today and the as they continue to grow. Neighborhood, subarea, and land use plans often include transportation elements to create and improve connections to and through Kirkland's neighborhoods. Kirkland's Transportation Division and Planning and Building Departments will continue to work together closely to ensure that the city's transportation and land use plans align with one another and reflect the City's priorities for future development and the transportation system. Specific actions to implement Policy T-9.3 include:

a) Ensure that transportation plans and projects based on land uses (such as subarea plans, transit-oriented development plans, and neighborhood plans) are incorporated into the transportation plan project lists and work programs.

b) Coordinate with the Planning and Building Department to ensure all land use planning documents that include transportation elements incorporate the Safe System Approach and best practice design.

c) Coordinate various transportation-related design guidelines for consistency citywide.

Policy T-9.4: Create a transportation network that supports economic development goals.

Kirkland's transportation system supports the city's local economy, getting people and goods where they need to go. Transportation improvements can build capacity for new commercial development by helping people access their jobs and helping businesses access goods delivery. The City will continue to explore opportunities to work with local organizations and businesses to determine how Kirkland's transportation system can best support their needs while balancing the City's goals and priorities for the future of the transportation in Kirkland.

a) Identify opportunities to work with the Cultural Arts Commission, Shop Local Kirkland, and the economic development team to identify opportunities within transportation projects that support arts, local businesses, and economic development.

Policy T-9.5: Require new development to mitigate site-specific and systemwide transportation impacts, ensuring mobility and accessibility for all.

Many public improvements are built by the private sector as part of new development projects. It's crucial planning, design, and construction of these improvements align with Kirkland's transportation goals. Mitigation for individual developments required for individual developments is based on the magnitude and timing of potential impacts. This may include addressing nearby intersections, local roadways, pedestrian, bicycle, and transit facilities, as well as site access. The City has guidelines for the basis, timing, and extent of mitigation. Private developments may be required to fund necessary improvements like new streets, traffic signals, and turn lanes or other improvements to mitigate potential impacts to traffic operations. New land for streets, sidewalks, bicycle facilities, and other public infrastructure to support transportation goals may be also dedicated to the City after construction of larger development projects is complete. Specific actions to implement Policy T-9.5 include:

a) Improve how Kirkland coordinates with developers when achieving level of service that supports multiple modes and walkable neighborhoods, such as an update to the existing transportation analysis policies (e.g., Policy R-38), to require multimodal mitigation for new development.

b) Participate in the maintenance and improvements of the Bellevue-Kirkland-Redmond travel demand model.

Policy T-9.6: Create a seamless system of streets and trails that form an interconnected network to help people efficiently reach destinations, regardless of mode of travel.

As part of development, new connections to the existing street system are often access for vehicles, bicycles, and pedestrians. Vehicle traffic distributed over a street grid balances potential for congestion from more trips across the network and additional connections in a gridded street network can shorten emergency response times and create more direct bicycle and pedestrian connections to local destinations. Adding trail connections between dead end streets can create time-saving and safe routes for bicycles and pedestrians. New connections enhance walkability and bikeability, encouraging more people to choose walking or bicycling as their primary mode of transportation. This not only promotes a healthier lifestyle but can help reduce traffic congestion and environmental impacts from travel. By prioritizing pedestrian and bicycle infrastructure, communities can create more vibrant, accessible, and sustainable neighborhoods. Specific actions to implement Policy T-9.6 include:

a) Incorporate the plan for adding and/or improving street-end connections into the transportation grid, including the pedestrian and bicycle network. Include those connections into the prioritization process for completion of the multimodal networks.

Policy T-9.7: Use a multimodal concurrency methodology to monitor the rate at which land use development and the transportation system are constructed.

Concurrency ensures that potential trips by all modes from new development is balanced with transportation projects and programs. If growth outpaces transportation improvements, permits for new developments can be halted, which indicates a system failure. Kirkland manages to allow continuous development with a concurrency system that considers all modes including transit, bicycling, and walking. The City monitors approved land use and transportation plans to ensure they are being completed in tandem with one another, helping to achieve Kirkland's land use and transportation goals. Specific actions to implement Policy T-9.7 include:

a) Continue to implement Kirkland's citywide multimodal concurrency system to better reflect multimodal needs and priorities over time.

Concurrency

Concurrency is a term used to describe how transportation supports future housing and jobs growth. This is a requirement under the Growth Management Act (GMA) requiring the timely provision of public services or facilities to support new developments. The GMA mandates that transportation projects and programs accommodate new developments when constructed or within six years. The term 'level of service (LOS)' is the standard against which concurrency is measured over the 20-year plan horizon. The main purpose of LOS standards and concurrency for transportation is to ensure that the transportation system provides safe, reliable, and convenient access and mobility for people and goods and accommodates the travel demands of anticipated housing and employment growth. Concurrency is one tool amongst many to manage and balance the transportation system's functionality with the envisioned land use and needs of the community.

While the GMA requires that LOS standards be adopted as part of a local jurisdiction's comprehensive plan to measure concurrency, it does not mandate how those standards are defined and therefore local jurisdictions may adopt standards appropriate for the local context.

