City of Columbia Public Works Department

Neighborhood Traffic Management Program

How to Increase Safety, Reduce Speeds, and/or Reduce Volumes

City of Columbia Public Works Department
701 East Broadway
Columbia, MO 65201
573-874-7250

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Mission Statement: It shall be the mission of the Public Works Department to provide traffic calming solutions where appropriate in order to influence driver behavior, improve the neighborhood quality of life, and create more livable local streets.

Goal: To work closely with residents of the neighborhood to properly identify the concerns, conduct appropriate studies to quantify any problems and develop solutions that will reduce traffic speeds and collisions or the severity of collisions should they occur. This will in turn improve pedestrian safety and create more pleasant neighborhoods for the citizens of Columbia.

Purpose: Although neighborhood traffic concerns generally relate to excessive speed, pedestrian and bicycle safety, cut-through traffic, accidents and general quality of life issues, this program recognizes the uniqueness of neighborhoods and that the critical issues and concerns vary from case to case. Based on this diversity, this program considers a wide range of potential solutions to address specific concerns of a neighborhood. The recommended solutions resulting from this program should fall into one or more of the following broad categories:

1. ***Increase Safety***
2. ***Speed***
3. ***Volume***

The recommended solution should be based on the existing and intended traffic volumes, speeds, and geometrics for the roadway. The Neighborhood Traffic Management Program strives to utilize all types of traffic calming devices to address neighborhood concerns. The City of Columbia recognizes that a “one-device fits all” approach is not desirable and the program specifically encourages each neighborhood to develop a traffic calming solution that addresses their specific needs.

Traffic Calming Measures: The City’s traffic management program involves three levels of traffic management and traffic calming measures. The level approach allows for quicker more visible solutions then progresses to more restrictive measures, while allowing for a customized solution addressing the specific problem. Detailed information regarding specific types of traffic calming devices is provided in the Traffic Calming Guidebook.

Level 1 Devices (Increase Safety): Level 1 traffic calming devices and programs implemented on a regular basis to regulate, warn, guide, inform, enforce, and educate motorists, bicyclists, and pedestrians. They include standard striping and signing elements, minor roadway design elements to improve visibility and safety, enforcement by police, and safety education programs. Level 1 devices are used primarily in those areas where traffic impacts have been found not be excessive or serious, but where traffic control and/or education has been determined to be appropriate. Some possible Level 1 devices include but are not limited to:

Level 1 Traffic Calming Devices	
Warning Signs	Traffic Signal Timing
High Visibility Signs	Striping Changes
Radar Trailer/ Radar Signs	Curb Markings
Police Enforcement	Signing Modifications
Lighting Improvements	Sign Turn Restrictions
Parking Modifications	Neighborhood Speed Monitoring

Level 2 Devices (Speed): Level 2 devices are traffic control devices and roadway design features primarily designed to slow traffic within residential areas. They are employed when either the use of Level 1 devices cannot effectively address speeding issues, or it has been found that the 85th percentile speed is greater than 33 mph and the ADT is over 400 or 85th percentile speeds is greater than 38 mph and the ADT is over 250. Some possible elements include but are not limited to:

Level 2 Traffic Calming Devices	
Traffic Circles	Speed Humps
Medians	Chokers
Chicanes	Raised Crosswalks
Minor Bulbouts	Major Bulbouts

Level 3 Devices (Volume Controls): Level 3 devices are traffic control devices and roadway design features primarily designed to discourage cut-through traffic from using residential streets. They are used when it has been found that traffic volumes are significantly higher in the studied area than found on similar streets in other areas. While Level 3 devices can be used to discourage cut-through traffic and reduce volumes, special attention must also be paid to connectivity. Connectivity is vital to the City of Columbia and reduces volume by distributing traffic across many streets. Level 3 devices can be used by themselves or in conjunction with Level 1 and Level 2 devices. Some common devices include but are not limited to:

