

# The City of Palos Verdes Estates



## Traffic Calming Program

Approved by City Council  
December 14, 1999

Revised 2001

## **INTRODUCTION**

Traffic calming is a term used to describe a distinctly different approach to addressing resident concerns regarding vehicle intrusion in neighborhoods such as excessive speeds and cut through traffic. It is community planning at its best, involving residents, engineers, and planners in developing a plan of physical improvements and/or modifications to the roadway that passively seek to address the concerns without incurring additional enforcement responsibilities. Originally conceived of in Europe, traffic calming is based on the premise that motorists drive in a manner and speed that the physical characteristics permit. In other words, a wide, level, paved roadway is more conducive to higher speeds than one that is narrow, undulating, and has varying surface treatments at intersections.

Traffic calming techniques include the following:

- Raised section of roadway including speed humps
- Varying roadway surface treatments, particularly at intersections
- Narrowing of roadway width
- Roundabouts
- Chicanes
- Centerline islands
- Painted edge lines
- Rumble strips

## **GOALS**

It is the goal of this program to establish standards and a process that will provide the residents of Palos Verdes Estates with the tools necessary to mitigate some of the negative impacts of vehicles on residential streets.

The City seeks to achieve the following goals in considering all traffic calming requests and implementing traffic calming techniques.

- Reduce traffic speeds
- Improve safety and convenience for pedestrians and bicyclists
- Reduce traffic volumes by discouraging through traffic by allowing local traffic
- Create attractive streetscapes
- Empower citizens to creatively address traffic concerns in their neighborhood in partnership with City staff

## **PROCESS**

1. **Identification**: A traffic calming need can be identified by either the City Council or residents of the City. Needs identified by the City Council are forwarded to step 4, where staff begins an analysis. Needs identified by residents continue to step two, where neighborhood support is solicited.
2. **Gain Support**: At this stage, residents are encouraged to contact City staff with their concept to obtain any feedback or recommendations. Residents establish a neighborhood traffic committee to discuss the identified need and begin brainstorming possible solutions. A spokesperson is chosen from among the neighborhood traffic committee to serve as the contact between the neighborhood and the City. The neighborhood traffic committee begins collecting data and preparing a plan to submit with their application.
3. **Application**: Neighborhood spokesperson submits a complete application to the City.
4. **Analysis**: City staff reviews the application submitted, verifying that the application is complete and accurate. Applicant makes revisions to application as needed. City staff works with resident representatives to perform analysis of the area.
5. **Review**: Staff prepares a report and recommendation, and presents all material to the Traffic and Safety Committee for review. The Traffic and Safety Committee considers the findings of the analysis and makes a recommendation to the City Council.
6. **Implementation**: Staff implements the decision of the City Council.
7. **Review for effectiveness**: Six months after implementation, the Traffic Committee reviews the effectiveness of the traffic calming techniques utilized and determines whether additional steps 4-7 are repeated.

## **OUTLINE OF STAFF ANALYSIS AND REPORT**

Staff shall prepare an analysis and report on the application. This shall include conducting a 24 hour study of speed and volume on the street.

Once data has been collected, staff shall prepare a report, analyzing the data collected and including the following information:

- Traffic Calming Application number
- Neighborhood name and description
- Date and description of site investigation
- Location
- Average weekday daily volumes
- Average vehicle speeds
- Number of reported accidents within the past three years
- Accident reports
- Analysis of need
- Analysis of possible Traffic Calming techniques
- Recommendation for implementation of Traffic Calming techniques
- Estimated costs of Traffic Calming techniques
- Expected CEQA status

The staff report shall be presented to the Traffic and Safety Committee for review in making a recommendation to the City Council. In general, locations which have an 85<sup>th</sup> percentile speed such that radar enforcement at the posted speed limit is not possible, a traffic volume greater than 1000 vehicles per day or 100 vehicles in any given hour, or a speed and/or volume that exceeds an appropriate level for the characteristics of the street shall merit implementation of Traffic Calming devices.

## **ENDORSED TECHNIQUES**

The strategies on the following pages may be options for traffic calming within certain areas of the City. All strategies are not necessarily appropriate for all situations. Situations may arise in which none of the following techniques are appropriate, and other alternatives need to be explored. Therefore, the following list is a starting point for traffic calming alternatives. In all situations where more than one option exists for traffic calming implementation, the least imposing and least costly options should be implemented first, resorting to those of higher cost and greater magnitude if initial attempts prove unsuccessful.

