

*** CITY OF CLAYTON ***
CALIFORNIA



**NEIGHBORHOOD TRAFFIC
MANAGEMENT PROGRAM
(NTMP)**



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ADOPTED: JULY 15, 2003

Introduction

The City of Clayton is an upper-middle class community undergoing growth and change. The City is 4.5 square miles and has approximately 32 miles of paved roadway and has a significant traffic flow from residents who commute to workplaces outside the City.

Clayton Road and Marsh Creek Road are country routes bisecting the City. The roads are heavily traveled by commuters living in the City as well as those who use this route as an alternate to State Highway 4. These commuters have a significant impact on traffic safety in Clayton. More than 3 million vehicle trips occur in Clayton per year.

The City recognizes that automobile traffic poses one of the greatest threats to the quality of life of its citizens. With limited resources and staff, the City has a need to prioritize the numerous traffic complaints received from residents. Recognizing the need for new and innovative techniques to address ongoing neighborhood traffic issues, the City Council requested traffic enforcement and traffic engineering experts with the University of California's Institute of Transportation Studies (ITS) conduct a study of Citywide efforts addressing traffic safety.

Highlights of the ITS report (2003) revealed that Clayton is one of the safest cities, statewide, based upon fatal and injury collision rates. The report points out that even though

Police Department staffing is low compared to comparably sized cities, the Department is utilizing available resources in an effective and efficient manner. However, because of staffing levels the Department does not have the necessary flexibility to meet a variety of community needs, including increased and continuous traffic enforcement in Clayton neighborhoods.

The ITS report found that, like most cities, Clayton receives an abundance of non-emergency traffic complaints from residents. The complaints generally concern speeding vehicles and requests for various traffic calming devices and stop signs. Unfortunately, these complaints often result in the use of scarce resources to respond to the complainant. There is no formal process for the efficient processing of these traffic complaints, which leads to the inefficient use of scarce police and engineering resources. The ITS evaluators recommended Clayton adopt a program similar to the *Neighborhood Traffic Management Program (NTMP)* developed by the Town of Danville, which would result in a proactive approach to managing traffic safety problems that will increase the efficient use of scarce City resources.

In June 2003, the Clayton City Council directed staff to develop a similar *Neighborhood Traffic Management Program (NTMP)*.

This Clayton NTMP represents the City's commitment to the safety and

livability of its neighborhoods. It is a community-based approach to traffic calming. Concerned citizens are encouraged to first contact our Police Department and/or our City Engineer for resolution of real and/or perceived traffic problems in their neighborhoods, in order to address the issue at the operational level. In this manner, the program provides residents with a process for identifying, prioritizing and dealing with problems related to traffic safety on local streets.

Background

Traffic calming began in Europe around 1970 as a non-traditional way to reduce traffic speeds and problems on residential streets. Traffic calming techniques vary. Some communities simply lower the speed limits in areas with speeding problems. Other communities employ a comprehensive and systematic Neighborhood Traffic Management Program (NTMP) to address all types of neighborhood traffic issues.

Goals of the NTMP

1. Neighborhood Livability

The City of Clayton places a high value on neighborhood livability. Although livability has no precise definition, it can be thought of as encompassing the following characteristics:

- Feeling of safety and security in neighborhoods.
- Opportunity to socially interact with neighbors without traffic distractions and threats.

- Ability to experience a sense of community and neighborhood identity.
- Develop a balanced relationship between the multiple uses and needs of a neighborhood.

Traffic management plays a vital role in promoting these neighborhood characteristics. The NTMP recognizes that vehicular traffic is only one element of a neighborhood and that other residential needs must be given careful consideration.

1. Citizen Participation

Through the NTMP, residents can evaluate the various benefits and trade-offs of traffic devices and projects within their own neighborhood and can become actively involved in the decision-making process.

2. Implementing the Goals of the Clayton Neighborhood Traffic Management Plan.

The NTMP is a method of putting into practice some of the goals and direction of the City Council. Specific goals and policies that support the development of this program are:

- Implement a circulation system, which will preserve the atmosphere and unity of the area and will assure adequate traffic capacity on major thoroughfares but will minimize through traffic in residential neighborhoods.

