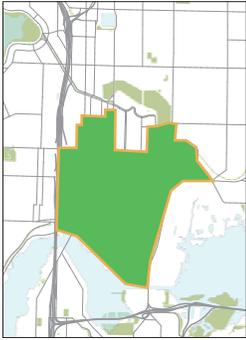


## University Area Urban Center Pedestrian Mobility



Automatically activate pedestrian signals at all times in Urban Center. Remove push buttons to avoid confusion.

Low Capital Cost, Early Implementation Project  
 Cost Estimate: \$52,000

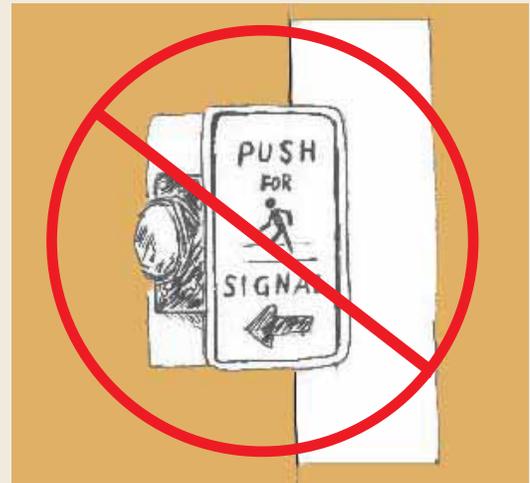
### Problems and Issues



- Most signalized intersections operate with automatic pedestrian phases from 7am-11pm, and are pedestrian-actuated from 11pm-7am.
- Many pedestrians do not understand this push button operating practice, often resulting in user confusion and frustration.
- SDOT's current push button policy is not fully consistent with many other City and SDOT policies that aggressively promote pedestrian-friendly urban centers and modal shifts away from the automobile.\*
- Any changes to the policy must be approved by the Seattle City Council.

\* Current SDOT push button policy is full automation if pedestrians are present at the main street crossing for 75% or more of the cycles for 12 hours of the day; and partial automation/partial user-activation if pedestrians are present for 50% of cycles.

### Recommended Actions



- Include within the scope of the Pedestrian Master Plan a task to examine the current SDOT policy regarding pedestrian crossing push buttons. Consider removal of pedestrian push buttons at all fully-signalized intersections within an Urban Center such as the University District Urban Center. Automatically activate the pedestrian crossing signal with every green cycle 24-hours per day.

### University Way NE and NE Pacific St Bicycle Safety

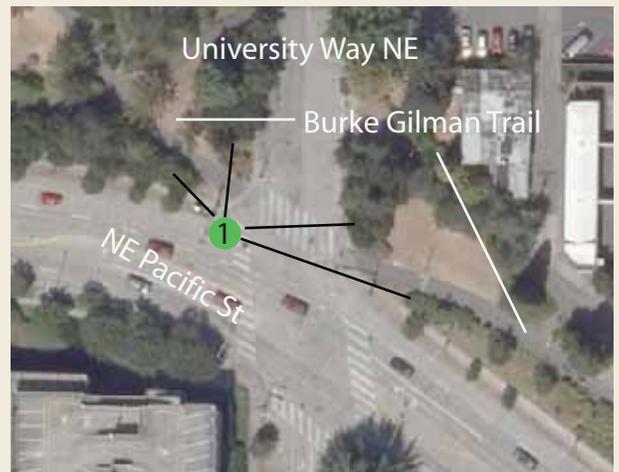


Remove vegetation and add raised, colored crosswalks at Burke-Gilman Trail crossing to improve visibility & safety.

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$50,000

#### Problems and Issues

- The Burke-Gilman Trail crosses University Way on the north leg of the intersection with NE Pacific Street. Drivers approaching the intersection often fail to recognize the trail crossing and pay sufficient attention to the crosswalk.
- ① The existing vegetation planted along both sides of University Way reduces or blocks the sightlines of bicyclists traveling on the trail.
- 4 bicycle-vehicle collisions were reported here in the last three years.



