Citywide Engineering and Traffic Survey

Submitted to:
City of Tustin

January 2020

Albert Grover & Associates

ALBERT GROVER & ASSOCIATES

January 16, 2020

Mr. Douglas S. Stack, P.E.
Director of Public Works/City Engineer
Public Works Department
City of Tustin
300 Centennial Way
Tustin, California 92780

RE: 2020 Engineering and Traffic Survey

Dear Mr. Stack:

As requested, Albert Grover & Associates, Inc. (AGA) has completed an Engineering and Traffic Survey to justify and update the posted speed limits along 142 street segments in the City of Tustin. The previous Citywide survey was approved in December 2014 and now requires an update to comply with the 5-year limitation set forth in the California Vehicle Code (CVC).

We are pleased to submit the enclosed report which describes the procedures and contains the recommendations for posted speed limits on the City's arterial and collector street system. A summary of these recommendations is included in the analysis. Supporting documentation for each speed zone recommendations is provided in the Appendices.

The survey was conducted in accordance with the applicable provisions of the CVC, following procedures outlined in the latest California Manual on Uniform Traffic Control Devices, as required by Section 627 of the CVC. This report is intended to satisfy the requirements of Section 40802 of the CVC to enable the continued use of radar or other electronic devices for traffic speed enforcement.

We appreciate the opportunity to serve the City of Tustin and the assistance and cooperation afforded to us during the course of this study.

Respectfully submitted,

Mark H. Miller, P.E., T.E., P.T.O.E.
Executive Vice President

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City of Tustin
Public Works Department

ENGINEERING DIVISION CERTIFICATION

I, Douglas S. Stack, have examined and reviewed the following Engineering and Traffic Survey dated January 16, 2020, for the City of Tustin. I find that this study follows the procedures established by the California Vehicle Code (CVC) and the State of California Department of Transportation (Caltrans) California Manual on Uniform Traffic Control Devices in order to establish speed limits. Further, I find that this study follows standard traffic engineering guidelines and practices and, therefore, is within the policies of the City of Tustin. I certify that this study has been conducted under my direction and that I am experienced in surveys of this type and that I am duly registered in the State of California as a professional Civil Engineer.

1-27-2020

Douglas S. Stack, P.E.
Director of Public Works/City Engineer
RCE 54637, Exp. 12/31/2021

Date

REGISTERED PROFESSIONAL ENGINEER
DOUGLAS S. STACK
No. C054637
Exp. 12/31/21
CIVIL
STATE OF CALIFORNIA

Civil Engineering Seal

TABLE OF CONTENTS

Section **Page**

1.0 Introduction 1

2.0 Study Methodology 2

3.0 Survey Results 3
- 3.1 Street Surveillance 3
- 3.2 Collision Rate Analysis 3
- 3.3 Spot Speed Survey 4

4.0 Survey Findings and Recommendations 9
- 4.1 Speed Limit Signing 9

5.0 Summary and Conclusions 15

Tables

1 Collision Survey Analysis 6

2 Segment Spot Speed Summary 11

3 Summary of Recommended Changes 15

Appendices

A Regulations Governing Speed Limits (Excerpts from California Vehicle Code)

B Speed Zoning Regulations from Caltrans California Manual on Uniform Traffic Control Devices

C Speed Limit Map

D Radar Certification

E Engineering and Traffic Survey Summary Reports

SECTION 1.0 – INTRODUCTION

The purpose of this report is to document the results of an engineering and traffic survey conducted to update selected speed limits in the City of Tustin arterial and collector street network. The study complies with existing State regulations concerning the increase or decrease of speed limits within City boundaries. The speed zone surveys were conducted by Albert Grover & Associates, Inc. (AGA). A California-registered Traffic Engineer from AGA reviewed the street conditions, survey data, and collision data to arrive at the recommended speed limits for each segment.

It is a common belief that posting of speed limit traffic signs will influence drivers to drive at the posted speed. However, the facts indicate otherwise. Nationwide, driver behavioral research conducted over several decades shows that the average driver is largely influenced by the appearance of the highway itself and the prevailing traffic conditions in choosing the speed at which he or she drives. Recognizing this, the California Vehicle Code (CVC) requires that speed limits be established in accordance with appropriate engineering practice and methods.

This report documents and satisfies conditions identified in the latest edition of the CVC, Section 627; as well as properly identifying other conditions not readily apparent to a motorist. To use radar as a legal basis for speed enforcement, Section 40802(b) of the CVC requires that speed limits be established. Per Sections 22357 and 22358 of the CVC, the limits must be justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation. However, a change in State law allows cities to extend the survey period up to seven or ten years depending on specific criteria.

According to City records, the last speed zone survey for the selected segments was prepared in 2014. This study will confirm, increase, or decrease speed limits within the City of Tustin based on its data and results. As the latest edition of the CVC has highlighted bicycle and pedestrian safety as part of the traffic and engineering survey, this aspect was also considered in this report. For further details on the relevant CVC sections, see **Appendix A**.

At 142 locations on the City's network, spot speed surveys were taken in conformance with State law for conducting engineering and traffic surveys to establish prima facie speed limits. The data and analysis were collected per procedures and methodologies outlined in the 2014 California Manual of Uniform Traffic Control Devices (CA MUTCD) Revision 2. Sections of the CA MUTCD detailing regulations for conducting the required "Engineering and Traffic Survey" are presented in **Appendix B**, along with definitions of terms used in speed zone surveys.

Following the data collection period for this study, three new roadway segments were opened. While they are not included in the discussion of this report, a subsequent study will be conducted and include the following segments:

- Armstrong Avenue between Warner Avenue and Barranca Parkway
- Moffett Drive between Tustin Ranch Road and Meridian Way-Sonora Street
- Park Avenue between Moffett Drive and Victory Road

SECTION 2.0 – STUDY METHODOLOGY

The study involved three categories of data collection and analysis: (1) geometric and characteristic street surveillance; (2) collision rate analysis; and (3) spot speed survey.

The street surveillance process used field observations to determine the existing roadway characteristics, condition and placement of signs and pavement markings, land uses, pedestrian and bicycle activity, and other roadway characteristics that may not be readily apparent to motorists.

Historical collision data was obtained from the City of Tustin Police Department for the period from July 1, 2016 through June 30, 2019 (i.e., three years) for all roadway segments. The collision rate was calculated and considered in recommending the speed limit by using the average daily traffic (ADT) volumes collected by the City in 2018 and the historical collision data.

Spot speed surveys, utilizing a calibrated radar gun, were conducted at 142 locations to determine existing vehicular travel speeds. A copy of the "Traffic Radar Certification" is provided in **Appendix D**. Typically, a minimum of 100 observations were recorded, 50 for each direction of travel, on all the streets included in the study. This data was used to calculate statistical information such as the 85th percentile travel speed, 10 mile per hour (mph) pace speed, percentage of vehicles within the 10 mph pace, median speed, and other pertinent data for analysis.

SECTION 3.0 – SURVEY RESULTS

3.1 Street Surveillance

Section 2B.13 of the 2014 CA MUTCD Revision 2, "Speed Limit Signs," states that speed limits should be established based on speeds recorded during the spot speed survey. However, in considering existing conditions along with the traffic safety needs of the community, engineering judgment may indicate the need for a further reduction in speed. Whenever such factors are considered to establish the speed limit, they are documented on the speed survey or in the accompanying engineering report.

In order to assess their traffic and geometric characteristics, a California registered Traffic Engineer from AGA reviewed the streets. The roadway characteristics, location of speed limit signs, type of area adjoining the street (commercial, residential, school zone, parks, etc.) and type of roadway (divided, undivided, number of lanes, etc.) were recorded along with notes regarding other conditions not readily apparent to the driver. The roadway characteristics recorded were used to determine if any physical conditions warranted consideration of an additional five mph reduction of the recommended speed, in accordance with CVC Section 627.

The speed survey segment roadway characteristics for each segment are indicated on the Engineering and Speed Survey Summary Reports in **Appendix E**.

3.2 Collision Rate Analysis

The collision rate for each speed survey segment was determined using the most recent collision records as required by CVC Section 627. The mid-block collision totals are based on a review of the collision reports from the City of Tustin Police Department from July 1, 2016 to June 30, 2019. Subsequently, these totals were used to calculate the mid-block collision rate, which also uses ADT volume data. The mid-block collision rate for each street surveyed was calculated in terms of "collisions per million vehicle miles traveled" (C/MVM) and is shown on the Engineering and Traffic Survey Summary Reports. The following shows a sample calculation.

The rate was calculated using the following equation:

$$\text{Collision Rate} = \frac{\text{Number of Midblock Collisions} \times 10^6}{\text{24-hour volume} \times 365 \times \text{segment length} \times \text{number of years}}$$

The number of mid-block collisions is based on three years' collision data (July 1, 2016 to June 30, 2019), recent 24-hour traffic volume (for both directions) within the survey segment, and the segment's length given in miles.

Example:

Segment: Armstrong Avenue between Warner Avenue and Valencia Avenue:

Collision Rate $= \frac{1 \times 10^6}{2{,}400 \times 365 \times 0.60 \times 3}$

$=$ **0.63 C/MVM**

The Average Expected Collision Rate for this segment is 3.58 and is based on data of countywide crash statistics. Therefore, the calculated collision rate of 0.63 is well below the expected rate for this segment.

The results of the collision rate calculations, including the Average Expected Collision Rates for each type of roadways, are shown in **Table 1** and detailed in Appendix E. The following Average Expected Collision Rates were obtained from "2015 Collision Data on California State Highways" for Orange County published by the California Department of Transportation (Caltrans):

- 4 or more lanes, divided roadway: 1.50 C/MVM
- 4 or more lanes, undivided roadway: 3.58 C/MVM
- 2 and 3 lanes: 1.26 C/MVM

Nearly all of the segments had collision rates well below the expected rates. Those segments with rates just below the expected rate or slightly above it, are considered within an acceptable range and do not call for additional considerations.

3.3 Spot Speed Survey

Spot speed surveys were conducted at each street segment to assess the actual behavior of the majority of motorists. A reasonable and effective speed limit is based on the premise that a speed limit, thus established, conforms to the actual behavior of the majority of motorists. The speed limit should typically be established at the five mph increment nearest the 85th percentile speed recorded for the surveyed segment. However, engineering judgment and other factors such as street surveillance (Section 3.1) and collision rates (Section 3.2) may indicate the need for further reduction in establishing reasonable and effective speed limits.

The criteria used in conducting the radar survey are listed in Appendix B. The information collected and data calculated for the radar speed survey are as follows:

- Date and time of speed survey
- Direction of survey
- Number of vehicles observed
- Pedestrian and bicycle activity
- Road description
- Average Daily Traffic
- Collision history
- Collision rate

- Posted speed limit
- Average speed
- Range of speeds
- 50th Percentile speed
- 85th percentile speed
- 10 mph pace speed
- Percent over pace speed

Appendix E contains information about vehicular speed data observed, collision data, street classification, and any unusual conditions at the location.

