

CITY OF ST. CHARLES



Discover.

TRAFFIC CALMING POLICY



**NOVEMBER 2007
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Traffic Calming Request and Review Procedure

I. What is Traffic Calming?

The Institute of Transportation Engineers' (ITE) publication *Traffic Calming: State of the Practice* defines traffic calming as “the combination of mainly physical measures that reduce the negative effects of motor vehicles use, alter driver behavior and improve conditions for non-motorized users. Traffic calming uses physical / visual measures and enforcement / educational activities to make drivers aware and comply with the speed limit.

II. Information and Initial Requests for Traffic Calming

To begin the process, a group of citizens representing 10 or more separate households from a given traffic neighborhood (subdivision) submits a letter to Public Works expressing their interest in improving traffic conditions in their neighborhood. The letter should describe, as completely as possible, the location and details of the types of traffic problems perceived. This letter must be sent to the Councilperson representing the Ward in which this subdivision/traffic neighborhood is located.

III. Neighborhood Meeting/Information Gathering

Once the request has been received, Public Works Department will schedule a meeting in the neighborhood. At that meeting, Public Works staff will explain available traffic management strategies, as listed in Attachment 2, and listen to opinions about traffic problems from the neighborhood.

IV. Eligibility

After the Public Works has received the letter from neighborhood with 10 or more signatures from separate households, Public Works staff will review the location and conduct traffic calming evaluation. Scores are based on certain aspects related to traffic calming. Please see attachment #1 for traffic calming eligibility.

Traffic calming devices as outlined in Attachment 2 shall only be allowed on streets that are categorized as being residential.

Arterial and collector streets are only eligible for Speed Limit Feedback Signs

Stop signs are not labeled as a traffic calming device and will not be listed in the available traffic calming devices. Stop signs are intended to help drivers and pedestrians at an intersection decide who had the right-of-way, not to reduce speed. Trends show that unwarranted stop signs will have a higher non-compliance rate (rolling stop) and at a higher risk of an intersection crash. An unwarranted stop sign installation reduces speed only immediately adjacent to the sign. Aggressive drivers

will accelerate as soon as possible, to a speed faster than before the stop sign was installed. The aggressive drivers do this apparently to make up for time lost at the stop sign. Additional stops increases vehicle fuel consumption and emissions to the environment. Unwarranted stop signs might increase the number of rear-ends and severity of the crashes. To properly install a stop sign, the intersection should be studied through a warrant analysis.

V. Neighborhood Meeting/Information Gathering

Once a request has been received, Public Works Department will schedule a meeting or teleconference with the impacted Councilmember. At this meeting, Public Works staff will explain the platforms for gaining input from the residents. These options may include a neighborhood meeting, online surveys and/or webinar. Public Works staff will use these platforms to explain the available traffic management strategies, as listed in Attachment 2. If an online survey or webinar is desired, residents will be provided a channel (phone number, email address or comments section) to provide additional feedback. If a neighborhood meeting is requested, time will be allocated for residents to speak.

VI. Design

If the location is eligible for traffic calming, the design phase begins.

For local street projects where there is generally an agreement regarding the problems and strategies, staff will prepare the design.

VII. Traffic Calming Issues

Various issues can affect a traffic calming policy regardless of the type or application of a particular measure. These issues include, but not limited to, funding, impact on emergency service vehicles, landscaping, snow removal, stormwater drainage, and the Americans with Disabilities Act (ADA) requirements.

The City has limited funding available to be used towards traffic calming analysis and implementation. Available funding will be used on the first approved traffic calming locations. If no funding is available, the traffic calming location will go on a waiting list and will be studied when funding becomes available,

Traffic calming devices will not be constructed if the device will in anyway hinder the pathway of emergency service vehicles, existing landscaping, snow removal activities including snow plowing, street drainage (stormwater runoff) and sidewalks/curb ramps. Speed humps/bumps are a device that hinders snow removal and will not be listed in the available traffic device list mention in attachment 2.

VIII. Presentation of Design to Neighborhood

The Department of Public Works staff will schedule and attend a second neighborhood meeting, send a mailing or conduct an online survey to report the results of the design process and attempt to reach a consensus from the neighborhood regarding any proposed actions.

The Fire Department and the Police Department will be contacted and be presented with the proposed traffic calming devices. They will be asked for any foreseen issues with emergency response vehicles traveling through the traffic calming devices.

