

TOWNSHIP OF UPPER ST. CLAIR TRAFFIC CALMING PROGRAM POLICY

PURPOSE OF TRAFFIC CALMING

The purpose of this Traffic Calming Program is to preserve and improve the safety of residents within neighborhoods by reducing traffic volumes and speeds through the use of traffic calming measures. Traffic calming involves the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for pedestrians, bicyclists and other non-drivers.

GOALS AND POLICIES

The goal of the Traffic Calming Program is to:

- Improve driver attention, awareness and behavior;
- Promote safe and pleasant conditions for residents, motorists, pedestrians and bicyclists on neighborhood streets;
- Preserve and enhance pedestrian and bicycle access to neighborhood destinations;
- Encourage citizens to be directly involved in neighborhood traffic management activities; and
- Provide a process that will equitably address requests for action by neighborhood residents and will balance resident's needs with all users of the Township's streets.

In pursuing these goals, the Township supports the following policies:

- Implement traffic calming measures that are appropriate and effective for a given situation or roadway and improve public safety without jeopardizing emergency response needs and not creating hazards or nuisances;
- The Township will work cooperatively with its citizens to employ a variety of measures that help reduce traffic speed and/or volumes on local and collector streets;
- Permanent traffic calming measures will be designed in conformance with sound engineering and planning practices and, when possible, should complement the residential character of the neighborhood.
- Traffic calming measures employed along particular street corridors should not create substandard traffic conditions on other streets;

- Ensure that any proposed traffic calming installation has public support in the affected neighborhood(s) before it is implemented; and,
- Welcome citizen input and involvement in all phases of the program.

EDUCATION, ENFORCEMENT AND ENGINEERING

Successful traffic calming requires a comprehensive approach that does not rely on any single solution (e.g. speed humps) or strategy. While there are various techniques that the Township will look to deploy, a sound approach revolves around Education, Enforcement, and Engineering.

Education: Provides information through a variety of outlets that will help residents make informed decisions about neighborhood traffic concerns and influence driving behavior. Educational efforts are often the most readily implementable means of modifying driver behavior.

Enforcement: Engages the Township Police Department to focus traffic and speed enforcement efforts in areas of particular concern.

Engineering: Combines physical measures to reduce the negative impact of motor vehicles, alter driver behavior, and improve conditions for pedestrian and non-motorized street traffic.

TRAFFIC CALMING STUDY AND APPROVAL PROCESS

INTRODUCTION

The Traffic Calming Program begins with an initiation step, which all requests undertake, then follows one of the three tiers of implementation, depending on the level of traffic calming requested. The tiers are those devices listed in Appendix “A” of this document - Traffic Calming Toolbox.

Most Tier 1 traffic calming devices can be implemented by the neighborhood or Township at little or no cost. If more than one traffic calming project (consisting of Tier 2 or 3 devices) is being proposed, a ranking system will be used to prioritize projects that meet the criteria established in the study and approval process. Sufficient funding may not be available to complete all of the traffic calming projects identified. Therefore, the ranking system will establish the order in which projects will be completed, subject to the approval of the Board of Commissioners. The ranking system and traffic data criteria can be found in Appendix “B.”

STEP 1 – NEIGHBORHOOD EDUCATION AND ENFORCEMENT (TIER 1)

The Tier 1 process begins when an individual resident or a group of residents submits a written request to the Township Manager that includes a discussion of the current traffic problem and identifies a potential neighborhood coordinator.

The request must be accompanied by a written petition, signed by residents from at least twenty

(20) households in the surrounding neighborhood of the location that is of concern.

The Tier 1 techniques and tools provided can be deployed almost immediately and most may be implemented by the neighborhood itself without Township action. Prior to the initiation of a formal Engineering Traffic Study, a Tier 1 program must be implemented by a neighborhood in order to proceed to a Tier 2 or 3 Traffic Calming Study.

Some requests may be able to be addressed immediately, without the need for traffic calming. These include issues related to safety, e.g., trimming of landscaping that obstruct sight distance, replacement of worn or missing signs, restriping of lane lines, etc (see Appendix "A"). The Program Administrator, a designated staff member appointed by the Township Manager, will determine whether a concern should be addressed immediately or qualifies as a potential traffic calming project and follow the process herein discussed.

After initiation of the Tier 1 program, a test period ranging from three to twelve months should be considered to determine the effectiveness of the measures. During this period, a neighborhood survey will be conducted to gauge neighborhood support for the implemented traffic calming measures. If the Township receives affirmative responses from at least 60 percent of the households in the study area that a traffic volume or speed problem still exists, the request will be forwarded to the Township Traffic Engineer to perform an engineering traffic study (Step 2).

STEP 2 - ENGINEERING TRAFFIC STUDIES FOR TRAFFIC CALMING (TIERS 2 & 3)

Prior to considering the need for traffic calming, an Engineering Traffic Study will be completed.

