



# City Council

## Staff Report

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**TO:** Honorable Mayor and City Council

**FROM:** John Jansons, City Manager *JJ*  
Lisa, Wallis-Dutra, City Engineer – Quad Knopf

**DATE:** April 25, 2016

**SUBJECT:** 2016 City-Wide Draft Speed Zone Study

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**RECOMMENDED ACTION:**

That the City Council hear a presentation from City Engineer about the draft 2016 Speed Zone Study, provide comment or direction to staff to finalize the Study or approve as presented.

**BACKGROUND / DISCUSSION:**

In 2015, the City determined the need to update its prior Speed Survey Study ("Study") to recognize current driving habits and patterns and to support traffic safety and enforcement.

The 2016 Study (**Attachment 1**) was conducted in February of 2016 and is now complete in draft form. The Study is intended to review existing conditions and recommend possible increase or decrease in posted speed limits on major thoroughfares in Farmersville.

Chapter 7 of Division 11 of the California Vehicle Code (CVC) deals with speed laws. Specific sections of the CVC regarding definitions, guidelines, and regulations can be found in Appendix A. The CVC indicates that prima facie speed limits on local streets are 25 miles per hour (mph) in residential and business districts and are 65 mph at all other locations. However, a maximum speed limit of 55 mph is imposed on two-lane, undivided highways unless posted for a higher speed limit. The CVC also provides for intermediate speed limits. In CVC Section 22357, it indicates that whenever a local authority determines "... upon the basis of an engineering and traffic survey, that a speed greater than 25 miles per hour would facilitate the orderly movement of vehicular traffic and would be reasonable and safe... (it) ... may by ordinance determine and declare a prima facie speed limit of 30, 35, 40, 45, 50, 55, 60 miles per hour, or a maximum speed limit of 65 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe."

CVC Sections 22358, 22358.3, and 22358.4 also allow a local authority to reduce, by ordinance, those sections that are automatically 65 (or 55) mph to limits as low as 25 mph (20 or 15 mph if

certain special conditions are present) on the basis of an engineering and traffic survey and the determination that the resulting speeds will be reasonable and safe.

Additionally, a "speed trap" must be avoided when establishing prima facie speed limits as indicated in CVC Section 40802. Said Section 40802, "Speed Traps," indicates that prima facie speed limits must be justified by an engineering and traffic survey conducted within five years prior to the data of the alleged violation when enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects. However, this does not apply to a local street, road, or school zone.

An engineering and traffic survey (Speed Study) shall include consideration of all of the following:

1. Prevailing speeds as determined by traffic engineering measurements.
2. Collision records.
3. Highway, traffic, and roadside conditions not readily apparent to the driver.

Findings:

Of the thirteen (13) speed zones surveyed, ten are recommended to remain at their existing posted speed limit, one is recommended to be less than its existing posted speed limit, and one is recommended to be greater than its existing posted speed limit. One location needs to be completed in the future due to on-going construction at the time the speed surveys were conducted.

Recommendations of the Study:

The segments recommended for change include:

**Segment #8:**

Visalia Road: Larry Street to Brundage Avenue

**Recommendation:**

Increase posted speed from current 45 MPH to 50 MPH.

**Segment #10:**

Farmersville Boulevard: Noble Avenue to Walnut Avenue

**Recommendation:**

Decrease from 55 MPH to 50 MPH

The remaining segments studied are recommended to remain the same at their current posted speed limits.

Due to road construction associated with the Round-About Project, one segment ( Noble Avenue @ City Limits to Farmersville Boulevard) was not studied and will be examined in the future for any recommendation of increase or decrease of posted speed.

**COORDINATION AND REVIEW:**

The Study and its initial findings have been reviewed and coordinated with the Chief of Police and the Traffic Enforcement Division of the Police Department and Public Works Department.

**FISCAL IMPACT:**

There is minimal costs associated with changing the posted speed limits on the two roadways recommended for change.

**CONCLUSION:**

That the City Council hear a presentation from City Engineer about the draft 2016 Speed Zone Study, provide comment or direction to staff to finalize the Study or approve as presented.

**ATTCHMENT(S) – 1**

Draft 2016 Speed Survey

**Prepared and Recommended By:**

**Approved By:**



\_\_\_\_\_  
Lisa Wallis-Dutra, City Engineer  
Quad Knopf

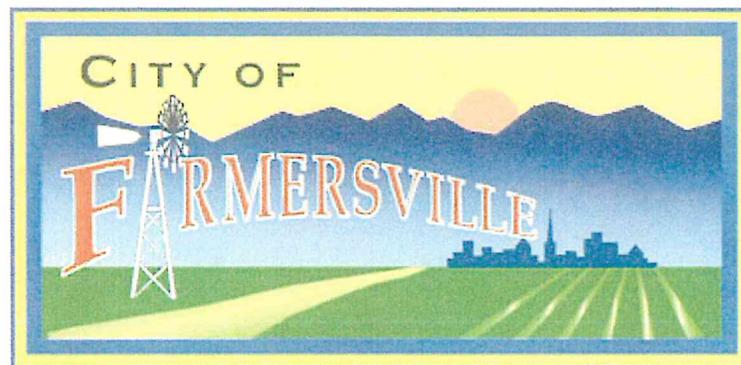


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John Jansons  
City Manager

# DRAFT CITY-WIDE SPEED ZONE STUDIES

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## CITY OF FARMERSVILLE



March 2016

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Quad Knopf

# DRAFT CITY-WIDE SPEED ZONE STUDIES

## CITY OF FARMERSVILLE

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March 2016

# TABLE OF CONTENTS

<b>Chapter 1</b>	<b>Introduction</b> .....	<b>1</b>
<b>Chapter 2</b>	<b>Objectives and Scope</b> .....	<b>3</b>
	Fundamentals of Realistic Speed Zoning .....	3
	Why Are Realistic Speed Zones Desirable? .....	4
	Where Are Realistic Speed Zones Applicable? .....	4
<b>Chapter 3</b>	<b>Requirements</b> .....	<b>5</b>
	Basic Speed Law.....	5
	Maximum Speed Limits.....	5
	Prima Facie Speed Limits .....	5
	Intermediate Speed Zones.....	6
<b>Chapter 4</b>	<b>Study Procedure</b> .....	<b>6</b>
	Location Selection .....	6
	Data Collection .....	6
	Data Analysis .....	8
	Collision Review.....	9
	Inventory of Street Conditions.....	9
	Data Evaluation and Recommendations .....	11

## APPENDICES

- Appendix A Definitions, Guidelines, and Regulations
- Appendix B Radar Meter Certificates
- Appendix C Vehicle Speed Survey Sheets

## TABLE AND FIGURES

### Table

Table 1	Data Evaluation.....	12
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### Figures

Figure 1	Existing Roadway Segments and Speed Limits.....	2
Figure 2	Vehicle Speed Survey Sheet .....	7
Figure 3	Collision Map (2013-2014).....	10
Figure 4	Recommended Speed Limits .....	14

## CHAPTER 1 INTRODUCTION

Chapter 7 of Division 11 of the California Vehicle Code (CVC) deals with speed laws. Specific sections of the CVC regarding definitions, guidelines, and regulations can be found in Appendix A. Basically, it indicates that prima facie speed limits on local streets are 25 miles per hour (mph) in residential and business districts and are 65 mph at all other locations. However, a maximum speed limit of 55 mph is imposed on two-lane, undivided highways unless posted for a higher speed limit. The CVC also provides for intermediate speed limits. In CVC Section 22357, it indicates that whenever a local authority determines "... upon the basis of an engineering and traffic survey, that a speed greater than 25 miles per hour would facilitate the orderly movement of vehicular traffic and would be reasonable and safe... (it) ... may by ordinance determine and declare a prima facie speed limit of 30, 35, 40, 45, 50, 55, 60 miles per hour, or a maximum speed limit of 65 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe."

