

CROSS

KIRKLAND
CORRIDOR

UNDERSTANDING THE CORRIDOR - **DRAFT**

17 September 2013

CROSS KIRKLAND CORRIDOR

UNDERSTANDING THE CORRIDOR

The critical first step in developing the plan for the future of the Cross Kirkland Corridor is building a firm understanding of the corridor's present as well as its past. From this informed context, appropriate decisions can be made to develop the corridor into an integral element of Kirkland's transportation infrastructure. In order to establish this understanding, the design team has worked to collect and analyze a wealth of data from historical and cultural documents to engineering and utility drawings. The research efforts and subsequent findings are separated into three main studies:

1. Functional and Safety Study
2. Environmental Study
3. Urban Planning and Cultural Study

The findings presented here are supported by analysis graphics, which were formatted from a comprehensive base map that the design team developed to visually assess the many forces that will shape the master plan.

Project Timeline





UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

The Functional and Safety Study identifies the critical elements that impact safety and engineering for the Cross Kirkland Corridor. These elements will shape both the development of the corridor for bikes and pedestrians as well as the potential incorporation of high capacity transit.

Intersection Crossings and Access

A key feature of this analysis is the treatment of pedestrian and vehicular intersections along the corridor. These intersections are identified below and discussed in order from south to north. The city has expressed a desire to consider grade separation at most street intersections. This desire for grade separated crossings should be balanced with the desire for convenient access at each location. Several crossings at street intersections will receive treatments in 2014 (signing, marking, flashing beacons) as part of the interim trail project. These improvements will be reused where possible in future development. Any future interventions will be guided by ADA and AASHTO shared use path standards.

108th Avenue NE

- Three lanes, 30 mph speed limit.
- High volume street with higher vehicular speeds (relative to other neighborhood streets).
- Downhill curve on approach from the north with limited visibility.
- Should consider signalized crossing or trail crossing warning signs on 108th.
- Visibility for sight distance could possibly be increased by selectively clearing vegetation or modifying the existing medians.
- This intersection has the potential to serve as a major gateway for both the Cross Kirkland Corridor and the City of Kirkland.
- There is great potential for transit connections at this location: trail, bus stops, and the South Kirkland Park and Ride facility. In June the City of Kirkland received a grant to help develop a connection between the corridor and the Park and Ride.
- Given that this intersection represents the southern terminus of the corridor (i.e., there is no formal trail connection to the south across 108th Ave. NE), one option is to steer demand away from this intersection until such time that Bellevue/King County develops the trail to the south. In the interim, the southern end of the trail could be directed to the South Kirkland Park and Ride facility.
- The ultimate connection south to Bellevue (the “Missing Mile”)—specifically connecting to the burgeoning BelRed district and Sound Transit’s East Link rail line—should be considered.

NE 52nd Street

- Two lanes, 25 mph speed limit.
- Adjacent vegetation limits sight triangles of both road and trail. Visibility for sight distance could possibly be increased by selectively clearing vegetation.
- Steeply sloped crossing limits views of trail for traffic approaching from west (uphill approach).
- The trail crosses the roadway at a non-perpendicular angle, which impacts visibility and lengthens crossing distance.
- NE 52nd Street has relatively low volume and speed humps on both sides of the intersection.

NE 68th Street

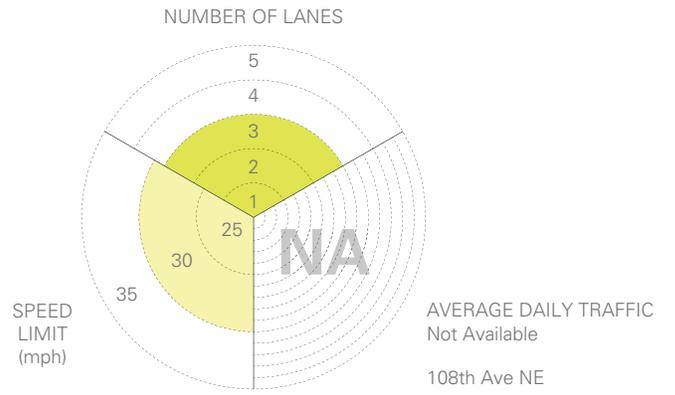
- Existing grade separated crossing (above roadway), assumed to be structurally viable for active transportation.
- Connection down to NE 68th Street has a high volume of foot traffic as evidenced by ‘goat trails’ or pedestrian desire lines.
- Steep grades from trail down to road, along with limited space, make for challenging connections.
- Elevated roadway crossing offers an interesting change of perspective along the trail and provides interesting views westward and eastward.
- The existing narrow bridge section represents a potential ‘pinch point’ for trail traffic. As the circulation space is compressed, bikes and pedestrians commingle.
- Important link to adjacent school (Lakeview Elementary) and Terrace Park for school children using trail. Due to the elevated crossing, the actual connection would most likely occur at either end of the NE 68th intersection.

Google Campus Crossing

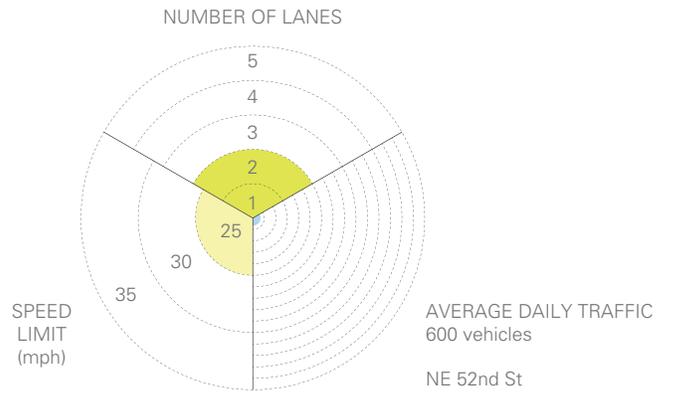
- Planned crossing.
- Controlled parking access limits Average Daily Traffic (ADT).
- Should establish clear ROW priority for trail users.
- Offers opportunity for a seamless and unique blend of safe crossing with adjacent uses.
- Potential to develop pedestrian link south to 6th Street.



108th Ave NE



NE 52nd St



NE 68th St



Google Campus

UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

6th Street

- Two to three lanes, 25 mph speed limit.
- Proximity of crossing to 5th Place S creates challenges.
- Higher volume/skewed crossing.
- Opportunity for key transit connection point: trail with bus lines and bike lanes along 6th St.
- 5th Place S ROW may be opportunity for optimal crossing resolution as well as a significant access point for the corridor.
- Proximity to downtown Kirkland offers opportunity for connections.
- Candidate for grade separated crossing.

Kirkland Way

- Existing grade separated crossing (above roadway), assumed to be structurally viable.
- Non-standard vehicle widths and clearances for roadway below.
- Currently, no desire lines from trail to street, which has no sidewalks and relatively high speed traffic.
- Near trail that leads to downtown Kirkland.
- Vegetation and steep grades present accessibility challenges.
- Elevated roadway crossing offers an interesting change of perspective along the trail and provides interesting views.
- The narrow crossing section represents a potential 'pinch point' for trail traffic. As the circulation space is compressed, bikes and pedestrians may have to comingle.
- Close proximity to Kirkland Ave. that links to pedestrian crossing of I-405 at NE 80th Street.

NE 85th Street

- Trail crosses underneath roadway.
- Short crossing length helps mitigate safety concerns.
- Off-trail east/west connections are just south of overpass and eventually connect to NE 85th St.

7th Avenue

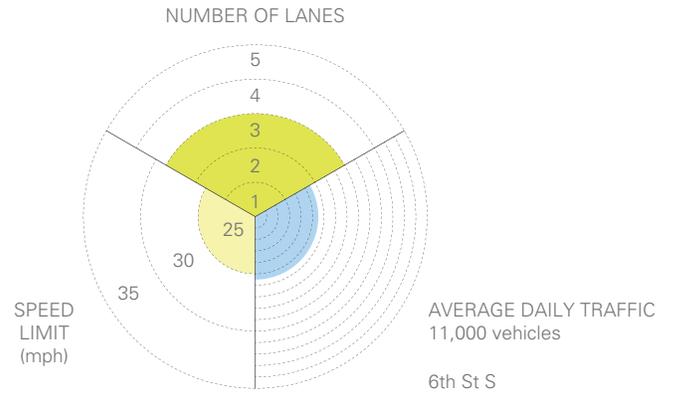
- Two lanes, 25 mph speed limit.
- Relatively good visibility and minimal crossing width (two travel lanes).
- Potential conflict with intersection of 112th Ave. NE that is immediately adjacent to trail crossing.
- Potential to combine intersections.
- Medium volume, speed. Crossing on grade heading down to the west.

110th Avenue NE

- Two lanes, 25 mph speed limit.
- Relatively good visibility and minimal crossing width (two travel lanes).
- Relatively low vehicular speed and low traffic volume.
- Important link to Peter Kirk Elementary.



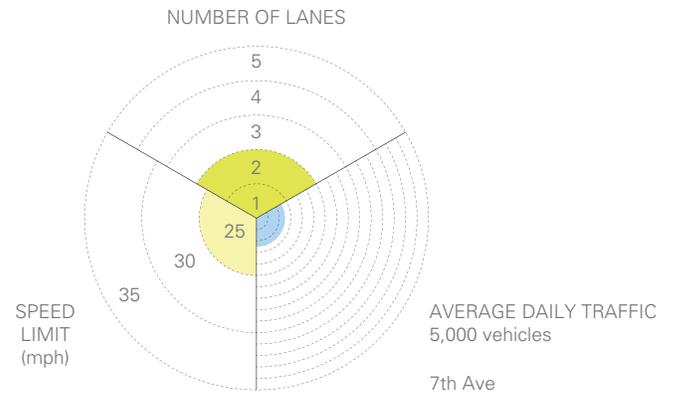
6th St



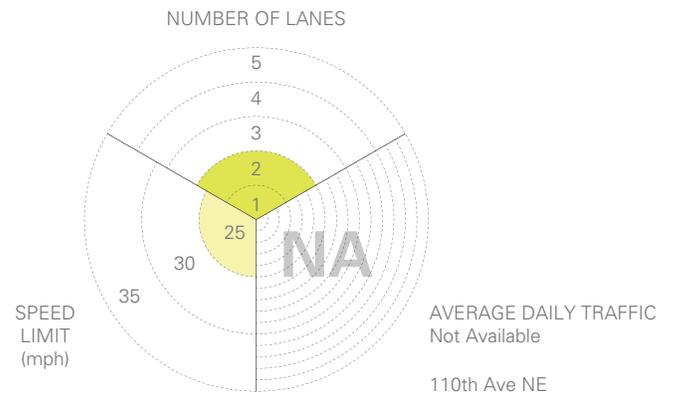
Kirkland Way



NE 85th St



7th Ave



110th Ave NE

UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

NE 112th Street

- Two to three lanes, 25 mph speed limit.
- Good visibility and perpendicular angle of intersection.
- Relatively high vehicular speeds.
- Opportunity for median.