#### Recommended Actions

- Clear where appropriate the trees and shrubs located near the Burke-Gilman trail on the north-east and northwest corners of the intersection to increase sight distances between roadway and trail.
- Provide a raised, colored crosswalk on the north leg of the University Way NE and Pacific Street NE intersection where it crosses the trail.
- Prioritize this intersection for signage improvements as recommended in the Seattle Bicycle Master Plan to improve trail visibility.



A crosswalk similar to this one above should be installed at the crossing of University Way to improve safety and visibility of the Burke Gilman Trail.

**6th Ave NE and Lower NE 40th St**  
Congestion Management



Add left turn lanes to improve traffic flow.

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$8,000

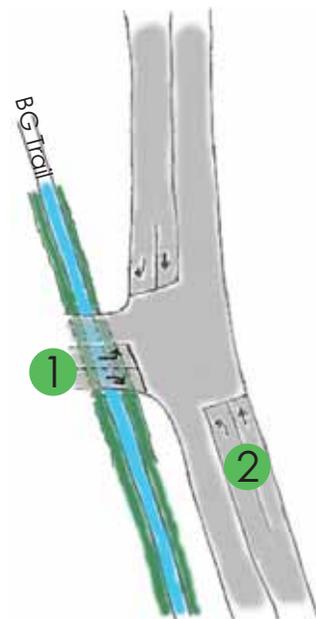
**Problems and Issues**

- The intersection of 6th Ave NE and Lower NE 40th St (under I-5) is a three legged, "T"-intersection controlled by all-way stops.
- The intersection currently operates at level-of-service (LOS) F with 127 seconds of delay. In 2030, it is forecasted to operate at LOS F with an average 152 seconds of delay if actions are not taken.
- There is sufficient roadway width to accommodate turn lanes, although no striping is currently provided.



**Recommended Actions**

- 1 Stripe a northbound left-turn lane on 6th Ave NE.
  - 2 Stripe a westbound left-turn lane on Lower NE 40th Street to improve traffic flow.
- Ensure that changes to channelization can safely accommodate buses from eastbound NE 40th St turning to southbound 6th Ave NE.



# Montlake Blvd E and E Shelby St

Bicycle Mobility & Safety



Modify traffic island and add a bike lane to improve safety (Phase 1 of 2 - see Project #30)

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$22,000

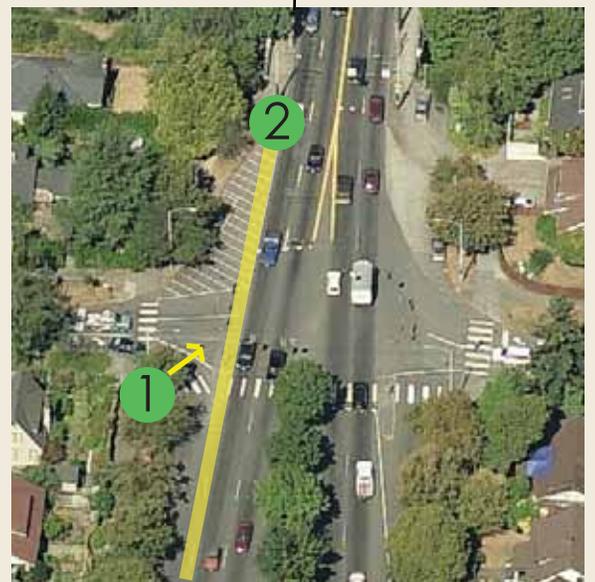
## Problems and Issues

- Montlake Blvd E is an important connection in the Urban Trails and Bikeways System, linking the UW campus and Burke Gilman Trail with major bicycle corridors to the south.
- The traffic island on the west leg of the intersection of Montlake Boulevard and NE Shelby Street prevents bicyclists from comfortably merging from the sidewalk on the Montlake Bridge to southbound Montlake Boulevard.
- The island is a barrier that increases cyclist discomfort and the potential for vehicle/bicycle conflicts along Montlake Blvd.
- There is no bicycle facility provided at this intersection.