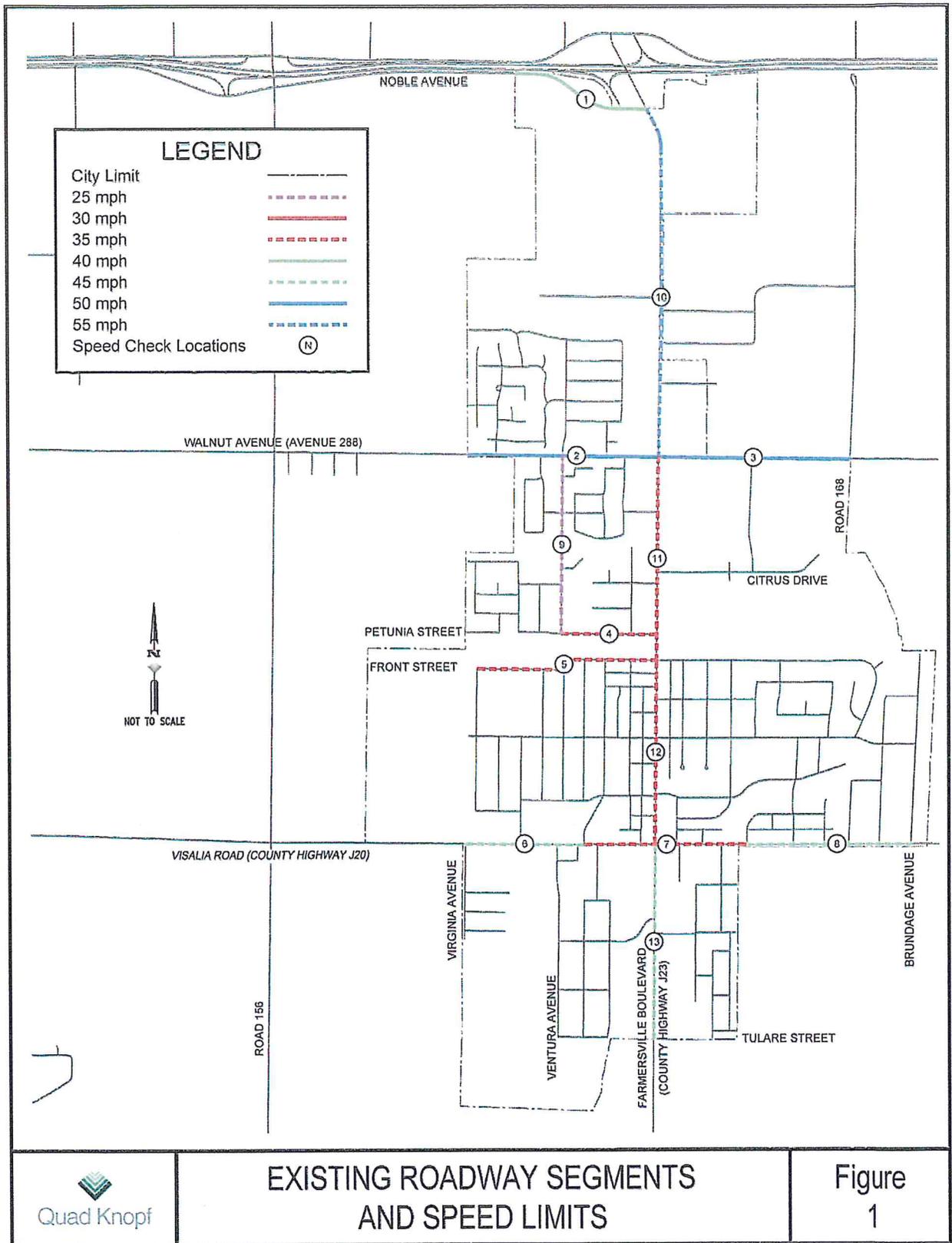
Similarly, CVC Sections 22358, 22358.3, and 22358.4 allow a local authority to reduce, by ordinance, those sections that are automatically 65 (or 55) mph to limits as low as 25 mph (20 or 15 mph if certain special conditions are present) on the basis of an engineering and traffic survey and the determination that the resulting speeds will be reasonable and safe.

Additionally, a "speed trap" must be avoided when establishing prima facie speed limits as indicated in CVC Section 40802. Said Section 40802, "Speed Traps," indicates that prima facie speed limits must be justified by an engineering and traffic survey conducted within five years prior to the data of the alleged violation when enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects. However, this does not apply to a local street, road, or school zone.

As indicated previously, a local authority may establish intermediate speed limits upon the basis of an engineering and traffic survey. Per CVC Section 627, an engineering and traffic survey shall include consideration of all of the following:

1. Prevailing speeds as determined by traffic engineering measurements.
2. Collision records.
3. Highway, traffic, and roadside conditions not readily apparent to the driver.

Based on the above, the City of Farmersville, in an effort to reevaluate established speed limits on their roadways, retained Quad Knopf, Inc. to perform an engineering and traffic survey for thirteen (13) speed zones city-wide. One location needs to be completed in the future due to on-going construction at the time the speed surveys were conducted. Figure 1 shows the existing roadway segments and speed limits, and highlights the roadways surveyed in February 2016.



## CHAPTER 2 OBJECTIVES AND SCOPE

### *Fundamentals of Realistic Speed Zoning*

Most citizens can be relied upon to behave in a reasonable manner as they go about their daily activities. Many of our laws reflect observations of the way reasonable people behave under most circumstances. Traffic regulations are also based upon observations of the behavior of groups of motorists under various conditions. Generally speaking, traffic laws that reflect the behavior of the majority of motorists are found to be successful. Laws that arbitrarily restrict the majority of drivers encourage wholesale violations, lack public support, and usually fail to bring about desirable changes in driving behavior. This is especially true of speed zoning.

Speed zoning is based upon several fundamental concepts deeply rooted in our American system of government and law:

- Driving behavior is an extension of social attitude, and the majority of drivers respond in a safe and reasonable manner as demonstrated by their consistently favorable driving records.
- The normally careful and competent actions of a reasonable person should be considered legal.
- Laws are established for the protection of the public and the regulation of unreasonable behavior of the individual.
- Laws cannot be effectively enforced without the consent and voluntary compliance of the public majority.

Public acceptance of these precepts is normally instinctive. However, the same public, under certain circumstances, may invariably reject these fundamentals and rely instead on more comfortable and widely held misconceptions, such as:

- Speed limit signs will slow the speed of traffic.
- Speed limit signs will decrease the collision rate and increase safety.
- Raising a posted speed limit will cause an increase in the speed of traffic.
- Any posted speed limit must be safer than an un-posted speed limit, regardless of traffic and roadway conditions prevailing.

Before-and-after studies consistently demonstrate that there are no significant changes in traffic speeds following the posting of new or revised speed limits. Furthermore, no published research findings have established any direct relationship between posted speed limits and collision frequency, although short-term reductions have resulted from saturation enforcement efforts directed at speed and other traffic law violations.

Police agencies rely on reasonable and well recognized speed laws to control the unreasonable violator whose behavior is clearly out of line with the normal flow of traffic.

### ***Why Are Realistic Speed Zones Desirable?***

Realistic speed zones are of public importance for a variety of reasons:

- They satisfy the requirements of the state law for establishing prima facie speed limits on public streets and highways.
- They invite public compliance by conforming to the behavior of the majority and by giving a clear reminder to nonconforming violators.
- They offer an effective enforcement tool to the police by clearly separating the occasional violator from the reasonable majority.
- They tend to minimize current public antagonism toward police enforcement of obviously unreasonable regulations.
- They inject an element of logic and reason into an otherwise arbitrary and often emotional issue.
- They correctly serve to place responsibility for justifying so-called "tolerances" upon those administrative agencies that grant them.
- They lend credence and acceptability to the widely posted admonition, "Speed Laws Strictly Enforced", at many city boundaries.

### ***Where Are Realistic Speed Zones Applicable?***

Speed zoning should be reserved for thoroughfares with appreciable volumes of traffic where such zoning can be shown to facilitate the orderly movement of traffic by increasing driver awareness of a reasonable speed.

Transition sections between rural and suburban conditions usually require "reminder" zoning: business or residence districts that barely satisfy the legal definition for automatic 25 mph limits can also be zoned to advise the driver of a safe speed and to avoid confusion in determining if the CVC prima facie limits apply.

Through streets that are not wide thoroughfares frequently require zoning to aid the police in determining what a reasonable limit is. On the other hand, it is seldom necessary to post limits relating to business or residence districts in obviously well established urban areas, where such districts are clearly apparent to drivers.

The basic intent of speed zoning is to influence as many drivers as possible to operate at or near the same speed - thus reducing conflicts created by wide differentials in operating speeds. Therefore, low-volume streets offer little opportunity for encouraging closely grouped speeds due to the absence of traffic platoons under normal conditions.

## **CHAPTER 3 REQUIREMENTS**

The CVC reflects the sensible viewpoint that speed zoning, as other types of traffic control, should be based on traffic conditions and natural driver behavior - and not simply upon a hasty or arbitrary response to a traffic event.

### ***Basic Speed Law***

All fifty states base their speed regulations on the Basic Speed Law:

*"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 vary widely from time-to-time and place-to-place. No set of fixed driving rules will adequately serve all conditions. The motorist must constantly adjust his driving behavior to fit the conditions he meets. He must learn to do this with a minimum of assistance from the police. The basic speed law is founded on the belief that most motorists are able to modify their driving behavior properly, as long as they are aware of the conditions around them.

### ***Maximum Speed Limits***

In California, the maximum speed on any highway is 65 mph when posted and based upon an engineering and traffic survey. The maximum speed for any passenger vehicle on a two-lane, undivided highway is 55 mph (unless posted with a higher speed limit). The maximum speed for most trucks and for vehicles towing any trailer is also 55 mph. These are absolute limits, which may not be legally exceeded under any circumstances.

### ***Prima Facie Speed Limits***

All other speed limits are prima facie ("on the face of it") limits and are reasonable and prudent under normal conditions. Certain blanket (or automatic) prima facie limits are established by law including the 15 mph limit in alleys, at blind intersections, and railroad crossings, and the 25 mph limit in business districts, residence districts, and at senior citizen facilities posted with a standard "SENIOR" warning sign. There is also a part-time 25 mph limit in sign posted school zones when children are present, going to, or leaving school.

Business and residence districts are defined in the CVC as specific areas meeting a specified minimum density of roadside development. A count of houses or active businesses facing on a highway must be made to determine whether or not a valid business or residence district exists. Additionally, the property must have access to the roadway and the fronts of the buildings must be within 75 feet of the roadway. The law does not require posting these prima facie limits, which are readily apparent.

### ***Intermediate Speed Zones***

State law permits local authorities to lower the maximum speed limit (55 mph) or to raise business and residence district speed limits (25 mph) on the basis of a traffic and engineering survey. These "intermediate limits" between 25 and 55 mph (or as low as 15 mph under certain special conditions) must be posted to clearly define the limits of the zone and the prima facie speed established.