MULTIMODAL EVALUATION FOR CONCURRENCY

The Kirkland 2035 Comprehensive Plan proposed a new multimodal concurrency system that includes all modes of transportation and measures future person-trip capacity from planned transportation projects and programs in addition to looking at future traffic operations alone. Kirkland established its current multimodal concurrency system in 2015 with the adoption of Ordinance 4509[5], creating the city's two-pronged approach to concurrency that includes both multimodal evaluation and evaluation of vehicular delay at intersections. This approach allows the city to support the growth it wants to see and provides the flexibility to add multimodal capacity in areas where the needs are greatest. To manage concurrency, the relationship between new housing and employment growth and the implementation of transportation projects and programs is evaluated.

Therefore, the concurrency system balances planned transportation improvements with the Comprehensive Plan growth targets over a 20-year planning horizon. In the short-term, City uses the 6-year period for the capital program to balance the capacity added from funded individual transportation projects with the growth generated by specific new developments.

When a new development is proposed, the number of person-trips the project will generate is estimated based on the size and land uses included in the proposed development. The estimated number of person trips generated are calculated using a standard methodology the City uses for transportation impact fees (see section 6.1). This system balances the planned person trip capacity with anticipated person trip demand generated by new developments in line with the future housing and employment growth targets adopted in the Comprehensive Plan.

MINIMUM STANDARDS FOR TRAFFIC OPERATIONS

Kirkland also has a minimum standard for traffic operations at intersections summarized in Section 3.4. This standard requires individual developments to mitigate intersections at LOS E and F during the PM peak period based on their proportional share of impacts. For 20-year long-range planning, this standard is a minimum LOS E during the PM peak period, with capital projects identified to address intersections performing at LOS F.

Traffic operations at key intersections in 2044 were assessed using travel demand modeling and operational analysis. Intersections projected to operate at LOS F in 2044 will be addressed through concurrency projects aimed at increasing roadway capacity or enhancing capacity for other modes of transportation at these constrained intersections. Any potential impacts on traffic operations on state facilities in Kirkland, including I-405 and its access ramps, will be managed in coordination with WSDOT.

With the housing and employment growth anticipated by 2044, based on policies, future land use, and growth assumptions in the Comprehensive Plan, six intersections are expected to be below the City's intersection LOS standard by 2044. The concurrency projects described in Table 5-2 and shown in Figure 5-5 were developed to respond to the growth anticipated under the Growth Alternative, which reflects the contents of the draft land use element of the Comprehensive Plan. These projects are part of the Capital Facilities Element of the Comprehensive Plan but would not be implemented until growth under the plan is realized. As development occurs, additional analysis will be conducted to determine if these

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[5] https://docs.cityofkirkland.net/CMWebDrawer/RecordHtml/289298

projects are the most appropriate approach to managing the vehicle delay or if there is an alternative to widening (such as the potential for roundabout solutions as per Policy T-1.2).

TABLE 5-2. TRAFFIC OPERATIONS PERFORMANCE IN 2044 & CONCURRENCY PROJECTS

Intersection	2044 Operations	Concurrency Project
NE 68th St & 108th Ave NE	LOS F	Restripe eastbound right-turn pocket to a shared through-right lane and widen the west leg of the intersection for an additional receiving lane.
98th Ave NE & Juanita Drive /NE 116th St	LOS F	Add a northbound left-turn pocket and optimize signal splits.
NE 116th St & 124th Ave NE	LOS F	Add a southbound right-turn pocket optimized signal splits and modify signals for lagging northbound left turn.
100th Ave NE & NE 132nd St	LOS F	Add an additional westbound right-turn pocket and eastbound left-turn pocket.
NE 124th St & 116th Ave NE/ I-405 on-ramp	LOS F	Add an additional southbound right-turn pocket, add new eastbound right- and left-turn pockets, and modify existing signal cycle lengths.
NE 124th St & Slater Ave-132nd Pl	LOS F	Add a northbound right-turn pocket, separate the northbound right-turn movement from the existing through right lane, and optimize signal splits.

