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November 15, 2001

Hassan K. Basma
City of Fremont
39550 Liberty Street
P.O. Box 5006
Fremont, CA 94537-5006

Subject: 2001 Speed Zone Survey P01230

Dear Mr. Basma:

Attached is the final report of the City of Fremont 2001 Speed Zone Survey. In this study we conducted Engineering and Traffic Surveys, in accordance with the State of California's guidelines for speed zoning, on 181 roadway segments maintained by and located within the City of Fremont.

This report includes the following list of roadways that were not included in the 1995 Speed Zone Survey Report:

Survey No.	Street Name	Segment Limits	Posted Speed Limit (mph)	Recommended Speed Limit (mph)
4	Antelope Drive	Mission Boulevard to Vineyard Avenue	30	30
4.5	Antelope Drive	Vineyard Avenue to Boar Circle	25	25
14	Bidwell Drive	Fremont Boulevard to Sundale Drive	25	25
23	Cabral Drive	Pizarro Drive to Cabrillo Drive	25	25
24	Cabrillo Drive	Thornton Avenue to Decoto Road	25	25
25	Calaveras Avenue	Blacow Road to Logan Drive	25	25

Survey No.	Street Name	Segment Limits	Posted Speed Limit (mph)	Recommended Speed Limit (mph)
53	Ellsworth Street	Washington Boulevard to Pine Street	25	25
74	Guardino Drive	Stevenson Boulevard to Walnut Avenue	25	25
81	Isle Royal Street	Valpey Park Avenue to Seneca Park Avenue	25	25
117	Parkside Drive	Mowry Avenue to Parkmont Drive	25	25

This report concludes that there will be changes to the speed limits at the following locations:

Street Name	Segment	Posted	Recommended
Decreased Speed Limit:			
Albrae Street	Stewart to Christy	40 mph	30 mph
Civic Center	Mowry to Walnut	35 mph	30 mph
Civic Center	Walnut to Stevenson	40 mph	35 mph
Fremont Boulevard	Beard to Decoto	45 mph	40 mph
Kato Road	Milmont to Auburn	40 mph	35 mph
Shinn Street	Peralta to Von Euw	30 mph	25 mph
West Warren Avenue	Fremont to I-880	40 mph	35 mph
Scott Creek Road	Green Valley Drive to easterly end	40 mph	35 mph
Increased Speed Limit:			
Auto Mall Parkway	westerly end to Boyce	40 mph	45 mph
Christy Street	Stewart to Auto Mall	40 mph	45 mph
Milmont Drive	Page to city limits	30 mph	35 mph
Page Avenue	Kato to Milmont	30 mph	35 mph

The effective date of the enclosed survey is August 9, 2001. Following the adoption of this study, the City will be in conformance with current State requirements and may lawfully use radar to enforce the speed limits on the study roadways until August 9, 2008. In compliance with State regulations, new Traffic and Engineering Surveys are required every seven years.

We appreciate the opportunity to provide traffic engineering services to the City of Fremont.

Sincerely,

***DKS** Associates*
A California Corporation

Atul Patel
Project Manager
Senior Transportation Engineer

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City of Fremont
2001 Speed Zone Survey

Revised Final Report

Prepared for

City of Fremont

By

***DKS** Associates*
1956 Webster Street, Suite 300
Oakland, CA 94612
(510) 763-2061

November 2001

Contents

Introduction

This report presents the results of Traffic and Engineering Surveys prepared for the City of Fremont. The surveys were conducted to establish safe and reasonable speed limits for 181 segments of arterial and collector roadways selected by the City. The findings of this report will enable the City to continue radar enforcement of speed limits on these roadways, as indicated in Section 40802 of the California Vehicle Code.

Subsequent sections of this report present brief discussions of study procedures, the process of setting realistic speed limits, and the findings and recommendations of the Engineering and Traffic Surveys.

STUDY PROCEDURES

Chapter 7 of Division 11 from the California Vehicle Code requires a 25 mph prima facie speed limit on streets in residential or business districts, and on any highway other than a state highway. However, upon the basis of an Engineering and Traffic Survey, a local authority may declare speed limits of 30, 35, 40, 45, 50, or a maximum of 55 mph in order to facilitate the safe and orderly movement of traffic. The required elements in such Engineering and Traffic Surveys are outlined in Section 627 of the Code. This report adopts the aforementioned guidelines in formulating its recommendations to the City of Fremont.

The principal elements in this study are highlighted below:

Radar Checks

Each street was divided into segments to account for the roadway's differing characteristics. The differences among the roadway segments might include: street width, horizontal and vertical alignments, abutting land uses, accident frequency, traffic volumes and other significant geometric factors and constraints. One speed check was made in each segment from an inconspicuously parked, unmarked vehicle. Every effort was made to ensure that the presence of the vehicle did not affect the driving behavior of other motorists. A minimum of 100 speed samples was obtained, 50 for each direction of travel, for each segment of a major roadway. Where low-volume roads exist, the survey was conducted for a maximum time limit of two hours or when 50 vehicles were observed, whichever occurred first. In some cases, two surveys were conducted for the same segment to ensure accuracy and consistency. All field data were coded onto standard forms for subsequent computer analysis.

Data Analysis

For each survey segment, computer analyses and calculations were performed on the field data to obtain several key parameters. The computer analysis printouts are included in the appendix of this report. A list of these parameters and a brief discussion of each follow:

50th Percentile Speed. The *50th percentile speed* is the speed above and below which 50 percent of the sample speeds lie. This is also known as the median or middle speed.

85th Percentile Speed. The *85th percentile speed*, or the critical speed, is the speed at or below which 85 percent of the observed vehicles are traveling. Traffic engineers generally consider that at least 85 percent of all motorists will drive at speeds that are reasonable and prudent for the prevailing condition, without the benefit of posted speed limits, signs, or enforcement. Therefore, the 85th percentile speed is a good preliminary indicator of the appropriate speed limit that can be imposed, after taking into consideration all other secondary factors such as historical accident occurrence, traffic volumes, roadside features, and other special constraints.

10 mph Pace Speed Range. The *10 mph pace speed range* is the ten-mile-per-hour increment that contains the greatest number of observed vehicles. In general, the 85th percentile speed and the recommended speed limit should lie within the upper portion of the pace speed range. This parameter is also a good indicator of a reasonable and appropriate speed limit.

Percent of Vehicles Within the Pace Speed Range. The *percent of vehicles within the pace speed range* is an indication of the bunching of observed speeds. This value may range from 60 to 80 percent. Generally, if all vehicles travel at approximately the same speed, there is a reduced likelihood of traffic collisions. Consequently, the higher the percent within the pace speed range, the better the speed distribution.

Range of Speeds. The *range of speeds* is simply the speeds of the fastest and slowest vehicles observed. A large range of speeds, say in excess of 30 mph, indicates unfavorable road conditions that lead to inconsistent traffic stream and great likelihood of traffic collisions.

Average Speed. The *average speed* is a simple arithmetic mean of all speeds observed in a single sample.

