CITY OF KIRKLAND
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MEMORANDUM

To: Kurt Triplett, City Manager

From: Kimberly Scrivner, Transportation Planner
Joel Pfundt, Transportation Manager
Julie Underwood, Interim Director of Public Works

Date: April 7, 2020

Subject: ACTIVE TRANSPORTATION PLAN UPDATE

RECOMMENDATION:

It is recommended that City Council receive a briefing and provide input on the Active Transportation Plan update.

BACKGROUND DISCUSSION:

1. Background:

   The City's Active Transportation Plan (ATP) was last updated in 2009. The Transportation Master Plan (TMP) calls for periodic updates to the ATP which supports the commitment the City has made to improving the ease and safety for people walking and bicycling in Kirkland.

   > **Active Transportation** *refers to people walking and bicycling. Walking also includes using a wheelchair or other assistive device and bicycling includes using regular pedal bikes, electric assist bicycles (e-bikes), tricycles, or adaptive bicycles.*

   This memo outlines the supportive policies, timeline and approach, and plan elements for updating the ATP. The Council goal for Balanced Transportation and two goals in the TMP are the overarching directives for this work:

   > **The Council goal related Balanced Transportation** is to *reduce reliance on single occupancy vehicles and improve connectivity and multi-modal mobility in Kirkland in ways that maintain and enhance travel times, safety, health and transportation choices.*

The Transportation Master Plan (TMP) also includes strong goals and policies that support improvements for people walking and bicycling including:

- **Goal T-1**. Complete a safe network of sidewalks, trails and improved crossings where walking is comfortable and the first choice for many trips.
- **Goal T-2** Interconnect bicycle facilities that are safe, nearby, easy to use and popular with people of all ages and abilities.

As this effort will update an existing plan (the 2009 Active Transportation Plan) based both the 2009 ATP and the 2015 TMP, the proposed approach is to:

- carry forward the goals, policies and actions from the TMP related to walking and bicycling and relevant goals and strategies from the 2009 ATP;
- demonstrate the progress made on the policies and actions/ strategies;
- suggest any updates to policies and/ or actions for Council consideration
- recommend any projects or programs that further implement existing or updated policies and actions
- outline a timeline/ process for implementing any projects or programs

Safe and Active Transportation planning coordination: The update to the Active Transportation Plan coincides with the development of the Safer Routes to School Action Plans. It also coincides with the development of a Vision Zero Action Plan which is focused on safety. As these plans significantly overlap in terms of walk and bike safety and investments, staff has been in close coordination related to the data renovation project, outreach, criteria and project recommendations. The term 'Safe and Active Transportation' has been used to indicate overlapping efforts or events.

2. Timeline:

2019 – Staff began scoping the update which included:

- assessing progress toward implementing the 2009 ATP and the 2015 TMP actions and strategies
- assessing and when necessary, updating existing data sets (data renovation project) where staff worked closely with our Geographic Information Systems (GIS) department to ensure data to be used in the analysis is current, includes additional information that is desirable to track
- coordinating interdepartmentally such as with the planning staff and with police
- coordinating with the Transportation Commission at their March 2019, October 2019 and February 2020 meetings

The Transportation Commission gave feedback to staff on considerations that help guide the criteria and analysis which include accommodating people of all ages and abilities, supporting access to transit and land use, equity and safety. Some additional comments from the Commission included consideration of lower cost implementation such as through 'place-making' or other demonstration projects, consideration of technology improvements and recognizing additional barriers to walking or bicycling such as construction, vegetation, parking impacts, etc.

October 2019 – Outreach Phase 1: Staff began the first phase of outreach which included:

- Walk and Bike to School month
- Community Meeting at City Hall
- Neighborhood Meetings
- Online Safe and Active Transportation Plan survey (which ran through January 2020)

October 2019 – Consultant Services: The consultant firm, Toole, was also brought on board in October 2019 to begin the analysis process of the City's Walk and Bike networks and to begin to develop the plan document.

Spring 2020 Outreach: In January, staff developed an extensive public outreach schedule aimed at meeting with every active neighborhood association in March and April to review recommendations for the ATP (and the Safer Routes to School Action Plans). The meetings would also be used to promote the Safe and Active Transportation Summit scheduled for Saturday, March 28. Ultimately, both the draft Safer Routes to School Action Plans and the public comments were to be presented to the City Council on April 21. In February, the neighborhood meetings and the Summit were cancelled as a result of COVI-19.

The proposal moving forward while social distancing is in place is to receive public comment on draft walk and bike recommendations via an interactive map once staff receives direction from Council on priorities. If social distancing lifts prior to making final recommendations, staff will attempt to reschedule any in-person meetings or events. Staff will continue to work with the Transportation Commission future meetings are not cancelled.

Spring / Summer 2020 – Finalizing the plan:

- Finalize priorities and complete data analysis
- Develop and receive feedback on proposed recommendations
- Incorporate public input and prioritization measures to prioritize proposed investments
- Develop cost estimates for top priorities
- Finalize draft document

August 2020 – City Council Presentation of draft plan and final recommendations

POLICY GUIDANCE:

A. City Council Goals:

Public Safety
Ensure that all those who live, work and play in Kirkland are safe. Council Goal: Provide for public safety through a community-based approach that focuses on prevention of problems and a timely response.

Balanced Transportation
Kirkland values an integrated multi-modal system of transportation choices. Council Goal: Reduce reliance on single occupancy vehicles and improve connectivity and multi-modal mobility in Kirkland in ways that maintain and enhance travel times, safety, health and transportation choices.

Neighborhoods
The residents of Kirkland experience a high quality of life in their neighborhoods. Council Goal: Achieve active neighborhood participation and a high degree of satisfaction with neighborhood character, services and infrastructure.

B. Kirkland's Comprehensive Plan Vision:

Kirkland is one of the most livable cities in America. We are a vibrant, attractive, green and welcoming place to live, work, and play. Civic engagement, innovation and diversity are highly valued. We are respectful, fair, and inclusive. We honor our rich heritage while embracing the future. Safe, walkable, bikeable and friendly neighborhoods are connected to each other and to thriving mixed use activity centers, schools, parks and our scenic waterfront. Convenient transit service provides a viable alternative to driving. Diverse and affordable housing is throughout the city. Kirkland strives to be a model, sustainable city that values preserving and enhancing our natural environment for our enjoyment and future generations.

C. Transportation Master Plan Policies:

Under the goals for Walking and Bicycling in the TMP, there are twelve polices and 38 actions that support these goals. These include developing and supporting connections to the Cross Kirkland Corridor, wayfinding signage, access to school and other places for children and safety. Most of the polices and actions will be addressed in the Active Transportation Plan although some are being addressed by other efforts such as the development of the Americans with Disability Act (ADA) Transition Plan, the Vision Zero Plan and the Safer Routes to School Action Plans. While the ATP will articulate progress on all of the policies and actions from the TMP related to walking and bicycling, below are some of the policies and actions that support the ATP update elements or will somehow be addressed in the plan document:

Policy T-1.2. Identify and remove barriers to walking
- Action T-1.2.1 Update the ATP to cover all of Kirkland's neighborhoods and to further guide implementation of the policies in this plan.
- Action T-1.2.2 Reduce sidewalk blockages by reviewing, revising and enacting regulations or other measures.
- Action: T-1.2.5 In order to provide the best possible designs, Review and revise preapproved plans and other design guidelines that affect pedestrians. Adopt street design guidelines in keeping with guidance published by the National Association of City Transportation Officials (NACTO) and the American Association of State Highway and Transportation Officials (AASHTO).

Policy T-1.4. Prioritize, design and construct pedestrian facilities in a manner that supports the pedestrian goal and other goals in the TMP.
- Action T-1.4.1: Develop a sidewalk prioritization method for the Capital Improvement Program.
- Action T-1.4.2: Review and revise design requirements for sidewalks

Policy T-1.7. Improve street Crossings
- Action T-1.7.1: Continue to support the Pedestrian Flag program; measure and improve its performance.
- Action: T-1.7.2: Develop a prioritization method for crosswalk improvements.
- Action: T-1.7.3: Adopt traffic signal operational procedures that include practices such as advance pedestrian phases, generous walk intervals and protected left turn phasing.

Policy T-2.1. Make bicycling safer.
- Action T-2.1.2: Develop a program to gather bicycle volume at key points in the City in a manner that is meaningful for measuring safety and ridership trends. Reporting from bicycle detectors can be one means of obtaining this information.