IX. Neighborhood Approval of the Design

Once the design of the traffic calming improvements is determined, the neighborhood in which the traffic calming device is to be placed in is asked to vote on whether they approve of the proposed traffic calming proposal. A simple majority of the votes cast will determine whether or not the traffic calming improvements are acceptable to the neighborhood. The limits of the boundaries of the subdivision to which will be allowed to vote on the proposed traffic calming proposal will be determined by the Director of Public Works or his or her designee and may include adjacent subdivisions on which their sole access will be impacted by the traffic calming proposals.

X. City Approval of the Design

For all traffic calming proposals, the Director of Administration, the Police Chief and the Fire Chief and the City Council must all approve the proposed traffic calming measures.

XI. Project Scheduling

Project scheduling will depend on budget and available resources.

Projects will generally be scheduled in the order in which the final neighborhood petition process was completed – a first in, first out approach.

XII. City Staff Evaluates Effectiveness of the Traffic Calming Device

No earlier than 6 months and within 18 months of implementation, City staff will conduct traffic studies on the project to determine the effects that the traffic calming has on the traffic. The before and after studies should be performed at the same time of year in similar weather to ascertain the effects of the traffic calming devices and should consider school days as a factor. Traffic volumes and speed data will be

recorded for comparison. Staff will report the results to Street Committee for review and recommendation to the City Council.

XIII. Removal

Two years or greater from the date of implementation, citizens in the study area may petition to have the traffic calming devices removed. There must be 51% of the households (each having one vote) in the study area supporting the removal. The devices cannot be considered for removal until after studies have been completed. Once the petition has been verified, the Mayor, or his or her designee, may order the removal of the devices.

Generally, traffic calming devices may not be requested in an area where traffic calming devices were removed for a period of at least 2 years from date of removal.

Attachment 1 – Eligibility Criteria for Traffic Calming

The following criteria are used to produce a numerical score for each traffic calming request.

Accidents – The last 3 full years of available accident data for the section of street for which traffic calming is being requested will be examined. 10 points will be awarded for each accident that is susceptible to correction by traffic calming devices. (30 points maximum)

Speed Violation Rate – Percentage of vehicles traveling over the speed limit on the subject street. One point is awarded for each percentage point of vehicles traveling over the speed limit. (30 points maximum)

Traffic Volume – Average Daily Traffic (ADT) on the busiest section of the subject street divided by 300. (10 points maximum)

Increase in Traffic Volume – The current ADT will be compared to the ADT from previous ADT data. The intent is to measure increases in traffic volumes related to factors outside the neighborhood, not increases in traffic volumes due to the development of the subdivision in which the subject street is located. The difference between the current traffic volume and the previously measured traffic data is calculated and divided by 100. If traffic volumes have decreased, a score of 0 is assigned. If there is no previous ADT data, then a score of 5 is given. (20 points maximum)

Schools – Five points for each private or public elementary school on the subject street or within project area.

Other Pedestrian Areas – Five points for each individual pedestrian oriented facility, such as a park, on the subject street.

Driveway Density – Density is expressed in terms of the number of driveways per mile. Driveways are defined as private accesses to the public roadway, serving up to 8 lots. Public roads and private roads are not considered driveways. One point per 10 driveways per mile rate. For example, a density of 50 driveways per mile would receive a score of 5 points. (10 points maximum)

Other – Five points will be awarded for the absence of sidewalks and 5 points will be awarded for the absence of street lights. Also, five points if street is utilized by high school age kids, driving to and from school which makes for a noticeable increase in traffic during times before and after school.

Alleys – Deduct 20 points for alleys due to low traffic volumes and low speeds.

A score of greater than fifty-five points is required for the location to be eligible for traffic calming. The scores may also be used to prioritize traffic calming requests.

Attachment 2 – City of St Charles Traffic Management Strategies

Traffic Calming Devices

Speed Reduction:

- Traffic Circles / Roundabouts
- Chicanes
- Permanently Mounted Driver Feedback Signs
- Traffic Chokers
- Raised Intersections such as speed tables
- Center Island Narrowing
- Pavement Markings
- Curb Extensions (bulb-outs)
- Road Diet
- Pedestrian Refuges Islands

Volume Reduction:

- Full Diverters
- Partial Diverters
- Closures

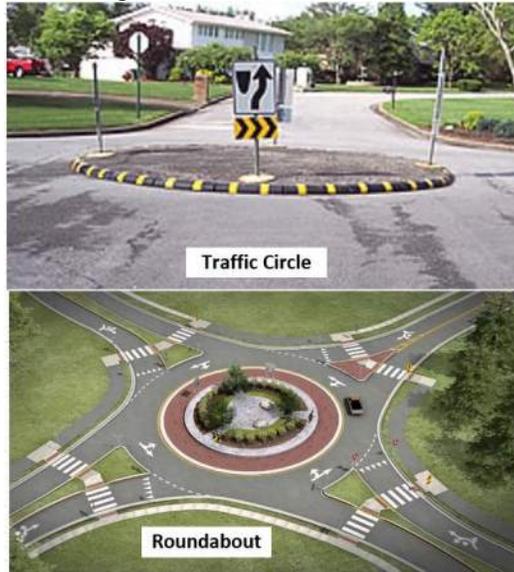
Other Traffic Management Strategies:

- Selective Traffic Enforcement Patrol
- Traffic Safety Trailer
- Decoy Vehicle

TRAFFIC CALMING DEVICES

Speed Reduction Devices:

Traffic Circles / Roundabouts –These devices are a raised island, placed in intersections, around which traffic circulates. They can be controlled by yield signs, two-way stops, or all-way stops. Circles prevent drivers from speeding through an intersection by impeding the straight through movement. Drivers must first merge / turn to the right, then to the left as they pass the circle, and then back to the right again after clearing the circle.



Chicanes – a series of narrowings that alternate from one side of street to the other forming S-shaped curves. These S-shaped curves can be created by moving out the curb line or by other crashworthy devices such as flexible delineators. Also, the semi-circle chicane is very similar to a traffic circle. These would typically be placed at “T” intersections. In this application, a half circle is placed on the through street opposite the terminating leg of the intersection. Additional half circles are placed on the through street on either side of the terminating leg. Drivers must first turn to the left, then back to the right as they pass through the chicane.



Permanently Mounted Driver Feedback Signs – also known as radar speed signs, use speed awareness to slow traffic, ultimately making roadways safer.



Traffic Chokers – reduction of the width of the roadway by moving in the curblines, islands and/or by other crashworthy devices such as flexible delineators. Parking spaces could be lost with this option.



Raised Intersections – create a safe, slow-speed crossing and public space at minor intersections. Similar to speed tables and other vertical speed control elements, they reinforce slow speeds and encourage motorists to yield to pedestrians at the crosswalk. Speed tables can be installed at midblock crossing to improve driver's compliance to pedestrians.



Center Island Narrowing – are raised islands located along the centerline of a street that narrow the travel lanes at that location. These are sometimes referred to as midblock medians, median slow points, or median chokers.



Pavement Markings – There are variety of uses for pavement markings. For traffic calming, we are referencing transverse / optical markings, lane narrowing with edgelines, converging chevrons, and painting the speed limit legend in the middle of the lane on the roadway.



Curb Extension – visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians while increasing the available space for street furniture, benches, plantings, and street trees.



Road Diet – generally described as removing travel lanes from a roadway and utilizing the space for other uses and travel modes such as reducing an undivided four lane roadway to an undivided three lane with two thru lanes and a shared center turn lane.



Pedestrian Refuge Island – median island installed on the middle of the roadway for pedestrians to safely pause before crossing the rest of the street. The island brings awareness to the drivers for the potential of a pedestrian crossing the roadway.



Volume Reduction Devices:

Full Diverters - A full diverter is a barrier placed diagonally across an intersection blocking the through movement in both directions. This method of traffic calming should not be used unless no other options are feasible or desirable.



Partial Diverters – A partial barrier is a barrier that blocks one-half of a street. The barrier blocks the through movement in one direction.



Closures - generally on residential streets, these prohibit through-traffic movement or prevent undesirable turns. Street closures may be appropriate where large volumes of through-traffic or “short-cut” maneuvers create unsafe conditions in a residential environment.



Other Traffic Management Strategies:

Selective Traffic Enforcement Patrol – combines intensive enforcement of specific traffic safety laws with extensive communication, education, and outreach informing the public about the enforcement activity.

Traffic Safety Trailer – a portable radar trailer that will display the posted speed and a changeable message board with the driver's speed. The trailer will be deployed where applicable given clear sight distance and vegetation free shoulder. The trailer helps remind drivers what the posted speed limit and that he or she should abide by.



Decoy Vehicle – uses unoccupied marked police vehicles to give a perception of being present everywhere.

For more information on traffic calming visit www.trafficcalming.org or contact The City of St. Charles Public Works Department at 636-949-3237 or via email at public.works@stcharlescitymo.gov