Accident Review

At this point, a good initial estimate of the appropriate speed limit for each of the street segments had been determined. However, as a first check, it was necessary to validate these estimates by carefully reviewing the historical accident occurrences within the last two years. A two-year window from January 1, 1999 and December 31, 2000 was chosen for this review. Accident data was obtained using SWITRS and the City of Fremont accident database. The City also provided average daily traffic volumes for select locations for the year 2000. The traffic volumes are

measured in vehicles per day (vpd). The location and type of accident occurrences, as well as their frequency and cause in relation to the traffic speed and/or volumes, were thoroughly considered before a final speed limit was recommended for each road section.

Field Check

After performing the radar checks, data analyses, and accident review, a final field check was made. A traffic engineer drove each of the selected street segments while "floating" with prevailing traffic to determine the traffic speed that is reasonable from the driver's point of view. This driving process adds the element of human judgment to the speed limit setting process.

In performing a field check, the driver needs to be fully aware of the aforementioned parameters and particularly cognizant of the 85th percentile speeds and the pace speed ranges. The driver evaluates the appropriateness of these values and notes the significance of other factors such as roadside development, driveways, parked vehicles, emergency shoulder areas, schools and playgrounds, pedestrians, roadway alignment, intersection visibility and control, and numerous other intangible factors. These elements are given serious considerations in the determination of a reasonable and safe speed limit.

REALISTIC SPEED ZONING

In general, the majority of motorists can be relied upon to travel at a reasonable and prudent speed that is appropriate for the prevailing driving conditions. A reasonable speed limit would be one that allows the easy identification of motorists who are exceeding the safe and reasonable speed for the given roadway condition. There exist misconceptions regarding the effect of changing an existing speed limit. It is often thought that an increase or reduction in the speed limit of a roadway would produce a corresponding increase or reduction in vehicle speeds on the roadway. Furthermore, it is believed that a reduction in the speed limit would improve safety. A variety of traffic engineering studies have proven that these arguments are not always valid.

Under normal roadway conditions, the speed limit should be the maximum of the range of speeds at which prudent motorists travel. Traffic engineers generally consider the 85th percentile speed to be a good indicator of this maximum value. In most cases, the speed limit is set in the vicinity of the 85th percentile speed and/or in the upper portion of the pace speed range.

Although statistics are an important and inherent part of speed zone studies, the establishment of a reasonable speed limit also requires sound engineering judgment. Reasonable limits are speeds at which motorists would drive without the effects of enforcement or signs. However, studies have shown that in residential districts motorists tend to drive faster than the local residents prefer. People are more concerned about traffic speeds in their neighborhood than those elsewhere. This is not a tendency to willfully break the law, but rather a reflection of human behavior. Consequently, unlike multi-lane arterial roadways, where the 85th percentile speed may closely approximate the posted speed limit, the 85th percentile value on local residential

streets may be higher than the posted limit. In fact, it is not uncommon that the majority of the motorists, even as high as 80 to 90 percent of those observed, travels in excess of the 25 mph prima facie residential speed limit. This fact does not imply that the 25 mph limit is inappropriate; it simply implies that the majority of the motorists is driving imprudently.

Frequent changes of the speed limit over a stretch of roadway should be avoided in establishing speed limits. Varying the limits over a relatively short length of roadway may also be inappropriate. Speed limits that change every few blocks may accurately reflect prevailing driving conditions on the street, but they do not give the motorist the opportunity to become aware of the lawful limit.

For the reasons mentioned above, the recommendations in this report are made to produce consistency in the speed limits, and are not intended to encourage unsafe speeds.

Surveys

ALBRAE STREET

Survey No. 1-2

Albrae Street is a north-south roadway, approximately 1.5 miles in length. The alignment is predominantly straight; however, horizontal curves exist within the segment. For the purpose of this Engineering and Traffic Survey, Albrae Street was divided into the following study segments:

- Stevenson Boulevard to Stewart Avenue
- Stewart Avenue to Christy Street

Between Stevenson Boulevard and Stewart Street, Albrae Street maintains two through lanes. Horizontal curves exist in the north part of this segment. The posted speed limit is 25 mph. The average daily traffic volume is approximately 22,600 vpd. Four rear-end, three approach-turn, two right-angle and ten type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 5, 2001, measured the 85th percentile speed to be 36 mph. Numerous retail and commercial developments, with closely spaced driveways, exist along Albrae Street, just south of Stevenson Boulevard. Due to the high number of speed related accidents, and the retail and commercial developments, it is recommended that the speed limit of on this portion of Albrae Street be retained at 25 mph.

Between Stewart Avenue and Christy Street, Albrae Street maintains two through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 6,700 vpd. One approach-turn and four type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 9, 2001, measured the 85th percentile speed to be 33 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey, a posted speed limit of 30 mph is recommended.

SUMMARY - ALBRAE STREET

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Stevenson to Stewart	*25 mph*	*36 mph*	***25 mph***
Stewart to Christy	*40 mph*	*33 mph*	***30 mph***

ALVARADO BOULEVARD Survey No. 3

Alvarado Boulevard is a north-south roadway, approximately 1.0 mile in length within the city limits. Alvarado Boulevard generally maintains two through lanes, with widening near cross streets to accommodate four through lanes. The roadway alignment is straight with a mild vertical curve at the I-880 interchange. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between I-880 and the city limits.

The posted speed limit on Alvarado Boulevard is 45 mph. The average daily traffic volume is approximately 32,500 vpd. Seventeen rear-end, one approach turn, one right angle, and four type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 27, 2001 measured the 85th percentile speed to be 43 mph. There is close conformance to the existing speed limit of 45 mph. Based upon the results of the spot speed survey, it is recommended that the posted speed limit of 45 mph be retained.

SUMMARY - ALVARADO BOULEVARD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
I-880 to city limits	*45 mph*	*43 mph*	***45 mph***

ANTELOPE DRIVE

Survey No. 4-4.5

Antelope Drive is a east-west roadway, approximately 0.5 mile in length between Mission Boulevard and Boar Circle. Antelope Drive generally maintains one through lane with no bicycle lane or parking lanes. The roadway alignment is straight with a curve to go north-south to Boar Circle. For the purpose of this Engineering and Traffic Survey, Antelope Drive was divided into the following study segments:

- Mission Boulevard to Vineyard Avenue
- Vineyard Avenue to Boar Circle

Between Mission Boulevard and Vineyard Avenue, the posted speed limit on Antelope Drive is 30 mph. One type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001 measured the 85th percentile speed to be 44 mph. Due to the horizontal curvature and the residential nature of the area, it is recommended that the posted speed limit of 30 mph be retained.

Between Vineyard Avenue and Boar Circle, the posted speed limit on Antelope Drive is 25 mph. No accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001 measured the 85th percentile speed to be 33 mph. Due to the residential nature of the area, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – ANTELOPE DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mission to Vineyard Avenue	*30 mph*	*44 mph*	***30 mph***
Vineyard Avenue to Boar Circle	*25 mph*	*33 mph*	***25 mph***

ARDENWOOD BOULEVARD

Survey No. 5

Ardenwood Boulevard is a north-south, four-lane roadway, approximately 1.5 miles in length. A short portion of the roadway maintains five through lanes. The alignment is predominantly curvilinear, with vertical curves throughout the segment. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between the Union City city limits and the Newark city limits.

