

# City of Rocky Mount Residential Traffic Management Policy



## **PURPOSE**

To set forth the policy of the City with respect to addressing concerns regarding speeding, cut-through traffic, and neighborhood traffic safety on city maintained residential streets.

## **POLICY STATEMENT**

As the City's mission is to advance community well-being, safety, and quality of life for its citizens, and in keeping with the objectives and strategies outlined with the City's Comprehensive Plan – Together Tomorrow, the City is committed to taking those steps necessary to establish a formal program that promotes traffic safety along city maintained residential streets. To this end, a formal residential traffic management program is needed to respond to requests from citizens concerning speeding and cut-through traffic in residential areas and to define what measures are deemed appropriate to mitigate such behavior and how they are to be implemented. While the program will seek to address neighborhood concerns regarding traffic safety, the program will also seek to balance the need to provide a traffic calming solution versus the need to facilitate and provide for the emergency response needs of a given area.

## **BACKGROUND**

Inquiries from residents concerned about traffic volumes and speeding in and around their neighborhoods has become more and more prevalent. In general, the residents perceive speeding motorists as a threat to their safety and that of their family. There is also a feeling that this behavior detracts from the quality of life in their neighborhood. While these concerns are not atypical, the requests for additional enforcement, reduced speed limits, stop signs, and even speed bumps have become more frequent.

With this in mind, the Traffic Division has developed a proposal for a Citywide Residential Traffic Management (RTM) Program. This program would seek to define a process in which to resolve local traffic related concerns on city maintained residential streets. As there are both city maintained and state maintained streets within the city limits, all inquiries related to state maintained roadways will be referred to the NCDOT Division 4 Office. For those locations that involve city maintained residential streets, this program would outline a set of measures to address common neighborhood traffic concerns such as cut through traffic and speeding. These measures would include a mix of traditional practices (signing and enforcement), as well as, the use of new techniques such as a Neighborhood Speed Awareness Campaign, a 25 MPH Neighborhood Speed Limit Program, the use of pavement markings (to narrow lane widths), and other traffic calming measures. Ideally, residential traffic related problems would be

resolved by using these measures incrementally. As a result, the program would make use of the least costly and least invasive measure to resolve a given problem.

While any such program would require a commitment of time and resources by the City, the support and participation of the neighborhoods seeking assistance will also be crucial. More often than not, the source of the problem comes from within the neighborhood. While we can rely on enforcement efforts or physical measures to increase compliance, the neighborhoods ability to “self-police” a problem location will be paramount to the long term success of a RTM program.

### **GOALS AND GUIDELINES**

While the program includes a variety of techniques to address residential traffic related issues, the program will also emphasize public awareness, citizen involvement, and driver education. The program’s goal is to implement the least obtrusive alternative(s), which in addition to addressing concerns regarding speeding or traffic volumes, would include insuring that residential streets deliver the appropriate level of access, safety, and convenience for all travel modes. In general, the program would promote an incremental approach to addressing a RTM complaint. To this end, physical deterrents will only be used as a last resort.

Although the program relies on a systematic approach that involves input and feedback from the residents in the subject neighborhood to evaluate residential traffic related concerns, if accident data or field review suggests immediate action is required, the City reserves the right to take appropriate action without following the sequence of events outlined as part of this program. In the event the City identifies the need to take immediate action without consulting the neighborhood, no financial participation from the residents will be required.

### **PROCESS**

To initiate a study in conjunction with the City’s RTM Program, a resident (or representative from a homeowners association or neighborhood group) will need to submit a RTM Request Form to the City of Rocky Mount Engineering Department. This form can be obtained by contacting the Engineering Department at 972-1121 or by visiting the Engineering Department’s webpage on the City of Rocky Mount’s website ([www.ci-rocky-mount.nc.us](http://www.ci-rocky-mount.nc.us)). This form, included as Attachment A, will ask for basic information that can be used to define the nature of the problem and the location of interest. Should any additional information be required, the form will also provide the Engineering Department with an initial point of contact.