FIGURE 5-6. CONCURRENCY PROJECTS
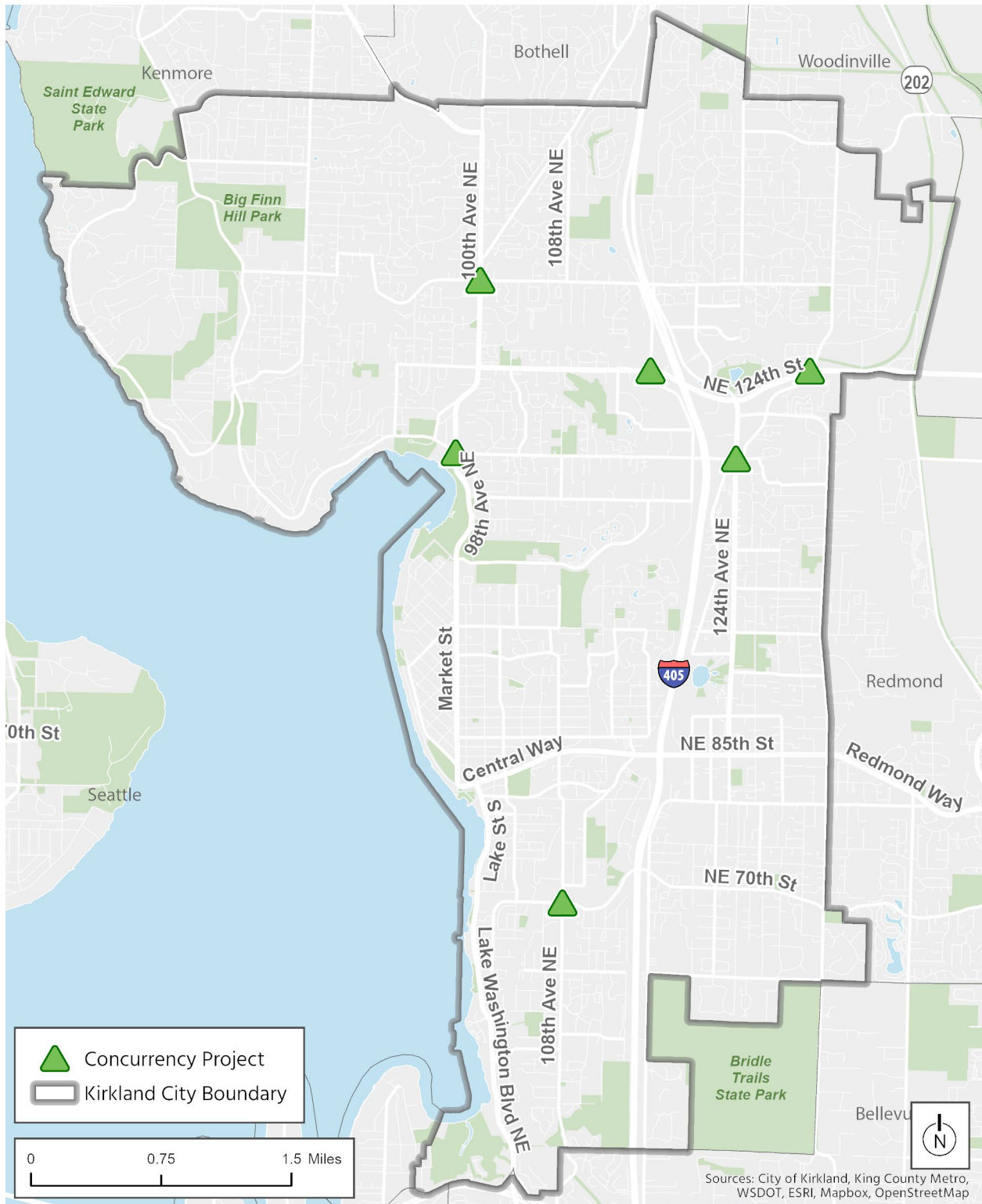
MULTIMODAL LEVEL OF SERVICE (MMLOS)

Kirkland has a complete vehicular network but does not have a complete network for the other modes of travel, including sidewalks, bicycle facilities, and transit. Multimodal standards help Kirkland measure comprehensive system performance and identify investment needs to build out a transportation system that includes non-automobile modes, consistent with GMA goals.

Multimodal network capacity to accommodate future growth comes from projects and programs in the transportation capital project list, part of Kirkland's Capital Facilities Plan (CFP). These projects and programs collectively provide the necessary multimodal capacity to support growth over the next 20 years. Kirkland has a MMLOS based on level of investment in multimodal projects and is measured by level of completeness for different modes. The City uses level of completeness to track progress toward the multimodal goals of the TSP over the 20-year horizon.

Multimodal LOS measures based on completeness of the transportation system are shown in Table 5-3. Objective measures are used to develop and prioritize projects included in the 20-year transportation capital project list. Generally, the level of completeness is based on available funding as well as the goals and policies of the TSP and Transportation Element.

TABLE 5-3. MULTIMODAL LEVEL OF COMPLETENESS

Transportation Strategic Plan Priorities	Measurement	2044 Level of Completeness
Walk: School walk routes	% of streets on school walk routes with sidewalks on at least one side.	100%
Walk: Sidewalks on arterial streets and transit routes	% of arterial streets and all-day service transit routes with sidewalks or pedestrian walkways on at least one side of transit	100%
Walk: Crosswalks	% of crosswalk improvements complete that are identified in the TSP	50%
Bicycle: On-street network	% of planned bicycle network complete as identified in the TSP (excluding greenways)	80%
Bicycle: Greenway network	% of planned greenway network complete as identified in the TSP	25%
Transit: Passenger environment	% of transit stops with lighting and shelters on frequent service routes	50%
Auto: ITS	% of investment allocated to Intelligent Transportation Systems (ITS) Capital Projects as identified in Table 4-1 in the Kirkland ITS Plan	100%
Auto: Pavement Condition Index (PCI)	Citywide PCI	PCI of 70

Additional performance measures are outlined in section 6.1.

5.10. Be an Active Partner

Background

Travel does not stop at city borders. People walking, biking, riding transit, and driving all travel across jurisdictional boundaries to reach destinations and services between cities.