The posted speed limit on Ardenwood Boulevard is 40 mph. The average daily traffic volume is approximately 32,500 vpd. Eight rear-end, two approach turn, one right angle, and sixteen type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 27, 2001, measured the 85th percentile speed to be 44 mph. Due to the horizontal and vertical curvature of the roadway, it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - ARDENWOOD BOULEVARD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Union City city limits to Newark city limits	*40 mph*	*44 mph*	***40 mph***

ARGONAUT WAY

Survey No. 6

Argonaut Way is a north-south, four-lane roadway, approximately 0.6 miles in length. The study segment being investigated is approximately 0.4 miles in length. The roadway alignment is straight and flat throughout. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Mowry Avenue and Walnut Avenue.

Argonaut Way has a posted speed limit of 30 mph. The average daily traffic volume is approximately 11,800 vpd. Two rear-end, one approach turn, one auto-pedestrian, one auto-bicycle, and four type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 27, 2001, measured the 85th percentile speed to be 38 mph. Due to the residential nature of the area, contributing high pedestrian activity and cars backing out of driveways, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - ARGONAUT WAY

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mowry to Walnut	*30 mph*	*38 mph*	***30 mph***

AUTO MALL PARKWAY

Survey No. 7-9

Auto Mall Parkway is an east-west roadway, approximately 3.1 miles in length. The alignment is predominantly straight and flat with short, curvilinear segments throughout. For the purpose of this Engineering and Traffic Survey, Auto Mall Parkway was divided into the following study segments:

- Westerly end to Boyce Road
- Boyce Road to I-880
- I-880 to Fremont Boulevard
- Fremont Boulevard to Osgood Road

Between the westerly end and Boyce Road, the roadway cross-section is two through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 39,200 vpd. One rear-end, one right-angle, and nine type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 45 mph. There is a waste disposal site near this area. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey, a posted speed limit of 45 mph is recommended.

Between the Boyce Road and I-880, the roadway cross-section is four to six through lanes. The posted speed limit is 45 mph. No accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 51 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed, but increasing the speed limit to 50 mph would be excessive for a local city roadway, it is recommended that the posted speed limit of 45 to be retained.

Between I-880 and Fremont Boulevard, Auto Mall Parkway maintains four through lanes. The posted speed limit is 45 mph. The average daily traffic volume is approximately 46,400 vpd. Fourteen rear-end, one approach-turn and sixteen type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 22, 2001, measured the 85th percentile speed to be 46 mph. Since the 85th percentile speed does not deviate from the speed limit by much, it is recommended that the posted speed limit of 45 mph be retained.

Between Fremont Boulevard and Osgood Road, Auto Mall Parkway maintains four through lanes. The posted speed limit is 45 mph. The average daily traffic volume is approximately 42,400 vpd. Twelve rear-end and five type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 22, 2001 measured the 85th percentile speed to be 44 mph. There is close conformance to

the existing speed limit of 45 mph. Based upon the results of the spot speed survey, it is recommended that the posted speed limit of 45 mph be retained.

SUMMARY - AUTO MALL PARKWAY

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Westerly end to Boyce	*40 mph*	*45 mph*	***45 mph***
Boyce to I-880	*45 mph*	*51 mph*	***45 mph***
I-880 to Fremont	*45 mph*	*46 mph*	***45 mph***
Fremont to Osgood	*45 mph*	*44 mph*	***45 mph***

BAYSIDE PARKWAY Survey No. 10

Bayside Parkway is a north-south, two-lane roadway, approximately 0.8 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between West Warren Avenue and Bayview Drive.

The posted speed limit on Bayside Parkway is 35 mph. One right-angle and one type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 29, 2001, measured the 85th percentile speed to be 41 mph. Due to commercial developments and the presence of driveways, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - BAYSIDE PARKWAY

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
West Warren to Bayview	*35 mph*	*41 mph*	***35 mph***

BAYVIEW DRIVE

Survey No. 11

Bayview Drive is a wide, east-west, two-lane roadway, approximately 0.3 miles in length. The alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Lakeview Boulevard and Fremont Boulevard.

The posted speed limit on Bayview Drive is 35 mph. No midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 29, 2001, measured the 85th percentile speed to be 41 mph. Due to commercial developments and the presence of driveways, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - BAYVIEW DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Lakeview to Fremont	*35 mph*	*41 mph*	***35 mph***

BEACON AVENUE

Survey No. 12

Beacon Avenue is an east-west, four-lane roadway, approximately 0.3 miles in length. The roadway alignment consists of mildly curvilinear portions and straight segments. The vertical alignment is flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Fremont Boulevard and Liberty Street.

Beacon Avenue currently has a posted speed limit of 30 mph. One rear-end and two type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 24, 2001, measured the 85th percentile speed to be 36 mph. Due to numerous driveways and high pedestrian activity, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - BEACON AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to Liberty	*30 mph*	*36 mph*	***30 mph***

BEARD ROAD

Survey No. 13

Beard Road is an east-west, two-lane roadway, approximately 0.7 miles in length within the city limits. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Fremont Boulevard and the easterly end.

Beard Road has a posted speed limit of 30 mph. One type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 24, 2001 measured the 85th percentile speed to be 36 mph. Due to the residential nature of the area, contributing high pedestrian activity and cars backing out of driveways, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - BEARD ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to easterly end	*30 mph*	*36 mph*	***30 mph***

BIDWELL DRIVE

Survey No. 14

Bidwell Drive is a east-west roadway and curves 90 degrees at Davis Street to be a north-south roadway. The segment of Bidwell Drive is approximately 0.6 miles between Fremont Boulevard and Sundale Drive. The alignment is predominantly straight.

Bidwell Drive has a posted speed limit of 25 mph. One type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 3, 2001 measured the 85th percentile speed to be 28 mph. Due to the residential nature of the area, contributing high pedestrian activity and cars backing out of driveways, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – BIDWELL DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont To Sundale	*25*	*28*	*25*

BLACOW ROAD

Survey No. 15-18

Blacow Road is a north-south roadway between Thornton Avenue and Grimmer Boulevard. East of Grimmer Boulevard, Blacow Road becomes an east-west roadway. The entire length is approximately 4.5 miles. The roadway alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Blacow Road was divided into the following study segments:

- Easterly end to Fremont Boulevard
- Fremont Boulevard to Stevenson Boulevard
- Stevenson Boulevard to SPRR
- SPRR to Thornton Avenue

Between the easterly end and Fremont Boulevard, Blacow Road generally maintains four through lanes. The posted speed limit is 30 mph. One rear-end and one type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 13, 2001 measured the 85th percentile speed to be 32 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 30 mph be retained.

Between Fremont Boulevard and Stevenson Boulevard, Blacow Road generally maintains four through lanes. The posted speed limit is 40 mph. Eleven rear-end, two approach-turn, 1 right-angle, one auto-bicycle, and eleven type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. The average daily traffic volume is approximately 20,700 vpd. A spot speed survey conducted on August 13, 2001, measured the 85th percentile speed to be 47 mph. Due to the high number of accidents, it is recommended that the posted speed limit of 40 mph be retained.

Between Stevenson Boulevard and the SPRR tracks, Blacow Road generally maintains four through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 22,300 vpd. Sixteen rear-end, four auto-pedestrian, two right-angle, and seventeen type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 46 mph. Due to the high number of rear-end accidents, it is recommended that the posted speed limit of 40 mph be retained.

