District 4 Neighborways Network
Traffic Safety Design Toolkit

The treatments in the toolkit fall under four categories:

Speed reduction: *speed humps and raised crosswalks* help manage vehicle speeds along the block and at the intersection. Lower vehicle speeds create a lower stress roadway and increases a motorist's opportunity to stop or yield when interacting with another user in the roadway and prevent a collision or major conflict.

Intersection safety: *pedestrian islands, neighborhood traffic circles, and daylighting* increases visibility for motorists of other users at intersections and require them to navigate through more safely.

Marking space for people bicycling and walking: *bike lanes, shared lanes, and crosswalks* dedicate space and indicate to all users of the roadway where bicyclists and pedestrians may be present.

Managing vehicle volumes: *diverters and turn restrictions* help discourage non-local vehicle access and reduce vehicle volumes along the street. Lower vehicle volumes create a lower stress roadway and decreases the chances a more vulnerable users like people walking or biking have to interact with motor vehicles.

Speed Reduction

Speed Humps

Traffic Safety Impact: Reduces vehicle speeds along the block

Implementation Requirements for Consideration: Requires more implementation and design time

Speed is a primary factor in most traffic safety-related conflicts. Speed humps help mitigate the speeding issue by forcing oncoming traffic to slow down in order to travel through the vertical feature comfortably and safely. By placing consecutive speed humps along a block, vehicles cannot pick up enough momentum to travel through at an unsafe speed.

Raised Crosswalk

Traffic Safety Impact: Reduces vehicle speeds at the intersection

Implementation Requirements for Consideration: Requires more implementation and design time

This treatment helps reduce vehicle speeds at the intersection. Vehicles approaching the intersection must reduce their speed to travel through the vertical feature comfortably. Essentially, it extends the sidewalk across the road and brings motor vehicles to the pedestrian level.

*This treatment is also an intersection safety improvement

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Intersection Safety

Pedestrian Island

Traffic Safety Impact: Reduces the exposure time experieced by a pedestrian in the intersection

Implementation Requirements for Consideration: Requires more implementation and design time. If greenery is incorporated, the plantings will require maintenance.

Pedestrian islands reduce the length of space where a pedestrian is exposed to active traffic. Additionally, pedestrian islands can offer refuge for those with slower walking speeds. Pedestrian islands may be enhanced using plantings to increase the aesthetics of the space.


Neighborhood Traffic Circle

Traffic Safety Impact: Slows down vehicle speeds at the intersection

Implementation Requirements for Consideration: Depending on the materials used, this tool may require more maintenance and take longer to install; can be installed at intersections with or without stop signs

A traffic clrcle is a traffic calming measure that improves safety at the intersection. It's usually created by using concrete, but other materials like safe-hit posts and paint can be used. The round object in the middle of the intersection prevents drivers from traveling straight through. This action slows down a vehicle as they navigate through the intersection and also puts them at an angle that provides better visibility of the cross-street.
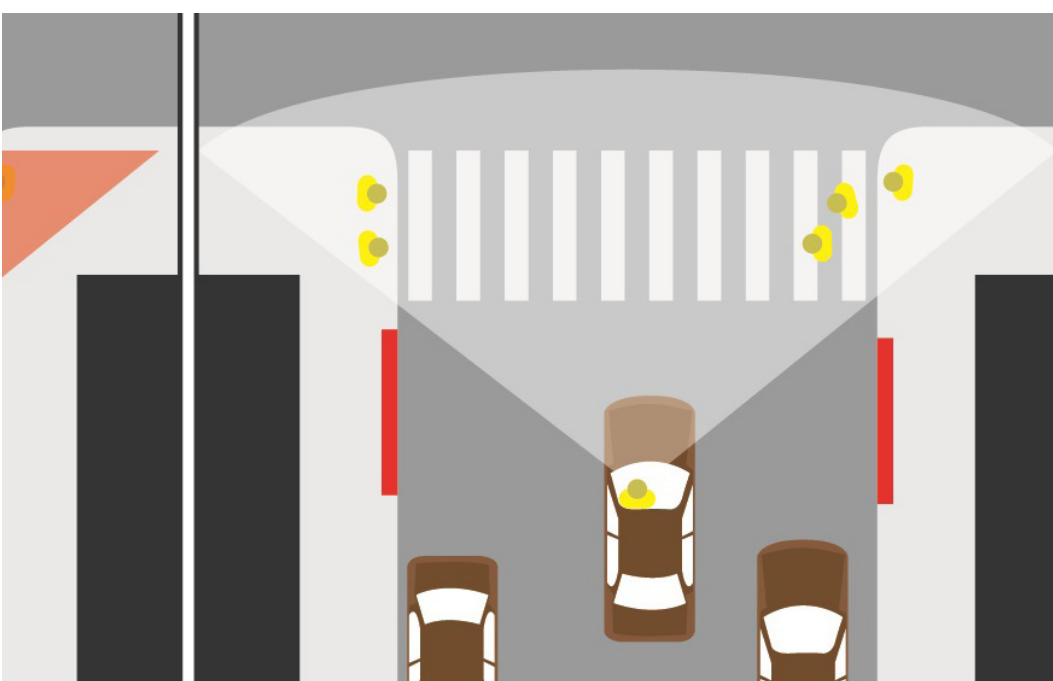
Intersection Daylighting (red curbs at intersection approach)