## **CHAPTER 4 STUDY PROCEDURE**

### ***Location Selection***

The requirement of this engineering and traffic survey was to reevaluate the established speed zones of major roadways in the City of Farmersville and to recommend appropriate speed limits for each of these roadway segments consistent with the laws and practices of the State of California. Speed zone surveys were conducted, as part of the engineering and traffic survey, along twelve street segments in the City. One additional segment will be completed in the future after on-going construction is completed. A sufficient number of road segments were studied to ensure that street sections having unique characteristics were individually surveyed.

### ***Data Collection***

Quad Knopf collected field data February 22 - 24, 2016. Data for each zone was collected using a radar traffic speed meter. Each of the radar speed checks was made by consultant personnel from an inconspicuously parked, unmarked vehicle. An effort was made to ensure that the presence of the vehicle in no way affected the speed of the traffic being surveyed.

Prior to each use, the radar meter's digitally displayed output was tested in compliance with the unit's *Operator's Manual*, using both the internal circuit test procedure and the external system check utilizing the accompanying certified tuning fork. Copies of the Certificates of Accuracy for both the radar meter and the turning fork are reproduced as Appendix B of this report.

Field information was recorded on the Vehicle Speed Survey Sheet shown on Figure 2. In order to obtain a significant sample in each location, either one or the other of the following two survey techniques was employed:

- Along sections of highway where traffic flows freely, only the lead vehicles of groups or vehicles traveling alone were recorded.

## VEHICLE SPEED SURVEY SHEET

Location: \_\_\_\_\_ Date: \_\_\_\_\_  
 Direction: \_\_\_\_\_ Number of Lanes: \_\_\_\_\_  
 Paved Width (ft.): \_\_\_\_\_ Posted Speed Limit: \_\_\_\_\_  
 Bus. District (Y/N): \_\_\_\_\_ Res. District: (Y/N) \_\_\_\_\_ School Zone (Y/N) \_\_\_\_\_  
 Weather: \_\_\_\_\_ Observer: \_\_\_\_\_  
 Special Conditions: \_\_\_\_\_ Number of Vehicles Counted: **0**

MPH	Number of Vehicles					Total	Cumul. Total	Cumul. Percent
	5	10	15	20	25			
21						0	0	0%
22						0	0	0%
23						0	0	0%
24						0	0	0%
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57						0	0	0%
58						0	0	0%
59						0	0	0%
60						0	0	0%
61						0	0	0%
62						0	0	0%
63						0	0	0%
64						0	0	0%
65						0	0	0%

Speed Limit without Approved Speed Zone	
Average Speed	
10 MPH Pace Speed	-
Critical (85%) Speed	

  
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 Quad Knopf	<h3 style="margin: 0;">VEHICLE SPEED SURVEY SHEET</h3>	Figure <b>2</b>
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- In highly concentrated areas, the speeds of lead vehicles were recorded as well as vehicles from varying positions within each group.

The calculations derived from both techniques accurately demonstrate a balance among the speed, capacity, and general use of the street segment under observation.

## **Data Analysis**

Copies of completed Vehicle Speed Survey Sheets at each survey location are contained in Appendix C. The data includes the location of the speed survey, date and time, direction of traffic observed (“Band” means both directions), number of lanes, paved roadway width, posted speed limit, weather, and whether the segment is located in a business district, residential district, or school zone.

The matrix in the middle of the form shows an “X” each time a vehicle was recorded at the corresponding speed. These vehicles are totaled in the first column at the right of the matrix. The cumulative total is tallied in the second column and the cumulative percentage is calculated in the third column.

The lower body of the form consists of a summary table of various calculated parameters. An explanation of the data and terms follows:

- The assumed speed limit without an approved speed zone is given, based on the segment lying within a business district, residential district, or school zone.
- The average speed is the total of all the vehicle speeds divided by the number of vehicles in the sample.
- The 10 MPH pace speed is the 10 miles per hour increment of observed speeds which contains the greatest number of vehicles. In nearly all cases, the 85<sup>th</sup>-percentile speed and the recommended speed limit lie somewhere within the pace, frequently in the middle to upper ranges. This is an important indicator used to determine appropriate speed limits.

The number of vehicles within the pace is an indication of the bunching of vehicular speeds. Ideally, if all vehicles were traveling at or about the same speed, there would be a reduced likelihood of traffic collisions. In speed limit analysis, the higher the number (percentage) of vehicles within the pace, the better the speed distribution.

- The critical (85%) speed (or 85<sup>th</sup>-percentile speed) is that speed at or below which 85 percent of the observed vehicles are traveling. It is a well recognized fact among traffic engineers that most drivers are able to drive at reasonable speeds without the benefit of any speed limits, speed signs, or enforcement. The behavior of traffic is a good indication of the appropriate speed zone that should apply on a particular street section. It is generally felt that at least 85 percent of the drivers operate at speeds that are reasonable and prudent for the conditions pertaining in each situation. Therefore, the 85<sup>th</sup>-percentile speed of a spot speed

survey is the primary indicator of a speed limit that might be imposed subject to the secondary factors of collision experience and highway, traffic, and roadside conditions not readily apparent to the driver.

Per the CA MUTCD, a posted speed limit “**shall** be established at the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed of free-flowing traffic, except as shown in the two Options below.”

### **Option**

1. The posted speed may be reduced by 5 mph from the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed, in compliance with CVC Sections 627 and 22358.5.
2. For cases in which the nearest 5 mph increment of the 85<sup>th</sup>-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85<sup>th</sup>-percentile speed, if no further reduction is used. Refer to CVC Section 21400(b)

Also per the CA MUTCD, if the posted speed limit “has had the 5 mph reduction applied, then an engineering and traffic survey **shall** document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer.”

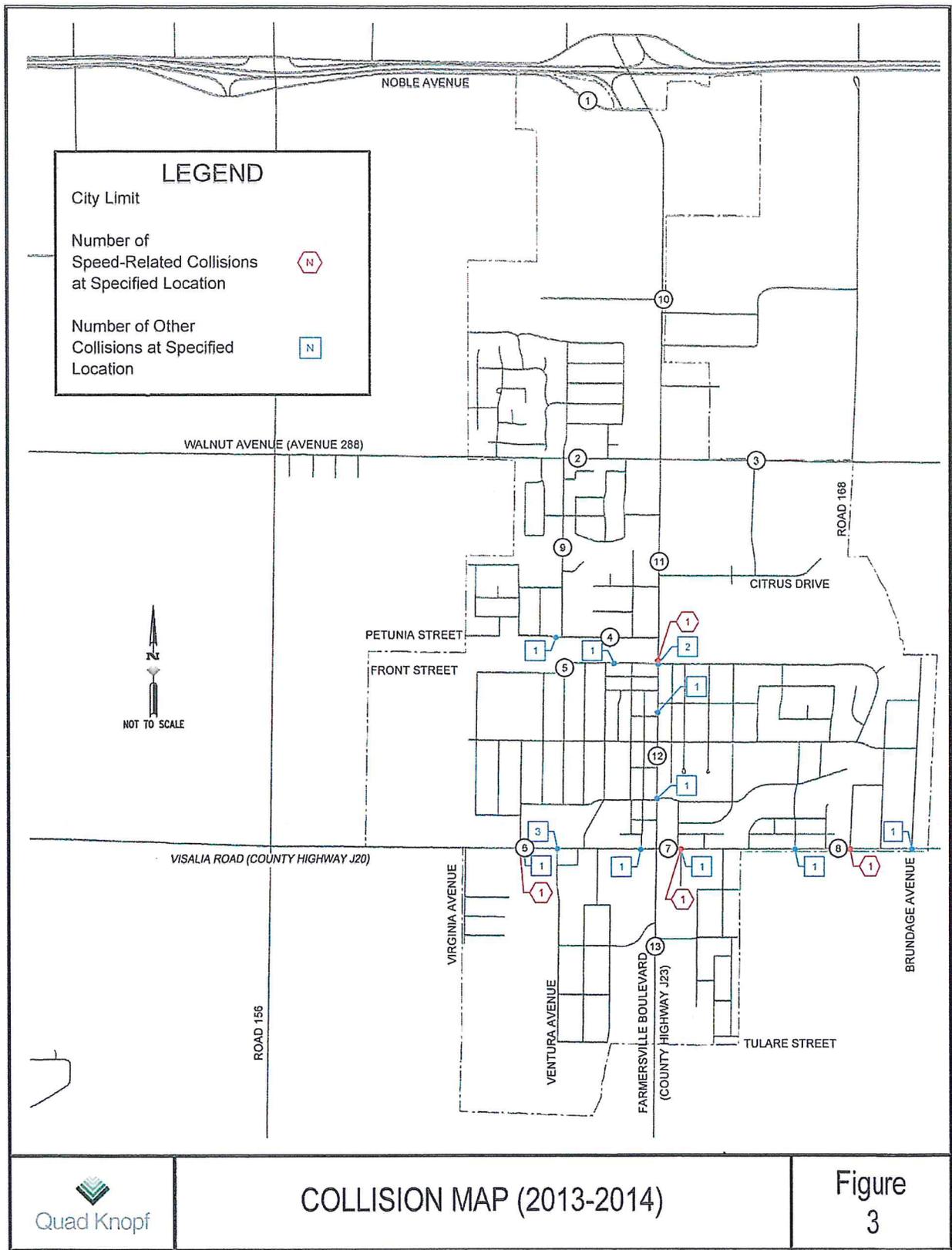
Several lines are provided on the radar spot speed study form to list comments/unusual conditions. These special conditions, and their influence on the appropriate speed zone limit, are described below under *Inventory of Street Conditions*.

