

College Township Traffic Calming Study & Approval Process



Updated February 6, 2003

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Index

Overview	1
Step 1: Submittal of Request for Study along with Supporting Data .	1
A-1 Request for Study	1
A-2 Scoping Meeting	2
B. LTAC Compiles Supporting Data	2
B-1 Identification of Project Area	2
B-2 Street Functional Classification and Land Use	2-3
B-3 Document Speeding and/or Cut-through Problem and Determine Eligibility	3
C. Project Qualification.	3-4
Step 2: Traffic Calming Plan Development.	4
A. Neighborhood Survey for Traffic Calming	4
B. Final Project Qualification	4-5
C. Kick-off Meeting.	5
D. Form Neighborhood Traffic Calming Committee	5
E. Plan Development.	5-6
1. Collect and Analyze Data	
2. Identify Appropriate Traffic Calming Measures and/or Consultant Findings	
F. Concur on Devices(s), Location(s), Design.	6

Step 3: Approval Process.	7
A. Open House or Public Meeting.	7
B. Finalize Plan	7
C. Neighborhood Survey	7-8
D. College Township and / or PennDOT Approval.	8
Step 4: Installation and Evaluation	8
A. Option of Temporary Device.	8
B. Test Period	9
1. Collect Data	
2. Monitor Adjacent Streets	
C. Install or Modify Device	9-10
1. Landscape Maintenance	
3. Seek Approval on Revised Plan	
D. Conduct Follow-up Studies	10
E. Modify Design or Remove Devices if Needed	10

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**TRAFFIC CALMING STUDY AND
APPROVAL PROCESS FOR COLLEGE TOWNSHIP
Updated February 6, 2003**

This document shall be used in conjunction with Pennsylvania's Traffic Calming Handbook, Publication No. 383, dated January 2001, prepared by the Pennsylvania Department of Transportation (PennDOT). Specifically, this document supercedes Chapter 4 of PennDOT's handbook.

Traffic calming devices should be installed only after an analysis of a variety of traffic conditions and institutional issues, and after gaining community approval. The following study and approval process is for use in traffic calming on state and local-owned roadways. PennDOT must approve a traffic calming plan prepared for a state road, although the plan itself is prepared by College Township. For local roads, PennDOT approval or involvement is not required. College Township may also elect to revise the study and approval process on local roads to better reflect local conditions and, with time, their own experience.

The Local Traffic Advisory Committee (LTAC) is a standing committee which coordinates all requests forwarded from College Township Council for traffic calming devices made within College Township. It is composed of a Council representative, the Township Engineer, the Public Works Director, and four citizen members. Ex-officio members include representatives from the State College Police, Alpha Community Ambulance Service, Alpha Fire Company, the State College Area School District Bus Supervisor and the Centre Region Transportation Planner.

Step 1: Submittal of Request for Study along with Supporting Data

A-1 Request for Study

A petition may be submitted to the College Township Council by a neighborhood organization or group of College Township citizens, expressing a traffic safety concern.

Traffic Calming Study and Approval Process for College Township

The Council will, at their discretion, determine if the concerns are appropriate for consideration of a traffic calming study, and if so, direct the matter to LTAC.

A-2 Scoping Meeting

LTAC will schedule and conduct a scoping meeting in which the signers of the petition and other interested citizens are invited to attend. This meeting will be advertised as a public meeting. The purpose of this scoping meeting is to explore the complaint and to inform the citizens of their options including the traffic calming process.

B. LTAC Compiles Supporting Data

The request for study is accompanied by supporting data. The local government, neighborhood group or both may collect the supporting data. The required data includes the following:

1. *Identification of Project Area:* LTAC must first determine the project area, or the area that would be affected by installation of the traffic-calming device. The project area also designates the neighborhood from which approval must be sought to demonstrate community approval and begin the study process. The project area should but is not required to include: the study street, cross streets on either side of the device, any street which relies on the study street for access, and the two parallel local service streets. Arterial streets should generally not be included in the project area since, by design, they are better suited to accommodate the higher speeds and volumes which are undesirable on local streets. However, arterial streets can be included if they serve a downtown district; see item 2 below.

