NEIGHBORHOOD TRAFFIC CALMING POLICY

1. Introduction

As part of its mission to build and maintain a safe and efficient road system for all roadway users, the City of Peoria continuously makes improvements that have proven to be effective in addressing road safety. One of the primary methods through which this goal shall be accomplished is by implementing traffic calming measures. Traffic calming measures when implemented appropriately, can have a positive impact on travel speeds, traffic volumes, and roadway safety within neighborhoods.

This policy will explore the principles of traffic calming and provide a variety of methods, a description of each method, and the various alternatives available in the City for traffic calming.

It is hoped that this guide will be an effective educational tool, used to foster a greater understanding of traffic calming within the City of Peoria, and how it can support the goal of making our streets safer for roadway users of all ages and abilities. This policy will provide our citizens a method of requesting solutions for traffic related concerns in their neighborhoods and allow staff to set priorities for City resources.

This policy will address:

- An annual cycle for submitting and processing requests for traffic calming, including the allocation of funds during the annual City budget.
- Criteria for the review of traffic calming requests and determination of the extent of the analysis required.
- Procedure to formally evaluate requests, including data collection, traffic calming studies, and neighborhood involvement from request submittal through neighborhood consensus approval and implementation of the preferred solution.
- Methods to maintain or improve resident quality of life and neighborhood livability by reducing the impact of vehicular traffic on residential neighborhoods through reductions in traffic volumes and/or speed.
- Methods to maintain or improve the safety and attractiveness of neighborhood streets for pedestrians and bicyclists.
- The use of proper engineering judgement and analysis for implementation of traffic calming measures.

This policy neither lists all traffic calming measures, nor attempts to specify which measure would be implemented for certain road or traffic operation scenarios. This merely reflects options available for study and implementation.

A. What is traffic calming?

Traffic calming is used in association with traffic enforcement and physical features such as signage, roadway markings, speed humps, traffic circles and chicanes. They are installed on a road to reduce the speeds at which vehicles travel, to discourage through traffic, to improve traffic safety, and to improve comfort levels for all roadway users. Traffic calming is intended to improve the quality of life for residents on traffic calmed streets, achieve slower speeds for motor vehicles, and increase the safety for pedestrian and bicycle movements on the street. Appropriate traffic calming methods will still continue to provide adequate access to emergency vehicles to all areas. Traffic calming solutions by the City of Peoria are intended to be evaluated as an overall neighborhood and community effect and not on a street by street basis.

B. Goal and Objectives of the policy

Goals include:

- Improving the quality of life in the City of Peoria.
- Creating safe and attractive streets for all users of all ages.
- Reducing the negative effects of motor vehicles on the environment.
- Promoting non-motorized transportation (walking, biking).
- Promoting healthy lifestyles.
- Promoting transit use (buses).

Objectives include:

- Achieving acceptable speeds for motor vehicles within our neighborhoods.
- Reducing collision frequency and severity.
- Increasing safety and perception of safety for non-motorized users.
- Reducing the need for continuous police enforcement.
- Enhancing the street environment.
- Encouraging water infiltration into the ground.
- Increasing access for all modes of transportation.
- Reducing motorized vehicular trips.
- Reducing cut-through motor vehicle traffic in neighborhood.

C. Traffic Calming Strategies- The 5 E's Approach

Education and awareness
Residents need to be made aware of the traffic complaint and reminded of their importance in the solution. Non-local users of the roadway must be made aware that their actions affect the residents.

Encouragement
Residents and motorist must be part of the solution. They must drive in the manner that they want others to drive, which will encourage and foster good driving behavior.

Enforcement
The Peoria Police Department is essential in enforcing the roadway laws and traffic calming measures.

Engineering
Using up to date, industry standard traffic calming designs and best practices that fit the individual situation is crucial in matching the solution to the problem. Getting the fix to fit the problem will enable a cost-effective solution.

Evaluation
Monitoring the effectiveness of the traffic calming measures will allow the City to make sure the solutions are working.

