



City of Claremont

Radar Speed Survey - 2012

Prepared by:

**Engineering Division
Department of Community Development**



City of Claremont

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Department of Community Development
Effective date: November 23, 2012**



**CITY OF CLAREMONT
CERTIFIED COPY OF ORIGINAL DOCUMENT**

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.
CITY OF CLAREMONT)

I, Shelley Desautels, Deputy City Clerk of the City of Claremont, California, hereby certify that the attached document is a true and correct copy of the original City of Claremont 2012 Radar Speed Survey on file in the Office of the City Clerk.

IN WITNESS WHEREOF, I have hereunto subscribed my name and seal this 3rd day of January, 2013.


Shelley Desautels, Deputy City Clerk
City of Claremont

City of Claremont

Radar Speed Survey - 2012

Streets surveyed:

1. **Indian Hill Boulevard**
Eighth Street to Foothill Boulevard
Foothill Boulevard to Base Line Road
2. **Lindenwood Drive**
Lassen Avenue to Shenandoah Drive
3. **Mills Avenue**
Base Line Road to Alamosa Drive
Alamosa Drive to Mt. Baldy Road
4. **Monte Vista Avenue**
Claremont Boulevard to Base Line Road
5. **Mountain Avenue**
Foothill Boulevard to Base Line Road
Thomp. Creek to end
6. **Mt. Baldy Road**
Mills Avenue to Padua Avenue
7. **Padua Avenue**
Base Line Road to Alamosa Drive
Alamosa Drive to Mt. Baldy Road

Streets not requiring survey (existing speed limits to remain for additional 3 years):

	<u>Existing Posted Speed to Remain</u>
Alamosa Drive Mills Avenue to Padua Avenue	30 mph
Auto Center Drive Indian Hill Boulevard to end	30 mph
Cambridge Avenue Arrow Highway to Bonita Avenue	35 mph
Claremont Boulevard Arrow Highway to First Street First Street to Sixth Street Sixth Street to Foothill Boulevard Foothill Boulevard to Monte Vista Avenue	30 mph 40 mph 45 mph 40 mph
College Avenue San Jose Avenue to Arrow Highway First Street to Sixth Street Sixth Street to Foothill Boulevard	25 mph 25 mph 30 mph
Garey Avenue Arlington Drive to College Way	40 mph
Indian Hill Boulevard American Avenue to San Jose Avenue San Jose Avenue to Arrow Highway Arrow Highway to First Street First Street to Bonita Avenue Bonita Avenue to Eighth Street Base Line Road to Armstrong Drive	35 mph 40 mph 35 mph 30 mph 30 mph 40 mph
Lassen Avenue Scottsbluff Drive to Lindenwood Drive	25 mph
Mills Avenue Foothill Boulevard to Base Line Road	40 mph
Miramar Avenue Mills Avenue to Padua Avenue	30 mph
Monte Vista Avenue Foothill Boulevard to Claremont Boulevard	45 mph
Mountain Avenue Bonita Avenue to Harrison Avenue Harrison Avenue to Foothill Boulevard	25 mph 35 mph
Oxford Avenue Colby Circle to Scripps Drive	25 mph

Existing Posted Speed to Remain

San Jose Avenue

Mountain Avenue to Indian Hill Boulevard 35 mph
Indian Hill Boulevard to College Avenue 30 mph

Shenandoah Drive

Claremont Boulevard to Monte Vista Avenue 25 mph

Sixth Street

Indian Hill Boulevard to College Avenue 25 mph
College Avenue to College Way 25 mph
College Way to Mills Avenue 30 mph
Mills Avenue to Claremont Boulevard 35 mph

Sumner Avenue

Briarcroft Road to Ridgefield Drive 30 mph

Towne Avenue

Foothill Boulevard to Base Line Road 40 mph

Williams Avenue

Foothill Boulevard to College Way 35 mph

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EXECUTIVE SUMMARY

Statutes in the California Vehicle Code (CVC) require that governmental agencies periodically review and update posted speed limits. The periodic updates are required every five to ten years in order that the City's enforcement agency may enforce speed limits with radar. As noted in Section 40802 of the CVC, existing radar surveys must be updated:

1. Every five years, unless the following conditions apply:
 - a. If the officer using the radar device has successfully completed a radar operator course of not less than 24 hours on the use of police traffic radar, and the course was approved and certified by the Commission on Peace Officer Standards and Training, then the survey must be updated every seven years; or,
 - b. If a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred in the seven-year period, including, but not limited to, changes in adjoining property or land use, roadway width, or traffic volume, then the survey must be updated every ten years.

It has been seven (7) years since the City-wide survey was completed. Per the CVC, the streets previously included in the 2005 survey must be re-evaluated to determine if the existing speed survey remains valid.

Staff has reviewed all streets included in the 2005 Speed Survey to determine those street segments which require a new speed survey. New surveys are required on those streets where: (1) adjacent land uses have changed significantly; (2) traffic volumes have been revised; (3) street configurations have changed; or (4) the newly revised speed limit methodology established in the California Manual on Uniform Traffic Control Devices (MUTCD) invalidates the previously established 2005 speed zone.

Based on staff's review, the status of the posted speed limits in the City are as follows:

1. Streets surveyed with 2012 Speed Survey: Seven (7) streets (with a total of eleven street segments) have been surveyed as a part of this Radar Survey, with each street segment designated to remain at the existing posted speed limit, with no changes recommended.
2. Streets not requiring survey for three (3) additional years: Nineteen (19) streets (with a total of 34 street segments) in the City were determined to be exempt from the requirement of a new speed survey, based on the City Engineer's evaluation and findings that none of the conditions listed in California Vehicle Code Section 40802 are applicable on said street sections. The posted speed limits will remain valid for an additional three (3) years.

3. Streets surveyed since 2005 Survey – Variable expiration dates: Seven (7) streets (total of 15 street segments) have been surveyed in the interim period following the 2005 speed survey, due to changes made on these streets as a result of separate construction projects. These streets will need to be individually re-evaluated at the time that seven years has elapsed from the original date of the survey.

4. Streets to be surveyed in near future - Pending upcoming street reconfiguration and striping changes: Eight (8) Streets (total of 10 street segments) are currently being reviewed for potential changes in street configuration and striping, and therefore could not be included with this 2012 speed survey. These streets, as shown below, will be re-surveyed in the near future following modifications to striping or street design.

Streets Surveyed with 2012 Radar Speed Survey

		<u>Speed Limit To Be Established</u>
1.	Indian Hill Boulevard Eighth St. to Foothill Blvd. Foothill Blvd. to Base Line Rd.	30 mph 35 mph
2.	Lindenwood Drive Lassen Ave. to Shenandoah	25 mph
3.	Mills Avenue Base Line Rd. to Alamosa Dr. Alamosa Dr. to Mt. Baldy Rd.	40 mph 40 mph
4.	Monte Vista Avenue Claremont Blvd. to Base Line Rd.	40 mph
5.	Mountain Avenue Foothill Blvd. to Base Line Rd. Thompson Creek to N'ly End	35 mph 30 mph
6.	Mt. Baldy Road Mills Ave. to Padua Ave.	45 mph
7.	Padua Avenue Base Line Rd. to Alamosa Dr. Alamosa Dr. to Mt. Baldy Rd.	40 mph 40 mph

Speed Limits extended for 3 additional years from 2012 Survey

		<u>Speed Limit To Be Extended</u>
1.	Alamosa Drive Mills Ave. to Padua Ave.	30 mph
2.	Auto Center Drive Indian Hill Blvd. to end	30 mph
3.	Cambridge Avenue Arrow Hwy. to Bonita Ave.	35 mph
4.	Claremont Boulevard Arrow Hwy. to First. First St. to Sixth St. Sixth St. to Foothill Blvd. Foothill Blvd. to Monte Vista Ave.	35 mph 40 mph 45 mph 40 mph
5.	College Avenue San Jose Ave. to Arrow Hwy. First St. to Sixth St. Sixth St. to Foothill Blvd.	25 mph 25 mph 30 mph
6.	Garey Avenue Arlington Dr. to College Way	40 mph
7.	Indian Hill Boulevard American Ave. to San Jose San Jose Ave. to Arrow Hwy. Arrow Hwy to First St. First St. to Bonita Ave. Bonita Ave. to Eighth St. Base Line Rd. to Armstrong Dr.	35 mph 40 mph 35 mph 30 mph 30 mph 40 mph
8.	Lassen Avenue Scottsbluff Ave. to Lindenwood Dr.	25 mph
9.	Mills Avenue Foothill Blvd. to Base Line Rd.	40 mph

Speed Limits extended for 3 additional years from 2012 Survey (cont.)

		<u>Speed Limit To Be Extended</u>
10.	Miramar Avenue Mills Ave. to Padua Ave.	30 mph
11.	Monte Vista Avenue Foothill Blvd. to Claremont Blvd..	40 mph
12.	Mountain Avenue Bonita Ave. to Harrison Ave.	25 mph
13.	Oxford Avenue Colby Circle to Scripps Dr.	25 mph
14.	San Jose Avenue Mountain Ave. to Indian Hill Blvd. Indian Hill Blvd. to College Ave.	35 mph 30 mph
15.	Shenandoah Avenue Claremont Blvd to Monte Vista Ave.	25 mph
16.	Sixth Street Indian Hill Blvd. to College Ave. College Ave. to College Way College Way to Mills Ave. Mills Ave. to Claremont Blvd.	25 mph 25 mph 30 mph 35 mph
17.	Sumner Avenue Briarcroft Rd. to Ridgefield Dr.	30 mph
18.	Towne Avenue Foothill Blvd. to Base Line Rd.	40 mph
19.	Williams Avenue Foothill Blvd. to College Way	35 mph

Streets surveyed since 2005 survey – Variable expiration dates

		<u>Speed Limit</u>	<u>Survey Expiration Date</u>
1.	Arrow Highway Cambridge Ave. to Indian Hill Indian Hill to College Ave. College Ave. to Claremont/Mills	45 mph 40 mph 40 mph	February 2018
2.	Base Line Road W. City Limit to Towne Towne to Indian Hill Indian Hill to East City Limit	40 mph 45 mph 45 mph	June 2016
3.	Bonita Avenue Indian Hill Blvd. to end	35 mph	November 2018
4.	First Street College Ave. to Claremont Blvd	40 mph	November 2018
5.	Foothill Boulevard Towne to E. City Limit	40 mph	August 2013
6.	Mountain Avenue Harrison Ave. Foothill	35 mph	February 2016
7.	San Jose Avenue Mountain to Indian Hill	35 mph	February 2016

Streets to be surveyed in near future
Pending upcoming street reconfiguration and striping changes

1. **American Avenue:** Indian Hill Boulevard to Mills Avenue
2. **College Avenue:** Arrow Highway to First Street
3. **Mountain Avenue:**(a) San Jose to Arrow Hwy;(b) Base Line to Thompson Creek
4. **Mt. Baldy Road:** Padua Avenue to East City Limits
5. **Pomello Drive:** Mills Avenue to Padua Avenue
6. **Radcliffe Drive:** Indian Hill Boulevard to Mills Avenue
7. **San Jose Avenue:** College Avenue to Mills Avenue
8. **Scripps Drive:**(a) Indian Hill Blvd to Mountain Ave;(b) Mountain Ave to Towne Ave

This "Engineering and Traffic Survey" was prepared in accordance with the guidelines as stipulated in the California Vehicle Code. Data collection techniques are in compliance with Section 40802 of the California Vehicle Code. The following reference materials were also used in preparation of this Traffic and Engineering survey:

- CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES – United States Department of Transportation, Federal Highway Administration, 2012 Edition (California Supplement)
- VEHICLE CODE - California Department of Motor Vehicles, Sacramento; 2012 Edition.

Locations, dates of surveys and pertinent background information are included in the complete report. All data utilized in this summary are included in the report and are on file in the Department of Community Development, City of Claremont, 207 Harvard Avenue, P.O. Box 880, Claremont, California 91711.

**CITY OF CLAREMONT
2012 CITYWIDE SPEED LIMIT ANALYSIS**

1.0 INTRODUCTION

The City of Claremont Police Department performs the City of Claremont's enforcement of speed limits on City roadways. The enforcement of speed limits and response to speed-related problems is primarily through the use of radar. Speed enforcement involves routine enforcement throughout the City, and selective enforcement at locations where there has been a disproportionate number of traffic accidents and on those roadways where complaints of high-speed vehicles are received.

1.1 Requirement for Speed Survey – "Speed Trap Definitions"

The use of radar for enforcement of speed limits has been preempted by statutes contained in the Vehicle Code of the State of California (CVC). The Code specifies certain requirements and limitations for the use of radar to enforce speed limits. In particular, the Code strictly prohibits the use of evidence based upon or obtained from the use of a "speed trap", as indicated in Sections 40801 and 40803, which are summarized below.

Speed Trap Prohibition (CVC 40801)

40801. This code section prohibits a police officer from using a speed trap in obtaining the speed of a vehicle when issuing a speed related citation.

Speed Trap Evidence

40803. The California Vehicle Code stipulates that no evidence as to the speed of a vehicle may be admitted in any court if said evidence (i.e. speed measurement) was based upon or obtained from the use of a speed trap. When a roadway is to be enforced by the use of radar, it must be established that the evidence presented was not based upon a speed trap, as defined in CVC Section 40802.

The California Vehicle Code provides the definition for a speed trap in Section 40802. The definition provides the criteria that determine which streets must be surveyed to allow for radar enforcement, and the exact timeline requirements for how often the speed surveys must be conducted (i.e., every 5, 7 or 10 years, depending on specific certification requirements of the officer(s) issuing citations, and the status of possible roadway and traffic conditions on the roadways). Section 40802 is summarized as follows.

Speed Traps

40802. A speed trap is defined as a section of highway which has a prima facie speed limit established by the code, if that speed limit has not been justified by an engineering and traffic survey, and the enforcement of the speed limit involves the use of radar.

Exceptions to the requirement of an engineering and traffic survey are made for the following:

An engineering and traffic survey is not required on a local street or school zone. A "local street" is defined by the latest functional usage and federal aid system map submitted to the Federal Highway Administration. If said map doesn't exist, then a local street is defined as a road that provides access to abutting residential property and meets the following three conditions:

- (1) Roadway width of not more than 40 feet.
- (2) Not more than one-half mile of uninterrupted length. Interruptions shall include official traffic control devices as defined in Section 445.
- (3) Not more than one traffic lane in each direction.