2. *Street Functional Classification and Land Use:* Traffic calming measures may be considered on the following roadway types based on functional classification, land use patterns, and posted speed limits:
 - Local residential streets.
 - Collector streets (local or state-owned) with predominantly residential land uses.

Traffic Calming Study and Approval Process for College Township

- Arterial roads (local or state-owned) that primarily serve downtown districts, or commercial areas where posted speeds are 40 mph or less, may be considered for the least intrusive traffic calming devices, such as bulb-outs, textured crosswalks and mid-block islands. In locations where posted speed limits are 30 mph or less, a wide variety of devices may be appropriate particularly where pedestrian activity is high.
- The Township Engineer and Centre Region Transportation Planner shall provide assistance in identifying the functional classification of project area roadways.

3. *Document Speeding And/or Cut-through Problem and Determine Eligibility:*

At the beginning of a study, the following data should be gathered to provide objective evidence of a traffic problem: the average daily traffic (ADT) volume and average speed – and preferably, the 85th percentile speed. (The 85th percentile speed is that speed at or below which 85 percent of the motorists on a street are traveling; it is often used as a measure of the upper limit of reasonable speeds for prevailing conditions.) The following are suggested as guidelines to determine which streets qualify for the program:

For speeding issues —

- ADT exceeds 1,000 or the peak hour volume exceeds 100 vehicles; and
- the 85th percentile exceeds 7 mph over the posted speed limit.

And/or, for cut-through issues —

- cut-through traffic on the local residential street to be studied is 40 percent or more of the total one hour, single direction volume; and,
- a minimum of 100 cut-through trips occurs in one hour in one direction.

C. Project Qualification

Following their analysis of the supporting data, the Local Traffic Advisory Committee decides whether the project meets the criteria to advance the study. If it does, LTAC will proceed with Step 2. If it does not, LTAC will provide an explanation to Council why the project does not qualify for Traffic Calming.

Traffic Calming Study and Approval Process for College Township

Step 2: Traffic Calming Plan Development

A. Neighborhood Survey for Traffic Calming

LTAC will conduct a survey of all property owners within the project area. Normally, this will be a mail survey sent to the “owners” of each property (it is presumed that all “owners,” even if they do not live in the project area, will act in the best interests of the neighborhood). The survey, sent by general mail, will include a clear and concise description of the proposed study, along with a pre-paid post card for their positive or negative response.

The calculation of the favorable, or unfavorable responses, will be based upon the number of respondents to the survey. In this way, non-respondents are not assumed either positive or negative. If 66 percent of the responses are favorable to proceeding with the study, then LTAC will continue with the next step. If positive responses are between 55 percent and 66 percent, then Council will decide if the project merits advancing to the next step. If positive responses are less than 55 percent, then the process terminates for that study. There must be a minimum 25 percent response (of those who were sent the survey) for this survey to be considered valid.

The owner of each property (tax parcel) may make one vote, regardless the number of dwelling units on the property. Also, owners with several properties (tax parcels) may cast a vote for each parcel.

B. Final Project Qualification

LTAC will present the findings of the survey, along with any recommendation(s). Council will make a determination as to whether or not to advance the study.

If the study is to proceed, then Council will, with input from College Township staff and LTAC, decide if an engineering consultant who specializes in Traffic Calming is needed for this project. Any consultant brought on board would supervise how data is collected, perform the analysis, and make recommendations.

Traffic Calming Study and Approval Process for College Township

LTAC would notify property owners of the vote results.

C. Kick-off Meeting

Following the decision to advance the study, LTAC will invite all affected property owners to a “kick-off” meeting. Representatives from the College Township Council, emergency service departments (fire, police and rescue), public works departments, transit agencies, and any retained traffic consultant(s) may attend this meeting.

