

TRAFFIC CALMING GUIDE FOR LOCAL RESIDENTIAL STREETS

I. INTRODUCTION

In mid 2001, VDOT implemented the Traffic Calming Guide for Local Residential Streets that provides communities with a traffic management tool dealing specifically with speeding. The guide is based on the premise that the county and VDOT are partners in addressing a speeding problem. For purposes of this guide, the goal of traffic calming is to slow speeders in residential neighborhoods on streets classified as local. The focus is on subdivision streets. Certain collector streets that have many of the characteristics of local residential streets may also qualify for traffic calming measures.

It is important to note that traffic calming efforts generally slow traffic without restricting access. Traffic calming measures are appropriate for slowing traffic when cut-through traffic is not the problem; that is, neighborhoods typically do not qualify for the cut-through traffic program when the majority of the traffic and speeding problems are generated from within the neighborhood.

The county will initiate and take the lead role in coordinating the traffic calming process and VDOT staff will provide technical support. The county and VDOT will determine who is responsible for a particular task where the responsible agency is not specified. For traffic calming, VDOT is represented by the local resident engineer, except in Fairfax, Prince William, and Loudoun Counties where it is the district traffic engineer.

Although this guide is intended for existing streets only, there is concern about preventing traffic problems from developing on new subdivision streets. In its process for reviewing subdivision development plans, participating counties should identify and address potential traffic calming as well as other traffic management concerns that may result from a new development. The review process should ensure that the developer of a new subdivision place emphasis on and address the need to design street geometric concepts that make streets less desirable for speeding and cut-through traffic. In the subdivision design review process, VDOT should also exert its discretionary authority in applying geometric standards to discourage speeding and cut-through traffic. The county should consider planning, enforcement, and transportation together in a comprehensive approach to managing residential traffic.

Ideally, potential traffic calming concerns in new developments should be addressed with roadway design geometry changes, especially roadway width (narrowing) and road curvature. In lieu of or in addition to these geometric changes, traffic calming measures that generally serve to narrow the travel way include pavement markings delineating parking, shoulder, or bike lanes, traffic circles or roundabouts, chokers, crosswalk refuges, and short medians. The county or subdivision developers should consult with VDOT prior to submitting a plan specifying traffic calming measures on newly developed streets.

2. Documented speeding problem: The average speed is at least 5 mph over the speed limit. Accordingly, the average speed should be at least 30 mph to qualify.

3. Petition for traffic calming: Once the proposed street meets the above technical criteria, a petition requesting traffic calming and signed by at least 75 percent of the total occupied households within the petition area must be obtained. The petition area includes residences on the proposed street section, and residences on all streets that have major access onto the proposed study street section. The county, in cooperation with VDOT, will define the petition area and provide a petition form. The impacted area typically includes the surrounding collector or arterial roads but should be defined by the county in cooperation with VDOT. The county will verify that the petition is valid.

The resolution and appropriate attachments should be sent to VDOT.

C. Plan Development

The traffic calming plan should be developed by a group that includes representatives from the petition area, impacted area, homeowner associations, the board of supervisors, local transportation/planning staff, police, fire, rescue, VDOT, and others as appropriate.

Because the impact of traffic calming measures will extend beyond the petition area, it is important to involve representatives from the larger, impacted area.

The Board of Supervisors and homeowner associations are responsible for scheduling and facilitating meetings. VDOT staff will provide technical support and advise the community of the potential advantages and disadvantages of calming measures. Educating participants about residential traffic management and traffic calming is key to a successful program.

The proposed plan shall be presented to residents at a public meeting, or through some other method such as a petition, to inform and measure support for the plan. This will allow the Board of Supervisors to assess whether community support exists for the proposed measures.

D. Approval and Implementation

The final plan, and method of implementation must be jointly approved by the Board of Supervisors and VDOT. The final plan must identify the source of funding for implementation.

E. Evaluation

A follow-up evaluation should be performed to ensure that the traffic calming measures are effective. The Board of Supervisors in cooperation with VDOT will determine the method to disseminate the findings and recommendations to those involved in the plan development and obtain feedback as appropriate.

If the county decides to remove the traffic calming measures, then funding for removal should be from the same funding sources as implementation. If an unforeseen safety problem develops, VDOT may decide to remove the traffic calming measures.

III. TRAFFIC CALMING MEASURES

Community awareness and education is an important first step. The residents should be made aware of the speeding concerns and should be reminded of the importance of driving safely in their neighborhood. VDOT staff is available to speak to homeowner associations about traffic calming measures and to help raise community awareness about advantages, disadvantages, costs, and funding options.

Enforcement is traditionally the primary means of addressing speeding problems. Local police officers monitor and enforce the posted speed limit. Enforcement efforts should be undertaken as much as possible prior to implementation of traffic calming measures.

Non-physical measures are low-cost measures that do not physically restrict driver maneuvers, such as pavement markings to narrow travel lanes. (See Figure 2.)