- Provide for safe and efficient vehicular movement.
- Minimize the intrusion of through traffic on residential streets.
- Implement physical and operational improvements to improve roadway and intersection capacity that are consistent with the need to preserve the character of residential streets.
- Provide a safe environment for pedestrian movement.

The Clayton NTMP Program: How it Works

The Clayton NTMP focuses on education, and providing neighborhoods with tools for resolution and documentation of traffic problem(s). The NTMP Program measures should be thoroughly explored and implemented before moving on to consideration of more expensive, intrusive and restrictive measures. .

Getting the Process Started

• Staff Review & Initiation

Typically, traffic concerns are routed to the Traffic (City) Engineer or the Police Department who gather available data, including volume, speed and accident information.

If available data reveals that traffic problems are persistent and neighborhood wide, staff will initiate the implementation of the NTMP process. However, if the data reveals that a simple solution or an immediate hazard to the public exists, staff may address the

problem separately and not initiate the NTMP process.

• Neighborhood Boundaries

Staff will prepare a survey to circulate within the staff-defined project area. This survey will determine the level of agreement among residents that there is a traffic problem the residents want to address through the NTMP process.

This survey must be signed by a majority of households and/or businesses within the defined project area. Each household or business is entitled to one signature. If there is substantial interest to participate in the program, then the process moves forward. Two-thirds (2/3rd) of surveys mailed must be returned signed before the process can proceed. If a simple majority of those two-thirds returned surveys agree, the process will proceed.

Education & Community-Driven Measures

Initial steps of the NTMP involve collaboration of staff and the neighborhood to identify specific concerns, establish goals and objectives, define criteria for "success," and develop a Neighborhood Traffic Plan with measurements for implementation.

Examples of Community-Driven Measures include, but are not limited to, the following:

- Neighborhood Traffic Safety Campaign – targeted distribution of educational

materials regarding traffic safety issues.

- Neighborhood Speed Watch – a portable unmanned trailer equipped with radar and a speed limit sign placed so that motorists are aware of their actual speeds in contrast to the posted speed limit.
- Parking restrictions and modifications.
- State-approved passive traffic controls (i.e., stop signs, stop dots, street striping). These require Council approval. *(See attached Multiway Stop Control Policy)*
- Targeted police enforcement.
- Pavement markings.

Each neighborhood participating in the program must begin the NTMP process in this manner. The public education provided may enable residents to distinguish between real and perceived speeding problems, and begin the discovery process necessary for change.

Steps for Implementation

The following is a step-by-step approach to implementing the Neighborhood Traffic Management Program.

Step 1: Kick-Off Meeting

City staff will organize a community meeting with neighborhood residents to introduce the NTMP to residents at this meeting:

- Distribute and discuss program materials;

- Finalize neighborhood project area boundaries;
- Identify specific traffic concerns and issues;
- Discuss any traffic control measures previously implemented;
- Establish goals and objective of the neighborhood;
- Define criteria for “success” of the program;
- Establish a Neighborhood Traffic Committee (NTC) to work closely with staff during this process.

Step 2: Data Collection

With the specific traffic concerns expressed at the kick-off meeting, staff will conduct a thorough analysis of the traffic issue. Among other tasks, this may involve collecting and analyzing accident data, traffic volumes, speed surveys, neighborhood citation history, and other community problems. Data collection is often the only objective measurement that can be used to prioritize scarce City resources.

Step 3: Re-Group Meeting(s)

City staff will re-group with the NTC to discuss the analysis of the data collected. With this additional information, staff and the NTC will work together to develop a Neighborhood Traffic Plan (NTP) with Phase 1 measures designed to meet the established objectives. At this

meeting, a trial period will be established to analyze the effectiveness of the agreed-upon measures.

Step 4: Implementation and Trial Period

Measures will be implemented for a period of two to six months, as established by the NTC. City staff will monitor the effectiveness of the agreed-upon measures using the criteria for “success” established during the kick-off meeting.

