

# LIST OF MEASURES & DETAILS





## CENTERLINE, EDGE LINE, PARKING LANE STRIPING

Edgeline/Centerline striping creates narrowed roadways to slow vehicle speeds.

### Suitable for:

- Residential streets
- Collector streets

### Not Suitable for:

- Arterial streets

#### Implementation Threshold

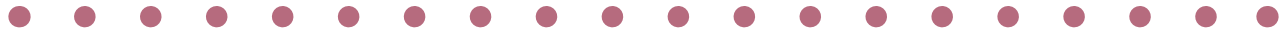
- Average Daily Traffic\* Volumes below 10,000.
- Speed limit below or equal to 35 mph.
- Street width greater than or equal to 15 feet.

#### Approx. Cost

\$0.50 - \$1.00 per linear foot of striping

#### Approval

City's discretion to approve, provided that criteria are met.



## TARGETED SPEED ENFORCEMENT

A portable speed feedback sign setup on-street to alert drivers to vehicle speeds.

### Suitable for:

- School zones
- Residential streets
- Collector streets
- Locations with speeding concerns
- High pedestrian activity areas

### Not Suitable for:

- Intersections
- Significant roadway curvature



#### Implementation Threshold

- Average Daily Traffic\* Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$5,000 - \$15,000

#### Approval

City's discretion to approve, provided that criteria are met.

\*Average Daily Traffic Volumes (ADT) – volume of two-way traffic counted for some period of time less than a year, divided by the number of days it represents. Includes both weekdays and weekend traffic.





## SPEED LEGENDS

Speed legends are used to inform drivers of the current speed limit.

Suitable for:

- Residential streets
- Collector streets

Not Suitable for:

- Arterial streets

Implementation Threshold	Approx. Cost	Approval
<ul style="list-style-type: none"><li>▪ Average Daily Traffic Volumes below 10,000.</li><li>▪ Speed limit below or equal to 35 mph.</li></ul>	\$250 - \$ 500 / ea	City's discretion to approve, provided that criteria are met.



## SIGNAGE

Signage improves awareness to speed limits, pedestrians, and other potential hazards.

Suitable for:

- School zones
- Residential streets
- Collector streets
- Locations with speeding concerns
- High pedestrian activity areas
- Significant roadway curvature

Not Suitable for:

- Intersections



Implementation Threshold	Approx. Cost	Approval
<ul style="list-style-type: none"><li>▪ Average Daily Traffic Volumes below 10,000.</li><li>▪ Speed limit below or equal to 35 mph.</li></ul>	\$250 - \$ 500 / ea	City's discretion to approve, provided that criteria are met.







## HIGH VISIBILITY CROSSWALKS

Ladder markings and defined crosswalk widths heighten awareness of pedestrian crossings.

### Suitable for:

- School zones
- Residential streets
- Collector streets
- Arterial streets
- Mid-block crossings
- Intersection crosswalks
- High pedestrian activity areas

### Not Suitable for:

- Low pedestrian volume locations

#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$3.00 - \$4.50 /  
linear foot  
of striping

#### Approval

City's discretion to approve,  
provided that criteria are met.



## BOTTS' DOTS/RAISED REFLECTORS

Botts' dots provide tactile feedback to drivers moving across travel lanes.

### Suitable for:

- School zones
- Residential streets
- Collector streets
- T-Intersections

### Not Suitable for:

- Arterial streets



#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$1,500 - \$2,000 / ea

#### Approval

60% residents need to approve



TIER I

TIER I



TIER I



## LAWN SIGNS

Signs installed on front lawns that are used to remind drivers to drive slowly.

### Suitable for:

- School Zones
- Residential streets
- Collector streets

### Not Suitable for:

- Arterial streets

#### Implementation Threshold

- Average Daily Traffic Volumes below 1,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

Varies

#### Approval

N/A



TIER I



## INCREASED PATROL AND WARNINGS/CITATIONS

Increased patrol and warnings/citations can effectively reduce speeding and inappropriate driving.

### Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns

### Not Suitable for:

- Not applicable

#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

Varies

#### Approval

City's discretion to approve, provided that criteria are met.





## DECORATIVE SURFACING

Colorful and decorative pavement markings to draw driver attention and slow down traffic.