The engineering and traffic survey must be completed every 5 years. However, this timeline is extended to every 7 years if the police officer issuing the citation has successfully completed a radar operator course of not less than 24 hours on the use of police traffic radar.

Furthermore, a registered engineer may evaluate the roadway and, if it is determined that no significant changes in roadway or traffic conditions have occurred, the survey remains in effect for 10 years.

The last Citywide radar study of speed limits was conducted in 2005, with final adoption by the Claremont City Council on July 26, 2005. The study takes effect a period of 30 days following the publication of the ordinance adopted by the City Council. As the Claremont Police Department has met the criteria for certification training as stipulated in Section 40802 (c) of the Vehicle Code, the survey is valid for a period of seven years from the date following publication of the ordinance, as referenced above.

1.2 "Traffic and Engineering Survey" Defined

In order to document current City-wide speed zoning and to meet Vehicle Code criteria for the enforcement of speed limits through the use of radar, the City of Claremont initiated the present study which legally constitutes a "Traffic and Engineering Survey". The definition of a "*Traffic and Engineering Survey*" is contained in Section 627 of the Vehicle Code and is as follows:

Traffic and Engineering Survey

627. Engineering and traffic survey, as used in this code, means a survey of highway and traffic conditions in accordance with methods determined by

the California Department of Transportation (Caltrans) for use by State and local authorities.

An engineering and traffic survey shall include, among other requirements deemed necessary by the Department, consideration of the following:

- (a) Prevailing speeds as determined by traffic engineering measurements.
- (b) Accident records.
- (c) Highway, traffic and roadside conditions not readily apparent to the driver.

1.3 California Vehicle Code – Speed Limit Definitions

The California Vehicle Code has set certain regulations regarding the posting and enforcement of speed zones. These regulations generally reflect the viewpoint that speed zoning should be based on traffic conditions and natural driver behavior and not because of an arbitrary response to a traffic event or occurrence. Therefore, it is important to have a general understanding of the California Vehicle Code's definition of the allowable speed limits on all streets and highways.

The "Basic Speed Law", "Prima Facie Speed Limits", "Maximum Speed Limit" and "Intermediate Speed Zones" are summarized below.

(a) Basic Speed Law (CVC 22350)

All fifty states base their speed regulations on the Basic Speed Law. In California, CVC 22350 defines the basic speed law as follows:

" No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property."

This law recognizes that driving conditions are not fixed, and may vary at any given time or place. Therefore, in encountering these varying conditions the driver will adjust his driving behavior and speed to match the conditions of the roadway. The basic speed law takes into account the belief that a majority of motorists are able to modify their driving behavior properly, as long as they are aware of the conditions around them.

(b) Maximum Speed Limit (CVC 22349)

In California, the maximum speed for any passenger vehicle is 65 miles per hour (except on a few sections of specially zoned freeways which allow for

up to a 70 mph speed limit). The maximum speed for most trucks and for vehicles towing any trailer is 55 miles per hour.

(c) Prima Facie Speed Limits (CVC 22352)

All other speed limits are prima facie limits which, "on the face of it," are reasonable and prudent under normal conditions. Prima facie speed limits are specific limits which shall apply unless changed on the basis of an engineering and traffic survey and signs are posted that display the new speed limit. In the enforcement of prima facie speed limits, the basic speed law shall also apply; as such, specific roadway, traffic or weather conditions may warrant a lower speed than the prima facie speed limit at certain times.

Certain prima facie speed limits are automatically set by the State and included in the California Vehicle Code. The speed limits do not require posting of speed limit signs. Some of the prima facie speed limits are as follows:

25 MPH	Residential Districts, Business Districts
25 MPH	School Districts (when school children are present)
25 MPH	Playground zones (CVC 22357.1)
25 MPH	Senior zones
15 MPH	Alleys
15 MPH	Entering intersections where no traffic control devices exist.
15 MPH	Railroad Crossings where visibility is limited and no gates, flagmen or signal warnings control the crossing.

(d) Intermediate Speed Zones (CVC 22357 and 22358)

State law permits local authorities to lower the maximum speed limit (65 m.p.h.) or to raise business and residence district speed limits (25 m.p.h.) on the basis of traffic and engineering survey. These "intermediate limits" between 25 and 65 m.p.h. must be posted to define clearly the limits of the zone and the prima facie speed established. CVC 22357 authorizes the increase in limits and CVC 22358 authorizes the decrease in limits.

2.0 PROCEDURES REQUIRED FOR ESTABLISHING SPEED LIMITS

The California Department of Transportation (Caltrans) has determined the method to be used in establishing speed limits, which is outlined in the Manual on Uniform Traffic Control Devices. This manual specifies a "short method" for determining speed limits on City and County roadways as follows:

2.1 City and County Through Highways, Arterial, and Collector Road Procedures

- a. The short method of speed zoning is based on the premise that a reasonable speed limit is one that conforms to the actual behavior of the majority of motorists, and that by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Other

factors that need to be considered include but are not limited to; the most recent two year collision record, roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile conditions, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks. This short method will handle most situations adequately.

2.2 Speed Zone Survey Criteria

The Manual on Uniform Traffic Control Devices establishes the criteria by which speed limits are set. Based on the results of the engineering and traffic study, the speed limit is established preferably at or near the 85th percentile speed:

- 85th Percentile
The 85th percentile speed is defined as that speed at or below which 85 percent of the traffic is moving. The 85th percentile speed is often referred to as critical speed. Speed limits higher than the 85th percentile are not generally considered reasonable and safe, and limits below the 85th percentile do not facilitate the orderly movement of traffic. The 85th percentile speed has generally been considered a limit which minimizes accident risk and maximizes motorist compliance. Speed limits established on this basis conform to the consensus of those who drive the highway as to what speed is reasonable and safe.
- Location
A section of road should be selected where prevailing speeds are representative of the entire speed zone section. If speeds vary on a given route, more than one speed zone section may be required, with separate measurements for each section.

Care should be taken to select locations sufficiently removed from any stop signs, traffic signals, or other traffic flow interruptions that significantly affect operating speeds. Mid-block locations generally represent typical flow conditions for accurate sampling.
- Time
Speed measurements should be taken during off-peak hours between peak traffic periods on weekdays. If there is difficulty in obtaining the desired quantity, speed measurements may be taken during any period with free flowing traffic.
- Size of Sample
Sample sizes are frequently related to traffic volumes within the study section. An engineering and traffic survey is normally satisfied by 100, but no less than 50 observations.
- Equipment
Field survey equipment consists simply of speed survey sheets and a speed-measuring device. Speeds should be read directly from radar or other

electronic speed-measuring device. Devices other than radar capable of accurately distinguishing and measuring the unimpeded speed of free flowing vehicles may be use.

- Inventory of Accident Records
As a check on the validity of the proposed speed limit, an analysis should be made of the two-year accident record for the section of roadway under consideration. If this record shows a high percentage of accidents associated with excessive speeds, then the proposed speed limit should be reduced.
- Inventory of Road Conditions
The survey should include a review of the physical characteristics of the roadway and adjacent development. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.
- Speed Zoning Increments
Speed zoning should be in 10 mph increments except in urban areas where 5 mph increments are preferable.
- Speed Zoning Coordination with other jurisdictions
Speed zoning should be coordinated with adjacent jurisdictions.

Other factors that influence the decision to set the speed limit higher or lower than the 85th percentile speed are:

- Roadway alignment (vertical and horizontal) and condition.
- The most recent 2-year accident history.
- Pedestrian and bicycle safety.
- Adjacent land use.
- Adjacent speed limits.
- Shoulder conditions.
- Speed zones should be coordinated along routes through adjacent cities and counties to assure compatibility.
- Safe stopping sight distance.
- Intersection spacing and offsets.
- Commercial driveway characteristics.
- Conditions not readily apparent to the driver.

3.0 SPECIFIC PROCEDURES UTILIZED IN CLAREMONT SPEED SURVEY

For the City of Claremont radar speed survey, each roadway was divided into study sections. Representative field measurements were then taken for each study section, and the data compiled on speed data sheets (Appendix C). The data was reviewed along with accident and road data information, and speed limit recommendations were made based on this review. The speed survey field measurement locations are shown in Appendix B, Figure 2. The speed limits recommended are represented on the map in Appendix B, Figure 1, and are summarized in Appendix A.

3.1 Procedures Used for Field Measurements

To identify the speed characteristics of vehicular traffic on the street system in Claremont, field measurements were taken. The equipment used to conduct these surveys consisted of the police department traffic radar device, used in an unmarked vehicle.

In order to ensure the credibility of the vehicular speed analysis, the following guidelines were adhered to in the spot speed survey field data collection:

- a. Measurements were made at sufficient distances from intersections where signals or other control devices could affect normal operating speeds.
- b. The use of the radar gun (in an unmarked vehicle) is an approved method of data collection which do not affect the speed of the driver.
- c. Measurements were not taken at locations where geometric or roadway factors exist which could cause drivers to slow down from normal speeds. Such factors were sharp horizontal or vertical curves, poor pavement surface, proximity to stop signs or signals, etc.
- d. The sample size for the all counts was equal to 100 vehicles.
- e. The traffic conditions during the period of measurement were representative of normal traffic conditions.

3.2 Review of Accident History

Other than the critical speeds observed during the field measurement study portion of the speed zone study, an additional factor in selecting safe and reasonable speed limits includes a record check of traffic accidents that could be attributed to the incidence of "unsafe speeds". The recent accident records for a period of two years were reviewed, and the streets, which were cited as having an impact due to accidents, have been cited on the speed data sheets.

3.3 Roadway Conditions

Field reviews of the roadways in the City of Claremont were conducted and incorporated into the final recommended speed limits. These factors are summarized on the speed data sheets.

4.0 **CONCLUSIONS AND RECOMMENDATIONS**

4.1 General Observations

As can be seen on the speed data sheets, the posted speed limit has little influence on actual vehicular speeds. Of the eleven (11) locations surveyed, the following pattern can be shown with respect to the 85th percentile:

	<u>Number of Locations</u>
85th percentile less than posted speed	0
85th percentile equals the posted speed.....	0
85th percentile greater than posted speed by less than five miles.....	.2
85th percentile greater than posted speed by five to ten miles	9
85th percentile greater than posted speed by greater than ten miles	0

Speed limits which are too low for the prevailing roadway and traffic conditions often are ignored and exceeded by a high proportion of motorists. Traffic engineering studies have shown that when an unduly low-posted speed limit is raised to a more reasonable level, the average speeds of vehicles rarely increase but often actually decrease. This is because motorists tend to respect a speed limit that is reasonable and are more likely to comply with it.

4.2 Specific Recommendations

Per the findings and conclusions of the 2012 Radar Speed Survey, the following speed limits are proposed to remain as existing.

		<u>Existing Speed</u>	<u>Newly Adopted Speed Limits</u>
1.	INDIAN HILL BOULEVARD		
	Eighth St. to Foothill Blvd.	30 mph	30 mph
	Foothill Blvd. to Base Line Rd.	35 mph	35 mph
2.	LINDENWOOD DRIVE		
	Lassen Ave. to Shenandoah	25 mph	25 mph
3.	MILLS AVENUE		
	Base Line Rd. to Alamosa Dr.	40 mph	40 mph
	Alamosa Dr. to Mt. Baldy Rd.	40 mph	40 mph
4.	MONTE VISTA AVENUE		
	Claremont Blvd. to Base Line Rd.	40 mph	40 mph
5.	MOUNTAIN AVENUE		
	Foothill Blvd. to Base Line Rd.	35 mph	35 mph
	Thompson Creek to N'y End	30 mph	30 mph
6.	MT. BALDY ROAD		
	Mills Ave. to Padua Ave.	45 mph	45 mph
7.	PADUA AVENUE		
	Base Line Rd. to Alamosa Dr.	40 mph	40 mph
	Alamosa Dr. to Mt. Baldy Rd.	40 mph	40 mph

Formal action in the form of a Council Ordinance is required for implementation of the above speed limit revisions. The City Council adopted the above speed limits at their meeting of October 9, 2012, with the second reading of the ordinance on October 23, 2012.

