

## Part 2: RESIDENTIAL TRAFFIC MANAGEMENT PLAN

### **“Guiding principles” promoted by establishing a defined process for evaluating citizen requests for residential traffic calming measures:**

1. Assure Council and citizens that requests are given even-handed, fair review; promote uniformity and predictability in outcome.
2. Provide Council and citizens with adopted criteria and justifications for evaluating requests, promoting confidence in the fairness of the process and decision-making.
3. Convene an advisory committee with the experience and background to assure recommendations are based upon appropriate factors.

### **Summary of recommendations.** The Task Force recommends a residential traffic management program consisting of the following elements:

1. Town Council adoption of an integrated program which sets criteria for evaluating requests and designates the staffing process and personnel.
2. Continued use of town staff to receive, investigate and attempt to resolve requests and complaints regarding residential traffic, using the criteria and following the process adopted by the Town Council.
3. Formation of a standing committee of town staff and interested citizens, with access to additional personnel and resources as needed, to act in an appellate capacity with regard to requests staff are unable to resolve and to help select and design traffic calming measures for qualifying projects.

**Sources: eligibility criteria, implementation procedures.** The Task Force recommends adoption of procedures and criteria for implementing the various traffic calming measures discussed below that closely adhere to those used by VDOT, modified to suit the circumstances of the Town where we determined that VDOT criteria were too restrictive or otherwise missed the point. The particular process recommended for evaluating speeding complaints or traffic calming requests is derived from a program developed by Virginia Beach, tailored to fit the model we recommend for the Town. Although we have no reason to believe that either the VDOT or Virginia Beach models offer perfect approaches to solving Leesburg’s residential traffic management problems, both have stood limited tests of time, which could not be said of any program developed from the ground up by the Task Force.

While the Task Force recommends the creation of the committee in order to bring a wide perspective and expertise to determining residential traffic management requests, we have set up implementation procedures which bring the committee into the decision-making process at varying phases and which depend upon Town staff to take requests through various evaluation and implementation steps which do not require committee

input, allowing for possible resolution of the identified problems without invoking the committee's jurisdiction.

We anticipate that as these procedures are implemented and evaluated over time, the Town Council may wish to fine-tune them.

**Composition of advisory committee.** The Task Force recommends that requests involving residential traffic management be processed under the procedure we set out below. When physical traffic calming devices are warranted under this program, the advisory committee will be convened for evaluation, review and recommendation to the Town Council. The committee shall also evaluate and make recommendations to the Council regarding requests that cannot be resolved by town staff to the satisfaction of the complainants.

a. *Standing Committee membership:* Town traffic engineers (adopted engineering, DCSM standards; 'warrants'; tolerance limits of any deviations from standard engineering norms); Town planner (familiarity with applicable comprehensive plan policies, goals; long range plans affecting the requesting neighborhood); police, fire & rescue (impact on emergency services); citizen representatives from all four quadrants of town; Council and Planning Commission liaison representatives.

b. *Expanded membership:* Additional members could be added by the Council when appropriate, depending on circumstances: e.g., public school transportation; parks & recreation; public transportation provider. Short of formal appointment, town staff can develop a list of referral resources available to assist the committee, as appropriate.

### **Committee jurisdiction.**

*Requests to be referred to for evaluation:* If efforts to control speeding or cut-through traffic by town staff following the traffic calming steps in this article do not succeed in meeting program objectives, the problem street will be referred to the advisory committee for consideration of physical traffic calming devices.

*Determination of citizen support:* Unless a citizen request is accompanied by some indication that it is widely supported by the neighborhood which would be affected, e.g., signed petitions, the committee will seek to determine how widely the perception of the identified problem is shared and what measures the neighborhoods most directly affected would support. When the solutions involve the diversion of traffic to other residential neighborhoods, the impact on such neighborhoods would also be assessed.

*Committee action; role of Council:* The committee will evaluate requests using criteria approved by the Council and forward recommendations for Council approval. The timing and funding of any project will continue to be set by the Council, although the committee may make recommendations regarding suggested priorities among residential traffic management projects.