### Suitable for:

- School zones
- Residential streets
- Collector streets
- Locations with speeding concerns
- Mid-block crossings
- Intersection crosswalks
- High pedestrian activity areas

### Not Suitable for:

- Low pedestrian volume locations

#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

Varies

#### Approval

City's discretion to approve, provided that criteria are met.



## POP-UP TRAFFIC CALMING DEMONSTRATION

Involve community members to demonstrate traffic calming devices through temporary installations.

### Suitable for:

- School zones
- Residential streets
- Collector streets
- Locations with speeding concerns

### Not Suitable for:

- Arterial streets



#### Implementation Threshold

- Average Daily Traffic Volumes below 1,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

Varies

#### Approval

City's discretion to approve, provided that criteria are met.





## ANGLED PARKING

Angled parking narrows travel lanes to slow vehicle speed and increases parking supply.

### Suitable for:

- Downtown areas
- Commercial areas
- Mixed-Use areas
- Residential streets
- Collector streets

### Not Suitable for:

- Arterial streets

#### Implementation Threshold

- Average Daily Traffic Volumes below 3,000.
- Speed limit below or equal to 35 mph.
- Street width greater than or equal to 48 feet.

#### Approx. Cost

Varies

#### Approval

City's discretion to approve, provided that criteria are met.



## SPEED FEEDBACK SIGNS

Speed feedback signs are permanently installed to alert drivers of their driving speeds.

### Suitable for:

- School zones
- Residential streets
- Collector streets
- Arterial streets
- Locations with speeding concerns
- High pedestrian activity areas

### Not Suitable for:

- Intersections
- Significant roadway curvature



#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$5,000 - \$15,000 / ea

#### Approval

City's discretion to approve, provided that criteria are met.







## FLASHING BEACONS

Flashing beacons warn drivers of pedestrians at an uncontrolled crossing location.

### Suitable for:

- School Zones
- Mixed-use areas
- Residential streets
- Collector streets

### Not Suitable for:

- Not applicable

#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$15,000 - \$25,000  
/ ea

#### Approval

City's discretion to approve, provided that criteria are met.



## ROAD DIET (BIKE LANE, MEDIAN)

Road diet replaces a number of travel lanes with other modal facilities and slow vehicle speeds.

### Suitable for:

- School Zones
- Collector streets
- Downtown areas
- Residential areas
- High bicycle/pedestrian traffic

### Not Suitable for:

- Not Applicable



#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Street width greater than or equal to 48 feet.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

Varies

#### Approval

City's discretion to approve, provided that criteria are met.





## RUBBER SPEED BUMPS

Rubber speed bumps slow driver speeds with vertical roadway deflections.

### Suitable for:

- Residential streets
- Persistent speeding
- High cut-through volumes

### Not Suitable for:

- Collector streets
- Arterial streets

#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$2,000 - \$4,000 / ea

#### Approval

City's discretion to approve, provided that criteria are met.



## STRIPED BULBOUTS WITH BOLLARDS

Bulbouts slow vehicle speeds with the impression of a narrowed roadway.

### Suitable for:

- Downtown streets
- Residential streets
- Collector streets
- Arterial streets
- High pedestrian activity areas
- Long pedestrian crossing distances

### Not Suitable for:

- Low pedestrian activity areas
- Narrow streets



#### Implementation Threshold

- Average Daily Traffic Volumes below 1,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$3,500 - \$7,500 per intersection

#### Approval

City's discretion to approve, provided that criteria are met.





## TEMPORARY TRAFFIC CIRCLES

Low cost alternative to permanent Traffic Circles require drivers to slowly maneuver through an intersection.

### Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns
- High accident rate

### Not Suitable for:

- Horizontal curvature
- Vertical curvature

#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$5,000 - \$8,000 / ea

#### Approval

City's discretion to approve, provided that criteria are met.



## STRIPED CHICANES WITH BOLLARDS

Low cost alternative to permanent Chicanes require drivers to slowly maneuver through high speeding roadways.

### Suitable for:

- Wide residential streets
- Collector streets
- Downtown areas
- Significant roadway curvature
- Locations with speeding concerns

### Not Suitable for:

- Narrow roadways



#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Street width greater than or equal to 48 feet.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

\$5,000 - \$7,500 / ea

#### Approval

City's discretion to approve, provided that criteria are met.