APPENDIX A

SUMMARY OF RECOMMENDATIONS

**CITY OF CLAREMONT
CITY-WIDE SPEED SURVEY - 2012
SUMMARY OF RECOMMENDATIONS**

	<u>Posted Speed</u>	<u>85th Percent Speed</u>	<u>Recommended Speed Limit</u>
1. INDIAN HILL BOULEVARD Eighth St. to Foothill Blvd. Foothill Blvd. to Base Line Rd.	30 mph 35 mph	37 mph 42 mph	30 mph 35 mph
2. LINDENWOOD DRIVE Lassen Ave. to Shenandoah	25 mph	29 mph	25 mph
3. MILLS AVENUE Base Line Rd. to Alamosa Dr. Alamosa Dr. to Mt. Baldy Rd.	40 mph 40 mph	46 mph 45 mph	40 mph 40 mph
4. MONTE VISTA AVENUE Claremont Blvd. to Base Line Rd.	40 mph	46 mph	40 mph
5. MOUNTAIN AVENUE Foothill Blvd. to Base Line Rd. Thompson Creek to N'ly End	35 mph 30 mph	42 mph 37 mph	35 mph 30 mph
6. MT. BALDY ROAD Mills Ave. to Padua Ave.	45 mph	48 mph	45 mph
7. PADUA AVENUE Base Line Rd. to Alamosa Dr. Alamosa Dr. to Mt. Baldy Rd.	40 mph 40 mph	45 mph 47 mph	40 mph 40 mph

APPENDIX B

FIGURE 1: RECOMMENDED SPEED LIMITS

FIGURE 2: FIELD MEASUREMENT LOCATIONS

CITY OF CLAREMONT RADAR STUDY

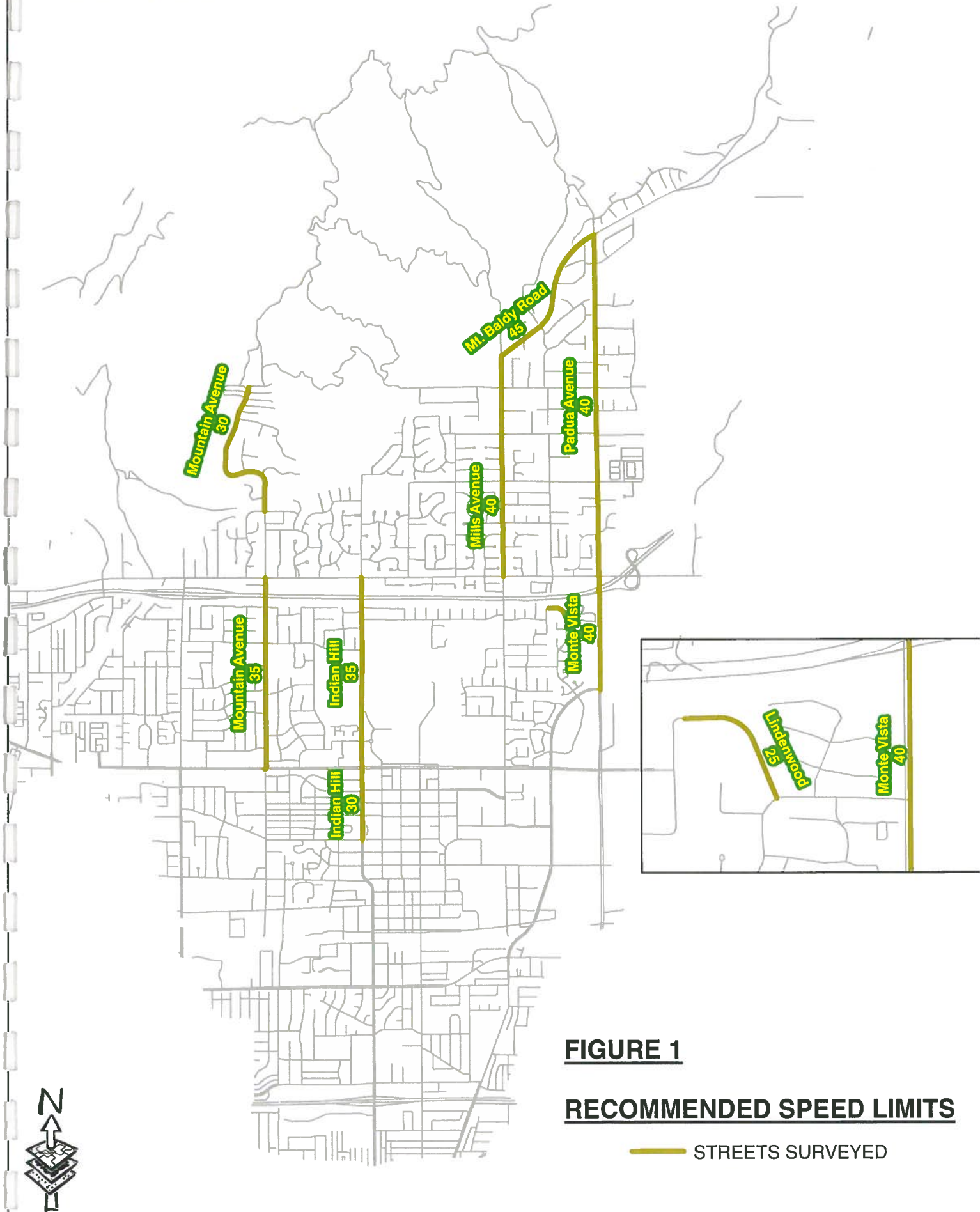


FIGURE 1

RECOMMENDED SPEED LIMITS

— STREETS SURVEYED

CITY OF CLAREMONT RADAR STUDY

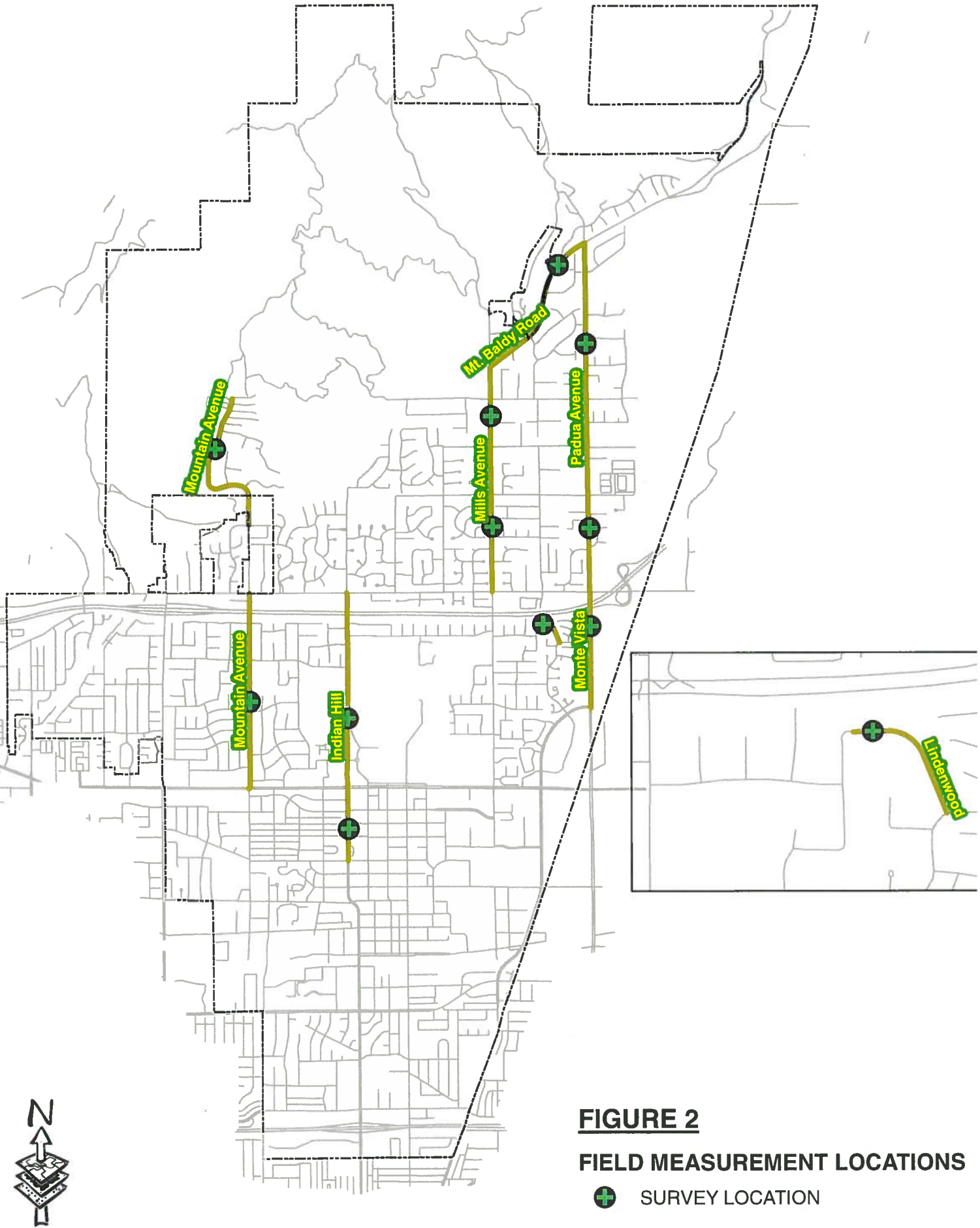


FIGURE 2

FIELD MEASUREMENT LOCATIONS

+ SURVEY LOCATION

APPENDIX C

SPEED DATA SHEETS

CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52		0	100
51		0	100
50		0	100
49		0	100
48		0	100
47		0	100
46		0	100
45		0	100
44	2	2	100
43		0	98
42		0	98
41	1	1	98
40	2	2	97
39	4	4	95
38	3	3	91
37	4	4	88
36	10	10	84
35	9	9	74
34	10	10	65
33	16	16	55
32	8	8	39
31	9	9	31
30	17	17	22
29	3	3	5
28	1	1	2
27	1	1	1
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20	0	0	0
19	0	0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	33	+/-	MPH
Median:	33		MPH
Modal:	1	VEH AT	30 MPH
85th %:	37		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	27	MPH TO	44 MPH
Veh Code:			CVC
Posted Sp:	30		MPH

LOCATION: INDIAN HILL BOULEVARD

LIMITS: Eighth St. to Foothill Blvd.

WEATHER: CLEAR

DATE: May 17, 2012

Existing Posted Speed = 30 mph

85th Percentile Speed = 37 mph

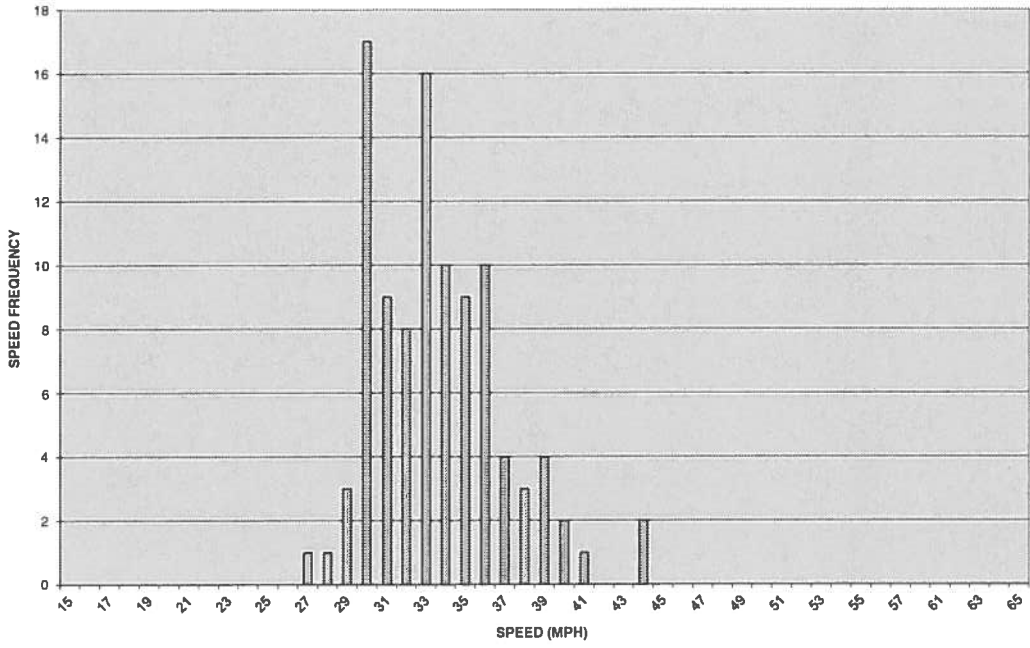
Nearest 5-mph increment speed = 35 mph

Proposed Speed = 30 mph

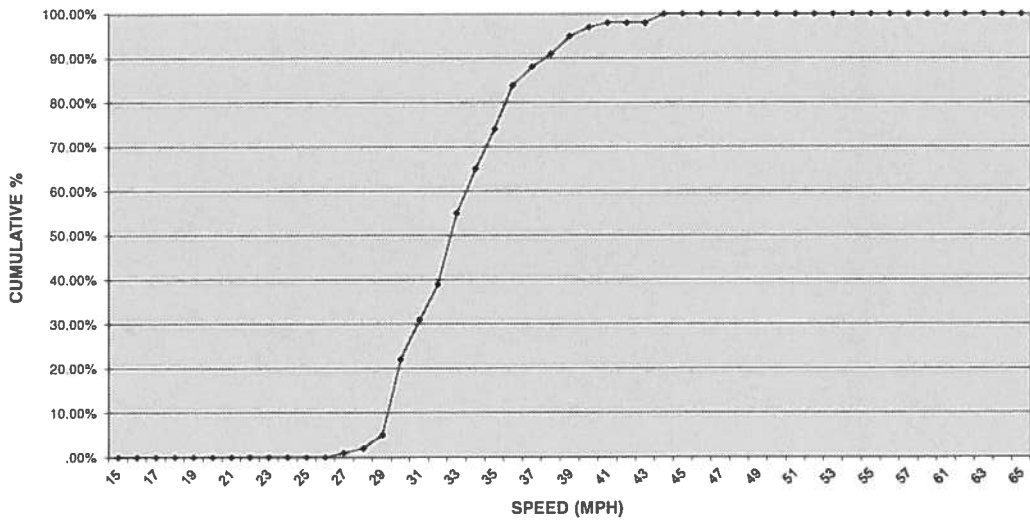
Conditions which warrant the 5-mph speed reduction (posting at 30 mph and not 35 mph):

1. Adjacent land uses include a highly-used park (for city events and ongoing activities), and a nearby elementary school.
2. This section of Indian Hill is a high volume roadway, but also serves as a residential street, with continuous conflicting movements between the congested traffic and movements entering and exiting residential driveways.

SPEED HISTOGRAM INDIAN HILL - Eighth to Foothill



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52		0	100
51		0	100
50	1	1	100
49		0	99
48	2	2	99
47	1	1	97
46	2	2	96
45		0	94
44	4	4	94
43	3	3	90
42	9	9	87
41	4	4	78
40	5	5	74
39	7	7	69
38	8	8	62
37	8	8	54
36	10	10	46
35	6	6	36
34	6	6	30
33	7	7	24
32	4	4	17
31	6	6	13
30		0	7
29	4	4	7
28	1	1	3
27	2	2	2
26		0	0
25	0	0	0
24	0	0	0
23	0	0	0
22	0	0	0
21	0	0	0
20	0	0	0
19	0	0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	36	+/-	MPH
Median:	37		MPH
Modal:	0	VEH AT	36 MPH
85th %:	42		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	27	MPH TO	50 MPH
Veh Code:			CVC
Posted Sp:	35		MPH

LOCATION: INDIAN HILL BOULEVARD

LIMITS: Foothill Blvd. to Base Line Rd.