NE 116th Street

- Three lanes, 35 mph speed limit.
- Trail crosses underneath roadway.
- Short crossing length and high bridge height help mitigate safety concerns.

120th Avenue NE

- Three lanes, 35 mph speed limit.
- May be one of the more challenging crossings due to limited visibility, topographic 'dip' and its location between two controlled intersections.
- Candidate for a grade separated crossing.
- High volume, higher speed roadway on skew.

I-405

- Long undercrossing length due to road width of I-405 above.
- Length of undercrossing and low light levels have negative implications for the perception of safety.
- If a grade separated crossing were to be implemented at 120th Ave. NE, that could transition onto a fill prism or elevated trail condition that would extend through the I-405 underpass and promote thru-circulation of the space (not conducive to lingering).



NE 112th St



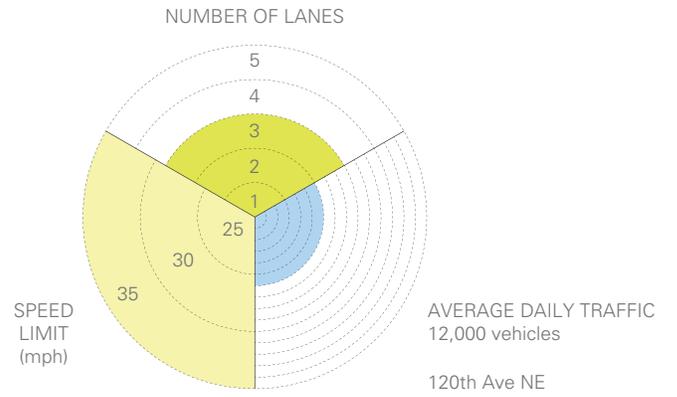
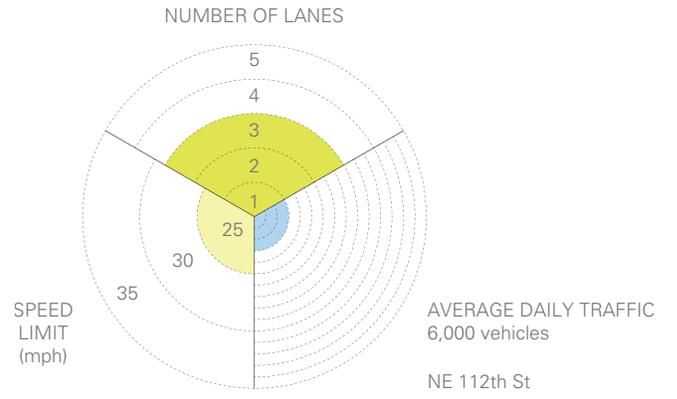
NE 116th St



120th Ave NE



I-405



UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

NE 124th Street/Totem Lake Blvd.

- Five lanes/four lanes, 35 mph speed limit.
- High volume streets with high vehicular speeds.
- Signalized surface crossing could be accommodated (with some land acquisition possible). Long signal wait times will invite misuse as a trail crossing, particularly by cyclists transitioning to road riding in order to avoid wait times.
- Candidate for grade separated crossing. Elevated crossing must be developed with consideration of required clearances from Seattle City Light (SCL) power lines above.
- Trail design should coordinate with planned PSE 115kv line.

128th Lane NE

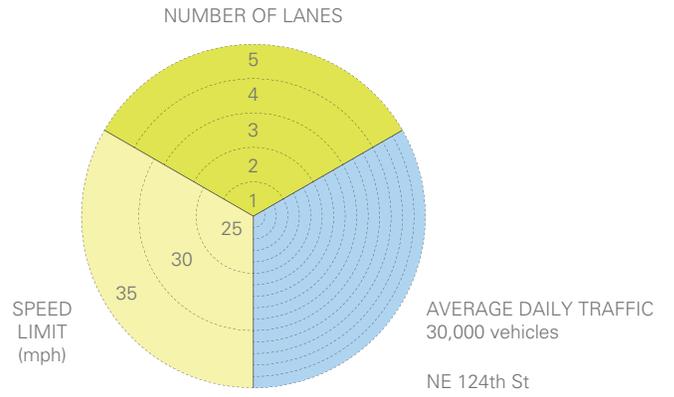
- Two lanes, 25 mph speed limit.
- Low traffic volume and vehicular speed.
- Good visibility and angle of intersection.

132nd Avenue NE

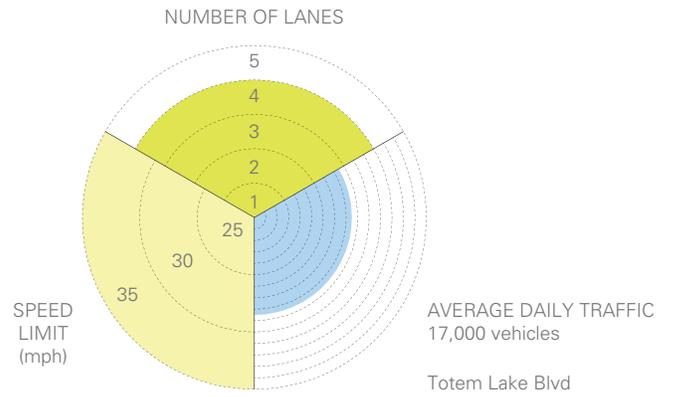
- Five lanes, 35 mph speed limit.
- Wide crossing with higher traffic volume.
- Grade to north can result in increased vehicular speed (downhill approach to crossing)
- Good visibility and angle of intersection.
- Potential to develop existing median.



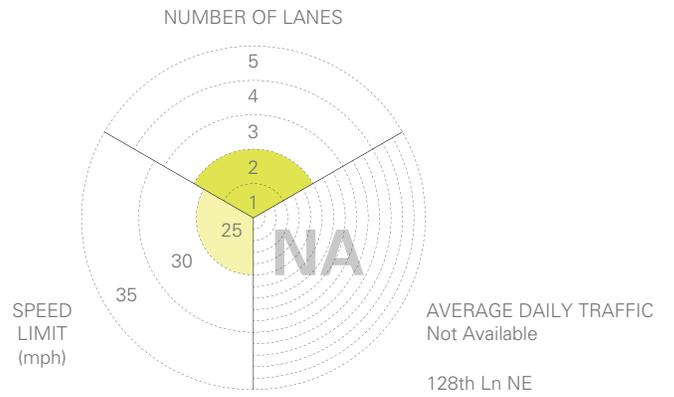
NE 124th St



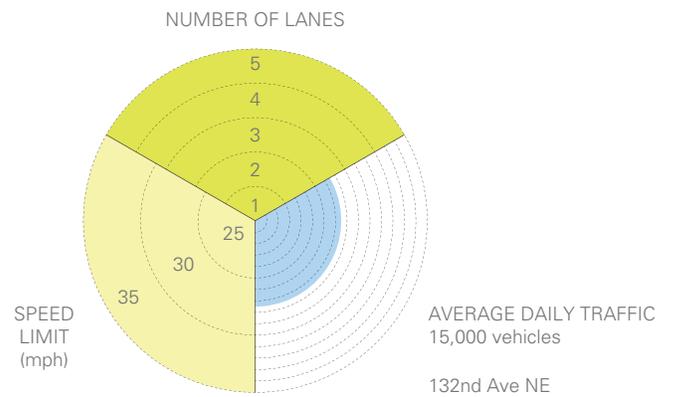
Totem Lake Blvd



128th Ln NE



132nd Ave NE



Due to topography and road curvature, limited visibility at 108th Ave. Location presents great opportunity for regional transit connections. Should consider where and how to end trail.

Address angle of intersection (non-perpendicular trail crossing) and steep road grades.

Existing 'pinch point' for corridor users. Should make pedestrian connection down to NE 68th.



LEGEND



CROSS KIRKLAND CORRIDOR

--- CITY OF KIRKLAND BOUNDARY

— I-405

— MAJOR STREETS



AT GRADE TRAIL/STREET CROSSING



ABOVE STREET CROSSING



BELOW STREET CROSSING

Yet to be constructed. Controlled access. ROW priority to the corridor. Potential pedestrian link south to 6th St.

High traffic volume, skewed crossing and proximity of crossing to 5th Place S creates challenges. Opportunity for key transit connections. Proximity to downtown offers opportunity for connections.

Existing grade separated crossing. Non-standard vehicle widths and clearances for roadway below. Offers an interesting change of perspective along the corridor. Potential 'pinch point' for corridor traffic.

Short crossing length helps mitigate safety concerns and perceptions.

Functional & Safety Study - Trail Crossing & Intersection Map

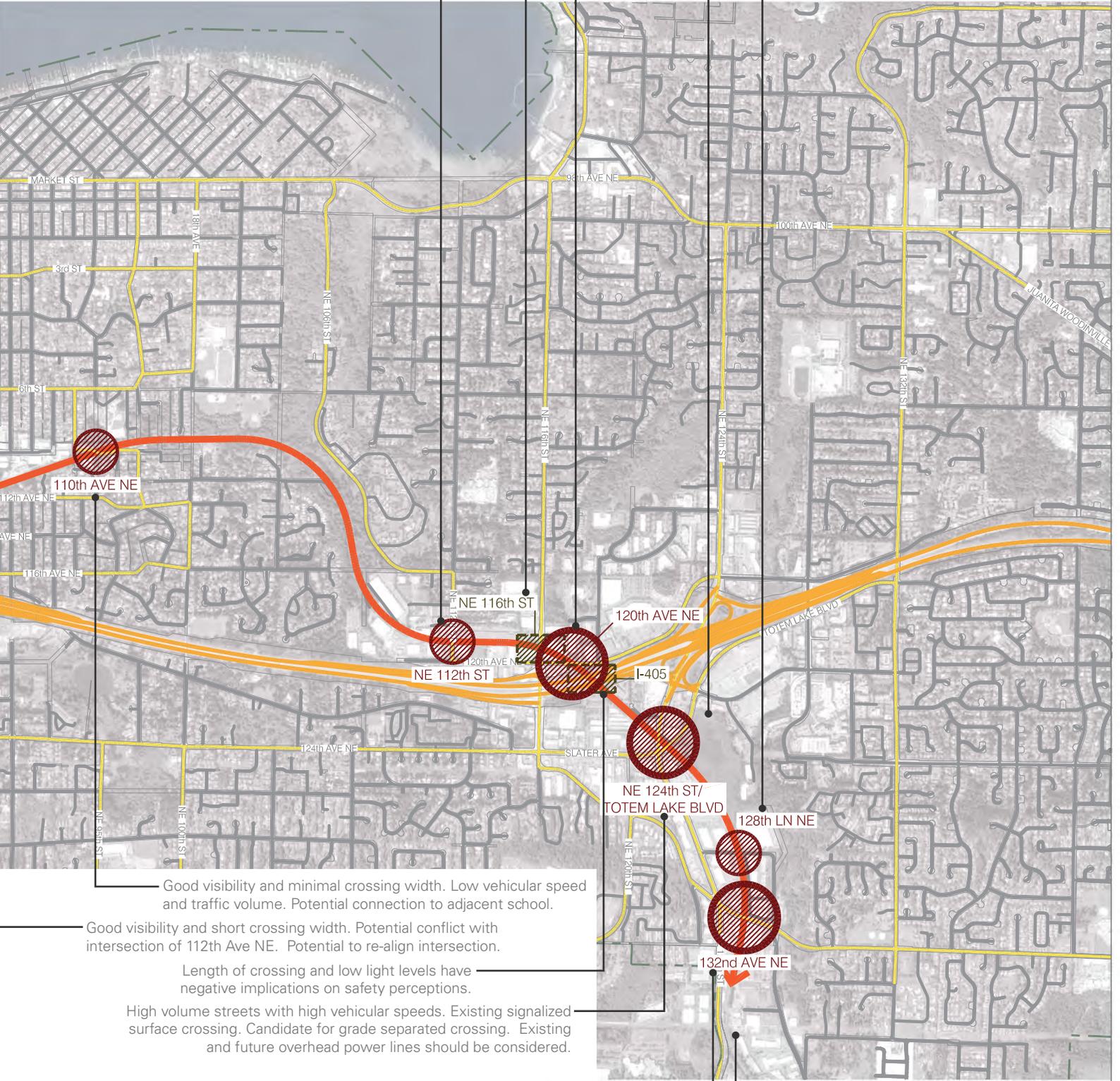
Potential conflict of grade separated crossing with existing and proposed overhead power lines.