2. Neighborhood Traffic Calming Policy Process

A. Annual Cycle and Process for Traffic Calming Requests

Requests for traffic evaluation and traffic related complaints may be initiated by individual citizens, neighborhood associations, City government officials, or other groups. Requests for traffic evaluations or complaints of chronic speeding, cut-through traffic, parking, signage, or other traffic-related problems should be submitted in writing to the Peoria Public Works Traffic Division using the City's Neighborhood Traffic Calming Request Application, attached to the end of this policy. The roadway(s) on which the traffic calming is requested must be primarily residential and which provides direct access to abutting single family, duplex or other residential properties to be eligible for this Program.

The following steps are required for the Program's annual cycle:

1. Residents submit an application defining a traffic problem in their neighborhood.
2. City Staff evaluates the applications submitted by residents in prior year along with recent traffic records for the

areas associated with the requests.

3. If request qualifies for the Program, City staff defines petition area and forward it to the contact person on the application to circulate.
4. Residents collect signatures from the defined area.
5. Data collection is performed, if needed, to validate the reported traffic problem.
6. Validate the traffic problem based on data that was collected.
7. Conduct a traffic calming study to identify potential solutions.
8. Meet with neighborhood to select preferred solution to the traffic problem.
9. A notice will be sent to all the properties within the petition area explaining the preferred solution.
10. Prepare draft cost estimate and project priority for review with neighborhood.

Upon final approval, projects can be constructed in order of priority until current funds are exhausted. Available staff resources may limit number of projects reviewed. Criteria for neighborhood traffic calming, as established, may be revised by City Staff as methods change. Simpler traffic calming solutions may not require all Program steps for completion.

B. Criteria for Review of Traffic Calming Requests

Traffic calming requests are submitted to the Public Works Department (on the attached application form), providing information about the impacts of the existing conditions, location and neighborhood contact person. The City's traffic engineering staff reviews the request and recent traffic records for the area, (collisions, speed and volume, and roadway geometry).

The following criteria are used in the initial staff review of traffic calming requests and validation of "significant issues" for further analysis and potential implementation. The roadway(s) on which traffic calming is requested must meet least one of the following traffic related issues to warrant further study:

- A documentable collision pattern (bike, pedestrian, motor vehicle).
- The 85th percentile speed profile is greater than 5 mph over the posted or statutory speed limit.
- A documentable problem of a significant or inappropriate number of "through" motor vehicles on the street or in the neighborhood, not related to neighborhood generated traffic.

If there is a good safety record, the speed profile (85^{th} percentile) is within 5 mph of the posted or statutory speed limit and the traffic volume appears appropriate for the street, the applicant will be advised that no further action will be taken.

If the initial review indicates a probable cause for further analysis, City Traffic Engineering staff will define a petition area for signature collection by the residents, see example petition, attached. The petition will be forwarded to the contact person on the application, who will circulate for signatures. When the petition is returned showing qualifying support from a majority (at least 50% + 1) of the households within the defined petition area, evaluation procedures are initiated. Request that do not have majority support will not be eligible for the Program. Requests that have been previously denied will not be eligible for the program unless significant changes to the roadway traffic can be demonstrated.

C. Process for Evaluating Requests

Once a majority petition is received on traffic calming requests that have satisfied the initial review, additional evaluation will be performed. The City, through its staff or consultant, will perform traffic counts of the locations identified in the requests to establish the Average Daily Traffic (ADT) or traffic volume on the roadway, if needed. Evaluation shall be performed to determine the type and degree of the issues presented in the request. Field surveys can be conducted to observe and evaluate the request and determine if it is considered as a significant issue. If considered significant the Traffic Engineering Division will initiate the traffic calming study to identify potential solutions or determine that the project is eligible for the Program.