Kirkland shares responsibility for roadway systems with our jurisdictional neighbors. There are many places of interest and regional connections in neighboring cities such as the Sound Transit Link light rail stations in Bellevue and Redmond, and many drivers use Kirkland arterials for north/south trips to reach Kenmore and Bothell. Kirkland is also bifurcated by I-405, a facility under WSDOT jurisdiction. Transit service in Kirkland and nearby cities is provided primarily by King County Metro and Sound Transit, both of which are governed by separate boards of elected officials.

Kirkland is proactive in its work with regional partners and participates in regional transportation and transit boards and committees. Kirkland leverages regional partnerships by engaging with partners early and often. A recent example is the work of the Kirkland City Council in partnership with the State Legislature, where recent sessions have secured important funding for the CKC crossing at 132nd Ave NE. City staff are also working closely with the City of Bellevue and King County Metro in the planning and design of the RapidRide K Line, which is planned to open in 2030 and will connect Eastgate and Totem Lake along an 18-mile bus rapid transit corridor.

At the county-wide and regional levels, there are various groups that influence funding decisions and transportation policy. These are often structured with staff groups making recommendations to boards of elected officials. Kirkland plays an active role in these groups.

Partnering with the private sector, schools, advocacy groups, neighboring cities, and sub-regional coalitions will inform and build support for Kirkland's transportation goals. This includes collaboration with Eastrail partners on the CKC as part of the full Eastrail corridor to coordinate private partnerships and investments, such as Google on their implementation of the Feriton Spur park along the CKC that traverses their business campus. The Lake Washington School District is another important partner in safe routes to schools and traffic safety and coordinating with the student Sustainability Ambassadors on initiatives like the 2023 student bike ride.

WSDOT and Sound Transit are also building the I-405/NE 85th Street Interchange and Inline BRT Station to implement express toll lanes and Stride BRT along the I-405 corridor. Stride BRT will connect Lynnwood to Burien, offering a new option for residents to access job centers with more frequent and reliable transit. The $234.4 Million project will reconfigure the I-405 and NE 85th Street interchange to include direct access to the express toll lanes, a new inline transit station, improved pedestrian access to reach the station, and new stormwater facilities. Sound Transit and the City also have a cooperative funding agreement was approved for a new pedestrian and bicycle pathway along NE 85th Street connecting downtown to the future NE 85th Street Stride BRT Station.

Kirkland plans to make significantly reduce citywide GHG emissions and it will be necessary to work with regional partners such as Puget Sound Energy (PSE), King County Cities Climate Collaboration (K4C), transit agencies, and other to make those reductions possible. PSE is the gas and electricity utility in Kirkland and has a service area that spans 10 counties in western Washington. PSE will need to continue transitioning to renewable energy sources for Kirkland to reach its goal of 100 percent renewable electricity usage. PSE is currently working with the City on a pilot program to install electric vehicle charging stations and expand access to EV charging in the community.

Goal T-10: Coordinate with a broad range of groups—public and private—to help meet Kirkland's transportation goals.

Kirkland will work proactively with local and regional partners to achieve the City's transportation goals. Building relationships with members of the community and reaching underrepresented groups in Kirkland will help the City better serve the community's transportation needs. Interagency coordination with King County Metro and Sound Transit will advance the City's goals for public transit. Playing a strong role in partnerships with transit providers and with WSDOT will help the City ensure that the priorities of the local community are reflected in regional transit and transportation investments. Neighboring jurisdictions and other partners, like LWSD, are critical to Kirkland's implementation of safe routes to school and regional projects.

The City will work to strengthen its relationships and collaboration with local groups and other agencies with the following policies that focus on the City's transportation, equity, and climate goals.

Policy T-10.1: Implement Kirkland's Diversity, Equity, Inclusion, and Belonging (DEIB) Roadmap through community coordination and outreach.

a) Establish relationships with organizations that represent priority populations in order to better understand the needs of under-represented groups.

b) Conduct outreach with both Kirkland residents and those outside of Kirkland, particularly those who work in Kirkland but do not live in the city limits.

c) Ensure community engagement is conducted early and often when projects are planned, designed, and constructed.

d) Explore opportunities to improve how the City communicates with and receives information from the community.

Policy T-10.2: Coordinate with local agencies and associations, neighboring cities, and regional entities to advance the goals and strategies outlined in the Transportation Element.

a) Ensure regular and advanced communication and coordination is conducted with local businesses and community members related to local neighborhood projects and plans.

b) Participate in and provide leadership for regional transportation decision-making with state, countywide, and regional groups to stay informed and contribute to conversations, initiatives, programs, and opportunities related to transportation.

c) Participate in the King County Climate Change Collaborative to identify trends in vehicle innovation and seek opportunities to implement them in Kirkland.

Policy T-10.3: Partner with LWSD, other educational institutions, police, parents, and transit providers to encourage walking, bicycling, and taking transit to school.

a) Work with the Kirkland Police Department's school resource offices to implement bicycle, pedestrian, and traffic safety interactive education programs.

b) Conduct additional circulation analysis to improve walk, bicycle, and pick-up and drop-off circulation at all schools in Kirkland, in coordination with LWSD.

c) Coordinate with King County Metro on improving transit services to schools and ensuring all students receive free youth transit passes.