City of Tustin
Table 1. 2020 Speed Zone Survey - Collision Survey Analysis

Street	No.	Location	Distance (mile)	Distance (feet)	ADT	Collisions[1] 3 yrs Total	Collision Rate	Expected[2] Col. Rate
Armstrong Avenue	1	Warner Avenue to Valencia Avenue	0.60	3,168	2,400	1	0.63	3.58
Auto Center Drive (East)	2	El Camino Real to Auto Center Drive South	0.20	1,056	3,500 [3]	1	1.30	1.26
Auto Center Drive (North)	3	North Intersection to Auto Center Drive West	0.10	528	4,100 [3]	1	2.23	1.26
Auto Center Drive (South)	4	West Intersection to End of Street	0.20	1,056	2,800 [3]	2	3.26	1.26
Browning Avenue	5	Bryan Avenue to El Camino Real	0.50	2,640	3,300	4	2.21	3.58
	6	Nisson Road to Walnut Avenue	0.50	2,640	5,700	4	1.28	3.58
Bryan Avenue	7	Newport Avenue to Main Street	0.10	528	9,100	2	2.01	1.26
	8	Main Street to Red Hill Avenue	0.35	1,848	14,400	2	0.36	3.58
	9	Red Hill Avenue to Farmington Road	0.40	2,112	17,200	3	0.40	3.58
	10	Farmington Road to Browning Avenue	0.25	1,320	17,200	0	0.00	3.58
	11	Browning Avenue to Myford Road	0.75	3,960	18,300	3	0.20	1.50
	12	Myford Road to Jamboree Road	0.30	1,584	18,400	3	0.50	1.50
Centennial Way	13	First Street to Main Street	0.25	1,320	4,000	3	2.74	1.26
Chambers Road	14	Michelle Drive to Franklin Avenue	0.30	1,584	1,500 [3]	0	0.00	1.26
Del Amo Avenue	15	Edinger Avenue to Newport Avenue-SR-55 Ramps	0.40	2,112	5,200	0	0.00	3.58
Dow Avenue	16	Franklin Avenue to Myford Road	0.60	3,168	1,900 [3]	1	0.80	1.26
Edinger Avenue	17	W/O Newport Avenue-WCL to Red Hill Avenue	0.25	1,320	29,300	1	0.12	1.50
	18	Red Hill Avenue to 1500' E/O Red Hill Avenue	0.30	1,584	27,200	5	0.56	1.50
	19	1500' E/O Red Hill Avenue to Kensington Park Drive	0.45	2,376	27,200	4	0.30	1.50
	20	Kensington Park Drive to Jamboree Road	1.00	5,280	26,100	9	0.31	1.50
	21	Jamboree Road to Harvard Avenue	0.30	1,584	26,200	2	0.23	1.50
El Camino Real	22	First Street to Main Street	0.25	1,320	4,700	1	0.78	1.26
	23	Main Street to Newport Avenue	0.30	1,584	9,600	4	1.27	1.26
	24	Newport Avenue to Red Hill Avenue	0.51	2693	13,200	13	1.76	3.58
	25	Red Hill Avenue to Browning Avenue	0.50	2,640	9,600	7	1.33	3.58
	26	Browning Avenue to Tustin Ranch Road	0.45	2,376	6,600	1	0.31	3.58
	27	Tustin Ranch Road to Myford Road	0.25	1,320	12,500	0	0.00	3.58
	28	Myford Road to Jamboree Road	0.30	1,584	12,500	0	0.00	1.50
First Street	29	W/O Tustin Avenue to El Camino Real	0.54	2,851	17,700	8	0.76	1.50
	30	El Camino Real to Centennial Way	0.28	1,478	17,400	6	1.12	1.50
	31	Centennial Way to Newport Avenue	0.24	1,267	14,300	4	1.06	1.50
	32	Newport Avenue to Charloma Drive	0.50	2,640	4,900	2	0.75	3.58
Franklin Avenue	33	Michelle Drive to Walnut Avenue	0.50	2,640	5,400	1	0.34	1.26
	34	Walnut Avenue to Dow Avenue	0.25	1,320	6,400	3	1.71	1.26
Heritage Way	35	Tustin Ranch Road to Myford Road	0.30	1,584	1,900	0	0.00	1.26
	36	Myford Road to Bryan Avenue	0.25	1,320	1,000	0	0.00	1.26
Holt Avenue	37	N/O Warren Avenue to Irvine Boulevard	0.50	2,640	11,000	6	1.00	3.58
	38	Irvine Boulevard to Newport Avenue	0.10	528	5,000	1	1.83	3.58
Irvine Boulevard	39	SR-55 (West City Limit) to Prospect Avenue	0.58	3,062	31,000	6	0.30	1.50
	40	Prospect Avenue to Newport Avenue	0.60	3,168	28,500	8	0.43	1.50
	41	Newport Avenue to Charloma Drive	0.30	1,584	38,800	9	0.71	1.50
	42	Charloma Drive to Red Hill Avenue	0.13	686	38,800	8	1.45	3.58
	43	Browning Avenue to Tustin Ranch Road	0.79	4,171	35,000	3	0.10	3.58
	44	Tustin Ranch Road to Jamboree Road	0.64	3,379	27,400	8	0.42	1.50

[1] Collision Data from July 1, 2016 to June 30, 2019
[2] Source: Caltrans 2015
[3] City of Tustin ADT - 2015

City of Tustin
Table 1. 2020 Speed Zone Survey - Collision Survey Analysis

Street	No.	Location	Distance (mile)	Distance (feet)	ADT	Collisions[1] 3 yrs Total	Collision Rate	Expected[2] Col. Rate
Jamboree Road	45	North City Limit to Pioneer Road	0.51	2,693	20,200	2	0.18	1.50
	46	Pioneer Road to Patriot Way	0.63	3,326	20,200	6	0.43	1.50
	47	Patriot Way to Tustin Ranch Road	0.75	3,960	22,300	0	0.00	1.50
	48	Tustin Ranch Road to Champion Way	0.62	3,274	24,300	3	0.18	1.50
	49	Champion Way to Irvine Boulevard	0.35	1,848	28,900	4	0.36	1.50
	50	Irvine Boulevard to Bryan Avenue	0.39	2,059	42,000	4	0.22	1.50
	51	Bryan Avenue to I-5 (City Limit)	0.30	1,584	66,700	1	0.05	1.50
	52	OCTA/SCRRA Railway to Barranca Parkway	1.60	8,448	83,700	27	0.18	1.50
Keller Drive	53	Robinson Drive to Jamboree Road	0.25	1,320	500	1	7.31	1.26
Kensington Park Drive	54	Valencia Avenue to Edinger Avenue	0.20	1,056	7,100	0	0.00	3.58
Legacy Road	55	Warner Avenue to Tustin Ranch Road	0.30	1,584	3,800	4	3.20	3.58
Main Street	56	West City Limit to Williams Street	0.24	1,267	11,900	4	1.28	1.26
	57	Williams Street to Myrtle Avenue	0.46	2,429	11,900	4	0.67	1.26
	58	Myrtle Avenue to Prospect Avenue	0.53	2,798	11,900	7	1.01	1.26
	59	Prospect Avenue to Newport Avenue	0.25	1,320	12,500	8	2.34	3.58
	60	Newport Avenue to Bryan Avenue	0.30	1,584	11,100	10	2.74	3.58
McFadden Avenue	61	West City Limit to SR-55	0.60	3,168	25,200	0	0.00	3.58
	62	SR-55 to Newport Avenue	0.40	2,112	17,800	0	0.00	3.58
Michelle Drive	63	Chambers Road to Franklin Avenue	0.10	528	5,400	1	1.69	1.26
	64	Franklin Avenue to Myford Road-East City Limit	0.20	1,056	5,400	0	0.00	3.58
Mitchell Avenue	65	Newport Avenue to Red Hill Avenue	0.50	2,640	5,900	9	2.79	1.26
	66	Red Hill Avenue to Browning Avenue	0.50	2,640	3,400	7	3.76	1.26
Myford Road	67	Irvine Boulevard to Bryan Avenue	0.40	2,112	5,600	1	0.41	3.58
	68	Bryan Avenue to El Camino Real	0.10	528	4,500	0	0.00	3.58
	69	Michelle Drive to Dow Avenue	0.70	3,696	2,800	0	0.00	3.58
Newport Avenue	70	N/O Warren Avenue to Old Irvine Boulevard	0.30	1,584	30,200	10	1.01	3.58
	71	Old Irvine Boulevard to Bryan Avenue	0.80	4,224	27,200	8	0.34	1.50
	72	Bryan Avenue to El Camino Real	0.50	2,640	28,500	8	0.51	1.50
	73	El Camino Real to Sycamore Avenue	0.70	3,696	28,800	24	1.09	3.58
	74	Sycamore Avenue to 1100' S/O Sycamore Avenue	0.20	1,056	11,000	5	2.08	1.26
	75	Edinger Avenue to Del Amo Avenue-SR-55 Ramps	0.20	1,056	13,800	1	0.33	1.50
	76	Del Amo Avenue-SR-55 Ramps to Valencia Avenue	0.20	1,056	11,000	1	0.42	1.50
Nisson Road	77	Pasadena Avenue to just north of B Street	0.30	1,584	3,700	2	1.65	1.26
	78	Newport Avenue to Red Hill Avenue	0.50	2,640	5,800	12	3.78	1.26
	79	Red Hill Avenue to Browning Avenue	0.50	2,640	4,200	6	2.61	1.26
Old Irvine Boulevard	80	Newport Avenue to Irvine Boulevard	0.10	528	12,600	0	0.00	3.58
Park Avenue	81	Victory Road to Warner Avenue	0.30	1,584	7,900	2	0.77	1.50
	82	Warner Avenue to District Drive	0.30	1,584	11,300	5	1.35	3.58
	83	District Drive to Tustin Ranch Road	0.15	792	15,800	0	0.00	1.50
Parkcenter Lane	84	Tustin Ranch Road to Bryan Avenue	0.25	1,320	1,400	2	5.22	1.26
	85	Bryan Avenue to El Camino Real	0.25	1,320	1,700	1	2.15	1.26
Pasadena Avenue	86	McFadden Avenue to Sycamore Avenue	0.25	1,320	13,600	8	2.15	3.58
Patriot Way	87	Pioneer Road to Jamboree Road	0.10	528	2,200	0	0.00	1.26
Pioneer Road	88	Jamboree Road to Patriot Way	0.60	3,168	2,100	1	0.72	1.26
	89	Patriot Way to Peters Canyon Road	0.50	2,640	2,900	0	0.00	1.26
	90	Peters Canyon Road to Pioneer Way	0.30	1,584	6,200	3	1.47	1.26
Pioneer Way	91	Tustin Ranch Road to Pioneer Road	0.10	528	10,700	0	0.00	1.50
Portola Parkway	92	Tustin Ranch Road to Jamboree Road	0.25	1320	11,700	0	0.00	1.50

[1] Collision Data from July 1, 2016 to June 30, 2019
[2] Source: Caltrans 2015
[3] City of Tustin ADT - 2015