The following streets will not be eligible for traffic calming:

- Identified as an "arterial" street on the City Thoroughfare Map.
- Average traffic volume is greater than 2,000 vehicles/day (ADT).
- Average traffic volume is less than 900 vehicles/day (ADT).
- Average violation rate of the statutory or posted speed limit is less than or equal to 25 percent.
- 85th Percentile speed for the study segment is less than 5 MPH over the posted or statutory speed limit.
- At least 90 percent of available building lots in study area are not built out.
- Street has more than one travel lane in each direction.
- Street segment is less than ¼ mile in length.
- Measured length is interrupted by at least one traffic control device.
- Street segment has a direct Fire Department access within ¼ mile.
- The roadway is not primarily residential.

Once Program eligibility is established and potential solutions are identified, Traffic Engineering staff will meet with neighborhood residents to select a preferred solution. A cost estimate is drafted and project priority established. These are again reviewed with the residents, and based on the outcome, projects are prioritized in a list of traffic calming project and will be submitted for funding consideration in the next budget cycle. For traffic calming on roadways that are not eligible for the Program, traffic calming shall be incorporated as part of planned City projects designed following the City of Peoria Complete Streets Policy and subject to the

City budget process.

D. Ranking Procedure and Prioritizing Traffic calming projects

A ranking procedure is applied when evaluation is completed for all projects in the current cycle. The following items are used to prioritize traffic calming projects for the Program's annual, updated list. The projects list may include both unfunded items from the prior year, (usually due to limited funds to construct physical traffic calming measures), that still qualify for consideration as significant problems, and new requests in the current cycle.

1. Traffic Speeds (85th percentile): Traffic speed will be assessed to determine the 85th percentile speed along the proposed project in relation to the posted or statutory speed limit.

2. Collision History: Collisions in the last five years of the proposed improvement will be reviewed to determine appropriate safety measures.

3. Crosswalks and Sidewalks: Determine availability of cross walks at intersections near pedestrian generators, such as parks or schools.

4. Traffic Volume: Assess traffic count data, if available, and if not perform traffic count to determine current ADT and whether improvements are required.

5. Bus Stops: Determine if Bus Stops are available and if needed coordinate with the Peoria Transit System.

6. Bike Facility: Determine if bike facilities are recommended in the Bicycle Master Plan or otherwise needed.

7. Driveways: Determine if there are any conflict points due to driveways.

8. Determine if there are any existing traffic calming measures in the neighborhood and the impact if additional or replacement measures are implemented.

E. Installation of Traffic Calming Measures

After a traffic calming design is completed by City staff, accepted by the neighborhood, and budgeted, the construction phase begins. Engineering staff in the Public Works Department will finalize the approved design, and add the project to the list of existing traffic calming projects. Construction of traffic calming improvements will ordinarily be done in the order they are approved, absent

extenuating circumstances.

The number of traffic calming measures installed each year depends on the availability of City funding towards traffic calming. Projects will be ranked in the spring of the year, and neighborhood associations will then be informed in writing by the City of their project's ranking and given an opportunity to comment. Based on these comments, a priority ranking list will be presented to the City Council for final approval.

F. Device Removal Process

Traffic calming improvements may be removed from a street segment through a successful neighborhood petition. To be successful, this process requires approval of at least 90% of property owners of lots within the original petition area. The removal process may not be started until the improvements have been in place for at least a one year (365 day) period, unless waved by the Public Works Director.

3. Traffic Calming Measures

There is a range of tools available to control traffic speeds and reduce volumes, each with its associated costs, benefits and rules for proper application. The following is a list of measures that may be considered in the development of neighborhood traffic calming solution.

Enforcement Options

- Education
  Education of neighborhoods concerns of the traffic problem through newspapers, flyers, banners, door-knockers, electronic message boards, Next Door posting, etc.

- Parking Enforcement
  Enforcement of parking regulations is done by Public Works Parking Enforcement and the Peoria Police Department. If neighborhood residents feel that parking enforcement is needed, they should get in touch with either the Traffic Engineering Division of Public Works or the Peoria Police. Parking Enforcement can also be used during the learning period when new devices or restrictions are first implemented.