Between the SPRR tracks and Thornton Avenue, Blacow Road generally maintains four through lanes. The posted speed limit is 35 mph. The average daily traffic volume is approximately 15,800 vpd. One rear-end and two type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 41 mph. Due to

residential developments and pedestrian activity in the area, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - BLACOW ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Easterly end to Fremont	*30 mph*	*32 mph*	***30 mph***
Fremont to Stevenson	*40 mph*	*47 mph*	***40 mph***
Stevenson to SPRR	*40 mph*	*46 mph*	***40 mph***
SPRR to Thornton	*35 mph*	*41 mph*	***35 mph***

BONDE WAY Survey No. 18.5

Bonde Way is an east-west, two-lane roadway, approximately 0.3 miles in length. The roadway alignment is straight and flat throughout. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Maple Street and Moraine Street.

The posted speed limit is 25 mph on Bonde Way. No midblock accidents were reported for the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 33 mph. Bonde Way qualifies as a "business district" as defined by the California Vehicle Code, Section 235. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that a speed limit of 25 mph be retained.

SUMMARY - BONDE WAY

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Maple to Moraine	*25 mph*	*33 mph*	***25 mph***

BOSCELL ROAD

Survey No. 19

Boscell Road is a north-south, two-lane roadway, approximately 0.8 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Stewart Avenue and Auto Mall Parkway.

Boscell Road has a posted speed limit of 40 mph. One rear-end, one auto-bicycle, and one type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 1, 2001, measured the 85th percentile speed to be 39 mph. There is close conformance to the existing speed limit of 40 mph. Based upon the results of the spot speed survey, it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - BOSCELL ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Stewart to Auto Mall	*40 mph*	*39 mph*	***40 mph***

BOYCE ROAD

Survey No. 20

Boyce Road is a north-south, four-lane roadway, approximately 1.2 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Stevenson Boulevard and Auto Mall Parkway.

Boyce Road has a posted speed limit of 45 mph. The average daily traffic volume is approximately 18,000 vpd. One rear-end, two approach-turn, one right-angle, and five type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 28, 2001, measured the 85th percentile speed to be 50 mph. Because increasing the speed limit to 50 mph would be excessive for a local city roadway, it is recommended that the posted speed limit of 45 to be retained.

SUMMARY - BOYCE ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Stevenson to Auto Mall	*45 mph*	*50 mph*	***45 mph***

BUSINESS CENTER DRIVE Survey No. 21

Business Center Drive is a north-south, two-lane roadway, approximately 0.6 miles in length. The alignment is predominantly straight and flat, but some mild horizontal curves exist. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between South Grimmer Boulevard and Technology Place.

Business Center Drive has a posted speed limit of 40 mph. One rear-end midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 28, 2001, measured the 85th percentile speed to be 42 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - BUSINESS CENTER DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
South Grimmer to Technology	*40 mph*	*42 mph*	***40 mph***

CALIFORNIA STREET

Survey No. 22

California Street is a north-south, five-lane roadway, three lanes southbound, approximately 0.1 miles in length. The roadway alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Beacon Avenue and Walnut Avenue.

The posted speed limit on California Street is 25 mph. No accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 1, 2001, measured the 85th percentile speed to be 24 mph. Due to the short length of the segment, it is recommended that a speed limit of 25 mph be retained for California Street.

SUMMARY - CALIFORNIA STREET

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Beacon to Walnut	*25 mph*	*24 mph*	***25 mph***

CABRAL DRIVE

Survey No. 23

Cabral Drive is a north-south, one-lane roadway, approximately 0.8 miles in length. The roadway alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Beacon Avenue and Walnut Avenue.

The posted speed limit on Cabral Drive is 25 mph. Two type other midblock accident were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 6, 2001, measured the 85th percentile speed to be 30 mph. Due to residential developments and pedestrian activity in the area, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – CABRAL DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Pizarro to Cabrillo	*25*	*30 mph*	***25 mph***

CABRILLO DRIVE

Survey No. 24

Cabrillo Drive is a north-south roadway approximately 1.8 miles between Thornton Avenue and Decoto Road. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within this segment.

Cabrillo Drive has a posted speed limit of 25 mph. One rear-end, one auto-pedestrian, and four type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 2, 2001 measured the 85th percentile speed to be 29 mph. Due to the residential nature of the area, contributing high pedestrian activity and cars backing out of driveways, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – Cabrillo Drive

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Thornton to Decoto	*25*	*29*	*25*

CALAVERAS AVENUE

Survey No. 25

Calaveras Avenue is a east-west, one-lane roadway, approximately 0.5 miles in length. The roadway alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Pizarro Drive to Cabrillo Drive.

The posted speed limit on Calaveras Avenue is 25 mph. One rear-end, one right-angle, and two type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 29, 2001, measured the 85th percentile speed to be 30 mph. Due to the residential nature of this area and a school zone located nearby, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – CALAVERAS AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Blacow to Logan	*25*	*30 mph*	***25 mph***

CAPITOL AVENUE

Survey No. 26

Capitol Avenue is an east-west, four-lane roadway, approximately 0.3 miles in length. The roadway alignment is straight and flat throughout. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Paseo Padre Parkway and State Street.

The posted speed limit is 30 mph. No midblock accident was reported for the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 29, 2001, measured the 85th percentile speed to be 35 mph. Due to high pedestrian activity and commercial developments in the area, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - CAPITOL AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Paseo Padre to State	*30 mph*	*35 mph*	***30 mph***

CAROL AVENUE

Survey No. 27

Carol Avenue is an east-west, two-lane roadway, approximately 0.4 miles in length. The alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Grimmer Boulevard and Fremont Boulevard.

The posted speed limit on Carol Avenue is 25 mph. One rear-end and one type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 29, 2001, measured the 85th percentile speed to be 31 mph. Carol Avenue qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - CAROL AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Grimmer to Fremont	*25 mph*	*31 mph*	***25 mph***

CENTRAL AVENUE

Survey No. 28-29

Central Avenue is an east-west roadway, approximately 1.4 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Central Avenue was divided into the following study segments:

- Fremont Boulevard to Dusterberry Way
- Dusterberry Way to I-880

Between Fremont Boulevard and Dusterberry Way, the roadway cross-section varies from two through lanes between Fremont Boulevard and Joseph Street to four through lanes between Joseph Street and Dusterberry Way. The posted speed limit is 35 mph. One right-angle, one auto-pedestrian, three rear-end and six type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 37 mph. Due to high pedestrian and bicycle traffic, it is recommended that the posted speed limit of 35 mph be retained.

Between Dusterberry Way and I-880, Central Avenue maintains four wide through lanes. The posted speed limit is 35 mph. The average daily traffic volume is approximately 16,300 vpd. One right-angle, one auto-bicycle, two approach-turn, seven rear-end, and seven type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 41 mph. Due to high pedestrian activity, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - CENTRAL AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to Dusterberry	*35 mph*	*37 mph*	***35 mph***
Dusterberry to I-880	*35 mph*	*41 mph*	***35 mph***

CHERRY LANE

Survey No. 30

Cherry Lane is a north-south, two-lane roadway, approximately 0.6 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Mowry Avenue and Walnut Avenue.

The posted speed limit on Cherry Lane is 30 mph. One type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 5, 2001, measured the 85th percentile speed to be 35 mph. Due to the residential nature of the area, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - CHERRY LANE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mowry to Walnut	*30 mph*	*35 mph*	*30 mph*

CHRISTY STREET

Survey No. 31

Christy Street is a north-south, two-lane roadway, approximately 0.9 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Stewart Avenue and Auto Mall Parkway.