City of Tustin
Table 1. 2020 Speed Zone Survey - Collision Survey Analysis

Street	No.	Location	Distance (mile)	Distance (feet)	ADT	Collisions[1] 3 yrs Total	Collision Rate	Expected[2] Col. Rate
Prospect Avenue	93	Anglin Lane-NCL to 17th Street	0.20	1056	8,800	0	0.00	1.26
	94	17th Street to Amaganset Way	0.50	2640	12,000	5	0.76	3.58
	95	Amaganset Way to Irvine Boulevard	0.20	1056	12,000	0	0.00	3.58
	96	Irvine Boulevard to First Street	0.15	792	9,500	3	1.92	3.58
	97	First Street to Main Street	0.25	1320	3,800	2	1.92	1.26
Red Hill Avenue	98	N/O Irvine Boulevard to Bryan Avenue	0.50	2640	17,300	8	0.84	3.58
	99	Bryan Avenue to El Camino Real	0.40	2112	25,300	8	0.72	3.58
	100	El Camino Real to Mitchell Avenue	0.30	1584	34,600	8	0.70	3.58
	101	Mitchell Avenue to Walnut Avenue	0.25	1320	24,100	4	0.61	3.58
	102	Walnut Avenue to Sycamore Avenue	0.25	1320	26,600	6	0.82	1.50
	103	Sycamore Avenue to Edinger Avenue	0.30	1584	26,600	2	0.23	1.50
	104	Edinger Avenue to Valencia Avenue	0.40	2112	21,300	1	0.11	1.50
	105	Valencia Avenue to Warner Avenue	0.50	2640	24,700	3	0.22	1.50
	106	Warner Avenue to Barranca Parkway	0.50	2640	26,300	3	0.21	3.58
Robinson Drive	107	Irvine Boulevard to Jamboree Road	0.50	2640	4,600	1	0.40	3.58
San Juan Street	108	Newport Avenue to Red Hill Avenue	0.50	2640	3,700	1	0.49	1.26
	109	Red Hill Avenue to Browning Avenue	0.50	2640	2,800	4	2.61	1.26
17th Street	110	SR-55-West City Limit to Yorba Street North	0.10	528	34,800	0	0.00	1.50
	111	Yorba Street North to Prospect Avenue North	0.46	2429	36,500	6	0.33	1.50
Sycamore Avenue	112	Newport Avenue to Red Hill Avenue	0.50	2640	8,700	12	2.52	3.58
Tustin Ranch Road	113	Jamboree Road to Rawlings Way	0.73	3854	17,700	2	0.14	1.50
	114	Rawlings Way to La Colina Drive	0.63	3326	17,700	2	0.16	1.50
	115	La Colina Drive to Irvine Boulevard	0.30	1584	24,000	2	0.25	1.50
	116	Irvine Boulevard to Bryan Avenue	0.50	2640	26,200	3	0.21	1.50
	117	Bryan Avenue to I-5	0.28	1478	41,500	3	0.24	1.50
	118	I-5 to Walnut Avenue	0.80	4224	39,900	3	0.09	1.50
	119	Walnut Avenue to Valencia Avenue	0.75	3960	31,600	8	0.31	1.50
	120	Valencia Avenue to Victory Road	0.50	2640	29,700	1	0.06	1.50
	121	Victory Road to Warner Avenue	0.30	1584	29,700	2	0.20	1.50
	122	Warner Avenue to Park Avenue	0.30	1584	20,900	0	0.00	1.50
	123	Park Avenue to Barranca Parkway	0.20	1056	25,900	2	0.35	3.58
Valencia Avenue	124	Newport Avenue to Red Hill Avenue	0.30	1584	11,400	3	0.80	3.58
	125	Red Hill Avenue to Armstrong Avenue-Severyns Road	0.35	1848	9,400	0	0.00	1.50
	126	Armstrong Avenue-Severyns Road to Kensington Park Drive	0.47	2482	9,100	0	0.00	3.58
	127	Kensington Park Drive to Tustin Ranch Road	0.15	792	11,100	0	0.00	1.50
Vandenberg Lane	128	Yorba Street to Prospect Avenue	0.25	1320	3,500	1	1.57	1.26
Victory Road	129	Tustin Ranch Road to Park Avenue	0.20	1056	2,700	0	0.00	3.58
	130	Red Hill Avenue to Armstrong Avenue	0.35	1848	600	0	0.00	1.50
Walnut Avenue	131	Newport Avenue to Red Hill Avenue	0.50	2640	17,400	27	2.83	3.58
	132	Red Hill Avenue to Browning Avenue	0.50	2640	15,700	4	0.47	3.58
	133	Browning Avenue to Tustin Ranch Road	0.40	2112	17,700	1	0.13	1.50
	134	Tustin Ranch Road to Myford Road	0.50	2640	24,400	5	0.37	1.50
Warner Avenue	135	Red Hill Avenue to Tustin Ranch Road	1.06	5597	9,500	1	0.09	1.50
	136	Tustin Ranch Road to Park Avenue	0.10	528	19,000	0	0.00	1.50
Williams Street	137	Main Street to McFadden Avenue	0.50	2640	7,700	22	5.22	1.26
Yorba Street	138	S/O Santa Clara Ave (North City Limit) to 17th Street	0.50	2640	9,300	3	0.59	3.58
	139	17th Street to Jacaranda Avenue	0.25	1320	8,000	2	0.91	3.58
	140	Jacaranda Avenue to Amaganset Way	0.35	1848	6,300	0	0.00	3.58
	141	Amaganset Way to Irvine Boulevard	0.15	792	6,300	1	0.97	3.58
	142	Irvine Boulevard to First Street	0.15	792	8,200	0	0.00	3.58

[1] Collision Data from July 1, 2016 to June 30, 2019
[2] Source: Caltrans 2015
[3] City of Tustin ADT - 2015

SECTION 4.0 – SURVEY FINDINGS AND RECOMMENDATIONS

In accordance with the State-imposed speed limit establishment regulation, as defined by CVC Section 627 (Appendix A), several factors may be considered to justify setting the prima facie speed limits more than five mph below the observed 85th percentile speed.

It should be noted that the regulations in Appendix B also state that the *maximum* permissible lowering of the proposed speed limit from the 85th percentile is 10 miles per hour. The factors to be considered when setting the speed limit are:

- Most recent collision record (mid-block)
- Roadway design speed
- Safe stopping sight distance
- Super-elevation
- Grades
- Shoulder condition
- Profile condition
- Intersection spacing offsets
- Commercial driveway characteristics (land use)
- Pedestrian traffic with and without sidewalks
- Pedestrian and bicycle safety

The above factors for each roadway segment surveyed are listed in the Engineering and Speed Survey Summary sheets. The 85th percentile speed and the above factors were considered in verifying existing speed limits and recommending speed limit changes (increase or decrease). Additionally, discussions were held with City staff in making decisions with respect to changing existing speed limits. Allowing for consideration of any special circumstances regarding the segment that were not immediately observed or discovered by AGA. The Speed Zone Survey – Collision Survey Analysis (Table 1) lists the total number of collisions, calculated collision rate, and the expected collision rate. **Table 2** shows the surveyed road segments with posted and recommended speed limits.

4.1 Speed Limit Signing

All California motorists are required to know the basic 15, 25, 55, and 65 mph speed laws and are tested on the subject when applying for a driver's license. The maximum speed limit on most California highways is 65 mph; however, drivers are permitted to travel 70 mph where posted. Unless otherwise posted, the maximum speed limit is 55 mph on two-lane undivided highways and for vehicles towing trailers. Likewise, the 15 mph speed limit applies to uncontrolled railway crossings, alleyways, and blind, uncontrolled intersections. Again, the 25 mph speed limit applies to business areas, residential areas, school zones, and areas immediately around senior centers. Consequently, speed limit signs covering these conditions need not be posted on City streets. Although not required by law, speed limit signs for these limits can be posted by a jurisdiction when an engineer determines that doing so would enhance public awareness and compliance of the basic

speed law. Typically, such postings occur upon streets that have significant daily vehicular traffic volumes, cut-through traffic problems, significant grades, continued violation of residential 25 mph speed zones, or other unusual environmental or traffic flow characteristics. It is normal engineering practice to recommend the posting of speed limit signs only on streets that have specific speed limits enacted by City ordinance or determined to be justified by an engineer.

Speed limit signs should be installed at approximately half-mile intervals on streets which have been speed zoned. Signs are typically installed at the beginning of the speed zone on the departure side of a traffic signal controlled intersection. It is also advisable to install signs at key intersections where there is high side-street vehicle entry. It is important that motorists be given adequate notice of the speed limit without over-signing, which increases maintenance costs and rarely results in increased compliance.

The CA MUTCD outlines speed limit sign size specifications based on the type of roadways. Sign sizes vary from a minimum of 24 inches by 30 inches on a single lane conventional roadway to 48 inches by 60 inches on a freeway. It is also important to post signs in a manner such that they are clearly visible to approaching traffic from a distance. Care should be taken to maintain landscaping and ensure vegetation does not grow to block the motorist's view of signs. In certain circumstances, when an engineer has determined that additional motorist awareness of the speed limit is needed, the speed limit can also be painted on the roadway immediately adjacent to a speed limit sign.

Enforcement problems can occur when: (a) the highway is posted with inappropriate speed limit signs, (b) the highway speed limit is improperly or inadequately posted, or (c) the highway speed limit is not posted nor covered by ordinance and therefore falls under the basic speed law. In any of these events, the result is a debatable validity that may be questioned in court cases where citations are issued and contested.

