

SW Terwilliger Boulevard to 4th Avenue Connection

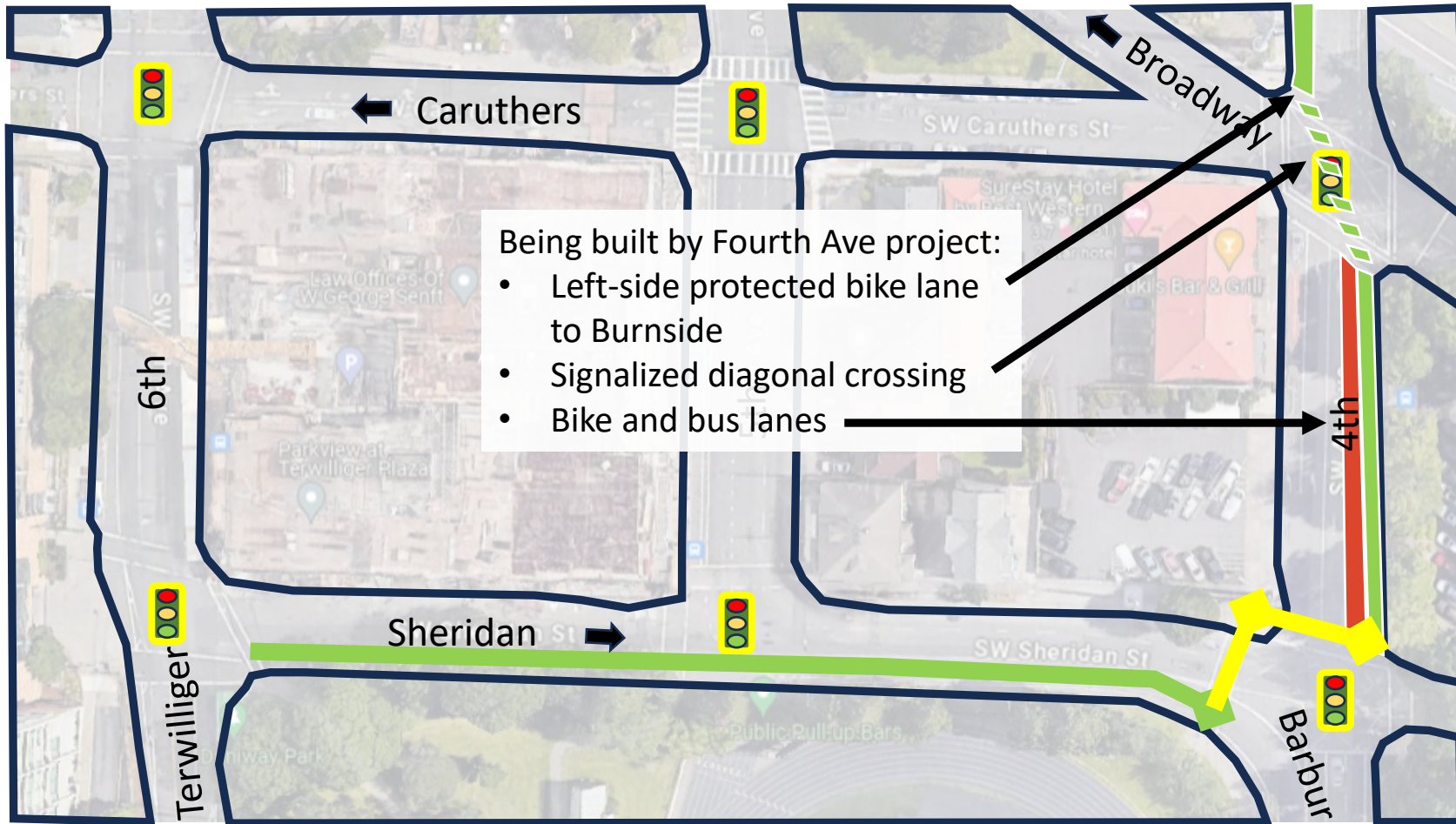


Bicycle Advisory Committee | March 2024



PBOT
PORTLAND BUREAU OF TRANSPORTATION

Option 1A: Right-side bike lane on Sheridan, crossing like a pedestrian



How it would work:

- Use right-side bike lane on Sheridan
- Cross Sheridan at actuated pedestrian signal
- Cross 4th at fixed time pedestrian signal
- Continue north on 4th Ave bike lane

PROS

- Inexpensive
- No delay at 6th and Terwilliger signal
- No conflicts with cars
- Available when Fourth Ave project opens

CONS

- Requires crossing twice as a pedestrian at 4th and Sheridan
- Not a “bike facility”
- Regular users likely to ride west sidewalk of 4th to Caruthers and use that crossing to continue north

Needed improvements:

- Right-side bike lane on Sheridan between 6th and 5th

Option 1B: Right-side bike lane on Sheridan, diagonal bike crossing



How it would work:

- Use right-side bike lane on Sheridan
- Cross Sheridan at new diagonal phase
- Continue north on 4th Ave bike lane

PROS

- Intuitive bicycle movement
- No conflicts with cars

CONS

- Requires a new signal controller at Sheridan / Barbur / 4th
- High cost for modest benefit
- People biking cross 4th Ave twice

Needed improvements:

- Right-side bike lane on Sheridan between 6th and 5th
- New signal controller at Sheridan / Barbur / 4th

Option 2A: Left-side bike lane on Sheridan to right-side bike lane on 4th



How it would work:

- Use left-side bike lane on Sheridan
- Cross 4th with signal
- Continue north on 4th Ave bike lane

PROS

No additional signal delay

CONS

Introduces conflict between eastbound cyclists and eastbound left turning vehicles at 4th and Sheridan

Requires crossing 4th Ave twice

Potential for confusion with dual bike lanes on Sheridan between 5th and 4th

Needed improvements:

- Left-side bike lane on Sheridan between 6th and 4th

Option 2B: Left-side bike lane on Sheridan to left-side bike lane on 4th



How it would work:

- Use left-side bike lane on Sheridan
- Continue on left-side bike lane on 4th
- Continue north on 4th Ave with pedestrian indication at 4th and Caruthers

PROS

- Avoids crossing 4th Ave twice
- Most direct route to 4th Ave protected bike lanes
- No conflicts with motor vehicles

CONS

- Potential confusion with dual bike lanes on Sheridan between 5th and 4th and on 4th between Sheridan and Caruthers
- Fewer signal phases available for left-side bike lane at 4th and Caruthers compared to right-side bike lane
- Potential delay at 4th and Caruthers signal

Needed improvements:

- Left-side bike lane on Sheridan between 6th and 4th
- Left-side bike lane on 4th between Sheridan and Caruthers
- Pedestrian signal actuation for left-side cyclists at 4th and Caruthers

Option 2C: Left-side bike lane on Sheridan to left-side only bike lane on 4th



How it would work:

- Use left-side bike lane on Sheridan
- All people biking would be on left-side on 4th north of Sheridan
- Continue on left-side bike lane up to Burnside
- Continue north on 4th Ave with pedestrian indication at 4th and Caruthers

PROS

Avoids crossing 4th Ave twice

Most direct route to 4th Ave bike lanes

No conflicts with motor vehicles

Wider bikes single bike lane compared to two bike lanes on 4th

Potentially improved operations at 4th and Caruthers crossing

CONS

Potential for confusion with dual bike lanes on Sheridan between 5th and 4th

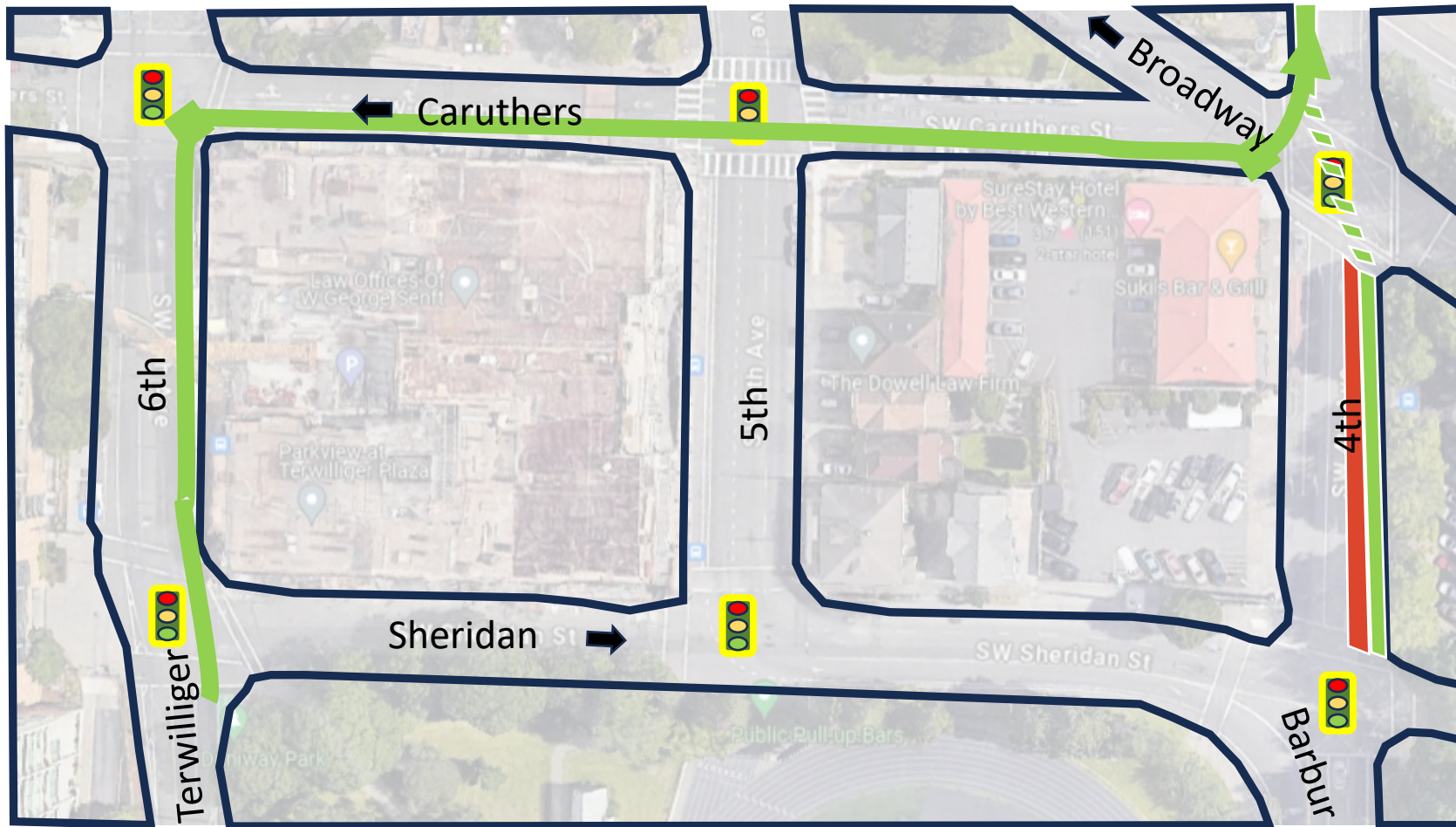
Requires new signal cabinet and rewiring of signal at Sheridan / Barbur / 4th