Level 3Traffic Calming Devices	
Full Street Closure	Partial Street Closure
Diverters	Extended Medians
Open Road Closure	

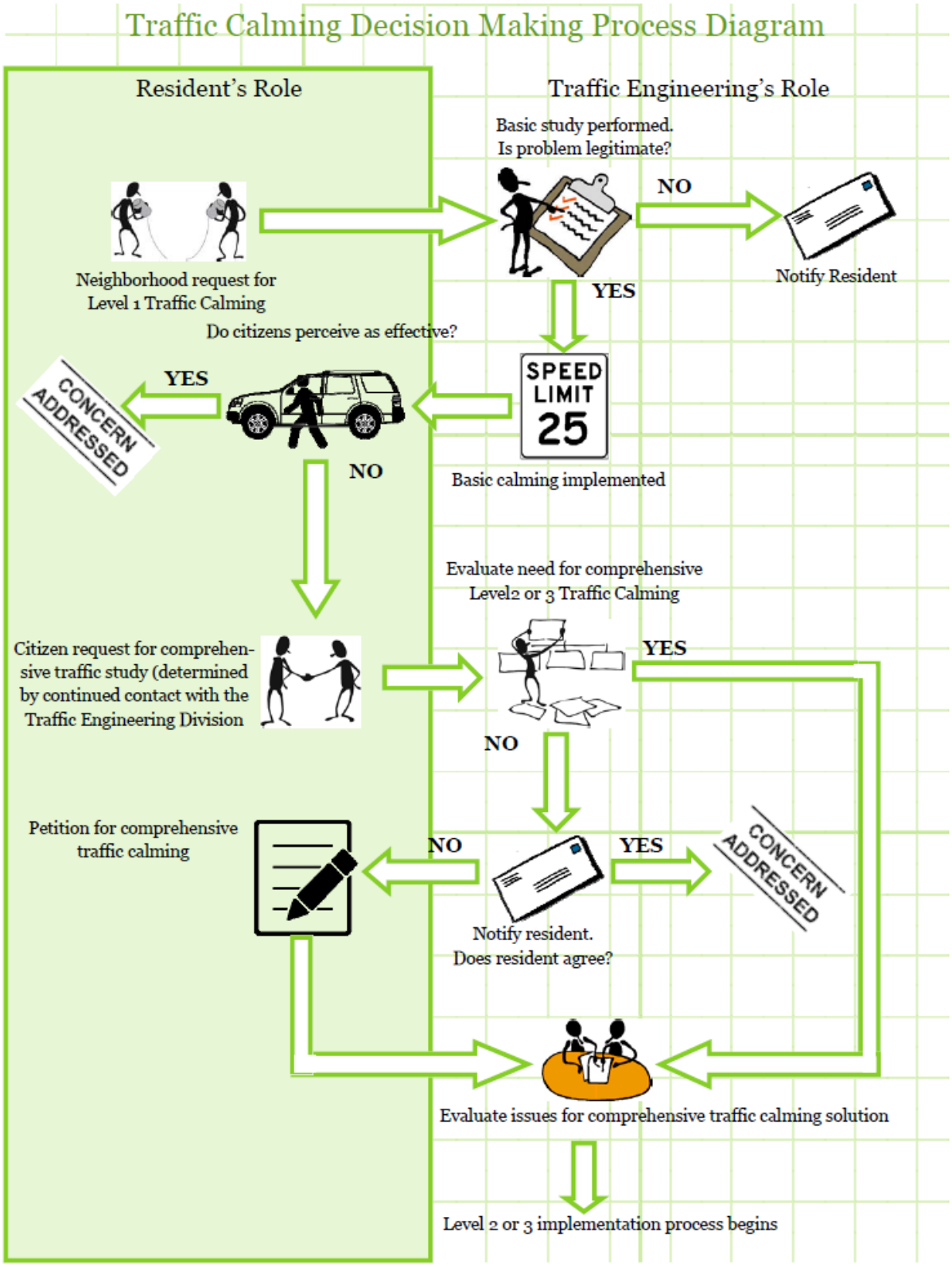
Traffic Calming Decision Making Process Diagram
Resident's Role
Traffic Engineering's Role
Basic study performed.
Is problem legitimate?
NO
Notify Resident
YES
Neighborhood request for
Level 1 Traffic Calming
Do citizens perceive as effective?
SPEED
LIMIT
25
Basic calming implemented
YES
CONCERN ADDRESSED
NO
Evaluate need for comprehensive
Level2 or 3 Traffic Calming
Citizen request for comprehen-
sive traffic study (determined
by continued contact with the
Traffic Engineering Division
YES
NO
Petition for comprehensive
traffic calming
NO
YES
CONCERN ADDRESSED
Notify resident.
Does resident agree?
Evaluate issues for comprehensive traffic calming solution
Level 2 or 3 implementation process begins