Table 2: 2020 City of Tustin Segment Spot Speed Survey

Street	No	Location	Direction	Date	10-Mile Pace (mph)	% in 10-Mile Pace	50th % Tile (mph)	85th % Tile (mph)	Posted Speed Limit (mph)	Recommended Speed Limit (mph)	Comments
Armstrong Avenue	1	Warner Avenue to Valencia Avenue	N/S	8/19/2019	42-51	77	44	49	45	45	No change, 85th percentile, CVC 21400(b)
Auto Center Drive (East)	2	El Camino Real to Auto Center Drive South	N/S	8/19/2019	26-35	68	28	33	30	30	No change, 85th percentile, CVC 21400(b)
Auto Center Drive (North)	3	North Intersection to Auto Center Drive West	E/W	8/19/2019	24-33	77	28	32	30	30	No change, 85th percentile
Auto Center Drive (South)	4	West Intersection to End of Street	E/W	8/19/2019	22-31	81	25	30	30	30	No change, 85th percentile
Browning Avenue	5	Bryan Avenue to El Camino Real	E/W	8/30/2019	32-41	65	36	42	40	40	No change, 85th percentile
	6	Nisson Road to Walnut Avenue	E/W	8/30/2019	27-36	95	31	34	30	30	No change, 85th percentile, CVC 21400(b)
Bryan Avenue	7	Newport Avenue to Main Street	N/S	8/27/2019	28-37	78	32	36	35	35	No change, 85th percentile
	8	Main Street to Red Hill Avenue	N/S	8/30/2019	37-46	74	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	9	Red Hill Avenue to Farmington Road	N/S	8/30/2019	38-47	79	41	46	45	45	No change, 85th percentile
	10	Farmington Road to Browning Avenue	N/S	8/30/2019	38-47	77	42	46	45	45	No change, 85th percentile
	11	Browning Avenue to Myford Road	N/S	8/30/2019	39-48	83	43	47	45	45	No change, 85th percentile
	12	Myford Road to Jamboree Road	N/S	9/17/2019	38-47	78	41	47	45	45	No change, 85th percentile
Centennial Way	13	First Street to Main Street	N/S	9/4/2019	24-33	85	28	32	30	30	No change, 85th percentile
Chambers Road	14	Michelle Drive to Franklin Avenue	N/S	9/17/2019	31-40	78	34	38	30	35	Increase, 85th percentile, CVC 21400(b)
Del Amo Avenue	15	Edinger Avenue to Newport Avenue-SR-55 Ramps	N/S	9/20/2019	35-44	72	38	43	35	40	Increase, 85th percentile, CVC 21400(b)
Dow Avenue	16	Franklin Avenue to Myford Road	N/S	9/20/2019	33-42	78	36	41	40	40	No change, 85th percentile
Edinger Avenue	17	W/O Newport Avenue-WCL to Red Hill Avenue	E/W	8/29/2019	39-48	67	43	49	50	50	No change, 85th percentile
	18	Red Hill Avenue to 1500' E/O Red Hill Avenue	E/W	8/26/2019	46-55	63	48	54	50	50	No change, 85th percentile, CVC 21400(b)
	19	1500' E/O Red Hill Avenue to Kensington Park Drive	E/W	8/26/2019	46-55	74	49	54	50	50	No change, 85th percentile, CVC 21400(b)
	20	Kensington Park Drive to Jamboree Road	E/W	8/26/2019	49-58	57	52	59	55	55	No change, 85th percentile, CVC 21400(b)
	21	Jamboree Road to Harvard Avenue	E/W	9/19/2019	42-51	64	44	50	50	50	No change, 85th percentile
El Camino Real	22	First Street to Main Street	N/S	8/23/2019	19-28	82	23	27	25	25	No change, 85th percentile
	23	Main Street to Newport Avenue	N/S	8/23/2019	25-34	83	28	32	30	30	No change, 85th percentile
	24	Newport Avenue to Red Hill Avenue	N/S	8/23/2019	37-46	81	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	25	Red Hill Avenue to Browning Avenue	N/S	8/23/2019	36-45	75	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	26	Browning Avenue to Tustin Ranch Road	N/S	9/18/2019	35-44	81	38	43	40	40	No change, 85th percentile, CVC 21400(b)
	27	Tustin Ranch Road to Myford Road	N/S	9/18/2019	34-43	78	38	43	40	40	No change, 85th percentile, CVC 21400(b)
	28	Myford Road to Jamboree Road	N/S	9/19/2018	30-39	73	35	39	35	35	No change, 85th percentile, CVC 21400(b)
First Street	29	W/O Tustin Avenue to El Camino Real	E/W	9/24/2019	33-42	88	35	39	35	35	No change, 85th percentile, CVC 21400(b)
	30	El Camino Real to Centennial Way	E/W	9/9/2019	31-40	82	34	38	35	35	No change, 85th percentile, CVC 21400(b)
	31	Centennial Way to Newport Avenue	E/W	9/9/2019	31-40	78	34	39	35	35	No change, 85th percentile, CVC 21400(b)
	32	Newport Avenue to Charloma Drive	E/W	9/9/2019	27-36	98	30	33	30	30	No change, 85th percentile, CVC 21400(b)
Franklin Avenue	33	Michelle Drive to Walnut Avenue	E/W	9/20/2019	31-40	82	35	39	35	35	No change, 85th percentile, CVC 21400(b)
	34	Walnut Avenue to Dow Avenue	E/W	9/20/2019	32-41	75	35	40	35	35	No change, collisions higher than anticipated

Table 2: 2020 City of Tustin Segment Spot Speed Survey

Street	No	Location	Direction	Date	10-Mile Pace (mph)	% in 10-Mile Pace	50th % Tile (mph)	85th % Tile (mph)	Posted Speed Limit (mph)	Recommended Speed Limit (mph)	Comments
Heritage Way	35	Tustin Ranch Road to Myford Road	N/S	8/23/2019	31-40	75	36	39	35	35	No change, 85th percentile, CVC 21400(b)
	36	Myford Road to Bryan Avenue	N/S	8/23/2019	26-35	67	30	36	35	35	No change, 85th percentile
Holt Avenue	37	N/O Warren Avenue to Irvine Boulevard	N/S	8/30/2019	36-45	78	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	38	Irvine Boulevard to Newport Avenue	N/S	9/4/2019	25-34	85	28	32	30	30	No change, 85th percentile
Irvine Boulevard	39	SR-55 (West City Limit) to Prospect Avenue	E/W	8/21/2019	35-44	74	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	40	Prospect Avenue to Newport Avenue	E/W	8/21/2019	36-45	78	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	41	Newport Avenue to Charloma Drive	E/W	8/21/2019	35-44	76	38	43	40	40	No change, 85th percentile, CVC 21400(b)
	42	Charloma Drive to Red Hill Avenue	E/W	8/21/2019	37-46	78	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	43	Browning Avenue to Tustin Ranch Road	E/W	8/22/2019	39-48	65	42	47	45	45	No change, 85th percentile
	44	Tustin Ranch Road to Jamboree Road	E/W	8/22/2019	38-47	73	43	47	45	45	No change, 85th percentile
Jamboree Road	45	North City Limit to Pioneer Road	N/S	8/27/2019	51-60	82	54	58	55	55	No change, 85th percentile, CVC 21400(b)
	46	Pioneer Road to Patriot Way	N/S	8/26/2019	52-61	68	54	59	55	55	No change, 85th percentile, CVC 21400(b)
	47	Patriot Way to Tustin Ranch Road	N/S	8/26/2019	50-59	85	53	56	55	55	No change, 85th percentile
	48	Tustin Ranch Road to Champion Way	N/S	9/12/2019	44-53	63	48	54	50	50	No change, 85th percentile, CVC 21400(b)
	49	Champion Way to Irvine Boulevard	N/S	9/13/2019	46-55	74	50	54	50	50	No change, 85th percentile, CVC 21400(b)
	50	Irvine Boulevard to Bryan Avenue	N/S	9/13/2019	40-49	72	43	48	45	45	No change, 85th percentile, CVC 21400(b)
	51	Bryan Avenue to I-5 (City Limit)	N/S	9/17/2019	36-45	75	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	52	OCTA/SCRRA Railway to Barranca Parkway	N/S	8/26/2019	52-61	62	54	60	60	60	No change, 85th percentile
Keller Drive	53	Robinson Drive to Jamboree Road	N/S	11/7/2019	29-38	81	32	35	30	30	No change, 85th percentile, high collision rate
Kensington Park Drive	54	Valencia Avenue to Edinger Avenue	E/W	9/19/2019	31-40	77	36	39	40	40	No change, 85th percentile
Legacy Road	55	Warner Avenue to Tustin Ranch Road	N/S	9/24/2019	31-40	79	35	39	35	35	No change, 85th percentile, CVC 21400(b)
Main Street	56	West City Limit to Williams Street	E/W	9/23/2019	31-40	80	34	39	35	35	No change, 85th percentile, CVC 21400(b)
	57	Williams Street to Myrtle Avenue	E/W	8/26/2019	33-45	94	37	39	35	35	No change, 85th percentile, CVC 21400(b)
	58	Myrtle Avenue to Prospect Avenue	E/W	12/20/2019	27-36	93	30	33	30	30	No change, 85th percentile, CVC 21400(b)
	59	Prospect Avenue to Newport Avenue	E/W	9/24/2019	32-41	78	35	39	35	35	No change, 85th percentile, CVC 21400(b)
	60	Newport Avenue to Bryan Avenue	E/W	9/23/2019	32-41	87	36	39	35	35	No change, 85th percentile, CVC 21400(b)
McFadden Avenue	61	West City Limit to SR-55	E/W	9/24/2019	32-41	89	36	39	35	35	No change, 85th percentile, CVC 21400(b)
	62	SR-55 to Newport Avenue	E/W	9/24/2019	31-40	90	65	39	35	35	No change, 85th percentile, CVC 21400(b)
Michelle Drive	63	Chambers Road to Franklin Avenue	N/S	9/13/2019	33-42	65	36	42	40	40	No change, 85th percentile
	64	Franklin Avenue to Myford Road-East City Limit	N/S	9/25/2019	37-46	70	41	46	45	45	No change, 85th percentile
Mitchell Avenue	65	Newport Avenue to Red Hill Avenue	N/S	9/25/2019	28-37	83	31	34	30	30	No change, 85th percentile, CVC 21400(b)
	66	Red Hill Avenue to Browning Avenue	N/S	9/25/2019	26-35	81	30	34	30	30	No change, 85th percentile, CVC 21400(b)
Myford Road	67	Irvine Boulevard to Bryan Avenue	N/S	9/18/2019	36-45	83	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	68	Bryan Avenue to El Camino Real	N/S	9/18/2019	31-40	74	33	38	35	35	No change, 85th percentile, CVC 21400(b)
	69	Michelle Drive to Dow Avenue	N/S	9/18/2019	36-45	75	37	42	40	40	No change, 85th percentile

Table 2: 2020 City of Tustin Segment Spot Speed Survey

Street	No	Location	Direction	Date	10-Mile Pace (mph)	% in 10-Mile Pace	50th % Tile (mph)	85th % Tile (mph)	Posted Speed Limit (mph)	Recommended Speed Limit (mph)	Comments
Newport Avenue	70	N/O Warren Avenue to Old Irvine Boulevard	N/S	8/30/2019	41-50	78	43	48	40	45	Increase, 85th percentile, CVC 21400(b)
	71	Old Irvine Boulevard to Bryan Avenue	N/S	8/30/2019	33-42	81	35	39	35	35	No change, 85th percentile, CVC 21400(b)
	72	Bryan Avenue to El Camino Real	N/S	8/27/2019	31-40	84	35	39	35	35	No change, 85th percentile, CVC 21400(b)
	73	El Camino Real to Sycamore Avenue	N/S	8/29/2019	31-40	86	34	38	35	35	No change, 85th percentile, CVC 21400(b)
	74	Sycamore Avenue to 1100' S/O Sycamore Avenue	N/S	8/29/2019	23-32	78	27	31	35	30	Decrease, 85th percentile, high collision rate
	75	Edinger Avenue to Del Amo Avenue-SR-55 Ramps	N/S	8/29/2019	32-41	80	35	39	35	35	No change, 85th percentile, CVC 21400(b)
	76	Del Amo Avenue-SR-55 Ramps to Valencia Avenue	N/S	8/29/2019	32-41	84	35	39	35	35	No change, 85th percentile, CVC 21400(b)
Nisson Road	77	Pasadena Avenue to just north of B Street	N/S	12/20/2019	29-38	76	33	37	35	35	No change, 85th percentile
	78	Newport Avenue to Red Hill Avenue	N/S	8/20/2019	32-41	79	36	39	35	35	No change, 85th percentile, CVC 21400(b)
	79	Red Hill Avenue to Browning Avenue	N/S	8/20/2019	32-41	87	34	39	35	35	No change, 85th percentile, CVC 21400(b)
Old Irvine Boulevard	80	Newport Avenue to Irvine Boulevard	E/W	8/30/2019	27-36	73	29	35	35	35	No change, 85th percentile
Park Avenue	81	Victory Road to Warner Avenue	E/W	9/24/2019	29-38	72	33	39	40	40	No change, 85th percentile
	82	Warner Avenue to District Drive	E/W	9/24/2019	28-37	94	32	34	30	30	No change, 85th percentile, CVC 21400(b)
	83	District Drive to Tustin Ranch Road	E/W	9/25/2019	25-34	78	28	33	30	30	No change, 85th percentile, CVC 21400(b)
Parkcenter Lane	84	Tustin Ranch Road to Bryan Avenue	E/W	9/4/2019	29-38	76	33	37	35	35	No change, 85th percentile
	85	Bryan Avenue to El Camino Real	E/W	9/4/2019	25-34	88	28	32	30	30	No change, 85th percentile
Pasadena Avenue	86	McFadden Avenue to Sycamore Avenue	N/S	9/20/2019	31-40	88	33	38	35	35	No change, 85th percentile, CVC 21400(b)
Patriot Way	87	Pioneer Road to Jamboree Road	N/S	9/18/2019	30-39	77	32	37	35	35	No change, 85th percentile
Pioneer Road	88	Jamboree Road to Patriot Way	N/S	9/12/2019	37-46	73	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	89	Patriot Way to Peters Canyon Road	N/S	9/12/2019	37-46	70	38	44	40	40	No change, 85th percentile, CVC 21400(b)
	90	Peters Canyon Road to Pioneer Way	N/S	9/12/2019	34-43	85	37	41	35	35	No change, collisions higher than anticipated
Pioneer Way	91	Tustin Ranch Road to Pioneer Road	N/S	9/12/2019	26-35	83	30	34	25	30	Increase, 85th percentile, CVC 21400(b)
Portola Parkway	92	Tustin Ranch Road to Jamboree Road	N/S	9/23/2019	34-43	79	39	43	40	40	No change, 85th percentile, CVC 21400(b)
Prospect Avenue	93	Anglin Lane-NCL to 17th Street	N/S	8/23/2019	33-42	83	37	40	40	40	No change, 85th percentile
	94	17th Street to Amaganset Way	N/S	8/22/2019	37-46	86	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	95	Amaganset Way to Irvine Boulevard	N/S	8/22/2019	33-42	81	37	42	40	40	No change, 85th percentile
	96	Irvine Boulevard to First Street	N/S	8/22/2019	29-38	80	32	37	35	35	No change, 85th percentile
	97	First Street to Main Street	N/S	8/22/2019	25-34	79	29	33	30	30	No change, 85th percentile, CVC 21400(b)
Red Hill Avenue	98	N/O Irvine Boulevard to Bryan Avenue	N/S	9/4/2019	37-46	89	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	99	Bryan Avenue to El Camino Real	N/S	9/4/2019	35-44	70	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	100	El Camino Real to Mitchell Avenue	N/S	9/4/2019	33-42	78	37	41	40	40	No change, 85th percentile
	101	Mitchell Avenue to Walnut Avenue	N/S	9/3/2019	34-43	80	38	42	40	40	No change, 85th percentile
	102	Walnut Avenue to Sycamore Avenue	N/S	9/3/2019	35-44	79	38	42	40	40	No change, 85th percentile
	103	Sycamore Avenue to Edinger Avenue	N/S	9/3/2019	34-43	70	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	104	Edinger Avenue to Valencia Avenue	N/S	9/3/2019	39-48	72	44	48	45	45	No change, 85th percentile, CVC 21400(b)
	105	Valencia Avenue to Warner Avenue	N/S	9/3/19	40-49	66	45	52	50	50	No change, 85th percentile
	106	Warner Avenue to Barranca Parkway	N/S	9/3/2019	43-52	71	46	53	50	50	No change, 85th percentile, CVC 21400(b)