WEATHER: CLEAR

DATE: May 17, 2012

Existing Posted Speed = 35 mph

85th Percentile Speed = 42 mph

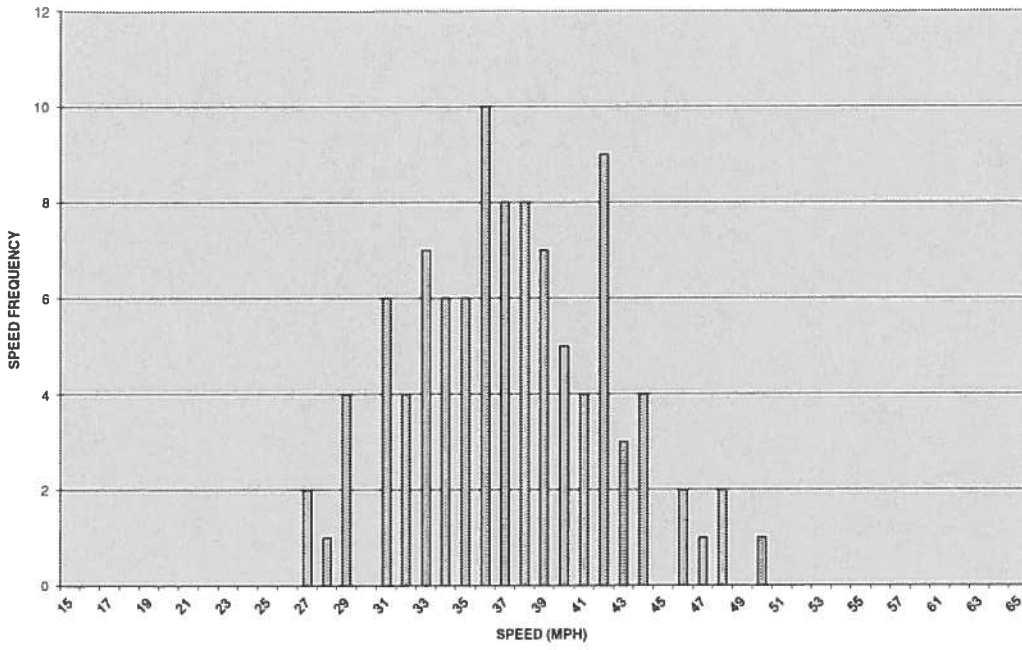
Nearest 5-mph increment speed = 40 mph

Proposed Speed = 35 mph

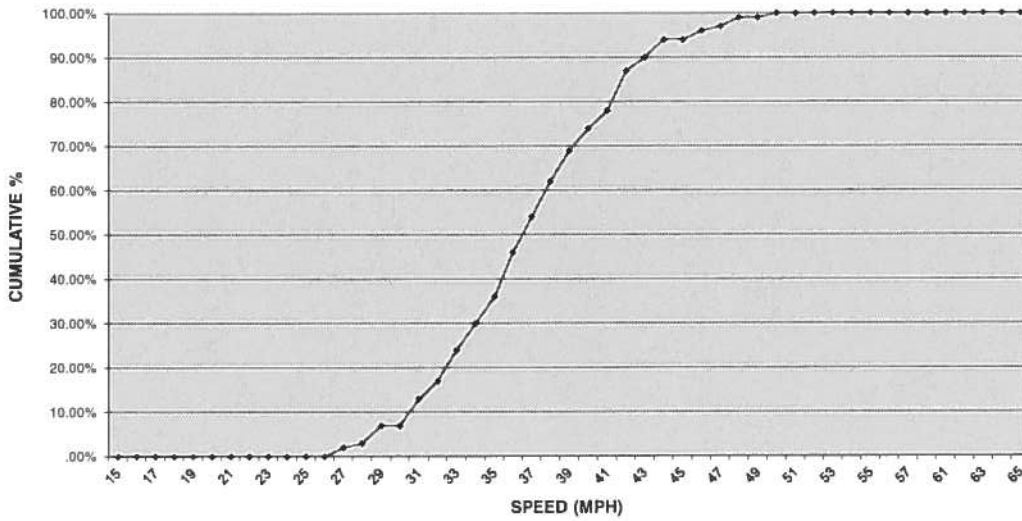
Conditions which warrant the 5-mph speed reduction (posting at 35 mph and not 40 mph):

1. Adjacent land uses include Claremont High School, Cahuilla Park, Taylor Hall and the Youth Activity Center, resulting in an increased number of pedestrian crossings.
2. Drivers from some intersecting streets have limited sight distance, particularly due to the congestion adjacent to the high school.

SPEED HISTOGRAM Indian Hill - Foothill to Base Line



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52		0	100
51		0	100
50		0	100
49		0	100
48		0	100
47		0	100
46		0	100
45		0	100
44		0	100
43		0	100
42		0	100
41		0	100
40		0	100
39		0	100
38		0	100
37		0	100
36		0	100
35		0	100
34		0	100
33	2	2	100
32	2	2	98
31	5	5	96
30	4	4	91
29	3	3	87
28	2	2	84
27	6	6	82
26	10	10	76
25	11	11	66
24	15	15	55
23	8	8	40
22	15	15	32
21	7	7	17
20	4	4	10
19	2	2	6
18	3	3	4
17	1	1	1
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	24	+/-	MPH
Median:	24		MPH
Modal:	2	VEH AT	22 MPH
85th %:	29		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	17	MPH TO	33 MPH
Veh Code:			CVC
Posted Sp:	25		MPH

LOCATION: LINDENWOOD DRIVE

LIMITS: Lassen Ave. to Shenandoah

WEATHER: CLEAR

DATE: May 23, 2012

Existing Posted Speed = 25 mph

85th Percentile = 29 mph

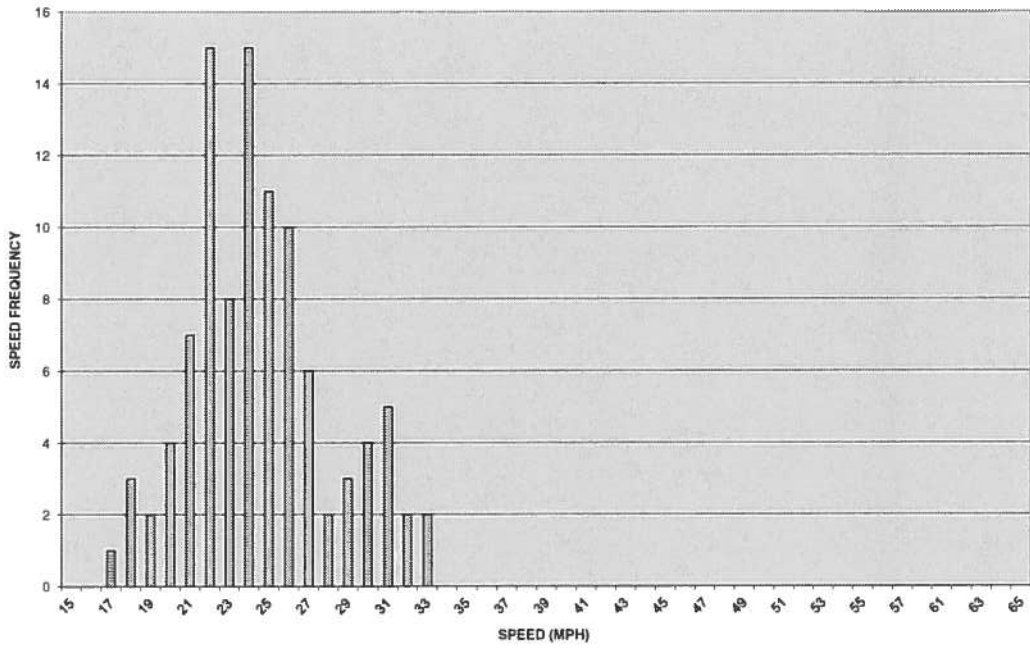
Nearest 5-mph increment Speed = 30 mph

Proposed Speed = 25 mph

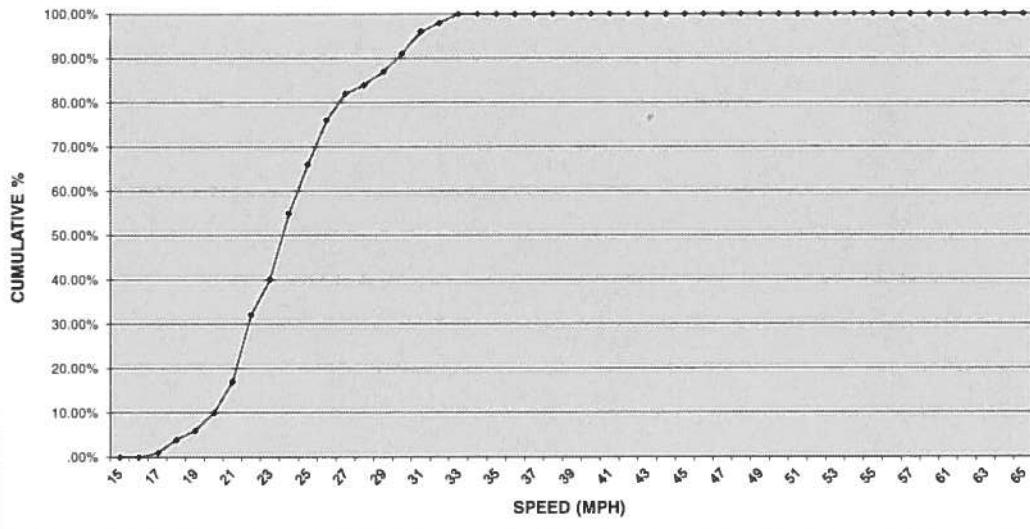
Conditions which warrant the 5-mph speed reduction (posting at 25 mph and not 30 mph):

1. Lindenwood serves as a residential street.
2. There are several blind curves on Lindenwood, which limits driver's visibility of cars exiting driveways.
3. Lindenwood is located within a residential neighborhood, and all adjacent streets are posted at 25 mph.

SPEED HISTOGRAM Lindenwood - Lassen to Shenandoah



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52	2	2	100
51	1	1	98
50	1	1	97
49	4	4	96
48	2	2	92
47	1	1	90
46	5	5	89
45	5	5	84
44	7	7	79
43	9	9	72
42	16	16	63
41	7	7	47
40	15	15	40
39	10	10	25
38	5	5	15
37	0	0	10
36	4	4	10
35	2	2	6
34		0	4
33	2	2	4
32		0	2
31	2	2	2
30		0	0
29		0	0
28		0	0
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	41	+/-	MPH
Median:	42		MPH
Modal:	2	VEH AT	40 MPH
85th %:	46		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	31	MPH TO	52 MPH
Veh Code:			CVC
Posted Sp:	40		MPH

LOCATION: MILLS AVENUE

LIMITS: Base Line Rd. to Alamosa Dr.

WEATHER: CLEAR

DATE: May 17, 2012

Existing Posted Speed = 40 mph

85th Percentile = 46 mph

Nearest 5-mph increment speed = 45 mph

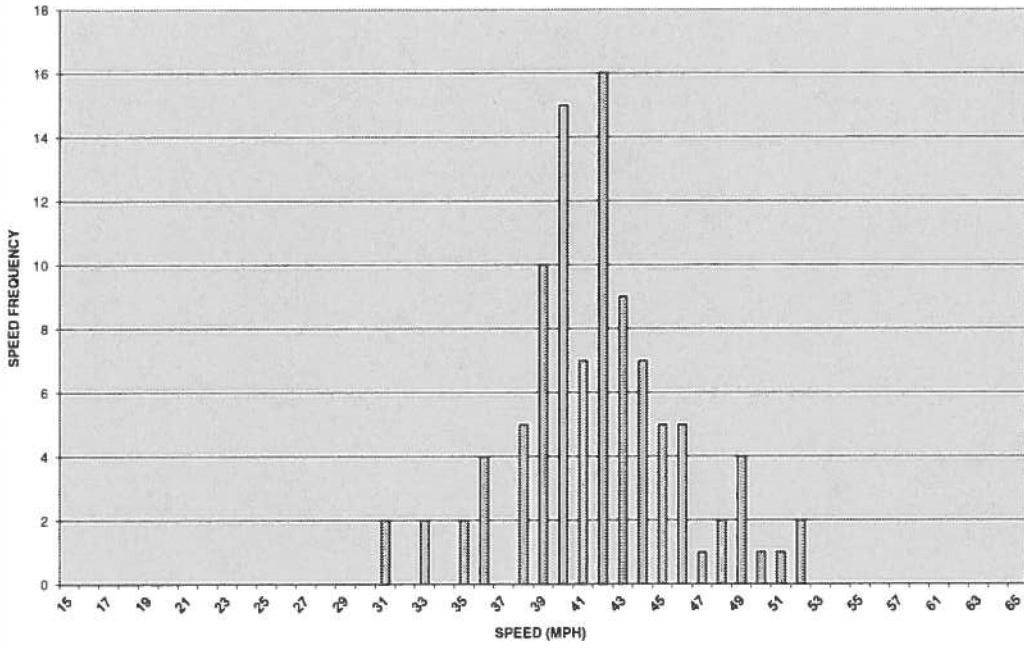
Proposed Speed = 40 mph

Conditions which warrant the 5-mph speed reduction (posting at 40 mph instead of 45 mph):

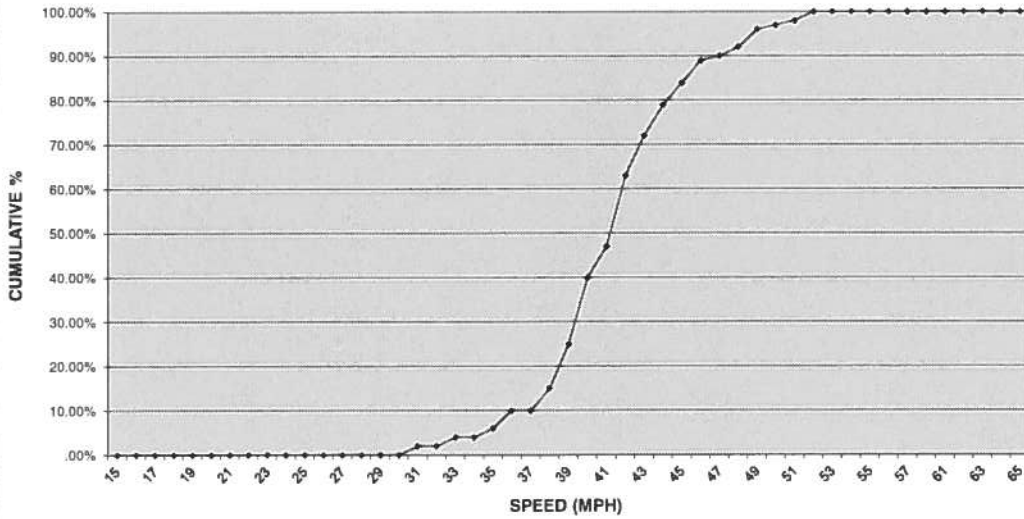
1. The Claremont Hills Wilderness Park is located at the north end of Mills, and has generated a significant increase in traffic/pedestrian/bicyclist volumes on this roadway.
2. The residential nature of this roadway does not support the presence of a 45-mph speed zone. 40 mph is considered a more safe, reasonable speed on this street.