Policy T-2.2. Create new and improve existing on-street bike facilities.
- Action T-2.2.1: Recognize the National Association of City Transportation Officials and the American Association of State Highway and Transportation Officials bicycle design guidelines and adopt them into pre-approved plans used by the City of Kirkland.
- Action T-2.2.2: Guide implementation of the policies in this plan and development of a set of standards for improving the bicycle network by updating the Active Transportation Plan.
- Action T-2.2.3: Study and implement improvements to the system of on-street bicycle lanes.
- Action T-2.2.4: Develop a prioritization system for on street bicycle improvements. Policy T-2.3. Build a network of greenways
- Action T-2.3.1: Develop standards for Greenways in Kirkland.
- Action T-2.3.2: Prioritize and construct greenway projects.

Policy T-2.4. Implement elements and programs that make cycling easier.
- Action T-2.4.1: Provide high quality bicycle parking convenient to all business districts.
- Action T-2.4.2: Create a strategy to increase the supply of public bicycle parking in Kirkland. Adopt clear guidelines that encourage business and property owners to provide bicycle parking on private property.
- Action T-2.4.4: Adopt maintenance policies that emphasize high-use cycling routes.

D. The 2009 Active Transportation Plan Goals:

There are 25 objectives and 66 strategies noted in the 2009 ATP under the following goals. Many of those were carried forward into the Transportation Master Plan. The ATP update will address progress toward these objectives and strategies and/ or if they have been met.

Goal G1. Develop the Cross Kirkland Trail
Goal G2. Reduce crash rates
Goal G3. Add facilities for pedestrians
Goal G4. Increase the number of children who use active transportation to travel to and from school.
Goal G5. Improve safety for people crossing streets
Goal G6. Remove physical barriers to walking
Goal G7. Improve on-street bicycle facilities
Goal G8. Make bicycling more convenient

DRAFT ACTIVE TRANSPORTATION PLAN ELEMENTS:

The proposed Active Transportation Plan elements are as follows:

- Background and history of Kirkland's support for walking, bicycling and safety (such as being the first city in the region to adopt a complete streets policy, first with a pedestrian flag program, likely one of the first to adopt a walk and bike plan, etc.)

- Report of progress made to implement the 2009 ATP and the TMP policies, actions and strategies

- Restatement of the goals, policies and actions with any recommended updates

- Design guidance standards, based on best practice, to guide consistent implementation of evolving innovations for walk and bike facilities; intended for development and project engineers and to guide development of any new or updated pre-approved plans

- Engineering: This portion of the plan will outline how GIS analysis and project prioritization measures will help identify capital projects for walk and bike improvements:
    - Analysis of the current networks for walking and bicycling (such as level of stress on roadway segments, connectivity, etc.).
    - Review of existing recommendations (such as the planned bicycle network from the 2015 Master Plan)
    - Using GIS analysis and other prioritization measures, the plan will identify any change to currently planned projects and/ or provide additional project recommendations
    - Outline of a prioritization framework
    - Plan for implementation (include opportunities for implementation through annual programs such as paving and striping programs, identification of projects likely to be built by others such as development or regional partnerships, projects likely to be funded by grants)
    - Cost benefit analysis for high-priority projects (likely those that will require grant funds)

- Education and Encouragement:
    - The education and encouragement components will overlap with the Safer Routes to School Action Plan efforts and the Vision Zero Plan, both of which will have significant education and encouragement components. The ATP will identify actions that support education and encouragement while highlighting the coordination with these other efforts.

- Enforcement:
    - Enforcement is another component that will mostly be addressed through the Safer Routes to School Action Plan efforts and the Vision Zero Plan. Staff has already been coordinating with the police department and most enforcement efforts will be outlined in these other two plans. The ATP will highlight these efforts.

- Equity:
  - While geographic equity will be addressed to ensure all neighborhoods are served, social equity will be used in the prioritization framework for identifying projects which would benefit all demographic groups, with particular attention to ensuring safe, healthy, and fair outcomes for low-income people, people of color, and people with disabilities.

A. Safe, Inclusive and Welcoming City for all people

The City of Kirkland is deeply committed to promoting a just society that respects and welcomes all people.

The City Council adopted a Proclamation proclaiming Kirkland as a Safe, Inclusive and Welcoming City for All People. In addition, a Resolution was adopted directing the City Manager to invite the community to come together to discuss and support the shared values of diversity and inclusion and identify additional actions that can be taken by the City and the community to help keep Kirkland as safe, welcoming and inclusive City for all people. An example of these community actions includes the Inclusion Network.

B. Existing policies

The City of Kirkland complies with all federal nondiscrimination laws.

- The City of Kirkland assures that no person shall on the grounds of race, color, national origin, or sex, as provided by Title VI of the Civil Rights Act of 1964 as amended, and the Civil Rights Restoration Act of 1987 (P.L. 100.259) be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any of its federally funded programs and activities.

- The City of Kirkland further assures every effort will be made to ensure non-discrimination in all its programs and activities, whether those programs and activities are federally funded or not.

C. Americans with Disability Act

Kirkland published the draft Americans with Disability Act Transition Plan in August of 2018. In late 2019, the City began collecting feedback on the Transition Plan through a variety of civic engagement activities, including service provider agency focus groups and an online survey. An example of how the City implements the Transition Plans is through the Street Preservation Program. Since 2013, the City has installed 169 new regulation compliant crosswalk ramps with the Street Preservation Program.

- Evaluation:
  - Outlining existing count programs and proposed improvements
  - Summary of crash data and improvements for crash data reporting

- Data renovation project – the plan will briefly outline the data renovation project (highlighting the importance of these efforts) and note an action for future support of maintaining quality data sets
- Performance measures – the plan will continue to address the evaluation framework in the TMP for walking and bicycling and will identify any additional measures for evaluating progress moving forward

DIRECTION SOUGHT:

Staff will give a short presentation at the April 21st Study Session with the Safer Routes to School Action Plans. The City Council will be asked to provide input on the draft Action Plan approach, project recommendations and prioritization as well as next steps.

Attachment A: Draft walk network evaluation and priorities
Attachment B: Draft bike network evaluation and priorities

Attachment A: Pedestrian Network Priorities – Active Transportation Plan (ATP) Update

This document outlines a proposal for identifying and prioritizing potential pedestrian investments in Kirkland. In order to identify and prioritize investments, it is proposed to focus on access to transit and activity centers on arterials and collectors. Additional focus could be added such as connections to the Cross Kirkland Corridor, parks, etc., based on Council direction. Criteria would then be applied to further prioritize needs and identify any additional, non-arterial/collector investments for consideration.

Pedestrian needs to be considered would include missing gaps in sidewalks, new or improved crossings or other measures to enhance the pedestrian environment such as lighting, signage, placemaking, technology, etc.

Beginning with gaps on arterials and collectors is based on policy direction and a focus on safety.

1. 2009 Active Transportation Plan Objectives:
    - G3.1: Complete sidewalk on one side of all principal and minor arterials.
    - G4.1 and G4.2: Complete sidewalk on one side of all school walk route segments of all arterials and collector streets
2. Transportation Master Plan 20-Year project table: One side of arterials and collectors for school walk routes, missing sidewalks on principal arterials, top 2 groups on arterials and collectors for 10-min neighborhoods
3. Separating people from traffic for safety purposes as crash analysis indicates higher speed and volume roadways have more incidents of pedestrian crashes
4. Collectors and arterials still connect people to activity centers and bus routes as not all local roads interconnect
5. Many local roads are likely to be more comfortable to walk without contiguous sidewalks than collectors and arterials

Local streets and other connections are still included in assessment for pedestrian investments in Kirkland:

- All local roadways are considered for the Safer Routes to School action plans
- The Neighborhood Safety Program can apply to all types of roads
- Local streets on transit routes will be identified for addition to the ATP analysis
- Other high-priority local connections may be added for analysis on a case-by-case basis (example: connecting downtown Kirkland to the Cross Kirkland Corridor)
- An additional walk-shed analysis may identify additional needs on planned trails, local streets or crossings, planned connections, etc.