Table 2: 2020 City of Tustin Segment Spot Speed Survey

Street	No	Location	Direction	Date	10-Mile Pace (mph)	% in 10-Mile Pace	50th % Tile (mph)	85th % Tile (mph)	Posted Speed Limit (mph)	Recommended Speed Limit (mph)	Comments
Robinson Drive	107	Irvine Boulevard to Jamboree Road	E/W	9/19/2019	31-40	79	35	39	35	35	No change, 85th percentile, CVC 21400(b)
San Juan Street	108	Newport Avenue to Red Hill Avenue	E/W	9/4/2019	28-37	91	30	34	30	30	No change, 85th percentile, CVC 21400(b)
	109	Red Hill Avenue to Browning Avenue	E/W	9/4/2019	25-34	75	29	34	30	30	No change, 85th percentile, CVC 21400(b)
17th Street	110	SR-55-West City Limit to Yorba Street North	E/W	9/9/2019	34-43	77	38	43	40	40	No change, 85th percentile, CVC 21400(b)
	111	Yorba Street North to Prospect Avenue North	E/W	9/9/2019	36-45	74	39	44	40	40	No change, 85th percentile, CVC 21400(b)
Sycamore Avenue	112	Newport Avenue to Red Hill Avenue	E/W	9/20/2019	26-35	86	30	33	30	30	No change, 85th percentile, CVC 21400(b)
Tustin Ranch Road	113	Jamboree Road to Rawlings Way	E/W	9/23/2019	44-53	69	47	54	50	50	No change, 85th percentile, CVC 21400(b)
	114	Rawlings Way to La Colina Drive	E/W	9/23/2019	45-54	58	48	54	50	50	No change, 85th percentile, CVC 21400(b)
	115	La Colina Drive to Irvine Boulevard	E/W	9/23/2019	42-51	66	46	53	50	50	No change, 85th percentile, CVC 21400(b)
	116	Irvine Boulevard to Bryan Avenue	E/W	9/23/2019	43-52	65	47	52	50	50	No change, 85th percentile
	117	Bryan Avenue to I-5	E/W	9/20/2019	36-45	78	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	118	I-5 to Walnut Avenue	E/W	8/27/2019	45-54	64	48	54	55	55	No change, 85th percentile
	119	Walnut Avenue to Valencia Avenue	E/W	8/27/2019	47-56	77	49	53	50	50	No change, 85th percentile, CVC 21400(b)
	120	Valencia Avenue to Victory Road	E/W	8/27/2019	45-54	66	48	54	50	50	No change, 85th percentile, CVC 21400(b)
	121	Victory Road to Warner Avenue	E/W	8/27/2019	40-49	65	44	49	45	45	No change, 85th percentile, CVC 21400(b)
	122	Warner Avenue to Park Avenue	E/W	9/5/2019	37-46	59	42	49	45	45	No change, 85th percentile, CVC 21400(b)
	123	Park Avenue to Barranca Parkway	E/W	9/5/2019	37-46	68	41	46	45	45	No change, 85th percentile
Valencia Avenue	124	Newport Avenue to Red Hill Avenue	N/S	9/6/2019	35-44	68	40	44	45	45	No change, 85th percentile
	125	Red Hill Avenue to Armstrong Avenue-Severyns Road	N/S	9/6/2019	37-46	66	42	48	45	45	No change, 85th percentile, CVC 21400(b)
	126	Armstrong Avenue-Severyns Road to Kensington Park Drive	N/S	9/6/2019	40-49	68	43	49	45	45	No change, 85th percentile, CVC 21400(b)
	127	Kensington Park Drive to Tustin Ranch Road	N/S	9/24/2019	35-44	72	39	45	45	45	No change, 85th percentile
Vandenberg Lane	128	Yorba Street to Prospect Avenue	E/W	9/9/2019	28-37	79	30	36	35	35	No change, 85th percentile
Victory Road	129	Tustin Ranch Road to Park Avenue	E/W	9/5/2019	29-38	76	35	39	40	40	No change, 85th percentile
	130	Red Hill Avenue to Armstrong Avenue	E/W	9/5/2019	34-43	63	38	46	45	45	No change, 85th percentile
Walnut Avenue	131	Newport Avenue to Red Hill Avenue	N/S	8/20/2019	34-43	80	38	43	40	40	No change, 85th percentile, CVC 21400(b)
	132	Red Hill Avenue to Browning Avenue	N/S	8/20/2019	35-44	81	39	44	40	40	No change, 85th percentile, CVC 21400(b)
	133	Browning Avenue to Tustin Ranch Road	N/S	8/20/2019	37-46	82	40	44	40	40	No change, 85th percentile, CVC 21400(b)
	134	Tustin Ranch Road to Myford Road	N/S	8/20/2019	38-47	79	41	44	40	40	No change, 85th percentile, CVC 21400(b)
Warner Avenue	135	Red Hill Avenue to Tustin Ranch Road	N/S	9/5/2019	44-53	66	48	54	50	50	No change, 85th percentile, CVC 21400(b)
	136	Tustin Ranch Road to Park Avenue	N/S	9/5/2019	29-38	72	33	39	35	35	No change, 85th percentile, CVC 21400(b)
Williams Street	137	Main Street to McFadden Avenue	N/S	9/23/2019	25-34	93	29	31	30	25	Decrease, high collision rate
Yorba Street	138	S/O Santa Clara Ave (North City Limit) to 17th Street	N/S	9/9/2019	35-44	82	39	42	40	40	No change, 85th percentile
	139	17th Street to Jacaranda Avenue	N/S	8/21/2019	35-44	74	38	44	40	40	No change, 85th percentile, CVC 21400(b)
	140	Jacaranda Avenue to Amaganset Way	N/S	8/21/2019	37-46	75	38	44	40	40	No change, 85th percentile, CVC 21400(b)
	141	Amaganset Way to Irvine Boulevard	N/S	8/21/2019	33-42	73	35	41	40	40	No change, 85th percentile
	142	Irvine Boulevard to First Street	N/S	8/21/2019	27-36	76	32	36	35	35	No change, 85th percentile

SECTION 5.0 – SUMMARY AND CONCLUSIONS

An engineering speed study was conducted per CVC Section 627 and includes documentation of existing roadway conditions, radar spot speed surveys, and midblock collision analysis. A total of 142 roadway segments on arterial, secondary arterial, and collector roadways were surveyed. The collision rate for many of the segments is well below the expected collision rates published by the State of California for roadways within Orange County. Based on the radar speed survey, collision history, and field conditions, it is recommended that the existing speed limits on most roadways in the City remain unchanged, except for the following segments (also shown in **Table 3**):

Speed Limit Increases

- **Chambers Road between Michelle Drive and Franklin Avenue**, it is recommended that the existing speed limit of 30 mph be increased to a speed limit of 35 mph based on the speed of traffic and low crash rate.

- **Del Amo Avenue between Edinger Avenue and Newport Avenue/SR-55 Ramps**, it is recommended that the existing speed limit of 35 mph be increased to a speed limit of 40 mph based on the speed of traffic and low crash rate.

- **Newport Avenue between north of Warren Avenue to Old Irvine Boulevard**, it is recommended that the existing speed limit of 40 mph be increased to a speed limit of 45 mph based on the speed of traffic.

- **Pioneer Way between Tustin Ranch Road and Pioneer Road**, it is recommended that the existing speed limit of 25 mph be increased to a speed limit of 30 mph based on the speed of traffic.

Speed Limit Decreases

- **Newport Avenue between Sycamore Avenue and 1100 feet south of Sycamore Avenue**, it is recommended that the existing speed limit of 35 mph be decreased to a speed limit of 30 mph based on the speed of traffic and a higher than expected crash rate.

- **Williams Street between Main Street and McFadden Avenue**, it is recommended that the existing speed limit of 30 mph be decreased to a speed limit of 25 mph based on a higher than expected crash rate.

Table 3. Summary of Recommended Changes

Street	Location	Existing Speed Limit	Proposed Speed Limit
Increases			
Chambers Rd	Michelle Dr to Franklin Ave	30	35
Del Amo Ave	Edinger Ave to Newport Ave/SR-55 Ramps	35	40
Newport Ave	N/O Warren Ave to Old Irvine Blvd	40	45
Pioneer Way	Tustin Ranch Rd to Pioneer Rd	25	30
Decreases			
Newport Ave	Sycamore Ave to 1100' S/O Sycamore Ave	35	30
Williams St	Main St to McFadden Ave	30	25
Not Previously Analyzed			
Victory Rd	Red Hill Ave to Armstrong Ave	45	45

APPENDIX A

Regulations Governing Speed Limits
(excerpts from California Vehicle Code)

RADAR SPEED ZONE SURVEYS

INTRODUCTION

This report presents the results of a traffic and engineering study for establishment of speed limits on city streets as required by Sections 22357 and 22358 of the California Vehicle Code. The review included radar surveys of prevailing vehicle speeds at various locations along the length of each street, recent traffic counts and an analysis of reported traffic accidents recorded during the specific interval.