SPEED HISTOGRAM

MILLS - Base Line to Alamosa



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54	1	1	100
53	1	1	99
52		0	98
51		0	98
50	1	1	98
49	2	2	97
48	2	2	95
47	1	1	93
46	4	4	92
45	4	4	88
44	4	4	84
43	4	4	80
42	8	8	76
41	6	6	68
40	6	6	62
39	10	10	56
38	11	11	46
37	13	13	35
36	6	6	22
35	3	3	16
34	4	4	13
33	6	6	9
32	2	2	3
31		0	1
30	1	1	1
29		0	0
28		0	0
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:		DIRECTION		NB/SB
Average:	39	+/-		MPH
Median:	39			MPH
Modal:	1	VEH AT	37	MPH
85th %:	45			MPH
10M-Pace:	29	MPH THRU	38	MPH
% Over:	8			%
% In Pace:	82			%
% Under:	10			%
Range:	30	MPH TO	54	MPH
Veh Code:				CVC
Posted Sp:	40			MPH

LOCATION: MILLS AVENUE

LIMITS: Alamosa Dr. to Mt. Baldy Rd.

WEATHER: CLEAR

DATE: May 17, 2012

Existing Posted Speed = 40 mph

85th Percentile = 45 mph

Nearest 5-mph increment speed = 45 mph

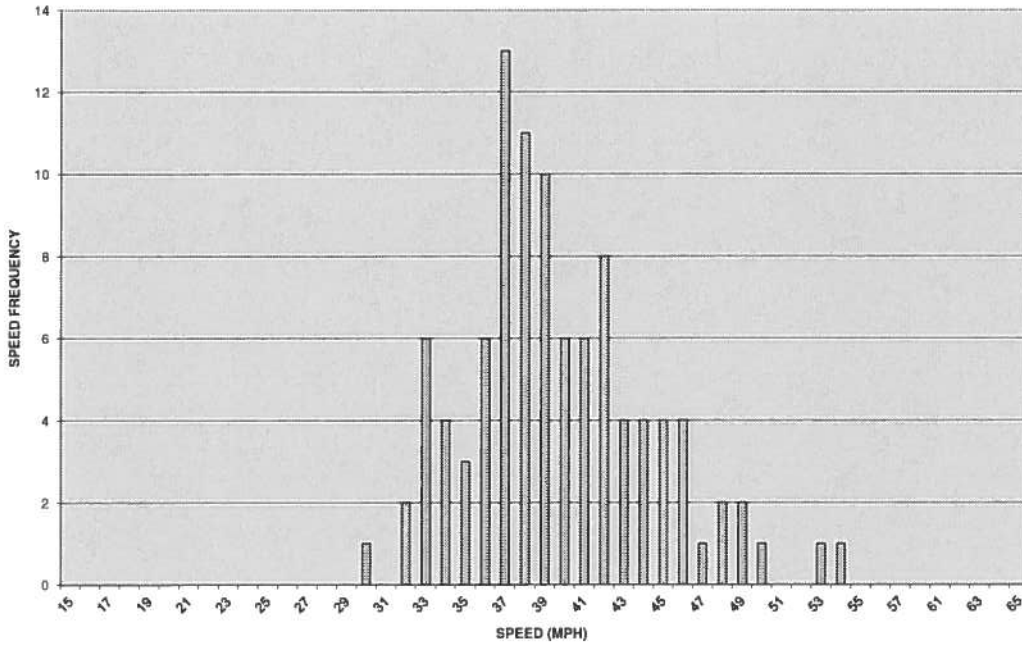
Proposed Speed = 40 mph

Conditions which warrant the 5-mph speed reduction (posting at 40 mph instead of 45 mph):

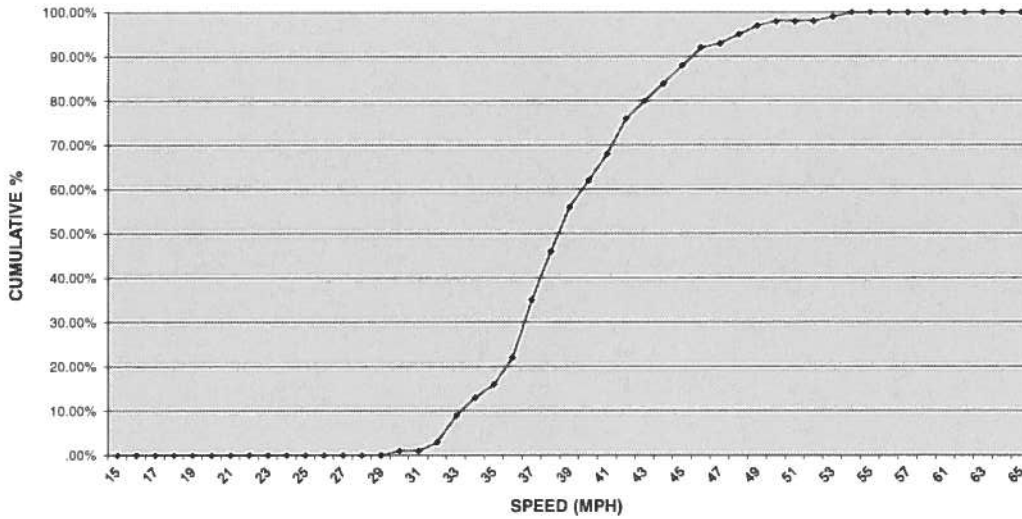
1. The Claremont Hills Wilderness Park is located at the north end of Mills Avenue, and has generated a significant increase in traffic/pedestrian/bicycle volumes on this roadway.
2. Limited sight distance at Mills and Alamosa due to roadway alignment issues.
3. This section of Mills has a narrowed width and unimproved shoulders.

SPEED HISTOGRAM

Mills - Alamosa to Mt. Baldy



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56	1	1	100
55		0	99
54	1	1	99
53		0	98
52	2	2	98
51	1	1	96
50		0	95
49	1	1	95
48	1	1	94
47	6	6	93
46	11	11	87
45	10	10	76
44	9	9	66
43	10	10	57
42	17	17	47
41	12	12	30
40	5	5	18
39	9	9	13
38	1	1	4
37	2	2	3
36		0	1
35	1	1	1
34		0	0
33		0	0
32		0	0
31		0	0
30		0	0
29		0	0
28		0	0
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	42	+/-	MPH
Median:	43		MPH
Modal:	1	VEH AT	42 MPH
85th %:	46		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	35	MPH TO	56 MPH
Veh Code:			CVC
Posted Sp:	40		MPH

LOCATION: MONTE VISTA AVENUE

LIMITS: Claremont Blvd. to Base Line Rd.

WEATHER: CLEAR

DATE: May 17, 2012

Existing Posted Speed = 40 mph

85th Percentile = 46 mph

Nearest 5-mph increment speed = 45 mph

Proposed Speed = 40 mph

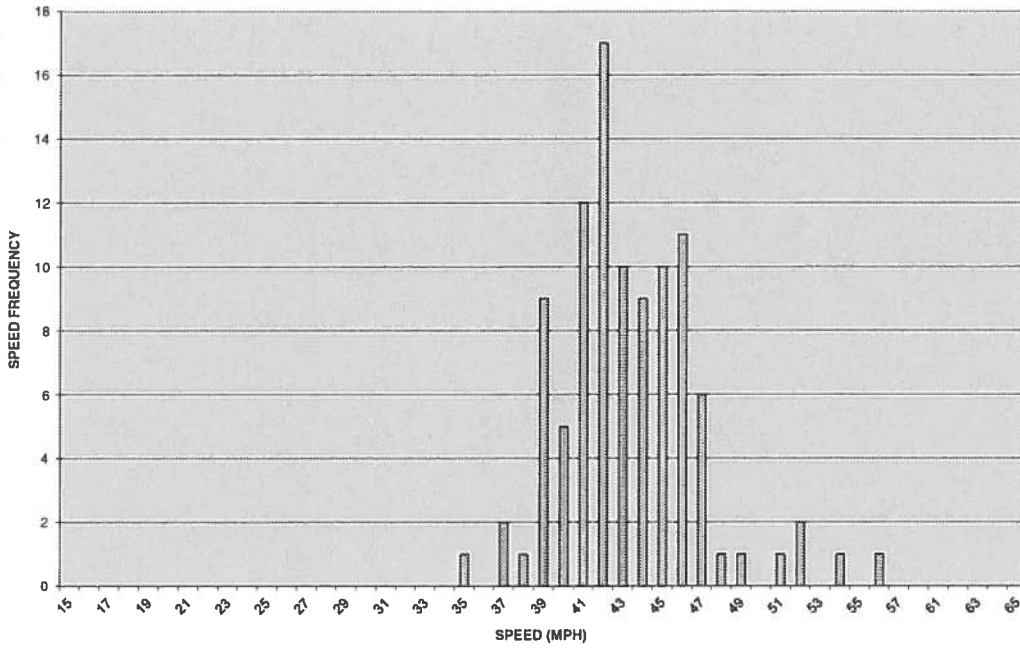
Conditions which warrant the 5-mph speed reduction (posting at 40 mph and not 45 mph):

1. There is limited sight distance at the intersection of Claremont and Shenandoah, due to vertical curvature in roadway north of intersection at the freeway bridge.

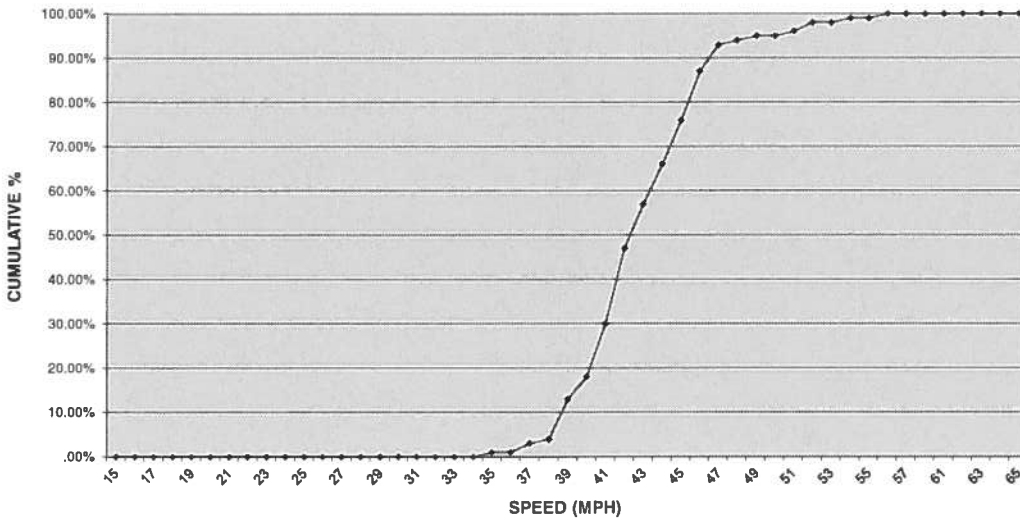
2. The vertical curvature at the freeway bridge creates unsafe conditions for northbound traffic, who fail to see the back-up of vehicles at the Base Line and Monte Vista signal, requiring drivers to brake suddenly when they get to the top of the curve.

SPEED HISTOGRAM

Monte Vista - Claremont to Base Line



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52		0	100
51		0	100
50		0	100
49		0	100
48		0	100
47	2	2	100
46	2	2	98
45		0	96
44		0	96
43	4	4	96
42	9	9	92
41	2	2	83
40	9	9	81
39	13	13	72
38	12	12	59
37	8	8	47
36	10	10	39
35	10	10	29
34	2	2	19
33	5	5	17
32	2	2	12
31	4	4	10
30		0	6
29	3	3	6
28	3	3	3
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	37	+/-	MPH
Median:	38		MPH
Modal:	2	VEH AT	39 MPH
85th %:	42		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	28	MPH TO	47 MPH
Veh Code:			CVC
Posted Sp:	35		MPH

LOCATION: MOUNTAIN AVENUE

LIMITS: Foothill Blvd. to Base Line Rd.