Potential delay at 4th and Sheridan signal

Needed improvements:

- Left-side bike lane on Sheridan between 6th and 4th
- Left-side bike lane on 4th between Sheridan and Caruthers
- Pedestrian signal actuation for left-side cyclists at 4th and Caruthers
- New signal cabinet at Sheridan 4th to effect diagonal movement from Barbur

Option 3: Contraflow bike lane on Caruthers



How it would work:

- Continue on 6th Ave bike lane to Caruthers
- Follow contraflow bike lane on Caruthers
- Continue north on 4th Ave with pedestrian indication at 4th and Caruthers

PROS

Follows more common right-side bike lane convention

CONS

Potential conflict with garage entrance on north side of development on Caruthers between 6th and 5th

Potential conflict with westbound left turns from Caruthers to 5th

Challenging street geometry at 4th and Caruthers

Needed improvements:

- Contraflow bike lane on Caruthers between 6th and 4th
- Pedestrian signal actuation for people biking at 4th and Caruthers

Mitigating measures for left-side and/or dual bike lanes



Risk

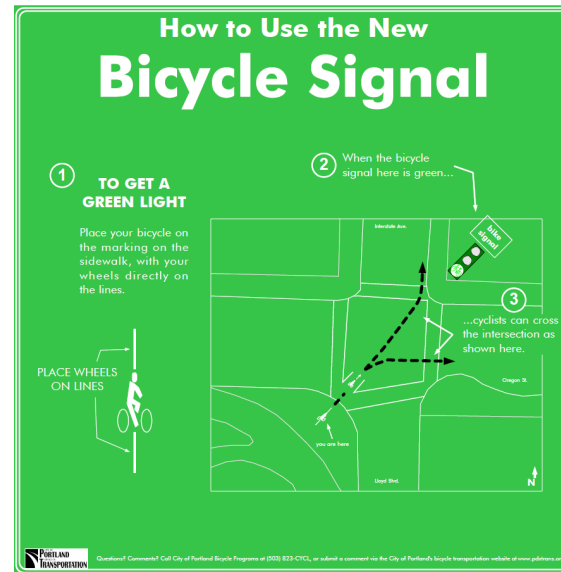
Incorrectly staying to the right on Sheridan would bring a person biking to its intersection with Barbur. At that point they would likely use the available pedestrian crossings to navigate to go north. They are likely to make that error only once.

Incorrectly crossing with the wrong signal phase at 4th and Caruthers carries similar risks for people biking regardless of which bike lane they use (left or right).

The northbound left turns at 4th and Caruthers should be held when the pedestrian phase is active to eliminate the conflict with both people walking and biking.

Signing

PBOT has successfully used custom signs to help people bicycling navigate unusual designs. The sign at the diagonal crossing of Oregon at the Rose Quarter is a good example.



A similar, custom sign installed at Terwilliger-Sheridan can direct people biking to the left-side bike lane.

Pavement markings

Have also been used successfully to direct people biking in non-intuitive ways. A good example is on Interstate Ave directing people bicycling to continue straight (past the left turn lane) to make a left onto Greeley Ave.



The above markings, in conjunction with wayfinding signs, directed people biking away from the left turn lane to Greeley and encouraged them to keep going straight.