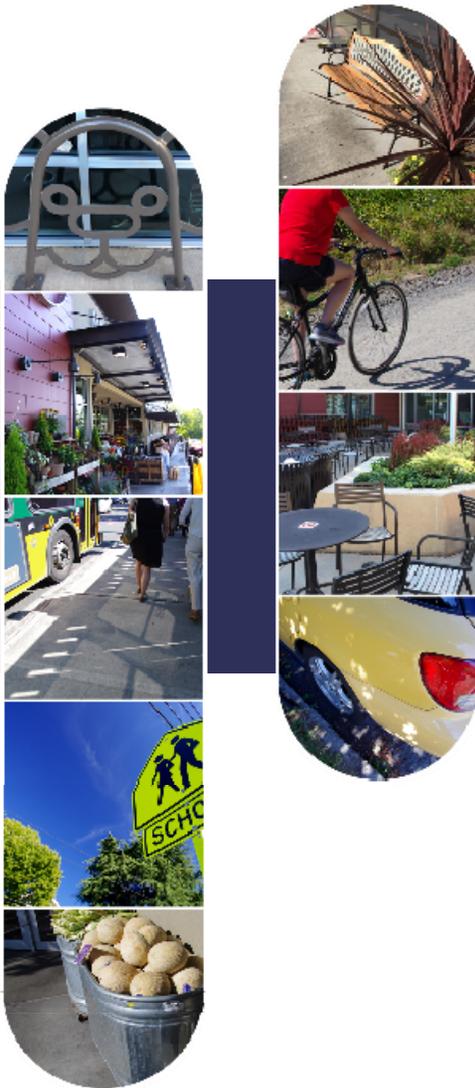




Houghton Everest Neighborhood Center 6th Street Corridor

Transportation Commission Meeting
January 25, 2017



AGENDA

- Introduction
- Updates
 - Comments from Transportation Commission
 - Comments from Staff
 - Comments from City Council
- Evaluation Criteria
- 6th Street Corridor Potential Solutions
 - Evaluation
- Wrap Up

UPDATES

- Timing
- City Council
 - Bold ideas
 - East-West Connectors
 - Neighborhood Center
- Transportation Commission
 - Fire station driveway
 - Drop 60th New Road
 - North of Central
- Staff
 - Protected crossing of 6th at Kirkland Ave
 - Project Status NE 53rd, Fire station Signal, left-turn protection Kirkland Way, Park and Ride access
 - H/E Neighborhood Center Connections
 - 9th Ave Signal
 - Park and Ride coordination with Bellevue
 - Consider U-Turns as part of transit signal priority

EVALUATION

Cost

\$ < \$1 Million

\$\$ \$1- \$5 Million

\$\$\$ \$5 – 10 Million

\$\$\$\$ > \$10 Million

Movement of People

3 - Increases person throughput of People w/o Impacts

2 – Increases person throughput w/ Impacts

1 – No increase of throughput

Connects Communities

3 – New or improved connectivity

2 – No Impact and No Improvement

1 – Impacts Connectivity

Movement for the Future

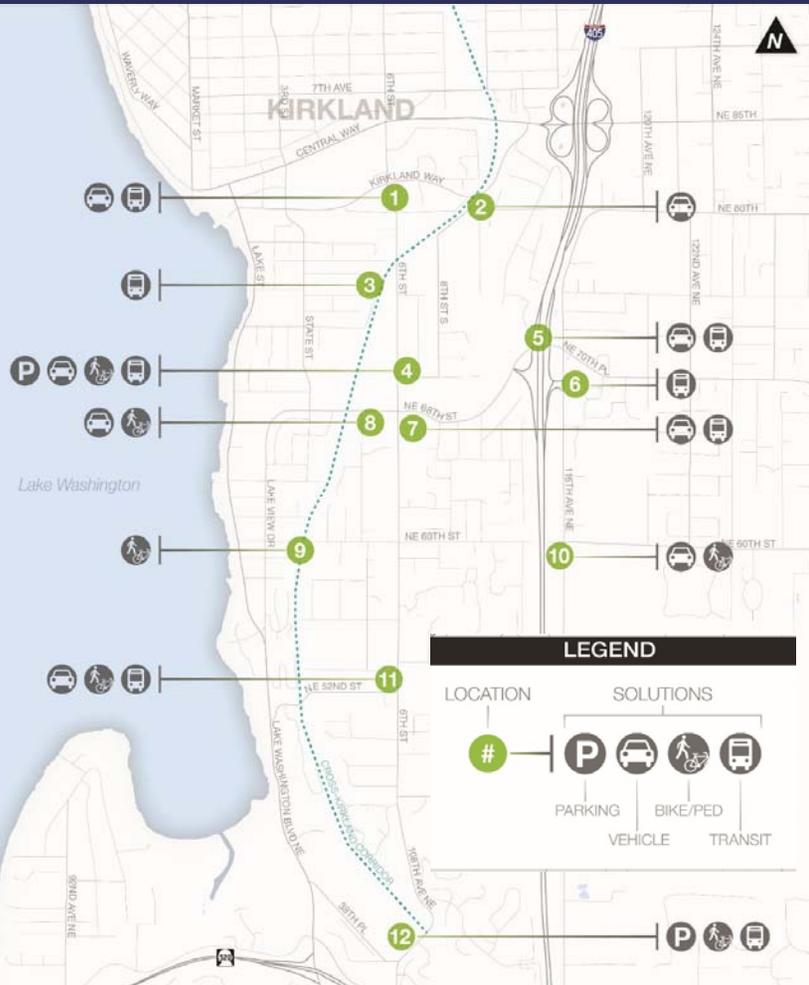
3 – Capacity = TMP

2 – Conflicts nor Aligns TMP

1 – Conflicts with TMP

Recommend ✓

NE 6TH STREET CORRIDOR POTENTIAL SOLUTIONS

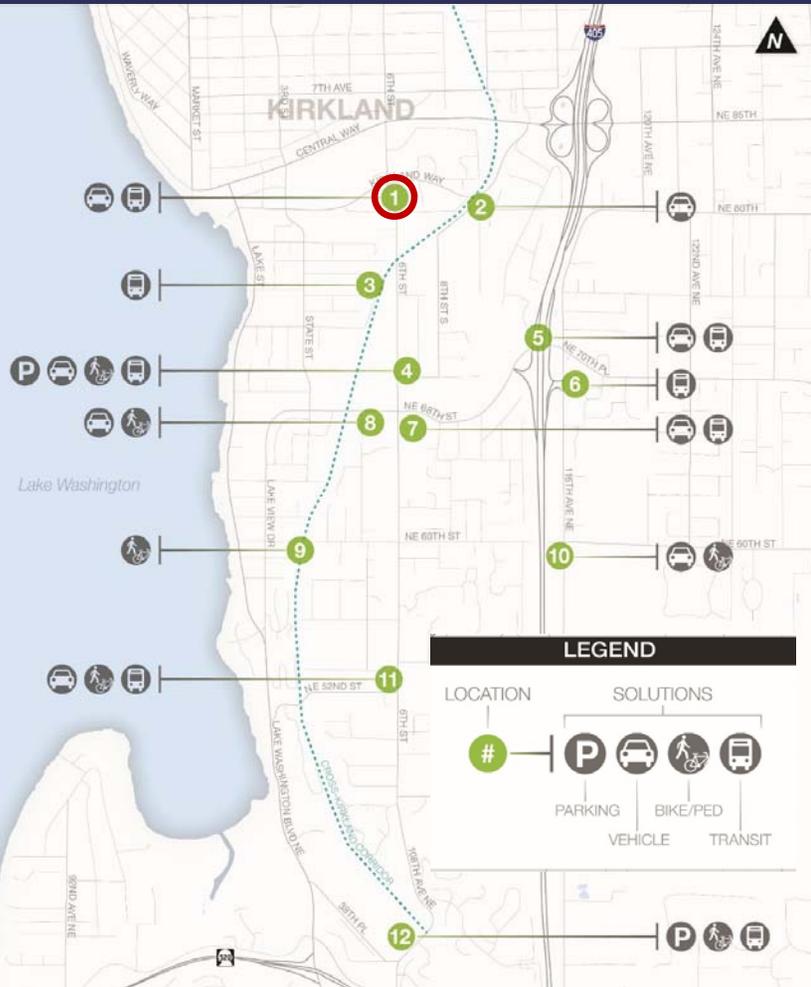


Evaluation

- Timing
 - How long to implement?
- Cost
- People Moving
 - How much does it improve mobility?
- Connecting Communities
- Capacity for the Future

Houghton Everest Neighborhood Center

NE 6TH STREET CORRIDOR – LOCATION 1

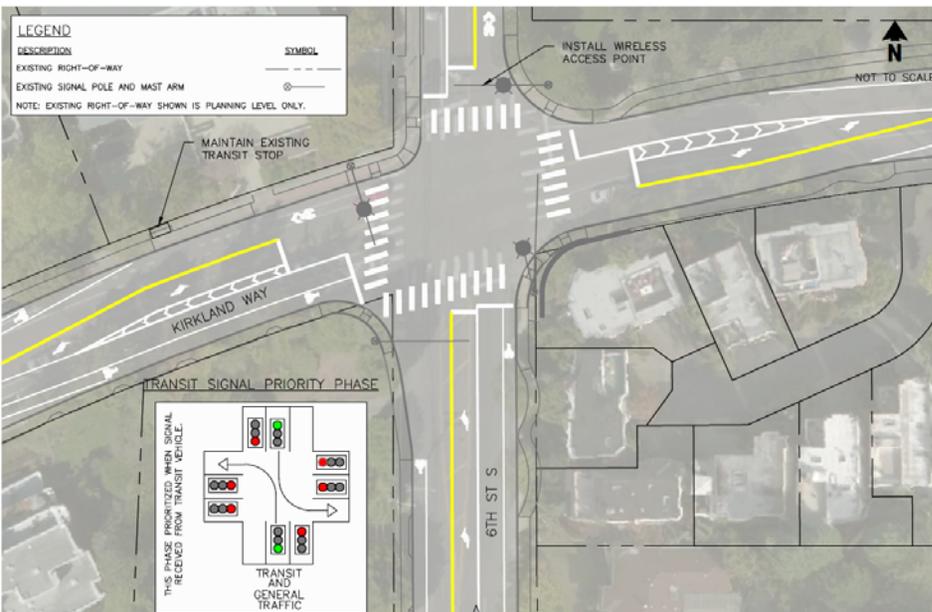


• 6th Street and Kirkland Way Intersection Improvements

- 1A: Transit Signal Priority
- 1B: Signal Coordination
- 1C: Crosswalk Improvements

Project 1A: Transit Signal Priority at 6th St / Kirkland Way

Conceptual Design - Transit Signal Priority:



- Metro's heavily used route 255 turns northbound left at this intersection and eastbound right. Transit signal priority at this intersection for the northbound lefts could provide a short travel time advantage for transit.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	2	2	2	✓

- **Benefits**
 - Better Transit throughput (255, 245 and future Frequent Service)
 - Works with current signal and requires minimal changes
 - Efficient use of Green
- **Challenges**
 - Long queues and only short benefit
- **Recommendation**
 - Look at existing stop
 - Coordination with Metro

Project 1B: Signal Coordination along 6th St

6th Street Signal Coordination:



- To better and more efficiently travel along the 6th Street corridor between Central Way and Kirkland Way. Interconnecting the signals (including the signal at 4th) could improve the efficiency, reduce stops and delays.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 years	\$\$	3	1	3	✓

- Benefits**
 - Better Transit throughput (245, 255)
 - Reduce red time arrivals
 - Improve speed and reliability
- Challenges**
 - Cost for interconnection
- Recommendations**
 - Implement
 - Coordination with Metro

Project 1C: 6th St / Kirkland Ave Crosswalk Improvements

RRFB Intersection Improvements:

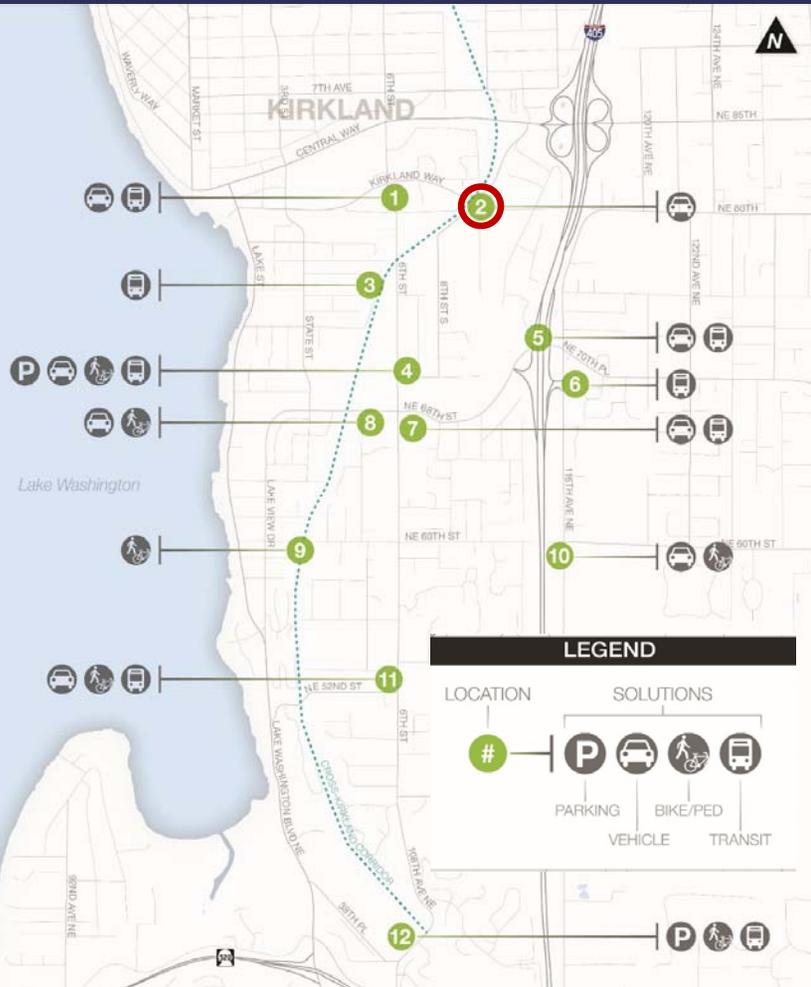


- To improve access across 6th Street for pedestrians, put in place RRFB crossing.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	3	3	2	✓