Step 5: Evaluation Meeting

City staff, with assistance from the NTC, will present the results of the measures to the neighborhood.

More Restrictive Physical Devices

If the NTMP measures were not effective or “successful,” as defined by the neighborhood’s criteria, residents may elect to request more restrictive physical devices be considered by the City Council.

The Neighborhood Traffic Plan (NTP) may be modified to include the placement of more restrictive physical devices on neighborhood streets. These physical devices are typically more costly and more or less permanent and will be considered only as a last resort. Consequently, each project area will

have a budget (as funding permits), and may be subject to the review and approval of the City Council. Neighborhood participation in the funding of selected devices is a considered option.

Approval of More Restrictive Devices

The placement of more restrictive devices will require a minimum of 2/3rd - majority neighborhood consensus for implementation (plus a minimum of 75% of surveys mailed must be returned signed). A petition drafted by City staff will be circulated throughout the staff-defined project area. Each household or business is entitled to one signature. As the legislative body of the City, the City Council retains final discretion to approve or deny installation of any requested neighborhood traffic devices.

According to the California Vehicle Code, restrictive measures such as those proposed can only be implemented by ordinance or resolution by the City Council. Some more restrictive measures may also generate potentially significant physical impacts and may require the preparation of an environmental document, as required by the California Environmental Quality Act (CEQA). The City Council must review and approve an environmental document prepared for the NTP.

Steps for Implementation of More Restrictive Devices.

More restrictive devices may be considered if the initial plan did not satisfy the goals and the criteria for success defined by the project area neighborhood. The neighborhood must express a majority interest in pursuing more restrictive devices through a petition or community meeting.

Step 1: Re-Establishment of NTC

If the neighborhood decides to proceed, the residents will re-establish the NTC to work with staff to:

- Analyze the problems or issues, which were not sufficiently addressed in the initial NTMP process
- Identify the potential measures for more restrictive devices.
- Revise the NTP

Step 2: Data Collection

If necessary, staff will conduct a field review to collect any additional data necessary to check the feasibility of potentially more restrictive measures. The data gathered will be used to determine the measures for consideration. Staff will also solicit input from the County Fire Protection District and any other public entity that may be affected by more restrictive devices. Data collection and field review are often the only objective criteria available to

determine the true need for more restrictive physical devices and will carry great weight in prioritizing their need.

Step 3: Neighborhood Consensus Meeting(s)

Staff and the NTC will present the revised NTP with recommended measures to neighborhood residents. A staff-prepared petition will be circulated throughout the project area. At least 75% of the surveys must be signed and returned. Of those, 2/3rd of the affected households must sign the petition in support of more restrictive physical devices.

Step 4: Environmental Review

If the neighbors in the project area come to a 2/3rd - majority consensus on the recommended measures, staff will prepare an environmental analysis per CEQA to determine whether the recommended measures could cause a potentially significant impact on the environment. The results of this analysis will determine the type of environmental document to prepare and circulate. Before this process is started, Council approval of associated costs must be obtained. Neighborhood contributions to the funding are a considered option.

Step 5: City Council Decision

If an environmental document is prepared, staff will incorporate it along with an outline of the NTP into a staff report and present them to the City Council. The Council must approve the revised NTP and budget prior to implementation. It remains the full discretion of the City Council whether to approve the recommended measures for installation.

Step 6: Trial Installation

If feasible, more restrictive measures will be temporarily implemented for the duration of a trial period of three to six months. City staff will measure the effectiveness of the devices based on the established goals and criteria for success.

Step 7: Permanent Installation

If the temporary devices meet the established goals and criteria for success, permanent traffic calming or traffic control devices will be installed. It should be noted that most devices do not lend themselves to temporary installation and permanent devices will be implemented after City Council approval.

Step 8: Monitoring

The more restrictive devices will continue to be monitored for effectiveness after permanent installation.

Traffic Management Tools

There are three main methods of managing traffic.