Policy T-10.4: Partner with transit agencies to ensure Kirkland receives high-quality transit service that is coordinated with planned growth and land use.

a) Continue working with King County Metro to support the Rapid Ride K Line project, including capital project development, permitting, grant support, and the like.

b) Coordinate with transit agencies on access to transit projects and supportive infrastructure, such as shelters and bus stop improvements, bicycle parking, and first/last mile(s) connections.

c) Continue working with King County Metro to promote Metro-Flex and other flexible transit systems operating in the city.

d) Continue partnering with Sound Transit on major investments in Kirkland along the I-405 Corridor and through other initiatives.

e) Participate in regional conversations regarding transit-related policy, service changes, restoring reduced service, and ensuring future transit is aligned with Kirkland's growth and land use changes.

f) Advocate for meaningful increases in Sound Transit and King County Metro services in Kirkland, with connections between transit hubs and urban centers as a first priority.

g) Actively pursue agreements with transit providers to deliver a network of high-quality transit service that supports Kirkland's land use and transportation plans.

Policy T-10.5: Work with the WSDOT and the State Legislature to fund Kirkland's high-priority projects and improve safety in and around state corridors.

a) Collaborate with WSDOT for better operations at WSDOT signals.

b) Foster a strong working relationship with WSDOT leadership.

c) Advance Kirkland's transportation interests with actions on legislative agendas.

d) Fund initial studies in order to make it easier to secure funding for construction projects.

e) Periodically review federal functional classifications.

f) Engage WSDOT in discussions to advance improvement of I-405 interchanges with the intention of securing funding to design and rebuild new interchanges at NE 124th Street, NE 70th Street, and improvements around NE 128th Street.

Policy T-10.6: Coordinate multimodal transportation systems with neighboring jurisdictions.

a) Coordinate with the City of Bellevue on improved walking and bicycling access between the South Kirkland Park and Ride and the Cross Kirkland Corridor (CKC), as well as between the SR 520 Trail and the Lake Washington Boulevard Promenade.

b) Prioritize connections to the future light rail stations in Bellevue and to Bellevue's Spring District mixed-use commercial area.

c) Work with the City of Redmond to improve access to Redmond including stair and trail connections from the North and South Rose Hill neighborhoods and access to the Redmond Central Connector.

d) Coordinate with the City of Bellevue, City of Redmond, City of Kenmore, City of Bothell, and City of Woodinville to ensure bicycle and pedestrian connections at jurisdictional boundaries are seamless.

Policy T-10.7: Actively pursue grant funding and innovative funding sources.

a) Pursue innovative opportunities and partnerships to better leverage available City funding.

b) Seek funding through various grant funding sources including federal, regional, and state sources as well as through non-traditional sources.

c) Pursue the opportunity for the City to become eligible for funding related to federal transit.

Policy T-10.8: Partner with nonprofit, private sector, and other "new" partners on innovative solutions to improving transportation connections or the transportation environment.

a) Coordinate with local businesses, the Kirkland Downtown Association, and commerce-related groups to better understand transportation needs and to better communicate transportation-related information.

b) Identify all businesses that require transportation management plans and coordinate to ensure those businesses are complying and offering the resources to their employees to reduce single-occupancy vehicle trips.

c) Seek opportunities to partner with nonprofit and private sector groups and businesses to leverage resources.

Policy T-10.9: Coordinate with the Eastrail Regional Advisory Committee members and Eastrail Partners to implement the Connect, Construct, Complete vision for the entire CKC and connections to the larger Eastrail network.

a) Be an active partner with Eastrail Partners and the Eastrail Regional Advisory Council.

b) Coordinate wayfinding, signs, counts, art, and other initiatives that support the Connect, Construct, Complete vision.

6. Projects & Implementation

The TSP identified a broad range of needed investments from various modal plans, studies, and analysis (such as crash data analysis).   This brought together a list of over 430 identified projects plus additional programs. The TSP outlines a strategy to prioritize the City's limited resources that best achieve the goals outlined in the TSP. The projects and programs identified to be included in the Comprehensive Plan's Capital Facilities Element are those that ranked the highest priority. The CFP lists projects that are anticipated to be funded through known local funds over the 20-year horizon.

The TSP also includes a broader vision for transportation investments, including those that are unfunded. The TSP Appendix B outlines the full vision of both funded and unfunded projects. Other funding opportunities still exist, such as grant funds, but because they are less reliable, they are not included in the fiscally constrained list included in the CFP. However, the more the city can implement these projects and identify additional funding sources, the more projects can be implemented from the 'unfunded' list. The larger TSP list also includes some projects that may also be implemented through the funded programs.

Various policies and actions in the TSP will be implemented through projects and programs included in the Kirkland's Capital Facilities Program (CFP), but some also require funding from sources beyond the CFP. This section describes revenue estimates and financial projections from City's Department of Finance that were used to develop a financial plan for projects and programs over the next 20 years. Future investments in transportation were evaluated and prioritized for funding through a process that reflects the goals and priorities of the TSP.

Additional actions and strategies from the TSP are part of ongoing initiatives that are not reflected in capital projects and programs. Some examples include:.

Support for Bicycling: Strategies the City plans to pursue such as bicycle counts, promoting bike use, and creating wayfinding maps are crucial but typically not funded by capital revenue.