The posted speed limit on Christy Street is 40 mph. Two approach-turn, two rear-end and five type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 1, 2001, measured the 85th percentile speed to be 47 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey, a posted speed limit of 45 mph is recommended.

SUMMARY - CHRISTY STREET

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Stewart to Auto Mall	*40 mph*	*47 mph*	***45 mph***

CIVIC CENTER DRIVE

Survey No. 32-32.5

Civic Center Drive is a north-south, four-lane roadway, approximately 0.7 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Civic Center Drive was divided into the following study segments:

- Mowry Avenue to Walnut Avenue
- Walnut Avenue to Stevenson Boulevard

Civic Center Drive has a posted speed limit of 35 mph between Mowry Avenue and Walnut Avenue. The average daily traffic volume is approximately 11,200 vpd. One approach-turn, one rear-end, one right-angle, and five type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 32 mph. The portion of Civic Center Drive between Mowry Avenue and Walnut Avenue is adjacent to Washington Hospital and the Fremont BART Station. There is a lot of pedestrian activity in this area, therefore a posted speed limit of 30 mph is recommended between Mowry Avenue and Walnut Avenue.

The posted speed limit between Walnut Avenue and Stevenson Boulevard is 40 mph. No accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 37 mph. . The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey, a posted speed limit of 35 mph is recommended.

SUMMARY - CIVIC CENTER DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mowry to Walnut	*35 mph*	*32 mph*	***30 mph***
Walnut to Stevenson	*40 mph*	*37 mph*	***35 mph***

COMMERCE DRIVE

Survey No. 33-33.5

Commerce Drive is an east-west, two-lane roadway, approximately 0.3 miles in length. The alignment is flat with horizontal curves. For the purpose of this Engineering and Traffic Survey, Commerce Drive was divided into the following study segments:

- Tupelo Street to Ardenwood Boulevard
- Ardenwood Boulevard to Paseo Padre Parkway

Between Tupelo Street and Ardenwood Boulevard, Commerce Drive has a posted speed limit of 25 mph. No midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 21, 2001, measured the 85th percentile speed to be 32 mph. This portion of Commerce Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

Between Ardenwood Boulevard and Paseo Padre Parkway, Commerce Drive has a posted speed limit of 35 mph. No midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 45 mph. Due to the horizontal curvature in the roadway, it is recommended that the posted speed limit of 35 mph be retained for this segment of Commerce Drive.

SUMMARY - COMMERCE DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Tupelo to Ardenwood	*25 mph*	*32 mph*	***25 mph***
Ardenwood to Paseo Padre	*35 mph*	*45 mph*	***35 mph***

CORONADO DRIVE

Survey No. 34

Coronado Drive is a north-south, two-lane roadway, approximately 0.6 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Thornton Avenue and Nicolet Avenue.

The posted speed limit on Coronado Drive is 25 mph. One type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 20, 2001, measured the 85th percentile speed to be 31 mph. Coronado Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - CORONADO DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Thornton to Nicolet	*25 mph*	*31 mph*	***25 mph***

COUGAR DRIVE

Survey No. 35

Cougar Drive is an east-west, two-lane roadway, approximately 0.2 miles in length. The alignment is predominantly curvilinear with horizontal and vertical curves. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Mission Boulevard and Cougar Circle.

The posted speed limit on Cougar Drive is 25 mph. No midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 21, 2001, measured the 85th percentile speed to be 36 mph. The vertical and horizontal curves limit sight distance at the side streets. It is therefore recommended that the posted speed limit of 25 mph be retained.

SUMMARY - COUGAR DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mission to Cougar Circle	*25 mph*	*36 mph*	***25 mph***

COUNTRY DRIVE

Survey No. 36

Country Drive is a wide east-west, four-lane roadway, approximately 0.5 miles in length. The alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Fremont Boulevard and Paseo Padre Parkway.

Country Drive has a posted speed limit of 35 mph. One auto-pedestrian, two rear-end and one type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 2, 2001, measured the 85th percentile speed to be 38 mph. Due to residential developments and the presence of a school in this segment, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - COUNTRY DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to Paseo Padre	*35 mph*	*38 mph*	***35 mph***

CURTNER ROAD

Survey No. 37

Curtner Road is a north-south, two-lane roadway, approximately 0.4 miles in length. The alignment is predominantly curvilinear with horizontal and vertical curves. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Mission Boulevard and Paseo Padre Parkway.

Curtner Road has a posted speed limit of 25 mph. No midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 12, 2001, measured the 85th percentile speed to be 36 mph. Curtner Road qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - CURTNER ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mission to Paseo Padre	*25 mph*	*36 mph*	***25 mph***

CUSHING PARKWAY

Survey No. 38

Cushing Parkway is an east-west, four-lane roadway, approximately 1.3 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Fremont Boulevard and the westerly end.

The posted speed limit on Cushing Parkway is 40 mph. Two type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 31, 2001, measured the 85th percentile speed to be 40 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - CUSHING PARKWAY

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to westerly end	*40 mph*	*40 mph*	***40 mph***

DECOTO ROAD

Survey No. 39-40

Decoto Road is an east-west roadway, approximately 1.2 miles in length within the city limits. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Decoto Road was divided into the following study segments:

- City limits to Fremont Boulevard
- Fremont Boulevard to I-880

Between the city limits and Fremont Boulevard, Decoto Road generally maintains four through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 38,500 vpd. Six rear-end and six type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 30, 2001, measured the 85th percentile speed to be 46 mph. Due to high pedestrian activity, it is recommended that the posted speed limit of 40 mph be retained.

Between Fremont Boulevard and I-880, Decoto Road generally maintains four through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 37,700 vpd. Twenty rear-end, one approach-turn, and six type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 30, 2001, measured the 85th percentile speed to be 42 mph. Due to the high number of rear-end accidents, it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - DECOTO ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
City limits to Fremont	*40 mph*	*46 mph*	***40 mph***
Fremont to I-880	*40 mph*	*42 mph*	***40 mph***

DEEP CREEK ROAD

Survey No. 41-42

Deep Creek Road is a wide, east-west, two-lane roadway, approximately 1.5 miles in length within the city limits. The alignment is predominantly straight. A mild bend in the roadway exists near Macbeth Avenue. For the purpose of this Engineering and Traffic Survey, Deep Creek Road was divided into the following study segments:

- Alvarado Boulevard to Paseo Padre Parkway
- Paseo Padre Parkway to Ridgewood Drive

Between Alvarado Boulevard and Paseo Padre Parkway, Deep Creek Road has a posted speed limit of 30 mph. Two rear-end, one auto-pedestrian, and two type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 30, 2001, measured the 85th percentile speed to be 41 mph. Due to the residential nature of the area, and contributing high pedestrian activity, it is recommended that the posted speed limit of 30 mph be retained.

Between Paseo Padre Parkway and Ridgewood Drive, Deep Creek Road has a posted speed limit of 30 mph. One approach-turn and one type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 30, 2001, measured the 85th percentile speed to be 37 mph. Due to the presence of a park contributing high pedestrian activity, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - DEEP CREEK ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Alvarado to Paseo Padre	*30 mph*	*41 mph*	***30 mph***
Paseo Padre to Ridgewood	*30 mph*	*37 mph*	***30 mph***

DOANE STREET Survey No. 43

Doane Street is an east-west, two-lane roadway, approximately 0.8 miles in length. The roadway alignment is predominantly straight and flat with some horizontal curves at the west end. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Fremont Boulevard and Grimmer Boulevard.