1. General laws and ordinances covering the entire City. Examples include right-of-way rules at intersections and general parking regulations.
2. Traffic control devices are used to send specific regulatory, warning, or guiding messages to the motorists, cyclists and pedestrians. In residential area, some common examples are stop signs, speed limit signs and pavement markings.
3. Traffic calming devices are geometric design features that guide or restrict the movement of vehicles or pedestrians. They define various parts of the road for use by vehicles, pedestrians, or landscaping.

This booklet is designed to guide the management of traffic in residential neighborhoods where a majority of residents and driveways front the street. The following is a menu of traffic management tools, which can be used as a resource once the problem has been defined. The solution ultimately selected by project area residents may not necessarily originate from this menu.

Traffic control devices, as described above, are typically considered “passive controls.” These devices can be considered for implementation during initial phase of the program. The following provides a brief description of some traffic control devices:

1. Yield Signs

Yield signs require a motorist by law to yield to other motorists on other streets, stopping only if necessary.

2. Stop Signs

The basic purpose of a stop sign is to assign right-of-way at intersections. These control devices are used predominantly to reinforce the street hierarchy. A number of studies have shown that stop signs are often ineffective at controlling speed or reducing traffic volume in residential neighborhoods.

(See attached Multiway Stop Control Policy)

A Two-Way Stop is used to protect traffic on one of two intersecting streets by requiring traffic on the other street to come to a complete stop. Multi-Way Stops represent one of the most restrictive passive control measures available. They are used primarily where two major streets intersect and funds or traffic warrants for a traffic signal are not available.

3. Speed Limit Signs

Speed limit signs are regulatory devices used to inform motorists of an absolute speed limit imposed by the governing agency. They have no impact on the street hierarchy or the use of the street system.

Studies have shown that posted speed limits on the perimeter of defined neighborhood areas do not result in speed or volume reduction. Various communities have attempted to reduce residential traffic using lowered speed limit signs with minimal success.

4. One Way Streets

One-way streets can benefit both motorists and pedestrians by reducing the number of vehicle-pedestrian conflicts. One-way streets generally have no impact on emergency vehicles, which can travel the “wrong way” when necessary.

Traffic volumes in a residential area usually can decrease ten to 15 percent when a complete system of one-way streets is implemented. One-way streets can be used to attract traffic away from residential roads, which were used a shortcuts.

5. Other Control Devices

Other passive traffic controls can be used (sometimes in combination with one another) to derive the desired effects. The following list of controls should also be considered:

- Access regulations (i.e., "Not a Through Street.").
- Roadway condition warning signs.
- Turn prohibitions.

Traffic calming devices involve the strategic placement of physical devices on the street to decrease the car's dominance. There are three types of traffic calming devices:

1. Devices used to physically restrict and prevent vehicle movement. These include chokers, traffic circles, median barriers and diverters;
2. Devices used to attract the special attention of drivers, such as rumble strips, bots dots, street lane striping.

By their physical form, traffic-calming devices force or prohibit a specific action. These devices have the advantage of being largely self-enforcing and creating a visual impression (real or imagined) that a street is not intended for through traffic.

Project Ranking

At times, there may be a high demand for the application of the NTMP program and its founding throughout Clayton. The City will consider the following factors when ranking the priority of project areas.

1. **Traffic Volumes.** The average daily traffic volume (ADT) of the subject street(s) will be considered as a factor in ranking the priority of a project area.
2. **Speed.** A survey of the average driving speed will be taken. The percentage above the speed limit will be considered as a factor in ranking the priority of a project area.
3. **Accidents.** The accident history of the neighborhood will be considered as a factor in ranking the priority of a project.
4. **Schools & Pedestrian Areas.** The project area's proximity to schools and other pedestrian-oriented areas (e.g., parks, etc) will be considered as a factor in its ranking priority.
5. **Matching Funds.** The City may consider matching funds as a priority factor when ranking projects. Additionally, more expensive traffic calming devices may be considered if matching funds are available.

Assessing Impacts of Diverted Traffic

Sometimes, successfully calming traffic on one street may result in diverting traffic problems onto an adjacent street or neighborhood. The following guidelines will be used in determining impacts on adjacent non-project streets:

1. An increase of at least 150 vehicles per day as a result of

an NTMP project is not acceptable on any local street regardless of its prior volume.

