

TOWN OF LEWISVILLE: RESIDENTIAL TRAFFIC CONTROL

MISSION STATEMENT

The Town of Lewisville wishes to have a procedure whereby its' residents can petition the Town to incorporate traffic calming devices and systems in order to alleviate speeding, excessive traffic volume, dangerous intersections or other conditions that are of a public safety nature.

Residents who live on or near local town-controlled roads may perceive a danger to children playing, vehicle traffic, crime or hazards to walkers, joggers and bicycle riders. Such concerns can lead neighborhoods to organize in an effort to convince elected officials to take action to alleviate these situations.

The purpose of this document is to present ways in which residents can find solutions to residential traffic problems as approved by the Lewisville Town Council. Consideration is given to a variety of residential traffic concerns and to the characteristics of these concerns on a case-by-case basis. Each situation is reviewed with respect to the available traffic control measures that have been, or could be, found effective to alleviate the neighborhood traffic concern.

The following outlines these guidelines and procedures, which can be used to develop the optimum solution or solutions to each particular situation. There are many factors taken into consideration when reviewing residential traffic concerns, to determine the most feasible traffic control measure. These factors include; the surrounding roadway network, resident access, speeds and/or volume of traffic, accident history, neighborhood response and budget considerations.

Note: Public health and safety concerns are always the overriding consideration when installing or removing traffic control devices.

What is Traffic Calming?

Traffic calming is a programmatic response to inappropriate speeds or volumes on residential streets.

Purpose:

The purpose of this Traffic Calming Policy is to provide guidance to the request, evaluation, approval, and application/installation of traffic calming measures such as chicanes, curb extensions, speed humps, speed tables, speed cushions (speed lumps), and median islands. The Town's Traffic Calming Policy was developed to guide town staff and to inform residents on the process for implementing traffic calming in residential areas. The policy is intended to address traffic issues not commonly addressed in the Manual on Uniform Traffic Control Devices (MUTCD), although the MUTCD will be used for traffic engineering reference.

This Policy addresses residential local streets and residential collector streets.

Definitions:

Average Annual Daily Traffic (AADT): The actual traffic volume passing a point in both directions on an average day (24-hours) and measured during a period of less than one year.

Chicane: Chicanes are concrete islands that offset traffic, and create a horizontal diversion of traffic used to reduce the speed of vehicular traffic on local streets. Often, they are combined with curb extensions to exaggerate the vehicle movements.

Curb Extension: Curb extensions alternatively called chokers or bulb-outs, extend the sidewalk or curb line out into the parking lane, which reduces the effective street width and creates a pinch point along the street. They can be created by bringing both curbs in, or by more dramatically widening one side at a midblock location.

85th Percentile Speed: The 85th percentile speed is the speed exceeded by the fastest 15% of vehicles.

Local Residential Street: A local residential street is one that connects individual driveways to the roadway network. Often these streets contain subdivision type characteristics, contain cul-de-sacs, and are unstriped with curb and gutter.

Local Residential Collector: A residential collector street is one that connects individual driveways and local residential streets to connector roadways. Often these streets are striped, contain sidewalks, have a good alignment, and are of higher speed than local residential streets.

MUTCD: Manual on Uniform Traffic Control Devices. This is a nationally published standard that governs the use of all public street signs and pavement markings.

NCDOT Maintained Street: A street that is maintained by the North Carolina Department of Transportation. The Town cannot approve any Traffic Calming Devices on these streets.

Posted Speed Limit: The speed limit that is established by ordinance and posted on a street based on design criteria such as vertical and horizontal sight distances.

Public Safety Technical Review Committee (PSTRC): Hereinafter referred to as "the committee." A committee comprised of the Town Manager, Public Works Director, Public Works staff member, Community Policing Sergeant or his/her designee, Lewisville Fire Chief or his/her designee and the Vienna Fire Chief or his/her designee. The committee shall initiate traffic studies, review data and give recommendations based on collected information.

Raised Median: Medians are raised islands that separate opposing streams of traffic and limit turning movements. They are typically placed in the center of a roadway, and are separated from the travel lanes by a curb.

Speed Bump: A speed bump is an abrupt bump in a travel way (usually in parking lots), 3-4 inches high and 1-3 feet in length. These devices are not allowed on Town Maintained Streets and not addressed in this Policy.

Speed Cushion: A series of smaller humps (2 or 3, depending on street width) across a street design to slow normal vehicular traffic, but with breaks in the pattern as to allow for the passage of emergency vehicles with a wider wheelbase without hitting a hump. These are sometimes called speed lumps.

Speed Hump: A traffic calming device consisting of a raised hump in the roadway, generally 3 inches high and 12 feet wide, stretching across the entire roadway.