## Recommended Actions

- 1 Remove a portion of the traffic island on the west side of Montlake Boulevard NE at the intersection with NE Shelby Street to help cyclists get into the southbound general traffic lane from the sidewalk on the Montlake Bridge.
  - 2 Stripe a bike lane on southbound Montlake Blvd E south of the Montlake Bridge to SR 520.
- Look to reconstruct entire intersection when the 520 Bridge Replacement Project moves forward (See Phase 2, Project #30).





# University Area Transportation Action Strategy

**Project #**  
**E**



## 25th Ave NE Corridor Congestion Management

Extend peak-hour parking restrictions to all-day to reduce off-peak congestion.

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$78,000

### Problems and Issues

- During the PM peak period parking on the east side of 25th Avenue NE is prohibited and two northbound through lanes are provided. As a result, the 25th Avenue NE/ NE 65th Street intersection operates at an acceptable level-of-service (LOS).
- At times when on-street parking is allowed – after 6 PM weekdays and all-day weekends – northbound vehicles approaching this intersection encounter excessive delays.

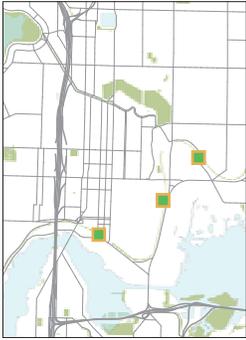
### Recommended Actions

- Allow late PM and overnight parking only on the east side of 25th Avenue NE between NE 55th Street and NE 65th Street to reduce northbound traffic congestion during the off-peak period and on weekend days.



## Burke Gilman Trail at Pend Oreille Rd, Brooklyn Ave NE, and NE Blakely St

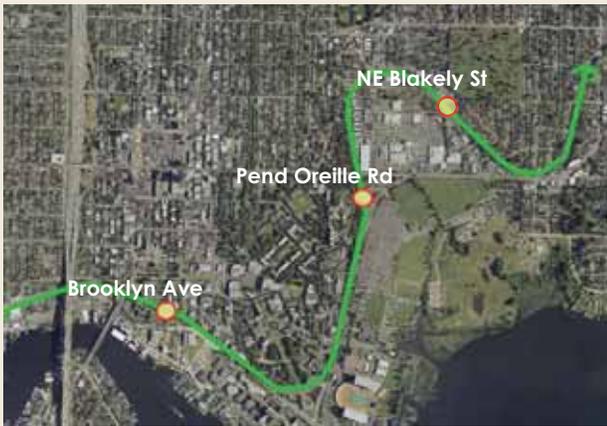
Bicycle and Pedestrian Mobility & Safety



Add raised, colored trail crossings, and consider traffic control modifications at key mid-block intersections, to improve safety.

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$29,000

### Problems and Issues



- These mid-block trail crossings are considered high accident & conflict locations. Current traffic control provides stop signs for the trail and uncontrolled right-of-way for vehicles.
- Driver and trail user behavior often do not reflect the traffic control: many drivers yield to trail traffic (which for pedestrians is state law), and many trail users (including bicyclists) have come to anticipate yielding vehicles and fail to stop along the trail.
- ① The UW police recently placed additional warning signs along the trail at Brooklyn and Pend Oreille as a stop-gap safety measure.

- These streets have relatively light traffic volumes, while this is the most heavily used segment of the Burke Gilman Trail. Considering these specific locations and the comparison of vehicular/trail volumes, the current traffic control and signage can be considered inconsistent with City and SDOT policies that aggressively promote non-motorized transportation and sustainability.
- For more detailed discussion of SDOT's current policy related to assigning right-of-way at mid-block trail crossings, see Appendix H of the Bicycle Master Plan.



New trail signage at Pend Oreille Rd and Brooklyn Ave.

### Recommended Actions

- The University of Washington may conduct a comprehensive study of the Burke Gilman Trail along campus property. Work with their transportation office to consider revising the current traffic control and signage at Pend Oreille Rd and Brooklyn Ave, and replicate these modifications at the crossing of NE Blakely St to maintain consistency.
- Add raised, colored and/or patterned crosswalks to distinguish Burke Gilman Trail crossings and reduce potential conflicts with motorists.