The kickoff meeting will be to inform property owners of the process involved, define future plans and field questions.

D. Form Neighborhood Traffic Calming Committee

The formation of a Neighborhood Traffic Calming Committee (NTCC) from those residents that attend the initial meeting(s) will help provide needed focus to the plan development process, as such a committee can more easily coordinate with the jurisdiction’s engineering office than an entire neighborhood. The Neighborhood Traffic Committee can also assist the municipal engineer and Local Traffic Advisory Committee with data collection, help organize future community events, and review preliminary traffic calming plans and reports. Formation of the NTCC is required, after which the NTCC will select a representative to LTAC, who will serve as an ex-officio member.

E. Plan Development

The consultant or municipal engineer, with assistance from the LTAC and the NTCC, shall gather more extensive data to further define the problem affecting the neighborhood and identify appropriate solutions.

1. *Collect and Analyze Data:*

Typically, the following data and analyses are required:

- Speed - average speed and 85th percentile speed (discussed above).

Traffic Calming Study and Approval Process for College Township

- Volume - daily and peak hour volumes on project street and parallel local streets. If through traffic volumes are believed to be excessive, a license plate survey should be conducted along with turning movement counts.
- Adjacent arterial roads - determine if problems on area streets have spilled over from arterials with poor traffic conditions. In this case, deficiencies on the arterial streets should be addressed first, if possible.
- Accident data by type, for the most recent three years.
- Parking - capacity and use.
- Pedestrian and bicycle activity.
- Emergency service routes.
- Transit routes.
- Identification of alternative traffic calming measures and their abilities to solve the documented problems.

2. Identify Appropriate Traffic Calming Measures and/or Consultant Findings:

Once the above has been compiled, the engineer and/or consultant should present the findings of the data analysis (speed, volume, etc.) to the LTAC and NTCC. The engineer should also describe the range of available traffic calming devices, identifying those best able to address the problems as indicated by the neighbors' opinions and by the data analysis.

F. Concur on Device(s), Location(s), Design

Through this and subsequent meetings, the Council, LTAC, and the NTCC will work toward a consensus on the most appropriate traffic calming device(s), location(s) and design.

Step 3: Approval Process

A. Open House or Public Meeting

Traffic Calming Study and Approval Process for College Township

The traffic calming plan should be presented at an open house or public meeting. A notice for the meeting may be distributed door-to-door, mailed, or announced via a press release. If needed the plan may then be modified before being resubmitted for approval to the community.

B. Finalize Plan

Following public review, the plan is finalized. LTAC will present the final plan to Council for endorsement.

C. Neighborhood Survey

Once Council endorses a plan, a neighborhood survey will be conducted by LTAC. The survey shall include a project explanation, detailed maps and contact information. In this survey, the calculation for approval will be based upon one vote per tax parcel. The calculation of the favorable, or unfavorable responses, will be based upon the number of respondents to the survey. In this way, non-respondents are not assumed either positive or negative. In order to proceed to Step 4, there must be a minimum voter response rate of 60 percent of those properties surveyed and a minimum favorable response of 66 percent, based upon the number of respondents to the survey. However, if it is below the minimum response rate and favorable rate specified above, then LTAC and the NTCC will evaluate and determine if the project should terminate or if, with some modifications, goes back to Step 3-A. If merited, the LTAC and the NTCC would ask Council to consider a re-evaluation and going back to Step 3-A. Also, if the favorable response rate is between 55 percent and 66 percent, LTAC and Council may consider extenuating circumstances and continue to step 4.

Extenuating circumstances could include, but are not limited to: 1) All negative votes came from one part of the neighborhood or from one or two property owners that represented a large percentage of the properties. 2) The proposed traffic calming measures are considered to be non-obtrusive and have little effect on the property owners who voted negative. 3) If the voter response rate is very high, on the order of 75% or above, and the favorable response rate is very close to the minimum favorable response of 66 percent.