- **Benefits**
 - Improve safety and neighborhood connectivity
- **Challenges**
 - Visibility (angled intersection)
- **Recommendations**
 - Implement

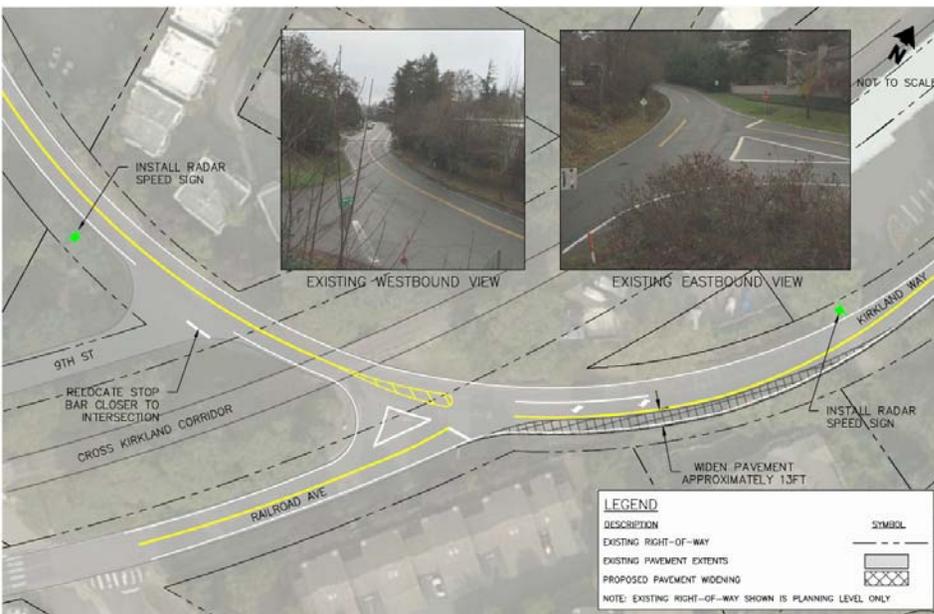
NE 6TH STREET CORRIDOR – LOCATION 2



- **Kirkland Way and Railroad Avenue Intersection Improvements**
 - **2A: Intersection Improvements and Speed Radar**

Project 2A: Kirkland Way / Railroad Ave Improvements

Conceptual Design – Intersection Improvements:

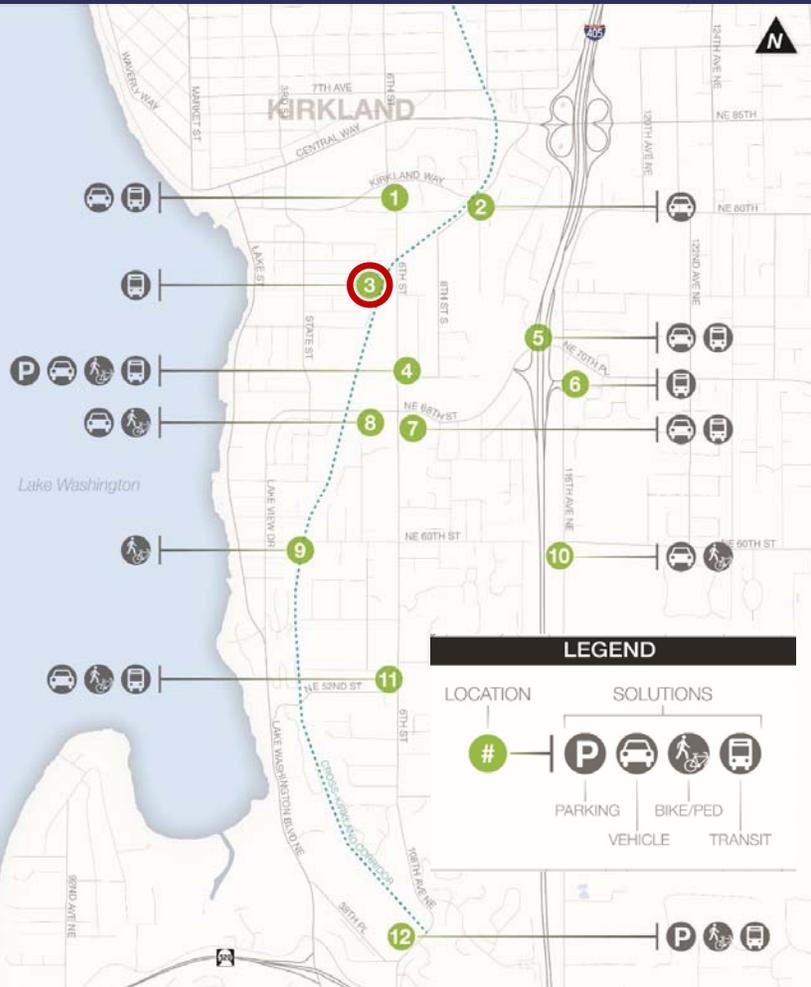


- There may be the opportunity to add a westbound left turn pocket at railroad Avenue to improve turning movements. Radar speed signs may help reduce speeds and improve safety for accessing Kirkland Way.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	2	2	✓

- **Benefits**
 - Anticipated reduction in crashes
 - Improved sight distance
- **Challenges**
 - Drainage ditches
- **Recommendations**
 - City is planning to implement

NE 6TH STREET CORRIDOR – LOCATION 3



- **Transit Access at Cross Kirkland Corridor**
 - **3A: Bus Rapid Transit on CKC bypass 108th to S Kirkland Park and Ride**
 - **3B: Bus Intersection at 6th Street and the CKC**

Project 3A: High Capacity Transit on CKC to S Kirkland P&R

HCT on Cross Kirkland Corridor:



- To reduce transit delays incurred on 6th Street and 108th Avenue, especially northbound during PM peak periods, constructing HCT lanes within the CKC, similar to the Master Plan. Transit on the CKC, especially in this segment could still connect to local neighborhoods but would dramatically improve overall transit travel times.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
10 + Years	\$\$\$\$	3	3	3	✓

Benefits

- Substantial travel time savings (5-10 Minutes) for transit (255, 540)
Could attract other routes
- Reduced delays by buses on 6th/108th Avenue
- Consistent phasing of CKC Master Plan

Challenges

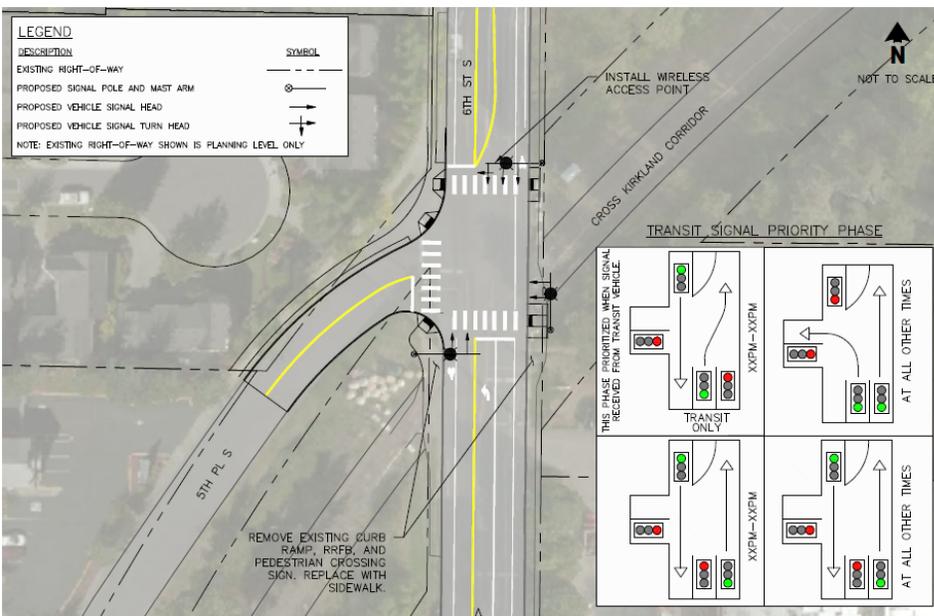
- Reduces access to transit on 6th/108th
- Substantial permitting/design costs
- Advanced Technology for stations and vehicles

Recommendations

- Pursue opportunities for implementation
- Coordination with Agency Partners

Project 3B: Bus Intersection at 6th St / CKC

Conceptual Design of Bus Intersection:



- Another opportunity for transit signal priority would be at the CKC trail intersection on 6th Street. This would require a new signal, removal of on-street parking to give transit a bypass of northbound queues that can be over 200 feet long.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
10 + Years	\$\$\$\$	3	3	3	✓

• Benefits

- Better transit throughput (245, 255, 540)
- Improves access for neighborhood (Moss Bay)
- Protected (Signal Controlled) Crossing

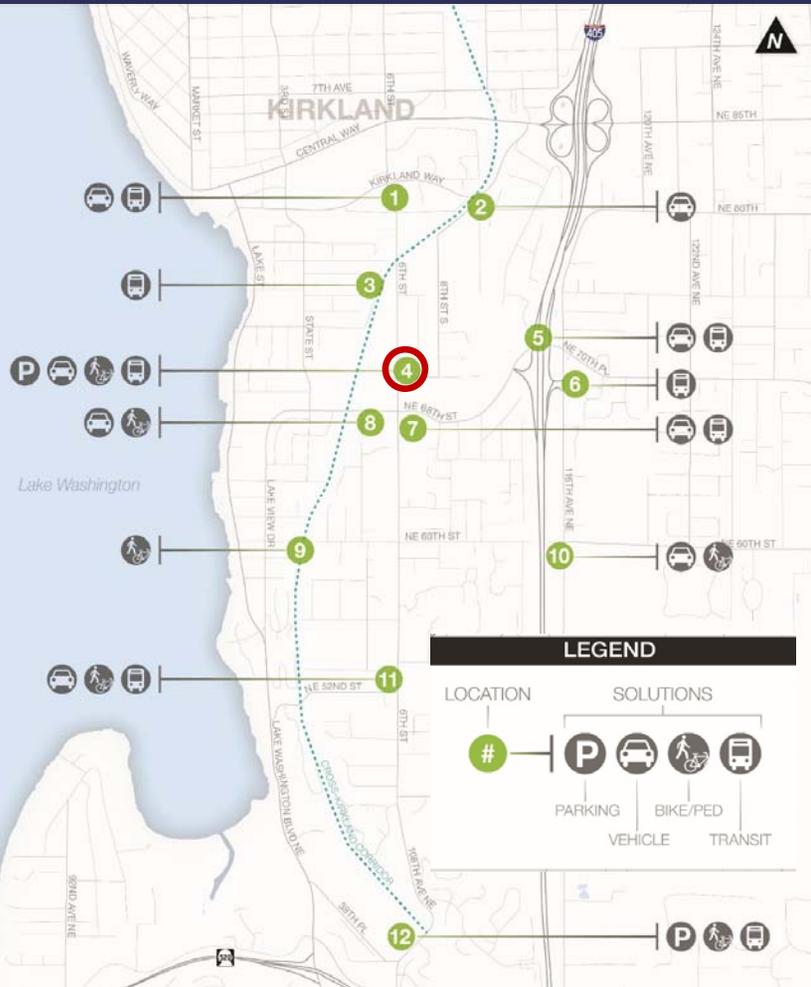
• Challenges

- May impact queue
- May not satisfy warrants

• Recommendations

- Consider for implementation and coordination with Metro

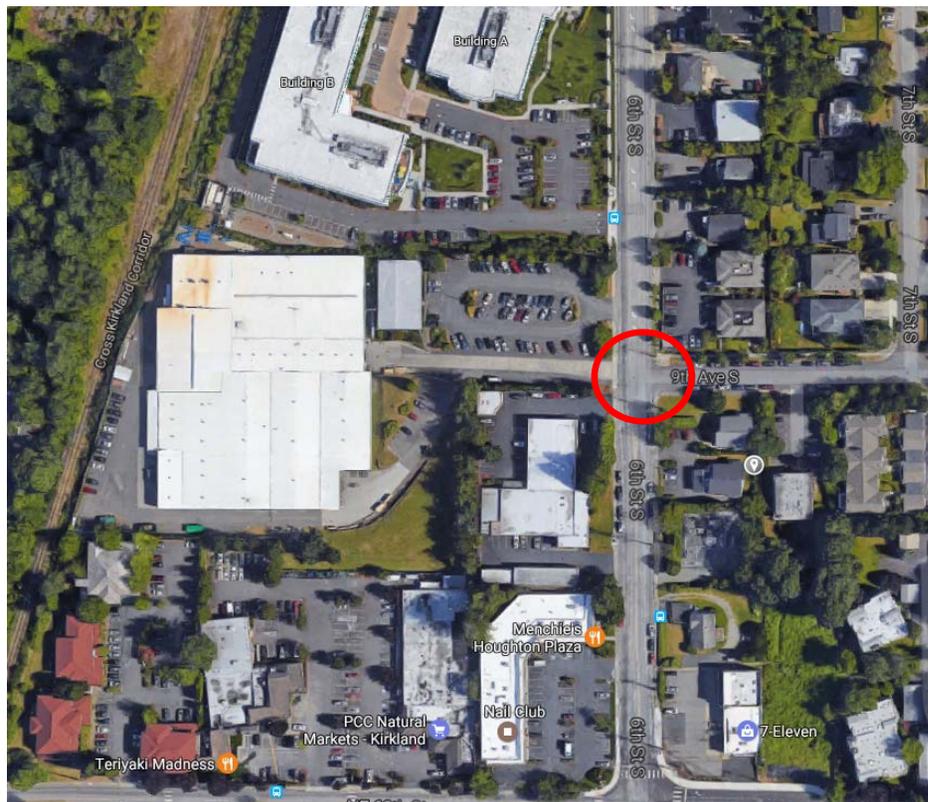
NE 6TH STREET CORRIDOR – LOCATION 4



- **6th Street and 9th Avenue Intersection**
 - **4A: Re-Assess the installation of a traffic signal at 6th Street and 9th Avenue**