- Police *Enforcement*

Police enforcement entails the presence of police to monitor speeds and other inappropriate driving behavior and issue citations when necessary. This method is used as an initial attempt to increase driver awareness and compliance on streets. It is most applicable on streets with documented speeding problems or notable stop sign/red light violations that need quick mitigation. It can also be used during the learning period when new devices or restrictions are first implemented.

- Radar Trailer
  A mobile radar display trailer informs drivers of their speeds. The radar trailer is applicable on any street where speeding is a problem and there is adequate roadside capacity to accommodate the trailer without creating a hazard.

Lower Cost Options

- Bicycle Facilities
  In-street bicycle facilities, such as bike lanes and sharrows, as recommended in the Bicycle Master Plan or as otherwise appropriate, help utilize the right-of-way space and create narrower travel lanes. This gives the impression of a narrower street, which may help reduce traffic speeds. The need for bicycle facilities will be evaluated in accordance with the City's Bicycle Master Plan. Depending on the extent of the bicycle facility project, this could be considered a higher cost option.

- Crosswalks
  Pedestrians may legally cross any City street, except midblock between signalized intersections or where expressly prohibited by signage. A marked crosswalk with proper signage (at intersection or mid-block) may be installed to help pedestrians to cross a street and make drivers aware of possible pedestrian activity. The primary function of marked crosswalks is to guide and channelize pedestrians to a preferred crossing location. Marked crosswalks are most appropriate near schools, recreational facilities and other large pedestrian generators.

- Crosswalks – High Visibility
  A high visibility crosswalk is a marked, uncontrolled crosswalk (uncontrolled means it has no stop signs or traffic signals) that incorporates striping patterns and/or fluorescent green signage to improve the visibility of the crosswalk. High visibility striping is generally used at uncontrolled crosswalks, while high visibility signage is only used at uncontrolled crosswalks. High visibility crosswalks are mainly used on high volume, multi-lane roadways.

- Edge-line Striping

Edge-line striping is used to create narrow travel lanes which give the impression of a narrower street. This visual narrowing may help reduce overall speeds. Striping can be at curb end or midblock to create a median. Edge-line striping is most applicable on long, wide residential streets with speeding traffic. Edge-line striping may include defining the parking lane of a street.

- Flashing Beacons and Pedestrian Activated Rapid Flashing Beacons (RFB)

Flashing beacons can be placed at entrances to school zones (on streets with posted speed limit above 25 mph) or at uncontrolled crosswalks to enhance the visibility of the school zone or crosswalk. Flashing beacons for school zones are activated during the school's pick-up and drop-off times. Flashing beacons at uncontrolled locations with high vehicle and pedestrian volumes are generally activated by pedestrian push-buttons.

- Parking modifications

Adding or removing parking from neighborhood roadways may sometimes be a solution to traffic concerns. The addition of parking on one or both sides reduces the travel lanes and may cause traffic speeds to slow down. Defined parking areas may also serve to shorten pedestrian crossing lengths at intersections. The removal of parking is sometimes necessary for emergency access or sight distance at intersections.

- Stop Signs

Stop signs are intended to assign the right-of-way among motorists, pedestrians and cyclists at an intersection. Although many citizens believe that stop signs help reduce speeds on their street, numerous studies have shown that speeds are as high or higher at mid-block than those locations without stop signs. Criteria for Stop signs include crash history, conflicting vehicular traffic at the intersection, proximity to schools or parks and any unusual conditions, such as the layout of the intersection. Stop signs are typically used on non-arterial streets and intersections.

- Speed Feedback Signs (Radar Speed Display Signs)

Radar speed display signs are a permanent version of the radar trailer, where drivers are informed of their speeds in relation to the posted speed limit. These signs are generally intended for multi-lane streets with higher speed limits and moderate volumes.

- Traffic Signage

Traffic signs may be installed to make roadway users aware of a roadway condition, to fully utilize parking capacity or to restrict vehicular traffic. Examples include speed limit, curve warning, turn restrictions (full time or by time of day), curve warnings, chevrons and parking signage.