Traffic Calming Study and Approval Process for College Township

D. College Township and/or PennDOT Approval

The final plan, which shall identify the source of funding for implementation, must be approved by the College Township Council (and in the case of state roads, PennDOT) before installation.

Property owners would be notified of the vote results and Council's decision.

Step 4: Installation and Evaluation

After approval of the traffic calming plan by the NTAC, LTAC and College Township (and in the case of state roads, PennDOT) the device is installed, on either a temporary and/or permanent basis.

A. Option of Temporary Device

On a temporary basis, planters, barriers, cast-in-place curbs, bollards, and etc. may be used as a substitute for permanent devices. Temporary devices should generally be crashworthy, resemble the permanent devices as much as possible, and should be marked, signed and lit as if they were permanent devices. Occasionally, jurisdictions have used temporary devices that were so unsightly as to provide sufficient reason for neighborhoods to reject use of the traffic calming device; this is certainly a risk to consider.

B. Test Period

The test period for temporary installations should last from three to twelve months, depending on the device. Most devices only need to be tested for three to six months. However, devices such as diverters that significantly alter traffic patterns may require a six to twelve-month test period. Ideally, the test period should extend into snow season.

Traffic Calming Study and Approval Process for College Township

1. Collect Data:

After the device has been in place for the test period, the municipal engineer – aided by the Neighborhood Traffic Calming Committee (NTAC) – will gather speed and volume data to determine whether the device has had the desired effect.

2. Monitor Adjacent Streets:

Adjacent streets will be monitored at this point to verify traffic problems have not shifted elsewhere. The temporary installation period may also be used to test the impact on emergency service vehicles.

C. Install or Modify Device

Following the temporary installation period, the NTCC, LTAC and College Township (and PennDOT for state roads) decide whether to install the device on a permanent basis or to modify it.

1. Landscape Maintenance:

If a device with landscaping is decided upon for permanent installation, College Township should recruit neighborhood volunteers for routine landscape maintenance and litter removal. If there are no volunteers – or if volunteers are initially found to maintain the plantings, but then fade away – College Township should consider using a low-maintenance planting.

2. Seek Approval on Revised Plan:

If the modification of the device is substantial, or it is decided to modify the original traffic calming plan, that may be done at this time. The modification need not take as long to develop as the original plan and should require approval from the NTCC, LTAC, and the College Township Council (and in case of state roads, PennDOT). If the modification of the device is minor, that can be accommodated without revising the traffic calming plan.

D. Conduct Follow-up Studies

Traffic Calming Study and Approval Process for College Township

Whether the device is installed permanently at the outset or after a temporary installation, follow-up traffic studies should be conducted. Depending on the particular traffic calming device and project objective, College Township may monitor accidents, traffic speeds, and traffic flow or diversion to other routes. The following guidelines are proposed to assist in determining which parameters can be reasonably measured:

- Before and after accident statistics for motor vehicle accidents, motor vehicle/bicycle accidents, and motor vehicle/pedestrian accidents. The accident studies should indicate how accident trends in the project area have been affected and should cover a length of time sufficient to identify long-term effects.
- Before and after speed studies to determine the 85th percentile speed. Ideally, speed studies should be performed upstream, at, and downstream of the traffic calming feature to identify its impact on vehicle speeds.
- Before and after user volume, including the average daily traffic (ADT) and the directional design hourly volume (DDHV). Traffic counts should be made on the street where traffic calming will be installed and on the streets to which traffic is expected to divert. The ‘after’ counts should be made when traffic patterns have stabilized.

E. Modify Design or Remove Devices if Needed

Unless significant safety issues emerge, the removal of devices should only be considered after they have been in place for a year and have been monitored, and then only with the support of the neighborhood. If any unforeseen safety problem develops, College Township may decide to remove traffic calming devices on township roads, and in the case of state roads, PennDOT may decide to remove traffic calming devices. The devices may also be modified.