### **Collision Review**

Per the CA MUTCD, the most recent two-year collision records should be reviewed when determining appropriate speed limits. Collision data was obtained from the California Highway Patrol’s *State Wide Integrated Traffic Records System (SWITRS)* for years 2013 and 2014. Records for subsequent years were not up to date. Figure 3 shows the total collision history and locations on the surveyed roadway segments for the two-year period observed. During this two-year period, there were a total of 18 collisions on the roads surveyed. Unsafe speed was identified as the primary collision factor in four of the collisions. Based on the number of collisions where speed was the primary collision factor on the individual roadway segments, a speed reduction based on collision history is not recommended for any of the roadway segments studied.

### **Inventory of Street Conditions**

The Vehicle Speed Survey Sheet form provides space for recording various survey comments and unusual roadway conditions in addition to the observed speeds of vehicles. As part of the spot speed study for each location, any unique conditions that may justify downward speed zoning have been noted. This information is shown on the Vehicle Speed Survey Sheet forms included in Appendix C.



COLLISION MAP (2013-2014)

Figure 3

It should be noted that, per the CVC and the CA MUTCD, roadway conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to a driver, in the absence of other factors, would not require special downward speed zoning. Conditions to consider which may justify special consideration for downward speed zoning may include, but are not limited to, roadway design speed, safe stopping sight distance, super-elevation, shoulder conditions, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.

### ***Data Evaluation and Recommendations***

The data evaluated for each roadway segment includes the existing posted speed limit, the observed and measured prevailing vehicle speeds, and an inventory of any special physical characteristics of the roadway and adjacent development, and review of a two-year traffic collision history.

This information is listed in Table 1 on the subsequent page as follows:

1. The roadway name.
2. The limits of the speed zone study.
3. The traffic collision history.
4. Acknowledgment of any special highway, roadside or traffic conditions not readily apparent to the driver that might justify a reduction in the normally applicable speed zone.
5. The existing speed limit.
6. The average speed as determined by computer analysis of the observed and measured vehicle speeds.
7. The critical (85<sup>th</sup>-percentile) speed as determined by computer analysis of the observed and measured vehicle speeds.
8. The pace speed as determined by computer analysis of the observed and measured vehicle speeds.
9. The determined speed limit based on the critical speed only.
10. The recommended speed limit based on assessment of the study findings and the noted vehicle code requirements for establishment of a speed zone. The recommended speed limit may include a 5 mph decrease where the 85<sup>th</sup>-percentile speed would require rounding up as indicated in Option 2 on Page 9. It may also include a 5 mph decrease to account for collision history and special roadway conditions not readily apparent to the driver. Speed limits recommended to be changed are indicated with a bold font.

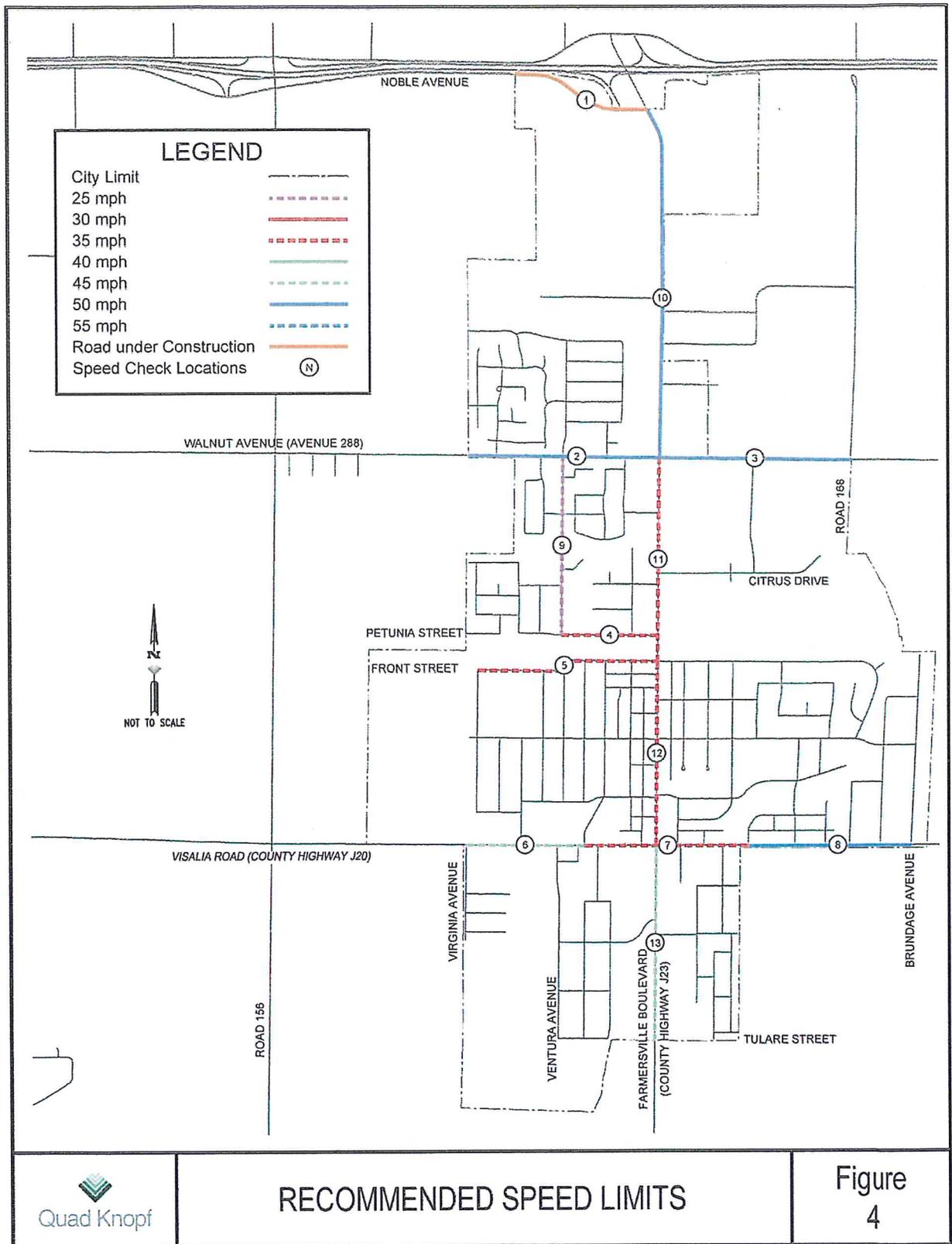
Additionally, recommended speed limits are shown graphically in Figure 4.

Of the thirteen (13) speed zones surveyed, ten are recommended to remain at their existing posted speed limit, one is recommended to be less than its existing posted speed limit, and one is recommended to be greater than its existing posted speed limit. One location needs to be completed in the future due to on-going construction at the time the speed surveys were conducted.

**Table 1  
Data Evaluation**

<u>Roadway Limits</u>	<u>Two-year Collision History (Speed Related/Other)</u>		<u>Special Conditions</u>	<u>Existing Speed Limit</u>	<u>Average Speed</u>	<u>Critical Speed</u>	<u>Pace Speed</u>	<u>Speed Limit Based on Critical Speed</u>	<u>Recommended Speed Limit</u>
1. <u>Noble Avenue</u> City Limits to Farmersville Boulevard	0	/ 0	None	40	Not Surveyed Due To Construction				-
2. <u>Walnut Avenue</u> City Limits to Farmersville Boulevard	0	/ 0	None	50	43	50	39 – 48	50	50
3. <u>Walnut Avenue</u> Farmersville Boulevard to Road 168	0	/ 0	School Zone	50	48	52	44 – 53	50	50
4. <u>Petunia Avenue</u> Ventura Avenue to Farmersville Boulevard	0	/ 1	None	35	28	34	21 – 30	35	35
5. <u>Front Street</u> Virginia Avenue to Farmersville Boulevard	0	/ 1	None	35	28	33	23 – 32	35	35
6. <u>Visalia Road</u> Virginia Avenue to Shasta Avenue	1	/ 4	School Zone	45	42	47	37 – 46	45	45
7. <u>Visalia Road</u> Shasta Avenue to Larry Street	1	/ 2	None	35	32	37	26 – 35	35	35
8. <u>Visalia Road</u> Larry Street to Brundage Avenue	1	/ 2	None	45	46	51	42 – 51	50	50
9. <u>Ventura Avenue</u> Walnut Avenue to Petunia Street	0	/ 0	Residential	25	32	38	27 – 36	40	25
10. <u>Farmersville Boulevard</u> Noble Avenue to Walnut Avenue	0	/ 0	None	55	45	50	40 – 49	50	50

Roadway Limits	Two-year Collision History (Speed Related/Other)		Special Conditions*	Existing Speed Limit	Average Speed	Critical Speed	Pace Speed	Speed Limit Based on Critical Speed	Recommended Speed Limit
11. <u>Farmersville Boulevard</u> Walnut Avenue to Front Street	1	/ 2	School Zone	35	34	39	30 – 39	40	35
12. <u>Farmersville Boulevard</u> Front Street to Visalia Road	0	/ 2	School Zone	35	30	33	25 – 34	35	35
13. <u>Farmersville Boulevard</u> Visalia Road to Tulare Street Alignment	0	/ 0	School Zone	45	40	46	36 – 45	45	45