The first step in the evaluation involves a preliminary review of the request. This review would consist of evaluating the accident history along the subject street,

consulting with the RMPD Traffic Safety Unit, and a preliminary field review. In the event a preliminary review by the Engineering Department suggests that 'traffic calming' would be appropriate to address the concerns identified on the RTM Request Form, one of two things will happen. If the street in question is maintained by the North Carolina Department of Transportation, a formal request will be forwarded to the NCDOT Division 4 Office. This request will be accompanied by a summary of the accident experience at the location of interest, as well as, any pertinent information resulting from the City's preliminary review of the request. For those requests that involve city maintained streets, the individual that submitted the request will be contacted and provided a copy of this policy and the neighborhood petition form, included as Attachment B.

The neighborhood petition form is intended to insure that there is at least some basic level of support for 'traffic calming' in the area. This petition requires at least 5 separate property owners to sign the petition supporting the request for a study. The Neighborhood Homeowner's Association should also support the petition, should an association exist in the area of interest. Of those residents signing the petition, at least 3 of the 5 residents should agree to serve on a Neighborhood RTM Coordinating Team. If a Homeowner's Association exist, at least one representative on the coordinating team should be a member of the Homeowner's Association. This team should also include a chairperson, preferably the individual that initially contacted the City. This team will be responsible for coordinating with the City and the dissemination/collection of information within the study area.

After the petition has been completed and returned to the City, a meeting with the coordinating team will be scheduled to review the request and to preliminarily establish the study area. The intent of defining the study area is to make sure that a traffic calming plan is developed for the entire neighborhood, versus relocating the problem from one street to another. Depending on the extent of the study area, it may also be necessary to include an additional representative(s) on the coordinating team to account for the size of the study area. Once identified, the coordinating team will be responsible for contacting the residents within the study area to solicit their input regarding traffic related concerns. This may include a telephone survey, a door to door survey, a mail-in survey, or a group email. A sample survey is provided as Attachment C. The coordinating team will then be responsible for compiling the responses, condensing the information to determine the shared traffic related concerns within the study area, and relaying this information to the City.

Once this information is forwarded to the City, a data collection plan will be prepared. Once all of the necessary data is collected and reduced, a meeting with the coordinating team will be scheduled to review the results of the data

collection effort. In the event that the study confirms the presence of speeding or “cut-through” traffic, one or more Phase 1 alternatives will be identified. After working with the coordinating team to identify a preferred course of action, the team will be responsible for coordinating with the residents in the study area. In the event the measure requires a petition to be circulated, the coordinating team will be responsible for obtain the signatures required (the actual number of signatures will depend on the study area and the strategy selected). Once the petition is returned with the required number of signatures (and approvals) and any other criteria associated with the alternative satisfied, the City will proceed with installation. A follow up study will be conducted in approximately 3 months to evaluate the impact of the measure on speeds and traffic volumes. In the event the follow up study indicates that additional action is warranted, the coordinating team will be contacted regarding whether to proceed with Phase 2. In the event a Phase 2 alternative were to be implemented and a follow up study were to suggest even further action is warranted, a decision would be in conjunction with the team on how best to proceed.

A flowchart outlining the process for initiating a RTM request is provided in Figure 1.

## **MEASURES**

For the purposes of this program, the measures available will generally fall into one of two categories. While some may serve dual uses, the measures described below are typically used in response to travel speed or traffic volume concerns.

### **Speed Control Measures**

Speed control measures are utilized with the intent of reducing operating speeds to a level deemed compatible with the characteristics of the subject roadway and the adjacent land use(s). Roadways that are narrow, have limited sight distance, are curvilinear in nature, or have numerous street intersections will tend to require lower operating speeds. Streets in the vicinity of schools, parks, and other similar type land uses will also tend to be more restrictive in terms of travel speed. When the existing speeds along a roadway exceeds that deemed appropriate for the facility, the following measures may be utilized.

#### **1. Installation of 35 MPH Speed Limit Signs**

In terms of speed control measures, the addition of signage where the existing speed limit is not posted is likely the least expensive treatment at a given location. In general, this alternative should be one of, if not the first alternative implemented when attempting to reduce travel speeds. The installation of 35 MPH speed limit signs should pre-date, or at least coincide with, the use of any other speed control alternative (spot enforcement, speed trailer, NSAC, striping, or rumble strips). To avoid the proliferation of signage, however, it is

recommended that a neighborhood petition (minimum 50% approval within city defined study area) be provided requesting the installation of these signs. In addition to this requirement, it is recommended that the use of 35 MPH signs only be installed at those locations where the 85<sup>th</sup> percentile speed exceeds 40 MPH.