Once staff has received Council feedback, the plan will:

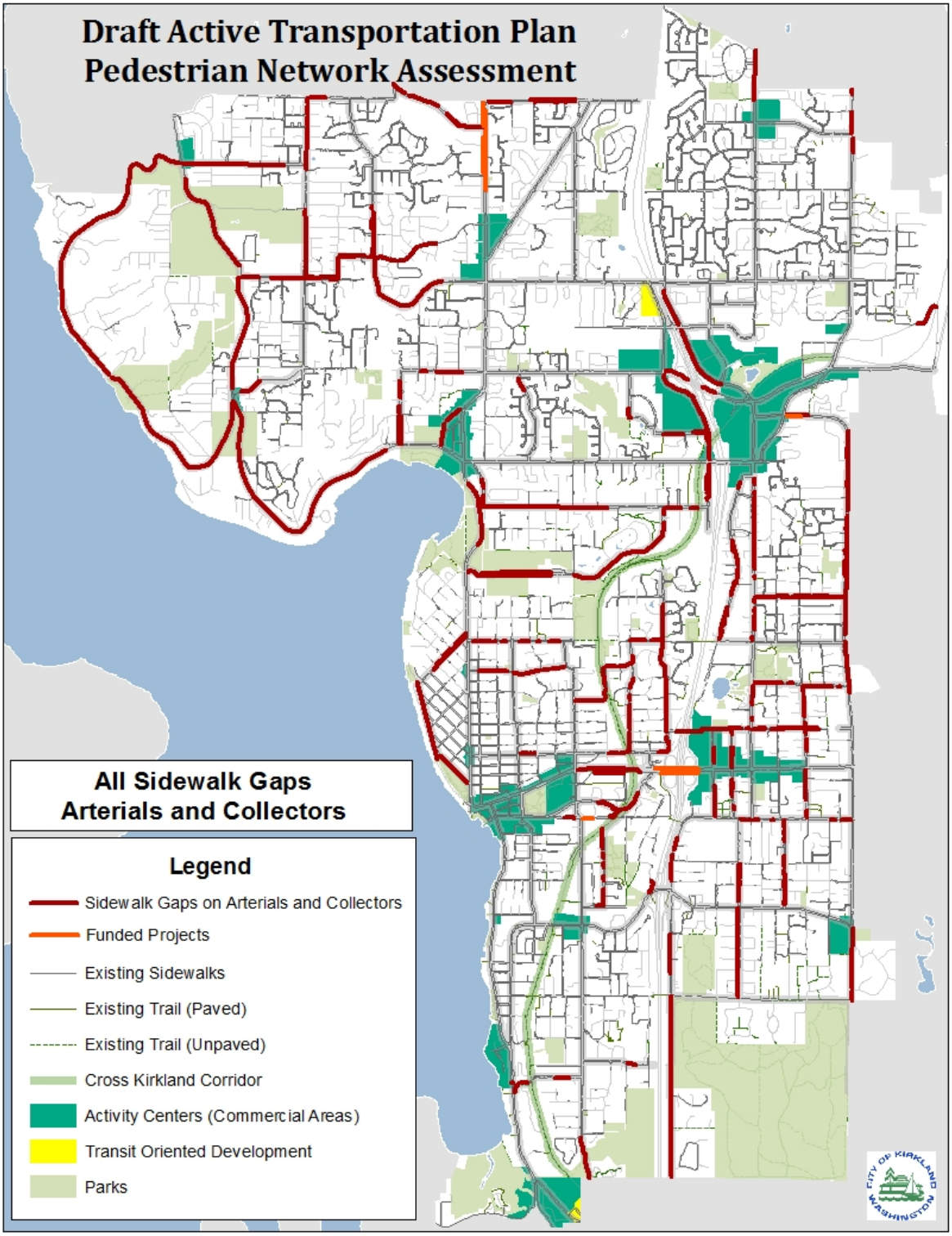
- Identify projects to be considered for further analysis and public engagement
- prioritize the proposed projects (in terms of high, medium and low based on a set of criteria)
- outline which projects may be implemented in various annual programs, by development or partnerships or those that should be identified for the CIP or for future grants
- high priority projects will include a cost/benefit analysis (likely those requiring grant funds)

Table 1 - Proposed Project Prioritization

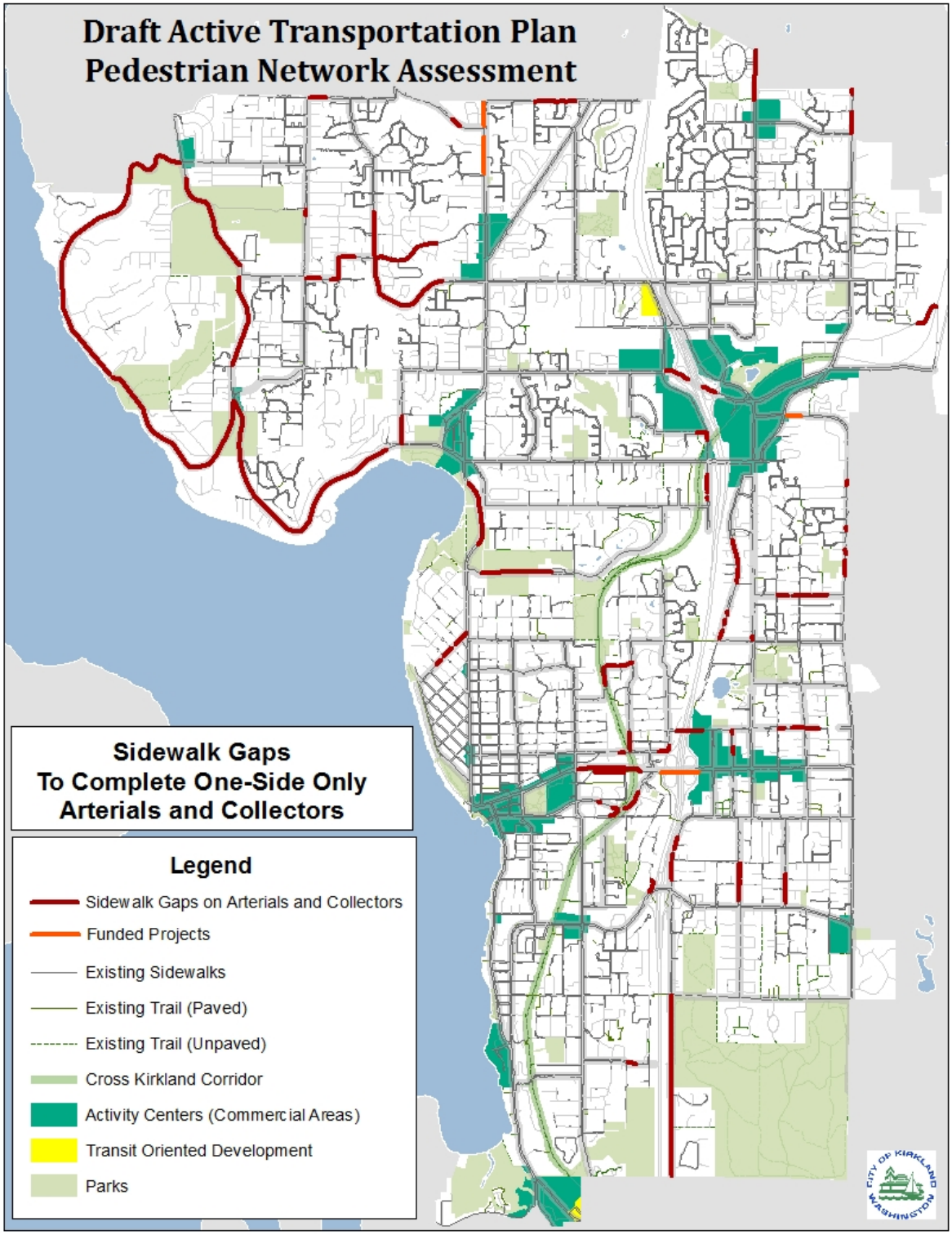
Category	Detail	Potential Scoring Method
Overarching Policy	Begin with contiguous segment on one side of arterials and collectors and other identified segments.	
Safety	Priority Corridors identified in the 2020 Local Road Safety Plan	Yes/ No or Range for Priority level 1 & 2
	Facility Type	Yes/ No on Collectors and Arterials or Range for Facility Type: Principal (high), Minor (med), Collector (low)
Link to Land Use	Access to Activity Centers • 10-min neighborhood score • project 'leads directly into or is within' activity center	Yes/ No or proximity score
	Access to people - an assessment of the number of parcels would benefit from an improved or new connection	Toole's Analysis. Numbered score for higher number of units per parcel that is provided access.
	Included in Safer Routes to School recommendations	Yes/ No or numbered score
	Access to the CKC	Yes/ No or numbered score
	Access to Parks	Yes/ No or numbered score
Connect to Transit	Range: • On a high frequency route (15 min weekdays) • On another Metro route • Direct access to high frequency route • Direct access to another Metro route • Within ¼ mile or ½ mile of high frequency or other Metro route	range
Equity	Census track based: low-income, people of color, people with disabilities, senior population	range
	Could include access to community services, senior centers, etc.	
Community Input	Based on 'Suggest a Project', if is included in a Neighborhood Plan	Yes/ No
Overarching Policy – Next Priorities	Identify Opportunities where both sides of arterials and collectors are needed, or other additional connections based on the above criteria.	