Each of the techniques are defined and described, with examples shown in most cases, on the following pages. Examples included are meant as illustrations only, and may be modified to best suit a particular application. The following aspects of each technique are assessed:

- Ability to decrease speeds
- Ability to decrease volumes
- Noise generated
- Pedestrian safety
- Bicycle safety
- Impact on parking
- Effect on local access
- Impact on emergency access
- Maintenance needs
- Impact on drainage
- Aesthetics

A chart is also included at the end of the section, summarizing the characteristics of the various techniques.

## **SPEED HUMPS**

An alternate to traditional speed bumps, speed humps are used to slow down vehicles with a minimal discomfort and vehicle damage. Speed humps should be approximately 3 inches high and 12 feet wide on residential streets. They are placed perpendicular to the centerline of the street and stretch across the entire lane width. Speed humps are marked with reflective paint to warn oncoming motorists of the need to slow down.

### *Advantages*

- Effective on residential streets where speeding is often due to through vehicles, using the route as “shortcut” alternative to the main arterial. Motorists are forced to slow down when traveling over a speed hump and may choose other routes once they learn that routes with speed humps may lengthen their trip.
- Slower vehicles and lower volumes may result in increased safety for pedestrians and bicyclists.
- Self-enforcing speed control.
- Relatively inexpensive.

### *Disadvantages*

- Speed humps require minor additional maintenance and special attention when a street is overlaid.
- Emergency vehicles may be delayed.
- May create noise if vehicles contain loose items.
- May increase volumes on other residential streets.
- May impact underground utility access.
- May impact drainage.

### *Criteria for Installation*

- Residential with speed limit no greater than 25 mph
- Street grade is less than 5%
- Street has been resurfaced within the last two years
- Street has no more than one travel lane in each direction
- Not to be installed on Palos Verdes Drive North, Palos Verdes Drive West, Via Campesina, Via Del Monte, Granvia Altamira, and Paseo Del Mar.
- Installation is in conformance with Palos Verdes Estates Speed Hump Standard

## **RUMBLE STRIPS**

Rumble strips consist of a series of raised ceramic pavement markers that interrupt the smoothness of the road to call motorists' attention to a hazardous condition, or reason for caution. The markings are placed perpendicular to the street centerline and slightly vibrate or "rumble" the vehicle driving over them.

### *Advantages*

- Emergency vehicles may not be significantly affected.
- Raises drivers' awareness.

### *Disadvantages*

- Generate unpleasant additional noise in the neighborhood.
- May be a hazard for bicyclists and motorcycles.
- Because rumble strips may not necessarily slow down vehicles, their effectiveness may be short-lived.
- High maintenance.

### *Criteria for Installation*

- Street grade is less than 5%
- All immediately adjacent neighbors have approved
- Installation is in conformance with Palos Verdes Estates Rumble Strip Standard

## **BRICK CROSSWALK**

From a motorists' perspective, crosswalks are often difficult to see. By altering the appearance or texture of the crosswalk, oncoming vehicles are better able to see and prepare to stop or exercise caution at a crosswalk. Brick crosswalks can interrupt the motorists' line of sight and encourage lower speeds. Crosswalks paved with bricks provide an alternate texture and create the feel of a pedestrian friendly environment.

### *Advantages*

- Pedestrian safety may be improved.
- Speeds may be reduced.
- Alternate materials may reduce the urban look of a street and contribute to the rural character.

### *Disadvantages*

- Noise may generated if the pavement texture is altered..
- Alternative paving materials or colors require special maintenance.

### *Criteria for Installation*

- Crosswalks are installed at controlled intersections.
- Installation is in conformance with Palos Verdes Estates Brick Crosswalk Standard

## CENTER ISLANDS

Center islands are areas between lanes, which are not designated for automobile use. Center islands may simply be painted areas, but are most effective when they are defined by raised curbs and landscaped to further reduce the open feel of a street. Center islands can be installed only on streets with right-of-way in excess of the minimum required street width.

### *Advantages*

- Center islands create stopping points for pedestrians as they cross a multilane street, which improves the safety for pedestrians.
- Landscaping may contribute to the pastoral nature of the area and improves aesthetics.
- Narrowing the street width may reduce speeds and volumes.
- Narrowing street width reduces the street area which requires pavement improvement.

### *Disadvantages*

- Landscaping and additional striping creates additional maintenance needs and costs.
- May impact drainage.

### *Criteria for Installation*

- Installation of an island will maintain travel lanes of at least 20 feet in width
- Landscape plan for island has been approved by the Parklands Committee
- Landscape plan includes irrigation
- If installed adjacent to an intersection, clearance is provided for adequate pedestrian passage when crossing the street
- Installation is in conformance with Palos Verdes Estates Centerline Island Standard

## **GATEWAYS**

Gateways are a type of center island which gives the illusion of a private street. Gateways can consist of an actual gatehouse, a sign which introduces the neighborhood, or simply landscaping so that through traffic considers other routes.