## 2. Neighborhood Speed Awareness Campaign (NSAC)

In general, the goal of a NSAC is to engage the residents in efforts to reduce travel speeds. While speed limit signs and other warning signs, are commonly requested by residents to address speeding concerns, signing alone can not change driver behavior. The use of this program also recognizes that the residents are the primary roadway users in the area. Without soliciting the input and support from the local motorists, the ability to alter the driving habits of a majority of the "users" is limited. The program also relies on the ability of the residents to help "encourage" their neighbors to comply with the posted speed limit. This is accomplished by:

- establishing an educational program to increase awareness of the speeding problem (word of mouth, yard signs, data collection teams, etc.)
- "peer" pressure
- coordinating with police department regarding additional enforcement

If the NSAC is to be successful, the neighborhood and the City of Rocky Mount (Traffic Engineering, RMPD Traffic Unit) will need to work together as a team. Although each group will have a different role in addressing the speeding problem, the participation of all 3 groups will be necessary to achieve any real long-term change in driver behavior. From the neighborhood's perspective, the residents are better equipped to monitor travel speeds on an ongoing basis, promote the program within their neighborhood, and exert positive "peer pressure" to modify driver behavior. To support these efforts, the City can provide the educational materials and flyers to disseminate within the neighborhood, furnish speed monitoring equipment (radar trailer, radar gun) for the neighborhood to use, and provide forms and other resources required to support the neighborhoods efforts.

After completing the initial steps required to initiate an evaluation of travel speeds in the area and determining that the use of a NSAC program would be appropriate, the City and the petitioner would work together to organize a group of volunteers from the study area to coordinate the neighborhoods effort's. Once identified, a meeting would be set up to discuss the program and the role of the volunteers in the process. In general, this would include:

- Establishing a neighborhood speed watch area (possibly coordinated with a Community Watch Program already established or as a separate program through RMPD)

- Developing a campaign to publicize the existence of the problem, the extent of the problem based on the data collected by the City, the impact speeding has on the neighborhood, statistics regarding accidents on residential streets, etc.
- Organizing a neighborhood data collection team to monitor travel speeds in the area. This can either be accomplished through the use of the speed trailer or by loaning the residents a radar gun.
- Using the above information to identify the day of week and time of day when spot enforcement by RMPD would likely be the most effective.

If the speeding problem persists, the City and the neighborhood volunteers would evaluate what other RTM tool may be appropriate to reduce travel speeds in the area. Alternatives include reducing the speed limit to 25 MPH (if applicable), providing additional enforcement, evaluating the use of pavement markings, or pursuing some other traffic calming measure.

### 3. Residential 25 MPH Speed Limit Program

In general, this alternative would be limited to those streets where the 85<sup>th</sup> percentile speed exceeds the speed limit by less than 7 MPH. Although the use of this criteria may not be immediately apparent, if the operating speeds are in excess of 42 MPH, compliance with a posted speed limit of 25 MPH would be unlikely. The alternative is also generally **limited to use on city maintained local residential streets**. The determination of street classification will be determined by referencing the City of Rocky Mount Street Classification Map.

In terms of the application of this alternative, the City will identify the “impact area” for the proposed speed limit change and relay this information to the petitioner(s). A form, to be provided by the City, will then be used to collect the signatures necessary to reduce the speed limit for the area in question. A 75% approval rate will be required to implement the speed limit reduction.

### 4. Longitudinal Pavement Markings

In some cases, the width of the streets makes it difficult to get drivers to obey a 35 MPH speed limit. With this in mind, a low cost measure that can be used to narrow the travelway without introducing some type of physical device involves the use of edgelines. In terms of its application, white edgelines would be utilized to narrow the widths to 9 to 10 feet (travelway of 18 to 20 feet). This measure can also be accompanied by the use of rumble strips between the edgeline and the edge of pavement to encourage motorists to remain within the narrowed section versus straying across the edgeline.

