



BIKE LOOP

FACT SHEET

September 26, 2011

What is a bike loop*?

A bike loop is a type of bicycle detection device used at actuated traffic signals to alert the signal controller of bicycle crossing demand on a particular approach. It consists of an induction loop embedded in the pavement.

Proper bicycle detection meets two primary criteria: 1) accurately detects bicyclists; and 2) provides clear guidance to bicyclists on how to actuate detection.



Bike loop benefits

- Improves efficiency and reduces delay for bicycle travel.
- Increases convenience and safety of bicycling and helps establish bicycling as a legitimate mode of transportation on streets.
- Discourages red light running by bicyclists without causing excessive delay to motorists.
- Can be used to prolong the green phase to provide adequate time for bicyclists to clear the intersection.

*The information contained in this fact sheet was obtained from the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide, April 2011 edition.

Typical Applications

- In the travel lane on intersection approaches without bike lanes where actuation is required.
- At intersections with bicycle signal heads and/or bicycle-specific phasing that are actuated.
- In bike lanes on intersection approaches that are actuated.
- In left turn lanes with actuated left-turn signals where bicyclists may also turn left.
- To increase the green signal phase on intersection approaches whose combined minimum green plus yellow plus all-red is insufficient for bicyclists to clear the intersection when starting on a green signal. Advanced bicyclist detection can be applied to extend the green phase or to call the signal.
- At clearly marked locations to designate where a bicyclist should wait.

Maintenance

- Inductive loop detector sensitivity settings need to be monitored and adjusted over time.