## APPENDICES

## **APPENDIX A**

# **DEFINITIONS, GUIDELINES, AND REGULATIONS**

## DEFINITIONS, GUIDELINES, AND REGULATIONS

### A. Section 235, California Vehicle Code, Business District

*A "business district" is that portion of a highway and the property contiguous thereto (a) upon one side of which highway, for a distance of 600 feet, 50 percent or more of the contiguous property fronting thereon is occupied by buildings in use for business, or (b) upon both sides of which highway, collectively, for a distance of 300 feet, 50 percent or more of the contiguous property fronting thereon is so occupied. A business district may be longer than the distances specified in this section if the above ratio of buildings in use for business to the length of the highway exists.*

### B. Section 240, California Vehicle Code, Business and Residence Districts Determination

*In determining whether a highway is within a business or residence district, the following limitations shall apply and shall qualify the definitions in Sections 235 and 515:*

*(a) No building shall be regarded unless its entrance faces the highway and the front of the building is within 75 feet of the roadway.*

*(b) Where a highway is physically divided into two or more roadways only those buildings facing each roadway separately shall be regarded for the purpose of determining whether the roadway is within a district.*

*(c) All churches, apartments, hotels, multiple dwelling houses, clubs, and public buildings, other than schools, shall be deemed to be business structures.*

*(d) A highway or portion of a highway shall not be deemed to be within a district regardless of the number of buildings upon the contiguous property if there is no right of access to the highway by vehicles from the contiguous property.*

### C. Section 515, California Vehicle Code, Residence District

*A "residence district" is that portion of a highway and the property contiguous thereto, other than a business district, (a) upon one side of which highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures, or (b) upon both sides of which highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures. A residence district may be longer than one-quarter of a mile if the above ratio of separate dwelling houses or business structures to the length of the highway exists.*

### D. Section 627, California Vehicle Code, Engineering and Traffic Survey

*(a) "Engineering and traffic survey," as used in this code, means a survey of highway and traffic conditions in accordance with methods determined by the Department of Transportation for use by state and local authorities.*

*(b) An engineering and traffic survey shall include, among other requirements deemed necessary by the department, consideration of all of the following:*

*(1) Prevailing speeds as determined by traffic engineering measurements.*

*(2) Accident records.*

*(3) Highway, traffic, and roadside conditions not readily apparent to the driver.*

*(c) When conducting an engineering and traffic survey, local authorities, in addition to the factors set forth in paragraphs (1) to (3), inclusive, of subdivision (b) may consider all of the following:*

*(1) Residential density, if any of the following conditions exist on the particular portion of highway and the property contiguous thereto, other than a business district:*

*(A) Upon one side of the highway, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures.*

*(B) Upon both sides of the highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures.*

*(C) The portion of highway is longer than one-quarter of a mile but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph (A) or (B).*

*(2) Pedestrian and bicyclist safety.*

**E. Section 22350, California Vehicle Code, Basic Speed Law**

*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.*

**F. Section 22352, Prime Facie Speed Limits**

*The prima facie limits are as follows and shall be applicable unless changed as authorized in this code and, if so changed, only when signs have been erected giving notice thereof:*

*(a) Fifteen miles per hour:*

*(1) When traversing a railway grade crossing, if during the last 100 feet of the approach to the crossing the driver does not have a clear and unobstructed view of the crossing and of any traffic on the railway for a distance of 400 feet in both directions along the railway. This subdivision does not apply in the case of any railway grade crossing where a human flagman is on duty or a clearly visible electrical or mechanical railway crossing signal device is installed but does not then indicate the immediate approach of a railway train or car.*

*(2) When traversing any intersection of highways if during the last 100 feet of the driver's approach to the intersection the driver does not have a clear and unobstructed view of the intersection and of any traffic upon all of the highways entering the intersection for a distance of 100 feet along all those highways, except at an intersection protected by stop signs or yield right-of-way signs or controlled by official traffic control signals.*

*(3) On any alley.*

*(b) Twenty-five miles per hour:*

*(1) On any highway other than a state highway, in any business or residence district unless a different speed is determined by local authority under procedures set forth in this code.*

(2) *When approaching or passing a school building or the grounds thereof, contiguous to a highway and posted with a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching or passing any school grounds which are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a standard "SCHOOL" warning sign. For purposes of this subparagraph, standard "SCHOOL" warning signs may be placed at any distance up to 500 feet away from school grounds.*

(3) *When passing a senior center or other facility primarily used by senior citizens, contiguous to a street other than a state highway and posted with a standard "SENIOR" warning sign. A local authority may erect a sign pursuant to this paragraph when the local agency makes a determination that the proposed signing should be implemented. A local authority may request grant funding from the Pedestrian Safety Account pursuant to Section 894.7 of the Streets and Highways Code, or any other grant funding available to it, and use that grant funding to pay for the erection of those signs, or may utilize any other funds available to it to pay for the erection of those signs, including, but not limited to, donations from private sources.*

**G. Section 22357, California Vehicle Code, Increase of Local Speed Limits to 65 Miles Per Hour**

(a) *Whenever a local authority determines upon the basis of an engineering and traffic survey that a speed greater than 25 miles per hour would facilitate the orderly movement of vehicular traffic and would be reasonable and safe upon any street other than a state highway otherwise subject to a prima facie limit of 25 miles per hour, the local authority may by ordinance determine and declare prima facie speed limit of 30, 35, 40, 45, 50, 55, or 60 miles per hour or a maximum speed limit of 65 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe. The declared prima facie or maximum speed limit shall be effective when appropriate signs giving notice thereof are erected upon the street and shall not thereafter be revised except upon the basis of an engineering and traffic survey. This section does not apply to any 25-mile-per-hour prima facie limit which is applicable when passing a school building or the grounds thereof or when passing a senior center or other facility primarily used by senior citizens.*

(b) *This section shall become operative on the date specified in subdivision (c) of Section 22366.*

**H. Section 22358, California Vehicle Code, Decrease of Local Speed Limits**

(a) *Whenever a local authority determines upon the basis of an engineering and traffic survey that the limit of 65 miles per hour is more than is reasonable and safe upon any portion of any street other than a state highway where the limit of 65 miles per hour is applicable, the local authority may by ordinance determine and declare a prima facie speed limit of 60, 55, 50, 45, 40, 35, 30, or 25 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe, which declared prima facie limit shall be effective when appropriate signs giving notice thereof are erected upon the street.*

(b) *This section shall become operative on the date specified in subdivision (c) of Section 22366.*

**I. Section 22358.3, California Vehicle Code, Decrease of Narrow Streets**

*Whenever a local authority determines upon the basis of an engineering and traffic survey that the prima facie speed limit of 25 miles per hour in a business or residence district or in a public park on any street having a roadway not exceeding 25 feet in width, other than a state highway, is more than is reasonable or safe, the local authority may, by ordinance or resolution, determine and declare a prima facie speed limit of 20 or 15 miles per hour, whichever is found most appropriate and is reasonable and safe. The declared prima facie limit shall be effective when appropriate signs giving notice thereof are erected upon the street.*

**J. Section 22358.4, California Vehicle Code, Decrease of Local Limits Near Schools or Senior Centers**

*(a) (1) Whenever a local authority determines upon the basis of an engineering and traffic survey that the prima facie speed limit of 25 miles per hour established by paragraph (2) of subdivision (a) of Section 22352 is more than is reasonable or safe, the local authority may, by ordinance or resolution, determine and declare a prima facie speed limit of 20 or 15 miles per hour, whichever is justified as the appropriate speed limit by that survey.*

*(2) An ordinance or resolution adopted under paragraph (1) shall not be effective until appropriate signs giving notice of the speed limit are erected upon the highway and, in the case of a state highway, until the ordinance is approved by the Department of Transportation and the appropriate signs are erected upon the highway.*

*(b) (1) Notwithstanding subdivision (a) or any other provision of law, a local authority may, by ordinance or resolution, determine and declare prima facie speed limits as follows:*

*(A) A 15 miles per hour prima facie limit in a residence district, on a highway with a posted speed limit of 30 miles per hour or slower, when approaching, at a distance of less than 500 feet from, or passing, a school building or the grounds of a school building, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 15 miles per hour, while children are going to or leaving the school, either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching, at a distance of less than 500 feet from, or passing, school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a school warning sign that indicates a speed limit of 15 miles per hour.*

*(B) A 25 miles per hour prima facie limit in a residence district, on a highway with a posted speed limit of 30 miles per hour or slower, when approaching, at a distance of 500 to 1,000 feet from, a school building or the grounds thereof, contiguous to a highway and posted with a school warning sign that indicates a speed limit of 25 miles per hour, while children are going to or leaving the school, either during school hours or during the noon recess period. The prima facie limit shall also apply when approaching, at a distance of 500 to 1,000 feet from, school grounds that are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children and the highway is posted with a school warning sign that indicates a speed limit of 25 miles per hour.*

*(2) The prima facie limits established under paragraph (1) apply only to highways that meet all of the following conditions:*

*(A) A maximum of two traffic lanes.*

*(B) A maximum posted 30 miles per hour prima facie speed limit immediately prior to and after the school zone.*

*(3) The prima facie limits established under paragraph (1) apply to all lanes of an affected highway, in both directions of travel.*

*(4) When determining the need to lower the prima facie speed limit, the local authority shall take the provisions of Section 627 into consideration.*

*(5) (A) An ordinance or resolution adopted under paragraph (1) shall not be effective until appropriate signs giving notice of the speed limit are erected upon the highway and, in the case of a state highway, until the ordinance is approved by the Department of Transportation and the appropriate signs are erected upon the highway.*