## 15th Ave NE/Ravenna Blvd Vehicle Congestion



Monitor traffic congestion to determine if and when a signal needs to be installed to reduce delay.

Low Capital Cost, Early  
Implementation Project  
Cost Estimate: N/A

### Problems and Issues



- This intersection was converted to a 4-way stop several years ago.
- The intersection is currently operating at an acceptable level of service.
- Due to forecasted increases in traffic volumes on 15th Ave NE, future delays during the PM peak hour may require the installation of a signal.

### Recommended Actions

- Monitor traffic periodically and evaluate the need for a signal at the 4-way stop intersection.

# University Area Transportation Action Strategy

## Brooklyn Ave NE from Ravenna Blvd to the Burke Gilman Trail

Bicycle Mobility & Safety

**Project #**  
**H**



Install bicycle sharrows and signage to improve mobility and safety.

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$39,000

### Problems and Issues

- Brooklyn Avenue is a designated Neighborhood Green Street and has long been considered a preferred north-south bicycle route.
- The need to improve north-south bicycle facilities in the University District has been recognized by the University District Neighborhood Plan, UW Campus Master Plan, 2005 Parks Plan, Bicycle Master Plan, and consistently by community members in UATAS outreach.

### Recommended Actions

- Provide shared lane markings (bicycle sharrows) along Brooklyn Avenue from the Burke-Gilman Trail (NE Pacific Street) to Ravenna Blvd.
- Designate Brooklyn Ave as a bike route and provide wayfinding from adjacent trails and bicycle facilities.



The recently completed Seattle Bicycle Master Plan, while suggesting that Brooklyn Ave could see improvements in the future, fell short of fully designating Brooklyn Ave in the bicycle facilities network. Active neighborhood support, however, and Brooklyn Ave's low traffic volumes and strong connections to other parks and trails make installation of sharrows or other bicycle improvements a priority for the area.

## Ravenna Boulevard Bicycle Safety



Prioritize funding the repaving of Ravenna Blvd from NE 65th St to Ravenna Ave NE to improve safety.

**Low Capital Cost, Early Implementation Project**  
 Cost Estimate: \$2.5 million\*  
\*not including drainage

### Problems and Issues



Ravenna Blvd at 8th Ave NE

- Ravenna Blvd is a critical link in Seattle's Urban Trails and Bikeways System, both systemwide and for the Green Lake, Roosevelt, Ravenna, and University District neighborhoods. It is also a prominent Olmstead legacy park facility.
- The existing pavement on Ravenna Blvd is rough and hazardous for cyclists. SDOT Street Maintenance has identified Ravenna Blvd as needing major maintenance, although it has not been prioritized or scheduled for improvement.
- While the pavement on Ravenna Blvd is in need of repair, the street carries less vehicle traffic volume than other Seattle streets that have also been identified for resurfacing.

### Recommended Actions



- As new information becomes available to SDOT concerning recently enacted drainage regulations and their cost impacts, consider prioritizing Ravenna Boulevard from NE 65th St to Ravenna Ave NE.
- Work with SDOT's Bicycle Program, Seattle Public Utilities, and Seattle Parks and Recreation Department to identify grant and other partnership opportunities to help fund this project.

#### Draft 9-Year Paving Plan (left):

- Recently completed paving projects
- 15th Ave NE scheduled for 2013
- Needs maintenance (potential Bridging the Gap 20-year project)



## University Area Transportation Action Strategy

**Project #  
J**

# 15th Ave NE and NE Campus Parkway

Pedestrian & Vehicle Safety



Add protected left-turn phase to signal timing to improve safety.

Low Capital Cost, Early Implementation Project  
Cost Estimate: \$245,000

### Problems and Issues

- 3 pedestrian-vehicle collisions have occurred at this intersection in the last three years.
- ① Because of the wide median on Campus Parkway, it takes a long time for pedestrians to cross the street.
- Northbound vehicles on 15th Avenue NE can turn left at any time during the green phase; this turning movement presents a hazard to pedestrians crossing Campus Parkway.