## STREET SMARTS PROGRAM

Traffic safety education program designed to build awareness, offer safety tips, and change driver behavior to help make our streets safer.

### Suitable for:

- Downtown streets
- Residential streets
- Collector streets
- High pedestrian activity areas

### Not Suitable for:

- Low pedestrian activity areas

### Implementation Threshold

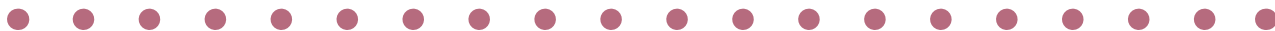
- Petition Process

### Approx. Cost

Varies

### Approval

City's discretion to approve, provided that criteria are met.



## PACE CAR PROGRAM

Residents pledge to drive at 25 mph, requiring following vehicles to drive at lower speeds, and thereby slowing traffic in the neighborhood.

### Suitable for:

- Downtown streets
- Residential streets
- Collector streets
- High pedestrian activity areas

### Not Suitable for:

- Low pedestrian activity areas



### Implementation Threshold

- Petition Process

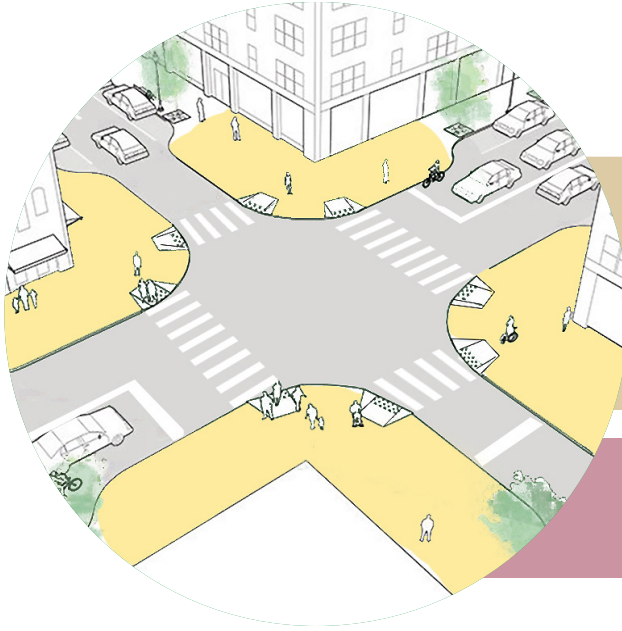
### Approx. Cost

Varies

### Approval

City's discretion to approve, provided that criteria are met.





## FULL/DETACHED BULBOUTS

Bulbouts slow vehicle speeds with the impression of a narrowed roadway.

### Suitable for:

- Downtown streets
- Residential streets
- Collector streets
- Arterial streets
- High pedestrian activity areas
- Long pedestrian crossing distances

### Not Suitable for:

- Low pedestrian activity areas
- Narrow streets
- High truck volumes

#### Implementation Threshold

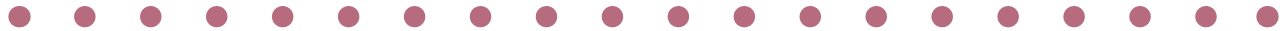
- Average Daily Traffic Volumes below 1,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

≥ \$50,000 per intersection

#### Approval

City's discretion to approve, provided that criteria are met.



## TWO-LANE CHOKERS

Two lane chokers function similarly to bulbouts but at mid-block locations.

### Suitable for:

- Wide streets
- High cut-through volumes

### Not Suitable for:

- Emergency access routes
- High on-street parking demand
- High bicycle volumes



#### Implementation Threshold

- Average Daily Traffic Volumes below 1,000.
- Speed limit below or equal to 35 mph.
- Street length greater than/equal to 1,500 feet.

#### Approx. Cost

\$25,000 - \$50,000 / pair

#### Approval

City's discretion to approve, provided that criteria are met.





## MEDIAN ISLAND/ PEDESTRIAN REFUGE

Pinchpoint in the center of the roadway that reduce travel lane width and pedestrian crossing distances.