Project 4A: Reassess Traffic Signal at 6th Street / 9th Avenue

6th Street & 9th Avenue Intersection:



- The City is in the process of designing and constructing a new traffic signal at the intersection of 6th Street and 9th. This signal could provide a shortcut for cut through traffic and may impact the adjacent intersection at NE 68th Street and 108th Avenue. Deferral and delay of this signal might be helpful as a consideration of future development and rezone consideration.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	2	3	✓

Benefits

- Provides Access to Everest Neighborhood
- Consolidates driveways

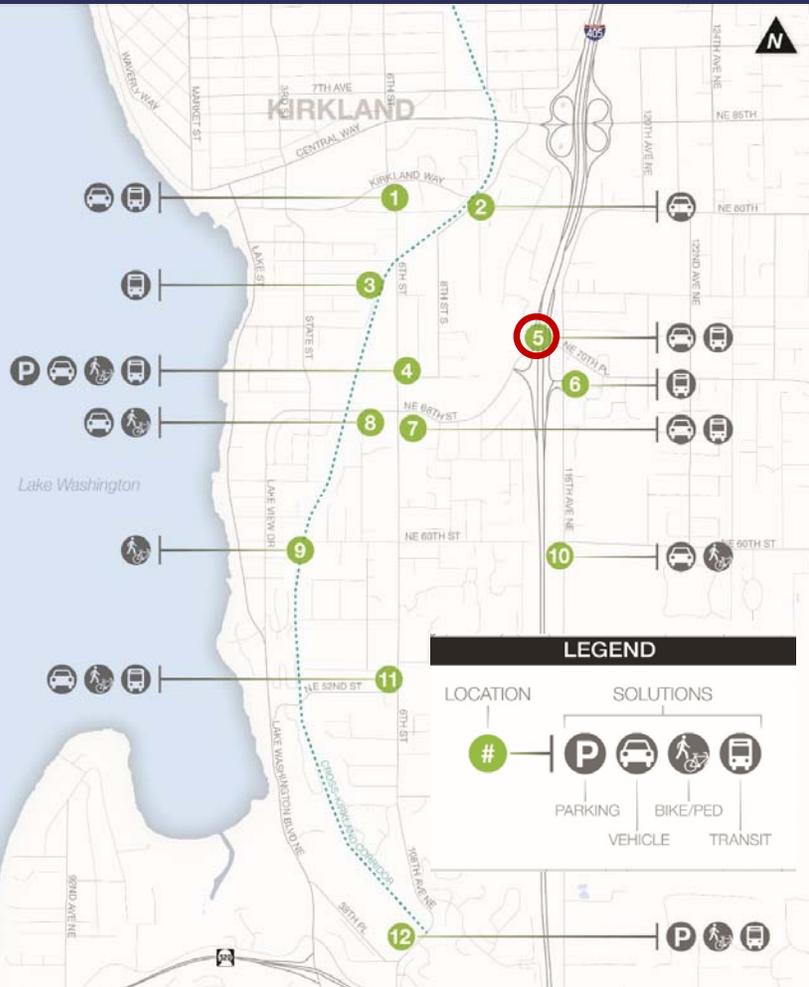
Challenges

- Volumes are low
- Close to 6th/108th/68th Intersection
- Could encourage cut through

Recommendations

- Funded through Mitigation
- Designed
- Monitor
- Move forward with construction

NE 6TH STREET CORRIDOR – LOCATION 5



- **70th Street overpass of I-405**
 - **5A: Improve / expand overpass**
 - **5B: BRT Planning near 85th / 70th Streets and Houghton Park and Ride**

Project 5A: Improve and Expand 70th Street Overpass

70th Street Overpass:



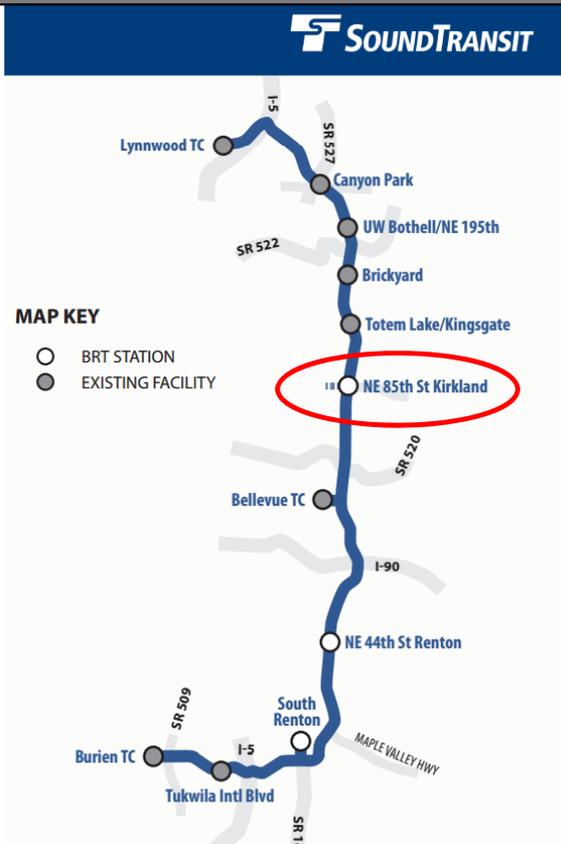
- Better organization and improvements in this corridor, could provide better and protected space for pedestrians and add space for cyclists which does not exist today. There is also a need to improve operations and access for transit and reduce delay for vehicles in the vicinity of I-405.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
10+ Years	\$\$\$\$	3	3	2	✓

- **Benefits**
 - Key east west connection for all modes
 - Linkage to transit (Houghton PR and future I-405 BRT)
- **Challenges**
 - Grade limitations
 - Challenging Ped and bike connections from Flyer
- **Recommendations**
 - Consider operations as part of future I-405 BRT implementation
 - Improve connectivity for all modes

Project 5B: BRT Planning near 85th / 70th / Houghton P&R

Future BRT Planning:

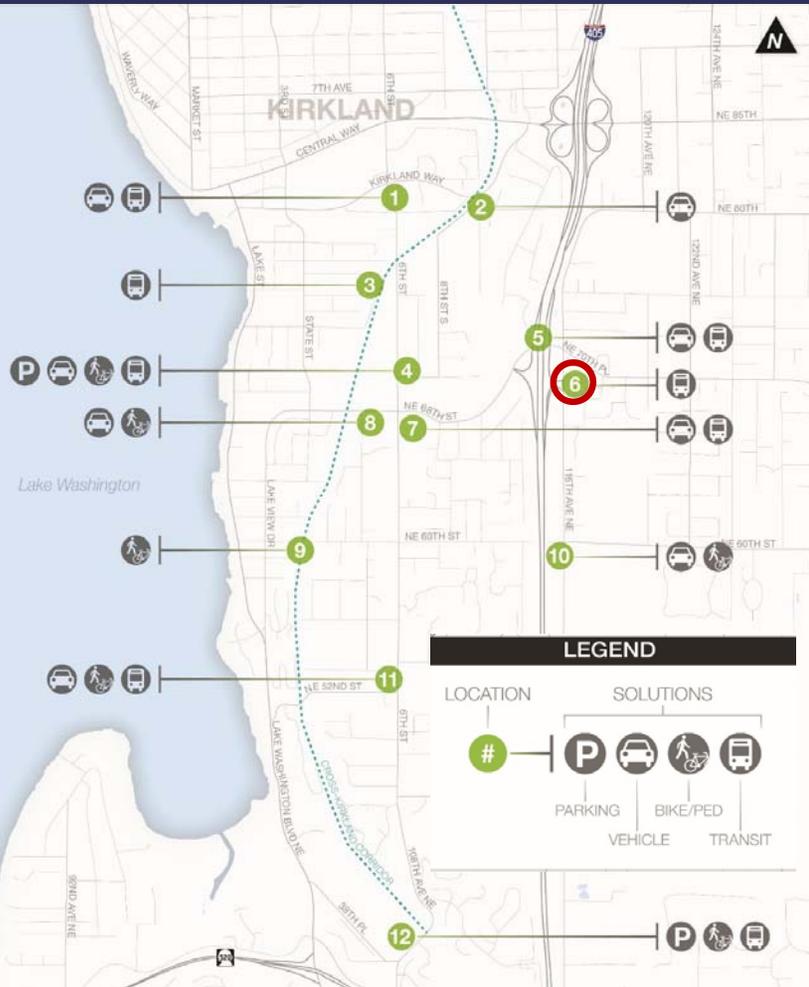


- Passage of ST 3 includes development of Bus Rapid Transit on I-405 and potential station development within the freeway right of way near 85th. City transit planning would support coordination and integration with the local street system to most effectively connect these new stations to the local communities and other transit sources.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 Years	\$	3	3	2	✓

- **Benefits**
 - I-405 BRT Implementation 2024
 - Linkage for several Kirkland Neighborhoods
- **Challenges**
 - Existing infrastructure and interchanges
 - Connection for all modes
- **Recommendations**
 - Look for opportunities to improve as part of I-405 BRT
 - Coordination with agency partners
 - Recommend planning study

NE 6TH STREET CORRIDOR – LOCATION 6

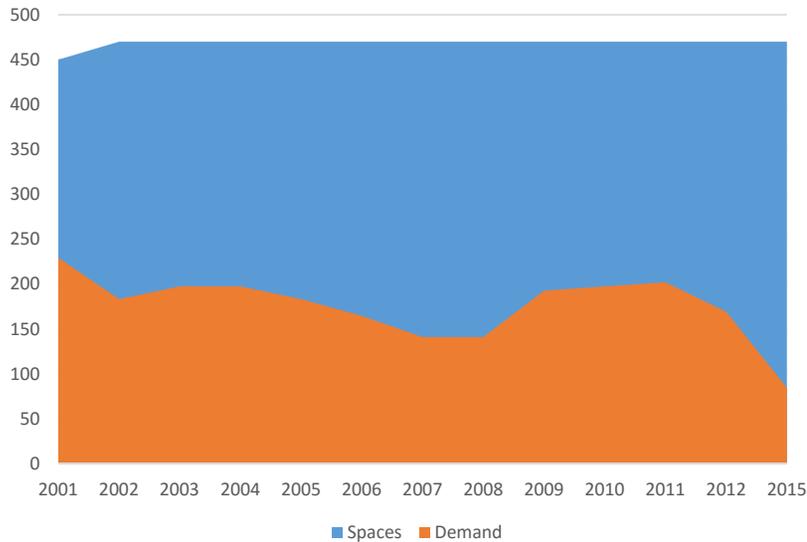


- **Houghton Park and Ride**

- **6A: Houghton Park and Ride lease for private shuttles**

Project 6A: Houghton Park and Ride Lease for Shuttles

Houghton Park and Ride:

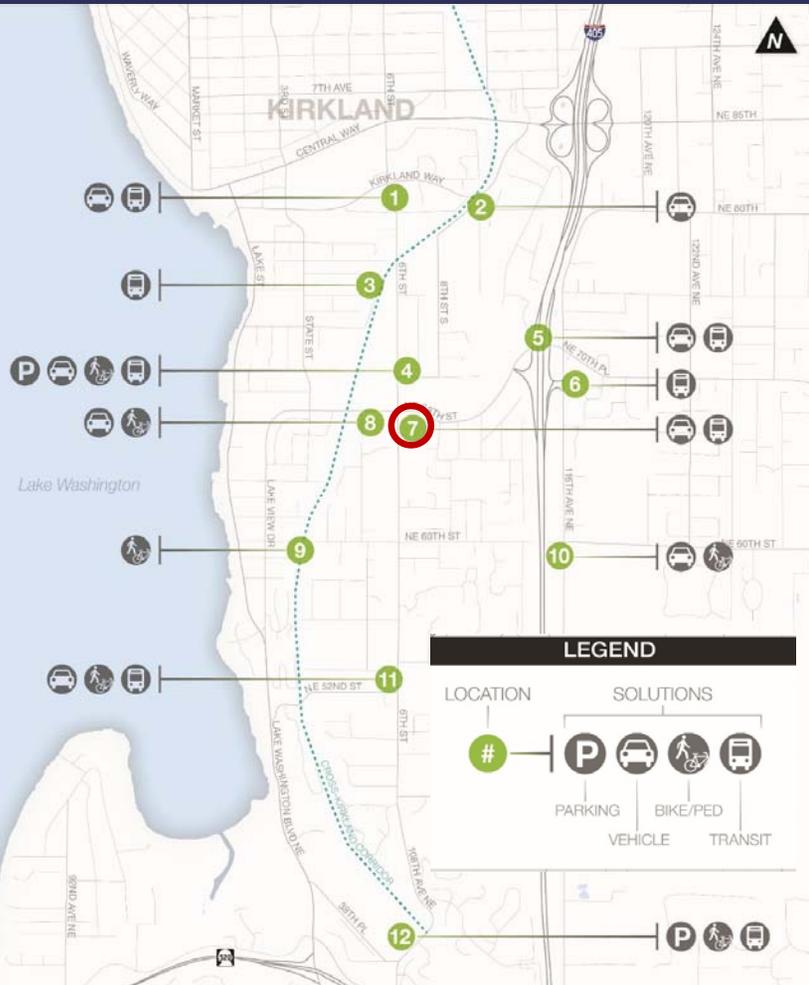


- Private shuttles are operating in Kirkland for large employers including Google, Microsoft Connector and most recently Facebook and Amazon. Parking for employees meeting the shuttles currently use the S Kirkland park and ride and other leased space. With underutilization at the Houghton (7th) park and ride, this space could be leased to these private shuttle operators leaving spaces in South Kirkland Park and Ride to meet Public transit demands.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	3	2	2	✓