**Eligibility criteria.** The Task Force recommends the following eligibility criteria identify streets that will qualify for consideration of traffic management measures under the five programs described below<sup>1</sup>:

- (i) That the affected streets lie in a residence district as defined by Va. Code sec. 46.2-100;
- (ii) That they be classified as local streets or collectors, including through collectors;
- (iii) That they provide direct access to residential properties;
- (iv) That the speed limit be no greater than 25 mph; and
- (v) That the neighborhood not be identified in the Town Plan as appropriate for non-residential development or redevelopment.

## **PROGRAM I. TRAFFIC CALMING<sup>2</sup>**

**Definition.** Traffic calming is defined as “the combination of physical and non-physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users.” Traffic calming measures are tools which attempt to slow traffic within residential communities with minimal or no restriction to access.

**Purpose.** The purpose of traffic calming is to address speeding conditions in residential neighborhoods.

### **Goals:**

1. Increase the Quality of Life.
2. Help reduce the negative effects of motor vehicles on the environment.

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<sup>1</sup> Note that eligibility requirements for the existing cut-through truck restriction program, by identifying potentially eligible streets simply as local or collector streets, without more, allows consideration of restrictions in neighborhoods that would not qualify for any other program, including non-residential streets in the old and historic district. The Task recommends that the Town Council adopt a single eligibility standard for qualifying streets for further consideration under the Leesburg Residential Traffic Management Program, in order to ease administration burdens. The existing truck restriction policy addresses problems presented by inappropriate truck traffic anywhere in town it occurs and would continue in effect as a program for streets which do not qualify under the residential program.

<sup>2</sup> Requests for imposition of the \$200 add-on penalty authorized by *Va. Code* section 46.2-878.2 are subsumed into the recommended traffic calming program.

## **Objectives:**

1. Achieve slower speeds for motor vehicles.
2. Reduce collision frequency and severity.
3. Increase safety and perception of safety for non-motorized users of the transportation network.
4. Reduce the need for police enforcement.
5. Enhance the street environment and quality of life in residential neighborhoods.

## **ELIGIBILITY REQUIREMENTS**

**Eligible streets.** The streets must be eligible for consideration under the adopted eligibility criteria.

**Documented speeding problems.** The average speed is 31 m.p.h. or greater, or other attributes of the neighborhood present safety problems even at lower speeds. For example, extreme steepness, sharp curves, narrow width, singly or in combination, which reduce sight distance for drivers or others in the vicinity.

**Initiation.** The Traffic Calming Program will be initiated upon complaint of speeding in a residential neighborhood, request for \$200 add-on penalties for speeding in a neighborhood, or when traffic calming measures are requested by one or more residents of a neighborhood or evaluation of the neighborhood for installation of such measures is requested by the Town Council.

**Program phases.** The program will consist of sequential phases:

1. Document speeding problem.
2. Community awareness and education.
3. Selective enforcement.
4. Non-physical devices (increased fines).
5. Physical devices.

**Program evaluation.** Each phase of the program will be evaluated for effectiveness. Evaluation will consist of a traffic study of the selected street. A baseline evaluation will be performed prior to implementing the program. The baseline study will document the traffic problem and establish benchmarks for evaluating program effectiveness. Follow-up studies will evaluate the success of each initiated phase.

## **TRAFFIC CALMING PROGRAM PHASES**

A flow chart outlining the traffic calming process is provided in a chart in Appendix E.

**Document speeding problem.** All speeding problems and complaints are referred to the Leesburg Police Department for investigation and enforcement in accordance with

their traffic complaint management program. (See chart in *Appendix E*.) If the speeding complaints continue, the Police Department will refer the complaint to representatives of the Public Works Department.

**Community awareness and education.** Representatives of the Town's Public Works Department will meet with neighborhood representatives to present and discuss the traffic calming program. The street and location for evaluation are selected.

**Baseline evaluation.** Public Works performs an appropriate speed study on the selected study area. If the study reveals the average speed to be 31 m.p.h. or greater or identifies other conditions that reduce public safety, the project moves to the next phase. When the Public Works evaluation confirms unsafe conditions in the absence of documented speeding, proposals for traffic calming will be evaluated without further speed studies.