### Suitable for:

- Wide residential streets
- Collector streets
- Mid-block crossings
- Long crossing distances
- High pedestrian activity areas
- Locations with speeding concerns

### Not Suitable for:

- Narrow roadways

#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

Varies

#### Approval

City's discretion to approve, provided that criteria are met.



## TRAFFIC CIRCLES

Traffic Circles require drivers to slowly maneuver through an intersection.

### Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns
- High accident rate

### Not Suitable for:

- Horizontal curvature
- Vertical curvature



#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

≥ \$25,000 / ea

#### Approval

60% residents need to approve +  
City's discretion to approve,  
provided that criteria are met.





## ROUNDBABOUTS

Roundabouts require drivers to slowly maneuver through an intersection operating with yield control.

### Suitable for:

- Collector streets
- Arterial streets
- Locations with speeding concerns
- High accident rate

### Not Suitable for:

- Horizontal curvature
- Vertical curvature



#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

≥ \$50,000 / ea

#### Approval

60% residents need to approve +  
City's discretion to approve,  
provided that criteria are met.



## LATERAL SHIFTS

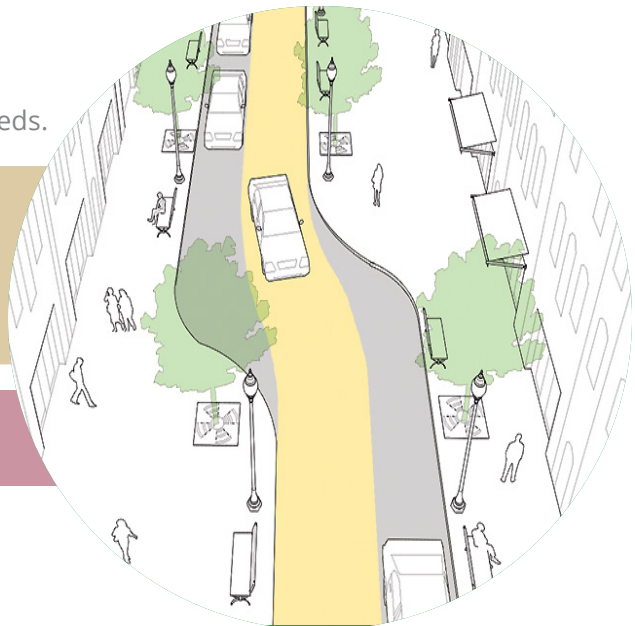
Lateral shifts force drivers to make slight maneuvers, resulting in slower vehicle speeds.

### Suitable for:

- Residential streets
- Collector streets
- Arterial Streets
- Locations with speeding concerns

### Not Suitable for:

- High vehicle volumes



#### Implementation Threshold

- Average Daily Traffic Volumes below 10,000.
- Speed limit below or equal to 35 mph.
- Street width greater than or equal to 15 feet.

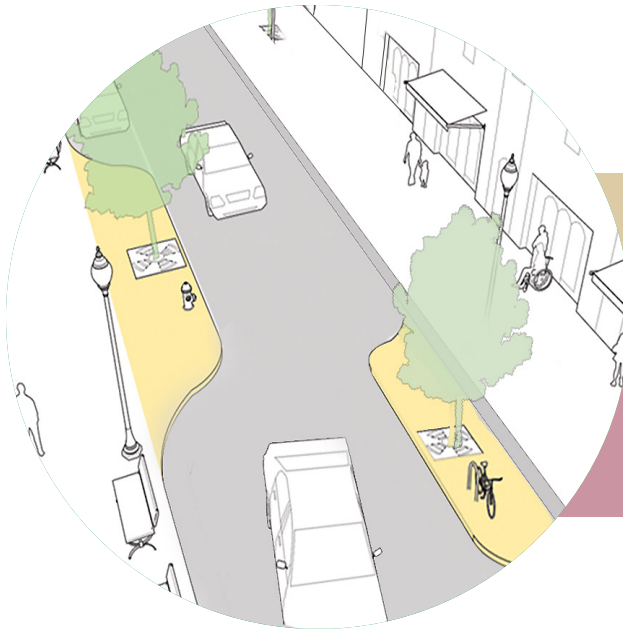
#### Approx. Cost

Varies

#### Approval

60% residents need to approve +  
City's discretion to approve,  
provided that criteria are met.