Traffic Safety Impact: Improves visibility at intersections

Implementation Requirements for Consideration: May require the removal of a few parking spaces

A simple and straightforward safety treatment that makes everyone on the street easier to see at intersections. It removes visual barriers within a minimum of 10 feet of a crosswalk or intersection with a red zone. The red zone, which is a traffic regulatory feature, ensures that this space is not blocked by a parked vehicle that can reduce the sight distance of motorists as they approach the intersection or crosswalk.

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Marking Space for Bicycling and Walking

Bike Lane

Traffic Safety Impact: Dedicates space in the roadway for people biking

Implementation Requirements for Consideration: This facility has a minimum width requirement and may not fit on all streets based on existing lane configurations

This roadway striping defines a portion of the roadway for people on bicycles. Bike lanes provide a dedicated space for people on bikes and allows them to ride at their own speed without the interference from prevailing traffic conditions. A bike lane is distinguished from a protected bikeway/cycle track in that it has no vertical barriers to physically separate it from other lanes.

Shared Lane Marking (Bike Sharrows)

Traffic Safety Impact: Indicates the roadway is a bike route and bike and motor vehicles share the roadway

Implementation Requirements for Consideration: No major requirements

A shared lane marking (sharrow) is not a bike lane, nor does it create road space nominally reserved for people biking. Instead, it alerts drivers to the likely presence of people biking in the roadway and traveling with them. Sharrows also recommend proper bicyclist positioning while traveling in a shared lane environment.

Continental Crosswalks

Traffic Safety Impact: Provides visual cues for motorists at intersections

Implementation Requirements for Consideration: No major requirements

These are high-visibility roadway markings using thick vertical striping. Case studies on their usage have shown that motorists are more likely to yield to pedestrians in continental crosswalks as compared to traditional crosswalks. Crosswalks also indicate to a driver where a pedestrian might be crossing the street.

This treatment is also an intersection safety improvement

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Managing Vehicle Volumes

Median Traffic Diverter

Traffic Safety Impact: Discourage through traffic access and reduces vehicle volumes

Implementation Requirements for Consideration: Vehicles can only access the block by making a right turn onto it. Requires left-turn restriction

A median diverter is created by installing several traffic delineators (safe-hit posts) in the middle of the intersection. It functions by fully preventing a vehicle from continuing through to the next block and forces a right turn. This treatment discourages non-local traffic from utilizing the street, and keeps traffic volumes low. Streets with lower vehicle volumes are considered low-stress and more conducive to supporting bicycle and walking priority streets.

Partial Traffic Diverter

Traffic Safety Impact: Discourage through traffic access and reduces vehicle volumes

Implementation Requirements for Consideration: Vehicles can only access or exit the block in one direction

This treatment is similar the median diverter but is less robust, because it does not fully prevent all vehicles from traveling through. This treatment discourages non-local traffic from utilizing the street, and keeps traffic volumes low. Streets with lower vehicle volumes are considered low-stress and more conducive to supporting bicycle and walking priority streets.

Left-Turn Restriction

Traffic Safety Impact: Reducing vehicle volumes on the block and intersection conflicts with crossing pedestrians or bicyclists

Implementation Requirements for Consideration: Vehicles can only access the block by making a right turn onto it

This treatment is typically installed on the cross street of the Neighborway and it helps reduce the through traffic volume on a Neighborway by prohibiting turns from the cross street onto it. This treatment has an added benefit because it reduces intersection conflicts between motor vehicles and people crossing by foot or on bike. This treatment is most effective when installed with traffic diverters.

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