### Recommended Actions

- Modify signal operation to provide protected northbound left-turn phase. Pedestrians would not be permitted to cross the street when vehicles are turning left across the crosswalk.

## University Bridge

Pedestrian & Bicycle Safety; Urban Design



Install pedestrian lighting fixtures to existing poles along the University Bridge to improve safety.

Low Capital Cost, Early Implementation Project  
 Cost Estimate: \$125,000

### Problems and Issues

- The University Bridge is a critical link in the Urban Trails and Bikeways System, is part of the South Lake Union Loop Trail, and is a highly visible facility from many neighborhoods and waterways.
- While architectural flood lighting exists on the draw-bridge structure, the roadway lights on the remaining bridge span are sparse and do not provide sufficient pedestrian or bicycle safety and comfort.
- KC Metro has evenly-spaced trolley-wire poles that should be able to accommodate pedestrian lighting fixtures over the sidewalks and bike lanes.

### Recommended Actions

- Install pedestrian luminaires (type Lumec Z-40 dark green) to the existing KC Metro and roadway lighting poles.
- The improved lighting should help increase the visibility of pedestrians and bicyclists along the bridge and reduce potential vehicle conflicts at the NE Fuhrman and NE 40th intersections.
- SDOT must seek approval from KC Metro to utilize the trolley poles.



Because of the even-spacing of the existing transit poles, new pedestrian fixtures will provide a distinctive and "rhythmic" quality to the bridge in addition to increasing safety.

## 20th Ave NE/Ravenna Boulevard

### Pedestrian & Bicycle Safety, Traffic Calming



Prioritize pedestrian and bicycle facilities to calm traffic and improve safety, and add new signage to prohibit oversized vehicles.

Low Capital Cost/ Early Implementation Project  
 Cost Estimate: N/A

### Problems and Issues

- Ravenna Blvd and 20th Ave NE are Local Connector street types in this area, which means they should be designed to “emphasize walking, bicycling, and access over mobility” according to adopted City policies. Currently, however, large trucks tend to try and maneuver through the narrow, winding Ravenna Blvd to/from I-5, while 20th Ave to NE 50th St is becoming an increasingly popular east-west through route for traffic avoiding more congested parallel arterials.
- 20th Ave NE between NE 50th St and Ravenna Blvd is 15 feet wider than it is south of 50th St. While this room helps accommodate transit and on-street parking, it also encourages speeding and does not currently provide adequate sidewalks in many locations (see Appendix B). 20th Ave is also a critical ped/bike connection over Ravenna Ravine and is part of the signed bicycle network, although no bicycle facilities currently exist.
- New development and major construction activities in the area will increase the need to discourage cut-through traffic.



NE 50th St to 20th Ave NE is a popular route for cut-through traffic headed between the University District and University Village/neighborhoods to the east. Opportunities exist to improve pedestrian and bicycle safety and to accommodate - but calm - vehicular traffic.

### Recommended Actions

- 1 Consider traffic calming needs as a balancing factor when prioritizing Bicycle Master Plan projects for implementation. Particularly for 20th Ave NE, installing shared lane markings, or “sharrows,” and a white line to delineate parking will help to visually narrow the roadway and keep vehicle speeds low.
- Explore traffic calming opportunities for 20th Ave NE, such as a raised crosswalk at NE 52st St and pedestrian enhancements at NE 50th St and Ravenna Blvd. Encourage wider sidewalks and curb extensions at intersections as redevelopment occurs.
- Upgrade existing signage at the intersection of Ravenna Ave and NE 55th St to better direct truck traffic away from Ravenna Blvd towards 22nd Ave NE/NE 45th St. Install new signage at 20th Ave and 15th Ave along Ravenna Blvd to divert trucks from the narrow curve in Ravenna Blvd to more appropriate arterials.



**Bicycle Master Plan**