- Benefits**
 - Improve use of park and ride
 - Encourage HOV/Private Transit
- Challenges**
 - Coordination with private entities
 - Park and Ride constraints on use
 - May increase travel times for privates
- Recommendations**
 - Coordination with partner agencies and private providers
 - Potential pilot project

NE 6TH STREET CORRIDOR – LOCATION 7

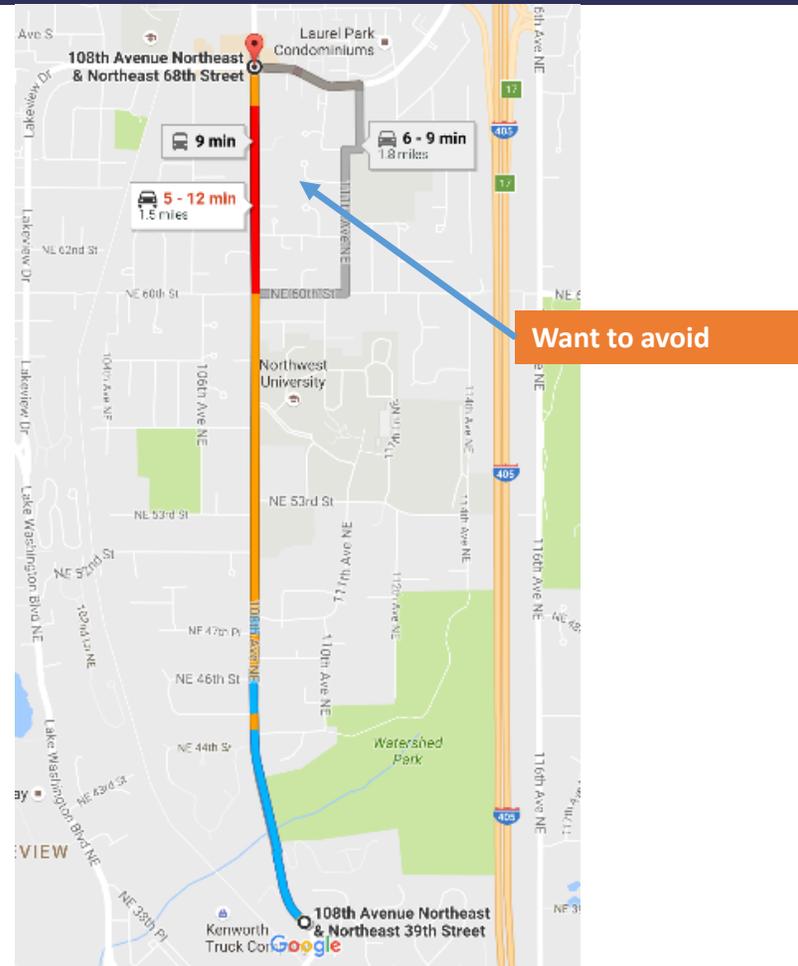
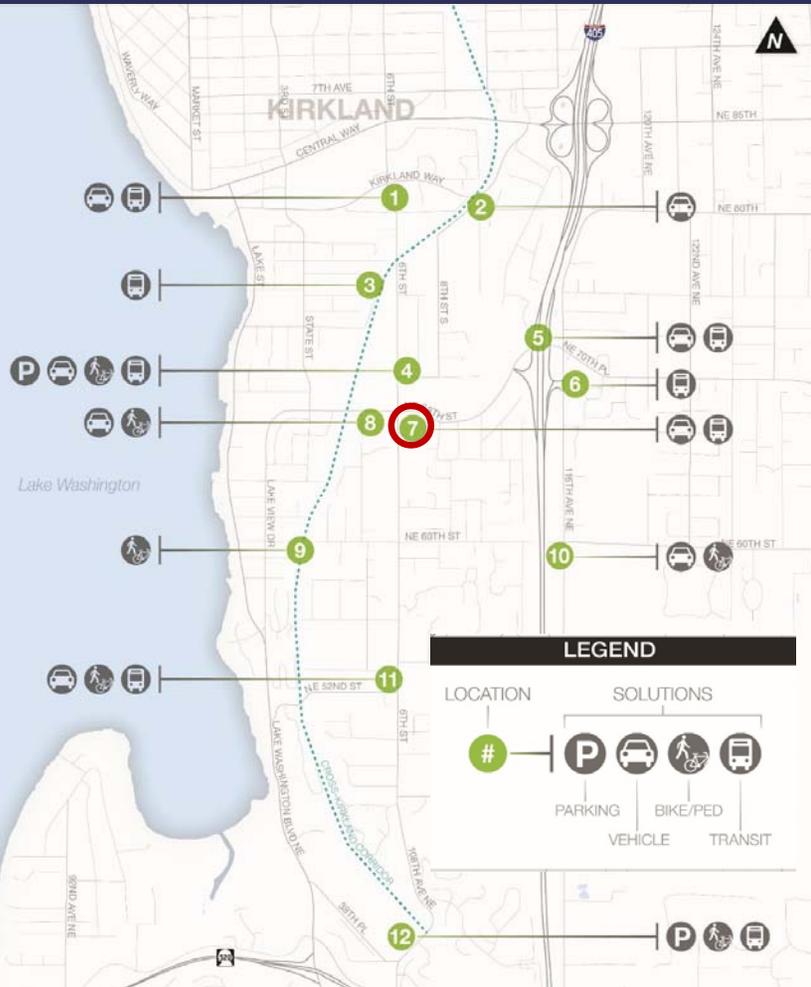


• 108th Ave and 68th Street Intersection

- 7A: Transit Signal Priority and Queue Jump
- 7B: Transit Signal Priority from left lane
- 7C: Complete bike lane connections
- 7D: Do Not Block Pavement Markings at the Fire Station
- 7E: Widen 108th Ave to provide curbside northbound Transit queue jump.

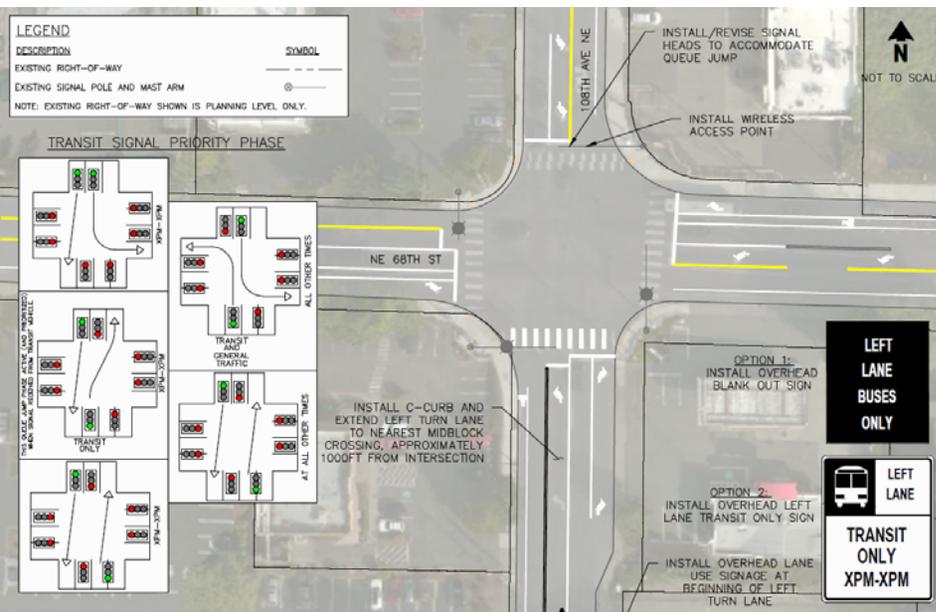
Note: New transit signal priority solutions are being developed as recommended by Transportation Commission

NE 6TH STREET CORRIDOR – LOCATION 7



Project 7A: Transit Signal Priority and Queue Jump

Transit Signal Priority - Design Concept 1:



- Utilize the northbound left-turn lane for transit only (currently 8 buses in the peak hour) as a queue jump (roughly 1000 feet) for transit by restricting turns with C-Curb and implementing a phase for that left turn for transit during the peak hours.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 years	\$\$	1	2	2	

Benefits

- An average of a 1 minute increase in transit passenger travel time savings (modelling results).
- Transit passengers ~150-200 per hour

Challenges

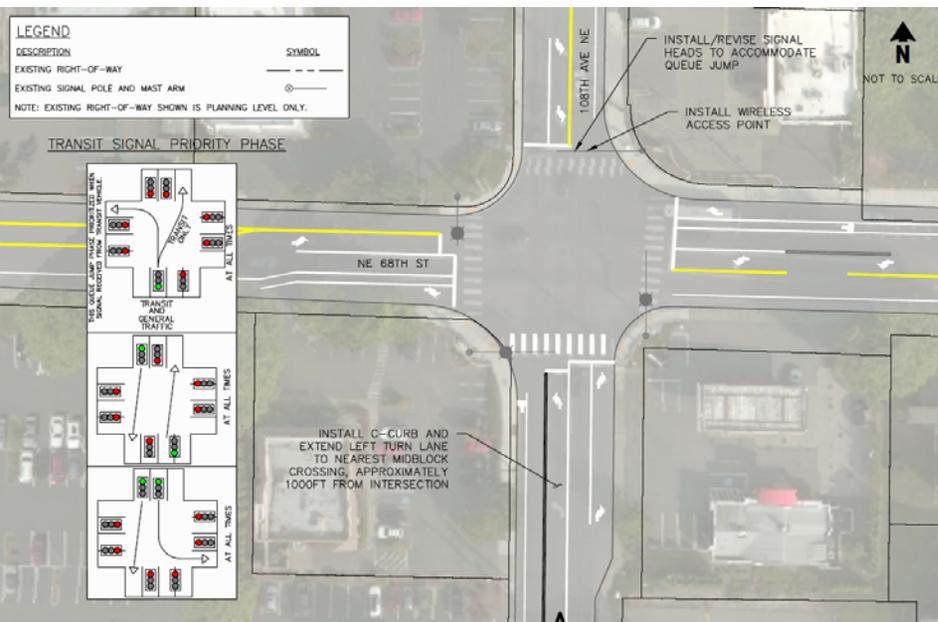
- Disrupts signal operations, and reduces overall person throughput
- Extends queue ~1000 feet
- General confusion

Recommendations

- Not recommended. Reduces overall person throughput while providing only minimal impact for peak period transit.

Project 7B: Transit Signal Priority and Queue Jump

Transit Signal Priority - Design Concept 2:



- Utilize the northbound left-turn lane for transit thru movements (currently 8 buses in the peak hour) via transit signal priority while still allowing left turns to operate as normal.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 years	\$\$	2	2	2	

- Benefits**
 - Very minor increase in transit travel speeds (modelling results).
- Challenges**
 - Disrupts signal operations, and reduces overall person throughput
- Recommendations**
 - Not recommended. Increased the northbound queue and reduces overall person throughput.

Project 7C: Continue and Complete Bike Lanes

Complete Bike Lanes:



- Complete bike lanes along 108th Avenue where missing.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	3	3	3	✓

- **Benefits**
 - Provides safe routing for people riding bikes
 - Aligns with Transportation Master Plan
- **Challenges**
 - Removal or relocation of utilities
 - Widening or property impacts
- **Recommendations**
 - Implement and coordinate with green bike boxes

Project 7D: 'Don't Block the Box' by Fire Station

'Don't Block the Box':



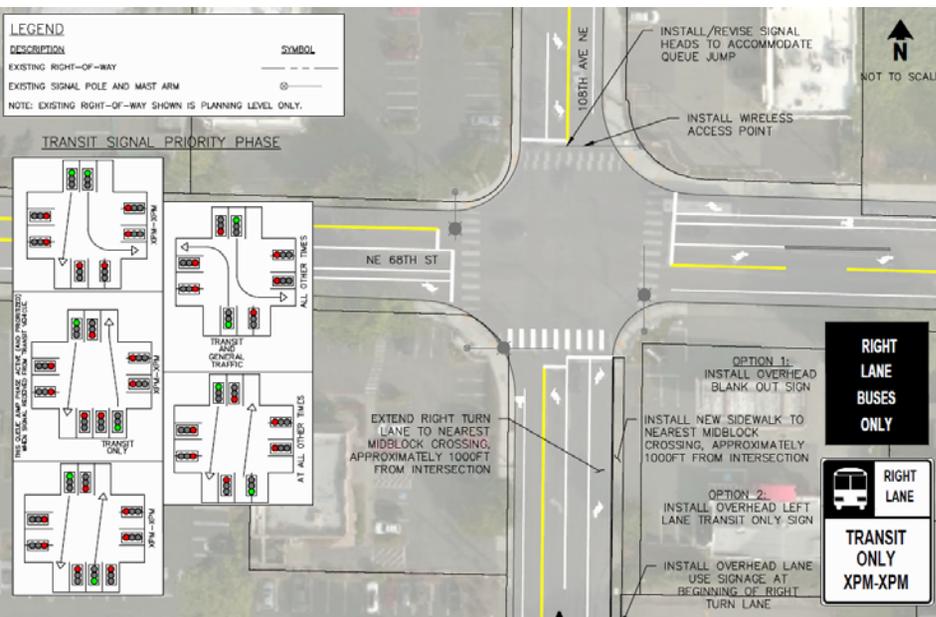
- Install pavement markings that keep the fire station driveway clear of vehicle queues. (Will be included in the City Annual Striping Program).