Limited visibility and topographic 'dip' make crossing a challenge. High volume and vehicular speed. Candidate for grade separated crossing.

Short crossing length and high bridge height help mitigate safety concerns.

Good visibility. Potential for high vehicular speeds.

Minimal crossing width with low traffic volume.



Good visibility and minimal crossing width. Low vehicular speed and traffic volume. Potential connection to adjacent school.

Good visibility and short crossing width. Potential conflict with intersection of 112th Ave NE. Potential to re-align intersection.

Length of crossing and low light levels have negative implications on safety perceptions.

High volume streets with high vehicular speeds. Existing signaled surface crossing. Candidate for grade separated crossing. Existing and future overhead power lines should be considered.

Challenging intersection with high traffic volume, 5 lanes and proximity to NE 124th intersection and crossing.

Potential extension of corridor to connect to Redmond's Central Connector trail



UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

Major Non-Vehicular Crossings

There are several notable pedestrian-only trail crossings, as well as one-sided “feeder” pedestrian access points that should also be considered.

NE 60th Street

- Major east/west crossing connecting to Lake Washington and waterfront parks.
- Represents a ‘pinch point’ on the trail (verify legal boundaries).
- Historic connection from Lake Washington to east.
- Leads to I-405 pedestrian bridge.

Kirkland Ave. (to Railroad Ave.)

- A strong pedestrian connection.
- Historically important link from ferry landing to railroad depot.
- Close proximity to I-405 pedestrian crossing.

18th Ave. to NE 100th Street

- A significant east/west link crossing the corridor connecting Market Street eastward (indirectly in places) to Willows Road, the Redmond Central Connector (Phase 2), and the PSE trail.
- Connects to Kirkland Middle School via Crestwoods Park.
- Leads to I-405 pedestrian bridge.



NE 60th St.



Kirkland Ave to Railroad Ave



18th Ave to NE 100th St.

UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

Corridor Bridge Analysis

Existing bridges, while varying in age and structure, were designed to take significant loads associated with freight railroad, which they served until recently. Using these bridges as part of the corridor will require some retrofitting to provide required surfacing, possible widening to desired widths, and the opportunity for each to become a unique icon and experience along the CKC. By reusing the bridges for a shared-use corridor (with its greatest loads likely associated with comparatively light loads of emergency vehicles and lightweight maintenance vehicles) structural loads applied to the bridge will be greatly reduced from their railroad-designed loads. For the purposes of this master plan all bridges are assumed to be in adequate condition to be repurposed as part of the shared-use corridor, though ongoing maintenance and cosmetic work will inevitably be required in addition to applying new decking/surfacing. During the design phase of corridor improvements a more detailed analysis of the structures should be performed.

Beyond the bridges' function providing a crossing for the CKC corridor, they also allow vehicular connections below. In some instances the road undercrossings are undersized and do not meet current clearance guidelines. This master plan does not assess or propose remedies to address shortcomings of vehicular undercrossings beneath the bridges.

Safety and Perception of Safety

The majority of the corridor feels safe and provides adequate ingress and egress locations to be safe, with a few notable sections.

- The stretch of the corridor from 108th Ave. NE to NE 52nd Street is the longest stretch without formal ingress or egress points due to topography and adjacent residents that "back" onto the corridor.
- Both the NE 85th Street undercrossing and the NE 116th undercrossing are high enough and short enough over the corridor not to raise safety concerns; however, the abutments of the bridge, particularly to the west, are a target for graffiti and could be attractive spots for loitering and camping.
- The I-405 undercrossing is very long with walls between columns obscuring views throughout the undercrossing and creating a perception of an unsafe place.



NE 68th St.



Kirkland Way

UNDERSTANDING THE CORRIDOR FUNCTIONAL & SAFETY STUDY

Utilities

There are several existing and planned utilities that share the CKC corridor and will affect how the corridor can be developed. These include:

Metro Trunk Sewer Line

A large metro sewer line follows a significant portion of the corridor at varying depths. In places it's more than adequately deep so as not to limit the corridor's design except to maintaining required access. However, there are places where its shallow depths (in some instances higher than the railroad trackway under an earthen berm) will limit how the corridor can be used. In all instances any improvements built over the corridor must be mindful of the sewer line. The line is on an easement owned by King County.

Fiber Optic

A parallel line along a majority of the corridor at varying depths which could limit grading. (Note: Research to be completed identifying easement agreement and limitations and responsibilities associated with moving the line.)

SCL Transmission Line

An existing transmission line paralleling 124th Ave. NE and crossing over Totem Lake and the CKC's intersection with 124th Street and Totem Lake Boulevard, possibly affecting the corridor's crossing of this intersection due to required aerial clearances.

PSE Transmission Line

A new aerial PSE transmission line is planned along the northern portion of the CKC connecting the Juanita transmission station with Willows Road. Design is underway and may be shaped by the CKC master plan process.

Other Utilities

Other utilities cross or are adjacent to the corridor including water facilities and power lines (multiple locations). PSE owns an easement along the length of the corridor for its facilities and has plans for new overhead lines.

Sound Transit Easement

Sound Transit (ST) has an easement to use the corridor for future transit development. The master plan assumes that any ST alignment would not require the entire width of the corridor. Alignment of the ST route has not been developed.



UNDERSTANDING THE CORRIDOR ENVIRONMENTAL STUDY

The environmental study focuses on the major environmental elements, both physical and regulatory, shaping the corridor's development. The analysis goes further in seeking out opportunities to augment or connect these elements for the benefit of the corridor.

Corridor Hydrology

The corridor contains a rich and extensive hydrologic network of streams, ditches and wetlands. There are approximately 27 instances where streams meet or cross the corridor. In addition to the streams, a significant portion of the corridor is paralleled by a system of ditches that collect and convey stormwater runoff. Several wetlands are also found within the corridor and its adjacent areas.

Understanding the corridor's stormwater functions will be a critical step in the master plan development. Streams and wetlands should be protected and enhanced while the ditches should be evaluated for stormwater capture and treatment opportunities.

Due to the unique engineering requirements of railroad construction, notably that it be relatively level, the BNSF tracks altered the flow of stormwater and natural drainage. Many drainages, creeks and watersheds that once naturally flowed to Lake Washington now take different paths. The master plan should identify natural drainage and water quality stormwater opportunities that both enhance and restore existing and severely altered watersheds.

The City of Kirkland is currently preparing a Surface Water Master Plan that will further explore the role of the corridor in managing surface water.

Corridor Topography

The length of the corridor contains a diverse range of topographic conditions. Of particular concern to the master plan are steep slope areas. Much of the rail bed is either perched upon a fill prism of earth or sharply cut into a hillside or ravine. The resultant steep slopes limit corridor access, safety perceptions and view sheds while increasing stormwater runoff and erosion. They have been identified in the working base map and should be considered in master plan development.

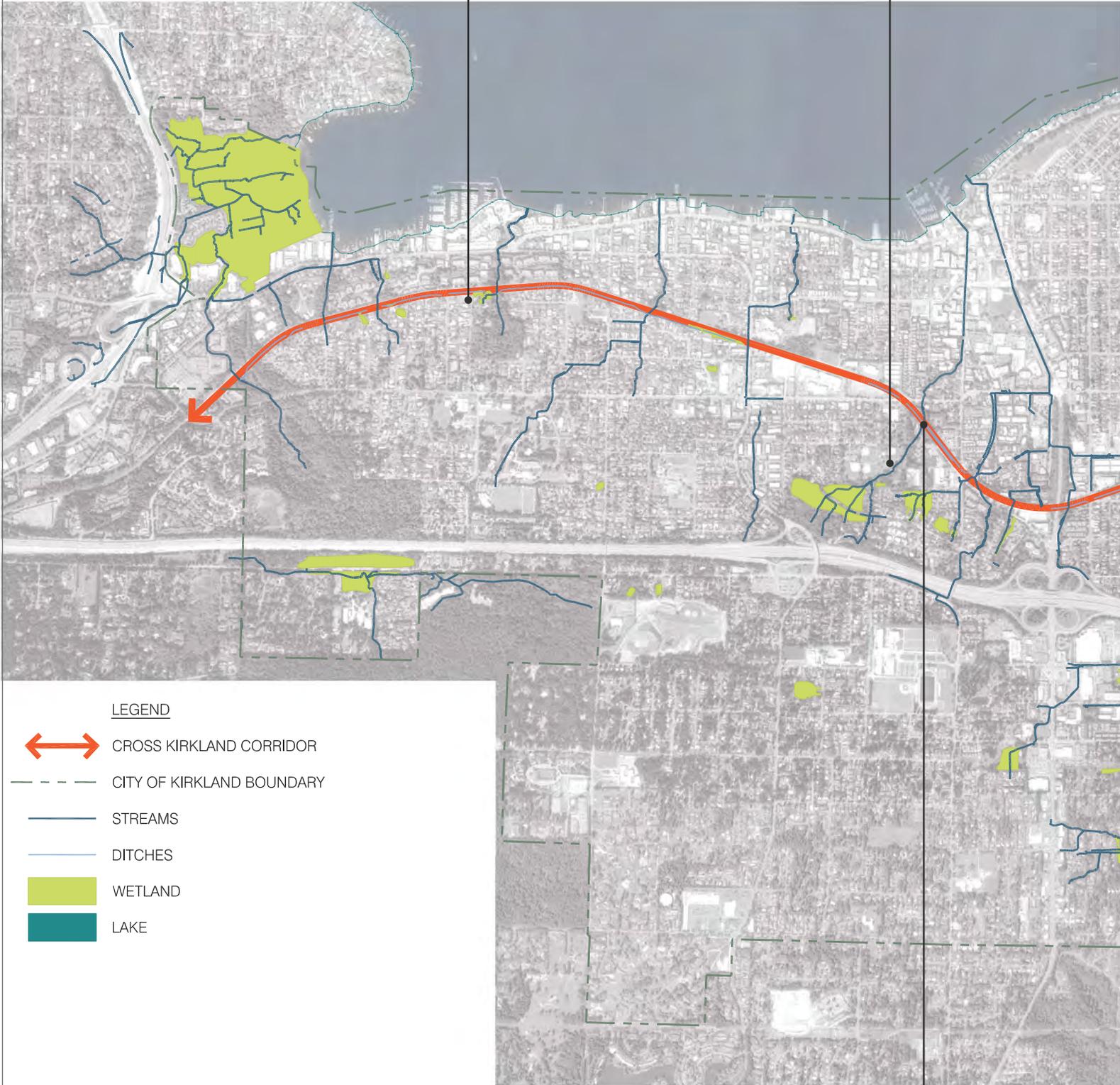
The existing topography suggests the opportunity to develop a trail along the existing railroad trackway as well as the addition of a second parallel trail along much of the corridor with minimal grading to the trackway prism. However, there is potential to trigger environmental regulation and permitting associated with steep slopes and the wetlands located along the base of the prism.