Speed Table: A speed table is a term used to describe a very long and broad speed hump, or a flat-topped speed hump, where sometimes a pedestrian crossing is provided in the flat portion of the speed table.

Town Maintained Street: A street that is currently on the Town's list of streets which it maintains.

Traffic Calming Measure: Measures, such as chicanes, curb extensions, speed humps, speed cushions, or raised medians. Intended to reduce the speed of the motorist and/or prevent or decrease neighborhood cut-through traffic.

Street Criteria:

In order to be considered for traffic calming measures, the following criteria should be met. Town Staff and/or the PSTRC may waive these thresholds for streets with a documented traffic problem.

- The Street must be a public street, owned and maintained by the Town.
- The Street shall be classified as a local residential or collector street.
- Arterials, thoroughfares, NCDOT maintained, or private roads will not be considered for traffic calming measures by the Town.
- The posted speed limit in the vicinity of the traffic calming device shall be 25 mph or less.
- The Street must not exceed 36 feet wide from curb to curb.
- The Street must not be more than two travel lanes wide (two lanes with a common left turn would not qualify).
- The grade of the street shall not exceed 8% for vertical traffic calming measures within 200 feet of the traffic calming device.
- The street must be at least one thousand (1,000) feet in length.
- The street must have at least 400 AADT and no more than 5,000 AADT.
- The speed of at least 15% of traffic must exceed posted speed limit by 10 mph.
- The Street shall have adequate horizontal and vertical sight distances as determined by the Public Works Director or his/her designee.

Initial Steps:

Before the Town decides on installing a physical traffic calming device, consideration should be given to low costs non-physical treatments. Non-physical measures are generally techniques that do not alter the physical path of travel. Non-Physical measures also normally do not require significant construction or alteration of the roadway. These measures typically require low cost materials such as line striping or signing. Examples of non-physical treatments could include:

Increased Speed Enforcement
Additional or Oversized Signage
High Visibility Crosswalks
Streetscaping
Intermittent Centerline Striping
Painted Medians or Islands
Flashing Beacons

Radar Trailers
Pavement Marking Legends
On-Street Parking
Colored Pavements
Indented Edgelines
Rumble Strips or Stripes

Upon evaluation of these non-physical techniques, the Town may still decide to implement physical traffic calming devices.

General Information

1. **What Roads are Covered in this Program?** The control measures provided in this document are specifically designed for neighborhood roads and streets that come under the control of the Town of Lewisville. Roads and streets, which are classified as State controlled or private, are not covered by this document.

2. **Defining the Traffic Concern** Upon receiving a request about traffic concerns on a residential street, the Town Manager will direct staff to perform an investigation to determine if the location meets the street criteria as determined by this policy. Based on findings from the initial investigation, additional traffic studies may be scheduled. The purpose of these additional studies is to determine if the traffic concern is related to speeding or volume and to quantify the severity of the traffic concern. These studies will indicate whether the traffic concern qualifies for traffic control measures.

3. **Standard Procedures for Implementation of Traffic Control Measures**
 - a. **STEP I:** Initiation: Traffic Control Measures can be requested by any of the following methods:
 - i. A written request from the Board of the Neighborhood Homeowners Association acting for the neighborhood or a minimum of five signatures from the owners of five separate properties in the neighborhood will be required before studies will be initiated.
 - ii. Staff Field Reviews.
 - iii. Request by the PSTRC.

 - b. **STEP II:** Committee Review/Town Staff Review/Traffic Engineering Analysis - Classification:
 - i. The PSTRC will review the concern(s) with the neighborhood group, homeowner association, or individuals initiating the request to assure that the scope and details of the concern are clearly identified. A review may

include any or all of the following, depending on the scope of the concern:

- (1) Traffic conditions at the location
- (2) Existing traffic signs and pavement markings
- (3) Motorist travel patterns
- (4) Effect of the roadway system in the vicinity
- (5) Traffic or roadway plans for the vicinity and contributing roadway system
- (6) Time of day, day of week relationship
- (7) Apparent causes of the concern
- (8) History of the location
- (9) Determination of roadway classification (local, collector, or arterial)
- (10) Emergency access concerns
- (11) Other considerations

c. STEP III: Traffic Study/Data Collection and PSTRC Recommendation:

- i. A traffic study will be conducted to obtain any of the following information:
 - (1) Average Annual Daily Traffic (AADT)
 - (2) Average speed of the top 15% of traffic
 - (3) Vehicle speed check
 - (4) Vehicle turning movement counts
 - (5) Origination/Destination study
 - (6) Pedestrian counts
 - (7) Accident report summary
 - (8) Collision diagram studies
- ii. The Town Staff shall analyze traffic data, field information and other available information generated by the traffic study pertaining to the particular area of concern in determining appropriate traffic control measures for recommendation to the committee. Should the staff determine that there are other potentially impacted local roads or streets in the area, additional traffic studies on those roads or streets may be conducted. As a result of the traffic studies, the PSTRC shall determine applicable measures to be taken provided that a "no further action" decision is not made by the appropriate authority (staff, committee, Town Council).

d. STEP V: Public Safety Technical Review Committee Recommendation and Canvass

- i. When traffic control measures are proposed, the Committee's recommendation will be stated on the canvass form. The canvass form

will then be distributed by the contact entity for signatures of property owners in the affected areas.

