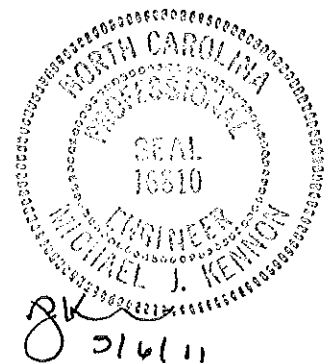


City of Raleigh
Neighborhood Traffic Management Program

Adopted August 4, 2009
Amended September 6, 2011
Raleigh City Council

Public Works Department
Transportation Operations Division

Mike Kennon, PE



Overview

The City of Raleigh wishes to promote safe public streets that contribute to a positive quality of life in the City's neighborhoods. Street design and operation is only one element out of many that influence this goal. It is in the City's best interests to maintain and improve the quality of our neighborhoods and to avoid creating situations that may detract or adversely affect the places where we live.

The management of traffic volumes and speeds on residential streets is both complicated and nuanced. While traffic engineering standards are uniform for all roadway facilities, some degree of contextual design must be employed on neighborhood streets. The purpose of this program is to provide specific techniques and steps for both the public and for City staff to follow in managing neighborhood traffic.

1. Objectives

The objectives of the Neighborhood Traffic Management Program (NTMP) shall be to ensure the public safety of streets in residential areas for drivers and pedestrians while:

- 1.1 Achieving moderate vehicle speeds on residential streets by a combination of policies, physical measures, and public outreach; and
- 1.2 Improving multimodal opportunities within a neighborhood, including enhancements for pedestrian, bicycle, and transit accessibility.

2. Policies

The following policies shall be observed in administration of this program:

- 2.1 **Scope.** This program shall apply to non-thoroughfare streets serving residential neighborhoods and mixed-use areas with residential components. Issues related to speeding on thoroughfare and commercial streets shall be addressed by the Raleigh Police Department (RPD).
- 2.2 **Treatments.** The City shall employ a variety of speed reduction strategies and techniques to achieve the program objectives. These treatments shall be planned and designed in conformance with sound engineering and planning practices. Each area will be studied on an individual basis to establish the context and determine the most appropriate applications.

- 2.3 Public Involvement. Any proposed treatment within a neighborhood shall include opportunities for public input. Any management strategy shall require a clear demonstration of support from area residents prior to installation.
- 2.4 Emergency Access. Reasonable emergency vehicle access within and through neighborhoods will be carefully considered in the evaluation of any traffic management applications. The public must be adequately informed of potential impacts to emergency responders that could be created with the implementation of certain types of traffic calming treatments. The fire department, police department and other emergency responders will be actively involved in the process and notified of all installations.
- 2.5 Equity. Traffic management applications shall be universally available to all City residents on publicly-maintained non-thoroughfare streets. Notwithstanding assessments related to any applicable street or utility improvements, traffic management application shall be provided at no cost to residents with the affected area. Residents may contribute to the costs of upgraded treatments where recommended by the program, however residents shall not be allowed to install their own treatments independently of the program.

3. Process

The following process shall be employed in addressing a traffic management concern within a neighborhood:

- 3.1 Program management. The Transportation Operations Division (TOD) of the Public Works Department shall manage the program and serve as the primary coordinator for traffic complaints regarding neighborhood streets. Assistance shall be provided by other departments of the City in addressing complaints received by TOD.
- 3.2 Validation of the problem. Upon receiving a complaint from the public or other City staff, NTMP staff shall investigate the extent of the problem to determine if additional action is warranted.
 - 3.2.1 Speeding problems – check street classification; collect speed and volume data.
 - 3.2.2 Accident problems – check street classification; collect speed, volume, and crash data.