Beyond the design of the trail corridor, topography will significantly influence how the corridor grows and evolves over time when additional corridors (including transit) are integrated. Widening the corridor to accommodate multiple transportation paths may include both cutting and filling of existing slopes and may also include structural solutions to increase usable ROW width or mitigate or improve environmental conditions by removing fill within natural ravines.



Good example of public/private rain garden project.

Evaluate piped section of stream for daylighting potential. Potential conflict with Metro sewer line.



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CROSS KIRKLAND CORRIDOR



CITY OF KIRKLAND BOUNDARY



STREAMS



DITCHES



WETLAND



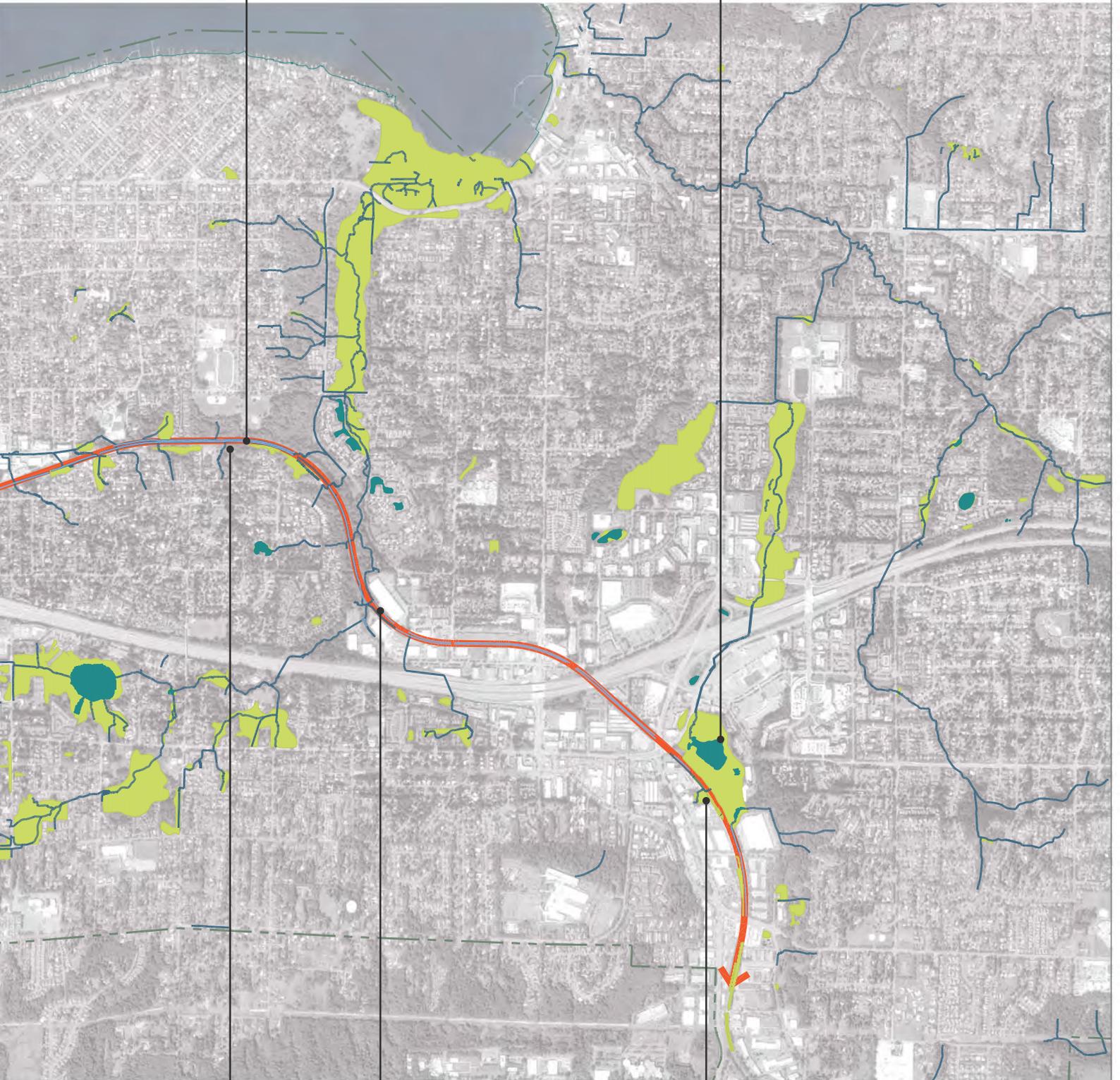
LAKE

Opportunity for enhanced creekshed and trail crossing at Everest Creek.

Environmental Study - Corridor Hydrology Map

'Kirkland Divide' high point in watershed along corridor where stormwater flows to either side.

Opportunity for hydrologic modifications and enhanced ecological function at Totem Lake.



Opportunity for an enhanced crossing at Forbes Creek.

Opportunity for enhanced connections of stream tributaries to Totem Lake.

Waterfall at culvert with erosion issues.



UNDERSTANDING THE CORRIDOR ENVIRONMENTAL STUDY

Viewsheds

The topographic conditions along the corridor frequently make for stunning viewsheds or areas with significant views beyond the corridor's boundaries.

In several locations views to Lake Washington, Seattle and the Olympic mountains are possible. These viewpoints will prove to be significant spots along the corridor and will lend a great deal of identity to the corridor experience. Particular care should be given to these locations while considering grading and planting strategies to complement the views.

Along the corridor there are also opportunities for stunning territorial views of the surrounding landscape. These include eastward views from any of the existing railroad trestles, the surprisingly rural Forbes Creek ecological corridor to Juanita Bay, and the greenbelt backdrop to Totem Lake, among others.

Ecological Corridors

As the corridor is intended to be a regional trail with broad pedestrian and neighborhood connections, so too should it be considered for its regional ecological connections. At close to six miles in length, the corridor encompasses a wide range of vegetation communities. It also intersects—and contributes toward—significant contiguous tree canopy and vegetation coverage. It is important to note that this significant vegetation is on public properties owned by multiple entities and agencies and a large number of private owners. Yet the ecological function is blind to legal boundaries, and whatever the ownership, the enhanced connections between these properties can enhance ecological function with thoughtful design interventions and management over time. The contiguous tree canopy and vegetation are critical elements of regional ecology. They provide wildlife habitat and places for wildlife movement as well as a host of other ecological services that include a reduction in the urban heat island effect, maintaining biodiversity, and stormwater mitigation.

Beyond the ground plane it is important to recognize the value and critical ecological function of connecting tree canopies together, even as more intensive land use and human activities occur at the ground level.



Steep grades down
from rail fill prism.

Limited views to Yarrow Bay.

Ecology zone to enhance.



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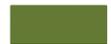
CROSS KIRKLAND CORRIDOR



CITY OF KIRKLAND BOUNDARY



MAJOR VEGETATION CORRIDORS



TREE CANOPY COVERAGE



STEEP UPHILL SLOPE



STEEP DOWNHILL SLOPE



VIEWPOINT

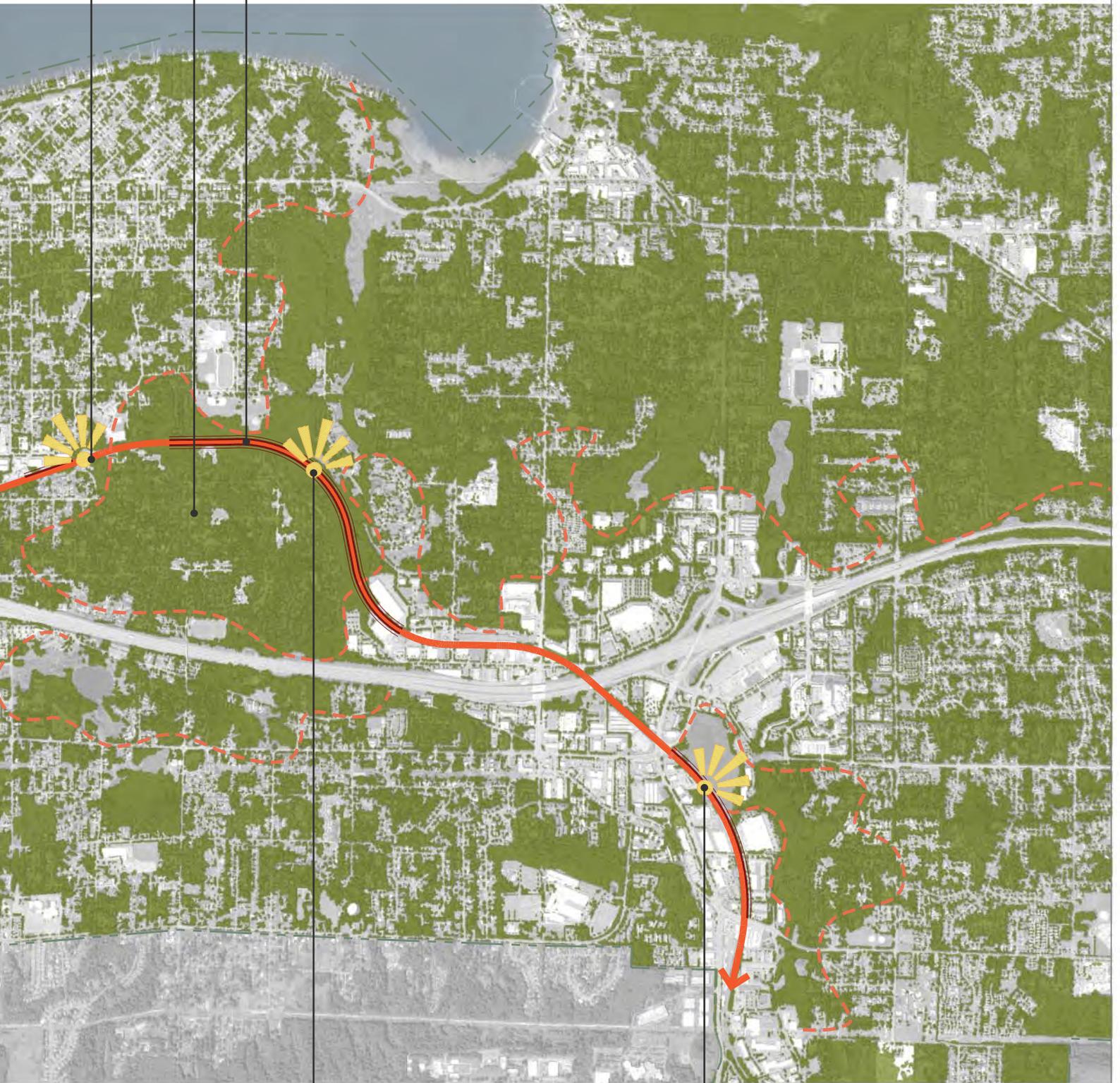
Significant views to Lake Washington and beyond.