Figure 1-1

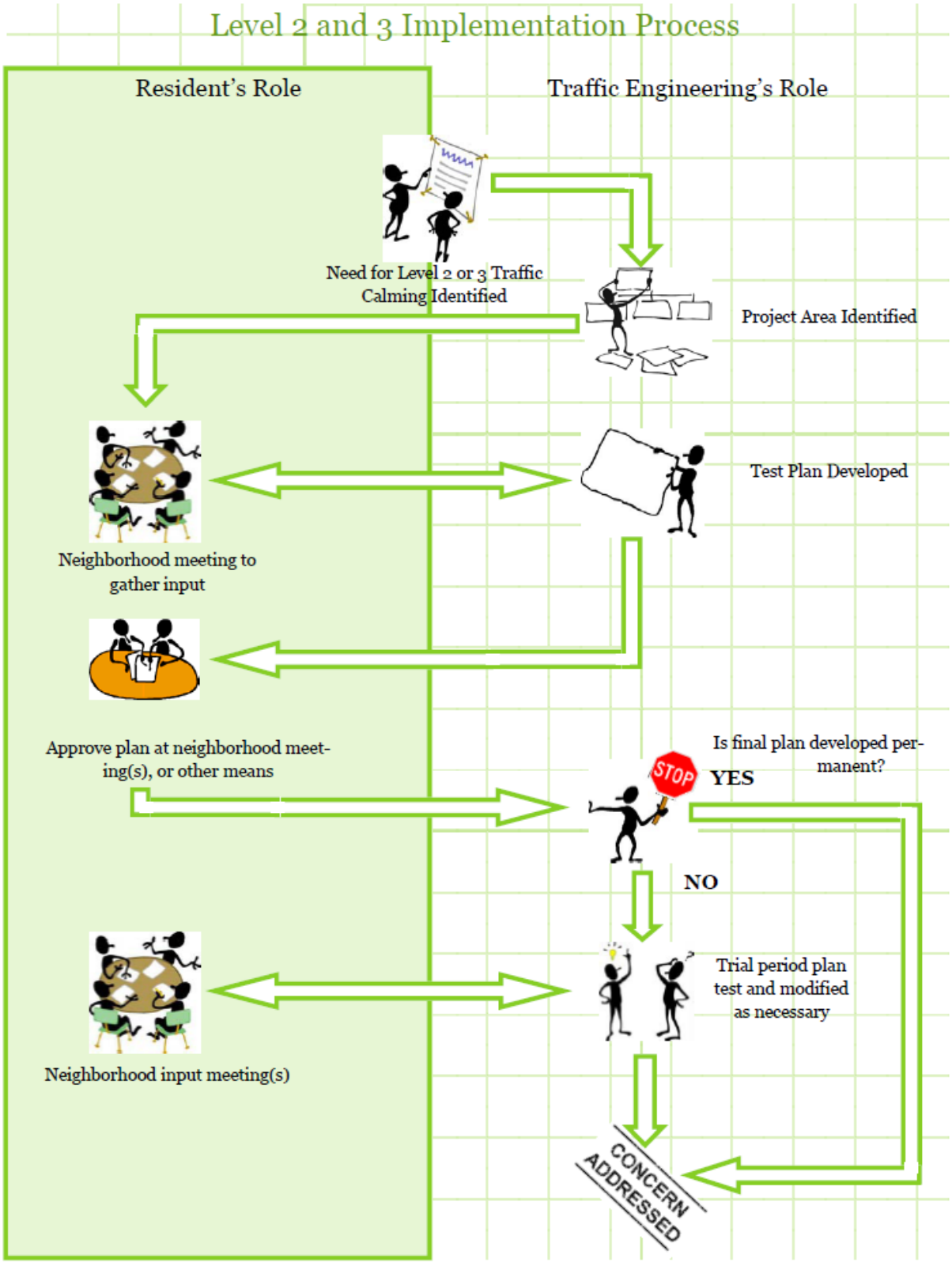
Level 2 and 3 Implementation Process
Resident's Role
Traffic Engineering's Role
Need for Level 2 or 3 Traffic Calming Identified
Project Area Identified
Test Plan Developed
Neighborhood meeting to gather input
Approve plan at neighborhood meeting(s), or other means
Is final plan developed permanent?
YES
STOP
NO
Trial period plan test and modified as necessary
Neighborhood input meeting(s)
CONCERN ADDRESSED