In order to enforce speed limits by radar or other electronic devices, a study must be conducted every five years. Section 40802 of the California Vehicle Code defines a speed limit enforced by radar and "….which speed limit is not justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation…" constitutes a speed trap, unless the following criteria are met:

> If officers have completed specialized training courses that are approved by the Commission on Peace Officer Standards Training, the time span between studies can be extended to seven years.
>
> If after seven years, "…a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred, including, but not limited to, changes in adjoining property or land use, roadway width, or traffic volume…" the time span between studies can be extended to ten years.

Since speed traps are illegal, the lack of an adequate study effectively precludes the police from using radar enforcement. Through adoption of this study, the police department will be able to enforce posted speed limits with radar equipment.

It is a common belief that posting of speed limit traffic signs will influence drivers to drive at that speed. The facts indicate otherwise.

Driver behavior research conducted in many parts of this country, over a span of several decades; shows that the average driver is influenced by the appearance of the highway itself and the prevailing traffic conditions, in choosing the speed at which he or she drives. Recognizing this, the California Vehicle Code requires that speed limits be established in accordance with appropriate engineering practice and methods.

REGULATIONS GOVERNING SPEED LIMITS

Under California law, the maximum speed limit for any passenger vehicle is 65 miles per hour (mph). All other speed limits are called prima facie limits which "on the face of it", are safe and prudent under normal conditions. Certain prima facie limits are established by law and include the 25 miles per hour limit in business and residential districts; the 15 miles per hour limit in alleys, at blind intersections and blind railroad grade crossings; and a part-time 25 miles per hour in school zones when children are going to and from school.

Intermediate speed limits between 25 and 65 miles per hour may be established by local authorities based on traffic engineering surveys. Such surveys include the analysis of roadway conditions, accident records, and the prevailing speed of prudent drivers using the highway under study. If speed limits are established below what the majority of drivers consider reasonable, they are often not obeyed and consequently, are difficult to enforce. Those drivers who do not comply with posted reasonable speed limits are, conversely, subject to equitable enforcement action.

The Vehicle Code provides that the use of radar to enforce speed limits, which have not been based on a traffic and engineering study within the preceding five years, constitutes a "speed trap". Since speed traps are also prohibited by the code, lack of the required study effectively prohibits local agencies from using radar enforcement.

APPLICABLE VEHICLE CODE SECTIONS

Business District

235. 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 of more of the contiguous property fronting thereon is occupied by buildings in use for business, or (b) upon both sided 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 distance specified in this section if the above ratio of buildings in use for business to the length of the highway exists.

Business and Residence District: Determination

240. In determining whether a highway is within a business or residence district, the following limitations shall apply and shall qualify the definitions Section 235 and 515:

    a) No building shall be counted 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 counted 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.

Residence District

515. 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 sided 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 housed 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.

Engineering and Traffic Survey

627. (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 the state and local authorities.

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

Maximum Speed Limit

22349. (a) Except as provided in Section 22356, no person shall drive a vehicle upon a highway at a speed greater than 65 miles per hour.

(b) Notwithstanding any other provision of law, no person may drive a vehicle upon a two-lane, undivided highway at a speed greater than 55 miles per hour unless that highway, or portion thereof, has been posted for a higher speed by the Department of Transportation or appropriate local agency upon the basis of an engineering and traffic survey. For purposes of this subdivision, the following apply:

(1) A two-lane, undivided highway is a highway with not more than one through lane of travel in each direction.

(2) Passing lanes may not be considered when determining the number of through lanes.

(c) It is the intent of the Legislature that there be reasonable signing on affected two-lane, undivided highways described in subdivision (b) in continuing the 55 miles-per-hour speed limit, including placing signs at county boundaries to the extent possible, and at other appropriate locations.

Basic Speed Law

22350. 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 surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property.

Speed Law Violations

22351. (a) The speed of any vehicle upon a highway not in excess of the limits specified in Section 22352 or established as authorized in this code is lawful unless clearly proved to be in violation of the basic speed law.

(b) The speed of any vehicle upon a highway in excess of the prima facie speed limits in Section 22352 or established as authorized in this code is prima facie unlawful unless the defendant establishes by competent evidence that the speed in excess of said limits did not constitute a violation of the basic speed law at the time, place and under the conditions then existing.

Prima Facie Speed Limits

22352. The prima facie limits are as follows and the same 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 such 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 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 his 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 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. Such prima facie limit shall also apply when 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.

3) When passing a senior center or facility primarily used by senior citizens, contiguous to a street other than a state highway and posted with a standard “SENIOR” warning sign.

Increase of Local Limits

22357. 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 be by ordinance determine and declare a prima facie limit of 25 miles per hours, the local authority 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. 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. The provisions of this section shall not apply in respect to any 25-mile-per-hour prima facie limit, which is applicable when passing a school building or the grounds thereof.

Decrease of Local Limits

22358. 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 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 hours, 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.

22358.3. 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.

22358.4. (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 subdivision (b) 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.

Downward Speed Zoning

22358.5 It is the intent of the Legislature that physical 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, as the basic rule of Section 22350 is sufficient regulation as to such conditions.

Boundary Line Streets

22359. With respect to boundary line streets and highways where portions thereof are within different jurisdictions, no ordinance adopted under Sections 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.

Multiple-Lane Highways

22361. 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.

Speed Trap Prohibition

40801. No peace officer or other person shall use a speed trap in arresting, or participating or assisting in the arrest of, any person for any alleged violation of this code nor shall any speed trap be used in securing evidence as to the speed of any vehicle for the purpose of an arrest or prosecution under this code.

Speed Trap

40802. A “speed trap” is either of the following:

a) 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.

b) A particular section of a highway with a prima facie speed limit provided by this code or by local ordinance pursuant to paragraph (1) of subdivision (b) of Section 22352, or established pursuant to Section 22354, 22357, 22358, or 22358.3, which speed limit is not justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation, and where enforcement involves the use of radar or other electronic devices which measures the speed of moving objects. This subdivision does not apply to local streets and roads.

For purposes of this section, local streets and roads shall be defined by the latest functional usage and federal-aid system maps as submitted to the Federal Highway Administration. When these maps have not been submitted, the following definition shall be used: A local street or road primarily provides access to abutting residential property and shall meet the following three conditions:

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

Speed Trap Evidence.

40803. (a) No evidence as to the speed of a vehicle upon a highway shall be admitted in any court upon the trial of any person in any prosecution under this code upon a charge involving the speed of a vehicle when the evidence is based upon or obtained from or by the maintenance or use of a speed trap

(b) In any prosecution under this code of a charge involving the speed of a vehicle, where enforcement involves the use of radar or other electronic devices which measure the speed of moving objects, the prosecution shall establish, as part of its prima facie case, that the evidence or testimony presented is not based upon a speed trap as defined in subdivision (b) of Section 40802.

(c) When a traffic and engineering survey is required pursuant to subdivision (b) of Section 40802, evidence that a traffic and engineering survey has been conducted within five years of the date of the alleged violation or evidence that the offense was committed on a local street or road as defined in subdivision (b) of Section 40802 shall constitute a prima facie case that the evidence or testimony is not based upon a speed trap as defined in subdivision (b) 40802.

STUDY METHOD

Speed zones are established to inform drivers of the safe speed limit and to protect the general public from unreasonable and reckless drivers. Research has shown that most drivers travel at speeds that are safe and reasonable, therefore, speed limits are established primarily on the consensus of the majority of those who use the roads. Speed limits are not based on the actions of few. The California Vehicle Code requires the limits to be established on the basis of an engineering and traffic survey rather than by arbitrary methods.

The study is conducted in accordance with the appropriate sections of the California Vehicle Code, the Caltrans Traffic Manual (Chapter 8-03) and the Federal Manual on “Uniform Traffic Control Devices”, (Section 2B-10).

Surveys are conducted on arterial streets and selected local streets. Each of the selected streets was analyzed individually.

The accident analysis was based on a review of the City's Traffic Accident Records (Crossroads). Only non-intersection accidents are included since intersection accidents are considered correctable using conventional intersection traffic controls such as stop signs or traffic signals.

Accident rates were computed using a formula that takes into account the number of accidents in the two-year period, the length of roadway being studied, and the average daily traffic volume. The rate is expressed in accidents per million vehicle miles (Acc/MVM). The formula is:

$$\text{Acc/MM} = \frac{\text{Number of Accidents} \times 1{,}000{,}000}{\text{Distance} \times \text{ADT} \times \text{No. of Days}}$$

In order to evaluate the accident rates for each street segment, the average rate for all surveyed arterial street segments was calculated. Average rates were calculated for two-lane and four-or-more-lane arterial streets, two-lane collector and two-lane local streets. The accident rates for each segment were compared to the citywide average rates for streets with similar characteristics.

APPENDIX B

Speed Zoning Regulations from Caltrans California Manual on Uniform Traffic Control Devices

04 **If used, the Overhead Pedestrian Crossing sign shall be placed over the roadway at the crosswalk location.**

05 **An In-Street or Overhead Pedestrian Crossing sign shall not be placed in advance of the crosswalk to educate road users about the State law prior to reaching the crosswalk, nor shall it be installed as an educational display that is not near any crosswalk.**

Guidance:

06 *If an island (see Chapter 3I) is available, the In-Street Pedestrian Crossing sign, if used, should be placed on the island.*

Option:

07 If a Pedestrian Crossing (W11-2) warning sign is used in combination with an In-Street or an Overhead Pedestrian Crossing sign, the W11-2 sign with a diagonal downward pointing arrow (W16-7P) plaque may be post-mounted on the right-hand side of the roadway at the crosswalk location.

Standard:

08 **The In-Street Pedestrian Crossing sign and the Overhead Pedestrian Crossing sign shall not be used at signalized locations.**

09 **The STOP FOR legend shall only be used in States where the State law specifically requires that a driver must stop for a pedestrian in a crosswalk.**

10 **The In-Street Pedestrian Crossing sign shall have a black legend (except for the red ~~STOP or~~ YIELD sign symbols) and border on a white background, surrounded by an outer yellow or fluorescent yellow-green background area (see Figure 2B-2). The Overhead Pedestrian Crossing sign shall have a black legend and border on a yellow or fluorescent yellow-green background at the top of the sign and a black legend and border on a white background at the bottom of the sign (see Figure 2B-2).**

11 **Unless the In-Street Pedestrian Crossing sign is placed on a physical island, the sign support shall be designed to bend over and then bounce back to its normal vertical position when struck by a vehicle.**

Support:

12 The Provisions of Section 2A.18 concerning mounting height are not applicable for the In-Street Pedestrian Crossing sign.

Standard:

13 **The top of an In-Street Pedestrian Crossing sign shall be a maximum of 4 feet above the pavement surface. The top of an In-Street Pedestrian Crossing sign placed in an island shall be a maximum of 4 feet above the island surface.**

Option:

14 The In-Street Pedestrian Crossing sign may be used ~~seasonably~~ seasonally to prevent damage in winter because of plowing operations, and may be removed at night if the pedestrian activity at night is minimal.