Environmental Study - Vegetation & Views Map

Distant views over Norkirk.

Significant vegetation corridor connecting down to Juanita Bay.

Steep canyon-like grades along corridor.



Views to Juanita Bay.

Views across Totem Lake.



UNDERSTANDING THE CORRIDOR URBAN PLANNING & CULTURAL STUDY

The Urban Planning and Cultural Study looks at Kirkland as a unified whole as well as its constituent neighborhoods and zones (both existing and future).

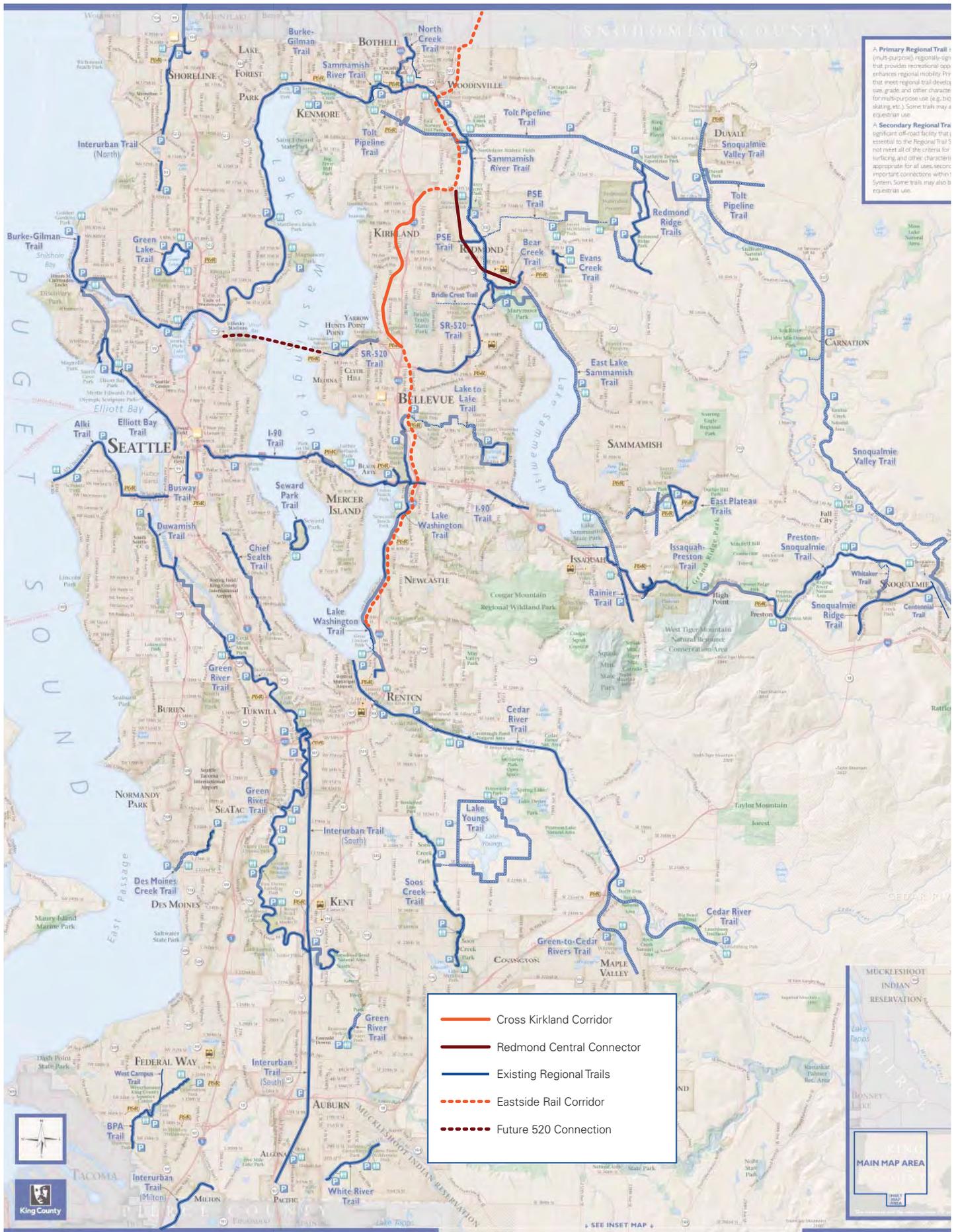
Neighborhoods

Kirkland is decidedly a city of neighborhoods, neighborhoods rich in history with their own unique identities. Interestingly, several of these neighborhood boundaries were formed by the BNSF railway. With the Cross Kirkland Corridor, the city has the unique opportunity to connect these vibrant neighborhoods along a single corridor.

City/Region

While the corridor directly borders or passes through eight neighborhoods, it is also viewed as a regional connector that serves both the city and the broader region beyond. King County is served by several regional trails, several of which fall within the vicinity of Kirkland. The Cross Kirkland Corridor is a significant opportunity to expand and connect this system to provide regional travel opportunities for the residents of Kirkland.

Regional trails of King County with Cross Kirkland Corridor highlighted in orange. Source map: www.kingcounty.gov/parks



UNDERSTANDING THE CORRIDOR URBAN PLANNING & CULTURAL STUDY

Character Zones

The corridor has its own areas of distinct character or physical conditions that should be considered. They are listed below in order from south to north.

Yarrow Woods

Stretches from 108th Ave. NE to around Carillon Point. This zone is characterized by dramatic topography (steep slopes down to and away from the corridor) and a forested edge with occasional breaks for views to the west. This stretch has the fewest formal access points (108th Street and NE 52nd Street) due to topography and the many houses that “back” onto the corridor with no public access points. However, there are numerous informal connections. Watershed Park has a network of informal trails that can more deliberately form connections from the CKC to the surrounding neighborhood.

Houghton Porch

Heading north from Yarrow Woods, this zone extends to NE 65th and is primarily characterized by open views to Lake Washington to the west. The westward focus of this zone is structured by the topography which rises up from the corridor moving east but falls from it heading west. There are several opportunities to improve or shape new connections from the existing street grid to the corridor. The one-time presence of the Lake Washington shipyards historically shaped this portion of the corridor and could be a source of inspiration as this section is developed.

Buzz Zone

Extends north to the corridor intersection with 6th Street S. It is titled ‘Buzz Zone’ due to the existing commercial and business character and near-term development potential, including further development of the Google campus. While Google is a wonderful part of the Buzz Zone and provides opportunities for a creative workforce, it is only part of what builds the zone’s character, as this section is envisioned as a broader collection of elements, commerce, services and businesses to bring diversity and vitality.

Everest Edge

Bounded by 6th Street S and NE 85th Street to the north, this zone is characterized by relatively level terrain that transitions to Kirkland Ave., Railroad Ave. and Kirkland Way. This stretch has a greenbelt-like quality with Everest Creek crossing the corridor and the ability to forge a strong connection with Everest Park.

Norkirk Edge

Reaches north to the corridor crossing of 110th Ave. NE. This section is primarily identified by the properties along the west (Norkirk) side, with the potential of a vital commercial or mixed-use district activating the corridor’s edge.

Highland Pass

Continues north to approximately 116th Ave. NE. This zone is characterized by dense vegetation and an extensive forest canopy above. The corridor’s strong sense of enclosure is reinforced by the canyon-like topography. The “pass” has a unique high point from which the abundant water in ditches adjacent to the corridor separates into north and south flows at a “Kirkland Divide” that is a subtle yet interesting element on the corridor. As the corridor moves northward it transitions from a canyon to a narrow shelf perched high above Forbes Creek valley with a connection to Juanita Bay Park and powerful territorial views. While it would be easy to describe this stretch as natural it is important to note it is home to many invasive and non-native species.

Active Zone

The Active Zone is a rebranding of the ParMac area and extends north to 120th Ave. NE. The name honors the recreation related activities now occupying the transitional industrial area. It also sets the tone for the evolving area and provides an opportunity for the corridor to foster activity.

West Totem Lake Connector

This is an area where the Active Zone has ended but the next zone, Totem Lake, has yet to formally begin. It marks the potential overcrossing of 120th Ave. NE and undercrossing of I-405. Unlike other areas on the corridor, this is a zone where the corridor is a crossing element. It is dedicated to moving through a space rather than a catalyst to development on either side of the corridor. Additionally, this stretch of the corridor is unique in that it does not come with a sense of community ownership in its existing state.

Totem Lake

The Totem Lake zone begins at the undercrossing on the east side of I-405 and continues east to the city limits. Totem Lake Park is pulled into the realm of the corridor to form a significant swath of green space within the Totem Lake neighborhood. Totem Lake, as delineated by the city, spans east and west of I-405, yet the two sides feel very disconnected, with most east/west connections as bridges and underpasses that serve as I-405 access points or major transit facilities.



YARROW WOODS

Characterized by dramatic topography and a forested edge with occasional breaks for views to the west. Few access points due to topography and the many houses that “back” onto the corridor. Watershed Park has a network of informal trails that can form strong connections.

BUZZ ZONE

Titled ‘Buzz Zone’ due to existing character and near-term development potential, including further development of the Google campus. Opportunity for a broad collection of elements, commerce, services and businesses to bring diversity and vitality.



LEGEND



CROSS KIRKLAND CORRIDOR



NEIGHBORHOOD BOUNDARY



CORRIDOR CHARACTER ZONES



I-405



MAJOR STREETS
(HIGH VEHICULAR TRAFFIC)

HOUGHTON PORCH

Characterized by open views to Lake Washington. Several opportunities to improve connections from street grid. Lake Washington shipyards could be a source of inspiration.

EVEREST EDGE

Characterized by relatively level terrain and greenbelt feel. Historical connection to ferry dock and train depot.