## CHICANES

Chicanes functions similarly to lateral shifts and require less roadway reconfigurations.

### Suitable for:

- Wide residential streets
- Wide Collector streets

### Not Suitable for:

- Arterial streets
- Emergency access routes
- High on-street parking demand
- High bicycle traffic

#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Speed limit below or equal to 35 mph.
- Street length greater than/equal to 1,500 feet.
- Street width greater than or equal to 15 feet.

#### Approx. Cost

\$25,000 - \$50,000  
/ pair

#### Approval

60% residents need to approve +  
City's discretion to approve,  
provided that criteria are met.



## ASPHALT SPEED BUMPS

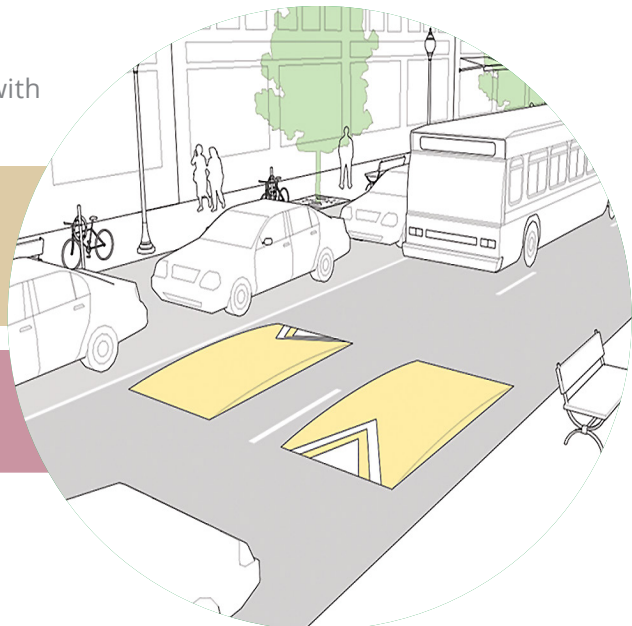
Asphalt speed bumps slow driver speeds with vertical roadway deflections.

### Suitable for:

- Residential streets
- Persistent speeding
- High cut-through volumes

### Not Suitable for:

- Collector streets
- Arterial streets



#### Implementation Threshold

- Average Daily Traffic Volumes below 3,000.
- Speed limit below or equal to 30 mph.

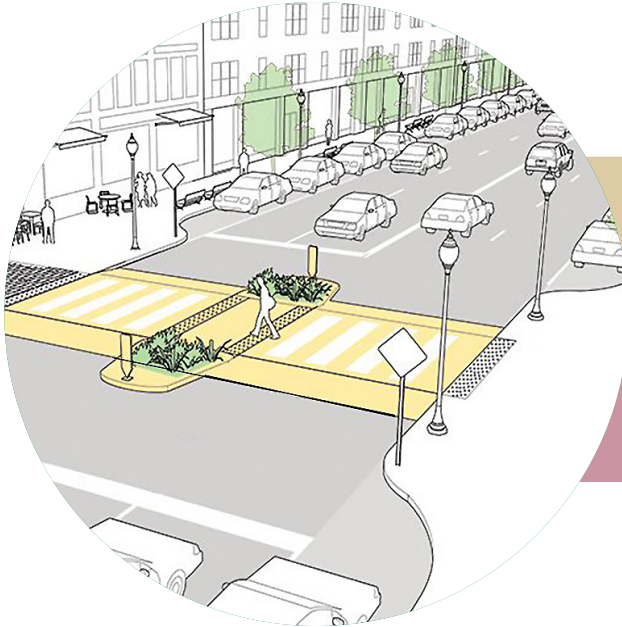
#### Approx. Cost

\$7,000 - \$10,000  
/ ea

#### Approval

60% residents need to approve +  
City's discretion to approve,  
provided that criteria are met.





## RAISED CROSSWALKS

Raised crosswalks slow driver speeds with vertical deflections and emphasis of pedestrian right-of-way.

### Suitable for:

- School zones
- Residential streets
- Mid-block crossings
- High pedestrian activity areas

### Not Suitable for:

- Arterial streets
- Intersections

#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Speed limit below or equal to 35 mph.
- Grade below or equal to 8 percent.