Due to the low cost associated with this alternative, it is also possible to consider this measure in conjunction with other measures to reduce travel speeds.

## 5. Rumble Strips

Rumble strips offer yet another low cost alternative that can be used to reduce the 85<sup>th</sup> percentile speed. Although the use of this alternative requires the placement of buttons or raised pavement markings in the roadway, the ability of this alternative to reduce travel speeds is a result of the motorist's reaction to the "discomfort" that results when traversing this measure. In addition to the vibration that results at speeds of 30 MPH and higher, rumble strips provide an audible indicator of a vehicles speed. In addition to helping cue to the driver to the need to reduce his/her speed, the rumble also helps to alert pedestrians, bicyclists, and others to the presence of a speeding vehicle. As a result, if the driver is not inclined to reduce his/her travel speed based on the "rumble" that results, the attention of the residents (particularly if the driver lives within the neighborhood) may help to deter such behavior.

Rumble strips would probably not be considered appropriate where the resulting noise would be a concern, or where the observed speed is in excess of 42 MPH. Due to the low cost associated with this alternative, however, it may be considered in conjunction with other measures to reduce travel speeds.

## **Volume Control Measures**

Volume control measures are implemented with the intent of reducing "non-local" or "cut-through" traffic volumes. In general, cut-through traffic would be defined as those vehicles that use a facility with a lower functional classification to travel between two facilities with a higher functional classification. As this behavior is typically a function of a motorists desire to reduce travel time and/or avoid delays, speeding will also tend to accompany a cut-through traffic problem.

Recognizing that local residential streets are not intended to accommodate through traffic, particularly that with an origin and destination on higher functional class facilities, volume control measures are geared towards inconveniencing these motorists. When "non-local" or "cut-through" traffic is identified as the problem, the following measures are available.

### 1. Residential 25 MPH Speed Limit Program

In addition to addressing a speeding problem, implementation of a 25 MPH speed limit may also be used to discourage cut through traffic. By reducing the travel speed, motorists would have less incentive to use a residential street to reduce travel time.

As with the application of this alternative to address speeding, this alternative would be limited to those local residential streets where the 85<sup>th</sup> percentile speed exceeds the speed limit by less than 7 MPH. A petition with a 75% approval rating would also be required to implement the reduction.

## 2. Four-Way Stop

In terms of residential traffic management, the use of a four-way (or multi-way) stop controlled intersection is one possible alternative to address a cut through traffic problem. The ability of this alternative to deter cut through traffic is a function of the additional inconvenience ( or delay) that results at a four-way stop controlled intersection. By introducing this additional delay, the motorist is dissuaded from using the local street system due to the reduction in the perceived time savings.

In terms of the installation of a four-way stop, the minimum requirements include:

- average daily traffic volume greater than 500 vehicles per day.
- minimum street length of 750 feet.
- the volume of the minor street should be at least 40% of the major street volume.
- subject intersection should include 4 approaches; no "T-intersections".
- the through street should have a posted speed limit of 25 MPH.
- unanimous approval of residents at subject intersection.
- minimum of 50% approval within 1000 feet of subject intersection.
- the proximity of the intersection of interest to an adjacent 4-way STOP controlled intersection (or stop sign along the primary street) should exceed 750 feet.

In addition to these requirements, it is important to note that the use of four-way stop control at an intersection may require the use of overhead flasher or post top mounted flashers. The need for such a device would be a function of the available sight distance and/or driver expectancy issues. Should the use of a flasher be required, staff will advise the applicant prior to circulation of the petition for signatures.

### **FUNDING**

Funding for the measures included in the City's Residential Traffic Management Program will include a combination of SafeLight proceeds and Powell Bill monies. SafeLight proceeds represent those funds which remain after covering the cost of operating and administering the City's red light photo-enforcement program. Powell Bill monies include those funds provided to municipalities through the State Aid Allocation of funds resulting from motor fuel tax collections within North Carolina. These funds are intended to be used by the cities for maintaining, repairing, constructing, or widening city maintained streets.