Beginning with sidewalk gaps:

Starting with the overarching policy of gaps on collectors and arterials in Kirkland, this map identifies all existing gaps on both sides of the street. NOTE: This map includes three local street segments.

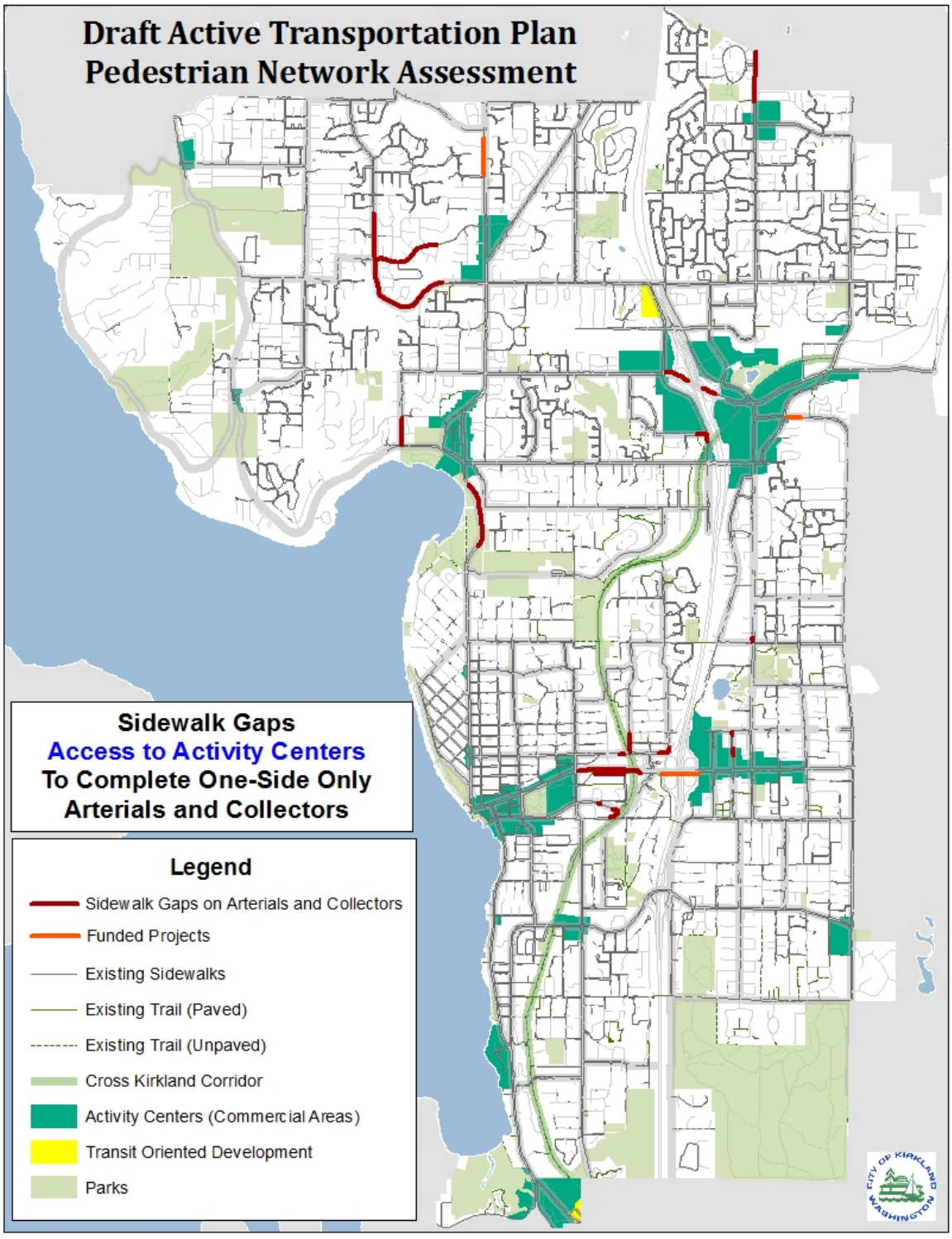


Applying Proposed Criteria - Addressing Contiguous One-Side of the Street Only:
An example for using prioritization to narrow down the number of projects is to highlight those segments that would complete gaps on one contiguous side of arterials and collectors.



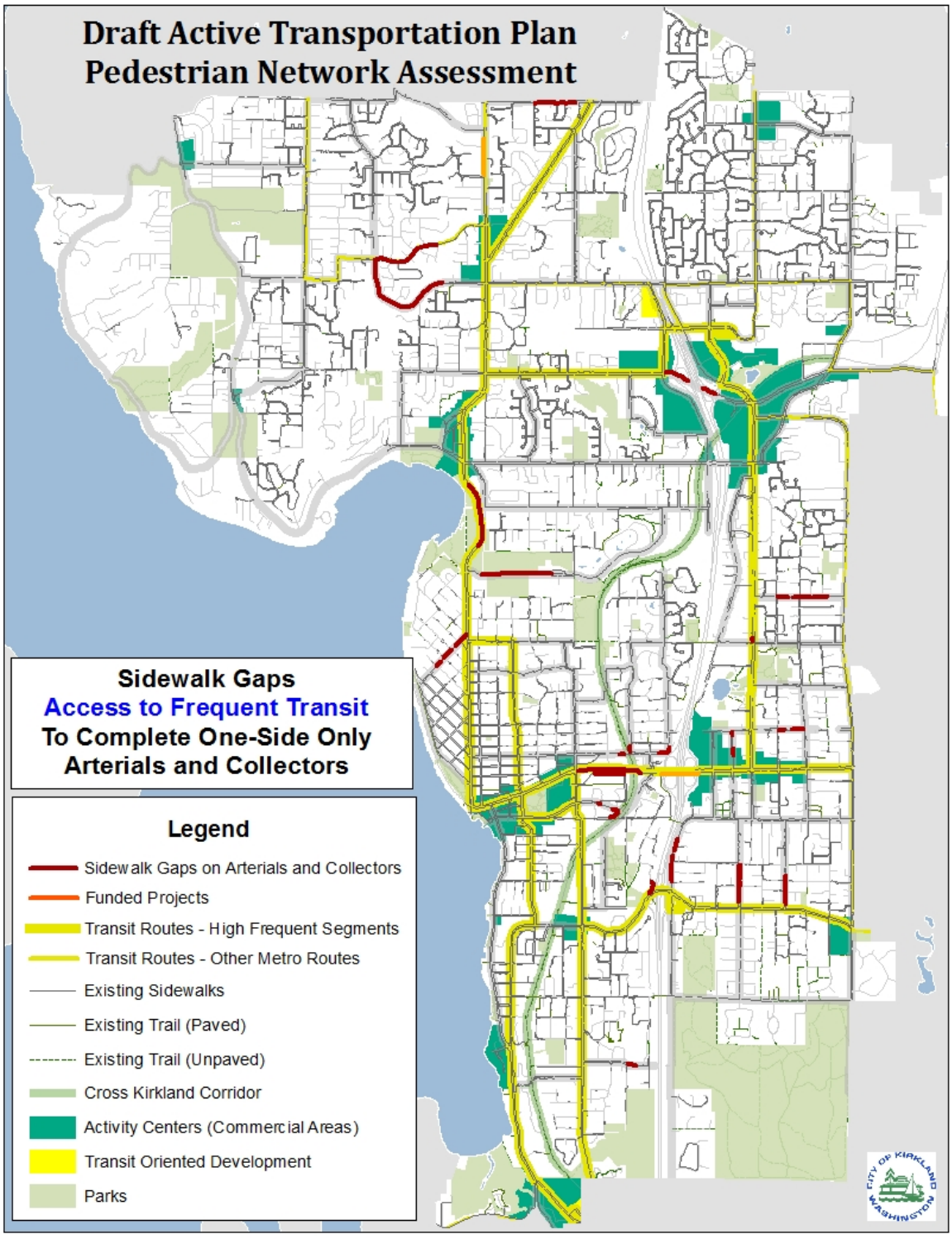
Addressing Additional Prioritization Measures – Access to Activity Centers:

Applying additional criteria can help prioritize key projects the City may focus on. The map below shows an example of projects that are within or adjacent to activity centers. One improvement to this measure will be to apply a composite score for 10-minute neighborhoods identified in Kirkland's Comprehensive Plan or to which projects connect multi-family or denser neighborhoods.