#### Approx. Cost

\$10,000 - \$20,000 / ea

#### Approval

60% residents need to approve + City's discretion to approve, provided that criteria are met.



## RAISED INTERSECTIONS

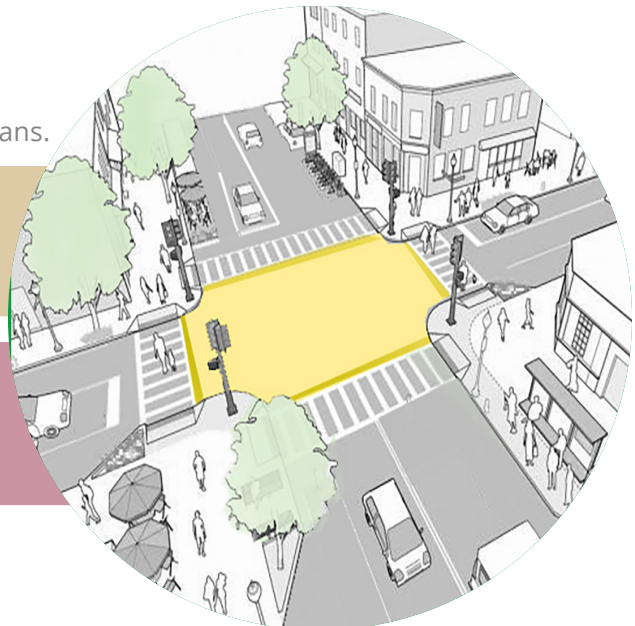
Raised intersections slow drivers speed by emphasizing a "shared zone" with pedestrians.

### Suitable for:

- Downtown areas
- High pedestrian activity areas
- High vehicle speeds

### Not Suitable for:

- Residential streets
- Collector streets
- Arterial streets



#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Speed limit below or equal to 35 mph.

#### Approx. Cost

≥ \$50,000 / ea

#### Approval

60% residents need to approve + City's discretion to approve, provided that criteria are met.







## DIAGONAL DIVERTERS

Diagonal diverters reduce traffic entering neighborhoods by permanently detouring certain routes.

### Suitable for:

- Residential streets
- Locations with speeding concerns
- Limited access desired

### Not Suitable for:

- Arterial streets
- Collector streets if significant traffic diversion anticipated

#### Implementation Threshold

- Average Daily Traffic Volumes below 5,000.
- Greater than 25% non-local traffic.

#### Approx. Cost

≥ \$25,000 / ea

#### Approval

60% residents need to approve + City's discretion to approve, provided that criteria are met.



## PARTIAL CLOSURES

Partial closures reduce traffic in neighborhoods by restricting one direction of traffic.

### Suitable for:

- Residential streets
- Locations with speeding concerns
- Limited access desired

### Not Suitable for:

- Arterial streets
- Collector streets if significant traffic diversion anticipated



#### Implementation Threshold

- Average Daily Traffic Volumes below 500.
- Greater than 25% non-local traffic.

#### Approx. Cost

≥ \$25,000 / ea

#### Approval

60% residents need to approve + City's discretion to approve, provided that criteria are met.





## FULL CLOSURES

Full closures reduce traffic entering neighborhoods by restricting vehicular access.

### Suitable for:

- Residential streets
- Locations with speeding concerns
- Limited access desired

### Not Suitable for:

- Arterial streets
- Collector streets if significant traffic diversion anticipated

#### Implementation Threshold

- Average Daily Traffic Volumes below 500.
- Greater than 25% non-local traffic.

#### Approx. Cost

≥ \$25,000 / ea

#### Approval

60% residents need to approve + City's discretion to approve, provided that criteria are met.



## FORCED TURN ISLANDS

Raised concrete islands separate turning traffic from through traffic at an intersection.

### Suitable for:

- Residential streets
- Collector streets
- Locations with speeding concerns
- Limited access desired

### Not Suitable for:

- Not applicable



#### Implementation Threshold

- Average Daily Traffic Volumes below 500.
- Greater than 25% non-local traffic.

#### Approx. Cost

≥ \$25,000 / ea

#### Approval

60% residents need to approve + City's discretion to approve, provided that criteria are met.