**Selective enforcement.** Public Works refers the street to the Police Department for scheduling selective enforcement during the highest violation period. Selective enforcement will be conducted weekly for an eight week cycle. If a traffic study at the conclusion of the cycle reveals average speed to be 31 m.p.h. or greater, the project will move to the next phase. Follow-up study after 30 days will determine whether initial speeds remain below 31 m.p.h.; if not, the project will move to the next phase.

**Increased fine.** If the average speeds continue at 31 m.p.h. or greater after selective enforcement, the SRTC can recommend to the Town Council that a \$200 additional fine for speeding be implemented. At such time, the Town Council will initiate a Public Hearing. In such cases where a \$200 additional fine is deemed inappropriate as a first step, the SRTC may choose to implement basic traffic calming measures, such as signage or driver feedback signs.

**Basic traffic calming.** Basic traffic calming services include the installation of traffic control devices (such as crosswalks, truck restrictions, additional \$200 fine for speeding, smart trailer, watch for children, pedestrian warning, or driver feedback signs), traffic enforcement by Leesburg Police Department, and traffic safety education. Basic traffic calming consists of those traffic control devices and programs that can be implemented to regulate, warn, guide, enforce, and educate motorists, pedestrians, and bicyclists. They may include striping and signage elements as found in the Manual on Uniform Traffic Control Devices.

**Comprehensive traffic calming.** Neighborhoods that are experiencing adverse traffic conditions that cannot be addressed using basic traffic calming services may be eligible for a comprehensive traffic calming project, which include speed humps, chokers, traffic circles, and raised crosswalks.

The implementation of comprehensive traffic calming projects is limited to residential, 2-lane, local or neighborhood collector streets, with a maximum posted speed limit of 25 m.p.h. Streets designated in the Town Plan as through collector roadways are generally

not considered for comprehensive traffic calming measures, except for driver feedback signs and additional \$200 fine. These roadways, by their classification or function, are intended to carry higher volumes of traffic to accommodate a large vehicle mix. If average speeds remain above 31 m.p.h after the implementation of either a \$200 additional fine or basic traffic calming measures, the roadway will enter a ranking system for comprehensive projects. Ranking criteria is provided in a chart in Appendix E.

Public Works will be responsible for the design and installation of the physical devices and will perform a traffic study after installation to determine the effectiveness of the devices in reducing speeds in the affected neighborhood.

An analysis of available physical measures, their benefits and drawbacks, and recommended uses and preference rankings is found in Part 3 of this report.

## **PROGRAM II. CUT-THROUGH TRUCK RESTRICTIONS**

(Modeled after the existing policy adopted by the Town Council.)

**Eligible streets.** The streets must be eligible for consideration under the adopted eligibility criteria.<sup>3</sup>

Requests for implementing through truck restrictions shall be processed as follows:

**Public hearing.** The Town Council will hold a legally advertised public hearing in accordance with the following steps:

1. The Council must initiate the public hearing.
2. Public notices for the hearing must contain a description of the route(s) with the same termini.
3. A public hearing shall be held by the Council and the public hearing record shall be held open for comments for a period of at least ten working days.
4. A copy of the public notice will be sent to Mr. L. Ray Ashworth, Virginia Trucking Association, 104 West Franklin Street, Suite D, Lexington Towers, Richmond, VA 23220 for distribution to the trucking industry and other interested parties.

**Traffic study.** The Town will conduct a traffic engineering study to include:

1. Traffic volumes by vehicle type for the route(s) proposed for restriction and the proposed alternate route(s). The date(s) the data is collected shall be included.
2. A 12-hour origin/destination study of all trucks on the route(s) proposed for restriction. The date(s) the data is collected shall be included.

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<sup>3</sup> See footnote 1. The existing Truck Restrictions policy will continue in effect and allows consideration of streets outside of the framework of the Residential Traffic Management Program.