Support for Walking: Strategies to support walking would also include similar needs for pedestrian counts and support for safe routes to schools and other initiatives that may fall outside of the projects and programs in the CFP.

Transit Service: The City may consider funding transit service in the future, including scheduled fixed route and flexible transit services and will continue to support close partnerships with transit agencies. Some of these efforts may not be included in capital funds.

6.1.   Financial Forecast and Revenues

Anticipated Revenue Sources

The City of Kirkland uses a variety of revenue sources to fund its transportation projects, programs, and strategies. The City's diverse funding streams help ensure the city can build and maintain and improve its transportation network with reliable revenue, ensuring safe and efficient travel for everyone. Kirkland's anticipated revenue sources for transportation investments through 2044 informed financial forecasts in following sections and will help the City meet current needs and plan for future growth, creating a well-connected and accessible community.

Transportation impacts fees (TIF) are assessed on new developments in Kirkland based on different land use categories and are proportional to their impact on the system. TIF revenues are used to fund

transportation capital projects and are only used to fund future capacity improvements, not to fix existing deficiencies in the system. The City's TIF schedule was last updated in 2021 with the Transportation Impact Fee Update Report and will be updated as part of a citywide impact fee update, with an anticipated effective date in 2025. Kirkland's TIF rate reflects the cost to the City per person trip in the PM Peak hour that can be attributed to growth in Kirkland. TIF for individual developments are proportional to the size of each land use in the development.

REET 1 & 2 are set to their ongoing allocation in the 2023-28 CIP with 0% growth in the 6-year CIP and 5% growth between 2031-2044. Because interest rates are persistently high and real estate activity has slowed, short-term growth is uncertain. The 5-year annual average growth for REET revenue is close to 0% because of mercurial market conditions and 10-year annual average growth is around 7%. Assuming local real estate market activity will settle at a rate lower than the past decade, we project REET to grow at 5% annually long-term.

Gas Tax had been assumed to grow at 2-3% in previous CIP projections, however this revenue is likely to grow more slowly—if at all—over the next 20 years as electric vehicles become a larger share of the consumer and commercial markets. Therefore, we're assuming no growth in this revenue after 2024.

Business License (RGRL) and **Surface Water** contributions to the CIP are set by City policy and are not assumed to grow.

Solid Waste contribution grows with inflation (consistent with previous CIP's) therefore setting to 3.5% growth throughout the 20-year horizon.

2012 Street Levy is assumed to growth at the maximum levy rate of 2.5% each year: 1.0% growth + 1.5% for new construction.

School Zone Safety Cameras reserves are programmed into the 2023-28 CIP because there was a balance built up over several years. Future availability will depend on the costs of running the program, so we are not assuming long-term revenue at this time. Will reevaluate during 2025-30 CIP development.

Kirkland TBD's $20 Vehicle License Fee (Car Tabs) are currently being used to fund the debt service on planned 2024 bond issuance for ATP/SRTS projects as well as Transportation related staffing and are not programmed directly into future transportation projects.

External Funding is not a long-term revenue assumption for the CIP or CFP as state/federal funding is unpredictable and may rise and fall with new legislation or administrations. Any projection of long-term funding would be unreliable and circumspect. That said, Council has indicated that Staff should establish a grant opportunity matching funds reserve which will be available in the next budget that will keep local funds aside for staff to seek external funding.

Revenue Projections

Short term revenue projections were developed based on the City of Kirkland's current funding streams and expected escalation for the 2025- 2030 Capital Improvement Plan (CIP). Short-term revenue assumptions include a modest increase in impact fees and a decline in gas tax revenue from the 2024-2029 CIP. No Tax Increment Financing (TIF) revenues were assumed in revenue projections pending additional information on upcoming development. Short-term revenue projections reflect escalation of solid waste and street levy revenues based on observed trends in City revenue from Kirkland Department of Finance and Administration. Short-term revenue projections for 2025 through 2030 are shown in Table 6-1.

TABLE 6-1. SHORT-TERM REVENUE PROJECTIONS

Revenue Source	2025	2026	2027	2028	2029	2030	Total 2025-2030 Revenue
Impact Fees	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	$2,000,000	**$28,000,000**
REET 1	$2,114,000	$2,114,000	$2,114,000	$2,114,000	$2,114,000	$2,114,000	**$43,503,083**
REET 2	$3,523,000	$3,523,000	$3,523,000	$3,523,000	$3,523,000	$3,523,000	**$72,498,280**
Gas Tax	$531,000	$531,000	$531,000	$531,000	$531,000	$531,000	**$7,434,000**
Transportation Package Extra Gas Tax	$225,000	$225,000	$225,000	$225,000	$225,000	$225,000	**$3,150,000**
Business License (RGRL) Fees	$270,000	$270,000	$270,000	$270,000	$270,000	$270,000	**$3,780,000**
Solid Waste	$430,000	$445,000	$461,000	$477,000	$494,000	$511,000	**$9,349,093**
Surface Water	$500,000	$500,000	$500,000	$500,000	$500,000	$500,000	**$7,000,000**
Street Levy	$2,929,000	$3,002,000	$3,077,000	$3,154,000	$3,233,000	$3,314,000	**$56,112,405**
School Zone Safety Camera	-	-	-	-	-	-	-
Tax Increment Finance	-	-	-	-	-	-	-
Car Tabs	Used for TBD Debt Service						-
Secured External	-	-	-	-	-	-	-
Unsecured External	$2,872,000	$7,000,000	$714,000	-	-	-	-
Total Transportation Revenue	**$2,000,000**	**19,610,000**	**13,415,000**	**12,794,000**	**12,890,000**	**12,988,000**	**$230,826,861**