Addressing Additional Prioritization Measures – Access to Transit:

Another proposed priority measure is to prioritize access to transit. The map below shows sidewalk connections that are on or adjacent to frequent transit service (defined as existing or planned 15-minute weekday service on any given segment). Additional analysis could identify projects that access all transit routes or address both sides of the street where transit exists.

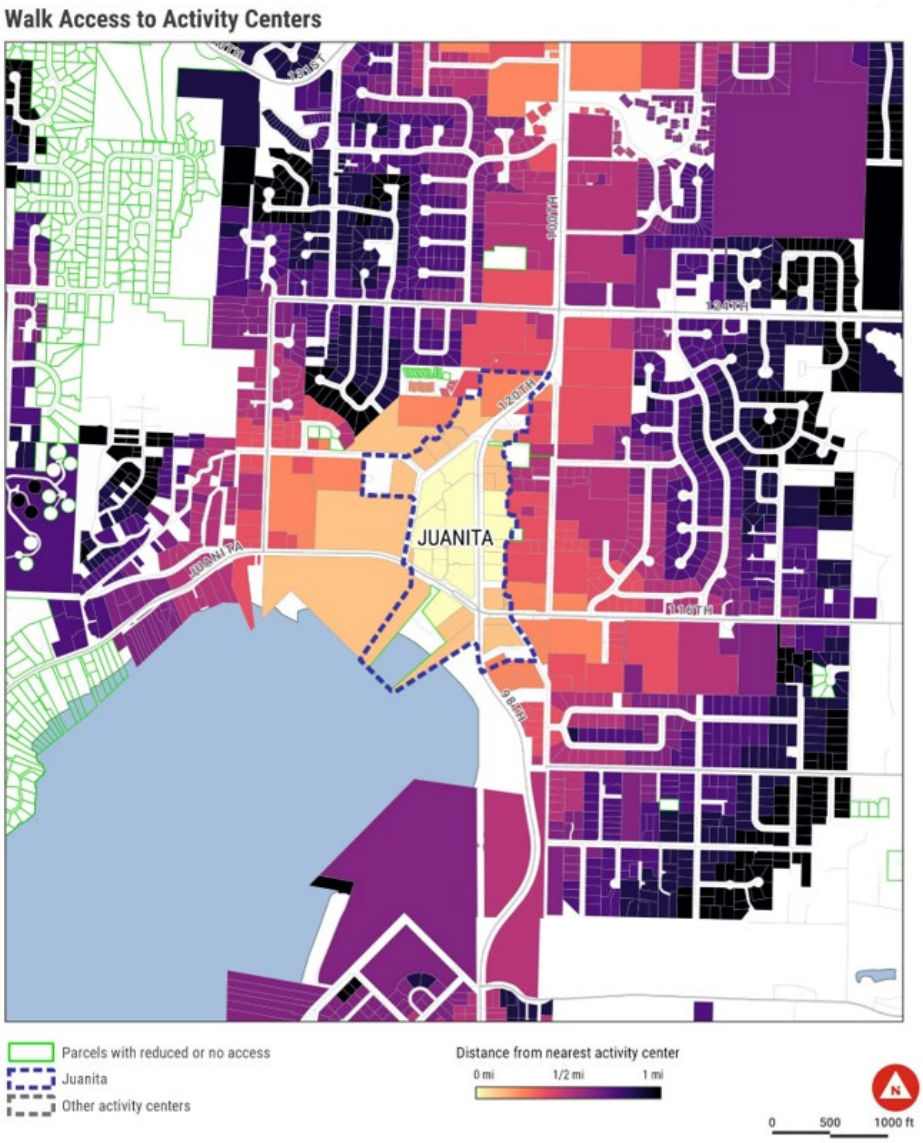


Walk Access Analysis: Toole Design will be applying their walk access analysis to assess how far a typical adult (walking at an average 4 feet per second) can travel to access to transit and activity centers. This provides additional information for prioritization but also assists identifying additional connections that may be needed to ensure greater connectivity.

The map below shows the walk access for existing conditions to an activity center using sidewalks, trails, cut-throughs, and crossings based on presence of or gaps in sidewalks (related to speed of the facility), presence or absence of curb ramps and the type of control at intersections. Speed and number of lanes of the roadway segments are also a factor.

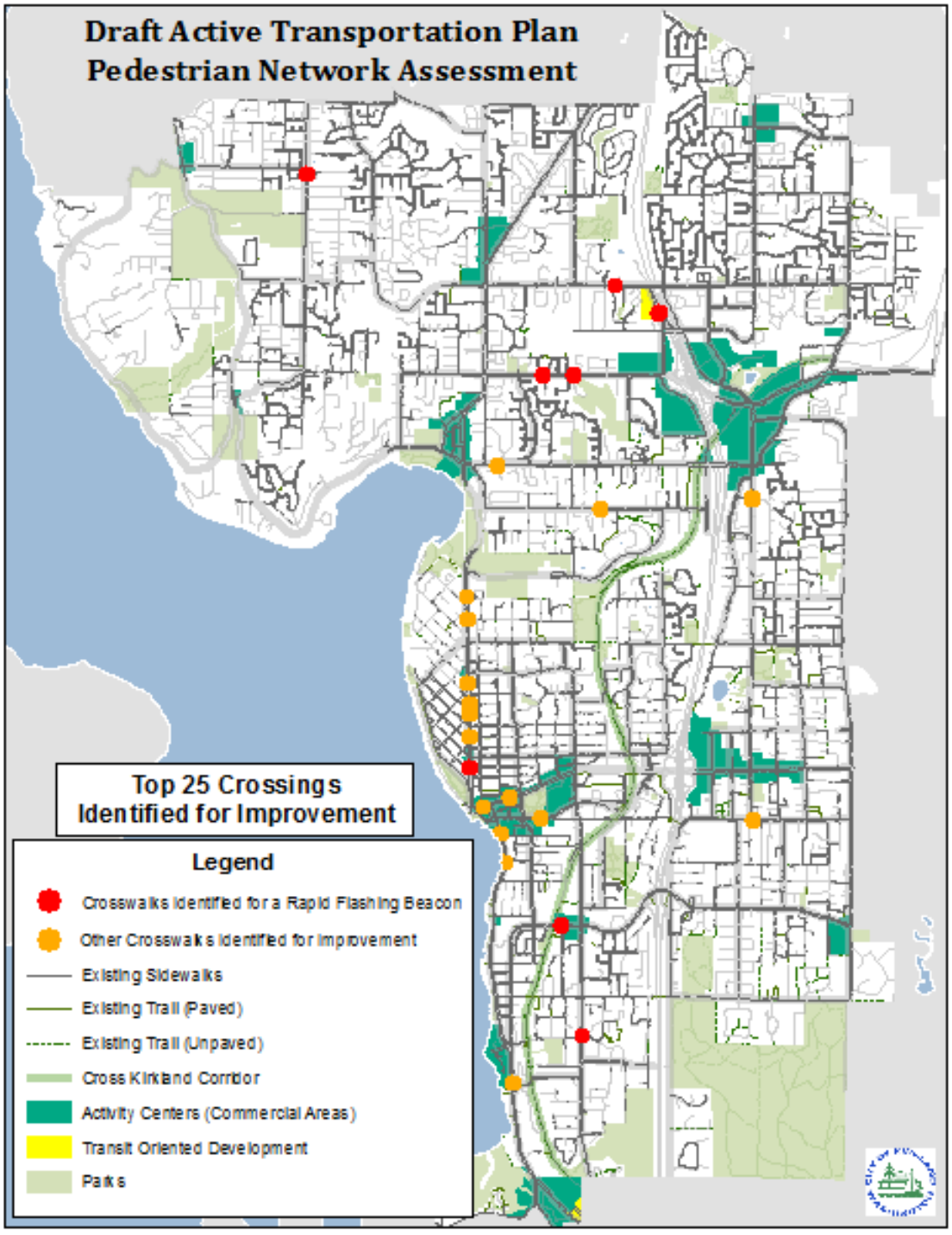
The colors show the number of parcels that can access the Juanita urban center within a distance of one mile using that criteria. If a parcel has no color (outlined in green), that means those parcels would have to walk longer than one mile to access the center or walk in undesirable conditions.

This analysis can assist in identifying additional segments to the network where appropriate.



Improving Crosswalks: Street crossings are critical to the success of a pedestrian network. Kirkland has a history of innovation in treatments at uncontrolled crossing locations. The Transportation Master Plan calls for the best practices and research to guide decisions around crosswalk improvements.

Kirkland's engineering staff have identified the top 25 crossings that need improvement based on crash history, speed and volume of the roadway, presence and existing treatment at an additional crossing.