While the City will fund the cost of implementing those measures associated the Residential Traffic Management Program, it is likely that these funds will be limited. As a result, projects will be evaluated and ranked based on set of criteria ranging from travel speeds to number of dwellings (in units per mile)



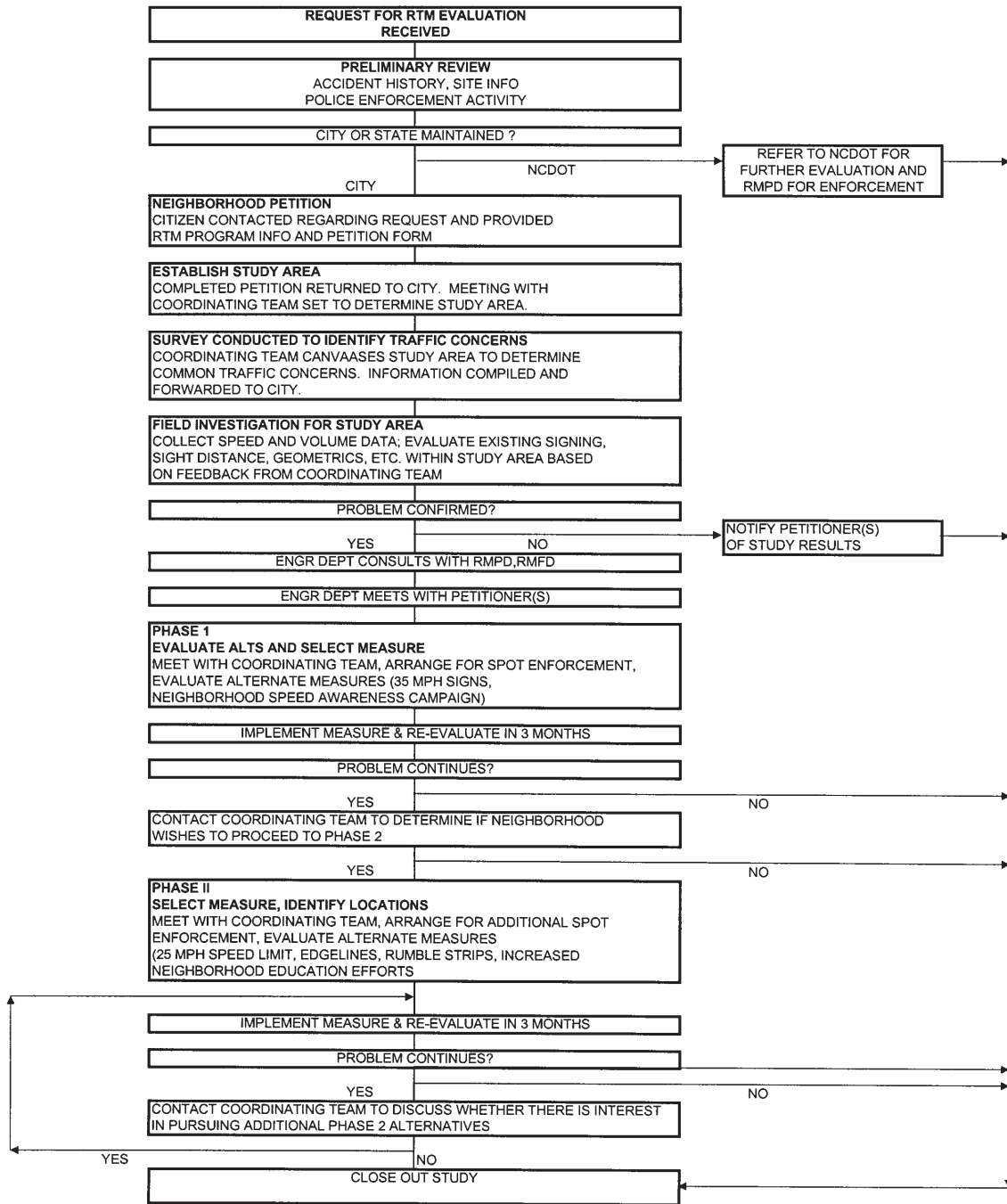
along the street in question. These ratings will, in turn, determine in what order the projects will be constructed.