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	2	2	✓

- **Benefits**
 - None
- **Challenges**
 - Improves emergency access
- **Recommendations**
 - Implement with Citywide striping

Project 7E: Widen 108th Ave for NB Transit Queue Jump

Right Lane Transit Queue Jump:

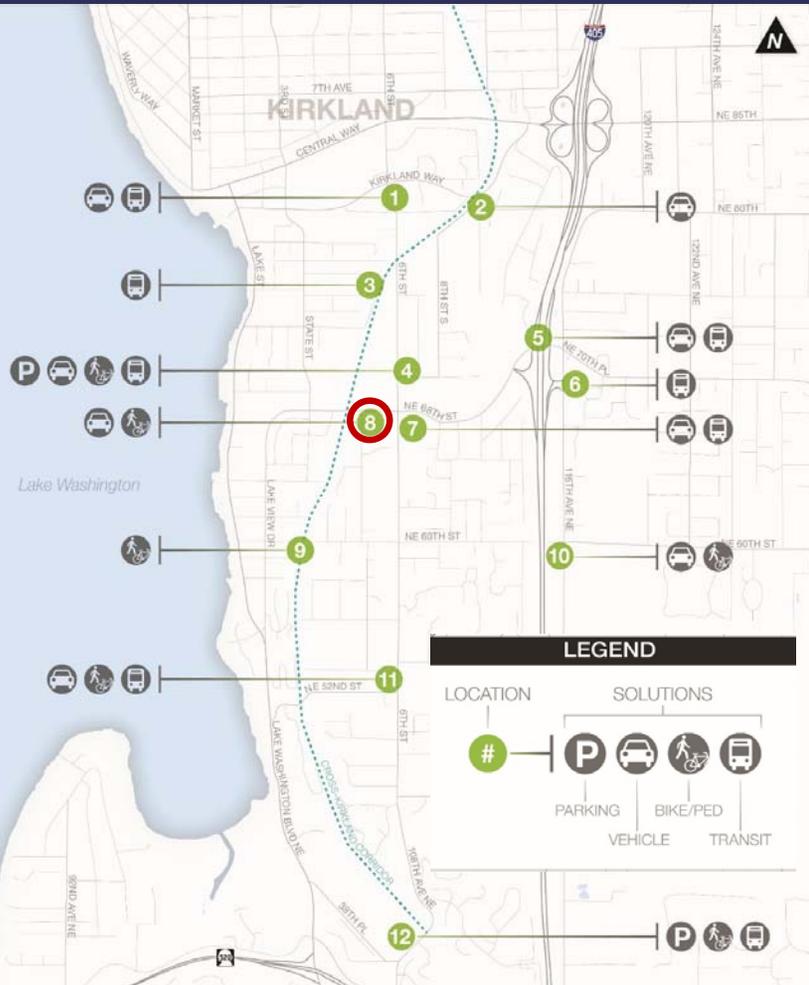


- Widen 108th Avenue to create an extensive Northbound through lane for transit to bypass queues. May be adjacent to a bike lane and also conflict with high volume of right turns at NE 68th Street.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
10+	\$\$\$\$	3	1	2	

- Benefits**
 - Improves transit travel time speed and reliability
- Challenges**
 - Extensive Right of way impact
 - Conflicts with bike lanes
 - High Right turn volume
- Recommendations**
 - Do not implement

NE 6TH STREET CORRIDOR – LOCATION 8

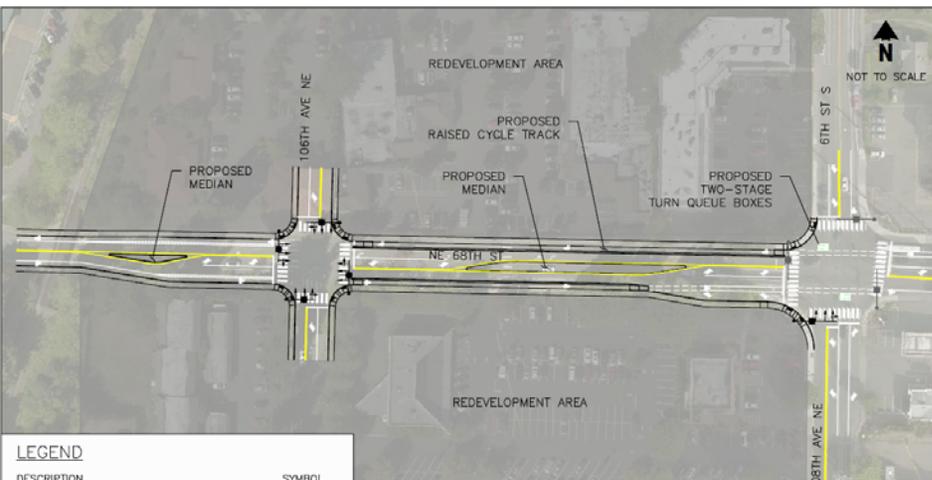


• NE 68th Street at 108th Avenue NE:

- 8A: Access Management – Median Control
- 8B: Access Management – Signalized Access
- 8C: Access Management – Selectively Close Driveways
- 8D: Bicycle Intersection at 68th St / 108th Ave
- 8E: Green Bike Boxes at 68th St / 108th Ave

Project 8A: Access Management – Median Control

Median Control and Access Consolidation:



DESCRIPTION	SYMBOL
EXISTING SIGNAL POLE AND MAST ARM	
PROPOSED SIGNAL POLE AND MAST ARM	
PROPOSED VEHICLE SIGNAL HEAD	
PROPOSED VEHICLE SIGNAL TURN HEAD	
REDEVELOPMENT AREA	



- Closely spaced driveways and intersections, bike lanes, as well as crosswalks on NE 68th Street results in numerous conflict points between vehicles, pedestrians and bicycles. Access management strategies can include closing or consolidating driveways, using medians to separate conflicting movements and reorganizing development sites to better circulate and organize traffic off of arterial streets.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 Years	\$\$	3	3	2	✓

Benefits

- Reduces potential ped bike and vehicle conflicts
- Circulation occurs on properties

Challenges

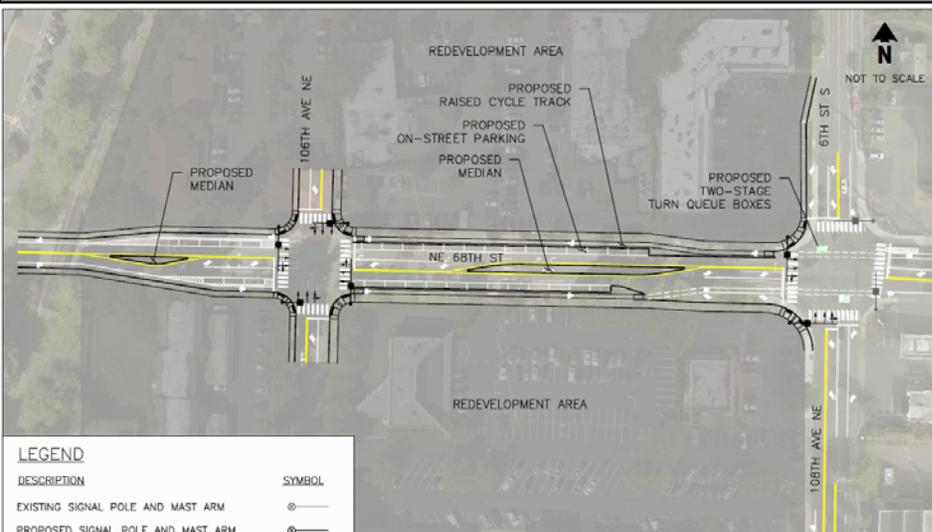
- Consolidation of access impacts individual properties
- Does not complete bike lanes

Recommendations

- Implement if some changes are made to Houghton Everest Neighborhood Center Plan
- Coordination with property owners

Project 8B: Access Management – Signalized Access Only

Signalized Access Only (Assumes Redevelopment):



DESCRIPTION	SYMBOL
EXISTING SIGNAL POLE AND MAST ARM	⊙—
PROPOSED SIGNAL POLE AND MAST ARM	⊙—
PROPOSED VEHICLE SIGNAL HEAD	⊙
PROPOSED VEHICLE SIGNAL TURN HEAD	⊙
REDEVELOPMENT AREA	⊙



- Closely spaced driveways and intersections, bike lanes, as well as crosswalks on NE 68th Street results in numerous conflict points between vehicles, pedestrians and bicycles. Access management strategies includes installation of new full access traffic signals (for example at 106th Avenue to provide fully controlled access with pedestrian crossings. This would rely on redevelopment of adjacent land uses including improved circulation on-sites (off street)).

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 Years	\$\$\$	3	3	2	✓

Benefits

- Reduced conflicts improved access and local circulation
- Extends bike lanes
- On street parking for retailers

Challenges

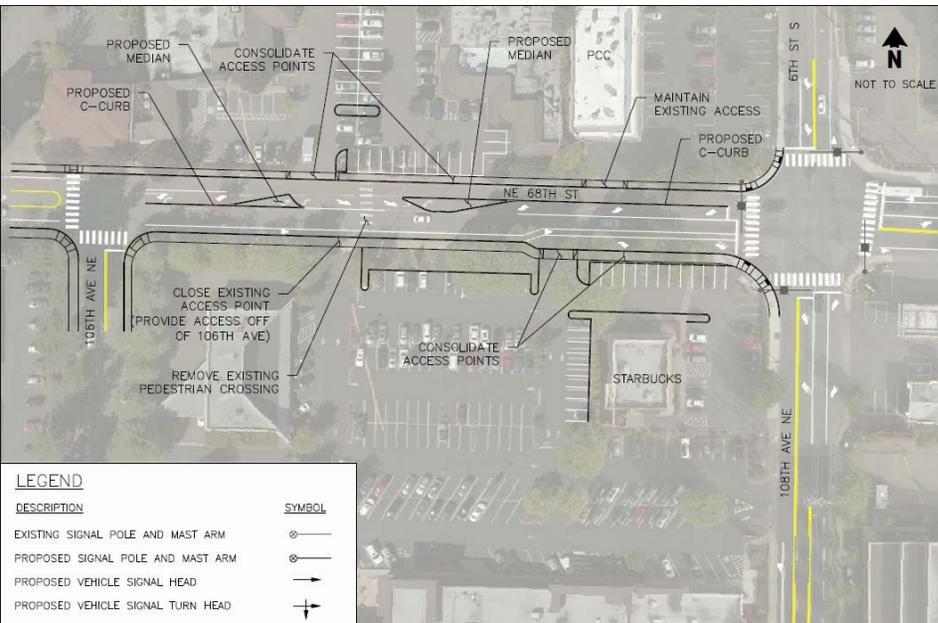
- Coordination with property owners

Recommendations

- Implement if greater changes are made to Houghton Everest Neighborhood Center Plan
- Coordinate with property owners

Project 8C: Access Management – Consolidate Access Points

Consolidate Access Points (No Redevelopment):



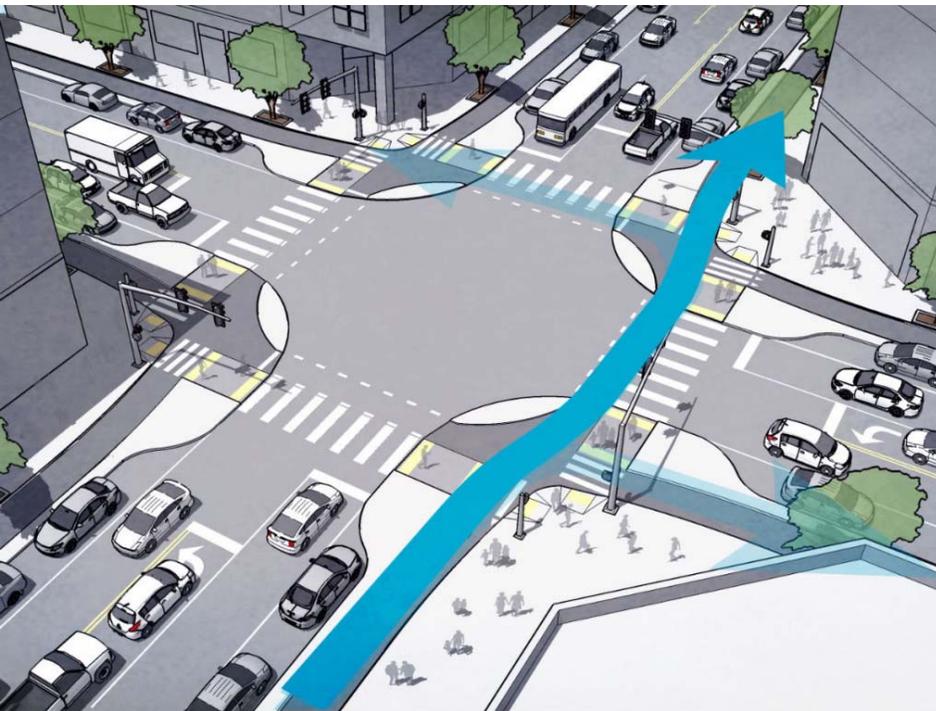
- Closely spaced driveways and intersections, bike lanes, as well as crosswalks on NE 68th Street results in numerous conflict points between vehicles, pedestrians and bicycles. Access management without any redevelopment or widening, could include some more minor access management strategies such as closing or consolidating driveways and potentially removing the pedestrian crossing.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$\$	2	3	2	✓

- Benefits**
 - Reduces conflicts for pedestrians, bikes and vehicles
 - Extends bike lanes
- Challenges**
 - Consolidation of driveways impacts property owners
- Recommendations**
 - Implement if no changes are made to Houghton Everest Neighborhood Center Plan
 - Coordinate with Property Owners

Project 8D: Full Bicycle Intersection at 68th St / 108th Ave

Sample Full Bicycle Intersection:



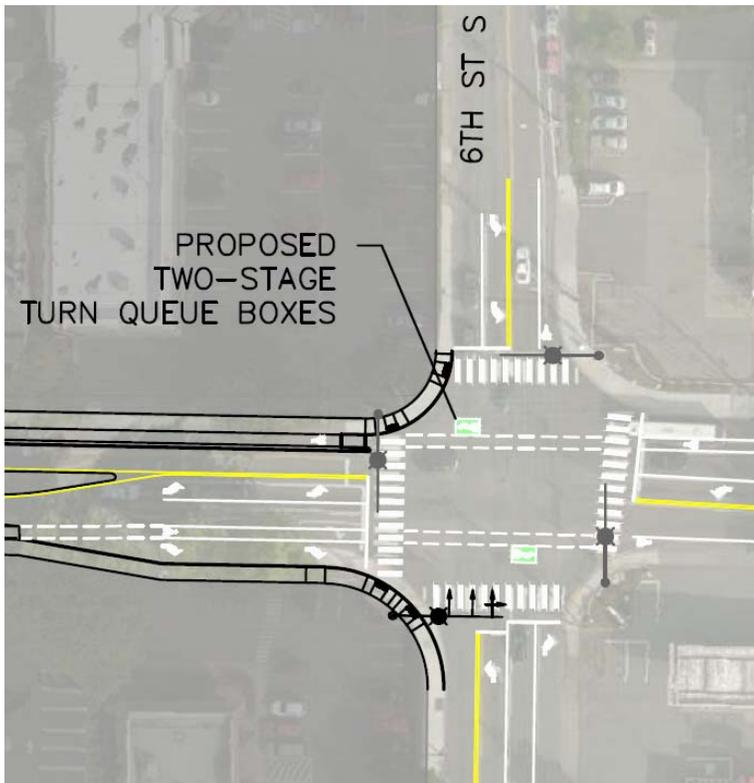
- Bicycle lanes are provided on NE 68th Street and 108th Avenue and bicycle use is growing; however, these bicycle lanes do not continue through the intersection of 108th Avenue NE at NE 68th Street. One way to do this would be to create a bicycle intersection that extends bike lanes and protects bike movements. This type of intersection can also promote pedestrian safety with ped bulbs making pedestrians more visible.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10	\$\$	2	3	2	✓

- **Benefits**
 - Provides safe connections for bikes
- **Challenges**
 - Extensive widening and Right of Way
 - Conflicts with high volume right turns
- **Recommendations**
 - Could be implemented with redevelopment

Project 8E: Green Bike Boxes

Sample Green Bike Box Design:

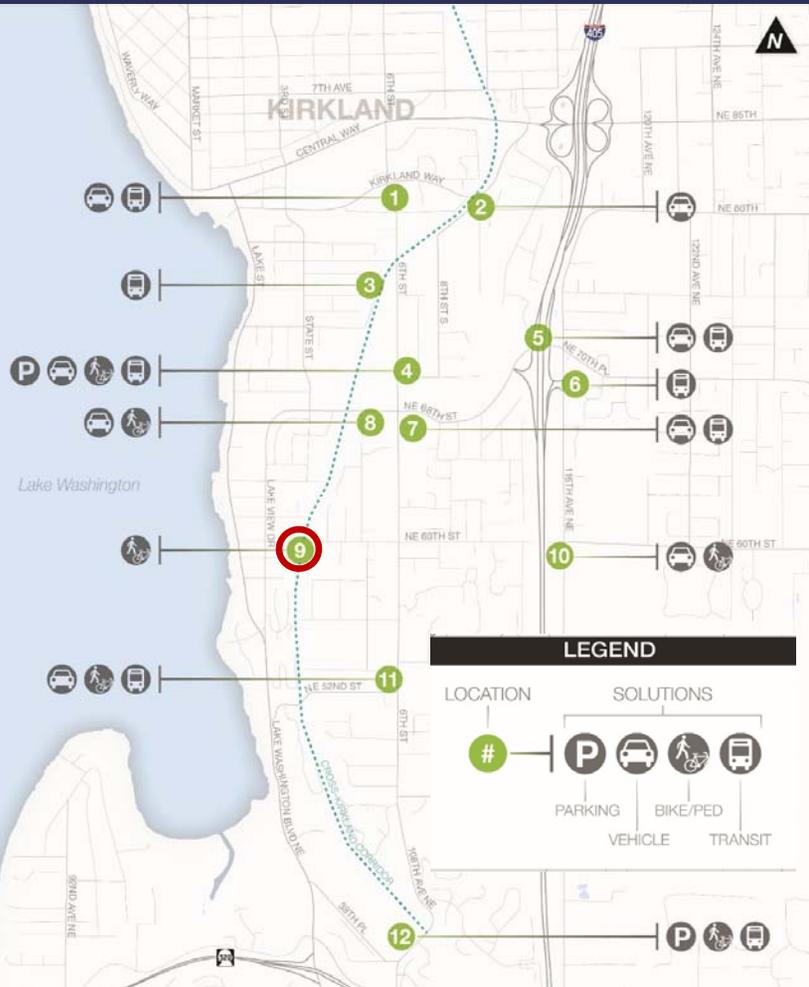


- Bicycle lanes are provided on NE 68th Street and 108th Avenue and bicycle use is growing; however, these bicycle lanes do not continue through the intersection of 108th Avenue NE at NE 68th Street. Green Bike Boxes could enhance bike visibility by placing a painted green bike at the front of vehicle queues. This may require widening.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10	\$\$	2	3	2	✓

- **Benefits**
 - Increases visibility and safety for bike riders
- **Challenges**
 - Requires widening of 68th St, restriping and signal modifications
- **Recommendations**
 - Implement with redevelopment

NE 6TH STREET CORRIDOR – LOCATION 9



- **Cross Kirkland Corridor Connectivity:**
 - **9A: Improve Trail Access and Bike Connection**

Project 9A: Improve Trail Access at the CKC

Existing 60th Street Trail Access (looking West):

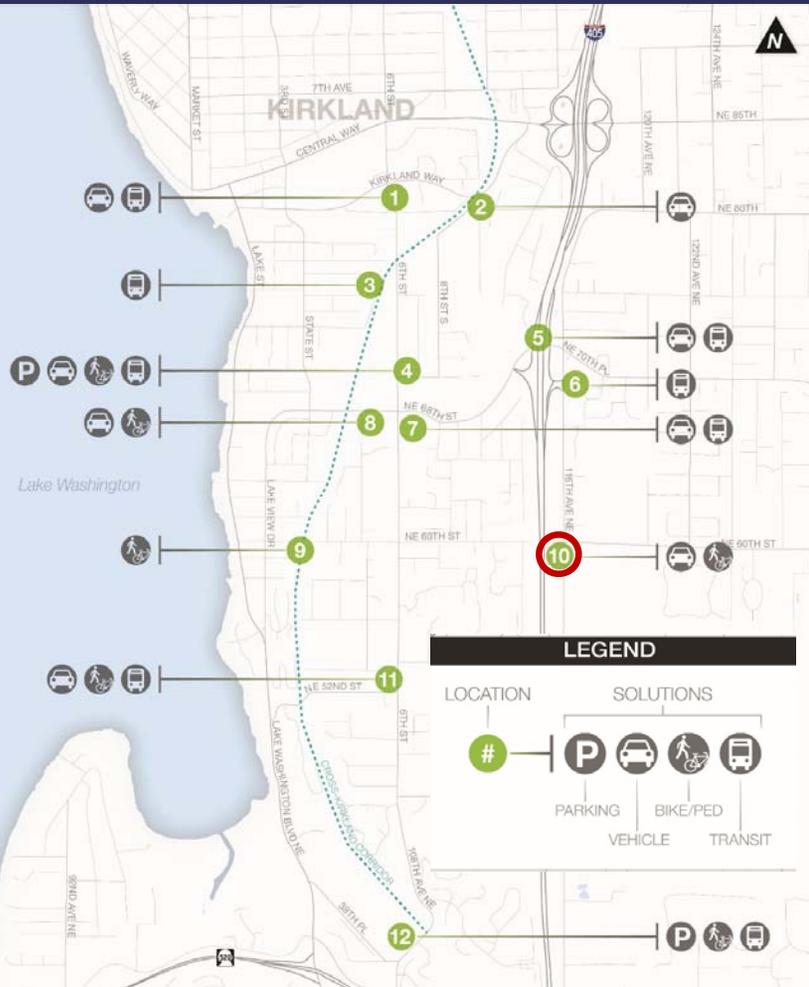


- As part of the Interim Trail development of the CKC, the City has developed key connections to the local street system from the trail to neighborhoods. Continuing to enhance some of these facilities as better bike connections would be desirable, for example where the NE 60th Street Corridor connects with the CKC.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10	\$\$	3	3	3	✓

- **Benefits**
 - Improves access and safety for trail users
 - NE 60th Trail/road extends to Redmond
 - NE 60th is TMP Greenway
- **Challenges**
 - Grades and adjacent development
- **Recommendations**
 - Implement with future stages of trail development

NE 6TH STREET CORRIDOR – LOCATION 10



- **NE 60th Street Connections:**

- **10A: Enhanced Pedestrian and Bike Access for 60th Street Neighborhood Greenway**
- **10B: New East West Connection across I-405 and Connecting to Lakeview**

Project 10A: Enhanced Ped and Bike Access along 60th

60th Street Greenway Sample Design:



- The City of Kirkland Transportation Master Plan includes designation of a system of Neighborhood Greenways. These greenways promote safe, low volume, slow speed roadways to promote use by pedestrians and bicycles. NE 60th Street as a greenway can be a key connection across I-405 connecting Lake Washington Boulevard to Overlake.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10	\$	3	3	3	✓

Benefits

- Aligns with City TMP
- Provides safe access across I-405 for bikes (parallel to NE 68th)
- Benefits less experienced cyclists
- Low cost

Challenges

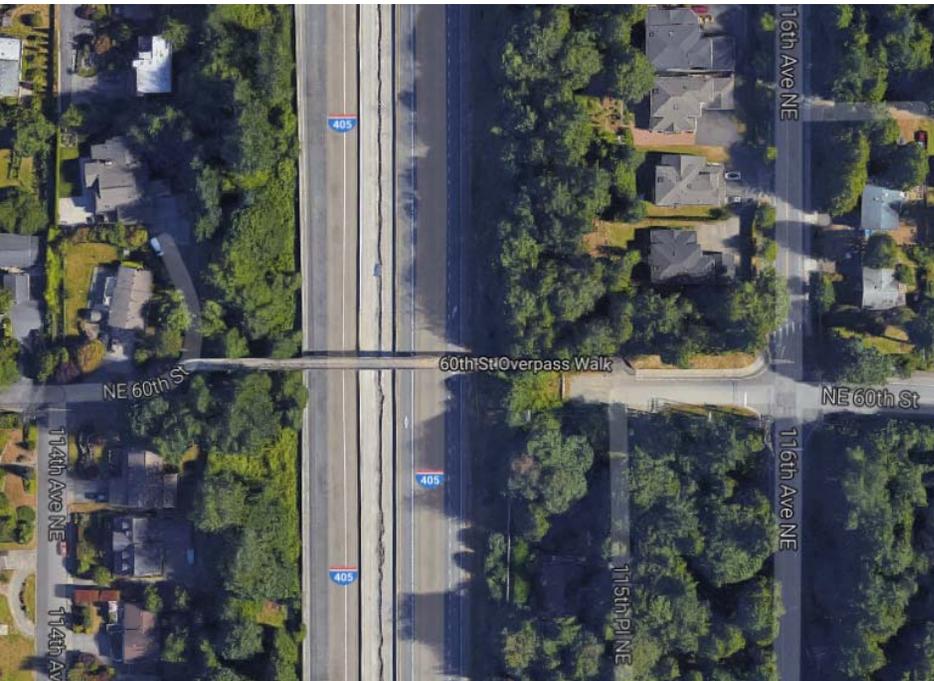
- Promotion and notification
- Neighbors

Recommendations

- Look for opportunities to Implement

Project 10B: New East/West Connection Across I-405

60th Street East-West Connection:

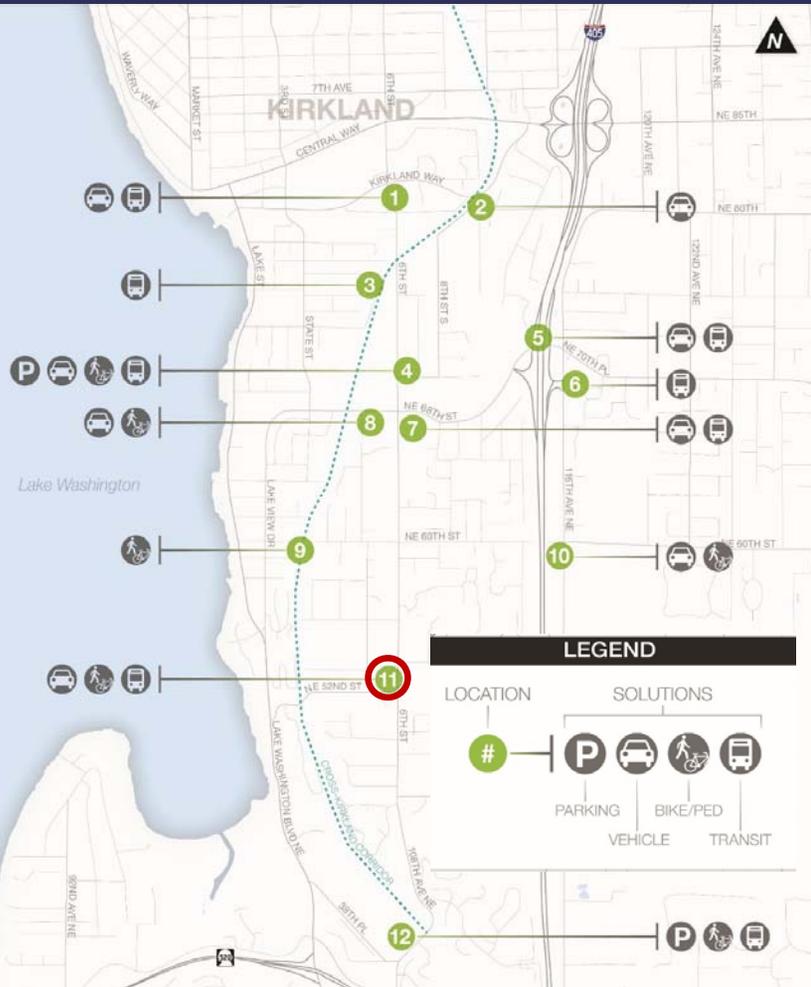


- The City of Kirkland Transportation Master Plan includes designation of a system of Neighborhood Greenways. These greenways promote safe, low volume, slow speed roadways to promote use by pedestrians and bicycles. NE 60th Street as a greenway can be a key connection across I-405 connecting Lake Washington Boulevard to Overlake.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
10 + Years	\$\$\$\$	3	3	1	