- 3.2.3 Pedestrian conflicts – conduct field evaluation of infrastructure, pedestrian generators, and conflict points.
- 3.2.4 Multi-way stop requests – conduct field evaluation of sight distance; collect intersection approach volume, mid-block speed volume, and crash data.
- 3.2.5 Truck route conflicts – TOD will investigate and follow-up.
- 3.3 Speed limit reductions. If the street meets the criteria outlined in Section 4 of this policy, NTMP staff shall issue a petition for the signature of residents along the street to reduce the speed limit. Upon receipt of a valid petition of support from adjacent residents, NTMP staff shall initiate a consent agenda item for consideration by the City Council. Implementation of any approved speed limit reduction shall occur within seven days of the Council's approval.
- 3.4 Multiway stop requests. If the intersection meets the criteria outlined in Section 4 of this policy, NTMP staff shall initiate a consent agenda item for consideration by the City Council. Implementation of any approved multiway stop control shall occur within seven days of the Council's approval.
- 3.5 Traffic calming requests – Major Streets. If the street meets the criteria outlined in Section 4.3 and Section 5.1 of this policy, NTMP staff shall issue a petition for the signature of residents along the street to install traffic calming devices along the street. Projects meeting the minimum petition requirements and technical criteria for traffic calming treatments shall be prioritized for addition to the City's Traffic Calming Project Priority List. Projects at the top of the list shall be advanced for construction as follows:
 - 3.5.1 NTMP staff shall determine the influence area of potential traffic calming treatments and generate a mailing list for public involvement.
 - 3.5.2 NTMP staff shall coordinate with the Office of Transportation Planning (OTP) on identifying major projects.. Notification of the proposed major project shall also be provided to the Raleigh Fire Department (RFD), RPD, Capital Area Transit (CAT), and Design/Construction Division (DCD) staff.
 - 3.5.3 NTMP staff shall contact property owners and residents within the influence area by mail to arrange for a public workshop where OTP staff will assume responsibility for the management of the draft preliminary design.

- 3.5.4 OTP will refine the treatment plan based on public input and design criteria and will develop a draft preliminary design.
 - 3.5.5 OTP staff shall contact property owners along the project by mail to arrange for a second public workshop on the recommended draft preliminary design. Notification of the proposed treatments shall also be provided to RFD, RPD, CAT and DCD staff. Public comments on the draft preliminary design shall be received for up to 14 days after the workshop.
 - 3.5.6 OTP and DCD staff will review the public comments and make any necessary adjustments to the draft preliminary design
 - 3.5.7 OTP staff shall prepare a consent agenda item requesting a public hearing on the draft preliminary design. OTP staff shall provide graphics illustrating the proposed treatments for public review on major projects.
 - 3.5.8 OTP staff shall conduct field markings of the draft preliminary design at least two weeks prior to the public hearing.
 - 3.5.9 After completion of the public hearing and upon receiving authorization to proceed to final design, DCD staff shall assume responsibility for management and completion of the final design and construction phases of the major projects. NTMP staff will assist with public involvement as necessary.
- 3.6 Traffic calming requests – Minor Streets. If the street meets the criteria outlined in Section 4.3 and Section 5.2 of this policy, NTMP staff shall issue a petition for the signature of residents along the street to install traffic calming devices along the street. Projects meeting the minimum petition requirements and technical criteria for traffic calming treatments shall be prioritized for addition to the City's Traffic Calming Project Priority List. Projects at the top of the list shall be advanced for construction as follows:
- 3.6.1 NTMP staff shall determine the influence area of potential traffic calming treatments and generate a mailing list for public involvement.
 - 3.6.2 NTMP staff shall contact property owners and residents within the influence area by mail to arrange for a public workshop to familiarize the citizens with the traffic calming treatments available for their street. Citizens will then

interact with staff to determine the types and locations of treatments on their street.

- 3.6.3 NTMP staff will prepare a draft treatment plan based on information gathered at the workshop. The draft treatment plan will be distributed to the residents for review and comment. NTMP staff will conduct field markings of the treatments proposed in the draft treatment plan. Notification of the proposed treatments shall also be provided to RFD, RPD, CAT and the Street Maintenance Division (SMD). Public comment on the draft treatment plan shall be received for up to 14 days after the workshop.
- 3.6.4 NTMP staff will review the public comments and make any necessary adjustments to the treatment plan.
- 3.6.5 NTMP staff shall prepare a consent agenda item requesting a public hearing on the proposed treatment plan. NTMP staff shall provide graphics illustrating the proposed treatments for public review.
- 3.6.6 After completion of the public hearing and upon receiving authorization to proceed to final design, NTMP staff shall assume responsibility for project management while SMD staff will provide construction inspection for the projects.
- 3.7 Spot safety projects as defined in Section 5.3 shall be exempt from the petition requirements of this section but shall follow the same notification, coordination, and public hearing requirements of this section.
- 3.8 Additional considerations. When OTP staff identifies any possible deficiencies in existing signage or sight distance in conjunction with these evaluations, they shall coordinate with TOD staff to implement any changes

4. Criteria

For consideration of specific countermeasures, the following criteria shall be met:

- 4.1 Speed limit reduction (25 MPH)
 - 4.1.1 Only non-thoroughfare streets shall be considered for reduction under this program. Speed limit reductions on thoroughfare streets shall be addressed by TOD staff.

