

Harbor Ave SW at SW Spokane St

Intersection of Harbor Ave SW and SW Spokane St
Intersection of SW Manning St and SW Avalon Way

Applicant Problem

Problems this grant will address:

Safety for people crossing Harbor Avenue SW at SW Spokane Street on foot and on bikes. At present, vehicle drivers going down the westbound Avalon/Harbor Ave ramp from the West Seattle Bridge do not have an adequate view of people on foot or on bikes coming up alongside them on the Alki Trail or coming from the Harbor Avenue to the intersection at SW Spokane St, Harbor Ave SW and SW Avalon Way. Especially for drivers of small cars, the guardrail barrier between the vehicle ramp and the Alki Trail obscures vision, and the crosswalk is a considerable distance north of the intersection.

PROJECT TYPE

Pedestrian/Bicycle
Improvements

APPROXIMATE LENGTH

400 lf

COST ESTIMATE

\$352,690

SDOT CONTRIBUTION

\$50,000

NSF FUNDS REQUESTED

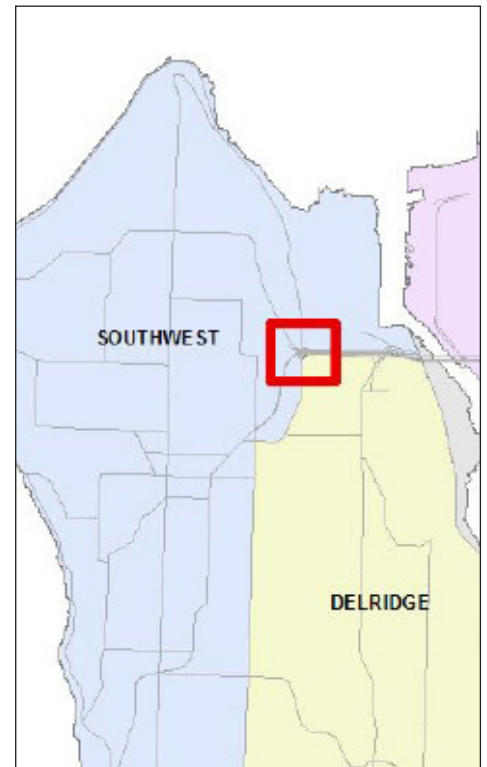
\$302,690



Looking south at the northwest corner of SW Manning St and SW Avalon Way



Looking northeast from the southwest side of the intersection of Harbor Ave SW and SW Spokane St



Two serious safety conflicts exist:

- Right-turning westbound vehicle drivers do not yield to people crossing Harbor Ave SW westbound with the walk signal light.
- People on bikes turning left from Alki Trail to SW Avalon Way do not have a safe option to avoid conflicts with vehicle traffic in the roadway or pedestrian traffic on the west side sidewalk as they connect to the existing bike lane on SW Avalon Way.

On SW Manning St at SW Avalon Way, clarify that the narrow pocket left turn lane on SW Manning is for bikes to turn left onto the west sidewalk of Avalon/Harbor Avenues, and not for use by motor vehicles. At present, some car drivers coming down this right-turn-only ramp from SW Admiral Way may be confused by signage and striping. Drivers are using the little bike left turn pocket to make an illegal left turn. This can back up traffic trying to legally turn right, and can endanger people on bikes.

Applicant Solution

These are among the possible engineering design solutions which we anticipate SDOT traffic engineers would evaluate and consider:

- Reduce apparent turning radius:
 - o Paint out the corner to reduce turning radius. This would still allow semi-trucks to make the turn, but would direct cars outwards giving drivers an earlier view of the crosswalk.
 - o Add vertical delineators/plastic bollards as able to support this. Repaint crosswalks with longest lasting material.
 - o Extend width of crosswalk to increase visibility and predictability of behavior.
- Increase visibility for all users:
 - o Lower/remove the tall wall/railing on SW Spokane St at Harbor Ave SW.
 - o Extend width of crosswalk to increase visibility and predictability of behavior.
 - o Remove tall shrubs on the east side of the intersection between westbound and eastbound SW Spokane St (at current height they interfere with right turning drivers' ability to see cars approaching from the left - and thus drivers pull up into the crosswalk)
- Provide better protection for crosswalk users on North side crosswalk (crossing Harbor Ave SW):
 - o Install upgraded LED signal to stop right turning (westbound to northbound) while crosswalk is occupied. Timing to include advance walk signal