Figure 1-2

Procedure: The traffic calming decision-making process is shown in Figure 1-1 on Traffic Calming Decision Making Process. The Procedure highlights the roles played by residents and the Public Works Department. Basic traffic calming should be completed prior to beginning the Level 2 or 3 procedure.

Level 1 Procedure

Traffic Calming Request-*Neighborhood*

To begin the traffic calming process please contact Public Works Department at 874-2489, or collect 10 signatures on the Neighborhood Request for Level 1 Traffic Calming and send to Public Works Department. The signers must be at least 18 years of age and signatures are limited to two per household. This petition can be found on page 13.

Basic Study Performed-*City*

The Public Works Department will perform the appropriate study to address the requester's particular concern and situation.

Basic Traffic Calming Implemented-*City*

The application of some Level 1 devices is subject to independent policies and guidelines, such as those for crosswalks, stop signs, traffic signals, and bike lanes.

Do Citizens Perceive as Effective?- *Neighborhood*

After installation/implementation contact shall be maintained between the neighborhood and staff to discuss any changes in neighborhood traffic. If contact is not maintained then it shall be assumed the concern was addressed.

Citizen Request for Comprehensive Traffic Calming -*Neighborhood*

After implementation of Level 1 traffic calming, it is expected that on going communication with the Traffic Engineering Division and the neighborhood will continue. After Level 1 implementation if it is determined to not be effective, the neighborhood may request a comprehensive traffic calming study. Then the project can be evaluated to see if it qualifies for Level 2 or 3 traffic calming.

Evaluate Need for Comprehensive Traffic Calming- *City*

If Level 1 devices are inadequate as described by the neighborhood to the City, the Public Works Department will conduct a study for comprehensive traffic calming (Level 2 or 3). The Public Works Department will place plate counters or other devices at the area in question to receive two key pieces of data. The Average Daily Traffic (ADT) which provides the amount of vehicles driving on the road per day. The other key piece of data is the 85th percentile speed which is traditionally used to help set speed limits. It tends to be the speed that most people feel comfortable driving. To qualify for Level 2 or 3 traffic calming the area in question must be a paved residential street in the City Limits and meet 1 set of the criteria below:

Minimum ADT	Minimum 85th percentile speed (mph)
400	33
250	38

Petition for Comprehensive Traffic Calming-*Neighborhood*

Level 1 Traffic Calming has been installed, and the area in question does not meet the minimum qualifications. The Petition for Comprehensive Traffic Calming found on page 16 in the Appendix will be filled out and used as a petition for Level 2 or 3 traffic calming. Since the area does not meet minimum qualifications substantial neighborhood backing shall be required.