- 4.1.2 Speed limit reductions may be considered on commercial streets within Mixed Use Centers as described in the City's Urban Design Guidelines and Section 4.13 of the City's Streets, Sidewalks, & Driveway Access Handbook.
- 4.1.3 Speed limit reductions may be considered on any street in a residential area with volumes less than 4,000 vehicles per day.
- 4.1.4 A petition of support for the speed limit reduction by at least 75% of properties along the street shall be required. A property owner or adult resident of the property will be considered a valid signatory. Only one signature per property will be required.
- 4.1.5 In no case shall a posted speed of less than 25 MPH be considered.

4.2 Multiway Stop Control (3 and 4-Way Stops)

- 4.2.1 Evaluation of multiway stop control shall be conducted based on published criteria in the Manual of Uniform Traffic Control Devices (MUTCD).
- 4.2.2 Multiway stop control may be alternately be considered at locations not meeting MUTCD criteria where intersection sight distance and visibility are less than those contained in the City's adopted Intersection Visibility and Traffic Control Program.

4.3 Traffic Calming

- 4.3.1 Installation of traffic calming devices may be considered for streets which meet any one of the following criteria:
 - Two-way volumes exceed 600 vehicles per day
 - One-way volumes exceed 100 vehicles per hour
 - 85th Percentile speeds exceed the posted speed limit and there have been more than two speed-related accidents within a three-year period.
- 4.3.2 Streets with volumes in excess of 4,000 vehicles per day or designated as primary emergency response routes by RFD staff shall not be considered for treatment with Type II (vertical deflection) devices.

- 4.3.3 Streets segments considered for traffic calming applications shall be less than one mile in length. Streets exceeding this requirement may be considered for partial treatment or may be split into multiple segments. Streets less than 1,000 feet in length shall not be considered for treatment unless two or more of the criteria of Section 4.3.1 are met. In no case shall a street less than 500 feet in length receive traffic calming applications.
- 4.3.4 Once the necessary data has been collected and the quantitative evaluation of the street has been completed, streets scoring more than 30 points in the evaluation shall be advanced for the petition process (Evaluation criteria is included in Appendix B)
- 4.3.5 Residents on streets failing to meet the minimum scoring criteria may request a re-evaluation after six months. No more than three evaluations shall be done on a street or street segment within a two-year window.
- 4.3.6 If a street meets the above criteria, a petition of support for traffic calming shall be required prior to further evaluation of specific traffic calming treatments. Petitions shall meet the criteria set forth in Section 6.
- 4.3.7 If a street proposed for traffic calming treatment as a major project has curb and gutter but no sidewalk in place, the petition for treatment shall include a request for sidewalk construction as part of the project.
- 4.3.8 If additional study of a proposed treatment requires additional traffic calming treatments on streets not originally included in the petition (i.e., side streets, parallel streets), then additional petitions shall be developed for each street proposed for treatment. These additional petitions shall not impede the progress of the principal project.
- 4.3.9 Staff may consider alternate treatments in lieu of installing or in conjunction with traffic calming treatments, such as speed limit reductions, pavement marking, bicycle accommodations, and pedestrian accommodations (crosswalks, median refuges). Staff may also recommend against installing traffic calming treatments if additional capital projects or improvements are planned for an area that may influence traffic patterns.

5. Traffic Calming Strategies

The following strategies shall be employed in addressing a neighborhood's traffic management needs.