- **Benefits**
 - Provides a new connection for vehicles across I-405
 - Breaks up big blocks
 - Continue to Lakeview Drive across CKC
- **Challenges**
 - Cost
 - Grades and potential access impact to 114th Ave
- **Recommendations**
 - Do not recommend

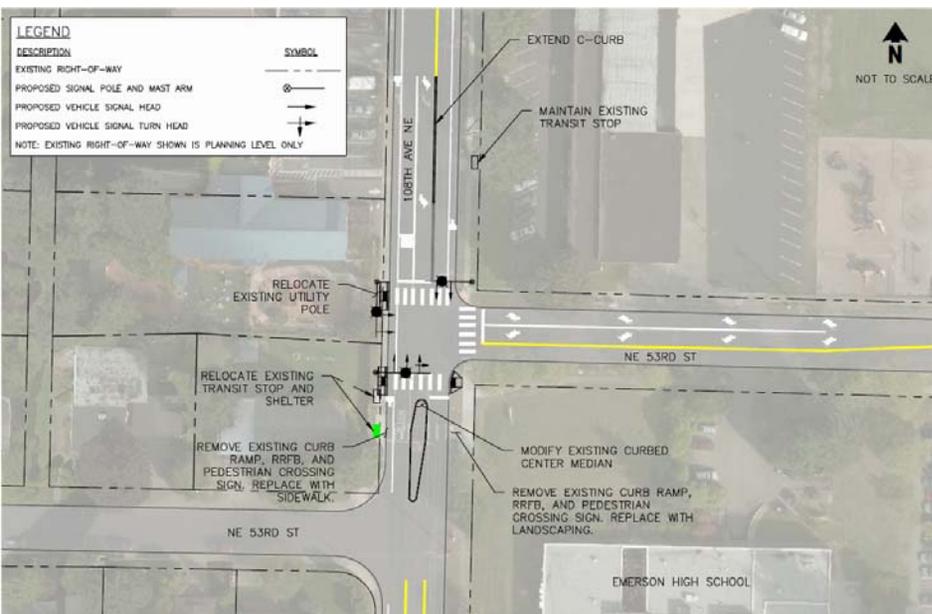
NE 6TH STREET CORRIDOR – LOCATION 11



- **NE 53rd St and 6th Street Intersection:**
 - **11A: Install Signal at NE 53rd Street for Northwest University Access**

Project 11A: Signal at NE 53rd Street for NWU Access

Signal at NE 53rd St Conceptual Design:

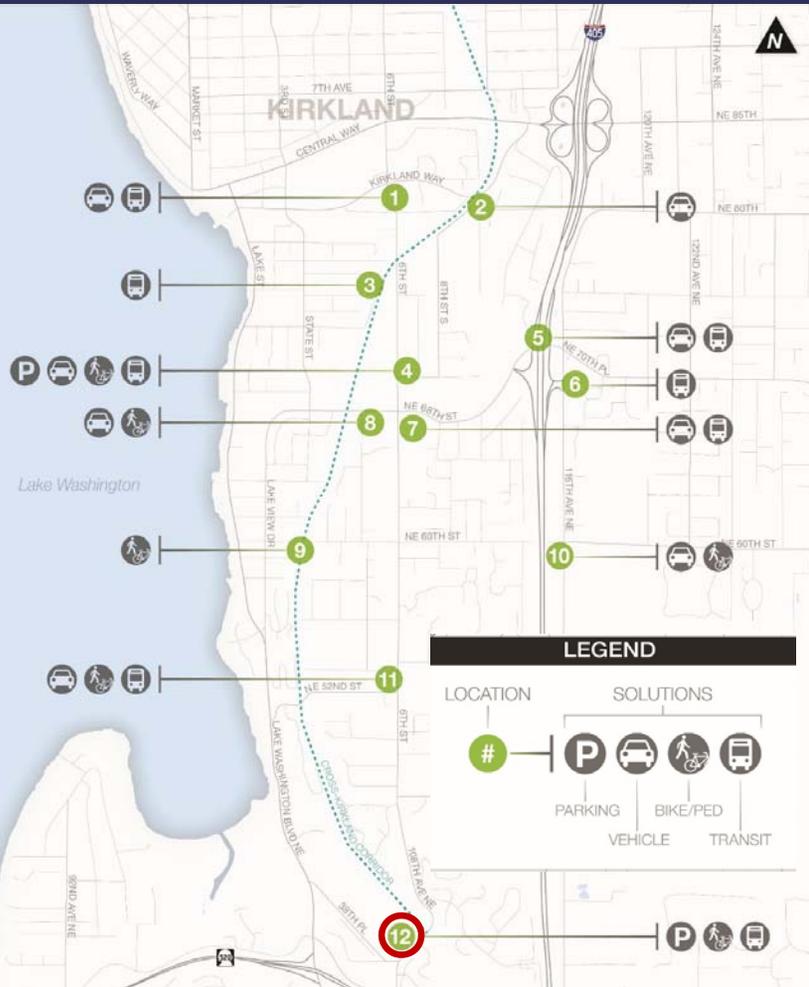


- As part of expansion and permitting for new development at Northwest University, the University has proposed installation of a traffic signal on 108th Avenue at NE 53rd Street. Installation of traffic signals would be implemented when engineering standards (per MUTCD signal warrants) are met. Includes relocation of the existing bus stop.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 years	\$	1	3	3	✓

- Benefits**
 - Proposed as mitigation for NU
 - Improves ped crossing access
 - Improves neighborhood access
- Challenges**
 - Mitigation for development and must meet warrants.
- Recommendations**
 - Implement when warranted
 - Coordinate with partner agencies

NE 6TH STREET CORRIDOR – LOCATION 12



• South Kirkland Park and Ride:

- 12A: Park and Ride permitting for transit users
- 12B: Improve Access/Egress from Park and Ride for Buses
- 12C: New Signal Control for Access to Park and Ride
- 12D: Improve Trail Access to Park and Ride
- 12E: Bike Share / Bike Racks at Park and Ride
- 12F: Park and Ride Management with Real Time Information

Project 12A: Park and Ride Permitting for Transit Users

South Kirkland Park and Ride Lot:



- The South Kirkland Park and Ride is often full. Prioritize park and ride spaces for transit riders through permitting. This could be the simplest strategy to promote transit. There will be different trade-offs.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	2	2	3	✓

- **Benefits**
 - Preserves access for transit riders (highest efficiency)
- **Challenges**
 - Alternative locations for other current HOV and carpool users
- **Recommendations**
 - Coordinate with Metro
 - Potential pilot program

Project 12B: Improve Access/Egress from S Kirkland P&R

South Kirkland Park and Ride Access:



- Improve site operations by improving egress from the Park and Ride for buses. Metro has studied this and are working with the Cities. A potential solution includes using speed radar and pavement markings to improve sight distance for exiting buses.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	2	2	2	✓

- **Benefits**
 - Improves egress for transit
- **Challenges**
 - Limitations for other solutions like signals
- **Recommendations**
 - Implement
 - Partner with Metro

Project 12C: New Signal Control Access at S Kirkland P&R

South Kirkland Park and Ride Access:



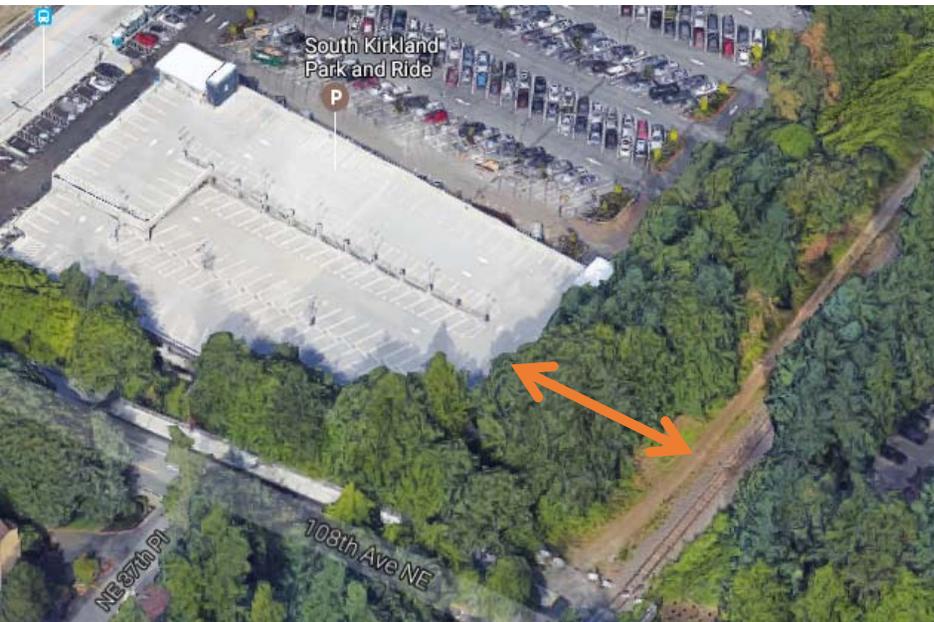
- As congestion increases and it becomes increasingly challenging to access the Park and Ride on 108th Avenue, traffic signals should be considered at the access. This signal would be within the jurisdiction of the City of Bellevue and would be most effective to be interconnected with the adjacent signals on 108th that are part of Bellevue's adaptive signal system. Could be annexed into City of Kirkland.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$\$	2	2	2	✓

- Benefits**
 - Future signal may be needed to improve access and egress for bus and patrons
- Challenges**
 - Currently in Bellevue City Limits
 - Coordinate with nearby signals
- Recommendations**
 - Coordination with Metro and Bellevue

Project 12D: Improve Trail Access to Park and Ride

Improve Trail Access to P&R (On Hold):



- There is a grade change and gap that limits access for bikes and peds along the CKC to using the sidewalks and bike lane on 108th Avenue. With the passage of ST3, there is a planned light rail station at S Kirkland P&R that may include amenities such as bike parking and an elevator. This important connection for bikes and peds from the CKC to the park and ride is important and should be considered in the planning and development of a future rail station.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 Years	\$\$	3	3	3	✓

- **Benefits**
 - Provides safe direct link for trail users to Park and Ride
- **Challenges**
 - May conflict with future 2035 ST LRT station
 - Grades
- **Recommendations**
 - Implement when feasible
 - Coordinate with partner agencies

Project 12E: Bike Share/Bike Racks at Park and Ride

Back Share / Bike Rack Install at S Kirkland P&R:



- With the close proximity of the CKC to park and ride, increased use of bikes to access transit will result in the need for bike parking/racks and the potential desire for shared use bike.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	3	3	2	✓

- **Benefits**

- Improve access to transit
- Potentially reduce auto access
- Space for Bike Lockers is limited
- Funding was identified

- **Challenges**

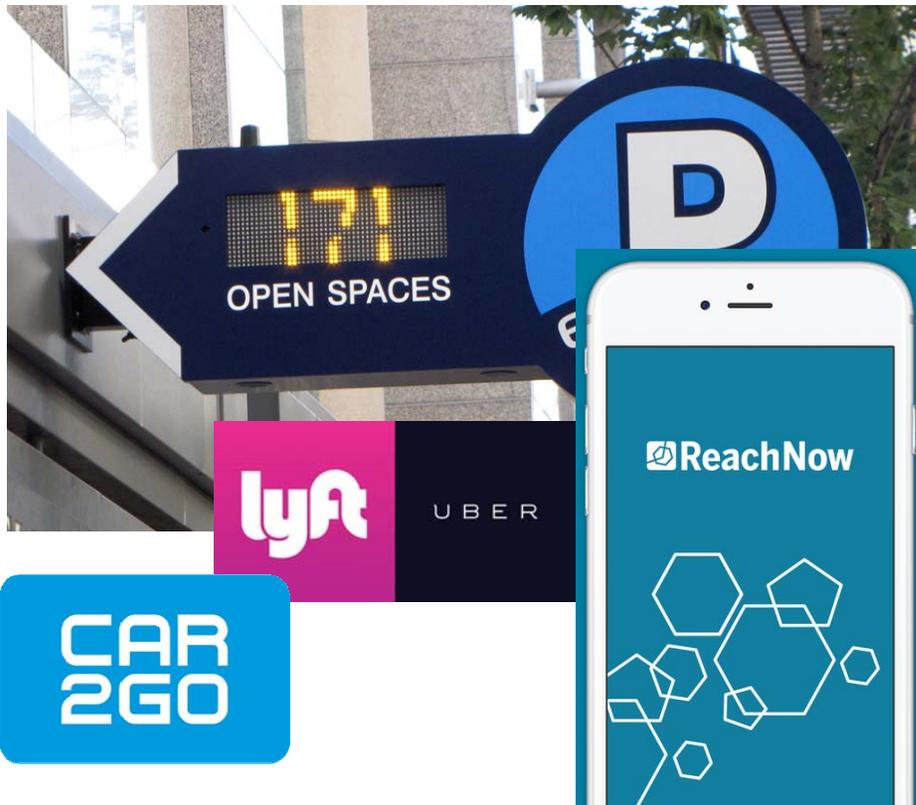
- Bike share coordination program is on hold