15 In-Street Pedestrian Crossing signs, Overhead Pedestrian Crossing signs, and Yield Here To ~~(Stop Here For)~~ Pedestrians signs may be used together at the same crosswalk.

Section 2B.13 Speed Limit Sign (R2-1)

Support:

00 The setting of speed limits can be controversial and requires a rational and defensible determination to maintain public confidence. Speed limits are normally set near the 85th-percentile speed that statistically represents one standard deviation above the average speed and establishes the upper limit of what is considered reasonable and prudent. As with most laws, speed limits need to depend on the voluntary compliance of the greater majority of motorists. Speed limits cannot be set arbitrarily low, as this would create violators of the majority of drivers and would not command the respect of the public.

Standard:

01 **Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering and traffic survey (E&TS) ~~study~~ that has been performed in accordance with traffic engineering practices. The engineering study shall include an analysis of the current speed distribution of free-flowing vehicles.**

02 **The Speed Limit (R2-1) sign (see Figure 2B-3) shall display the limit established by law, ordinance, regulation, or as adopted by the authorized agency based on the engineering study. The speed limits displayed shall be in multiples of 5 mph.**

03 **Speed Limit (R2-1) signs, indicating speed limits for which posting is required by law, shall be located at the points of change from one speed limit to another.**

04 **At the downstream end of the section to which a speed limit applies, a Speed Limit sign showing the next speed limit shall be installed. Additional Speed Limit signs shall be installed beyond major intersections and at other locations where it is necessary to remind road users of the speed limit that is applicable.**

05 **Speed Limit signs indicating the statutory speed limits shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries in urban areas.**

Support:

06 In general, the maximum speed limits applicable to rural and urban roads are established:

A. Statutorily – a maximum speed limit applicable to a particular class of road, such as freeways or city streets, that is established by State law; or

B. As altered speed zones – based on engineering studies.

07 State statutory limits might restrict the maximum speed limit that can be established on a particular road, notwithstanding what an engineering study might indicate.

Option:

08 ~~If a jurisdiction has a policy of installing Speed Limit signs in accordance with statutory requirements only on the streets that enter a city, neighborhood, or residential area to indicate the speed limit that is applicable to the entire city, neighborhood, or residential area unless otherwise posted, a CITYWIDE (R2-5aP), NEIGHBORHOOD (R2-5bP), or RESIDENTIAL (R2-5cP) plaque may be mounted above the Speed Limit sign and an UNLESS OTHERWISE POSTED (R2-5P) plaque may be mounted below the Speed Limit sign (see Figure 2B-3).~~

Guidance:

09 *A Reduced Speed Limit Ahead (W3-5 or W3-5a) sign (see Section 2C.38) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates the need for advance notice to comply with the posted speed limit ahead.*

10 *States and local agencies should conduct engineering studies at least once every 5, 7 or 10 years, in compliance with CVC Section 40802 to reevaluate non-statutory speed limits on segments of their roadways that have undergone significant changes since the last review, such as the addition or elimination of parking or driveways, changes in the number of travel lanes, changes in the configuration of bicycle lanes, changes in traffic control signal coordination, or significant changes in traffic volumes.*

11 *No more than three speed limits should be displayed on any one Speed Limit sign or assembly.*

12 ~~*When a speed limit within a speed zone is posted, it should be within 5 mph of the 85th percentile speed of free-flowing traffic.*~~

Standard:

12a **When a speed limit is to be posted, it shall be established at the nearest 5 mph increment of the 85th-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 85th-percentile speed, in compliance with CVC Sections 627 and 22358.5. See Standard below for documentation requirements.
2. For cases in which the nearest 5 mph increment of the 85th-percentile speed would require a rounding up, then the speed limit may be rounded down to the nearest 5 mph increment below the 85th percentile speed, if no further reduction is used. Refer to CVC Section 21400(b).

Standard:

12b **If the speed limit to be posted has had the 5 mph reduction applied, then an E&TS shall document in writing the conditions and justification for the lower speed limit and be approved by a registered Civil or Traffic Engineer. The reasons for the lower speed limit shall be in compliance with CVC Sections 627 and 22358.5.**

Support:

12c The following examples are provided to explain the application of these speed limit criteria:

Example 1. Using Option 1 above and first step is to round down: If the 85th percentile speed in a speed survey for a location was 37 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 37 mph speed. As indicated by the option, this 35 mph established speed limit could be reduced by 5 mph to 30 mph if

the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.

Example 2. Using Option 1 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, then the speed limit would be established at 35 mph since it is the closest 5 mph increment to the 33 mph speed. As indicated by the option, this 35 mph speed limit could be reduced by 5 mph to 30 mph if the conditions and justification for using this lower speed limit are documented in the E&TS and approved by a registered Civil or Traffic Engineer.

Example 3. Using Option 2 above and first step is to round up: If the 85th percentile speed in a speed survey for a location was 33 mph, instead of rounding up to 35mph, the speed limit can be established at 30mph, but no further reductions can be applied (which is allowed in the two examples above).

Standard:

12d **Examples 1 and 2 for establishing posted speed limits shall apply to engineering and traffic surveys (E&TS) performed on or after July 1, 2009 in accordance with Caltrans' Traffic Operations Policy Directive Number 09-04 dated June 29, 2009.**

Option:

12e After January 1, 2012, Example 3 may be used to establish speed limits. Refer to CVC 21400(b).

Support:

12f Any existing E&TS that was performed before July 1, 2009 in accordance with previous traffic control device standards is not required to comply with the new criteria until it is due for reevaluation per the 5, 7 or 10 year criteria.

13 *Speed studies for signalized intersection approaches should be taken outside the influence area of the traffic control signal, which is generally considered to be approximately 1/2 mile, to avoid obtaining skewed results for the 85th-percentile speed.*

Support:

14 Advance warning signs and other traffic control devices to attract the motorist's attention to a signalized intersection are usually more effective than a reduced speed limit zone.

Guidance:

15 *An advisory speed plaque (see Section 2C.08) mounted below a warning sign should be used to warn road users of an advisory speed for a roadway condition. A Speed Limit sign should not be used for this situation.*

Option:

16 Other factors that may be considered when establishing or reevaluating speed limits are the following:

A. Road characteristics, shoulder condition, grade, alignment, and sight distance;
B. The pace;
C. Roadside development and environment;
D. Parking practices and pedestrian activity; and
E. Reported crash experience for at least a 12-month period.

17 Two types of Speed Limit signs may be used: one to designate passenger car speeds, including any nighttime information or minimum speed limit that might apply; and the other to show any special speed limits for trucks and other vehicles.

18 A changeable message sign that changes the speed limit for traffic and ambient conditions may be installed provided that the appropriate speed limit is displayed at the proper times.

19 A changeable message sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit sign.

Guidance:

20 *If a changeable message sign displaying approach speeds is installed, the legend YOUR SPEED XX MPH or such similar legend should be displayed. The color of the changeable message legend should be a yellow legend on a black background or the reverse of these colors.*

Support:

21 Advisory Speed signs and plaques are discussed in Sections 2C.08 and 2C.14. Temporary Traffic Control Zone Speed signs are discussed in Part 6. The WORK ZONE (G20-5aP) plaque intended for installation above a Speed Limit sign is discussed in Section 6F.12. School Speed Limit signs are discussed in Section 7B.15.

22 Speed limits in California are governed by the California Vehicle Code (CVC), Sections 22348 through 22413; also, pertinent sections are found in Sections 627 and 40802 and others referenced in this section. See Section 1A.11 for information regarding this publication.

23 Refer to Part 6, Section 6C.01 for speed limit signs in temporary traffic control zones. Refer to Part 7 for speed limit signs in school areas.

Engineering and Traffic Survey (E&TS)

Support:

24 CVC Section 627 defines the term "Engineering and traffic survey" and lists its requirements.

Standard:

25 **An engineering and traffic survey (E&TS) shall include, among other requirements deemed necessary by Caltrans, consideration of all of the following:**

A. Prevailing speeds as determined by traffic engineering measurements.

B. Collision records.

C. Highway, traffic, and roadside conditions not readily apparent to the driver.

Guidance:

26 *The E&TS should contain sufficient information to document that the required three items of CVC Section 627 are provided and that other conditions not readily apparent to a driver are properly identified.*

27 *Prevailing speeds are determined by a speed zone survey. A speed zone survey should include:*

A. The intent of the speed measurements is to determine the actual speed of unimpeded traffic. The speed of traffic should not be altered by concentrated law enforcement, or other means, just prior to, or while taking the speed measurements.

B. Only one person is required for the field work. Speeds should be read directly from a radar or other electronic speed measuring devices; or,

C. Devices, other than radar, capable of accurately distinguishing and measuring the unimpeded speed of free flowing vehicles may be used.

D. A location should be selected where prevailing speeds are representative of the entire speed zone section. If speeds vary on a given route, more than one speed zone section may be required, with separate measurements for each section. Locations for measurements should be chosen so as to minimize the effects of traffic signals or stop signs.

E. Speed measurements should be taken during off-peak hours between peak traffic periods on weekdays. If there is difficulty in obtaining the desired quantity, speed measurements may be taken during any period with free flowing traffic.

F. The weather should be fair (dry pavement) with no unusual conditions prevailing.

G. The surveyor and equipment should not affect the traffic speeds. For this reason, an unmarked car is recommended, and the radar speed meter located as inconspicuously as possible.

H. In order for the sample to be representative of the actual traffic flow, the minimum sample should be 100 vehicles in each survey. In no case should the sample contain less than 50 vehicles.

I. Short speed zones of less than 0.5 miles should be avoided, except in transition areas.

J. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.

K. Speed zoning should be in 10 mph increments except in urban areas where 5 mph increments are preferable.

L. Speed zoning should be coordinated with adjacent jurisdictions.

Support:

28 Physical conditions such as width, curvature, grade and surface conditions, or any other condition readily apparent to the driver, in the absence of other factors, would not require special downward speed zoning. Refer to CVC 22358.5.

Option:

29 When qualifying an appropriate speed limit, local authorities may also consider all of the following findings:

A. 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:

1. Upon one side of the highway, within 0.25 miles, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures.
2. Upon both sides of the highway, collectively, within a distance of 0.25 miles the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures.

3. The portion of highway is larger than 0.25 miles but has the ratio of separate dwelling houses or business structures to the length of the highway described in either subparagraph 1 or 2 above.

B. Pedestrian and bicyclist safety.

30 The following two methods of conducting E&TS may be used to establish speed limits:

1. State Highways - The E&TS for State highways is made under the direction of the Caltrans District Traffic Engineer. The data includes:
   a. One copy of the Example of Speed Zone Survey Sheet (See Figure 2B-101(CA)) showing:
      - A north arrow
      - Engineer's station or post mileage
      - Limits of the proposed zones
      - Appropriate notations showing type of roadside development, such as "scattered business," "solid residential," etc. Schools adjacent to the highway are shown, but other buildings need not be plotted unless they are a factor in the speed recommendation or the point of termination of a speed zone.
      - Collision rates for the zones involved
      - Average daily traffic volume
      - Location of traffic signals, signs and markings
      - If the highway is divided, the limits of zones for each direction of travel
      - Plotted 85th percentile and pace speeds at location taken showing speed profile
   b. A report to the District Director that includes:
      - The reason for the initiation of speed zone survey.
      - Recommendations and supporting reasons.
      - The enforcement jurisdictions involved and the recommendations and opinions of those officials.
      - The stationing or reference post in mileage at the beginning and ending of each proposed zone and any intermediate equations. Location ties must be given to readily identifiable physical features.
2. City and County Through Highways, Arterials, Collector Roads and Local Streets.
   a. The short method of speed zoning is based on the premise that a reasonable speed limit is one that conforms to the actual behavior of the majority of motorists, and that by measuring motorists' speeds, one will be able to select a speed limit that is both reasonable and effective. Other factors that need to be considered include but are not limited to: the most recent two-year collision record, roadway design speed, safe stopping sight distance, superelevation, shoulder conditions, profile conditions, intersection spacing and offsets, commercial driveway characteristics, and pedestrian traffic in the roadway without sidewalks.
   b. Determination of Existing Speed Limits - Figures 2B-103(CA) & 2B-104(CA) show examples of data sheets which may be used to record speed observations. Specific types of vehicles may be tallied by use of letter symbols in appropriate squares.