- 5.1 Major projects: for curb and gutter streets wider than 31 feet from back-to-back of curbs, or for streets carrying more than 4,000 vehicles per day, comprehensive treatments shall be evaluated along the entire portion of the project.
- 5.2 Minor projects: for non-curb and gutter streets, or for curb and gutter streets 31 feet or less in width from back-to-back of curbs, design and placement of Type II devices may be considered exclusively. NTMP staff may also evaluate changes in on-street parking patterns in cooperation with the Parking Management Division.
- 5.3 Spot safety projects: for intersections with a demonstrated accident history (more than five accidents in a 12 month period) or a high demonstrated pedestrian demand (more than 100 pedestrians per hour) may be considered for spot treatment with traffic calming devices. Spot safety projects meeting these criteria shall be exempt from any petition of support requirements.

6. Petitions

The following guidelines shall be used to develop and evaluate petitions associated with these measures:

- 6.1 NTMP staff shall follow standard Public Works Department petition evaluation criteria for any petitions of support required for an application.
- 6.2 A petition of support for the installation of traffic calming measures shall require agreement of at least 75% of properties along each individual street proposed to receive traffic calming measures. Either a property owner or an adult resident living at the property will be considered a valid signatory. Only one signature per property will be considered.
- 6.3 A signatory will have up to two weeks after a petition has been submitted to NTMP staff to request that their name be removed from the petition.
- 6.4 Receipt of a successful petition shall be required prior to evaluating the street for specific traffic calming treatments.

- 6.5 Petitions shall include information regarding possible impeded emergency response times that may be associated with the installation of traffic calming devices.
- 6.6 Petitions must be received within 60 calendar days after issuance by NTMP staff. Unsuccessful speed reduction petitions may be restarted no sooner than six months after the original date of issuance. No more than three speed reduction petitions on a single project shall be considered within a two-year window.

7. Reporting

NTMP staff shall provide annual reports by fiscal year addressing the following:

- The number of evaluations conducted in each category by quarter.
- The current ranking of projects in each category.
- The number of traffic calming projects initiated and completed.
- Performance data for each completed project.

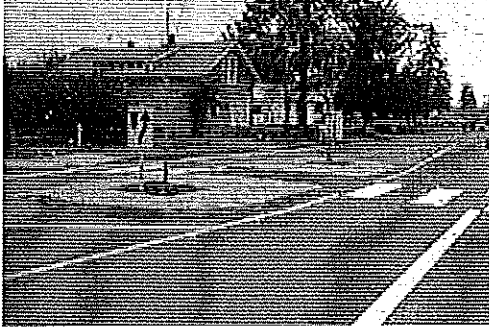
8. Maintenance

The Public Works Department shall be responsible for the maintenance of all paved surfaces, curbs, and signage associated with these treatments. For any landscaping associated with a traffic calming treatment, a maintenance agreement shall be negotiated with the local homeowners association (HOA). If no legal neighborhood HOA exists, Parks & Recreation Department staff shall be responsible for any landscaping maintenance as specified in Standard Operating Procedure 700-11.