### *Advantages*

- Volumes are reduced and speeds are decreased.
- Gateway designs can be very personal and designed by the neighborhood, which can instill a sense of community identity.
- Gateways can be a visual enhancement to the neighborhood.

### *Disadvantages*

- Additional maintenance is required.

### *Criteria for Installation*

- Minimum travel lane width of 20 feet will be maintained
- Provision is made for pedestrian passage across or around gateway when crossing the street
- Any landscaping plans have been approved by the Parklands Committee
- City Engineer has approved drainage plan
- Island portion is installed in conformance with Palos Verdes Estates Centerline Island Standard

## **CHOKER**

A choker consists of narrowing a street intersection to reduce the width of the traveled way by widening the unimproved right-of-way. This effect can slow vehicles as they perceive a narrow street and also slow vehicles as they approach an intersection where a shoulder has been reduced in width.

### *Advantages*

- A slight speed reduction may be achieved.
- Pedestrians have a shorter crossing distance.
- Choker can be landscaped to improve aesthetics.
- Can discourage truck traffic or through traffic use.
- May enhance residents' sense of privacy.

### *Disadvantages*

- Chokers may be a potential obstacle for careless drivers.
- May displace parking.
- May require street drainage to be reworked.

### *Criteria for Installation*

- Adjacent property owners have approved and accepted maintenance responsibility
- Minimum travel lane width of 12 feet is maintained
- City Engineer has approved drainage plan
- Installation is in conformance with Palos Verdes Estates Choker Standard

## **FORCED TURN BARRIER/CHANNELIZATION**

Forced turn barriers are a method of channelizing traffic at an intersection to force turning movements at particular lanes. These may be used at intersections to restrict traffic from continuing down residential streets where lower volumes are sought. Channelization can be accomplished using either raised curbs or small traffic islands.

### *Advantages*

- Volumes may be reduced by decreasing the amount of cut-through traffic.
- May be attractively landscaped.
- Pedestrian safety may be improved as pedestrians have only a single lane of traffic to cross at a time.

### *Disadvantages*

- Local residential access is restricted.
- Additional maintenance is required.
- Emergency access can be affected.
- May impact drainage.

### *Criteria for Installation*

- Minimum travel lane width of 12 feet is maintained
- Drainage has been approved by the City Engineer
- Installation is in conformance with Palos Verdes Estates Channelization Curb Standard

## **STRIPING**

Motorists tend to drive at higher speeds in more rural areas. Streets that have a more urban, controlled appearance can encourage drivers to reduce their speeds. Additional striping can eliminate existing multiple lanes, or reduce the apparent width of existing lanes to create a less rural appearance and promote lower speeds.

### *Advantages*

- Speeds may decrease.
- Additional parking may become available.

### *Disadvantages*

- May require additional maintenance, although this is minimal.

### *Criteria for Installation*

- Striping is in accordance with Caltrans design standards
- Minimum travel lane widths of 12 feet are maintained.

## **RAISED INTERSECTIONS**

Raised intersections consist of a plateau, generally approximately four inches above the adjacent streets, where streets intersect. Intersections can be built up so the area of an intersection is at a slightly higher elevation than the adjacent streets. A slight ramp is constructed at each leg of the intersection, leading to the raised intersection pad. Motorists are forced to travel slowly as they enter and exit the intersection, so as to minimize discomfort in traveling over the ramps.

### *Advantages*

- Vehicles are slowed in critical areas where frequent collisions occur.
- Intersection is highlighted and brought to drivers' attention.
- Pedestrian and bicycle safety may be improved.
- Attractive paving stones or bricks can be used to improve aesthetics.

### *Disadvantages*

- May require special maintenance.
- May impact drainage.
- May increase difficulty of making a turn.
- Requires adequate signage and driver education.

### *Criteria for Installation*

- City Council has approved the concept of a raised intersection at a particular location
- City Engineer has approved drainage plan
- Installation is in conformance with Palos Verdes Estates Raised Intersection Standard

## **LANDSCAPING**

Introducing vertical obstructions to the perceived openness on streets can lead to reduced speeds. This is best achieved through the introduction of trees or shrubs along the unimproved right-of-way.

### *Advantages*

- May reduce speeds.
- Can be an aesthetic improvement.

### *Disadvantages*

- Additional maintenance is required.

### *Criteria for Installation*

- All adjacent property owners have approved of additional landscaping and agree to maintain new vegetation.
- Landscaping is regularly trimmed to maintain adequate street clearance at all times.

## **TRAFFIC CALMING APPLICATION**

To facilitate the communication between citizens and City staff regarding traffic calming issues, an application process has been developed.

