



This guide describes the **Traffic Calming Process**. Users should utilize this guide for an understanding of the steps and responsibilities in the effort to modify driving behavior associated with pedestrian and cyclists' safety.

BACKGROUND

On occasion, the County is contacted to request that traffic is slowed down on streets within a subdivision, a particular street or specific segments of a street. All such requests are addressed by the Engineering Department and should be forwarded to Engineering. Engineering's procedure is that a traffic calming request is submitted by the proper authority representing the community at the area of concern. For example, a proper authority would be a Home Owners Association. The Engineering Department will work with the Association for an appropriate solution. Quite often, the initial request is to have a speed hump installed. The placement of a speed hump is a drastic measure to calm traffic and may only be used if other actions do not remedy the problem. Procedures and standards dictate that other steps are taken toward remedy before physical alteration of a road is given any consideration.

OVERVIEW

1. The HOA, POA, (Association) or District representing the community is responsible for the request, identifying the problem and locations, to the Engineering Department.
2. Upon Engineering's investigation that pedestrian safety may be compromised, the established Process will be followed. A speed/volume study will be conducted to determine the prevalence and severity of the matter. Based on the study, a suitable traffic calming method following a hierarchy of alternatives shall be recommended and decided upon. Once measures are installed, a trial period will be conducted. All public comment will be directed to the Association.
3. Given that the trial period to calm traffic does not prove to resolve the safety matter, certain geometric feature changes as defined in Process may be necessary.

PROCESS

1. **Site visit and observation** – Engineering will evaluate the situation.
 - o During initial evaluation, Engineering shall consider: Road classification & posted speed per classification LUR 4-620 D. 1 – D.8, investigate police accident & incident reports. And, determine if the speed problem is perceived or real.
 - o Examine pedestrian and driver conflicts – When is the problem most critical? Suggest that a representative of the party making the request to be present for observation at a time the party has observed the dangerous pedestrian/traffic pattern. Note if pedestrian ways are available or used, Pedestrian presence/volume, access to play areas, dog parks, bus stops, community centers etc. Check blind spots, sight distances and school bus stops at peak pedestrian & traffic hours.
2. **Observation indicates a potential problem** – there is a degree of concern that a speed and safety condition exists, a speed/volume study shall be conducted as warranted.
 - o Examine study results to determine severity of speeding and traffic/pedestrian characteristics. Traffic and pedestrian characteristics serve as guidelines for the appropriate solution.
3. **Evaluation and recommendation** – traffic calming and safety measures will be determined by Engineering following the hierarchy as outlined below. A recommendation will be reported and discussed with the Association toward agreement on the appropriate calming method.

The hierarchy of calming method alternatives

- A. **Revise, enforce laws, ordinances regarding speed limits** – contact the sheriff/enforcement.
 - B. **Community education** – Announce the issue- bulletins to residents. With positive reminders and re-enforcement, this could be the most effective means to protect pedestrians for the long duration. Discuss potential solutions, the advantages & disadvantages of specific calming measures. Engineering can supply information to the Association.
 - C. **The installation of traffic control devices** – signs, variable speed limit devices, crosswalks.
 - o Signs and crosswalks will conform to MUTCD (Manual on Uniform Traffic Control Devices) standards and the placement/location requirements of CDOT M & S Standards.
 - o Trial Period for traffic control devices method – upon the agreed method, the association will solicit and account for residents’ comment during a trial period of the traffic control devices to evaluate whether to continue permanently or withdraw the request for the installation.
 - D. **Geometric design features** – used when the above methods prove ineffective. Pedestrian and traffic characteristics or circumstances as studied earlier are used to determine the least intrusive yet effective solution somewhat in the following recommend order. Note: Certain geometric features changes are not afforded a trial period due to the permanence of the change.
 - o Trails-sidewalks
 - o Pavement width reductions
 - o Medians
 - o Diverters
 - o Rumble strips
 - o Speed humps
 - o Raised intersections
4. Once a method is agreed upon, any required control devices, excluding certain geometric changes, will be installed and monitored for a one month trial period. A Construction in Public Way permit and/or an Encroachment Agreement may be required based upon the method to be used. Continued observation and a follow-up speed study are necessary to prove the method’s effectiveness.
 - o The Public Way Permit is used for any activity or construction in the right of way. This offers safety and performance measures.
 - o The Encroachment Agreement is predominantly used when geometric feature construction is necessary and establishes the maintenance and liability responsibilities.
 5. All public comment about the calming measures will be directed to the Association for consideration and response.
 6. The community is responsible for the cost of the calming devices and the removal of any traffic calming devices should removal be requested by the community or required by the county for safety or maintenance reasons.

GEOMETRIC DESIGN FEATURES

Geometric modification of a street will only be considered if the safety matter remains critical while using the traffic control device method and the Association has the financial means to construct the features.

If deemed necessary, designs from a Professional Engineer will required, right of ways or easements verified and/or created. Endorsement from the Road & Bridge Department must be obtained to ensure no operational and maintenance impacts. A Public Way Permit, Grading Permit, Encroachment Agreement or a Public Improvements Agreement may be required.

Speed Humps are most often considered and require special consideration as follows:

SPEED HUMP PROCEDURE

1. A trial will be conducted using temporary speed humps.
 - a. The School District, Sheriff and emergency responders must be notified and consulted of the use of temporary humps locations and the intent for permanent installation.
 - b. A temporary speed hump(s) will be installed and another speed study will be performed to determine the speed hump(s) effectiveness. A trial period over a span of a month is recommended. The community is responsible for the cost of installation and removal of the temporary hump(s).
 - c. The Association shall collect community feedback and report to Engineering.
2. Community feedback supports installation; the association shall submit a formal decision supporting the community's desire and request for permanent installation of a speed hump(s). Engineering's design standards and placement criteria will prevail. Installation is at the community's expense. Under circumstances that a speed hump shall be removed, removal is at the community's expense.
 - a. An Encroachment Agreement is required for any installation of geometric design changes to define liability responsibilities at temporary installation and expanded to include maintenance agreements and/or removal in the event of a permanent installation.
3. In most cases, at a minimum, multiple speed humps are required. Historically, one (1) hump has not proven effective. Engineering will not support an isolated, partial solution for only a specific segment of road in the event that a farther distance and prevailing speed along the same road exhibit the same safety issues. Multiple communities sharing a common road may have to partner in the request process.
4. Appropriate signage and striping is also required; further at the community's expense.
5. The School District, Sheriff and emergency responders must be notified of permanent locations.

Road and Bridge has tracked their cost for installation and removal of the temporary speed hump at \$7000 per location. For the permanent installation we have estimates from contractors at approximately \$7000 per speed table (crosswalk location). Normally, one speed hump will not create the effect desired. Given the breadth of the speeding zone, two humps, at a minimum, should be considered. Logistical and physical impacts such as and including effect on drainage will have to be considered as well.