2. The resulting traffic volume on any local street should not exceed 1500 vehicles per day.

The City has established these guidelines for the following reasons:

- Residents of adjacent non-project streets are provided with some assurance that traffic problems on one local street will not be solved by shifting the problem to other local streets.
- The guidelines can be translated to a table where the impacts on any given street can be quickly and easily identified.
- The guidelines provide a quantifiable and objective standard for measuring the success or failure of a project.

The guidelines are presented as a range rather than specific limits to accommodate the margin of error inherent in the collection of traffic volume data. An increase in traffic volume that exceeds the impact guidelines is not necessarily detrimental for a project, unless the Neighborhood Traffic Committee (NTC) has chosen to make that commitment. Other, more qualitative, criteria will also be used to help determine whether a project's secondary or unintended impacts are acceptable.

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CITY OF CLAYTON

MULTIWAY STOP CONTROL MODERATE TO LOW VOLUME STREETS POLICY AND WARRANTS WORKSHEET

ADOPTED BY THE CITY COUNCIL ON JULY 15, 2003

Policy

The State of California Department of Transportation (Caltrans) has established certain requirements (warrants) that must be satisfied in order to justify the installation of regulatory traffic control signs and devices. These warrants are generally based upon vehicular and pedestrian volumes that are unattainable for most, if not all, of the City's residential street intersections.

The City Council of the City of Clayton therefore finds that is necessary to adopt a set of local warrants for the installation of multiway stop signs that are more in line with the traffic volumes that could be expected in the City's residential neighborhoods. For the purpose of these warrants, moderate to low volume streets are defined by our City as those with less than 4,000 vehicles per day.

It is the policy of the City Council of the City of Clayton that multiway stop signs should be considered for installation if an intersection meets or exceeds the minimum criteria specified below. Further, the evaluation of the criteria, and any such measurements and computations as may be deemed necessary, shall be the responsibility of the City Engineer. Potential conflicting City policies such as Intersection Level of Service (LOS) shall be considered, and may form the basis for the denial of stop signs despite other justifying factors.

Warrants

All way stop control installation MAY be considered if ONE OR MORE of the following conditions exist:

1. TRAFFIC AND PEDESTRIAN VOLUMES Yes No
 - (a) A minimum hourly average (for any eight hours) volume of 300 vehicles entering the intersection from all approaches on an average day. In addition, the vehicular volume entering the intersection from the minor street or streets for the same eight hours must average 1/3 of the total volume entering the intersection (i.e., 100 per hour minimum); or

- (b) A minimum hourly average (for any eight hours) volume of 300 vehicles entering the intersection on the main approach and a pedestrian volume of at least 100 pedestrians per hour crossing the main street during the same eight hours.

2. ACCIDENTS Yes No

Three or more types of accidents, within a twelve-month period, susceptible to correction by the installation of stop signs.

3. VISIBILITY Yes No

The straight line sight distance on one or more approaches of the major street for vehicles or pedestrians crossing the intersection is, per the Caltrans Design Manual, less than that required for the posted speed limit.

4. RESIDENTIAL AREA Yes No

Volume warrants to be reduced to 60% of the values above if ALL of the following conditions are met:

- (a) Both streets have residential frontage with existing 25 mph speed limits;
- (b) Neither street is an adopted through street.
- (c) Both streets are two-lane streets;
- (d) No existing stop sign or signal is located on the more heavily traveled street within a distance of 600 feet;
- (e) The intersection has four legs, with streets extending 600 feet or more away from the intersection on at least three sides; and
- (f) Installation of a four-way stop is compatible with the overall traffic circulation needs for the residential area.

5. UNUSUAL CONDITIONS Yes No

- (a) High speed – the 85th percentile speed on the major street exceeds 25 mph; and
- (b) Unusual conditions exist (such as visual signs of emergency maneuvers such as skidmarks, regular use of the intersection by school age children, the elderly or disabled, steep hill, unique geometric condition, etc.)