Prior to submission of an application, a neighborhood traffic committee should be established. Residents interested in submitting a traffic calming application are encouraged to first contact as many neighbors as possible to receive input. An initial meeting among neighbors should be conducted to accomplish the following:

- A. Gather the opinions and ideas of the neighborhood.
- B. Discuss traffic calming options.
- C. Analyze the advantages and disadvantages of the feasible options.
- D. Select at least three traffic calming techniques to include in the application.
- E. Select a key person to serve as the City's contact with the neighborhood traffic committee. This contact will be responsible for all communication with the City and shall represent the neighborhood traffic committee at all City meetings. A person should be selected who can be reached throughout the day and answer any questions regarding the application.

Once the neighborhood traffic committee has been formed, and application may be completed and submitted to the City for analysis and review. Outlined below is a two-step process that includes a preliminary review and a formal review. The applicant must begin at the preliminary review process.

### **Preliminary Review Process**

1. **Questionnaire:** A questionnaire included in the application packet facilitates the applicant's analysis of the situation. The applicant is asked to describe their neighborhood in terms of excessive speeding, high volumes, and pedestrian and bicycle safety. In doing so, the applicant gains a realistic understanding of the needs of their neighborhood. The questionnaire also requires the applicant to describe traffic calming solutions that they feel may address the traffic issues in their neighborhood. Although the Traffic and Safety Committee may not choose to implement the techniques identified by the applicant, their ideas and perspective are still beneficial in the process. Residents will gain a better understanding of the issues involved and the proper use of various Traffic Calming techniques as they relate to the problems identified. Through the questionnaire responses, the City will benefit from the ideas of the residents who make their home in the subject neighborhood and observe traffic patterns everyday.
2. **Neighborhood Support:** An application must be accompanied by the signatures of at least 10 property owners within the project area, or 10% of property owners within 300 feet of the project area (the applicant may choose either method for the calculation of the minimum number of signatures). This will ensure that there is

sufficient support for the project to warrant consideration of the application. Additional signatures may be required to proceed with the formal review.

3. **Neighborhood Plan:** Applicants must submit a plan supporting their request. The plan can be anything from an engineered plan to a hand-drawn sketch showing the existing conditions of the area identified. Possible Traffic Calming ideas, as identified in the questionnaire, must be shown on the plan. Surrounding streets and lots and all street improvements must be shown accurately on the plan. The plan serves as a reference for staff and members of the Traffic and Safety Committee. The plan also aids in the applicant's process of assessing the feasibility of Traffic Calming techniques identified. City staff will review the plan and inform the applicant of any correction or additional information that must be provided.

The project will then be reviewed by the Traffic and Safety Committee in order to give the applicant feedback and direction as to how to proceed with a formal application.

#### Formal Review Process

1. **Questionnaire:** The applicant will make any necessary modifications based on the comments given at the preliminary review.
2. **Additional Information:** Applicants are encouraged to submit any additional information that may aid in the review of their application. Other documents such as statistics, photographs, drawings, or plans can be beneficial to staff and the Traffic and Safety Committee.
3. **Ballot:** A ballot will be sent out to all property owners and residents identified by the Traffic and Safety Committee as the affected properties. Along with the ballot will be a copy of the plan that is proposed and a copy of the standard for the traffic calming measure(s) proposed. Only one ballot per residence will be sent, unless the property is a rental unit. In that case, one ballot will be sent to the property owner and one will be sent to the resident. Traffic calming devices will not be installed unless 66% of the ballots returned are in favor of the installation.

**CITY OF PALOS VERDES ESTATES  
TRAFFIC CALMING APPLICATION**

Neighborhood: \_\_\_\_\_ Date: \_\_\_\_\_

Key Contact Person: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Attach the following items to this application:

- 1) Responses to the Traffic Calming questionnaire
- 2) Plan of neighborhood showing existing conditions and at least three possible traffic calming strategies
- 3) Petition form attached with signatures of at least 10 signatures or 10% of all residents within the affected area.
- 4) Neighborhood plan supporting the request. The plan can be anything from an engineered plan to a hand-drawn sketch showing the existing conditions of the area identified. Possible Traffic Calming ideas, as identified in the questionnaire, must be shown on the plan.
- 5) Any additional information available (photographs, statistics, etc.)



**TRAFFIC CALMING APPLICATION  
NEIGHBORHOOD SUPPORT PETITION**

Neighborhood: \_\_\_\_\_

Key Contact Person: \_\_\_\_\_

The undersigned hereby state that we are in support of the proposed traffic calming application in the neighborhood shown on the attached sketch. We agree that there is a need for reduced traffic volumes, reduced speeds, and increased safety for pedestrians and motorists in the neighborhood identified.

Print Name	Address	Signature	Date
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