**RATING**

In order to rate the locations where the need for traffic calming measures have been identified, the City will utilize the rating chart below. This rating will be used to determine in what order the projects are funded and ultimately constructed.

| <b>Criteria</b>       | <b>Point Value</b> | <b>Method of Assigning Points</b>  |
|-----------------------|--------------------|--|
| Speed                 | 0 to 40            | 4 points for every mph above 5 mph over the speed limit  |
| Volume                | 0 to 15            | 1 point for every 100 vehicles per day   |
| Accident Experience   | 0 to 10            | 1 point for every 0.25 documented accidents per mile per year (3 yr average)   |
| Pedestrian Activity   | 0 to 10            | 4 points for each elementary or middle school; 2 points for other schools, bus routes, community center; and 2 points for the presence of retail, commercial, or institutional uses (including churches) within 500 feet of the project area |
| Roadway Geometrics    | 0 to 13            | Points will be assigned based on an assessment of the roadway geometrics and operational characteristics within the project area. Factors include horizontal and vertical alignment, driveway spacing, street width, sight distance, etc.    |
| Dwelling Unit Density | 0 to 7             | 1 point for every 25 dwelling units per mile   |
| Presence of Sidewalks | 0 to 5             | 5 points is there is no continuous sidewalk on at least one side of the street.  |
| <b>Total Points</b>   | <b>100</b>         |  |

**FIGURE 1 - NEIGHBORHOOD TRAFFIC MANAGEMENT PROGRAM**



**City of Rocky Mount  
Residential Traffic Management Program**



**Request for RTM Evaluation**

I, \_\_\_\_\_, a resident at \_\_\_\_\_  
(street name)

request that the City of Rocky Mount conduct a preliminary evaluation of traffic safety issues with my neighborhood and assess whether the City's Residential Traffic Management Program would be an appropriate mechanism to deal with my concerns, which include:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_ Daytime Phone Number: \_\_\_\_\_

**For Office Use Only**

Date Received: \_\_\_\_\_

Preliminary Assessment Completed: \_\_\_\_\_

RTM Program Appropriate : YES / NO

Resident Notified & Info Packet Sent (if applicable): \_\_\_\_\_

# City of Rocky Mount Residential Traffic Management Program



## Neighborhood RTM Petition

We, the undersigned property owners along \_\_\_\_\_ from  
(street name)  
 \_\_\_\_\_ to \_\_\_\_\_ request  
(beginning point) (end point)  
 the City of Rocky Mount initiate a study of our neighborhood as it relates to traffic safety,  
 in accordance with city policy, based on the following concerns:

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Contact Person : \_\_\_\_\_  
 Address : \_\_\_\_\_ Phone Number: \_\_\_\_\_

| Address | Print Name | Coordinating Team Member? |
|---------|------------|---------------------------|
|         |            |                           |
|         |            |                           |
|         |            |                           |
|         |            |                           |
|         |            |                           |

Homeowners Association & Contact Information (if applicable) :  
 Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

**For Office Use Only**

|                                     |                    |         |         |  |
|-------------------------------------|--------------------|---------|---------|--|
| Date Received: _____                |                    |         |         |  |
| Referred for Data Collection: _____ | Meeting Held:      | Phase 1 | Phase 2 |  |
| Data Collection Completed: _____    | Measures Selected: |         |         |  |
|                                     | Design Completed:  |         |         |  |

Dear Resident,

The (Street / Neighborhood) Residential Traffic Management Coordinating Committee would like your input regarding the traffic concerns in the (Block #) of (Street). Please complete the questions below and return the post card to (Name and Address of Committee Chairperson) by (Date).

(Please circle all that apply)

1. In your opinion, is the concern one of:
  - a. Speeding
  - b. Traffic Volume
  - c. Pollution (Air, Noise, Vibration)
  - d. Other \_\_\_\_\_
  - e. There is no problem
2. If the problem is speeding, who is speeding?
  - a. Neighborhood traffic
  - b. Cut through traffic
  - c. Speeding is not the issue
3. If the problem is related to volume, what is causing the additional demand?
  - a. Neighborhood traffic
  - b. Cut through traffic
  - c. Volume
4. Is there a specific location, or locations, within the neighborhood where you believe we should focus our attention?

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5. Are there any other traffic related concerns which you feel should be investigated:

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