- o for crosswalk users during no right turn stage.
- Provide better access for crosswalk users:
 - o Install Accessible Pedestrian Signals (APS) at all crossings (Harbor Ave SW, SW Avalon Way, SW Spokane St). All pedestrian signals should be LED countdowns and audible alerts at the accessible pushbuttons.
- Safer management of bikes through the intersection:
 - o Green bike box(es) to accommodate both left turns and proceeding straight through the intersection. Bike box(es) would be accessed by the current curb cut and crosswalk.
- Extend bike lane on SW Avalon Way (southbound lane):
 - o Extend it north as a buffered bike lane from south of SW Manning St to 30th Ave SW. This connects the Alki trail to the existing bike lane on SW Avalon Way.
- Formalize the sidewalk near Luna Park caf.
- Clarify expected traffic movements from SW Manning St to SW Avalon Way:
 - o Green lane material in the existing triangle for left turning bike pocket.
 - o Clarify signage to "right turn only except for bicycles).
- Use data driven studies to further study this complex intersection and propose state of the art improvements.
- Set aside additional funding for further study and phasing. Include reviews at Seattle Bicycle and Pedestrian Advisory Boards. This is to be in addition to early implementation as to not delay any available strategies for improvement.
- Additional tools to consider:
 - o All walk "scramble" to allow pedestrian and bike only movements during one phase of the light cycle Green lane techniques to guide riders to bike box and on straight or left turns to connect to SW Admiral Way or SW Avalon Way existing bike facilities.
 - o Coordinating with NSPF grant for beautification in order to reduce noise in the area under the West Seattle Bridge.

Seattle Department of Transportation (SDOT) Review

Project Description

The intersection of Harbor Ave SW at SW Spokane St is controlled by a traffic signal. There is 1 left-turn lane 1 one thru lane for westbound vehicles on SW Spokane St. SW Harbor Ave north of SW Spokane St has 2 thru lanes for southbound traffic and 1 thru lane for northbound traffic with on-St parking allowed north of the bus stop. The SW Harbor Ave southbound lane is a shared lane for bicyclists. SW Avalon Way near SW Manning St has 1 northbound and 1 southbound lane, a center turn-lane, on-St parking on both sides of the St, and a bike lane on the west side. At SW Avalon Way, SW Manning St has an eastbound only right turn lane, a small bike eastbound left turn lane, and a thru-lane for westbound traffic. All roadways are minor arterials with the exception of SW Manning St which is designated as a principal arterial. There are existing crosswalks at the north, west, and east sides of the Harbor Ave SW and SW Spokane St intersection as well as a crosswalk with bike symbols across SW Manning St at SW Avalon Way.

The following improvements are proposed as part of this project:

- Construct a curb bulb on the northeast corner of Harbor Ave SW and SW Spokane St, to provide more space and slow vehicles turns. Include separate ramps for pedestrians and bicyclists.
- Add a bike-only signal phase allowing bicyclists to travel diagonally from the northeast corner of Harbor Ave SW and SW Spokane St to the southwest corner. Install a blank-out no-right-turn sign for westbound motorists during the bike-only phase.
- Re-vegetate area behind the fence at the northeast corner of Harbor Ave SW and SW Spokane St to improve visibility.
- Remove segments of the jersey barrier along SW Spokane at Harbor Ave SW and replace with steel railing to improve motorist visibility of people on the northeast corner.
- Re-stripe the crosswalk across the north side of the Harbor Ave SW and SW Spokane St intersection so that it is larger/more visible to motorists.
- Add two bicycle ramps along SW Avalon Way and extend the on-street bike lane further north of SW Manning St. Potential to create a protected bike lane for this segment if parking were removed.
- Paint bike left-turn lane on SW Manning St at SW

Avalon Way green, add green cross-bike markings to the crosswalk at SW Manning St and SW Avalon Way, and upgrade the signage to clarify “right turn only except for bicycles”.

Constructability

- The curb bulb on the northeast corner of Harbor Ave SW and SW Spokane must accommodate right turns by large trucks.

Impacts

- Engagement process needed for potential loss of parking on the west side of SW Avalon Way north of SW Manning St
- Increase in vehicle signal delay at the intersection of SW Spokane St and Harbor Ave SW with the addition of a diagonal bike crossing phase

Benefits

- Increased safety for bicyclists crossing the Harbor Ave SW and SW Spokane St intersection and traveling along SW Avalon Way
- Clarification of bike-only turning movement at SW Manning St and SW Avalon Way
- Increased visibility and safety for pedestrians crossing Harbor Ave SW at SW Spokane St