WEATHER: CLEAR

DATE: May 15, 2012

Existing Posted Speed = 35 mph

85th Percentile = 42 mph

Nearest 5-mph increment speed = 40 mph

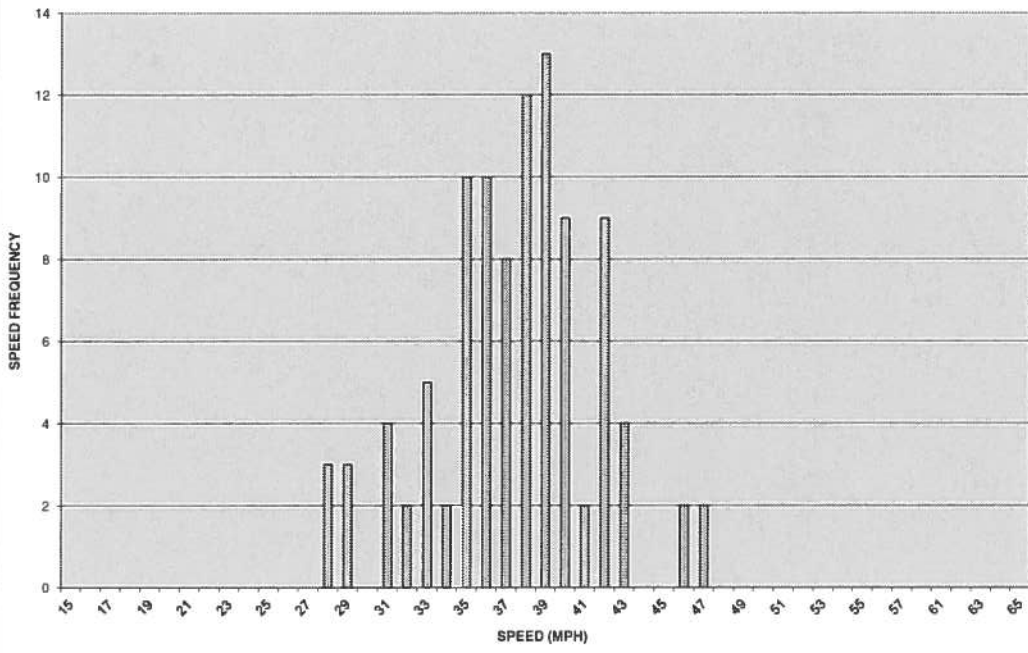
Proposed Speed = 35 mph

Conditions which warrant the 5-mph speed reduction (posting 35 mph instead of 40 mph):

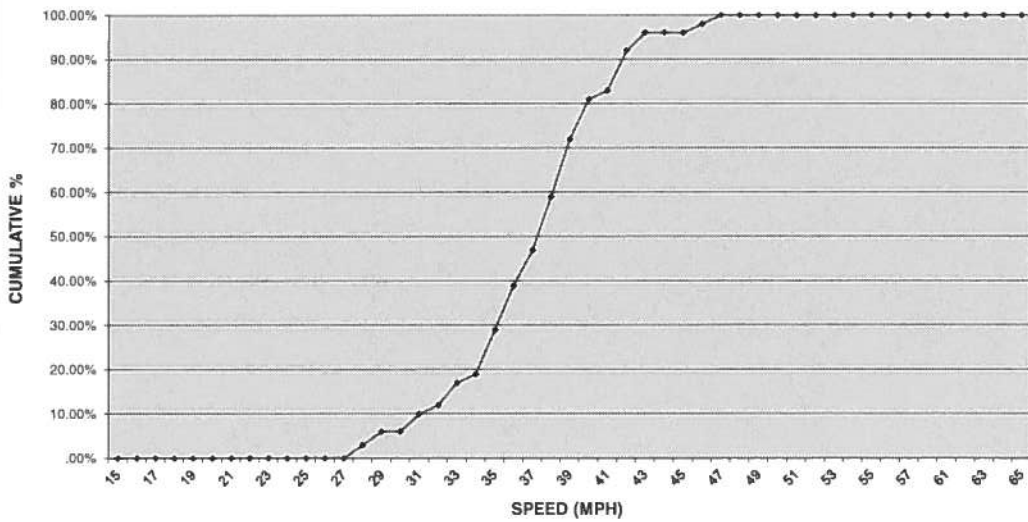
1. A significant number of pedestrians and bicyclists use this section of Mountain, enroute to three separate schools on Mountain Avenue.
2. The intersection of Mountain and Foothill is a high accident location, and is significantly congested during peak commuter hours.

SPEED HISTOGRAM

Mountain - Foothill to Base Line



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52		0	100
51		0	100
50	1	1	100
49		0	99
48		0	99
47		0	99
46		0	99
45		0	99
44		0	99
43	1	1	99
42	2	2	98
41	1	1	96
40	1	1	95
39	1	1	94
38	2	2	93
37	6	6	91
36	6	6	85
35	11	11	79
34	7	7	68
33	12	12	61
32	9	9	49
31	5	5	40
30	4	4	35
29	10	10	31
28	3	3	21
27	4	4	18
26	8	8	14
25	3	3	6
24	1	1	3
23	2	2	2
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	32	+/-	MPH
Median:	33		MPH
Modal:	1	VEH AT	33 MPH
85th %:	37		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	23	MPH TO	50 MPH
Veh Code:			CVC
Posted Sp:	30		MPH

LOCATION: MOUNTAIN AVENUE

LIMITS: Thompson Creek to End

WEATHER: CLEAR

DATE: May 24, 2012

Existing Posted Speed = 30 mph

85th Percentile = 37 mph

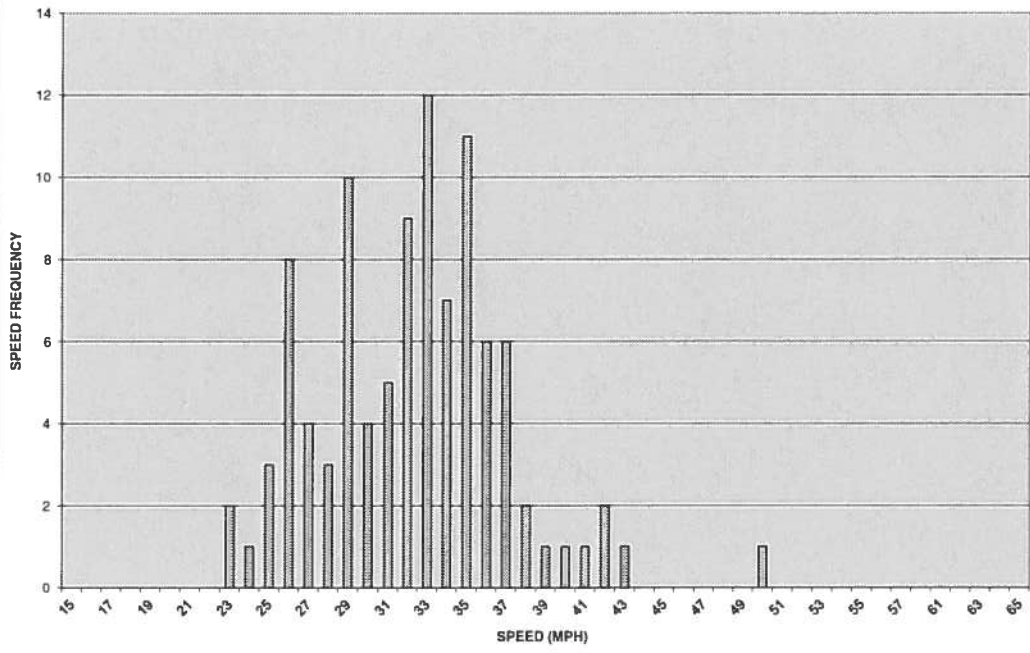
Nearest 5-mph increment speed = 35 mph

Proposed Speed = 30 mph

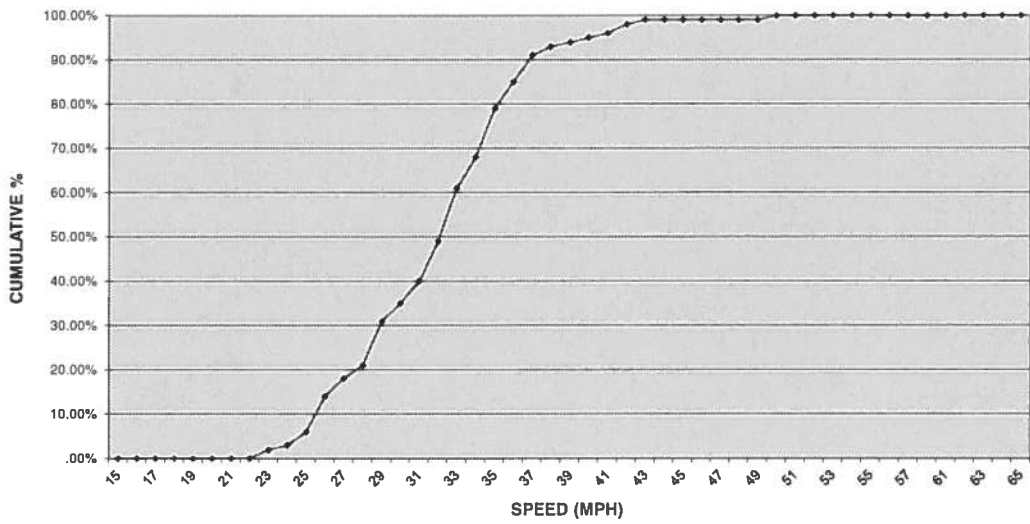
Conditions which warrant the 5-mph speed reduction (posting at 30 mph instead of 35 mph):

1. This section of Mountain Avenue is very steep, with an approximate grade of 13 percent. There are several sharp curves that affect the sight distance of drivers, and also necessitate that a lower speed be posted for maneuvering these curves in a safe manner.

SPEED HISTOGRAM Mountain - Thompson Creek to End



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57	2	2	100
56	2	2	98
55		0	96
54		0	96
53		0	96
52		0	96
51	1	1	96
50	2	2	95
49	4	4	93
48	4	4	89
47	3	3	85
46	3	3	82
45	6	6	79
44	9	9	73
43	10	10	64
42	15	15	54
41	5	5	39
40	6	6	34
39	10	10	28
38	5	5	18
37	3	3	13
36	4	4	10
35	1	1	6
34		0	5
33	1	1	5
32	1	1	4
31	1	1	3
30	1	1	2
29	1	1	1
28		0	0
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	42	+/-	MPH
Median:	42		MPH
Modal:	1	VEH AT	42 MPH
85th %:	48		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	29	MPH TO	57 MPH
Veh Code:			CVC
Posted Sp:	45		MPH

LOCATION: MT. BALDY ROAD

LIMITS: Mills Ave. to Padua Ave.

WEATHER: CLEAR

DATE: May 23, 2012

Existing Posted Speed = 45 mph

85th Percentile = 48 mph

Nearest 5-mph increment speed = 50 mph

Proposed Speed = 45 mph

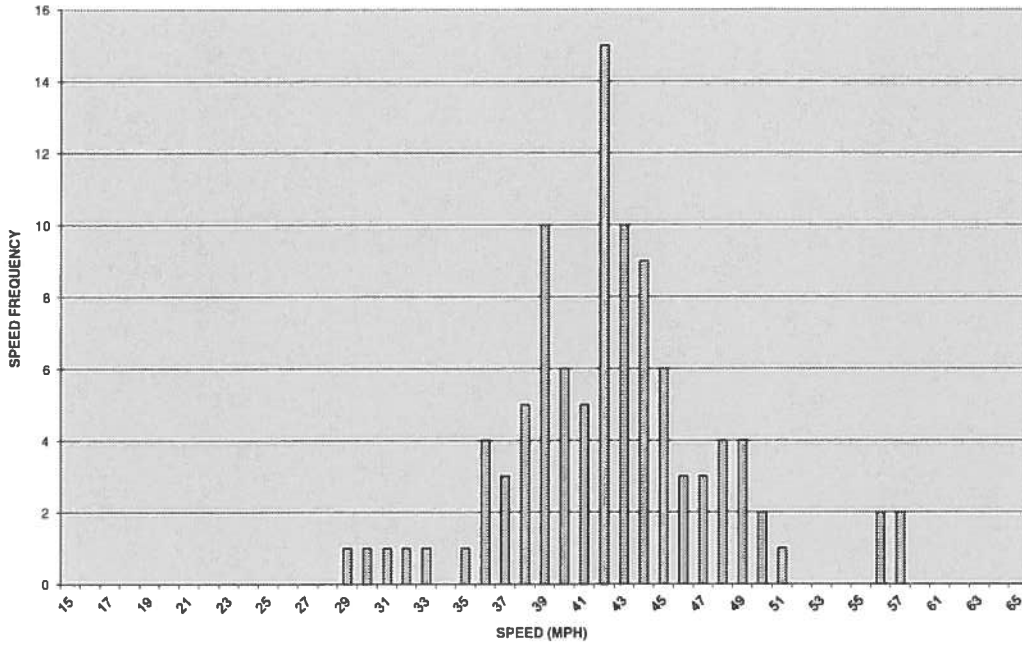
Conditions which warrant the 5-mph speed reduction (posting at 45 mph instead of 50 mph).

1. The Claremont Hills Wilderness Park is located directly adjacent to Mt. Baldy Road, with numerous bicyclists and pedestrians sharing the roadway with drivers.

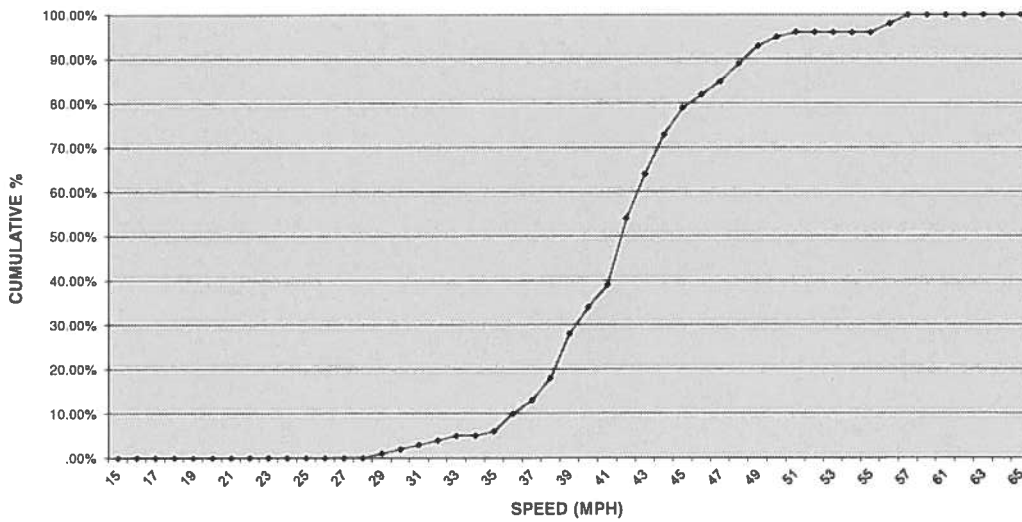
2. Mt. Baldy is a roadway with several horizontal curves which dictates a reduced speed limit on the roadway.