3. The number and percentage of “through trucks” on the route(s) proposed for restriction. The date(s) the data is collected shall be included.
4. An inventory of roadway characteristics and geometrics for the route(s) proposed for restriction and the alternate route(s). This inventory should include:
  - a. Roadway length in miles
  - b. Pavement width
  - c. Number of travel lanes
  - d. Shoulder width
  - e. Pavement type and conditions
  - f. Speed limit
  - g. Number and type of cultural environment (i.e., residential and/or commercial)
  - h. Vertical and horizontal alignment
  - i. Parking restrictions and/or parking observed
  - j. Accident data for the route(s) proposed for restriction and the alternate route(s)
5. The road requested for restriction is functionally classified as a local or collector street.

**Implementation; evaluation.** Signs shall be erected at the end of proposed restricted routes to advise of the proposed restriction and identify an address for submitting written comments.

Staff will compile information regarding the traffic engineering study and public comments and make a recommendation to the Town Council. If truck restrictions are warranted, an ordinance will be adopted by the Town Council and “no through trucks” signs will be installed at each end of the restricted routes. Enforcement will be conducted by the Leesburg Police Department.

A request to rescind an existing “through truck” restriction shall be evaluated in accordance with the same procedures.

### **PROGRAM III. RESIDENTIAL CUT-THROUGH TRAFFIC**

**Definitions.** *Residential cut-through traffic* is defined as traffic passing through an identified residential area without stopping or without at least one trip end within the area. It is traffic that would be better served by the street system intended for through traffic but, for various reasons, uses the residential street system.

*Eligible streets* are defined as streets meeting the eligibility criteria adopted by the Town Council as part of the Leesburg Residential Traffic Management Program. The *primary use area* consists of all local residential streets within a community likely to be affected by operational changes intended to divert traffic from one or more streets within the community or to any street that provides access to the community.

**Documentation of problem.** Verification by Public Works that cut-through traffic on the local residential street(s) in question is 40% or more of the total one hour, single direction volume, and that a minimum of 150 cut-through trips occur in one hour in one direction. The committee must identify alternative routes for through traffic before travel is restricted on the street(s) in question.

After the committee identifies the applicable primary use area and approves the form of the petition to be used, the applicants must collect supporting signatures of at least 75% of the total occupied households.

**Roadway network study.** Once eligibility standards have been satisfied, Public Works will conduct a study of the roadway network, which may include

- Detailed traffic counts on affected streets and potentially affected areas.
- Intersection analyses of proposed alternate routes.
- Identification of potential adverse safety impacts.
- Identification of the geometrics of existing facilities in light of the traffic analysis.
- Speed analyses on the affected streets.
- Pedestrian circulation and safety analyses in the study area.
- Insure that alternate routes meet Town Level of Service Standards.

The findings and recommendations of Public Works will be forwarded to the committee for its evaluation.

**Implementation process.** If the committee recommends implementation of remedial measures to divert cut-through traffic, the following procedures will be followed:

- The Town Council and local media will be notified of the action to be taken and the expected effective date.
- Signs placed on the affected street(s) will outline the impending action and give the name and telephone number of a person in Public Works who can be contacted with questions.
- Remedial measures will be installed, and may constitute temporary installations until their effectiveness can be assessed.

Remedial measures which may be used are discuss in Part 3. Additional measures may include closing the street to through traffic at certain times of day, restricting turn movements into or out of the street, etc.

**Evaluation.** Not sooner than 30 days or later than six months after measures have been in place, Public Works will re-study the roadway network and forward findings and recommendations to the committee which will report its recommendations for continuation of the remedial measures to the Town Council for final disposition.



## PROGRAM IV. MULTIWAY STOPS

**Eligibility.** The streets must be eligible for consideration under the adopted eligibility criteria.

**Implementation process.** Requests for installation of multiway stop signs in residential neighborhoods shall be referred for recommendation by the committee unless Public Works determines that such signs are warranted under the standards set out in the federal *Manual on Uniform Traffic Control Devices (MUTCD)*, in which case they will be installed without referral. Public Works will review the affected streets and identify any potential safety problems that would preclude installation of the signs.

Applicants for installation of the signs shall demonstrate support by not less than 75% of the affected community by signature to a petition. The Department of Public Works will post a sign at intersections which states "All-way stop proposed for this intersection. For information call (703) 777-2420." The area to be canvassed for support and the wording of the petition shall be approved in advance by the committee.