This step will involve developing a traffic calming plan to meet the study's specific goals and obtaining consensus from the neighborhood regarding the goals as developed in Step 1 of the plan.

The Program Administrator and Township Traffic Engineer will define and approve the study area and data collection plan. The data collection plan may include speed studies, automatic traffic recorder counts, intersection turning movement counts and origin/destination surveys. The Township and/or Township Traffic Engineer will collect data in the defined study area, as is appropriate.

Traffic data collection will be performed on Tuesdays, Wednesdays, and/or Thursdays, between the beginning of the school year and the end of the school year. In special situations where the identified problem occurs specifically outside the school year or on a Saturday due to retail generated traffic, the Program Administrator may approve collection of the data on the weekends.

If speed and/or volume warrants are met (see Table 1 – Traffic Data Criteria, Appendix "B") the Traffic Engineer will develop one or several optional plans to address the goals for the neighborhood, as well as design guidelines for their installation. The plan(s) may utilize one or more Tier 2 traffic calming devices, including but not limited to, temporary speed humps-and temporary speed warning devices. These plans will be developed to address the issues that have been identified in the neighborhood.

A number of design factors may affect the feasibility of traffic calming measures. These may include steep roadway grades, horizontal/vertical curvature of the roadway, proximity to other signalized/unsignalized intersections and drainage. In addition, other issues such as, snow removal, emergency response delays/access, additional noise, increase in accidents and on-street parking removal could affect the implementation and effectiveness of traffic calming measures.

All traffic calming plans developed as part of Step 2 will be presented at a meeting(s) to be organized by the Program Administrator. The meeting(s) will be publicized via the Township's various informational media and notification letters will be sent to each of the property owners in the study area. The Emergency Response agencies shall also be given the opportunity to review and provide comment on the proposed plan.

A consensus is developed within the neighborhood as to which option is preferred.

After initiation of the Tier 2 program, a test period ranging from three to twelve months will be considered to determine the effectiveness of the measures. During this period, a neighborhood survey will be conducted to gauge neighborhood support for the implemented traffic calming measures. If the Township receives affirmative responses from at least 60 percent of the households in the study area that the temporary devices should be made permanent, staff will forward the request to the Board of Commissioners for review (Step 3).

STEP 3 – APPROVAL PROCESS

This step requires the Board of Commissioners to review and approve the plan, either as recommended or with imposed modifications.

The Board of Commissioners may obtain public input by any of the following options:

1. Conduct a public meeting and solicit input.
2. Conduct another (or first) neighborhood survey for approval with a threshold requirement of greater than 60 percent of the households in favor required for approval.

The Board of Commissioners may approve the plan, modify the plan or reject the plan with an option of sending a rejected plan back to the Program Administrator and Traffic Engineer for further consideration. The Board of Commissioners will determine if the cost for implementation of the plan is within the Township's budget established for the year. If funding is not available, the plan may be deferred to a future year or funding may be requested from the neighborhood.

If the plan is approved, the Board of Commissioners will authorize its design and implementation on either a permanent or trial basis.

STEP 4 – INSTALLATION AND EVALUATION

This step involves installing the traffic calming devices, determining their effectiveness and reporting the results to the Program Administrator and Board of Commissioners. All permanent

traffic calming devices are to be installed during the Township's annual street resurfacing program. The Traffic Engineer will collect traffic data approximately one year after the installation of such devices to determine their effectiveness. Township staff will prepare a report with the Traffic Engineer's findings to be presented to the Board of Commissioners at a regularly scheduled meeting.

APPENDIX “A”

TRAFFIC CALMING TOOLBOX

INTRODUCTION

In keeping with the Policy Statement, the toolbox has been designed with three tiers of “tools” from subtle to aggressive. In all cases, it is necessary to begin with Tier 1 tools before moving to Tiers 2 or 3. With no exceptions, all traffic calming measures follow Pennsylvania Department of Transportation’s Pub 383 Pennsylvania’s Traffic Calming Handbook and the Manual on Uniform Traffic Control Devices (MUTCD).

Tier 1 Tools

Tier 1 tools are neighborhood driven and allows a neighborhood to take immediate action to address concerns. Residents take the initiative in conducting a neighborhood education program and undertake other measures such as trimming of landscaping that obstructs sight distance. Additionally, neighborhoods can request targeted police enforcement. The need for an engineering traffic study is not needed for Tier 1 measures. The following are Tier 1 traffic calming measures:

1. Neighborhood Education Program

Neighborhood education programs can include: personalized letters, flyers and newsletters as well as meetings, workshops, and neighborhood speed awareness signs. Programs focus on subjects such as pedestrian safety, enforcement and speeding impacts in order to heighten community awareness both consciously and subconsciously.

Neighborhood speed awareness signs may be provided to a study area on a short-term basis in order to raise awareness of speeding on residential roads. Signs can be provided to all residents within the study area or to a limited number of residents. Signs can also be relocated within the neighborhood to different locations/residences within this period with the purpose of making signs more visible to motorists/pedestrians since the signs are perceived as new signs.