Next Steps:

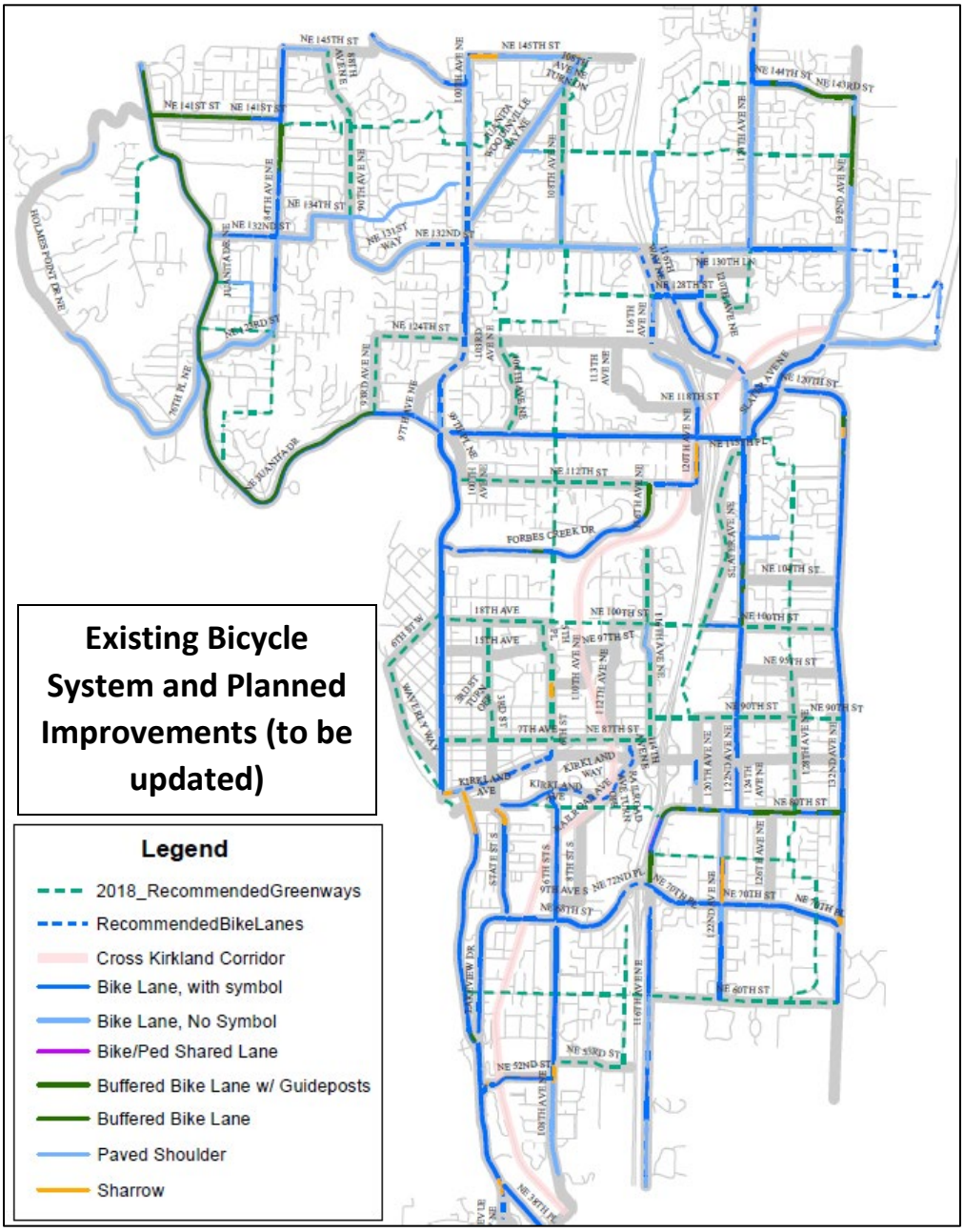
Based on Council direction, staff will:

- Identify projects to be considered for further analysis and public engagement
- prioritize the proposed projects (in terms of high, medium and low based on a set of criteria)
- outline which projects may be implemented in various annual programs, by development or partnerships or those that should be identified for the CIP or for future grants
- conduct a cost/benefit analysis on high priority projects (likely those requiring grant funds)

Attachment B: Citywide Bicycle Network Analysis – Active Transportation Plan (ATP) Update

The City of Kirkland has a network of bicycle facilities that include sharrows (painted bike pavement markings in a shared roadway lane, bicycle lanes and buffered bicycle lanes. There are currently several protected bicycle lane projects funded and the City's first neighborhood greenway is being constructed in summer of 2020.

In 2015, the City adopted a planned bicycle network as part of the Transportation Master Plan (TMP). This includes a network of neighborhood greenways and proposed bicycle lanes. Since then, Kirkland has been implementing policies also in the TMP for improving bicycle facilities by adding more buffered bicycle lanes or improving existing bicycle lanes to the system.



The purpose of reviewing the planned bicycle network is to ensure the City is still planning the best bicycle network that serves the most people and places. Since 2015, the City has grown, transit service has changed and new innovations for bicycle facilities have become more defined as best practice. This process will evaluate the current planned system and may identify additional improvements or redirect planned routes based on current data and analysis.

The citywide bicycle network analysis evaluates both **Level of Traffic Stress (LTS)** and connectivity using the **Bicycle Network Analysis (BNA)** tool to assess both existing and future conditions.

Bicycle Level of Traffic Stress (LTS) analysis measures comfort along every segment of the transportation network in Kirkland based on:

- presence and quality of bicycle facilities
- number of lanes
- posted speed limit
- Average Daily Traffic (ADT)

Bicycle Network Analysis (BNA) evaluates every census block to determine how well the existing and future bicycle networks connect places and people to one another.

Two census blocks are considered connected if and only if there is an unbroken low-stress connection between them that does not require a trip more than 25% longer than the shortest car trip. Even a short stretch of stressful biking negates a potential

The **Bicycle Network Analysis** is composed of four primary steps (see Figure 1).

1. The first step consists of calculating the Level of Traffic Stress (LTS) for existing and future conditions.
2. The next step involves taking the existing and future conditions LTS results and feeding those networks into the BNA tool to model existing and future bicycle access to destinations.
3. The result of the existing and future conditions BNA results highlights locations that are connected to other places and people via the low-stress bicycle network, and locations that are disconnected because they lack low-stress connections. To improve low-stress connectivity, on-street and off-street connections are identified and recommended for improvements that reduce the estimated level of stress.
4. Lastly, a final BNA is run using the newly identified recommended improvements to evaluate the how citywide low-stress bicycle connectivity is enhanced.