SPEED HISTOGRAM

Mt. Baldy - Mills to Padua



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56		0	100
55		0	100
54		0	100
53		0	100
52		0	100
51		0	100
50	1	1	100
49	1	1	99
48	1	1	98
47	2	2	97
46	8	8	95
45	4	4	87
44	3	3	83
43	6	6	80
42	8	8	74
41	12	12	66
40	12	12	54
39	5	5	42
38	12	12	37
37	12	12	25
36	6	6	13
35	5	5	7
34	2	2	2
33		0	0
32		0	0
31		0	0
30		0	0
29		0	0
28		0	0
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:	DIRECTION		NB/SB
Average:	40	+/-	MPH
Median:	40		MPH
Modal:	12	VEH AT	37 MPH
85th %:	45		MPH
10M-Pace:	29	MPH THRU	38 MPH
% Over:	8		%
% In Pace:	82		%
% Under:	10		%
Range:	34	MPH TO	50 MPH
Veh Code:			CVC
Posted Sp:	40		MPH

LOCATION: PADUA AVENUE

LIMITS: Base Line Rd. to Alamosa Dr.

WEATHER: CLEAR

DATE: May 16, 2012

Existing Posted Speed = 40 mph

85th Percentile = 45 mph

Nearest 5-mph increment speed = 45 mph

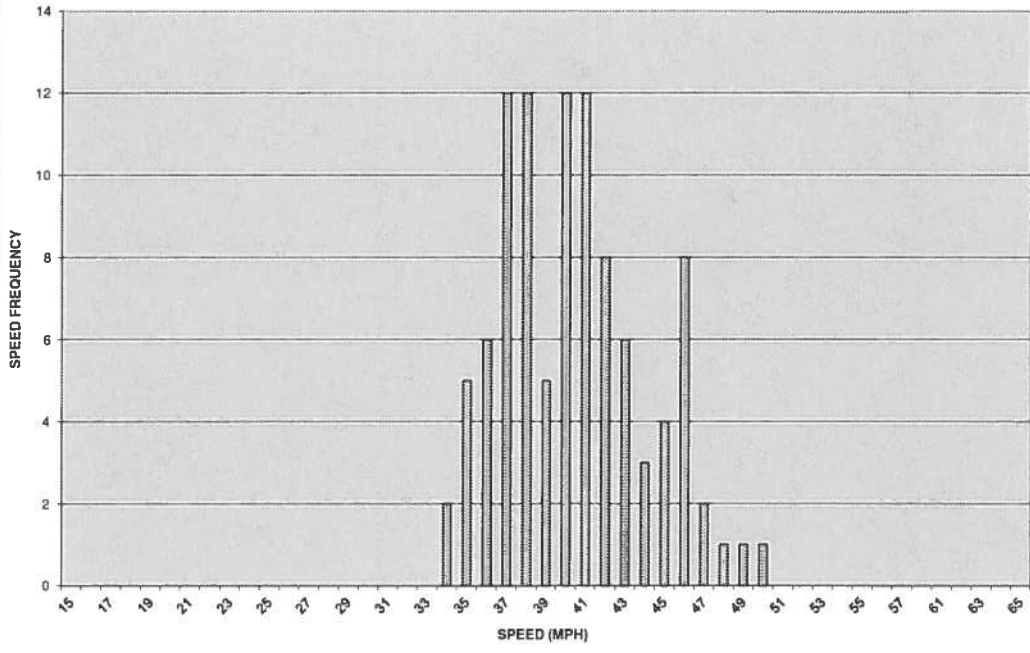
Proposed Speed = 40 mph

Conditions which warrant the 5-mph speed reduction (posting at 40 mph instead of 45 mph):

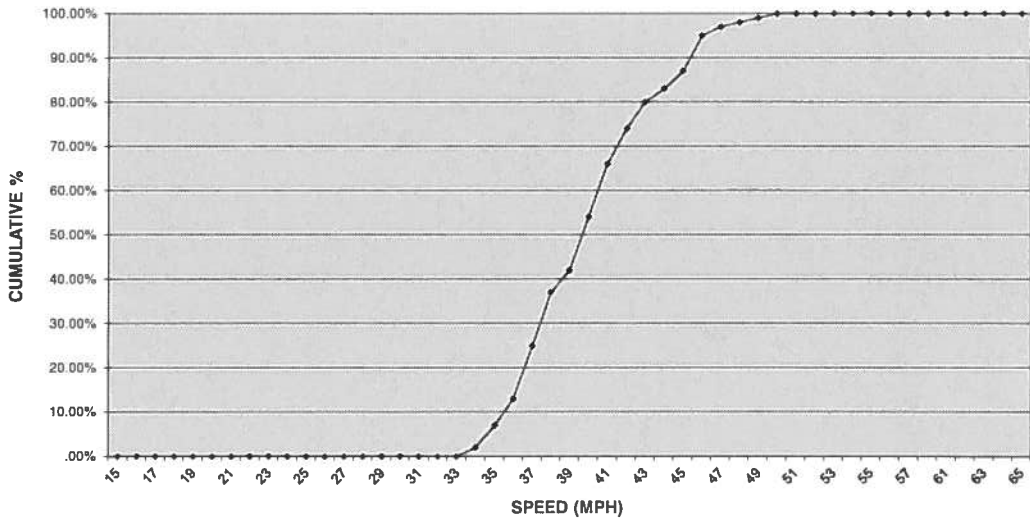
1. Padua Avenue is a narrow, two-lane roadway (typical width only 28-feet), with unimproved shoulders.
2. Vehicles turning onto Padua Avenue have limited sight distance, and drivers must pull up to the edge of Padua for an acceptable line of sight of oncoming traffic.
3. Western Christian School is located adjacent to Padua Avenue.
4. Padua Avenue is one of the truck routes used for the San Antonio Dam operations.

SPEED HISTOGRAM

Padua - Base Line to Alamosa



CUMULATIVE SPEED



CITY OF CLAREMONT RADAR SPEED SURVEY

MPH	FREQ	%TOT	CUM %
65		0	100
64		0	100
63		0	100
62		0	100
61		0	100
60		0	100
59		0	100
58		0	100
57		0	100
56	1	1	100
55		0	99
54		0	99
53		0	99
52	2	2	99
51	3	3	97
50	2	2	94
49	1	1	92
48	4	4	91
47	4	4	87
46	9	9	83
45	13	13	74
44	5	5	61
43	5	5	56
42	8	8	51
41	4	4	43
40	8	8	39
39	8	8	31
38	6	6	23
37	2	2	17
36	6	6	15
35	6	6	9
34	1	1	3
33		0	2
32		0	2
31		0	2
30	1	1	2
29		0	1
28	1	1	1
27		0	0
26		0	0
25		0	0
24		0	0
23		0	0
22		0	0
21		0	0
20		0	0
19		0	0
18		0	0
17		0	0
16		0	0
15		0	0

SAMPLE: 100 VEHICLES

STATISTICS:		DIRECTION		NB/SB
Average:	41	+/-		MPH
Median:	42.5			MPH
Modal:	1	VEH AT	45	MPH
85th %:	47			MPH
10M-Pace:	29	MPH THRU	38	MPH
% Over:	8			%
% In Pace:	82			%
% Under:	10			%
Range:	28	MPH TO	56	MPH
Veh Code:				CVC
Posted Sp:	40			MPH

LOCATION: PADUA AVENUE

LIMITS: Alamosa Dr. to Mt. Baldy Rd.

WEATHER: CLEAR

DATE: May 16, 2012

Existing Posted Speed = 40 mph

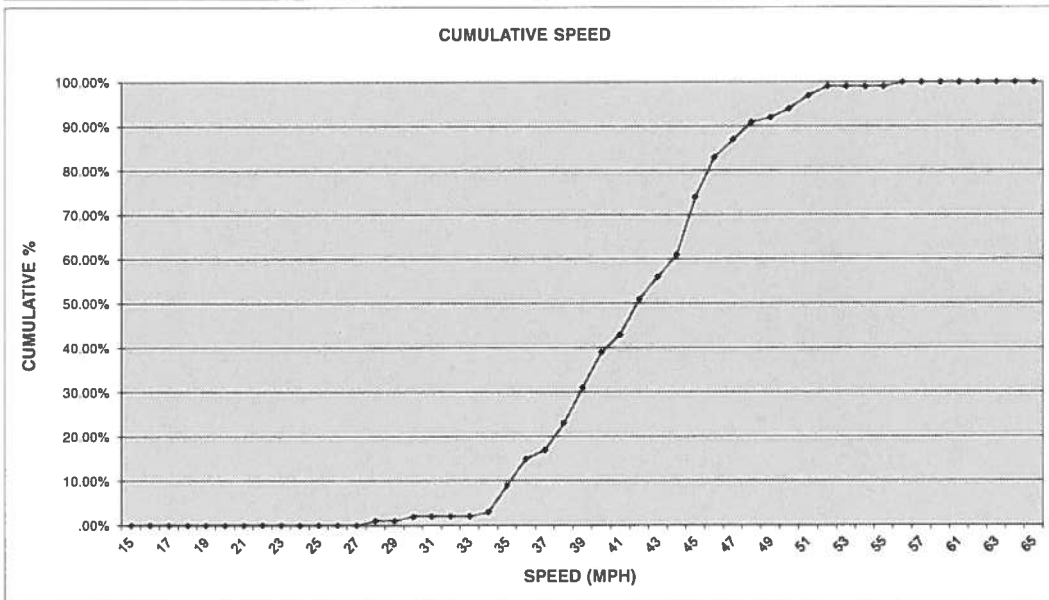
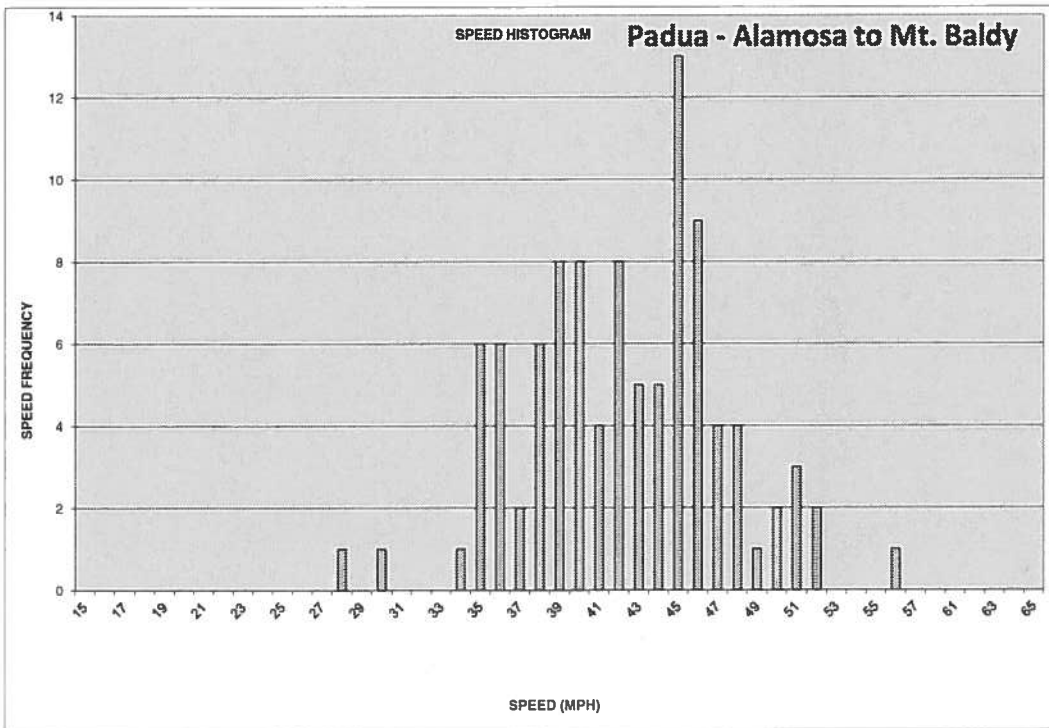
85th Percentile = 47 mph

Nearest 5-mph increment speed = 45 mph

Proposed speed = 40 mph

Conditions which warrant the 5-mph speed reduction (posting at 40 mph instead of 45 mph):

1. A new sports park has been constructed on this section of Padua, which has resulted in an increase in vehicular/pedestrian/bicyclist traffic, and results in conflicts during congested periods, particularly given the narrow width of the roadway.
2. The roadway is narrow with unimproved shoulders, which precludes the posting of a 45 mph speed limit for safety purposes.



APPENDIX D

ORDINANCE APPROVING SPEED SURVEY

ORDINANCE NO. 2012-12

AN ORDINANCE OF THE CITY OF CLAREMONT, CALIFORNIA, AMENDING SECTION 10.48.010 OF THE CLAREMONT MUNICIPAL CODE RELATING TO THE SPEED LIMITS ON CERTAIN STREETS.