*(B) For purposes of subparagraph (A) of paragraph (1), school warning signs indicating a speed limit of 15 miles per hour may be placed at a distance up to 500 feet away from school grounds.*

*(C) For purposes of subparagraph (B) of paragraph (1), school warning signs indicating a speed limit of 25 miles per hour may be placed at any distance between 500 and 1,000 feet away from the school grounds.*

*(D) A local authority shall reimburse the Department of Transportation for all costs incurred by the department under this subdivision.*

**K. Section 22358.5, California Vehicle Code, Downward Speed Zoning**

*It is the intent of the Legislature that physical conditions such as width, curvature, grade and surface conditions, or any other conditions readily apparent to a driver, in the absence of other factors, would not require special downward speed zoning, as the basic rule of Section 22350 is sufficient regulation as to such conditions.*

**L. Section 22359, California Vehicle Code, Boundary Line Streets**

*With respect to boundary line streets and highways where portions thereof are within different jurisdictions, no ordinance adopted under Section 22357 and 22358 shall be effective as to any such portion until all authorities having jurisdiction of the portions of the street concerned have approved the same. This section shall not apply in the case of boundary line streets consisting of separate roadways within different jurisdictions.*

**M. Section 22360, California Vehicle Code, Maximum Speed Limit on Local Highway Linking Districts**

*(a) Whenever a local authority determines upon the basis of an engineering and traffic survey that the limit of 65 miles per hour is more than is reasonable or safe upon any portion of a highway other than a state highway for a distance of not exceeding 2,000 feet in length between districts, either business or residence, the local authority may determine and declare a reasonable and safe prima facie limit thereon lower than 65 miles per hour, but not less than 25 miles per hour, which declared prima facie speed limit shall be effective when appropriate signs giving notice thereof are erected upon the street or highway.*

*(b) This section shall become operative on the date specified in subdivision (c) of Section 22366.*

**N. Section 22361, California Vehicle Code, Multiple Lane Highways**

*On multiple-lane highways with two or more separate roadways different prima facie speed limits may be established for different roadways under any of the procedures specified in Sections 22354 to 22359, inclusive.*

**O. Section 22363, California Vehicle Code, Restrictions Because of Snow or Ice Conditions**

*Notwithstanding any speed limit that may be in effect upon the highway, the Department of Transportation in respect to state highways, or a local authority with respect to highways under its jurisdiction, may determine and declare a prima facie speed limit of 40, 35, 30, or 25 miles per hour, whichever is found most appropriate and is reasonable and safe based on the prevailing snow or ice conditions upon such highway or any portion thereof. Signs may be placed and removed as snow or ice conditions vary.*

**P. Section 40802, California Vehicle Code, speed traps defined.**

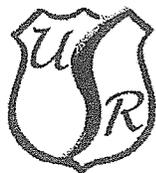
*(a) A "speed trap" is either of the following:*

*(1) A particular section of a highway measured as to distance and with boundaries marked, designated, or otherwise determined in order that the speed of a vehicle may be calculated by securing the time it takes the vehicle to travel the known distance.*

**APPENDIX B**

**RADAR METER CERTIFICATES**

RADAR SPEED METER  
CERTIFICATE OF ACCURACY



*U.S. Radar, Inc.*

*4314 W. Main St.  
Decatur, IL 62522*

Model: **Phantom**

Manufacturer **U.S. RADAR, INC.**

Radar serial # **2841**

**The above Radar Speed Meter has been checked for accuracy from  
15 MPH to 199 MPH within plus or minus .15 MPH.**

**Property of: Quad Knopf, Inc. (RENTAL)**

**Date: 7/1/2014**

**Signed**

A handwritten signature in black ink, appearing to be 'J.H.', written over a horizontal line.

Agent of U.S. Radar, Inc.

**APPENDIX C**

**VEHICLE SPEED SURVEY SHEETS.**

**APPENDIX C**

**VEHICLE SPEED SURVEY SHEETS**

# VEHICLE SPEED SURVEY SHEET

Location: 2 Walnut Avenue Date: 2/23/2016  
City Limits to Farmersville Boulevard Day: Tuesday  
 Direction: Band Number of Lanes: 2 Time: 9:55 AM  
 Paved Width (ft.): 64 Posted Speed Limit 50 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) N  
 Weather: Clear Number of Vehicles Counted: 101  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent		
				5				10				15			20					
21																		0	0	0%
22																		0	0	0%
23																		0	0	0%
24																		0	0	0%
25																		0	0	0%
26																		0	0	0%
27																		0	0	0%
28																		0	0	0%
29																		0	0	0%
30																		0	0	0%
31	X																	1	1	1%
32	X	X	X															3	4	4%
33	X																	1	5	5%
34	X	X	X	X														4	9	9%
35																		0	9	9%
36	X	X	X	X	X													5	14	14%
37	X	X	X	X	X													5	19	19%
38	X	X																2	21	21%
39	X	X	X	X	X	X	X	X	X	X	X	X	X					11	32	32%
40	X	X	X															3	35	35%
41	X	X	X	X	X	X	X											7	42	42%
42	X	X	X	X	X	X												6	48	48%
43	X	X	X	X	X	X	X											7	55	54%
44	X	X	X	X														4	59	58%
45	X	X	X	X	X	X	X											7	66	65%
46	X	X																2	68	67%
47	X	X	X	X	X	X	X	X	X	X	X	X	X					11	79	78%
48	X	X	X	X	X													5	84	83%
49	X																	1	85	84%
50	X	X	X	X	X													5	90	89%
51	X	X																2	92	91%
52	X	X	X	X														4	96	95%
53	X	X																2	98	97%
54																		0	98	97%
55																		0	98	97%
56	X																	1	99	98%
57																		0	99	98%
58	X																	1	100	99%
59	X																	1	101	100%
60																		0	101	100%
61																		0	101	100%
62																		0	101	100%
63																		0	101	100%
64																		0	101	100%
65																		0	101	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>43</b>
10 MPH Pace Speed	<b>39 - 48</b>
Critical (85%) Speed	<b>50</b>

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 3

Walnut Avenue

Date: 2/22/2016

Farmersville Boulevard to Road 168

Day: Monday

Direction:

Band

Number of Lanes: 2

Time: 3:40pm

Paved Width (ft.):

Varies

Posted Speed Limit 50

Observer: T. Madison

Bus. District (Y/N):

N

Res. District: (Y/N) N

School Zone (Y/N) Y

Weather:

Clear

Number of Vehicles Counted: 100

Special Conditions:

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent				
				5				10							20							25
21																				0	0	0%
22																				0	0	0%
23																				0	0	0%
24																				0	0	0%
25																				0	0	0%
26																				0	0	0%
27																				0	0	0%
28																				0	0	0%
29																				0	0	0%
30																				0	0	0%
31																				0	0	0%
32																				0	0	0%
33																				0	0	0%
34																				0	0	0%
35																				0	0	0%
36																				0	0	0%
37																				0	0	0%
38	X																			1	1	1%
39	X																			1	2	2%
40	X	X	X																	3	5	5%
41	X	X	X	X																4	9	9%
42	X	X	X																	3	12	12%
43	X	X	X																	3	15	15%
44	X	X	X	X	X	X	X													7	22	22%
45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12	34	34%
46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	12	46	46%
47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	8	54	54%
48	X	X	X	X	X															5	59	59%
49	X	X	X	X	X	X	X	X												7	66	66%
50	X	X	X	X	X	X	X	X	X	X										7	73	73%
51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	7	80	80%
52	X	X	X	X	X															5	85	85%
53	X	X	X																	3	88	88%
54	X	X	X																	3	91	91%
55	X	X																		2	93	93%
56	X	X																		2	95	95%
57	X	X																		2	97	97%
58	X																			1	98	98%
59	X																			1	99	99%
60																				0	99	99%
61																				0	99	99%
62																				0	99	99%
63																				0	99	99%
64																				0	99	99%
65	X																			1	100	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>48</b>
10 MPH Pace Speed	<b>Mult. - Mult.</b>
Critical (85%) Speed	<b>52</b>



**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 4 Petunia Avenue Date: 2/23/2016  
Ventura Avenue to Farmersville Boulevard Day: Tuesday  
 Direction: Band Number of Lanes: 2 Time: 10:00 AM  
 Paved Width (ft.): 40 Posted Speed Limit 35 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) N  
 Weather: Clear Number of Vehicles Counted: 50  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles																				Total	Cumul. Total	Cumul. Percent		
	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				25	
21	X	X	X	X																		4	4	8%	
22	X	X	X	X																			3	7	14%
23	X	X	X	X	X																		4	11	22%
24	X	X																					2	13	26%
25	X	X	X	X																			4	17	34%
26	X	X	X																				3	20	40%
27	X	X																					2	22	44%
28	X	X																					2	24	48%
29	X	X	X	X	X																		5	29	58%
30	X	X	X	X	X	X	X																7	36	72%
31	X	X																					2	38	76%
32	X																						1	39	78%
33	X	X	X																				3	42	84%
34	X	X																					2	44	88%
35	X	X																					2	46	92%
36	X																						1	47	94%
37	X																						1	48	96%
38	X																						1	49	98%
39																							0	49	98%
40																							0	49	98%
41	X																						1	50	100%
42																							0	50	100%
43																							0	50	100%
44																							0	50	100%
45																							0	50	100%
46																							0	50	100%
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63																							0	50	100%
64																							0	50	100%
65																							0	50	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>28</b>
10 MPH Pace Speed	<b>21 - 30</b>
Critical (85%) Speed	<b>34</b>