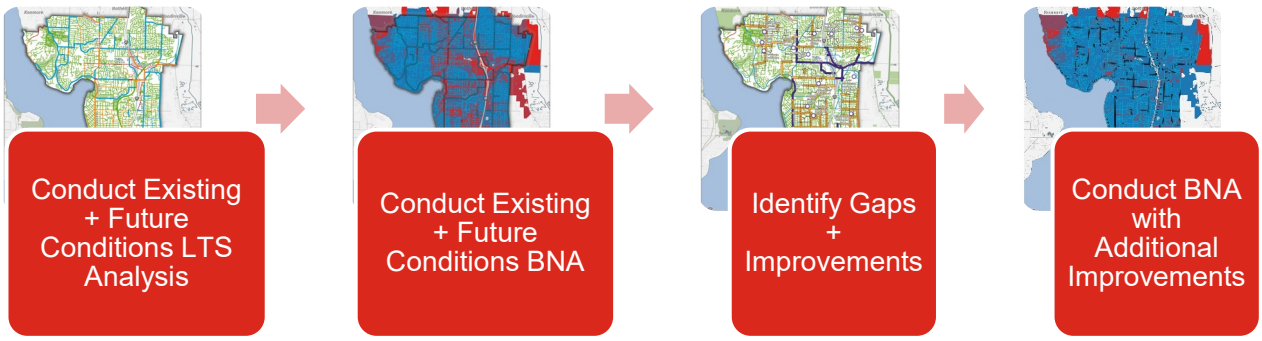
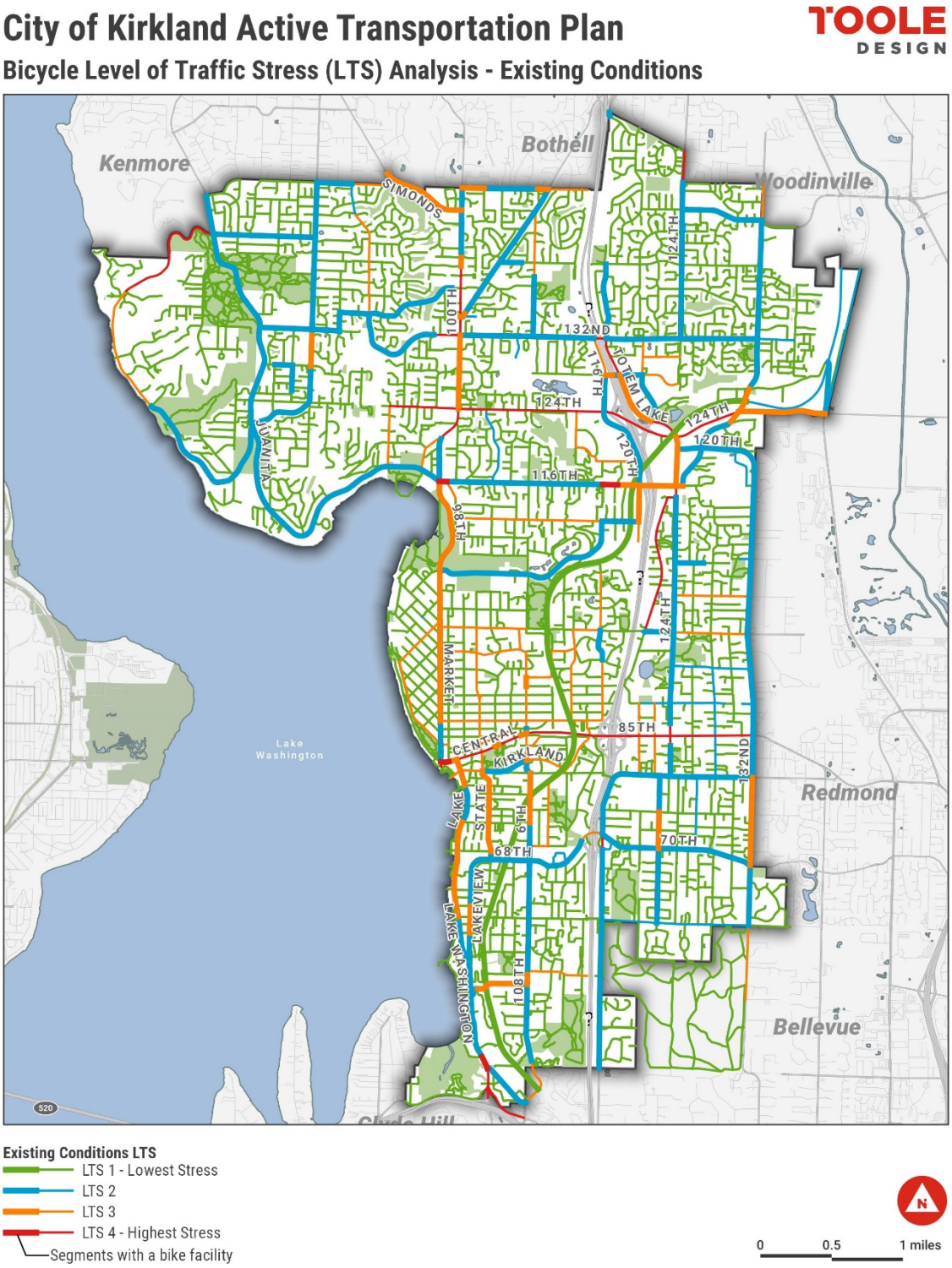


Figure 1: Bicycle Network Analysis Process

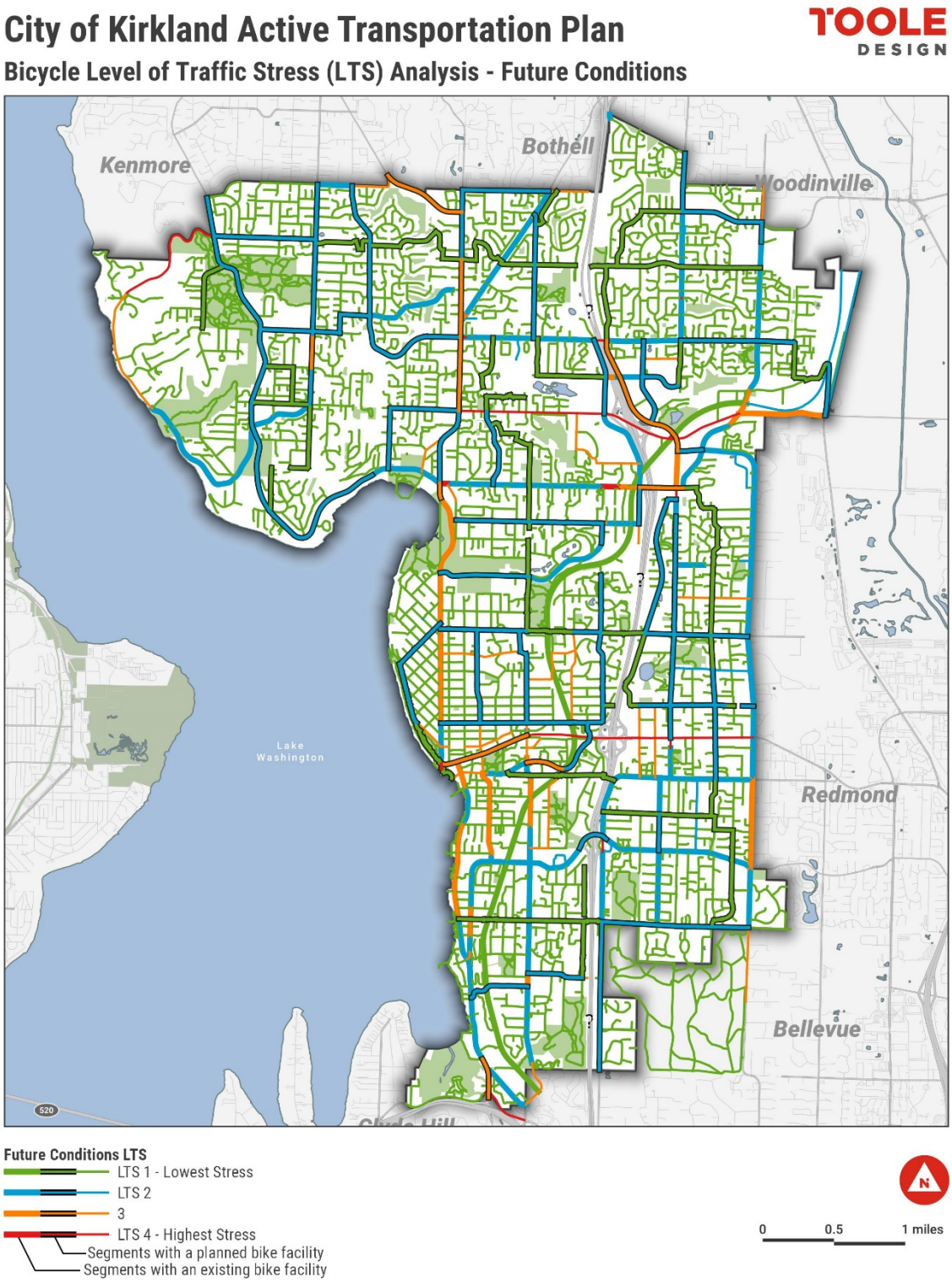
Bicycle Level of Traffic Stress Results for EXISTING Conditions

This map shows the LTS for existing bike facilities which are highlighted using thicker lines as well as all other portions of the roadway network. The majority of collector and arterial roadways, many of which have an existing bicycle facility, are classified as being high stress (LTS 3 or LTS 4). When possible, this analysis considers locations where a striped bike lane is dropped at intersection. These locations can be seen at NE 116th Ave at 98th Ave NE, NE 132nd St at 100th Ave NE, and at NE 85th Ave at 124th Ave NE.