WHEREAS, the California Vehicle Code (CVC) requires that, in order to allow the use of radar enforcement of speed limits on city streets, local agencies must update and review posted speed limits every seven years through the preparation of a traffic and engineering survey; and

WHEREAS, the previous Citywide speed survey for the City of Claremont was completed in 2005, with the seven-year review having elapsed, requiring the current review of Citywide speed limits; and

WHEREAS, the CVC requires that certain streets must be re-surveyed to remain in compliance with state speed zoning requirements, and to permit the use of radar enforcement by local law enforcement; and

WHEREAS, the following criteria have been outlined in the CVC and the California Manual on Uniform Traffic Control Devices (MUTCD) to identify those streets which require a new speed survey: (a) any street which has experienced significant changes in roadway or traffic conditions, including, but not limited to, changes in adjoining property or land use, roadway width, or traffic volume, or (b) any street which does not currently meet recently revised criteria in the methods used to determine posted speed limits, as set forth in the California Manual on Uniform Traffic Control Device (MUTCD), 2012 Edition; and

WHEREAS, City staff has determined that 19 streets, with a total of 34 street segments, do not require an updated survey, based on the criteria outlined in the CVC and California MUTCD, and the speed limits outlined in the 2005 Citywide Speed Survey on these 19 streets remain in effect, as follows:

		<u>Existing Posted Speed to Remain</u>
A.	ALAMOSA DRIVE Mills Avenue to Padua Avenue	30-mph
B.	AUTO CENTER DRIVE Indian Hill Boulevard to end	30-mph
C.	CAMBRIDGE AVENUE Arrow Highway to Bonita Avenue	35-mph
D.	CLAREMONT BOULEVARD Arrow Highway to First Street First Street to Sixth Street Sixth Street to Foothill Boulevard Foothill Boulevard to Monte Vista Avenue	30-mph 40-mph 45-mph 40-mph

Existing Posted Speed to Remain

E.	COLLEGE AVENUE	
	San Jose Avenue to Arrow Highway	25-mph
	First Street to Sixth Street	25-mph
	Sixth Street to Foothill Boulevard	30-mph
F.	GAREY AVENUE	
	Arlington Drive to College Way	40-mph
G.	INDIAN HILL BOUELVARD	
	American Avenue to San Jose Avenue	35-mph
	San Jose Avenue to Arrow Highway	40-mph
	Arrow Highway to First Street	35-mph
	First Street to Bonita Avenue	30-mph
	Bonita Avenue to Eighth Street	30-mph
	Base Line Road to Armstrong Drive	40-mph
H.	LASSEN AVENUE	
	Scottsbluff Drive to Lindenwood Drive	25-mph
I.	MILLS AVENUE	
	Foothill Boulevard to Base Line Road	40-mph
J.	MIRAMAR AVENUE	
	Mills Avenue to Padua Avenue	30-mph
K.	MONTE VISTA AVENUE	
	Foothill Boulevard to Claremont Boulevard	45-mph
L.	MOUNTAIN AVENUE	
	Bonita Avenue to Harrison Avenue	25-mph
	Harrison Avenue to Foothill Boulevard	35-mph
M.	OXFORD AVENUE	
	Colby Circle to Scripps Drive	25-mph
N.	SAN JOSE AVENUE	
	Mountain Avenue to Indian Hill Boulevard	35-mph
	Indian Hill Boulevard to College Avenue	30-mph
O.	SHENANDOAH DRIVE	
	Claremont Boulevard to Monte Vista Avenue	25-mph
P.	SIXTH STREET	
	Indian Hill Boulevard to College Avenue	25-mph
	College Avenue to College Way	25-mph
	College Way to Mills Avenue	30-mph
	Mills Avenue to Claremont Boulevard	35-mph
Q.	SUMNER AVENUE	
	Briarcroft Road to Ridgefield Drive	30-mph

Existing Posted Speed to Remain

- | | | |
|----|--|--------|
| R. | TOWNE AVENUE
Foothill Boulevard to Base Line Road | 40-mph |
| S. | WILLIAMS AVENUE
Foothill Boulevard to College Way | 35-mph |

WHEREAS, City staff has determined that 7 streets, with a total of 11 street segments, must be re-surveyed to continue to comply with state regulations, and to allow for radar enforcement of the posted speed limits; and

WHEREAS, City staff has prepared a traffic and engineering survey for the required 11 street segments, which will serve as an update to the 2005 Radar Speed Survey; and

WHEREAS, the state requirements outlined in the MUTCD require that speed limits should be set at the nearest five mile-per-hour increment to the 85th percentile speed, with an allowance for a five mile-per-hour reduction if roadway factors, traffic and pedestrian factors and adjacent land uses make a reduced speed advisable; and

WHEREAS, based on the recently conducted speed survey, staff recommends that the speed limits on the following streets be set as follows:

A. INDIAN HILL BOULEVARD

1. Eighth Street to Foothill Boulevard: A traffic survey has determined the 85th percentile speed to be 37-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 30-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the adjacent land uses on this high volume roadway, including residential uses with a significant number of turning movements in and out of the residential driveways; and, (b) Memorial Park, located between Eighth and Tenth Streets, a highly-used park for City events and ongoing activities,
2. Foothill Boulevard to Base Line Road: A traffic survey has determined the 85th percentile speed to be 42-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 35-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the significant pedestrian activity on this portion of Indian Hill Boulevard due to the location of the adjacent high school, Youth Activity Center, and Cahuilla Park; (b) the high volume of vehicles exiting from side streets, which is difficult to maneuver due to the wide width of Indian Hill Boulevard; and, (c) the high vehicle volumes, conflicts with pedestrian traffic, and limited sight distance due to the landscaped median on Indian Hill Boulevard.

B. LINDENWOOD DRIVE

1. Lassen Avenue to Shenandoah Drive: A traffic survey has determined the 85th percentile speed to be 29-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 25-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the residential character of the street; and, (b) the blind curves on Lindenwood which limit drivers' visibility of cars exiting driveways.

C. MILLS AVENUE

1. Base Line Road to Alamosa Drive: A traffic survey has determined the 85th percentile speed to be 46-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 40-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the significant number of pedestrians, motorists, equestrians and bicyclists utilizing Mills Avenue due to the location of the Claremont Wilderness Park at the northerly terminus of the street; and, (b) the residential nature of this roadway does not support the presence of a 45-mph speed zone, with 40-mph being considered a more safe, reasonable speed,
2. Alamosa Drive to Mt. Baldy Road: A traffic survey has determined the 85th percentile speed to be 45-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 40-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the narrowing of the northerly segment of this street with said segment having narrow lane widths and unimproved shoulders; (b) the limited sight distance at Mills Avenue and Alamosa Drive; and, (c) the significant number of pedestrians, motorists, equestrians and bicyclists utilizing Mills Avenue due to the location of the Claremont Hills Wilderness Park at the northerly terminus of the street.

D. MONTE VISTA AVENUE

1. Claremont Boulevard to Base Line Road: A traffic survey has determined the 85th percentile speed to be 46-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 40-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the limited sight distance at the intersection of Shenandoah Drive, due to the vertical curvature in the roadway north of the intersection at the freeway bridges; and, (b) the unsafe condition for northbound traffic at the freeway bridge caused by the vertical curvature in the roadway, which limits driver visibility of traffic backed up at the Base Line Road and Monte Vista Avenue traffic signal, and requires drivers to brake suddenly when they reach the top of the curve.

E. MOUNTAIN AVENUE

1. Foothill Boulevard to Base Line Road: A traffic survey has determined the 85th percentile speed to be 42-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 35-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the heavy bicycle and pedestrian usage for this section of Mountain Avenue; (b) the heavy turning movements and congestion at the commercial driveway (servicing a shopping center) just north of Foothill Boulevard; and, (c) the congestion at the intersection of Mountain Avenue and Foothill Boulevard, which is a high accident location.
2. Thompson Creek Bike Trail to northerly end: A traffic survey has determined the 85th percentile speed to be 37-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 30-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the narrowness and residential character of the roadway; (b) the steep grade of this section of Mountain Avenue (approximately 13 percent); and, (c) the sharp curves that affect the sight distance of drivers.

F. MT. BALDY ROAD

1. Mills Avenue to Padua Avenue: A traffic survey has determined the 85th percentile speed to be 48-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 45-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the rural nature of the roadway with unimproved shoulders and limited street lighting; (b) the curves along this roadway segment which influence the speed at which vehicles can safely travel while negotiating the curves; and, (c) the increased numbers of bicyclists and pedestrians utilizing this roadway enroute to the Claremont Hills Wilderness Park.

G. PADUA AVENUE

1. Base Line Road to Alamosa Drive: A traffic survey has determined the 85th percentile speed to be 45-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 40-m.p.h. is reasonable, safe, and most appropriate to facilitate the orderly movement of traffic based on: (a) the limited sight distances at the numerous intersecting side streets; (b) the narrow width of Padua Avenue, and the unimproved shoulders in several sections; (c) the limited lighting for this roadway; (d) the function of this street as a truck route to San Antonio Dam; and, (e) the location of Western Christian School directly adjacent on the west side of the street,
2. Alamosa Drive to Mt. Baldy Road: A traffic survey has determined the 85th percentile speed to be 47-m.p.h.; however, said speed is more than is reasonable or safe upon said street, but a *prima facie* speed limit of 40-m.p.h. is reasonable, safe, and most appropriate to facilitate the

orderly movement of traffic based on: (a) the new construction of Padua Park within this section of Padua Avenue resulting in increased congestion and conflicts between vehicles/bikes/pedestrians; (b) the limited sight distances at the numerous intersecting side streets; (c) the narrow width of Padua Avenue, and the unimproved shoulders in several sections; (d) the function of this street as a truck route to San Antonio Dam; and, (e) the location of Western Christian School directly adjacent on the west side of the street.

WHEREAS, the City Council approves and adopts said traffic and engineering survey and speed limit recommendations; and

WHEREAS, the City Council hereby directs the City Clerk to file said 2012 Traffic and Engineering Survey with the Pomona Municipal Court, and to place three copies in the office of the City Clerk for public review;

THE CITY COUNCIL OF THE CITY OF CLAREMONT DOES ORDAIN AS FOLLOWS:

SECTION 1. The Recitals are hereby adopted and incorporated herein.

SECTION 2. The City Council approves and adopts the 2012 Radar Speed Survey, which is on file in the City Clerk's office, 207 Harvard Avenue, Claremont, California.

SECTION 3. That Section 10.48.010 (B) of the Claremont Municipal Code shall be amended to read as follows:

10.48.010 Speed limits on certain streets

B. It is declared that the *prima facie* speed limit shall be as set forth in this section on those streets or parts of streets designated in this section when signs are erected giving notice thereof:

ALAMOSA DRIVE Mills Avenue to Padua Avenue	30-mph
AUTO CENTER DRIVE Indian Hill Boulevard to End	30-mph
CAMBRIDGE AVENUE Arrow Highway to Bonita Avenue	35-mph
CLAREMONT BOULEVARD Arrow Highway to First Street	30-mph
First Street to Sixth Street	40-mph
Sixth Street to Foothill Boulevard	45-mph
Foothill Boulevard to Monte Vista Avenue	40-mph

COLLEGE AVENUE	
San Jose Avenue to Arrow Highway	25-mph
First Street to Sixth Street	25-mph
Sixth Street to Foothill Boulevard	30-mph
GAREY AVENUE	
Arlington Drive to College Way	40-mph
INDIAN HILL BOULEVARD	
American Avenue to San Jose Avenue	35-mph
San Jose Avenue to Arrow Highway	40-mph
Arrow Highway to First Street	35-mph
First Street to Bonita Avenue	30-mph
Bonita Avenue to Eighth Street	30-mph
Eighth Street to Foothill Boulevard	30-mph
Foothill Boulevard to Base Line Road	35-mph
Base Line Road to Armstrong Drive	40-mph
LASSEN AVENUE	
Scottsbluff Drive to Lindenwood Drive	25-mph
LINDENWOOD DRIVE	
Lassen Avenue to Shenandoah Drive	25-mph
MILLS AVENUE	
Foothill Boulevard to Base Line Road	40-mph
Base Line Road to Alamosa Drive	40-mph
Alamosa Drive to Mt. Baldy Road	40-mph
MIRAMAR AVENUE	
Mills Avenue to Padua Avenue	30-mph
MONTE VISTA AVENUE	
Foothill Boulevard to Claremont Boulevard	45-mph
Claremont Boulevard to Base Line Road	40-mph
MOUNTAIN AVENUE	
Bonita Avenue to Harrison Avenue	25-mph
Harrison Avenue to Foothill Boulevard	35-mph
Foothill Boulevard to Base Line Road	35-mph
Thompson Creek Trail to northerly end	30-mph
MT. BALDY ROAD	
Mills Avenue to Padua Avenue	45-mph
OXFORD AVENUE	
Colby Circle to Scripps Drive	25-mph
PADUA AVENUE	
Base Line Road to Alamosa Drive	40-mph
Alamosa Drive to Mt. Baldy Road	40-mph
SAN JOSE AVENUE	
Mountain Avenue to Indian Hill Boulevard	35-mph

Indian Hill Boulevard to College Avenue	30-mph
SHENANDOAH DRIVE Claremont Boulevard to Monte Vista Avenue	25-mph
SIXTH STREET Indian Hill Avenue to College Avenue	25-mph
College Avenue to College Way	25-mph
College Way to Mills Avenue	30-mph
Mills Avenue to Claremont Boulevard	35-mph
SUMNER AVENUE Briarcroft Road to Ridgefield Drive	30-mph
TOWNE AVENUE Foothill Boulevard to Base Line Road	40-mph
WILLIAMS AVENUE Foothill Boulevard to College Way	35-mph

SECTION 4. The Community Development Department is hereby authorized and directed to install and/or upgrade all appropriate signs giving notice of said speed limits.


SECTION 5. The City Council hereby directs the City Clerk to file the 2012 Radar Speed Survey with the Pomona North Superior Court, and to place three copies in the office of the City Clerk for public review.

SECTION 6. The Mayor shall sign this Ordinance and the City Clerk shall attest and certify to the passage and adoption of it, and within fifteen (15) days, publish in the Claremont Courier, a semi-weekly newspaper of general circulation, printed, published and circulated in the City of Claremont, and thirty (30) days thereafter it shall take effect and be in force.

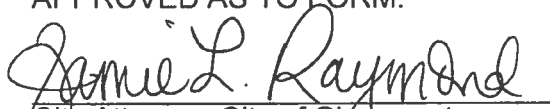
PASSED, APPROVED and ADOPTED this 23rd day of October, 2012.


 Mayor, City of Claremont

ATTEST:


 City Clerk, City of Claremont

APPROVED AS TO FORM:


 City Attorney, City of Claremont

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.
CITY OF CLAREMONT)

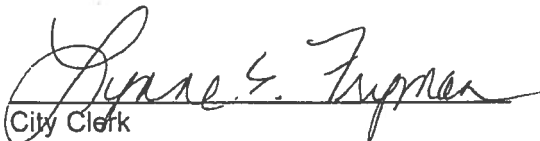
I, Lynne E. Fryman, City Clerk of the City of Claremont, County of Los Angeles, State of California, hereby certify that the foregoing Ordinance No. 2012-12 was introduced for first reading at a regular meeting of the City Council on the 9th day of October, 2012. That thereafter, said Ordinance was passed and adopted at a regular meeting of the City Council on the 23rd day of October, 2012, by the following vote:

AYES: COUNCILMEMBERS: NASIALI, PEDROZA, CALAYCAY, LYONS, SCHROEDER

NOES: COUNCILMEMBERS: NONE

ABSTAINED: COUNCILMEMBERS: NONE

ABSENT: COUNCILMEMBERS: NONE


City Clerk