Doane Street has a posted speed limit of 25 mph. One rear-end and five type other midblock accident were reported for the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 31, 2001, measured the 85th percentile speed to be 31 mph. Doane Street qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - DOANE STREET

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to Grimmer	*25 mph*	*31 mph*	***25 mph***

DRISCOLL ROAD

Survey No. 44-45

Driscoll Road is an east-west roadway, approximately 1.4 miles in length. The roadway alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Driscoll Road was divided into the following study segments:

- Mission Boulevard to Paseo Padre Parkway
- Paseo Padre Parkway to Washington Boulevard

Between Mission Boulevard and Paseo Padre Parkway, Driscoll Road maintains four through lanes. The roadway alignment is straight and flat. The posted speed limit is 40 mph. The average daily traffic volume is approximately 12,700 vpd. One rear-end and two type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 31, 2001, measured the 85th percentile speed to be 42 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 40 mph be retained.

Between Paseo Padre Parkway and Washington Boulevard, Driscoll Road generally maintains four through lanes. Mild curvilinear and sloping portions exist in this segment. The posted speed limit is 40 mph. The average daily traffic volume is approximately 12,800 vpd. Three rear-end and five type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 31, 2001 measured the 85th percentile speed to be 47 mph. Due to some residential frontages on this segment of Driscoll Road, a posted speed limit of 40 mph is retained.

SUMMARY - DRISCOLL ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Mission to Paseo Padre	*40 mph*	*42 mph*	***40 mph***
Paseo Padre to Washington	*40 mph*	*47 mph*	***40 mph***

DUMBARTON CIRCLE

Survey No. 46

Dumbarton Circle is a wide, east-west roadway, approximately 0.9 miles in length. Dumbarton Circle generally maintains two through lanes, with four through lanes near Paseo Padre Parkway. The alignment is flat with a sweeping horizontal curve near Kaiser Drive. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Paseo Padre Parkway and Kaiser Drive.

The posted speed limit on Dumbarton Circle is 35 mph. One type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 6, 2001, measured the 85th percentile speed to be 40 mph. Due to the horizontal curves on Dumbarton Circle, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - DUMBARTON CIRCLE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Paseo Padre to Kaiser	*35 mph*	*40 mph*	***35 mph***

DURHAM ROAD

Survey No. 47

Durham Road is an east-west roadway, approximately 1.4 miles in length. Between I-680 and Mission Boulevard, the roadway cross-section varies from two to four through lanes. The alignment is predominantly straight and flat; however, short, curvilinear segments exist. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Osgood Road and Mission Boulevard.

The posted speed limit is 40 mph. The average daily traffic volume was approximately 7,000 vpd. One rear-end, two type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 31, 2001, measured the 85th percentile speed to be 43 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - DURHAM ROAD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Osgood to Mission	*40 mph*	*43 mph*	***40 mph***

DUSTERBERRY WAY

Survey No. 48

Dusterberry Way is generally a north-south, four-lane roadway, approximately 0.5 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Central Avenue and Thornton Avenue.

Dusterberry Way maintains a posted speed limit of 30 mph. Four rear-end, five type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 6, 2001, measured the 85th percentile speed to be 32 mph. Due to high pedestrian and bicycle traffic, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - DUSTERBERRY WAY

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Central to Thornton	*30 mph*	*32 mph*	***30 mph***

EAST WARREN AVENUE

Survey No. 49

East Warren Avenue is an east-west, four-lane roadway, approximately 1.1 miles in length. The alignment is predominantly straight; however a steep vertical curve exists near the I-680 overpass. For the purpose of this Engineering and Traffic Survey, two spot speed surveys were conducted within the segment between Curtner Road and Warm Springs Boulevard.

The posted speed limit is 35 mph. Two type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 10, 2001, measured the 85th percentile speed to be 36 mph. The speed which allows safe stopping sight distance is 35 mph. Based upon the stopping sight distance and the close proximity to an elementary school, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - EAST WARREN AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Curtner to Warm Springs	*35 mph*	*36 mph*	***35 mph***

EGGERS DRIVE

Survey No. 50-52

Eggers Drive is an east-west, two-lane roadway, approximately 2.0 miles in length. The roadway alignment is predominantly straight and flat with some horizontal curves near the westerly end. For the purpose of this Engineering and Traffic Survey, Eggers Drive was divided into the following study segments:

- Paseo Padre Parkway to Fremont Boulevard
- Fremont Boulevard to Blacow Road
- Blacow Road to Granville Drive

Between Paseo Padre Parkway and Fremont Boulevard, Eggers Drive has a posted speed limit of 25 mph. One rear-end, one right-angle, and three type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 5, 2001, measured the 85th percentile speed to be 32 mph. This portion of Eggers Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

Between Fremont Boulevard and Blacow Road, Eggers Drive has a posted speed limit of 25 mph. Three type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 5, 2001, measured the 85th percentile speed to be 33 mph. This portion of Eggers Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

Between Blacow Road and Granville Drive, Eggers Drive has a posted speed limit of 25 mph. No midblock accidents were reported within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 5, 2001, measured the 85th percentile speed to be 34 mph. This portion of Eggers Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - EGGERS DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Paseo Padre to Fremont	*25 mph*	*32 mph*	***25 mph***
Fremont to Blacow	*25 mph*	*33 mph*	***25 mph***
Blacow to Granville	*25 mph*	*34 mph*	***25 mph***

ELLSWORTH STREET

Survey No. 53

Ellsworth Street is a north-south roadway approximately 0.5 miles between Washington Boulevard to Pine Street. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within this segment.

Ellsworth has a posted speed limit of 25 mph. One rear-end and one type other midblock accident was reported to occur within the study segment between Washington Boulevard and Pine Street. A spot speed survey conducted on September 9, 2001, measured the 85th percentile speed to be 32 mph. Due to the residential nature of the area, parking on both sides of the roadway, and high pedestrian activity, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – Ellsworth Street

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Washington to Pine	*25*	*32*	*25*

FARWELL DRIVE Survey No. 54-55

Farwell Drive is a north-south roadway, approximately 2.2 miles in length. The alignment is predominantly curvilinear but flat. For the purpose of this Engineering and Traffic Survey, Farwell Drive was divided into the following study segments:

- Central Avenue to Mowry Avenue
- Mowry Avenue to Stevenson Boulevard

Between Central Avenue and Mowry Avenue, Farwell Drive generally maintains two through lanes. The posted speed limit is 25 mph. One rear-end and one type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 10, 2001, measured the 85th percentile speed to be 33 mph. This portion of Farwell Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

Between Mowry Avenue and Stevenson Boulevard, Farwell Drive generally maintains two through lanes. A short four-lane portion exists near Mowry Avenue. The posted speed limit is 25 mph. One right-angle, one auto-pedestrian, two approach-turn, one rear-end and six type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 10, 2001, measured the 85th percentile speed to be 36 mph. This portion of Farwell Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - FARWELL DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Central to Mowry	*25 mph*	*33 mph*	***25 mph***
Mowry to Stevenson	*25 mph*	*36 mph*	***25 mph***