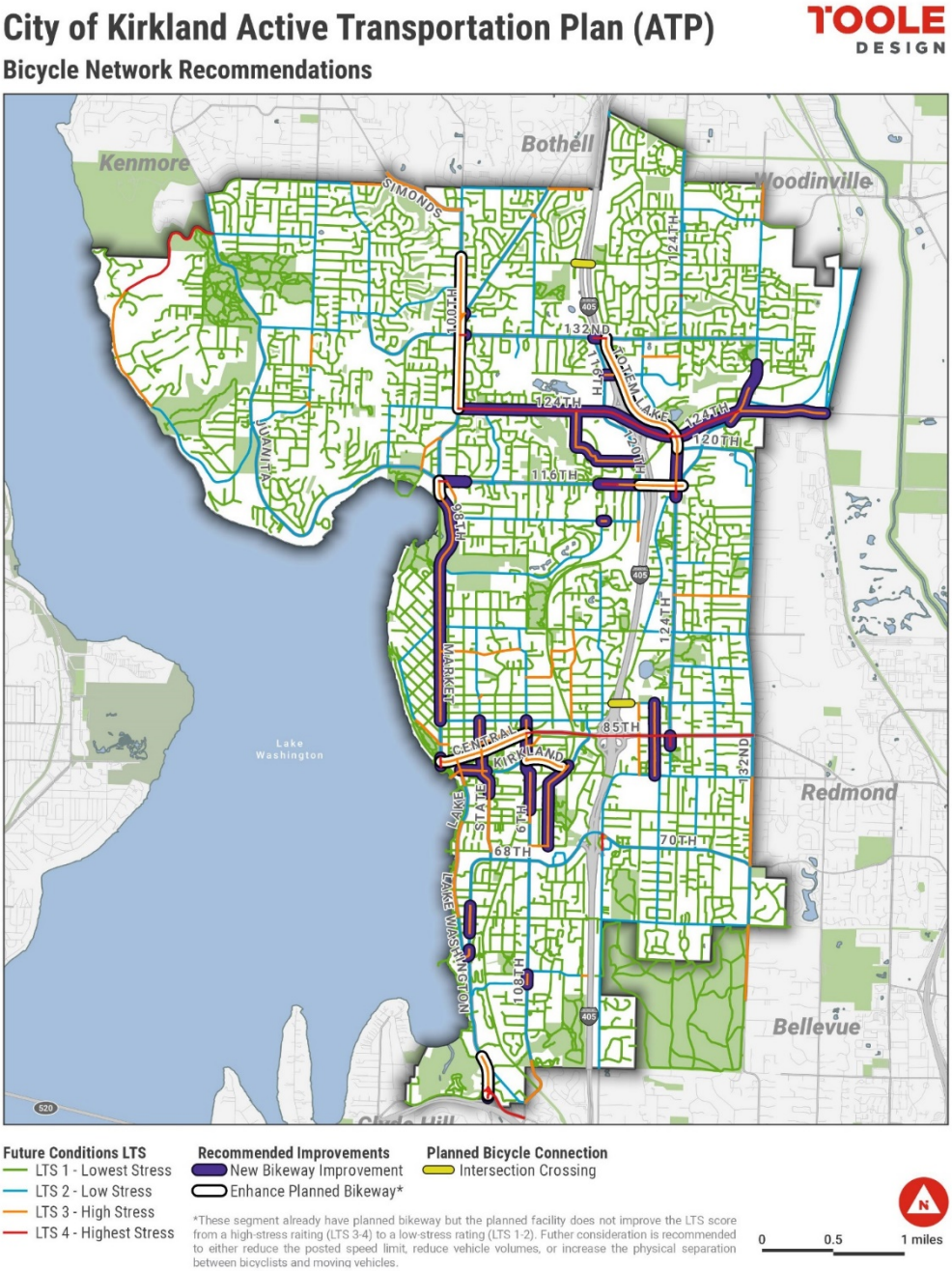
Bicycle Level of Traffic Stress Results for FUTURE Conditions:

The following map shows the LTS analysis for network segments under future conditions using the currently planned bicycle network. The key takeaway from this future conditions LTS analysis is the realization that not all planned bike facilities result in an improved sense of comfort for all types of bicyclists.



Recommended Updates to the currently planned Bicycle Network:

The following map shows how Toole's initial Bicycle Network Analysis identifies portions of the network where the planned facilities could be re-evaluated, or new bicycle accommodations can be made. Not all of the improvements noted in this map will be feasible, but it does highlight critical areas that should be addressed. Next steps include identifying solutions to some of these higher-stress areas.



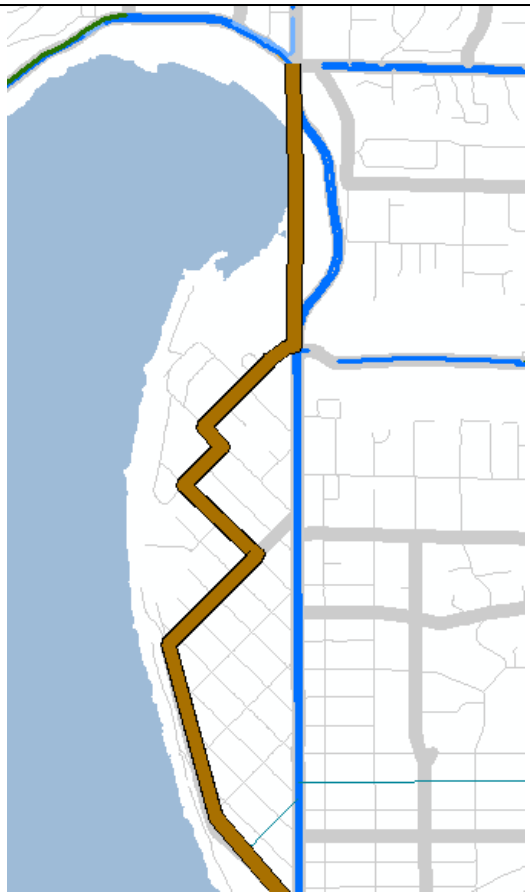
Creative Solutions (Market St example):

This example highlights an opportunity to address a stressful route without impacting the current conditions. Market Street is one of Kirkland's most important north/ south routes. It hosts high-frequency buses, bike lanes, sidewalks and connects downtown to Juanita and north Kirkland neighborhoods. The right-of-way is constrained by existing sidewalks, development and a signature tree-lined median. Upgrading the bike lane to a more protected facility on market would not likely be feasible due to the lack of space.

More confident bicyclists may be comfortable and prefer the existing bike lane, but this analysis focuses on identifying routes that are comfortable for people of all ages and abilities. This example highlights how local roads that have low-speeds and volumes may be an option to parallel arterials and provide a comfortable bicycle network by creating neighborhood greenways.

Analysis Results: Even though Kirkland has improved the bicycle facilities on Market (such as adding green lanes through intersections), the Bike Network Analysis noted that this does not necessarily improve the level of stress for all people.

Possible Solution: This alternate route (shown in brown) would provide a Neighborhood Greenway that offers an 'all-ages and abilities' solution for riders willing to take a more circuitous route while maintaining the Market Street bike lane for more confident riders.



Next Steps:

- Identify solutions to areas identified in the Bicycle Network Analysis as high stress or other critical barriers to the system that could be addressed
- Identify other areas of the planned network that could be improved to improve comfort (such as buffering an existing bike lane, improving pavement markings, etc.).
- Prioritize investments based on criteria
- Develop a strategy and schedule for implementation such how projects may be implemented in various annual programs, by development or partnerships or those that should be identified for the CIP or for future grants
- Develop a cost/ benefit analysis for high priority projects (likely those that will require grant funds)

Table 1 - Proposed Project Prioritization

Category	Detail	Potential Scoring Method
Overarching Policy	Implement that Transportation Master Plan Goal (T-2) to interconnect bicycle facilities that are safe, nearby, easy to use and popular with people of all ages and abilities.	

	The focus will be to focus on connectivity, high quality facilities where people are separated from traffic as much as possible and building out the neighborhood greenways which utilizes local, residential streets and networks to create comfortable networks for all people.	
Safety	Priority Corridors identified in the 2020 Local Road Safety Plan	Yes/ No or Range for Priority level 1 & 2
	Level of Traffic Stress (LTS)	LTS 1-4
Connectivity	Bicycle Network Analysis (BNA)	Low to high BNA Score
Link to Land Use	Access to Activity Centers • 10-min neighborhood score • project 'leads directly into or is within' activity center	Yes/ No or proximity score
	Access to people - an assessment of the number of parcels would benefit from an improved or new connection	Toole's Analysis. Numbered score for higher number of units per parcel that is provided access.
	Included in Safer Routes to School recommendations	Yes/ No or numbered score
	Access to the CKC	Yes/ No or numbered score
	Access to Parks	Yes/ No or numbered score
Transit	Range: • On a high frequency route (15 min weekdays) • On another Metro route • Direct access to high frequency route • Direct access to another Metro route • Within ¼ mile or ½ mile of high frequency or other Metro route	range
Equity	Census track based: low-income, people of color, people with disabilities, senior population	range
	Could include access to community services, senior centers, etc.	
Community Input	Based on 'Suggest a Project', if is included in a Neighborhood Plan	Yes/ No