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 5 Front Street Date: 2/23/2016  
Virginia Avenue to Farmersville Boulevard Day: Tuesday  
 Direction: Band Number of Lanes: 2 Time: 11:15 AM  
 Paved Width (ft.): 40 Posted Speed Limit 35 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) N  
 Weather: Clear Number of Vehicles Counted: 65  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent					
					5					10									20				25
21	X	X	X																		3	3	5%
22	X																				1	4	6%
23	X	X	X	X																	4	8	12%
24	X	X	X	X	X	X	X	X	X												8	16	25%
25	X	X	X	X																	4	20	31%
26	X	X	X	X	X																5	25	38%
27	X	X	X	X	X	X	X														6	31	48%
28	X	X	X	X	X	X	X														6	37	57%
29	X	X	X	X	X	X	X														6	43	66%
30	X	X	X	X	X	X	X	X													7	50	77%
31	X																				1	51	78%
32	X	X	X																		3	54	83%
33	X	X	X																		3	57	88%
34	X	X	X	X	X																5	62	95%
35																					0	62	95%
36	X	X																			2	64	98%
37																					0	64	98%
38																					0	64	98%
39																					0	64	98%
40																					0	64	98%
41	X																				1	65	100%
42																					0	65	100%
43																					0	65	100%
44																					0	65	100%
45																					0	65	100%
46																					0	65	100%
47																					0	65	100%
48																					0	65	100%
49																					0	65	100%
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62																					0	65	100%
63																					0	65	100%
64																					0	65	100%
65																					0	65	100%

Speed Limit without Approved Speed Zone	55
Average Speed	28
10 MPH Pace Speed	Mult. - Mult.
Critical (85%) Speed	33

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 6 Visalia Road Date: 2/23/2016  
Virginia Avenue to Shasta Avenue Day: Tuesday  
 Direction: Band Number of Lanes: 4 Time: 1:45 PM  
 Paved Width (ft.): 64 Posted Speed Limit 45 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) Y  
 Weather: Clear Number of Vehicles Counted: 101  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent		
				5				10				15			20					
21																		0	0	0%
22	X																	1	1	1%
23																		0	1	1%
24																		0	1	1%
25																		0	1	1%
26																		0	1	1%
27																		0	1	1%
28																		0	1	1%
29																		0	1	1%
30																		0	1	1%
31																		0	1	1%
32																		0	1	1%
33																		0	1	1%
34	X																	1	2	2%
35	X	X	X	X	X	X												6	8	8%
36	X	X	X															3	11	11%
37	X	X	X	X	X													5	16	16%
38	X	X	X	X	X	X	X											7	23	23%
39	X	X	X	X	X	X	X	X										8	31	31%
40	X	X	X	X	X	X	X	X	X	X	X	X	X					13	44	44%
41	X	X	X	X	X	X	X	X	X	X	X	X	X					13	57	56%
42	X	X	X	X	X	X	X											7	64	63%
43	X	X	X	X														4	68	67%
44	X	X	X	X	X	X	X											7	75	74%
45	X	X	X	X														4	79	78%
46	X	X	X	X	X	X												6	85	84%
47	X	X	X	X														4	89	88%
48	X																	1	90	89%
49	X	X	X															3	93	92%
50	X	X	X	X														4	97	96%
51	X	X																2	99	98%
52																		0	99	98%
53																		0	99	98%
54																		0	99	98%
55	X	X																2	101	100%
56																		0	101	100%
57																		0	101	100%
58																		0	101	100%
59																		0	101	100%
60																		0	101	100%
61																		0	101	100%
62																		0	101	100%
63																		0	101	100%
64																		0	101	100%
65																		0	101	100%

Speed Limit without Approved Speed Zone	55
Average Speed	42
10 MPH Pace Speed	37 - 46
Critical (85%) Speed	47

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 7 Visalia Road Date: 2/23/2016  
Shasta Avenue to Larry Street Day: Tuesday  
 Direction: Band Number of Lanes: 4 Time: 3:15 PM  
 Paved Width (ft.): 64 Posted Speed Limit 35 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) N  
 Weather: Clear Number of Vehicles Counted: 101  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent												
					5						10								15					20					25	
21	X																										1	1	1%	
22																												0	1	1%
23																												0	1	1%
24	X																											1	2	2%
25	X	X		X																								3	5	5%
26	X	X	X	X	X	X	X	X	X	X	X	X	X	X														13	18	18%
27	X	X	X	X	X	X	X	X	X	X	X	X	X	X														9	27	27%
28	X	X	X	X	X	X	X	X	X																			6	33	33%
29	X	X	X	X	X	X	X	X	X	X	X	X	X															10	43	43%
30	X	X	X	X	X	X	X	X	X	X	X	X	X															10	53	52%
31	X	X	X	X	X																							5	58	57%
32	X	X	X																									3	61	60%
33	X	X	X	X	X																							5	66	65%
34	X	X	X	X	X	X																						6	72	71%
35	X	X	X	X	X	X	X																					7	79	78%
36	X	X	X	X	X																							5	84	83%
37	X	X	X	X	X	X	X																					7	91	90%
38	X	X																										2	93	92%
39	X																											1	94	93%
40	X	X																										2	96	95%
41																												0	96	95%
42	X																											1	97	96%
43	X																											1	98	97%
44																												0	98	97%
45																												0	98	97%
46	X																											1	99	98%
47	X																											1	100	99%
48																												0	100	99%
49																												0	100	99%
50																												0	100	99%
51																												0	100	99%
52																												0	100	99%
53																												0	100	99%
54	X																											1	101	100%
55																												0	101	100%
56																												0	101	100%
57																												0	101	100%
58																												0	101	100%
59																												0	101	100%
60																												0	101	100%
61																												0	101	100%
62																												0	101	100%
63																												0	101	100%
64																												0	101	100%
65																												0	101	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>32</b>
10 MPH Pace Speed	<b>26 - 35</b>
Critical (85%) Speed	<b>37</b>



**Quad Knopf**  
 901 East Main Street  
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 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 8 Visalia Road Date: 2/23/2016  
Larry Street to Brundage Avenue Day: Tuesday  
 Direction: Band Number of Lanes: 3 Time: 1:10 PM  
 Paved Width (ft.): 58 Posted Speed Limit 45 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) N  
 Weather: Clear Number of Vehicles Counted: 100  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent		
				5				10				15			20					
21																		0	0	0%
22																		0	0	0%
23																		0	0	0%
24																		0	0	0%
25																		0	0	0%
26																		0	0	0%
27																		0	0	0%
28																		0	0	0%
29																		0	0	0%
30																		0	0	0%
31																		0	0	0%
32																		0	0	0%
33																		0	0	0%
34																		0	0	0%
35	X																	1	1	1%
36																		0	1	1%
37	X	X																2	3	3%
38	X	X	X	X	X													5	8	8%
39	X	X	X															3	11	11%
40	X	X																2	13	13%
41	X	X	X	X														4	17	17%
42	X	X	X	X	X	X	X	X										8	25	25%
43	X	X	X	X	X	X												6	31	31%
44	X	X	X	X	X	X	X	X	X									9	40	40%
45	X	X	X	X	X	X	X											7	47	47%
46	X	X	X	X	X	X	X	X	X	X	X	X	X					13	60	60%
47	X	X	X	X														4	64	64%
48	X	X	X	X	X	X	X											7	71	71%
49	X	X	X	X	X	X												6	77	77%
50	X	X	X	X	X	X												6	83	83%
51	X	X	X	X	X	X												6	89	89%
52	X	X																2	91	91%
53	X																	1	92	92%
54	X	X																2	94	94%
55	X	X	X	X														4	98	98%
56																		0	98	98%
57	X																	1	99	99%
58																		0	99	99%
59																		0	99	99%
60																		0	99	99%
61	X																	1	100	100%
62																		0	100	100%
63																		0	100	100%
64																		0	100	100%
65																		0	100	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>46</b>
10 MPH Pace Speed	<b>42 - 51</b>
Critical (85%) Speed	<b>51</b>

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 9 Ventura Avenue Date: 2/23/2016  
Walnut Avenue to Petunia Street Day: Tuesday  
 Direction: Band Number of Lanes: 2 Time: 11:10 AM  
 Paved Width (ft.): 40 Posted Speed Limit 25 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) Y School Zone (Y/N) N  
 Weather: Clear Number of Vehicles Counted: 77  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent									
				5					10						15								20				25
21																									0	0	0%
22	X	X																							2	2	3%
23																									0	2	3%
24																									0	2	3%
25	X																								1	3	4%
26	X	X	X	X	X																				5	8	10%
27	X	X	X	X	X	X																			6	14	18%
28	X	X	X	X	X	X	X																		6	20	26%
29	X	X	X	X	X	X																			5	25	32%
30	X	X	X	X	X	X	X	X																	8	33	43%
31	X	X	X	X	X	X	X	X																	7	40	52%
32	X	X	X	X	X	X	X																		6	46	60%
33	X	X	X	X	X	X	X																		6	52	68%
34	X	X	X	X																					4	56	73%
35	X	X																							2	58	75%
36	X	X	X	X	X																				5	63	82%
37	X																								1	64	83%
38	X	X																							2	66	86%
39	X	X																							2	68	88%
40	X																								1	69	90%
41	X	X	X																						3	72	94%
42																									0	72	94%
43	X																								1	73	95%
44																									0	73	95%
45	X																								1	74	96%
46	X																								1	75	97%
47																									0	75	97%
48	X																								1	76	99%
49																									0	76	99%
50	X																								1	77	100%
51																									0	77	100%
52																									0	77	100%
53																									0	77	100%
54																									0	77	100%
55																									0	77	100%
56																									0	77	100%
57																									0	77	100%
58																									0	77	100%
59																									0	77	100%
60																									0	77	100%
61																									0	77	100%
62																									0	77	100%
63																									0	77	100%
64																									0	77	100%
65																									0	77	100%