This program may include the national program “Keep Kids Alive Drive 25” which was developed as a safety campaign targeting observance of residential speed limits by raising awareness.

2. Targeted Police Enforcement

Deployment of police officers for a period of time may be considered. The presence of officers should have an immediate effect on travel speeds. Repeated short-term deployments at differing times have been found to be more effective since it conditions drivers to anticipate enforcement. A single deployment would not have the same effect as drivers typically resort back to normal driving behaviors if no police presence is anticipated.

Tier 2 Tools

These measures focus on easily implemented and still relatively low-cost features. All Tier 2

measures require an Engineering Traffic Study. After installation, a test period ranging from three to twelve months should be considered to determine the effectiveness of the device. Shorter test periods may allow for the relocation of temporary traffic calming measures if they are not achieving the desired results. Furthermore, during this period a neighborhood survey should be conducted to gauge neighborhood support for the implemented traffic calming measures. The following are Tier 2 traffic calming measures:

1. Temporary Speed Warning Devices

Installation of temporary, post-mounted, speed warning devices may be considered. These devices alert the drivers of their current speed while traveling on the roadway. These devices can be installed for either short-term or long-term deployments and may include the following options: solar power, wireless Bluetooth connectivity, and data collection capabilities (speeds and volumes). The presence of these signs is expected to have an immediate effect on travel speeds.

2. Temporary Speed Humps and Speed Cushions

Measures such as temporary speed humps or speed cushions may be considered. This method would allow for the determination of the effectiveness of the traffic calming measure and aid in the determination of appropriate placement/modifications without the need for costly installations or removals of permanent measures. Temporary traffic control measures should resemble the permanent measures to the greatest extent possible including appropriate signage and pavement markings.

Tier 3 Tools

Tier 3 tools consist of permanent installation of traffic calming measures as developed by the Traffic Engineer. The plans may utilize one or more traffic calming devices, including but not limited to, speed humps, new regulatory signage, chokers, center islands, median barriers and realigned intersections.

Traffic calming measures must follow the Pennsylvania Department of Transportation's Pub 383 Pennsylvania's Traffic Calming Handbook and the Manual on Uniform Traffic Control Devices (MUTCD).

APPENDIX “B”

PROJECT SCREENING/ELIGIBILITY SCORE

The Manager or Program Administrator, a designated staff member appointed by the Township Manager, will determine if the request should be further evaluated and if the location is eligible for consideration with the assistance of the Township Traffic Engineer. If the roadway is eligible for consideration, the Township Manager or Program Administrator will request an eligibility review by the Township Traffic Engineer. The eligibility review will be a limited review of traffic data collected in the immediate area of concern to determine if the speed and/or volume warrants for traffic calming are met.

The collected traffic data will be compared to the criteria in the following Table 1 to determine eligibility for development of a traffic calming plan.

TABLE 1 - TRAFFIC DATA CRITERIA

Roadway Classification	Warrant	Threshold¹
Local Street	Average Weekday Daily Traffic Volume ² (24-Hour)	> 2,000 vehicles per day
	85 th Percentile Speed ³	10 mph > posted speed limit
	Highest One Hour Traffic Volume on Average Day	> 200 vehicles per hour ⁴
Collector Street	Average Weekday Daily Traffic Volume ² (24-Hour)	> 3,000 vehicles per day
	85 th Percentile Speed ³	10 mph > posted speed limit
	Highest One Hour Traffic Volume on Average Day	> 300 vehicles per hour ⁴

- 1 Threshold volumes are two-way volumes.
- 2 Average Weekday Daily Traffic (AWDT) Volume is defined as the total volume of vehicular traffic during a typical 24-hour weekday.
- 3 85th Percentile Speed is defined as the speed on a roadway, at or below which 85 percent of the motor vehicles travel.
- 4 Represents 10% of the AWDT volume threshold. Based on PENNDOT's statewide k-factors for design of urban local and collector streets.

If the eligibility review determines that the appropriate speed/volume warrants are met, then a cumulative point value will be assigned to the petition as follows:

- One (1) point for every two-hundred (200) vehicles (local road)/two-hundred and fifty (250) vehicles (collector road) over the daily traffic volume criteria or one (1) point for every twenty (20) vehicles (local road)/twenty-five (25) vehicles based upon volume to

be considered, either per day or per highest peak-hour, whichever point total is greatest; and

- One (1) point for each mile per hour over the speed criteria.

The Township Manager or Program Administrator will maintain a priority list of all pending traffic calming petitions ranked by the point value assigned during the eligibility review. Projects selected for development of a traffic calming plan from the priority list will be at the discretion of the Township Manager, Program Administrator and/or the Board of Commissioners.

If the traffic data meets or exceeds one or more of the above criteria, the study location may be considered eligible for development of traffic calming plan to address the goals of reducing daily traffic volumes, speeds or hourly traffic volumes, or some combination of these goals.