**Committee recommendation.** Multiway stop sign requests shall be evaluated in accordance with the following criteria:

- Multiway stops should be installed not more frequently than at intersections between 800 to 1000 feet apart.
- Multiway stops should not be installed unless at least 3 approaches are public streets.
- Priority should be given to intersections having:
  - a. Sight distance problems
  - b. High accident history
  - c. Intersections with other major streets in the community
  - d. High pedestrian activity

**Evaluation.** The effectiveness of multiway stop signs will be evaluated at 30 days and 6 months after installation. No recommendation to remove the signs will be forwarded for action by the Town Council until residents of the affected neighborhood have been notified and be given an opportunity to present their position to the committee.

## PROGRAM V. "WATCH FOR CHILDREN" SIGNS

**Eligibility.** The streets must be eligible for consideration under the adopted eligibility criteria.

**Request.** Requests by residents or referred by the Town Council.

**Installation.** Public Works shall install "Watch for Children" signs upon request in qualifying neighborhoods except where, due to circumstances such as the number of

signs competing for attention or proximity to an intersection or other traffic controls, such signs would increase the danger to pedestrians because of driver distraction. "Watch for children" signs should be installed only on key entry streets into residential areas.

The committee would be involved only upon denial of a request if the requesting resident asked for review.

## **PROGRAM VI. POLICY AND PROCEDURES FOR CONVERTING TWO-WAY STREETS INTO ONE-WAY STREETS IN LEESBURG**

The following actions are necessary to convert vehicular traffic on Leesburg's roads to a one-way operation:

- A. Receive a petition from 75% of the affected owners requesting the street to be converted to a one-way operation.
- B. The Town will conduct a traffic engineering study to include:
  1. An inventory of roadway and traffic characteristics for the route(s) proposed for one-way and the alternate route(s). this inventory should include:
    - a. Roadway length in miles
    - b. Pavement width
    - c. Number of travel lanes
    - d. Shoulder width
    - e. Pavement type and condition
    - f. Speed limit
    - g. Number and type of cultural environment (i.e., residential and/or commercial)
    - h. Vertical and horizontal alignment
    - i. Parking restrictions and/or parking observed
    - j. Accident data for the route(s) proposed for restriction and the alternate route(s)
    - k. One each affected street, count average daily vehicle trips by vehicle type (traffic counts), current directional vehicular volumes, and calculate

projected directional vehicular volumes using the Town's Traffic Projection Model

- l. Tow-way traffic during the Town of Leesburg event detour route
  - m. Existing levels of service (LOS) at all affected intersections, proposed LOS at all affected intersections
  - n. Speed study – existing speeds on two-way streets
  - o. Cost of connecting to a one-way street (e.g. pavement markings, signage, advertisement, reduction in maintenance payments, etc.)
  - p. A letter from Fire and Rescue stating whether or not they object to the proposed one-way street.
  - q. Calculate travel time for residents who live along the proposed one-way street
  - r. The number and percentage of “Through Trucks” on the route(s) proposed for the one-way restriction
  - s. Other roadway and traffic characteristics that may be needed (e.g. Sight Distance, Parking) depending on the particular street.
2. The one-way road request will be accepted for any Public Street.
- C. Signs should be erected at the end of proposed routes to advise of the proposed change and identify an address for submitting written comments. These signs shall be in place for a period of thirty (30) days prior to the Public Hearing.
  - D. A public hearing shall be held by the local governing body and public hearing record will remain open for comments for a period of at least ten (10) working days.
    - a. Public notices for the hearing must contain a description of the route(s) of the proposed one-way restriction and the alternate route(s) with the same termini.
  - E. Staff will compile information regarding the traffic engineering study and public comments and make a recommendation to the Town Council. If a one-way street is approved by the Town Council, “One Way” signs will be installed at each end of the routes. Enforcement will be conducted by the Leesburg Police Department.
  - F. If a request is received to rescind an existing one-way street condition, the procedures outline previously shall be followed.