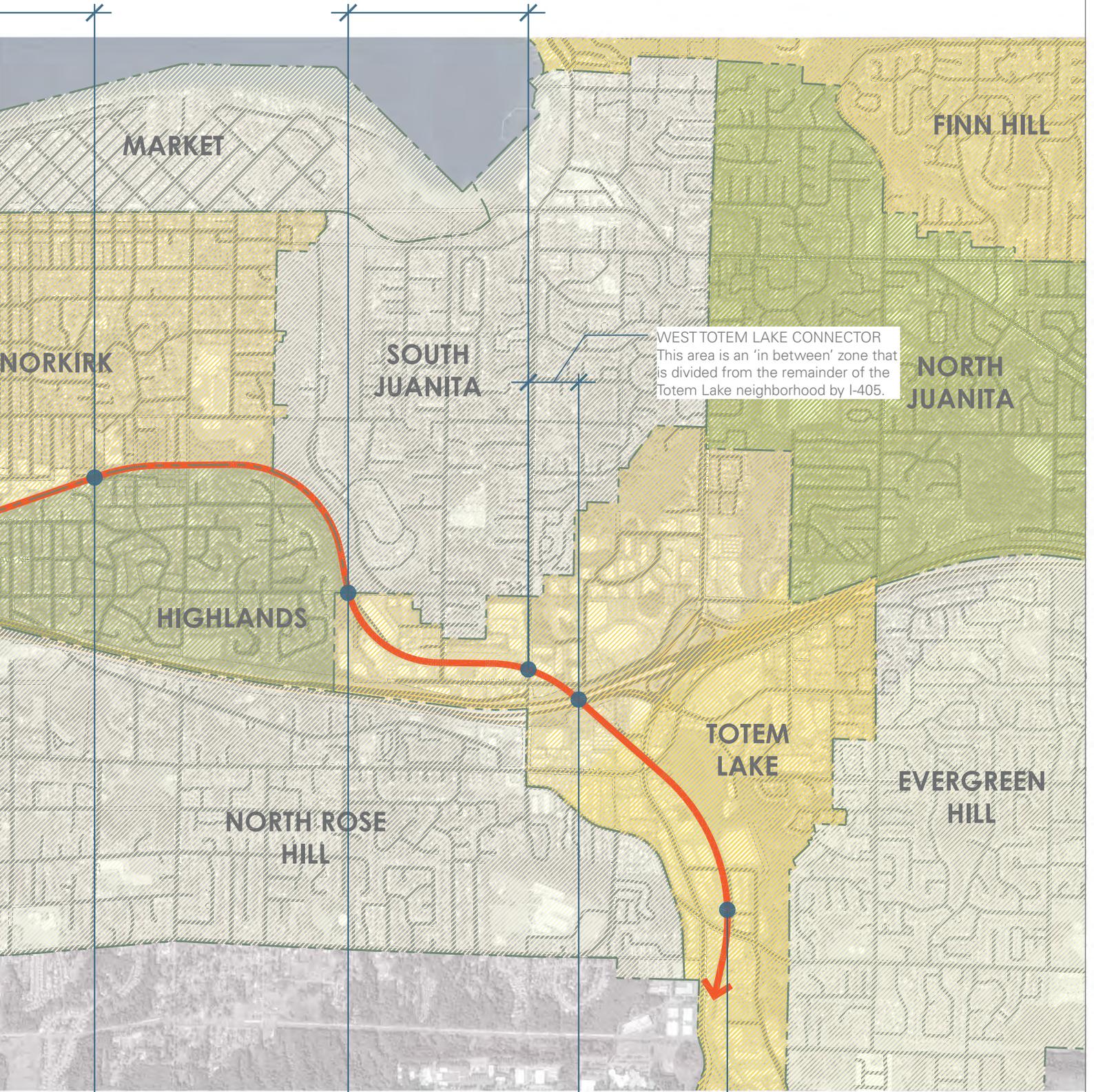
Urban Planning & Cultural Study - Corridor Neighborhoods Map

NORKIRK EDGE

Primarily identified by the properties along the west (Norkirk) side, with the potential of a vital commercial or mixed-use district activating the corridor's edge.

ACTIVE ZONE

The Active Zone is a rebranding of the ParMac area. The name honors the recreation related activities now occupying the transitional industrial area. It also sets the tone for the evolving area and provides an opportunity for the corridor to foster activity.



WEST TOTEM LAKE CONNECTOR
This area is an 'in between' zone that is divided from the remainder of the Totem Lake neighborhood by I-405.

HIGHLAND PASS
Characterized by dense vegetation and extensive forest canopy above. Strong sense of enclosure by canyon-like topography. Transitions from canyon to narrow shelf perched high above Forbes Creek.

TOTEM LAKE
Totem Lake Park is pulled into the realm of the corridor to form a significant swath of green space within the Totem Lake neighborhood. Neighborhood is divided east/west by I-405.

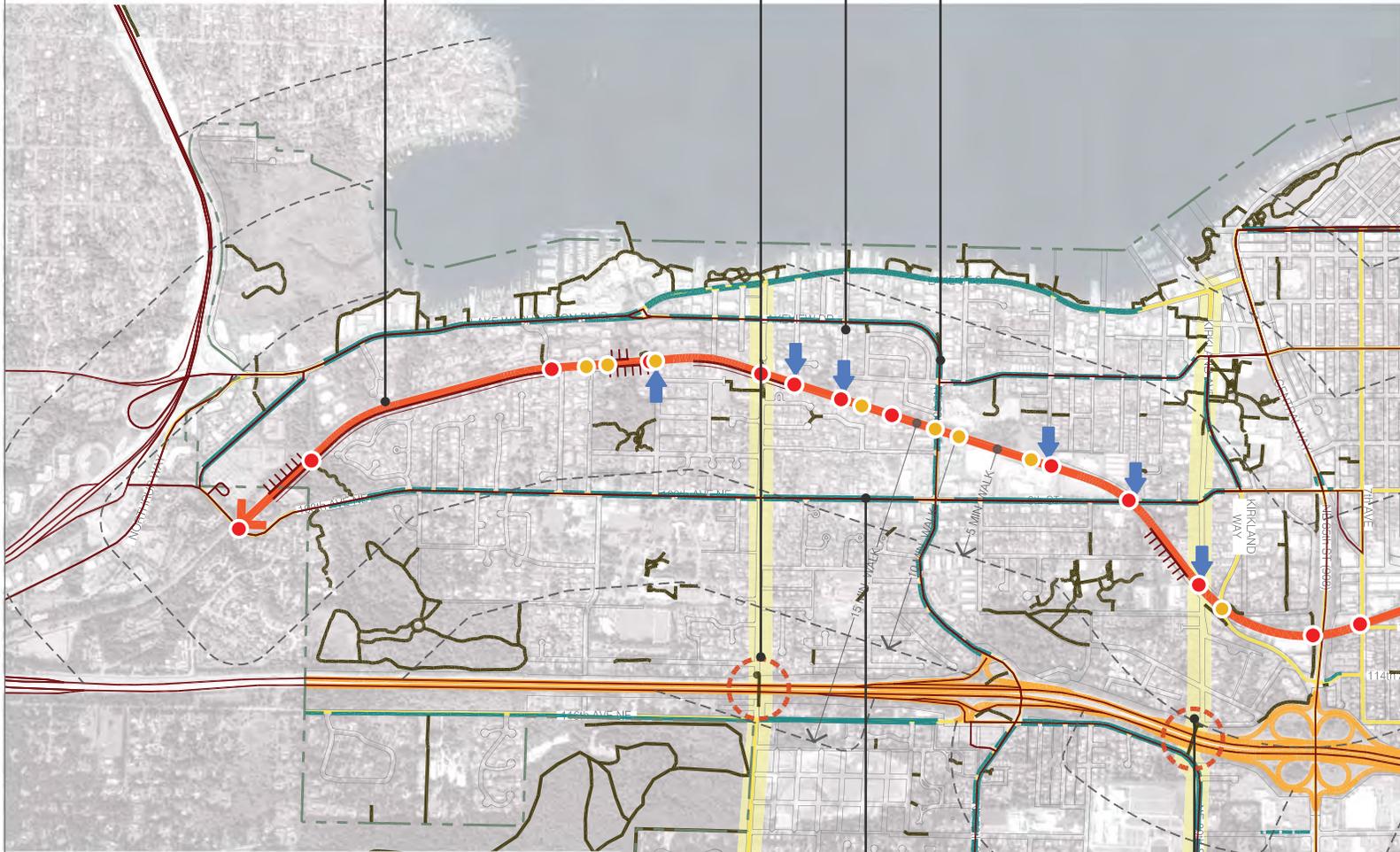


Several trail connection opportunities with street grid.

I-405 pedestrian crossing at NE 60th St.—
important east/west pedestrian corridor.

East/west bike connections
along NE 68th with connection to
waterfront bike route.

Stretch of corridor with limited
pedestrian connections.



LEGEND

- CROSS KIRKLAND CORRIDOR
- CITY OF KIRKLAND BOUNDARY
- I-405
- MAJOR STREETS
- BUS ROUTES
- BIKE LANES
- TRAILS
- STEEP UPHILL SLOPE
- STEEP DOWNHILL SLOPE
- STREET END TRAIL ACCESS
- MAJOR PEDESTRIAN CORRIDORS
- (FROM THE TRUST FOR PUBLIC LAND)
EXISTING ACCESS POINT
- POTENTIAL ACCESS POINT

The Cross Kirkland Corridor has the potential to provide extensive regional and local connections. In developing that potential, it is important to understand the existing transit network.