Long-term revenue projections for the City of Kirkland include escalation of the City's current Real Estate Excise Taxes (REET 1 and REET2). Otherwise, assumptions for long-term revenue between 2031 and

2044 are consistent with those used to develop short-term revenue estimates from observed trends in City revenue. Long-term revenue projections are shown in Table 6-2.

TABLE 6-2. LONG-TERM REVENUE PROJECTIONS

Transportation Revenue Source	Projected Revenue 2031-2044
Impact Fees	$28,000,000
REET 1	$43,503,083
REET 2	$72,498,280
Gas Tax	$7,434,000
Transportation Package Extra Gas Tax	$3,150,000
Business License (RGRL) Fees	$3,780,000
Solid Waste	$9,349,093
Surface Water	$7,000,000
Street Levy	$56,112,405
School Zone Safety Camera	-
Tax Increment Finance	-
Car Tabs	-
Secured External	-
Unsecured External	-
Total Transportation Revenue	$230,826,861

6.2.   Future Transportation Investments

Development of Project Costs

To facilitate future project implementation, planning-level costs were developed for all unfunded projects within the City's project list. High-level costs were developed for roughly 2,000 projects, mid-level costs were developed for roughly 80 projects, and more detailed costs were developed for ten priority projects.

For high-level costs, the cost estimates developed were based on a planning-level analysis of the project descriptions, available GIS data, and input from City staff. A unit cost per linear foot or per location was developed based on assumptions. Various project elements were assumed based on historical project cost information from comparable projects and other context available at the time of analysis. No engineering conceptual drawings were developed in support of these assumptions. ROW costs were not included in the project cost estimates developed.

For mid-level costs, when validated existing CIP cost estimates were available for a specific project, they were used as a baseline with a suggested inflation factor of 5% per year. It was assumed that existing CIP cost estimates included soft costs such as permitting, engineering, construction administration, and City administration. Existing CIP cost estimates were inflated to the year 2024, applying to both construction costs and soft costs. When existing CIP cost estimates were not available for a specific project, various project elements were assumed based on project descriptions, available GIS data,

historical project cost information from comparable projects and other contexts/input from the City at the time of the analysis. No engineering conceptual drawings were developed, and ROW costs were not included in the project cost estimates developed.

The WSDOT Cost Estimating Manual suggests a 30% to 50% contingency for planning-level cost estimates. A 45% contingency was used for projects within the high-level cost analysis and a 35% contingency was used for projects within the mid-level cost analysis. For planning-level soft costs, 25% was assumed for design and permitting and 25% was assumed for construction and City administration.

PRIORITY PROJECTS

Ten priority projects were identified by the City for more in-depth cost analysis. These cost estimates were based on project descriptions, desktop review of the project sites through Google Maps and available GIS data as well as input from City staff. More detailed assumptions for various project design elements were developed for each of the priority projects. Miscellaneous project elements such as temporary traffic control during construction, stormwater measures, utilities, site preparation, and erosion and sensitive area mitigations were assigned with suggested percentages of the total construction costs, based on available historical project cost information. Schematic aerial figures were developed to show detailed assumptions.

For the priority projects, a 30% contingency was used to account for other unidentified design elements. The costs were inflated at 5% per year to the year 2028. For soft costs, 25% was assumed for design and permitting and 25% was assumed for construction and City administration. Potential ROW impacts were estimated in square feet (SF) based on available GIS data for existing ROW and on width assumptions for each priority project. ROW acquisition administrative soft costs per parcel were included in the cost estimates to account for title reports, appraisals, legal documents, and negotiation service costs. The average cost per SF for property value was not included in the planning-level estimates and will be added at a later phase by the City.

Project Prioritization

Conceptual projects from the City's existing plans and programs were consolidated into a single set of projects to be prioritized for funding and implementation. Projects and programs included in the current Capital Facilities Plan, Active Transportation Plan, NE 85th Street Station Area Plan and other adopted plans were recorded in a single dataset and georeferenced in a web map for development of a 20-year project list. Transportation projects referenced in multiple plans or included duplicative elements were consolidated where possible. 430 projects out of the full list of 2,230 potential transportation projects were identified to be evaluated and scored along criteria based on the ten overarching goals of the plan as shown in Table 6-3. The remaining projects were not flagged for prioritization because they are programmatic (i.e. sidewalk program) or already have a funding source identified.

