



City of Marion, NC Traffic Calming Policy

March 2016

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 City of Marion's Traffic Calming Policy was developed to guide city 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 service 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.

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

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. Examples in Marion include: Broad Street, Teal Street, Montevista Avenue, and Grayson Street.

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. Examples in Marion include: Garden Street, State Street, and Robert Street.

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 City cannot approve any Traffic Calming Devices on these streets.

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

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 City 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.

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. Upon review and approval of the Public Work Director, Police Chief and Fire Chief, as well as approval of the City Manager and City Council, minor variations in the criteria list may be considered depending on site specific conditions.

- The Street must be a public street, owned and maintained by the City of Marion.
- The Street shall be classified as a local residential or local residential collector street.
- Collectors, arterials, thoroughfares, NCDOT maintained, or private roads will not be considered for traffic calming measures by the City of Marion.
- 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.
- A petition of support must be signed by 60% of all the property owners on the street or property owners within 2,500 feet of each traffic calming device for streets over a mile in length. Depending on the traffic calming device location, the City reserves the right to ask for a similar supporting petition for property owners on connecting streets up to 500 feet from the traffic calming street.
- The Street shall have adequate horizontal and vertical sight distances as determined by the Public Works Director or his designee.

Initial Steps:

Before the City 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 City may still decide to implement physical traffic calming devices.

Request Procedure:

A citizen, property owner or business within the corporate limits of Marion may formally request a traffic calming measure on their street. The request must be done in writing and must include all contact information such as name, address, phone number, and requested street. This request must be sent to the City Manager and/or the Public Works Director. The request will be presented to City Council for consideration approval. Requests can also be made by City staff to address issues identified during work activities such as law enforcement, engineering, or planning.

With each request, and upon approval for consideration by the City Council, the Public Works Director or their designee, shall evaluate the request for traffic calming measures on a particular street and the ability to comply with the required standards.

After the Public Works Director completes the evaluation, the recommendation for a traffic calming measure must be accompanied by approvals from the Public Works Director, Fire Chief, and Police Chief. This recommendation shall be forwarded to the City Manager for presentation to City Council. The City Council shall approve, approve with conditions, or disapprove the request.

All streets will be evaluated by street segment. A segment is that portion of the street that lies between two thoroughfares or collector streets, or other logical feature that may separate portions of a street, such as changes in land use, major driveway entrances, particular road conditions, or historic boundaries.

There will be a visual inspection of the location to determine and collect pertinent information such as: the established speed limit, traffic volume, prevailing or 85th percentile traffic speeds, roadway geometric features, bicycle and pedestrian activity, vehicle classification, roadway

curvature, sight distance, access density, roadway development density, type of roadway, presence of sidewalks, presence of on-street parking, lane width, shoulder width, and curb and gutter presence.

Installation of Traffic Calming Devices:

Upon approval of City Council, the Public Works Department will schedule the installation of the approved traffic calming measure. The Public Works Department shall determine the proper location and device for the installation of the traffic calming measures. The following installation guidelines will be followed:

- The traffic calming device shall not be installed at driveways, but should be placed on property lines and other locations to avoid impeding ingress and egress.
- On open-street sections, consideration should be made to install speed humps/cushions in areas where “drive-around” is not possible.
- Drainage should not be compromised with the installation of the traffic calming measure. Humps and cushions should be tapered on the edge down to the edge of pavement at the gutter line.
- It is preferred that speed humps, cushions, and tables are installed in a series of three, each approximately 500 feet apart.

Cost Procedure for Traffic Calming Devices:

The cost for the installation, maintenance, and removal of any traffic calming measure on existing City maintained street, unless otherwise approved by City Council, shall be the responsibility of the City of Marion. Funds for the construction of the traffic calming measures will be funded from the Streets Department budget.

In the case of a neighborhood, business, or other entity requesting a device and the Roadway Volumes, Design, and Measure Placement do not justify installation, the City Council may approve the installation of a traffic calming measure and pay for all, a portion or none of the costs. The requesting party would be required to pay all approved costs in advance before the City would install the device. The City Council may also deny the request in its entirety.

In the event that a developer desires to install traffic calming measures in a new development, with streets to be maintained by the City, such installation may be considered as part of the street improvement costs under the City’s Residential Development Incentive Policy. Otherwise, the costs of any and all measures shall be the sole responsibility of the developer.

Upon the City accepting the streets for maintenance, the maintenance and/or removal of these measures shall be the responsibility of the City.

Re-Evaluation and Monitoring:

The City will review each traffic calming installation six (6) months after they have been implemented. This will allow staff to measure how effective the improvements were in calming traffic. Should traffic conditions change or other reasons arise, the City shall have the authority to remove any or all traffic calming measures or devices. Should changes be made, the affected property owners will be notified of the change.

Once a request has been denied by the City Council, the specific section of street may not be evaluated again for one year (12 months).

Notice Regarding Emergency Vehicle Response:

Emergency Services, Buses and School Buses will be affected by the installation of some in-street structural traffic calming measures. These vehicles must travel at lower speeds due to the type of equipment and service they provide. According to the recent data, fire trucks typically slow to 5-7 mph when encountering a positive measure traffic calming device. This will increase emergency vehicle response time by 5-9 seconds per device. As part of the petition process, neighborhoods should be clearly advised of the reduction in response time that is attributed to in-street traffic calming devices.

This policy replaced the Traffic Calming Policy adopted by City Council on April 17, 2007.

Adopted by the City Council of the City of Marion this the 1st day of March, 2016.

Policy Number: P-16-03-01-1