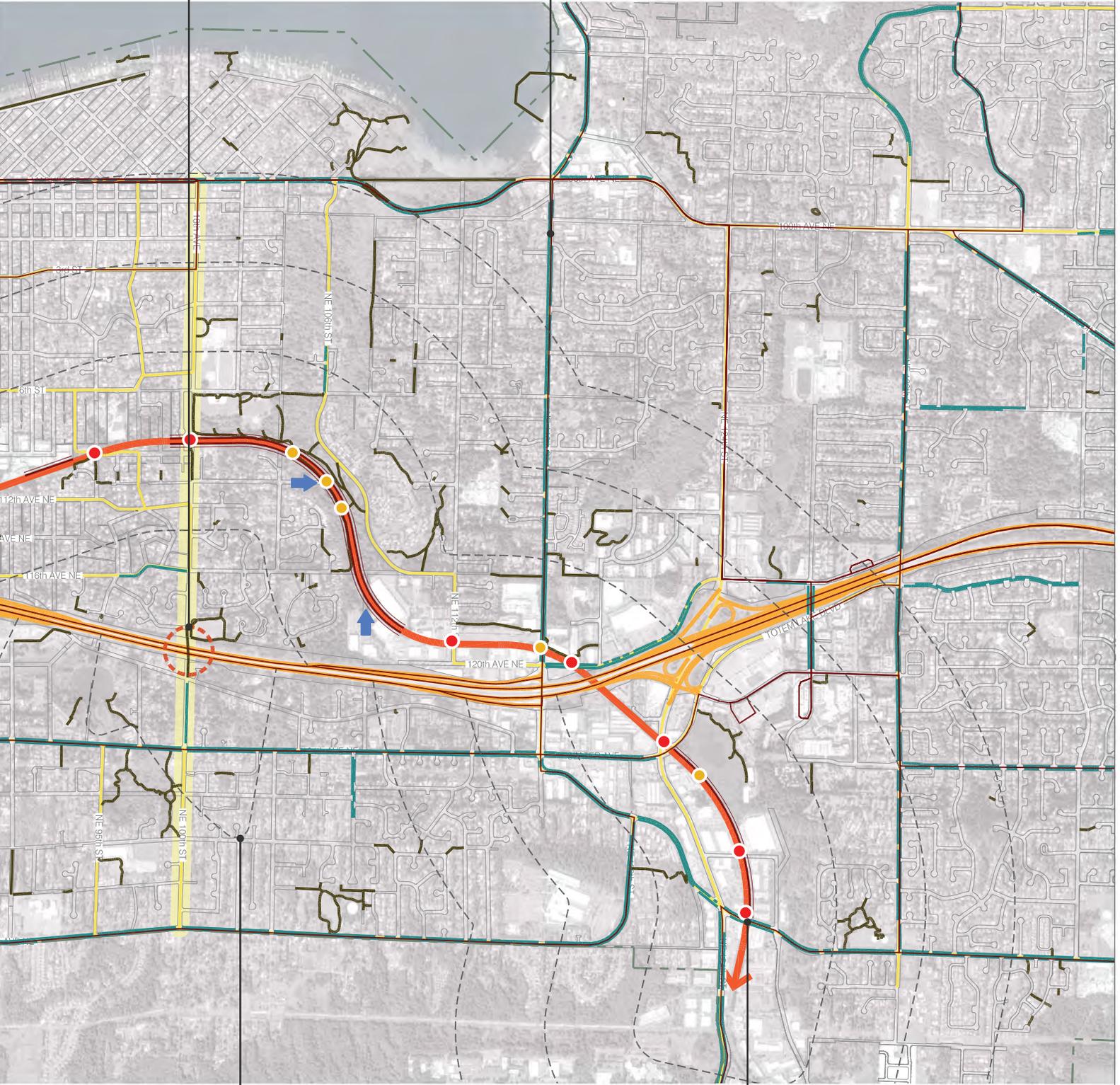
Bike lanes and bus routes
along 108th Ave.

I-405 pedestrian crossing at Kirkland Ave.—
important east/west pedestrian corridor.

Urban Planning & Cultural Study - Connection Network Map

I-405 pedestrian crossing at NE 100th St.—
important east/west pedestrian corridor.

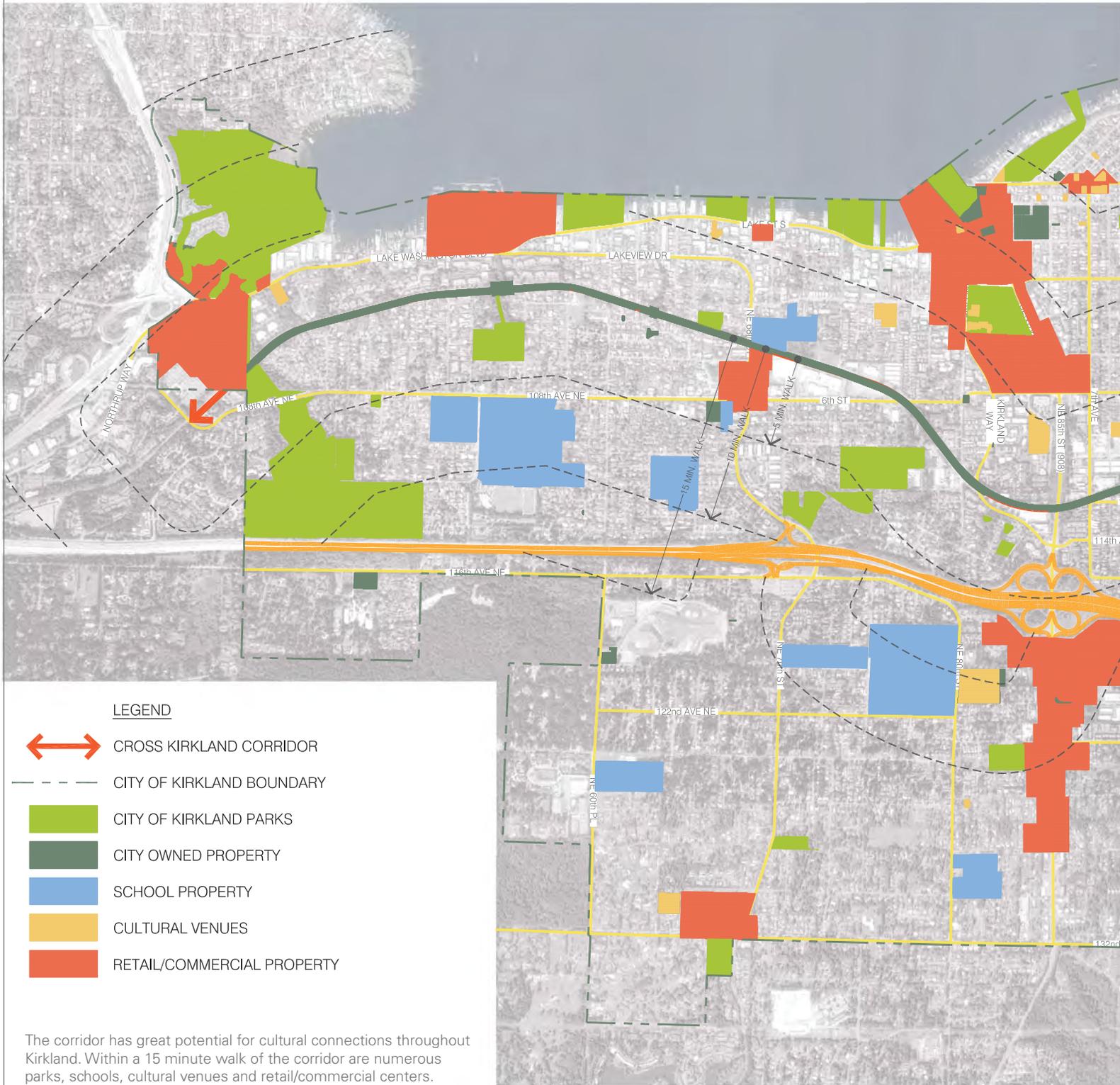
East/west bike and bus routes along NE 116th.



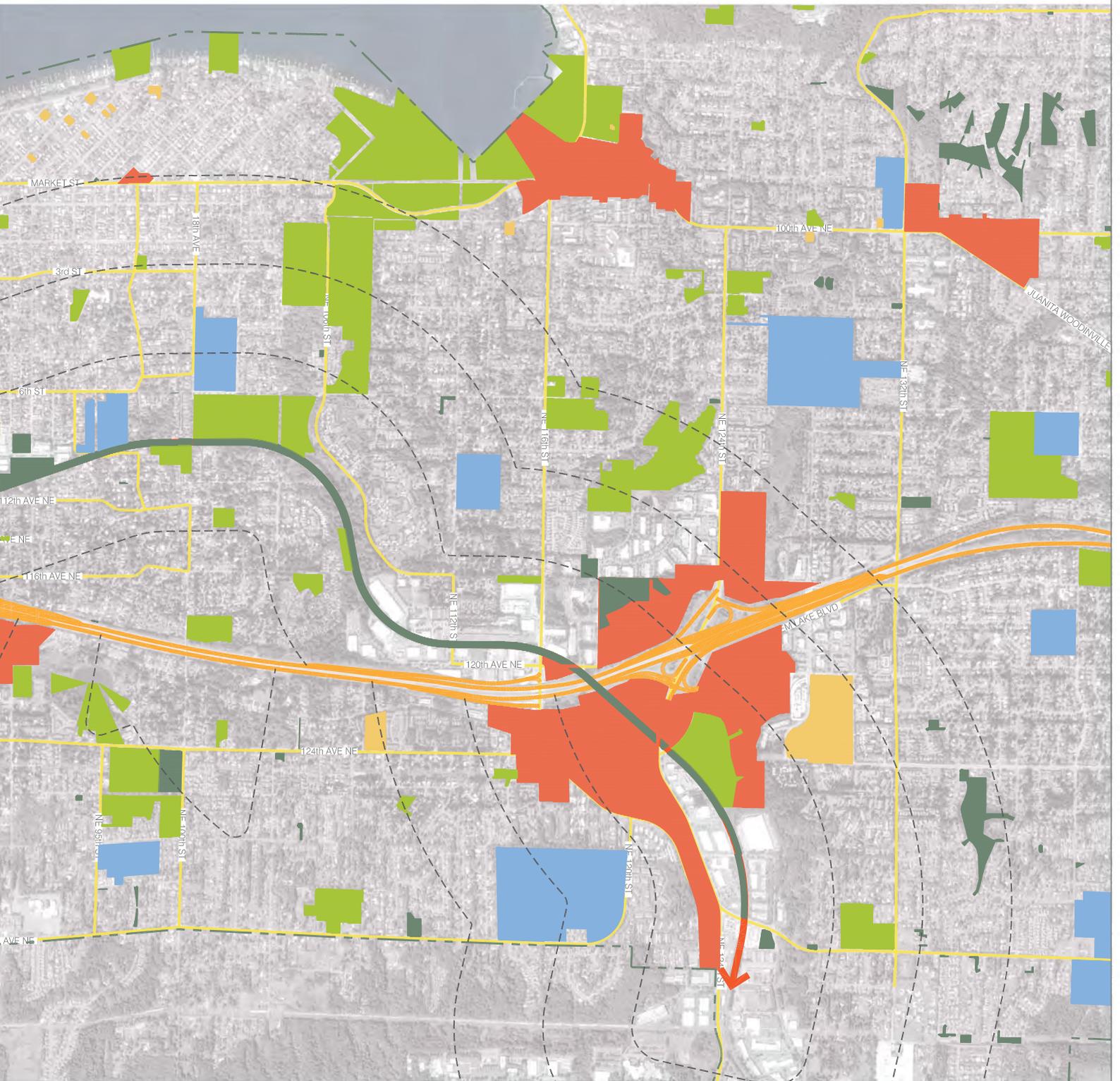
North/south bike connection along 132nd Ave. Also
east/west bike connections from NE 132nd St. to the
north.

15 minute walking distance offset of corridor.





Urban Planning & Cultural Study - Cultural Connections Map



UNDERSTANDING THE CORRIDOR URBAN PLANNING & CULTURAL STUDY

Opportunity Zones

In evaluating planning, density and development opportunities along the Cross Kirkland Corridor, there are several zones with greater near-term potential for growth and development that can influence and be influenced by the corridor's development. In some instances these opportunity zones are part of a character zone, and in some instances they are the character zone. The five such zones are listed and evaluated below.

South Kirkland Park and Ride (Yarrow Woods)

As the southern terminus of the CKC and at the southern end of the Yarrow Woods character zone, this area is an exceptional opportunity for change and growth, already exemplified with the new South Kirkland Park and Ride improvements.