Physical measures are designed to reduce speed by creating a vertical or horizontal shift in the roadway or travel lanes. (See Figure 2 and Section V.)

Alternative actions should be considered when traffic volumes on the study street exceed 4,000 vehicles per day. A network analysis is suggested to thoroughly examine the road network in the area and identify potential improvements on major routes that may provide relief to the "study" street.

IV. TRAFFIC VOLUMES AND TRAFFIC CALMING MEASURES

Traffic volumes on the residential street will determine the appropriate traffic calming measures as follows:

- **Fewer than 600 vehicles per day**
 - education
 - enforcement
 - non-physical measures
- **600- 4,000 vehicles per day**
 - education
 - enforcement
 - non-physical measures
 - physical measures
- **More than 4,000 vehicles per day**
 - education
 - enforcement
 - alternative actions only
 - no traffic calming measures

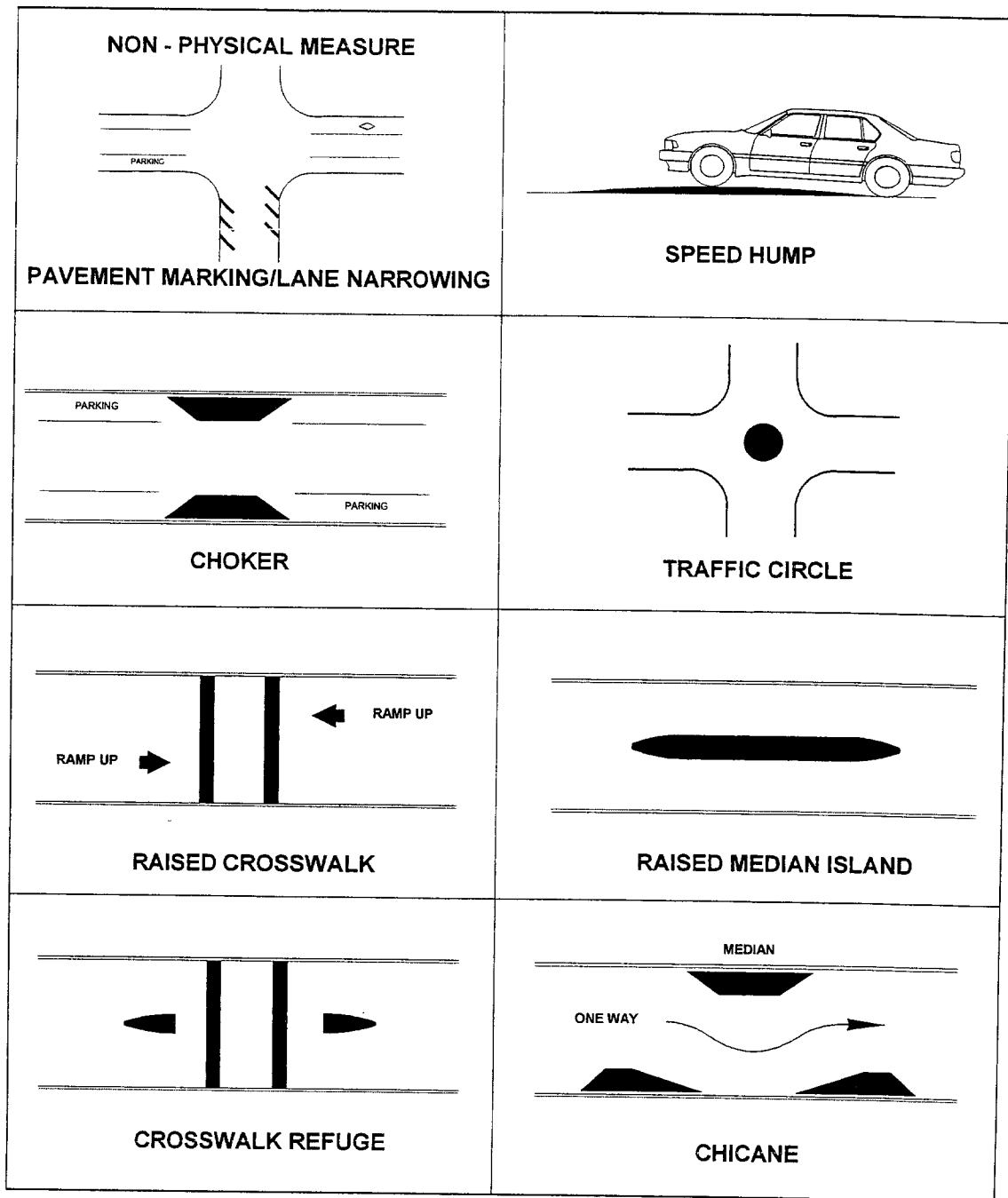


Figure 2. Typical Physical and Non-Physical Traffic Calming Measures

