

Taming Traffic

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What is Traffic Calming?

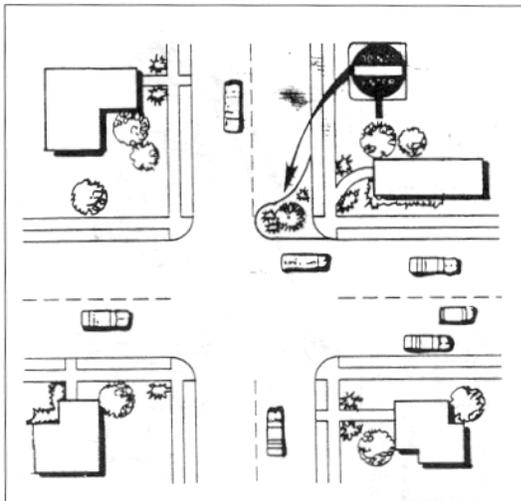
Many cities and towns employ traffic calming to improve the conditions on a roadway for pedestrians, bicyclists, and neighborhoods. Traffic calming techniques alter the appearance or geometry of a roadway to reduce traffic volume or speed. Techniques should be self-enforcing. Some make drivers seek alternate routes. Others, by creating a sense of shared space between the driver and resident, make drivers want to slow down on local roads.

Traffic calming project success depends on whether:

- Traffic speeds and volumes decrease, and
- Resident and business owner approval of the device.

Volume Reduction

Full Street Closures prohibit through traffic. They are controversial when they cut off a route for Roadway volume can be reduced in many different ways. The methods usually cause an inconvenience for the drivers, which causes them to use alternative routes. emergency response vehicles or cause an increase in traffic on parallel streets.



Half Closure.

Half Closures are barriers that block travel in one direction for a short distances on otherwise two-way streets. This closure type still allows through movement by staggering the barriers.

Forced turn islands are raised islands that block certain movements on approaches to an intersection.

Median barriers are raised islands located in center of the street and continuing through the intersection to block movement at a cross street.

Speed Reduction

The most effective types of speed reducers are physical measures that compel the driver to stop or slow down. There are three types of speed reduction measures:

Vertical measures cause the driver to decelerate. Speed humps are raised rounded or flat areas placed across the road. The typical 12 feet long and 3 to 4 inches high speed hump reduces speeds to 15 to 20 mph. Speed tables are flat-topped speed humps, often constructed with brick or textured materials on flat sections. Textured pavement is often used on crosswalks in downtown areas. Made of brick, cobblestone, concrete pavers, stamped asphalt, or other surface materials they produce constant small changes in vertical alignment.

Horizontal measures force the driver around curves and islands and block views of the road ahead. Traffic roundabouts are placed at intersections of high volume roads to help control the right of way with yield signs on all approaches. Roundabouts cause the traffic to flow in a counter-clockwise direction in a controlled manner.

Lateral shifts are located on otherwise straight streets bending travel lanes one way and then back to the original direction. Decreasing sight distance and shifting causes the driver to slow down.

Narrowing measures discourage speeding by giving the driver a sense of enclosure. Neckdowns are curb extensions at intersections that reduce the roadway width. They make the intersection safe for pedestrians by shortening the crossing distances. Center islands are raised and located along

the centerline of a street that narrows the travel lanes at that location. Chokers are curb extensions in the middle of a street that narrow a street by widening the sidewalks or having planting strips.

Another method to slow drivers is a speed radar trailer board that displays the speed of passing vehicles and encourages compliance. In most instances drivers slow but are not forced to.

Choosing a Solution

The best way to decide which traffic calming measure will work best in the city or town is to:

- Determine if the problem is particular to one roadway or throughout the whole area of the city or town.
- Identify whether the problem is caused by volume or speed of the traffic.
- Select a safe solution that complies with the city or town rules and is acceptable to street residents.
- Implement a cost-effective measure.

Sources

Effects of Changing Speed Limits in Speed Zones, p. 33, Washington State Technology Transfer Center, WA, Summer 2000.

Traffic Calming State of Practice. Institute of Transportation Engineering, Washington DC, August 1999.

Kircher, James Editor, *Portland's City-Wide Speed Bump Study: Seeing the Big Picture*, PublicWorks, Ridgewood, NJ, February 2000

Peo, Christopher, *Traffic Calming and Low-Speed Urban Street Design*, <http://www.azfms.com/DocReviews/Feb97/art15.htm>, Pennsylvania Transportation Institute, University Park, PA. December 1995.

Special Thanks:

Skip Grady, Retired Public Works Director, Durham, NH.



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