Level 2 or 3 Procedure: To initiate the procedure, a neighborhood group must first have implemented a Level 1 traffic calming device. The neighborhood may be determined by the following methods:

Need for Level 2 Traffic Calming Identified-*Neighborhood*

Level 1/Basic options have been implemented and have been found to be inadequate.

Project Area Defined-*City*

There are four ways to define the project area:

1) All residences along the street in question
2) All residences in the homeowners association
3) Per plat(s) or legal description(s)
4) Area defined by the Traffic Engineer

Community Meeting to get Input-*Neighborhood/City*

The neighborhood meetings will work laterally with the plan being developed. The Public Works Department will work closely with the neighborhood to develop a plan for traffic calming. A public meeting will be held in the community to discuss the problems and potential solutions. At a minimum, representatives of the Public Works Department will attend these meetings and, where necessary, representatives of the Police and Fire Department may attend to discuss enforcement and emergency services.

Test Plan Developed-*City*

Based on the comments received at the public meeting, the neighborhood and Public Works Department staff will proceed with developing a recommended solution.

Approve Plan-*Neighborhood/City*

The neighborhood should be in agreement on the Traffic Calming device that will be implemented and its location. The plan will have to be approved by the neighborhood with a 65% majority via community meeting, survey, or other means.

Plan Installed and Monitored-*Neighborhood/City*

Once the plan is agreed upon it will be placed on the list for traffic calming devices requested and put in the yearly report to City Council. As with most decisions involving public infrastructure improvements, the final approval of any traffic calming project will lie with City Council. Some devices (Level 3) require specific City Council approval, extending the time period before installation.

Project Prioritization:

Due to the participation in the Neighborhood Traffic Management Program the City of Columbia finds it important to prioritize the projects. The City uses a prioritization system to ensure that projects are scored in fact and not opinion. The prioritization system ensures an even playing field and providing transparency to the process.

The following information is used to develop a numerical score for each candidate street being considered for traffic calming measures; traffic volume, traffic speed, proximity to pedestrian generators, proximity to schools, and designation as a current or future bicycle route.

Traffic Volume (20 points maximum): points are based on the average daily traffic volume divided by 120.

Speed (45 points maximum): points are based on the 85th percentile speed minus the posted limit (psl) multiplied by 3

Schools (10 points maximum): 5 points are given for schools within ½ mile radius of the subject street; 10 points are given for schools within ¼ mile radius of the subject street.

Proximity to Pedestrian Generators (5 points for each generator, 10 points maximum): Points are given to parks, trails, hospitals, colleges, transit routes/ bus stops, or C-2 zoning districts that are within 1/8 mile radius of the subject street

Collisions (10 points maximum) 2 points are given to each collision on average per year

Bicycle Routes (5 points): Streets designated as a current of future bike route or have bike lanes are given 5 points.

Finalize Neighborhood Funding Partnership: Public Works Department staff will determine the engineers estimate for total construction and maintenance costs for the project. The neighborhood may choose to contribute funds towards the project. The projects will be presented to City Council on annual basis. In the presentation to City Council the amount contributed by the neighborhood will be clearly shown in association with the project. The contributions from the neighborhood will not move the project higher or lower on the priority list, but it will lower the "Cost to the City", which is presented with the Prioritization Score. Payment from the neighborhood (if any) will be through a one-time cash payment.

Project Implementation: After the City Council's approval for the implementation of the year's Traffic Calming projects, the construction of the approved projects will be scheduled as soon as practical.

Evaluation Phase: Communication between the neighborhood and the Traffic Engineering Division shall be maintained after implementation. If communication is not maintained it will be assumed that the concern was addressed.