- Great potential as a Transit Oriented Development (TOD) with connections to diverse transit options.
- Connections to the new SR 520 and its shared use path connecting to Seattle and the University of Washington.
- Existing commercial and office land use patterns, yet significant opportunity for increased density, with extensive surface parking allowing potential development space.
- A loosely structured street network could be regularized to create enhanced "in neighborhood" car, bike and pedestrian connections.

Google Campus/Light Industrial Zone (Buzz Zone)

With the existing (and expanding) Google campus, significant office/professional services present along 6th and a strong commercial/services district, the buzz zone is a unique change in character along the corridor. It presents the opportunity to be a catalyst for the corridor while the corridor also serves as a catalyst for desired growth.

- With the development of the Google campus, this zone has already begun a significant transformation with high energy potential.
- Currently, retail and services provide vitality to the neighborhood, but are primarily accessed by car.
- There is opportunity, but no direct connection, between the CKC and the business district.
- There is the opportunity for significantly more office and commercial development while still protecting and buffering surrounding residential development.

The Norkirk Commercial Area (Norkirk Edge)

The existing commercial and civic development along the corridor suggests the opportunity that redevelopment may occur, particularly along the CKC edge, benefiting from corridor traffic and providing the corridor with an active edge.

- The Norkirk edge allows territorial views to downtown Kirkland and fairly direct connections, making it a gateway to downtown for those traveling from the north.
- The existing public works facility provides additional public realm (and an oddly cool utilitarian edge) to the corridor.
- The cannery building is a community jewel that could have increased community use and opportunity.

The New ParMac (Active Zone)

This existing light industrial area has a unique character, largely shaped by its limited accessibility and the changing uses occupying warehouses once served by the railroad. This emerging land use, with many recreational amenities or services, provides the opportunity to charge the corridor with a unique character, as well as brand this area with a unique "attitude" now and into the future, even as it evolves.

- With very poor and hard to find vehicular access from the rest of the city, the CKC will greatly improve access to the area.
- The near-term CKC users on bike and on foot will tend to be the very "recreation minded" population that already uses the area, increasing the likelihood of the CKC as a true transportation connection.
- Existing tenants can open up to the corridor to provide new storefronts that reorient development energy along the corridor.

Totem Lake

The east side of I-405 presents the opportunity to create a cohesive urban district built around the true Totem Lake. The development of a new vision for Totem Lake, one in which the CKC becomes a green transportation spine that connects to the rest of the city and region beyond, could be the catalyst to move the long-stalled reimagining of Totem Lake forward. While planning maps show Totem Lake spanning I-405 to the west, the divide of I-405 makes it challenging to perceive both sides as a single neighborhood.

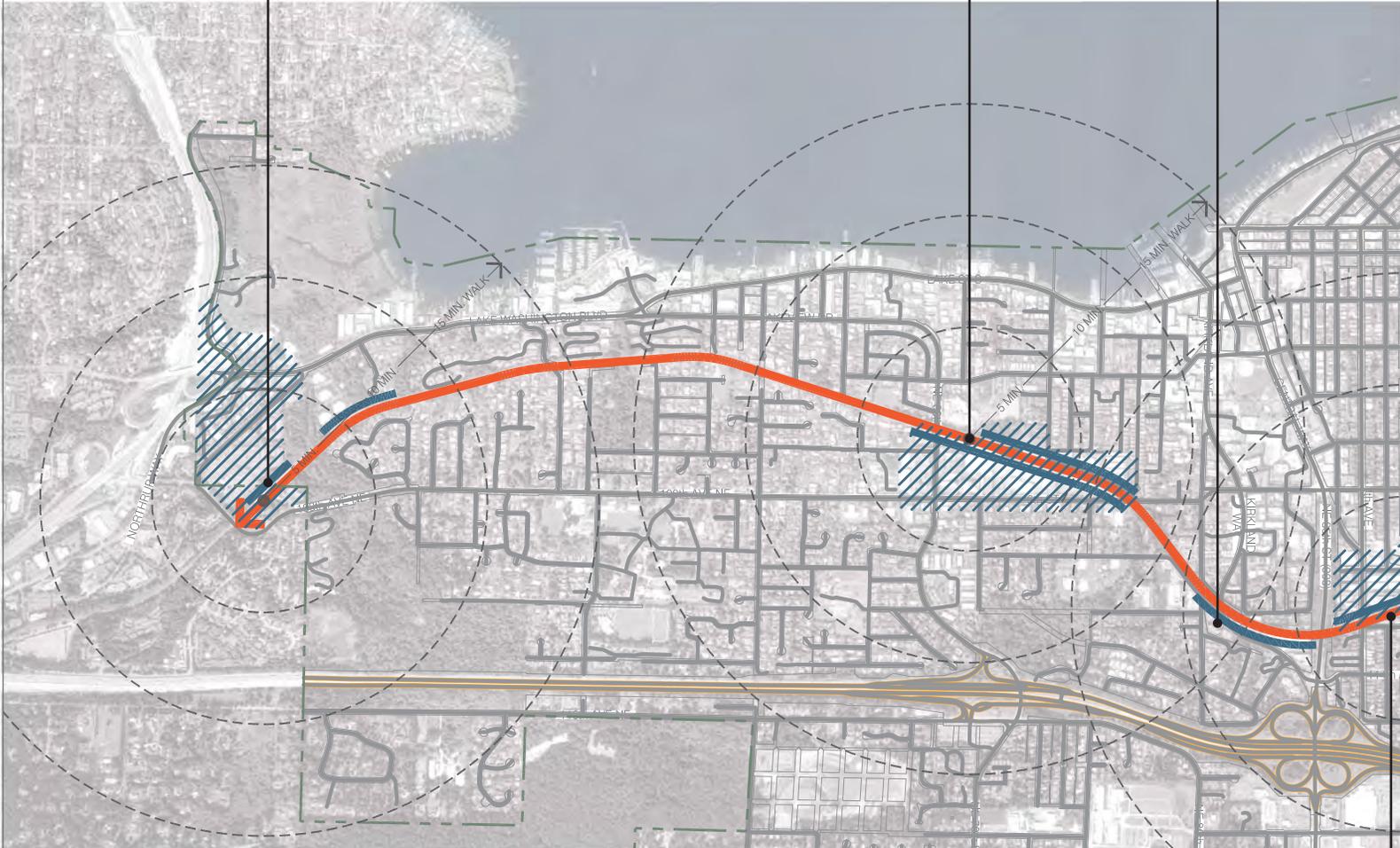
- The confluence of the corridor with two major roads (124th and Totem Lake Boulevard) will allow what is today a crowded intersection to be seen as an icon and counterpoint of a revitalized community.
- The proximity of major employers and the large-scale opportunities for development (and more major employers) make Totem Lake a critical link along the CKC.
- The public investment in the CKC and Totem Lake Park can become a catalyst for the desired types of growth.



South Kirkland Park and Ride facility (Yarrow Bay)

Everest Edge

Google campus, light industrial zone (Buzz Zone)



LEGEND



CROSS KIRKLAND CORRIDOR



CITY OF KIRKLAND BOUNDARY



I-405



MAJOR STREETS



EDGE DEVELOPMENT OPPORTUNITY

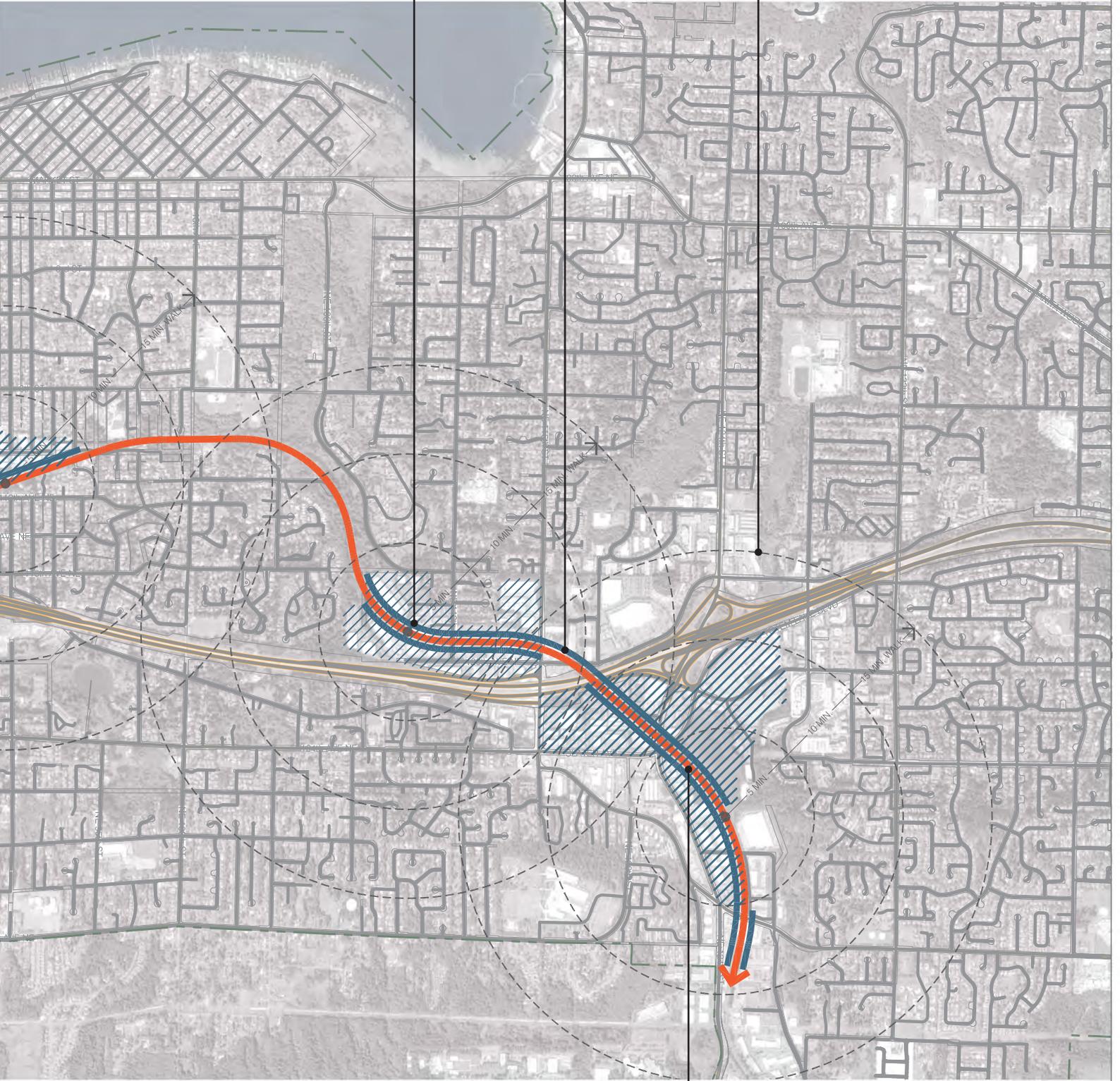
Norkirk Edge

Urban Planning & Cultural Study - Opportunity Zone Map

The Active Zone

Connection to West Totem Lake and
new Civic Buildings beyond.

15-minute walking radius



Totem Lake District