- **Recommendations**

- Implement as opportunity arises
- Coordinate with partner agencies

Project 12F: Real Time Parking Information at Park and Ride

Real Time Park and Ride Management:

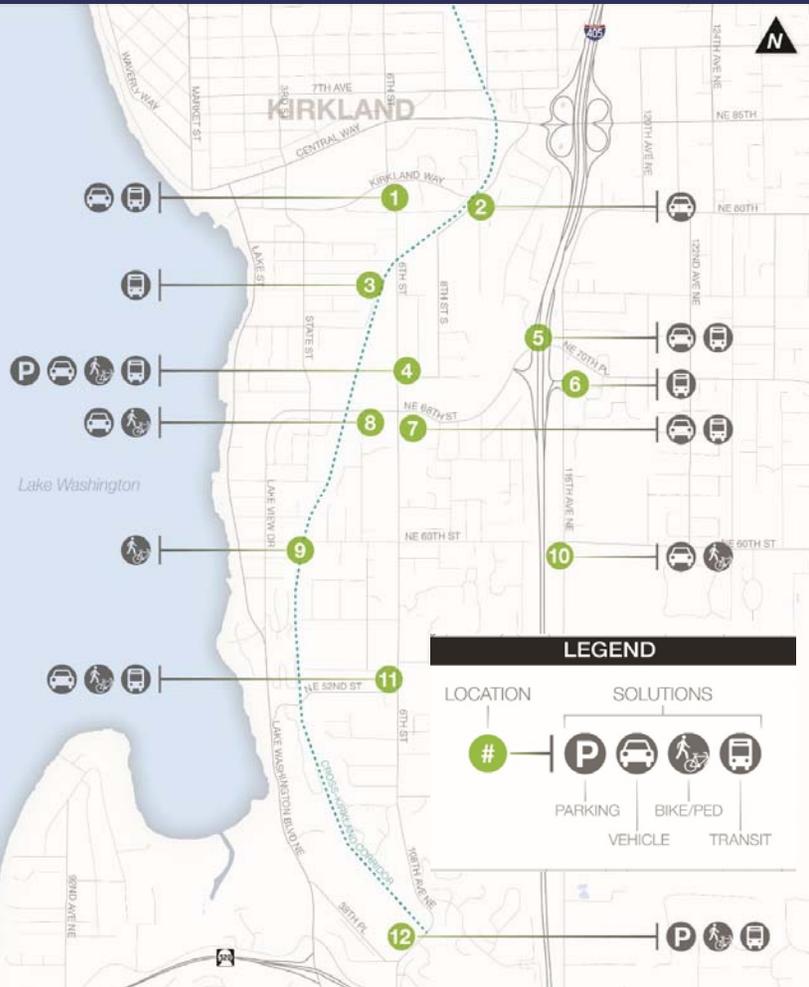


- There are opportunities with transit partners to look for improved management strategies. These strategies can increase efficiency of the facility for moving people through strategies such as permit parking, premium/reservation parking, improved access to Park and Rides using shared use resources such as Bike Share and Car Share or Transportation Network Companies.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$\$	3	2	2	✓

- **Benefits**
 - Expands use of transit with TNC connections
 - Improves reliability for customers
- **Challenges**
 - Requires additional study
- **Recommendations**
 - Implement and seek partnerships
 - Potential pilot program

NE 6TH STREET CORRIDOR – POLICIES / EDUCATION



• Policies:

- P1: RPZ Permitting
- P2: On Street Parking Time Limits
- P3: Shared Parking Use
- P4: Trail Oriented Development

• Education:

- E1: Value of Transit Campaign
- E2: Monitor Person Speed/Efficiency
- E3: Greenway Promotion of 60th and Other Connections

Project P1: Residential Parking Zones

Residential Parking Zones:



- Residents have noted that retail employees park off-site and on residential streets. Policy and regulations could discourage this activity through residential parking zones or parking time regulations.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	2	1	

- **Benefits**
 - Limits parking for neighborhood users generally residents
- **Challenges**
 - Requires enforcement and administration
 - Challenges does not manage parking supply well
- **Recommendations**
 - Not recommended

Project P2: On Street Parking Limits

On Street Parking:



- Residents have noted that retail employees park off-site and on residential streets. Policy and regulations could discourage this activity through parking time regulations for on-street parking.

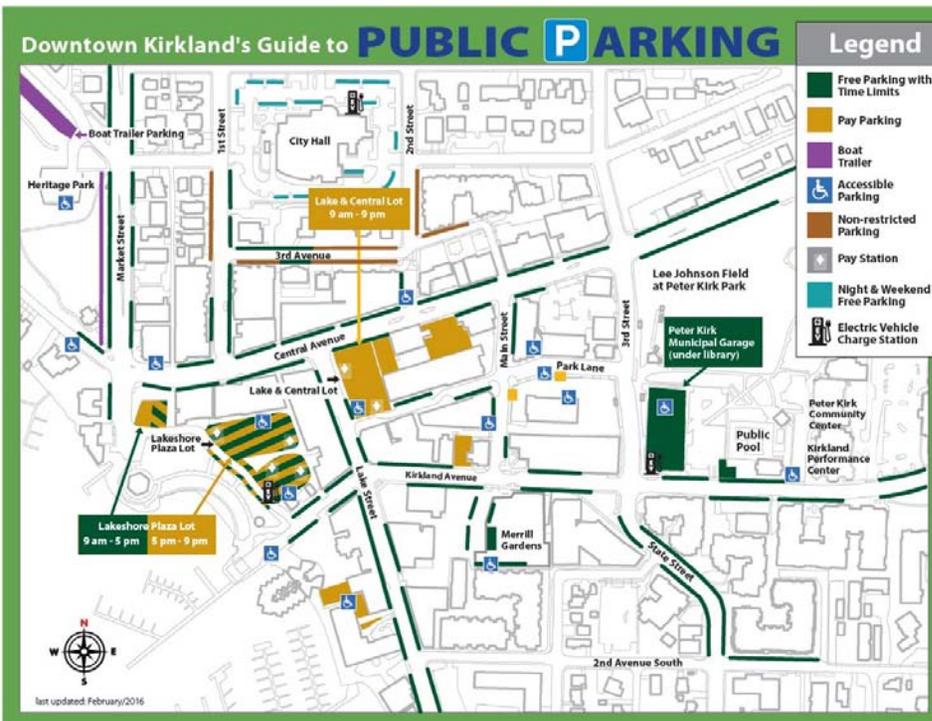
Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	2	1	

- Benefits**
 - Reduces on street uses during the day to short duration trips
- Challenges**
 - Enforcement and administration
 - Parking is available
- Recommendations**
 - Not recommended

Project P3: Parking Management Strategies

Shared Use Parking:

- Residents have noted that retail employees park off-site and on residential streets. Coordinating with land uses that are largely unoccupied during the week (such as churches) to provide parking for other users will reduce the demand for on-street parking.

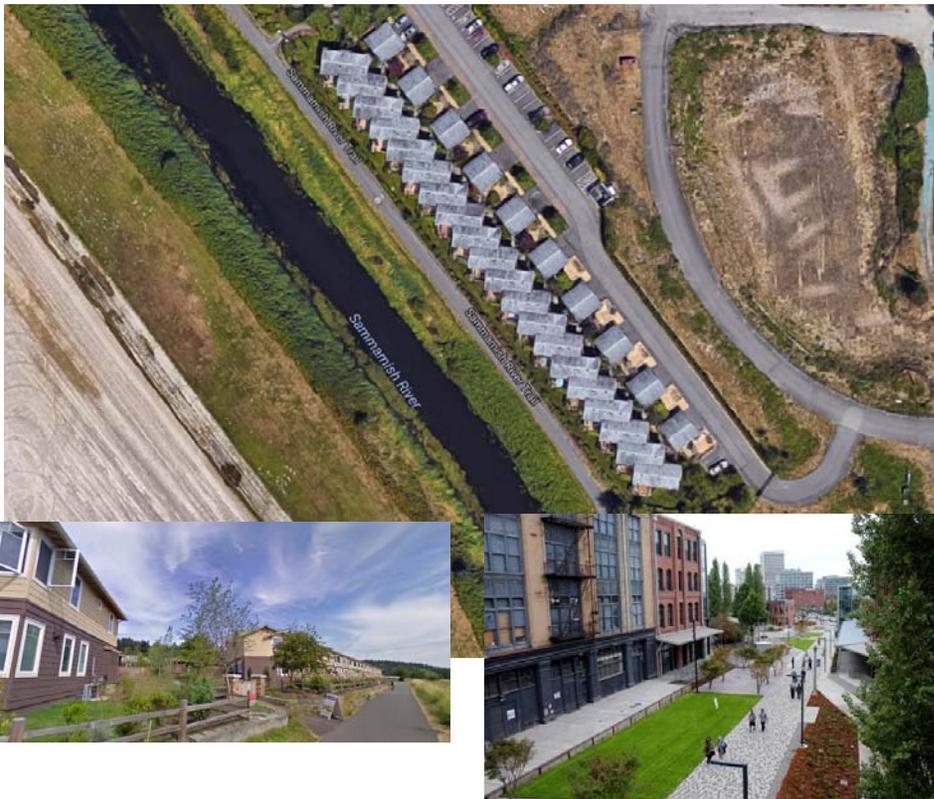


Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	2	1	✓

- Benefits**
 - Encourage formal arrangements for private developers
- Challenges**
 - Voluntary basis with no City enforcement
- Recommendations**
 - Implement as part of developer agreements

Project P4: Trail Oriented Development

Trail Oriented Development:



- Development of land use and regulatory policies that support lower parking use through access to regional trails. Including promotion and prioritization of shared use mobility strategies – Car share (car to go), bike share and Transportation Networking Companies (TNCs)

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
5-10 Years	\$	3	3	2	✓

- **Benefits**
 - Reduces reliance and use of SOVs
 - Takes advantage of CKC
- **Challenges**
 - Must have willing developers and market
 - Relies on CKC development
- **Recommendations**
 - Implement and coordinate with Planning

Project E1: Value of Transit Education Outreach

Cost Savings by Commuting by Transit:

	City	Monthly	Annual
1	New York	\$1,208	\$14,501
2	San Francisco	\$1,071	\$12,849
3	Boston	\$1,050	\$12,596
4	Philadelphia	\$973	\$11,671
5	Seattle	\$965	\$11,583
6	Chicago	\$955	\$11,458
7	Honolulu	\$935	\$11,221
8	Los Angeles	\$915	\$10,984
9	San Diego	\$869	\$10,423
10	Portland	\$858	\$10,295



Source: APTA, Nov. 2016



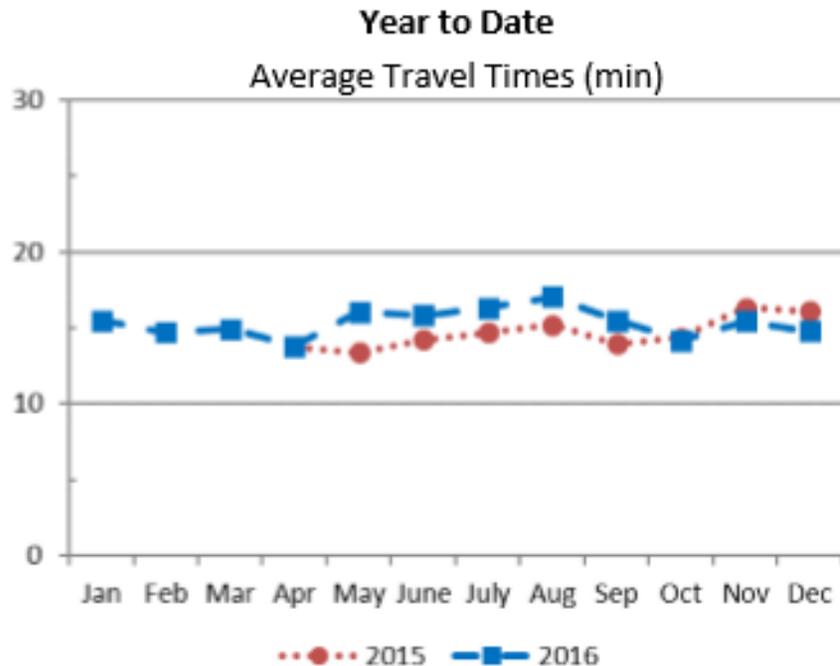
- Develop an education campaign to help convey the value of transit in moving people in Kirkland.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	3	3	✓

- **Benefits**
 - Encourages transit use
 - Aligns with TMP
- **Challenges**
 - None
- **Recommendations**
 - Implement and coordinate with partner agencies and City Outreach

Project E2: Monitor person movement speed/efficiency

Dashboard and performance monitoring:



- Develop a performance monitoring system and promote the results to educate the value and benefits of transit in moving people. Develop performance measures, such as person travel times.

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	3	3	✓

- **Benefits**
 - Helps measure and monitor performance
 - Guides adjustments
- **Challenges**
 - Coordination with transit agencies for data
- **Recommendations**
 - Implement and coordinate with partner agencies and City Outreach

Project E1: Greenway Promotions (Example 60th)

Education to promote greenways:



- Education campaign to promote the use and benefits of the Greenways program including working with neighborhoods, schools, and youth organizations to promote the connectivity and benefits of Greenways using maps, brochures, school education program and other promotions

Timeline	Cost	Movement of People	Connections	Capacity for Future	Recommend?
1-5 Years	\$	1	3	3	✓

- **Benefits**
 - Encourage neighborhoods, schools to use bike and greenways
- **Challenges**
 - None
- **Recommendations**
 - Implement and coordinate through City Outreach and partner organizations

Questions?