FREMONT BOULEVARD

Survey No. 56-66

Fremont Boulevard is a north-south roadway, approximately 11.0 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Fremont Boulevard was divided into the following study segments:

- Beard Road to Decoto Road
- Decoto Road to Thornton Avenue
- Peralta Boulevard to Central Avenue
- Central Avenue to Eggers Drive
- Eggers Drive to Walnut Avenue
- Walnut Avenue to Stevenson Boulevard
- Stevenson Boulevard to Washington Boulevard
- Washington Boulevard to Auto Mall Parkway
- Auto Mall Parkway to I-880
- I-880 to Landing Parkway
- Landing Parkway to Lakeview Boulevard

Between Beard Road and Decoto Road, Fremont Boulevard generally maintains five through lanes. A short six-lane-portion exists south of I-880. The posted speed limit is 45 mph. The average daily traffic volume is approximately 30,000 vpd. Seventeen rear-end, one approach-turn, 1 auto-pedestrian, two auto-bicycle, and ten type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 43 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey a posted speed limit of 40 mph is recommended.

Between Decoto Road and Thornton Avenue, Fremont Boulevard generally maintains four through lanes with some sections of five and six lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 28,900 vpd. Thirty-five rear-end, four approach-turn, two auto-pedestrian, four right-angle, two auto-bicycle, and eighteen type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 39 mph. There is close conformance to the existing speed limit of 40 mph. Based upon the results of the spot speed survey, it is recommended that the posted speed limit of 40 mph be retained.

Between Peralta Boulevard and Central Avenue, Fremont Boulevard generally maintains four through lanes. The posted speed limit is 30 mph. The average daily traffic volume is approximately 29,000 vpd. One right-angle, two auto-pedestrian, eleven rear-end and nine type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the

85th percentile speed to be 33 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 30 mph be retained.

Between Central Avenue and Eggers Drive, Fremont Boulevard generally maintains four through lanes. The posted speed limit is 35 mph. The average daily traffic volume is approximately 30,000 vpd. Three bicycle-auto, eleven rear-end and six type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 40 mph. Due to high pedestrian and bicycle traffic, it is recommended that the posted speed limit of 35 mph be retained.

Between Eggers Drive and Walnut Avenue, the roadway cross-section varies from four wide through lanes between Eggers Drive and Country Drive to six through lanes between Country Drive and Walnut Avenue. The posted speed limit is 35 mph. The average daily traffic volume is approximately 30,400 vpd. Forty-one rear-end, six right-angle, four approach-turn, four pedestrian-auto, two bicycle-auto and eleven type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 40 mph. Due to high pedestrian and bicycle traffic, it is recommended that the posted speed limit of 35 mph be retained.

Between Walnut Avenue and Stevenson Boulevard, Fremont Boulevard generally maintains six through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 33,700 vpd. Fourteen rear-end, one right-angle, two auto-bicycle, and one type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 14, 2001, measured the 85th percentile speed to be 44 mph. Due to high pedestrian activity, it is recommended that the posted speed limit of 40 mph be retained.

Between Stevenson Boulevard and Washington Boulevard, Fremont Boulevard generally maintains four through lanes. The posted speed limit is 35 mph. The average daily traffic volume is approximately 34,600 vpd. Forty-one rear-end, eight approach-turn, one pedestrian-auto, three bicycle-auto and eight type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 15, 2001, measured the 85th percentile speed to be 40 mph. Due to the high number of rear-end accidents, it is recommended that the posted speed limit of 35 mph be retained.

Between Washington Boulevard and Auto Mall Parkway, Fremont Boulevard varies from two to four through lanes. The posted speed limit is 35 mph. The average daily traffic volume is approximately 26,100 vpd. Four right-angle, one approach-turn, twenty-two rear-end, one auto-bicycle and nine type other midblock accidents were reported to occur within this study segment

between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 15, 2001, measured the 85th percentile speed to be 43 mph. Due to high pedestrian activity, it is recommended that the posted speed limit of 35 mph be retained.

Between Auto Mall Parkway and I-880, Fremont Boulevard generally maintains four through lanes. The posted speed limit is 45 mph. The average daily traffic volume is approximately 22,400 vpd. Five rear-end and two type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 15, 2001, measured the 85th percentile speed to be 47 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 45 mph be retained.

Between I-880 and Landing Parkway, the roadway maintains two through lanes. The posted speed limit is 35 mph. The average daily traffic volume is approximately 22,300 vpd. One rear-end, one auto bicycle, and two type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 15, 2001, measured the 85th percentile speed to be 44 mph. Between I-880 and Landing Parkway, Fremont Boulevard has a narrow, unimproved section and it is therefore recommended that the posted speed limit of 35 mph be retained.

Between Landing Parkway and Lakeview Boulevard, the roadway cross-section varies from two through lanes between I-880 and West Warren Avenue and four through lanes between West Warren Avenue and Lakeview Boulevard. The posted speed limit is 40 mph. The average daily traffic volume is approximately 15,000 vpd. Two rear-end and three type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 15, 2001, measured the 85th percentile speed to be 43 mph. Between Landing Parkway and Lakeview Boulevard, there are commercial developments with high pedestrian activity, it is therefore recommended that the posted speed limit of 40 mph be retained.

SUMMARY - FREMONT BOULEVARD

Location	*Posted Speed Limit*	*85th Percentile Speed Limit*	*Recommended Speed*
Beard to Decoto	*45 mph*	*43 mph*	***40 mph***
Decoto to Thornton	*40 mph*	*39 mph*	***40 mph***
Peralta to Central	*30 mph*	*33 mph*	***30 mph***
Central to Eggers	*35 mph*	*40 mph*	***35 mph***
Eggers to Walnut	*35 mph*	*40 mph*	***35 mph***
Walnut to Stevenson	*40 mph*	*44 mph*	***40 mph***
Stevenson to Washington	*35 mph*	*40 mph*	***35 mph***

Washington to Auto Mall	*35 mph*	*43 mph*	***35 mph***
Auto Mall to I-880	*45 mph*	*47 mph*	***45 mph***
I-880 to Landing	*35 mph*	*44 mph*	***35 mph***
Landing to Lakeview	*40 mph*	*43 mph*	***40 mph***

GALLAUDET DRIVE

Survey No. 67

Gallaudet Drive is a wide, north-south, two-lane roadway, approximately 0.5 miles in length. The alignment is predominantly straight and flat throughout. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Walnut Avenue and Stevenson Boulevard.

The posted speed limit on Gallaudet Drive is 30 mph. One type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 23, 2001, measured the 85th percentile speed to be 40 mph. A school for the handicapped fronts the entire street segment on the north side. In addition, horizontal curves limit sight distance at the driveways along the street. Due to the presence of a handicapped school, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - GALLAUDET DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Walnut to Stevenson	*30 mph*	*40 mph*	***30 mph***

GATEWAY BOULEVARD

Survey No. 68

Gateway Boulevard is an east-west, four-lane roadway, approximately 0.5 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Fremont Boulevard and Lakeview Boulevard.

The posted speed limit on Gateway Boulevard is 40 mph. Two rear-end and one type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 15, 2001, measured the 85th percentile speed to be 39 mph. There is close conformance to the existing speed limit of 40 mph. Based upon the results of the spot speed survey, it is recommended that the posted speed limit of 40 mph be retained.