- ii. Temporary traffic control measures may be recommended at the discretion of the Committee. The objective of such an installation in a residential community would be to test the effectiveness and demonstrate the benefit of the traffic control measure. The use of temporary devices also may be advantageous when budget constraints delay the installation of the permanent device.
- iii. A canvass form to obtain neighborhood consensus for the recommended control measure will be issued by the Committee to the persons or homeowners association initiating the request. The contact person will receive a map highlighting the area to be canvassed. The area map will depict the residential property that is adjacent to or directly affected by any changes to the road in question. The Town Staff will determine the area of affected residents to be canvassed. Any expansion of the area to be petitioned other than the subject travel route will be determined by the Public Safety Technical Review Committee and the Town Staff.
- iv. The contact person is required to obtain signatures of 70 percent of all households in the affected area for or against consideration of traffic control measures. Each affected household shall be counted as one vote, regardless of the number of separate properties owned. In case of multiple owners, only one vote shall be counted for that property. A minimum of 65 percent of the households within the affected area must be in favor of the proposed traffic control measures before the PSTRC will forward a request with a recommendation for approval. A simple majority of the Town Council is required for implementation of residential traffic control measures. All vacant property within the affected area should be listed on the canvass form as vacant by the contact person. A sufficient number of non-resident owners must be contacted if the minimum petition threshold cannot be met because of an excessive amount of vacant properties.

Example:	Affected Area	=	26 lots
	Less: Vacant Lots	=	2 lots
	Less: Half of double lot owners	=	4 lots
	Number of households	=	20
	70 percent canvas required	=	14
	65 percent favorable required	=	13

- v. The contact person or homeowners association has 90 days to return

completed canvass forms. Canvass forms not received within the 90-day period will be deemed null and no further action will be taken. Prior to the expiration of the initial 90-day period, a one-time extension of the 90 days will be granted by the Public Safety Technical Review Committee. However, in no case will canvass forms be accepted later than 180 days from the beginning of the initial signature period. Positive identification may be required at the time of signature of the canvass forms. Signatures are final and may not be added or removed from a canvass forms once the canvass forms have been received by Town Staff.

- vi. If a location fails to achieve the necessary majority within the signature period, the location shall not be considered for a period of three years from the date the signature period expires unless conditions change significantly.
- e. STEP VI: Town Council Meeting: Upon receipt of a canvass form with the required minimum percentage of affirmative signatures, the Public Safety Technical Review Committee's recommendation will be scheduled for Town Council action at a regularly scheduled Town Council meeting.
- f. STEP VI: Notification: Notification shall be given to the property owners in the affected area. Notification shall in the form of a door hanger or letter and shall include information such as the control measure being installed, estimated time frame of installation and contact information of town staff.

4. **Emergency Procedures**

- a. The Town of Lewisville may, at it's option, install traffic control measures in emergency situations as recommended by the Public Safety Technical Review Committee, the Sheriff's Department, the Department of Transportation or other agency or as supported by traffic studies.
- b. Recommendation by the Sheriff's Department or other agency as an emergency situation shall be in writing, and shall state that the imminent health and safety of the public are at risk. Emergency situations typically exist where bodily injury or severe property damage has occurred as a result of speed or volume on a street, which qualifies for consideration of Residential Traffic Control Measures. The recommendation must describe the nature of the emergency and its direct relation to an affected area's traffic speed, or volume concern. This recommendation must be signed by the Sheriff or his/her designated representative or a Department Head.

5. **Removal of Speed and Volume Traffic Control Measures**

- a. A petition for the removal of traffic control measures may be accepted if it alleges a public safety hazard or provided that the following conditions are met:
 - i. The traffic control measure to be removed must be in place for a minimum of a three-year period.
 - ii. The owners of five separate properties in the neighborhood must sign a request for a removal petition.
 - iii. The new petition must include the same affected area as the original petition.
 - iv. Approval of 65 percent of the property owners in the original affected area is required for the Public Safety Technical Review Committee to recommend approval of the requested removal.
 - v. Subsequent steps shall be the same as the current procedure to install traffic mediation devices.

- b. If a location fails to achieve the necessary petition majority within the signature period, the location shall not be reconsidered for a period of three years from the date the signature period expires unless conditions change significantly.