Speed Limit without Approved Speed Zone	25
Average Speed	32
10 MPH Pace Speed	Mult. - Mult.
Critical (85%) Speed	38

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 10 Farmersville Boulevard Date: 2/22/2016  
Noble Avenue to Walnut Avenue  
 Direction: Band Number of Lanes: 2 Day: Monday  
 Paved Width (ft.): 30 Posted Speed Limit 55 Time: 12:00 AM  
 Bus. District (Y/N): N Res. District: (Y/N) Y School Zone (Y/N) N Observer: T. Madison  
 Weather: Clear Number of Vehicles Counted: 100  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent				
				5				10							20							25
21																				0	0	0%
22																				0	0	0%
23																				0	0	0%
24																				0	0	0%
25																				0	0	0%
26																				0	0	0%
27																				0	0	0%
28																				0	0	0%
29																				0	0	0%
30																				0	0	0%
31																				0	0	0%
32	X																			1	1	1%
33																				0	1	1%
34																				0	1	1%
35	X																			1	2	2%
36	X																			1	3	3%
37	X	X																		2	5	5%
38	X	X	X	X	X															5	10	10%
39																				0	10	10%
40	X	X	X	X																4	14	14%
41	X	X	X	X	X	X	X													7	21	21%
42	X	X	X	X	X	X														6	27	27%
43	X	X	X	X	X	X	X	X	X											9	36	36%
44	X	X	X	X	X	X	X	X	X											8	44	44%
45	X	X	X	X	X	X	X	X	X	X	X	X								12	56	56%
46	X	X	X	X	X	X														6	62	62%
47	X	X	X	X	X	X	X													7	69	69%
48	X	X	X	X	X	X	X	X	X	X	X	X								12	81	81%
49	X	X	X																	3	84	84%
50	X	X	X																	3	87	87%
51	X	X	X	X	X															5	92	92%
52	X																			1	93	93%
53	X	X	X																	3	96	96%
54	X																			1	97	97%
55																				0	97	97%
56	X																			1	98	98%
57																				0	98	98%
58	X																			1	99	99%
59																				0	99	99%
60																				0	99	99%
61																				0	99	99%
62																				0	99	99%
63	X																			1	100	100%
64																				0	100	100%
65																				0	100	100%

Speed Limit without Approved Speed Zone	<b>25</b>
Average Speed	<b>45</b>
10 MPH Pace Speed	<b>40 - 49</b>
Critical (85%) Speed	<b>50</b>

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 11 Farmersville Boulevard Date: 2/24/2016  
Walnut Avenue to Front Street Day: Wednesday  
 Direction: Band Number of Lanes: 4 Time: 9:35 AM  
 Paved Width (ft.): 64 Posted Speed Limit 35 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) Y  
 Weather: Clear Number of Vehicles Counted: 100  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles										Total	Cumul. Total	Cumul. Percent						
				5				10						15			20		
21																	0	0	0%
22																	0	0	0%
23																	0	0	0%
24																	0	0	0%
25																	0	0	0%
26																	0	0	0%
27	X	X	X														3	3	3%
28	X	X															2	5	5%
29	X	X	X	X	X	X	X	X									8	13	13%
30	X	X	X	X	X	X	X	X									7	20	20%
31	X	X	X	X	X	X	X	X	X	X							10	30	30%
32	X	X	X	X	X	X	X	X	X	X	X						11	41	41%
33	X	X	X	X													4	45	45%
34	X	X	X	X	X	X	X	X	X								9	54	54%
35	X	X	X	X	X	X	X	X	X	X	X						11	65	65%
36	X	X	X	X	X												5	70	70%
37	X	X	X	X	X	X											6	76	76%
38	X	X	X	X	X												5	81	81%
39	X	X	X	X	X	X	X	X	X								9	90	90%
40	X	X	X														3	93	93%
41	X																1	94	94%
42	X																1	95	95%
43	X	X															2	97	97%
44	X																1	98	98%
45																	0	98	98%
46																	0	98	98%
47	X																1	99	99%
48																	0	99	99%
49	X																1	100	100%
50																	0	100	100%
51																	0	100	100%
52																	0	100	100%
53																	0	100	100%
54																	0	100	100%
55																	0	100	100%
56																	0	100	100%
57																	0	100	100%
58																	0	100	100%
59																	0	100	100%
60																	0	100	100%
61																	0	100	100%
62																	0	100	100%
63																	0	100	100%
64																	0	100	100%
65																	0	100	100%

Speed Limit without Approved Speed Zone	55
Average Speed	34
10 MPH Pace Speed	30 - 39
Critical (85%) Speed	39



**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 12 Farmersville Boulevard Date: 2/23/2016  
Front Street to Visalia Road Day: Tuesday  
 Direction: Band Number of Lanes: 4 Time: 2:15 PM  
 Paved Width (ft.): 60 Posted Speed Limit 35 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) Y  
 Weather: Clear Number of Vehicles Counted: 100  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles																				Total	Cumul. Total	Cumul. Percent					
				5					10											20							25	
21																								0	0	0%		
22																									0	0	0%	
23	X	X																							2	2	2%	
24	X	X	X																							3	5	5%
25	X	X	X	X	X	X																				6	11	11%
26	X	X	X	X																						4	15	15%
27	X	X	X	X	X	X																				6	21	21%
28	X	X	X	X	X	X	X																			7	28	28%
29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X										16	44	44%
30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X											9	53	53%
31	X	X	X	X	X	X	X	X	X	X	X	X	X													13	66	66%
32	X	X	X	X	X	X	X	X	X	X	X	X														10	76	76%
33	X	X	X	X	X	X	X	X	X	X	X															9	85	85%
34	X	X	X	X	X	X																				6	91	91%
35	X																									1	92	92%
36	X	X																								2	94	94%
37	X	X																								2	96	96%
38	X	X																								2	98	98%
39																										0	98	98%
40	X	X																								2	100	100%
41																										0	100	100%
42																										0	100	100%
43																										0	100	100%
44																										0	100	100%
45																										0	100	100%
46																										0	100	100%
47																										0	100	100%
48																										0	100	100%
49																										0	100	100%
50																										0	100	100%
51																										0	100	100%
52																										0	100	100%
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58																										0	100	100%
59																										0	100	100%
60																										0	100	100%
61																										0	100	100%
62																										0	100	100%
63																										0	100	100%
64																										0	100	100%
65																										0	100	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>30</b>
10 MPH Pace Speed	<b>25 - 34</b>
Critical (85%) Speed	<b>33</b>

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440

# VEHICLE SPEED SURVEY SHEET

Location: 13 Farmersville Boulevard Date: 2/23/2016  
Visalia Road to Tulare Street Alignment Day: Tuesday  
 Direction: Band Number of Lanes: 3 Time: 4:00 PM  
 Paved Width (ft.): Varies Posted Speed Limit 45 Observer: T. Madison  
 Bus. District (Y/N): N Res. District: (Y/N) N School Zone (Y/N) Y  
 Weather: Clear Number of Vehicles Counted: 100  
 Special Conditions: \_\_\_\_\_

MPH	Number of Vehicles															Total	Cumul. Total	Cumul. Percent		
				5				10							20					
21																		0	0	0%
22																		0	0	0%
23																		0	0	0%
24																		0	0	0%
25																		0	0	0%
26	X																	1	1	1%
27																		0	1	1%
28	X																	1	2	2%
29	X	X																2	4	4%
30	X																	1	5	5%
31																		0	5	5%
32	X	X	X	X	X	X												6	11	11%
33	X																	1	12	12%
34	X	X	X	X	X	X	X											7	19	19%
35	X	X																2	21	21%
36	X	X	X	X	X													5	26	26%
37	X																	1	27	27%
38	X	X	X	X	X	X	X	X	X	X	X	X	X					13	40	40%
39	X	X	X	X	X	X												6	46	46%
40	X	X	X	X	X	X												6	52	52%
41	X	X	X	X														4	56	56%
42	X	X	X	X	X	X												6	62	62%
43	X	X	X	X	X													5	67	67%
44	X	X	X	X	X	X	X	X										8	75	75%
45	X	X	X	X	X	X	X	X	X									9	84	84%
46	X	X	X															3	87	87%
47	X																	1	88	88%
48	X	X	X															3	91	91%
49	X	X																2	93	93%
50	X	X	X	X														4	97	97%
51	X	X																2	99	99%
52																		0	99	99%
53																		0	99	99%
54	X																	1	100	100%
55																		0	100	100%
56																		0	100	100%
57																		0	100	100%
58																		0	100	100%
59																		0	100	100%
60																		0	100	100%
61																		0	100	100%
62																		0	100	100%
63																		0	100	100%
64																		0	100	100%
65																		0	100	100%

Speed Limit without Approved Speed Zone	<b>55</b>
Average Speed	<b>40</b>
10 MPH Pace Speed	<b>36 - 45</b>
Critical (85%) Speed	<b>46</b>

  
**Quad Knopf**  
 901 East Main Street  
 Visalia, CA 93292  
 (559) 733-0440