- Truck Restrictions
  Restricting the entry of trucks over 4 tons into residential neighborhoods may be achieved through the posting of truck restriction signs. This method is most applicable on residential streets to help reduce cut-through traffic of commercial vehicles not doing business within that neighborhood.

Higher Cost Options

- Bump-Outs
  Bump puts narrow the street width at intersections, creating a shorter and safer pedestrian crossing while encouraging drivers to slow down. These may contain special paving or landscaping and are generally used at intersections where parking is already restricted.

- Chicanes
  Chicanes create a curved street alignment that can be designed into new developments or retrofitted in existing right-of-way. The curvilinear alignment requires additional maneuvering and shortens drivers' sight-lines, resulting in lower overall speeds. This device can be applied to any street where speed control is desired, provided the street is wide enough to accommodate the curvilinear design. Chicanes may require additional right-of-way for construction.

- Closure - Full

A complete closure of the street blocks both lanes of travel, so that the street becomes a cul-de-sac. This measure eliminates all through traffic and limits street access to residents. This measure is applicable to local streets with major cut-through concerns where an emergency vehicle response route does not exist. The closure location may be designed as a pocket park with through bicycle and pedestrian access, depending on roadway geometrics.

- Closure - Partial

A partial closure is a physical barrier that restricts vehicles from turning into a street, while still allowing for bicycle access. The adjacent lane is left open to allow vehicles to exit, while two-way traffic is maintained for the remainder of the block. Partial closures can be considered on local streets with cut-through traffic.

- Diverters

Diverters are raised areas placed across a four-way intersection that prohibit through movements and force turns for approaches. Diverters can be considered on local streets where documented cut-through traffic is a major problem.

- Medians

Medians are raised islands in the center of the roadway that separate traffic directions. Medians are used on wide streets to narrow the travel lanes and ease pedestrian crossings.

- Median - Extended

Medians are raised islands in the center of the roadway that separate traffic directions. Extended medians continue through an intersection, thus eliminating through traffic along the cross-street and all left turns. Medians can be considered on wide streets to narrow the perceived street width, break up sight-lines on straight streets and ease pedestrian crossings. Extended medians can also be considered to discourage cut-through traffic through a neighborhood.

- Mid-Block Chokers

Chokers are raised islands in the parking zone that can be detached from the curb-line to allow for drainage. Mid-block chokers narrow the roadway and are most applicable on wide streets with long blocks having speeding and cut-through problems. Chokers can have the same narrowing effect as parked vehicles on streets where there is little or no on-street parking. Chokers may be installed with either landscaping or hardscape treatment.

- Neighborhood Traffic Circles

Neighborhood Traffic Circles are raised circular medians that direct traffic counterclockwise within an intersection. Vehicles must change their direction of travel to maneuver around the circle, which slows vehicles through the intersection. Per the State guidelines, traffic circles are controlled by "Yield" signage on all approaches. Traffic circles can help manage speeds, reduce volume and improve side street access. The Fire Department must approve this feature, as it may impact response times. Traffic circles may contain low growth landscaping and/or a tree to help beatify the area.

- Speed Humps

Speed humps are areas of pavement raised three (3) inches in height over a minimum of 12 feet in length, designed to lower travel speeds through a roadway corridor. Road humps have pavement markings, advisory signs and advanced warning signs. Road humps can be used on residential 2-lane local or minor neighborhood collector roadways, with a maximum posted speed limit of 30 mph to address speed problems. They also may be used to deter cut-through traffic.

- Speed Hump Exclusions:

All traffic management measures have rules regarding their appropriate application. However, speed bumps/humps are unique in that they create a vertical deflection in the roadway surface. Due to their greater adverse impacts upon critical City services, there are certain locations where speed bumps/humps will not be considered. The following is a list of these locations, based

upon extensive national experience and best practices.

- Arterial streets
- Collector streets
- Truck routes
- Streets adjacent to Hospitals
- Bus Routes
- Snow Routes
- Alleys
- Dead end blocks of local residential streets
- Roads directly accessing a fire station
- Streets deemed inappropriate as determined by the Transportation Commission, based upon other factors not considered above.