SUMMARY - GATEWAY BOULEVARD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Fremont to Lakeview	*40 mph*	*39 mph*	***40 mph***

GLENMOOR AVENUE

Survey No. 69

The segment of Glenmoor Avenue studied is a north-south, two-lane roadway, approximately 0.2 miles in length. The alignment is predominantly curvilinear but flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Central Avenue and Peralta Boulevard.

The posted speed limit on Glenmoor Avenue is 30 mph. One type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 13, 2001, measured the 85th percentile speed to be 38 mph. Due to the residential nature of this area, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - GLENMOOR AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Central to Peralta	*30 mph*	*38 mph*	***30 mph***

GRANVILLE DRIVE

Survey No. 70

Granville Drive is a north-south, two-lane roadway, approximately 0.8 miles in length. The alignment is predominantly straight and flat with a horizontal curve at the north end. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Selma Avenue and Farwell Drive.

The posted speed limit on Granville Drive is 25 mph. Two type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 13, 2001, measured the 85th percentile speed to be 33 mph. Granville Drive qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that a speed limit of 25 mph be retained for Granville Drive.

SUMMARY - GRANVILLE DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Selma to Farwell	*25*	*33 mph*	***25 mph***

GRIMMER BOULEVARD Survey No. 71-73

Grimmer Boulevard is generally a north-south roadway, approximately 2.7 miles in length. The alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, Grimmer Boulevard was divided into the following study segments:

- Auto Mall Parkway to Blacow Road
- Blacow Road to Fremont Boulevard
- Fremont Boulevard to Paseo Padre Parkway

Between Auto Mall Parkway and Blacow Road, Grimmer Boulevard maintains four through lanes. The posted speed limit is 40 mph. The average daily traffic volume is approximately 21,200 vpd. Seven rear-end, one approach-turn, one right-angle, four auto-bicycle, and six type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 20, 2001, measured the 85th percentile speed to be 40 mph. Due to commercial developments in the area, it is recommended that the posted speed limit of 40 mph be retained.

Between Blacow Road and Fremont Boulevard, the roadway cross-section varies from two through lanes between Blacow Road and Irvington Avenue to four though lanes between Irvington Avenue and Fremont Boulevard. The posted speed limit is 35 mph. The average daily traffic volume is approximately 19,200 vpd. Five rear-end, two bicycle-auto, one right-angle, one approach-turn, and seven type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 20, 2001, measured the 85th percentile speed to be 44 mph. Due to high pedestrian and bicycle traffic, it is recommended that the posted speed limit of 35 mph be retained.

Between Fremont Boulevard and Paseo Padre Parkway, Grimmer Boulevard generally maintains two through lanes. The posted speed limit is 35 mph. The average daily traffic volume was approximately 12,500 vpd. One rear-end and two type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on August 20, 2001, measured the 85th percentile speed to be 37 mph. Due to the residential nature of this area, it is recommended that the posted speed limit of 35 mph be retained.

SUMMARY - GRIMMER BOULEVARD

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Auto Mall to Blacow	*40 mph*	*40 mph*	***40 mph***
Blacow to Fremont	*35 mph*	*44 mph*	***35 mph***
Fremont to Paseo Padre	*35 mph*	*37 mph*	***35 mph***

GUARDINO DRIVE Survey No. 74

The segment of Guardino Drive studied is a north-south, two-lane roadway, approximately 0.5 miles in length. The alignment is straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Stevenson Boulevard and Walnut Avenue.

The posted speed limit on Guardino Drive is 25 mph. Two rear-end and two type other midblock accidents were reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 12, 2001, measured the 85th percentile speed to be 33 mph. Due to the street alignment, on street parking, and sight distance problems at intersecting streets, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY – GUARDINO DRIVE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Stevenson to Walnut	*25 mph*	*33 mph*	***25 mph***

HANSEN AVENUE Survey No. 75-75.5

Hansen Avenue is an east-west, two-lane roadway, approximately 0.7 miles in length. The roadway alignment is predominantly straight and flat, although horizontal curves exist near Dusterberry Way. For the purpose of this Engineering and Traffic Survey, Hansen Avenue was divided into the following study segments:

- Blacow Road to Yolo Terrace
- Yolo Terrace to Dusterberry Way

Between Blacow Road and Yolo Terrace, Hansen Avenue has a posted speed limit of 35 mph. Three type other midblock accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 37 mph. The speed limit of a roadway should normally be established at the first five mile per hour increment at or below the 85th percentile speed. Based upon the results of the spot speed survey it is recommended that the posted speed limit of 35 mph be retained.

Between Yolo Terrace and Dusterberry Way, the posted speed limit is 25 mph. One rear-end midblock accident was reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 28 mph. This portion of Hansen Avenue qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - HANSEN AVENUE

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Blacow to Yolo Terrace	*35 mph*	*37 mph*	***35 mph***
Yolo Terrace to Dusterberry	*25 mph*	*28 mph*	***25 mph***

HASTINGS STREET Survey No.76-76.5

Hastings Street is a north-south roadway, approximately 0.6 miles in length. The alignment is predominantly straight and flat, but horizontal curves exist at the south end. For the purpose of this Engineering and Traffic Survey, Hastings Street was divided into the following study segments:

- Capitol Avenue to Country Drive
- Country Drive to Eggers Drive

Between Capitol Avenue and Country Drive, the roadway cross-section varies from four through lanes between Capitol Avenue and Pennsylvania Avenue to two through lanes between Pennsylvania Avenue and Country Drive. The posted speed limit is 30 mph. One type other midblock accident was reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 30 mph. Due to the residential nature of the area, contributing high pedestrian activity and cars backing out of driveways, it is recommended that the posted speed limit of 30 mph be retained.

Between Country Drive and Eggers Drive, Hastings Street maintains two through lanes. The posted speed limit is 25 mph. No accidents were reported to occur within this study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on October 18, 2001, measured the 85th percentile speed to be 31 mph. This portion of Hastings Street qualifies as a "residence district" as defined by the California Vehicle Code, Section 515. This designation warrants a speed limit of 25 mph. Therefore, it is recommended that the posted speed limit of 25 mph be retained.

SUMMARY - HASTINGS STREET

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Capitol to Country	*30 mph*	*30 mph*	***30 mph***
Country to Eggers	*25 mph*	*31 mph*	***25 mph***

HIGH STREET Survey No. 77

High Street is an east-west, two-lane roadway, approximately 0.6 miles in length. The roadway alignment is predominantly straight and flat. For the purpose of this Engineering and Traffic Survey, one spot speed survey was conducted within the segment between Grimmer Boulevard and Railroad Avenue.

High Street has a posted speed limit of 30 mph. One type other midblock accident was reported to occur within the study segment between January 1, 1999 and December 31, 2000. A spot speed survey conducted on September 12, 2001, measured the 85th percentile speed to be 35 mph. Due to the residential nature of the area, contributing high pedestrian activity and cars backing out of driveways, it is recommended that the posted speed limit of 30 mph be retained.

SUMMARY - HIGH STREET

Location	*Posted Speed Limit*	*85th Percentile Speed*	*Recommended Speed Limit*
Grimmer to Railroad	*30 mph*	*35 mph*	***30 mph***