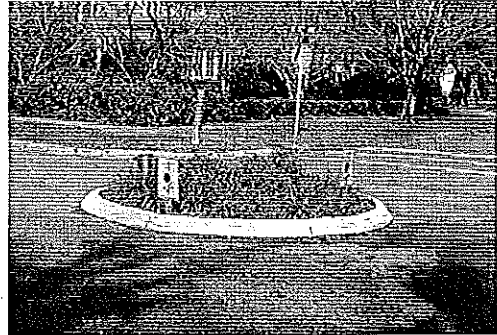
Appendix A – Traffic Calming Treatments

Type I – Horizontal Deflection

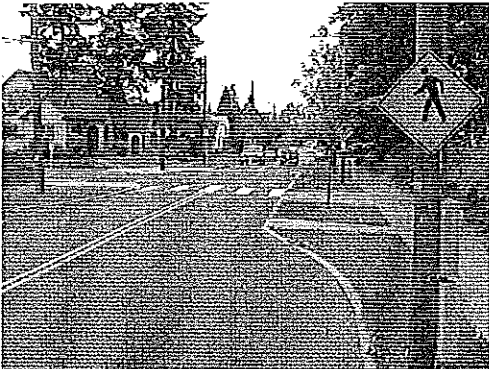
Medians



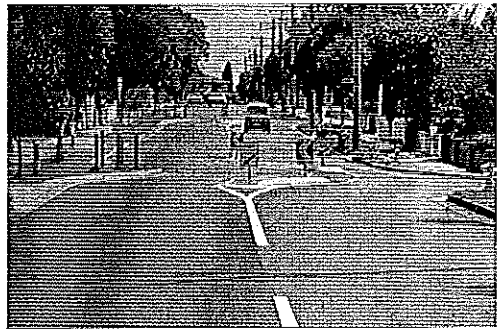
Mini-roundabouts



Bulb-outs/curb extensions



Channelized Intersection



Chicanes

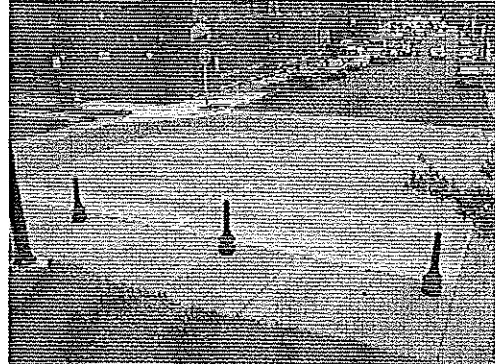


Type II – Vertical Deflection

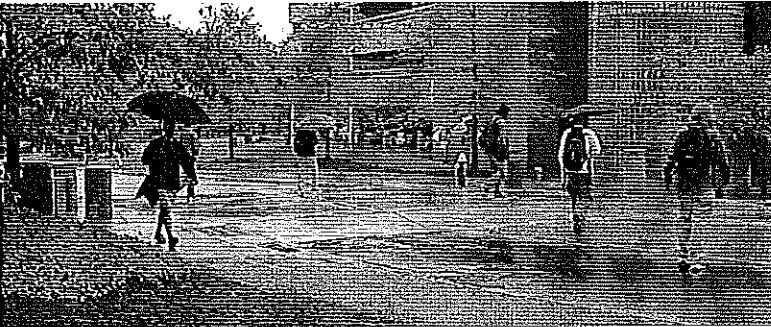
Speed humps



Raised intersections

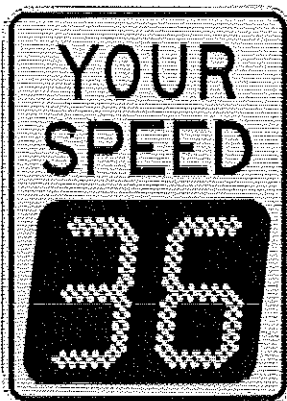


Speed tables/raised crosswalks



Type III – Monitoring Devices

Variable speed monitoring signs



Appendix B – Traffic Calming Scoring Criteria

CRITERIA	BASIS FOR POINT ASSIGNMENT
Speed	0 to 50 points: 5 points assigned for every 1 mph of the 85th percentile speed that exceeds 35 mph (example: 38 mph = 15 points)
Pedestrian Activity	0 to 20 points: 5 points assigned for each school, church, bus stop, bike route, public park, greenway, community center, senior center, senior living facility or shopping center that is likely to generate a significant number of pedestrians crossing the traffic calmed street.
Crash History	0 to 10 points: 2 points for every reported crash occurring on the project segment during the last 3 years of a type that is deemed correctible by traffic calming measures.
Volume	0 to 10 points: 1 point assigned for every 1,000 vehicles per day
Other Factors	0 to 10 points: 5 points assigned for each road condition (such as sight distance problems) that can be improved with traffic calming measures.
TOTAL POINTS	100 Points Maximum Score

Appendix C – Critical Path for Major Traffic Calming Projects

1. Petition of Support from area residents submitted to NTMP Staff
2. NTMP staff will host a Public Workshop to familiarize citizens with traffic calming strategies, to identify problem areas and introduce OTP staff who will assume responsibility for the project and develop a treatment plan.
3. Preliminary Design initiated, with general identification of potential treatments and possible installation locations
4. A second Public Workshop is held to review the draft preliminary design with residents.
5. Draft preliminary design is Premarked in area
6. Public Hearing held to authorize final design
7. Final Design initiated
 - a. Field survey data compiled and CADD drawings developed
 - b. Landscaping plans developed
8. Projects made available for Public Bid

Appendix D – Critical Path for Minor Traffic Calming Projects

1. Petition of Support from area residents submitted to NTMP Staff
2. Preliminary Design initiated with general identification of potential treatments and possible installation locations
3. Public Workshop held to seek public input on proposed treatment plan
4. Public Hearing held to authorize project
5. Projects made available for Public Bid.