

# Pedestrian Signal Phasing

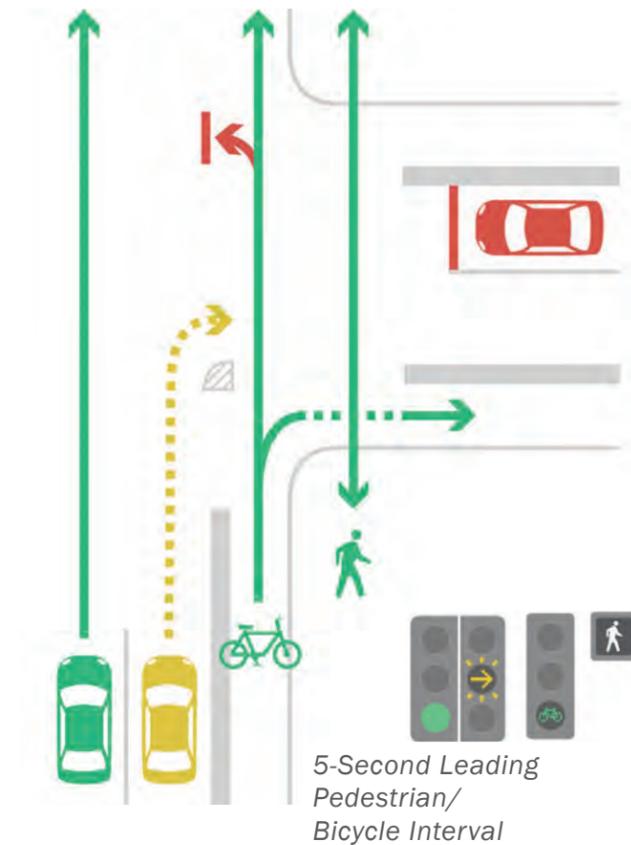
Throughout Downtown  
Improve pedestrian safety and mobility through signal operations

This project eliminates the all-pedestrian signal phase and changes the signal phasing so that pedestrian movements can happen at the same time as vehicular movements. A leading pedestrian or bicycle interval phase partially offsets safety concerns related to removing the all-pedestrian phase.

Traffic signals in central and eastern downtown have a separate phase for automobiles, buses, and bicycles that generally does not include pedestrians. An all-pedestrian phase is often the only phase during which to cross a street. Conflicts often arise because pedestrians ignore the “Don’t Walk” indication and cross during the green phase for traffic.



## Potential Signal Phasing Example



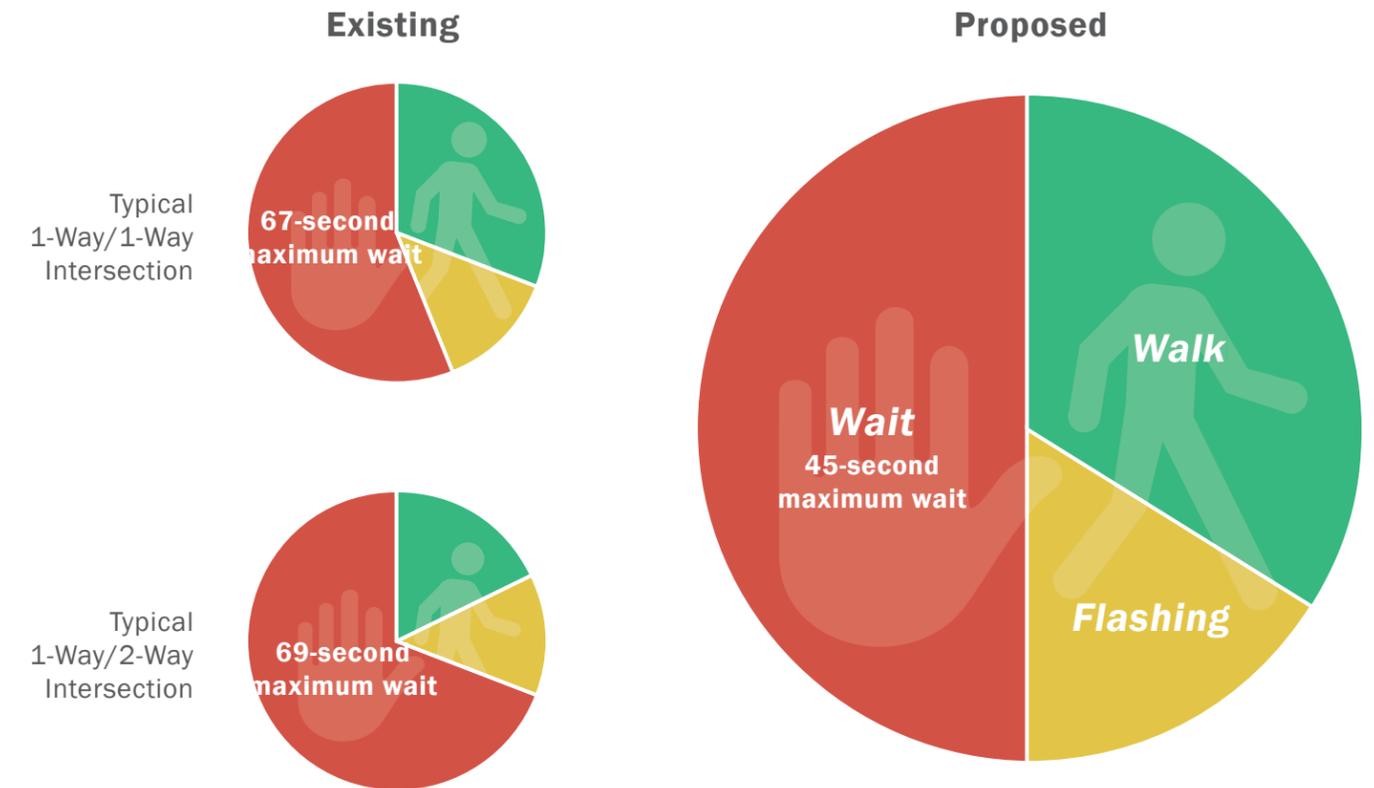
## Phasing and Potential Early Actions

- Conduct a detailed study of the effects on pedestrian safety prior to implementation
- Reconsider green traffic signal/pedestrian phase conflict

## Who Has The Right-of-Way? Example: 18th and Champa

Conflicting messages of the pedestrian “Don’t Walk” signal, vehicular green signal, and “Turning Vehicles Yield to Pedestrians” signs make driving and walking across intersections dangerous for all users, but particularly for pedestrians.

## Allocation of Signal Timing for Pedestrians



## Project Significance

This project benefit pedestrians in the following ways:

- Simplifies operations and makes it clear when pedestrians have the right-of-way
- Reduces the maximum wait time for pedestrians at intersections
- Creates more total walk time, less delay
- Gives pedestrians and bicyclists a lead interval before vehicles can proceed
- Creates flexibility to program additional phases for bicycles and turn movements, increasing safety

## Effects on Mobility and Safety

- Pedestrian wait times at intersections are reduced by as much as 24 seconds for some movements
- Time for other movements is gained in direct proportion to the time saved by removing the all-pedestrian phase (minus the time dedicated to the leading pedestrian/bicycle interval).
- Bicycle phases are more easily added where needed
- Transit phases (transit signal priority) are more easily added where needed