TABLE 6-3. PROJECT PRIORITIZATION CRITERIA AND SCORING

Goal	Criteria	Score
T-1 Safety	Provides a safety improvement on a high injury corridor. Scoring based on high injury corridor ranking.	40: High 30: Medium 20: Low 0: Does not meet criterion
	Provides a safety benefit or preventative countermeasure.	20: Yes 0: No
T-2 Active Transportation	Connects to the Cross Kirkland Corridor (CKC).	5: Yes 0: No
	Creates a low-stress environment for people walking and bicycling.	10: Yes 0: No
	Completes a gap identified in the ATP or SRTS. Scoring based on existing ATP or SRTS priority score.	30: High 20: Medium – Med/High 10: Low – Med/Low 0: Does not meet criterion
T-3 Public Transit	Supports connections to frequent, local, or future transit.	40: Frequent Route 30: Local Route 20: Future Frequent Route 0: Does not meet criterion
T-4: Vehicle Network Management	Improves transportation system operations (signal modification, channelization, etc.).	30: Principal Arterial 20: Minor Arterial 10: Collector 0: Does not meet criterion
T-5: Technology & Emerging Practices	Includes ITS technology (bike/ped counters, passive detection, leading ped interval, Accessible Pedestrian Signals, transit signal priority, etc.).	10: Yes 0: No
T-6: Maintenance & Preservation	Provides a long-term maintenance benefit (roundabouts, new street builds, etc.).	10: Yes 0: No
T-7: Equity	Increases transportation options for priority populations identified through the City's Equity Mapping Tool developed for the Capital Improvement Program.	30: Equity Index 3 – 3.9 20: Equity Index 2 – 2.9 10: Equity Index < 2
	Provides accessibility improvements in compliance with the ADA.	10: Yes 0: No
T-8: Sustainability	Reduces vehicle miles traveled and supports modal alternatives to single-occupancy vehicle trips.	20: Yes 0: No
	Project avoids environmentally sensitive areas (ESA).	20: High

Goal	Criteria	Score
	If impact to an ESA is unavoidable, project supports mode shift and/or improves traffic flow.	10: Medium
	Does not meet criteria	0: Does not meet criterion
T-9: Link to Land Use	Connects to or within an Urban Center or to neighborhood and commercial centers.	30: Urban Center 20: Neighborhood or Commercial Center 0: Does not meet criterion
T-10 Be an Active Partner	Connects to regional connections, centers, or fills a gap crossing jurisdictional boundaries.	10: Yes 0: No
	Leverages coordination with partners.	10: Yes 0: No
	Introduces a new technology/service that supports mode shift.	10: Yes 0: No

The City of Kirkland's available funding through 2044 is limited based on revenue sources outlined in the previous section. All potential projects were evaluated for funding based on this priority framework and the projects with the highest priority scores that represented key connections in the City's networks were selected for funding in the financial plan. Projects slated for funding through 2044 and other projects for which the city will explore other revenue sources such as grant funding is included in Appendix B.

6.3.   Measures and Performance Monitoring

An important element of the implementation of the TSP is the regular evaluation of how well the City is progressing toward meeting the goals outlined in the plan. In addition to the Multimodal Level of Completeness evaluation outlined in Section 5.9, the following additional performance measures will be evaluated every one or two years, depending on the measure.

The Multimodal Level of Completeness evaluates network of completion and includes a level of completion target that the City can reasonably achieve within forecasted revenue. The additional performance measures described in Table 6-4 provide a more complete monitoring program for the City to continue to check-in on implementation of the TSP goals.

TABLE 6-4. PERFORMANCE MEASURES AND EVALUATION

TSP Goal	Performance Measure	Performance Measure Evaluation
T-1: Safety	Annual totals of fatalities, serious injuries, and bicycle/pedestrian related crashes. Analysis of priority locations and leading contributing factors reported every two years with the Local Road Safety Plan.	Monitor trends. Summary level crash data will also be continuously available with a website dashboard dynamically connected to a police report database.
T-2: Active Transportation	Annual totals of bicycle and pedestrian volume counts on the CKC	Monitor trends. Data collected by tube, infrared, and camera sensors and

TSP Goal	Performance Measure	Performance Measure Evaluation
		potentially crowdsourced data.
	T-2: Active Transportation	Annual totals of bicycle and pedestrian volume counts on the CKC
T-3: Public Transportation	Annual total ridership numbers on all day routes in Kirkland.	Monitor trends and/ or link to Metro's ridership dashboard
T-4: Vehicle Network Management	Narrative summary of annual progress towards completing ITS Implementation Plan	Narrative
T-5: Technology and Emerging Practices	Narrative summary of new technologies and the implementation of improvements that support future technologies such as Smart Cities Initiative, fiber optic connectivity, parking technologies, and other infrastructure upgrades reported every two years.	Narrative
T-6: Maintenance	Percentage of maintenance program and/or project funding in the capital improvement program	% of funding levels
T-7: Equity	Narrative summary of CIP Equity Tool scores of completed projects.	Narrative
T-8: Sustainability	Percentage of funds spend per transportation mode in the CIP, reported every two years.	% of funding levels
	Link to the Sustainability Strategic Plan monitoring of the 7 goals and 21 actions under Land Use and Transportation	Link
T-9: Link to Land Use	Narrative summary of project updates that support land use goals (transit, centers, etc.). Grant updates included.	Narrative
T-10: Partnerships	Narrative summary on Kirkland's partnerships if any for that year (K line example)	Narrative