Summary:

The Neighborhood Traffic Management Program is a process that allows for open lines of communication with the Traffic Engineering Division and the neighborhood. The level approach allows for quicker more visible traffic calming devices to be implemented and evaluated. If the problem persists more involved traffic calming measures may be implemented. The first step of any traffic calming process is to acquire 10 signatures (2 per household) on the petition Neighborhood Traffic Management Program Request for Traffic Calming on page 13 and submit the form to the:

City of Columbia, Public Works Department
701 E. Broadway
Columbia MO 65201.

Questions – Call 874-2489.

Appendix

Neighborhood Traffic Management Program Request for Traffic Calming Petition

We, the undersigned, owners of property abutting: _____

do hereby petition the Public Works Department to take action as may be necessary to initiate a traffic calming project. Action may include speed studies, cut-through traffic studies, collision data information gathering, and other data gathering as appropriate.

Please indicate the type and location of traffic related concern in your neighborhood:

*Name in line number 1 will be assumed the main point of contact throughout the project

#	Name	Address	Phone #	E-mail	Signature
*1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					

*Name in line number 1 will be assumed the main point of contact throughout the project

#	Name	Address	Phone #	E-mail	Signature
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					

Petition for Comprehensive Traffic Calming

This form is designed to help you evaluate your street, and to indicate if you support the City investigating potential traffic calming devices on your street. The information you supply is also crucial for helping the City understand and define specific problems. Please answer the questions below and mail this sheet by following the instructions on the back. Your survey will not be counted if you do not return this form indicating your decision.

Name of Observer: _____

Are you in favor of the City investigating potential comprehensive (Level 2 or 3) traffic calming devices?

- o Yes
- o No

Address: _____

Age:

- o 18-40
- o 41-64
- o 65+

Are you a (Check all that apply)

- o Pedestrian
- o Motorist
- o Bicyclist
- o

Phone Number: _____ E-mail Address: _____

Please indicate the number that best describes conditions in your neighborhood:

	Not a Problem		Somewhat a Problem		Serious Problem
	1	2	3	4	5
Safety of children playing in or near the street due to speeding cars	O	O	O	O	O
Pedestrian Safety	O	O	O	O	O
Backing out of driveways (hard due to speeding cars)	O	O	O	O	O
Careless drivers	O	O	O	O	O
Speeding cars	O	O	O	O	O
Cut-through traffic	O	O	O	O	O
Parking	O	O	O	O	O
Traffic Noise	O	O	O	O	O
Street Width	O	O	O	O	O

The City's NTMP and calming policies can be viewed at:
http://www.gocolumbiamo.com/PublicWorks/documents/Engineering/traf_calm.pdf

Frequently Asked Questions- FAQ:

What is the speed limit on my street?

The City of Columbia code of ordinances set the speed limits for streets in ordinance number 14-223. If your street is not specifically called out in this document, assuming it's a residential street the speed limit is 25 mph.

Can we simply reduce the speed limit to slow speeding traffic?

No. The City of Columbia has set the posted speed limit with good reasons in mind including, road characteristics, traffic mix, collision history, and road function.

Why can't stop signs be installed?

Stop signs are considered traffic control devices and not traffic calming measures. They are intended to control the flow of traffic at an intersection and assign right-of-way. Traffic noise and speeds may increase with the introduction of a stop sign. Standard engineering thresholds are applied to determine if a stop sign is "warranted." Unwarranted stop signs are more likely to be ignored by motorists and have been found to lead to increased collisions.

Are traffic circles and roundabouts the same thing?

No. **Roundabouts** are large islands often used instead of a traffic signal at an intersection of larger (non-residential) roadways. Roundabouts require entering traffic to yield to traffic already in the circle. Roundabouts use splitter islands to channel entry to the roundabout.

Traffic circles are not the same device- a small raised island located in the center of an intersection. These are often used in residential areas and prevent drivers from speeding through the intersection by impeding the straight-through movement.

Why only 10 points for Collisions?

Collisions are analyzed separately – if it is found that there are significant collision rate issues, steps will be taken to rectify the root cause(s) of the collisions outside the Neighborhood Traffic Management Program.