31 In most situations, the short form for local streets and roads will be adequate; however, the procedure used on State highways may be used at the option of the local agency.

Guidance:

32 *The factors justifying a reduction below the 85th percentile speed for the posted speed limit are the same factors mentioned above. Whenever such factors are considered to establish the speed limit, they should be documented on the speed zone survey or the accompanying engineering report.*

33 *The establishment of a speed limit of more than 5 mph below the 85th percentile speed should be done with great care as studies have shown that establishing a speed limit at less than the 85th percentile generally results in an increase in collision rates; in addition, this may make violators of a disproportionate number of the reasonable majority of drivers.*

Support:

34 Generally, the most decisive evidence of conditions not readily apparent to the driver surfaces in collision histories.

35 Speed limits are established at or near the 85th percentile speed, which is defined as that speed at or below which 85th percent of the traffic is moving. The 85th percentile speed is often referred to as the critical speed. Pace speed is defined as the 10 mph increment of speed containing the largest number of vehicles (See Figure 2B-102(CA)). The lower limit of the pace is plotted on the Speed Zone Survey Sheets as an aid in determining the proper zone limits. Speed limits higher than the 85th percentile are not generally considered reasonable and prudent. Speed limits below the 85th percentile do not ordinarily

facilitate the orderly movement of traffic and require constant enforcement to maintain compliance. Speed limits established on the basis of the 85th percentile conform to the consensus of those who drive highways as to what speed is reasonable and prudent, and are not dependent on the judgment of one or a few individuals.

36 The majority of drivers comply with the basic speed law. Speed limits set at or near the 85th percentile speed provide law enforcement officers with a limit to cite drivers who will not conform to what the majority considers reasonable and prudent. Further studies show that establishing a speed limit at less than the 85th percentile (Critical Speed) generally results in an increase in collision rates.

Option:

37 When roadside development results in traffic conflicts and unusual conditions which are not readily apparent to drivers, as indicated in collision records, speed limits somewhat below the 85th percentile may be justified. Concurrence and support of enforcement officials are necessary for the successful operation of a restricted speed zone.

Guidance:

38 *Speed zones of less than 0.5 miles and short transition zones should be avoided.*

Signs

Standard:

39 **The Speed Limit (R2-1) sign shall be used to give notice of a prima facie or maximum speed limit except as provided under Prima Facie Speed Limits in CVC 22352.**

40 **When used, the TRUCKS, 3 AXLES OR MORE 55 MAXIMUM (R6-3(CA)) sign shall be installed approximately 750 feet following each R2-1 sign.**

41 **The ALL VEHICLES WHEN TOWING 55 MAXIMUM (R6-4(CA)) sign shall be installed approximately 750 feet following the R6-3(CA) sign.**

Guidance:

42 *The R6-3(CA) and R6-4(CA) signs should be placed on highway segments where speeds in excess of 55 mph are permitted.*

Option:

43 The existing AUTOS WITH TRAILERS, TRUCKS 55 MAXIMUM (R6-1(CA)) sign may remain in place until it is knocked down, damaged, stolen, vandalized, or otherwise reaches the end of its useful life.

44 The local California Highway Patrol office may be consulted to identify highway segments where enforcement is an issue. On these segments early replacement of existing R6-1(CA) signs may be necessary.

Support:

45 Refer to CVC Section 22406 for types of vehicles subject to the 55 mph maximum speed limit.

Option:

46 The Speed Zone Ahead (R2-4(CA)) sign (see Figure 2B-3(CA)) may be used to inform the motorist of a reduced speed zone.

Standard:

47 **The R2-4(CA) sign shall always be followed by a Speed Limit (R2-1) sign installed at the beginning of the zone where the reduced speed limit applies.**

48 **The End Speed Limit (R3(CA)) sign shall only be used to mark the end of a speed zone.**

49 **The R3(CA) sign shall not be used at a transition into a change in speed limits within a reduced zone.**

Option:

50 The R3(CA) sign (see Figure 2B-3(CA)) may be used with the TRUCK (M4-4) plaque to mark the end of truck speed zones on descending grades.

Standard:

51 **Speed limit signs shall be placed at the beginning of all restricted speed zones.**

Option:

52 Where speed zones are longer than 1 mile, intermediate signs may be placed at approximate 1 mile intervals. For three or more lanes in each direction, dual installation may be used.

Standard:

53 **The Speed Limit (R2-1) and End Speed Limit (R3(CA)) signs, as appropriate shall be placed at the end of all restricted speed zones.**

54 **Freeways with 65 mph and those segments where a speed limit of 70 mph has been approved by Caltrans, with approval by the California Highway Patrol, shall be posted as follows:**

- **At the segment entrance, R2-1 signs shall be installed right of traffic off of the right shoulder.**
- **R2-1 signs shall also be installed off of the right shoulder only, throughout the segment, at a maximum of 25 mile intervals.**

Option:

- The 25 mile interval may be modified to include locations following entrance ramps.

Standard:

- **The R6-3(CA) sign (see Figure 2B-3(CA)) shall be installed approximately 750 feet following each R2-1 sign, both at the beginning and throughout each 60, 65 or 70 mph segment.**
- **The R6-4(CA) sign (see Figure 2B-3(CA)) shall be installed approximately 750 feet following each R6-3(CA) sign.**

Option:

- The SLOWER TRAFFIC KEEP RIGHT (R4-3) signs may be installed at locations where there is a tendency of the motorists to drive in the left-hand lane(s) below the normal speed of traffic.

Standard:

- **Signs shall be placed in protected locations.**
- **At the end of the 70/65 mph segment, R2-1 signs shall be installed off of the right shoulder.**

55 **Freeway segments where a 55 mph speed limit has been approved by Caltrans, with the approval of the California Highway Patrol, shall be posted as follows:**

- **The beginning of the segment shall be posted with an R2-1 sign installed on the right shoulder and left shoulder where the median is of sufficient width to permit sign maintenance without lane closures.**

Guidance:

- *Subsequent signs should then be posted on the right shoulder, on approximate 3 mile intervals, with no more than 3 interchanges between signs.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

56 *Conventional highways with 55 mph speed limits should be posted as follows:*

Standard:

- **The beginning of the segment shall be posted with an R2-1 sign installed on the right shoulder.**

Guidance:

- *Subsequent signs should then be posted on approximate 5 to 10 mile intervals and immediately after locations where significant volumes of traffic enter the segment.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

Conventional highways with 65 mph speed limits should be posted as follows:

- *The beginning of the segment should be posted with an R2-1 sign installed on the right shoulder.*
- *Subsequent signs should then be posted at 5 to 10 mile intervals and after locations where significant volumes of traffic enter the segment.*
- *At the end of the segment, an R2-1 sign with the appropriate number for the next speed limit should be posted on the right shoulder.*

Option:

57 Pavement markings with appropriate numerals (see Section 3B.21) may be used to supplement speed limit signs.

Standard:

58 **The R2-1 and R6-3(CA) and R6-4(CA) signs giving maximum statewide speed limits for various types of vehicles shall be installed on all State highways near the points of entrance into California.**

Guidance:

59 *The R2-1 and R6-3(CA) and R6-4(CA) signs should be placed in a location to be most effectively viewed by the approaching motorists.*

Standard:

60 **Speed Limit (R2-1) signs shall be installed throughout segments of freeway with posted speed limits of 65 mph or 70 mph at a maximum of 25 mile intervals.**

Option:

61 The 25 mile interval may be modified to include locations following entrance ramps.

Standard:

62 **Speed Limit (R2-1) signs shall be installed throughout segments of conventional highways with a posted speed limit of 65 mph at 5 mile to 10 mile intervals.**

63 **Speed Limit (R2-1) signs shall be installed throughout segments of freeway with a posted speed limit of 55 mph at approximately 3 mile intervals with no more than 3 interchanges between signs.**

64 **Speed Limit (R2-1) signs shall be installed throughout segments of conventional highways with a posted speed limit of 55 mph at 5 mile to 10 mile intervals.**

Speed Enforced Signs

Option:

65 The SPEED ENFORCED BY RADAR (R48(CA)) sign (see Figure 2B-3(CA)) may be used where the California Highway Patrol has received authority to use radar and requests such signs.

Guidance:

66 *One sign should be used in each direction at the beginning of the segment of roadway, and at intervening major route intersections, where radar enforcement is in effect.*

Support:

67 The R48(CA) sign is a stand-alone sign intended to alert motorists that speed is enforced by radar on a particular segment of roadway.

Option:

68 The RADAR ENFORCED (R48-1(CA)) sign (see Figure 2B-3(CA)) may be used in combination with the Speed Limit (R2-1) sign on any roadway where law enforcement has the authority to use radar.

Guidance:

69 *When used, the R48-1(CA) sign should be placed below the R2-1 sign, at the beginning of the segment of roadway and at intervening major intersections, where radar enforcement is in effect.*

Option:

70 The SPEED ENFORCED BY AIRCRAFT (R48-2(CA)) sign (see Figure 2B-3(CA)) may be placed, when requested by the California Highway Patrol, on sections of highway regularly patrolled by aircraft.

Standard:

71 **The R48-2(CA) sign shall be used for both directions of travel.**

Guidance:

72 *The R48-2(CA) sign should be placed at the beginning of the section and spaced at 25 mile intervals. See Figure 3B-105(CA).*

Vehicle Speed Feedback Signs

Option:

73 A Vehicle Speed Feedback sign that displays to approaching drivers the speed at which they are traveling may be installed in conjunction with a Speed Limit (R2-1) sign.

Standard:

74 **If a Vehicle Speed Feedback sign displaying approach speeds is installed, the legend shall be YOUR SPEED XX. The numerals displaying the speed shall be white, yellow, yellow-green or amber color on black background. When activated, lights shall be steady-burn conforming to the provisions of CVC Sections 21466 and 21466.5. Vehicle Speed Feedback signs shall not alternatively be operated as variable speed limit signs.**

Guidance:

75 *To the degree practical, numerals for displaying approach speeds should be similar font and size as numerals on the corresponding Speed Limit (R2-1) sign.*

Option:

76 When used, the Vehicle Speed Feedback sign may be mounted on either a separate support or on the same support as the Speed Limit (R2-1) sign.

77 In lieu of lights, legend may be retroreflective film for flip-disk systems.

78 The legend YOUR SPEED may be white on black plaque located above the changeable speed display.

Support:

79 Driver comprehension may improve when the Vehicle Speed Feedback Sign is mounted on the same support below the Speed Limit (R2-1) sign.

80 Vehicle Speed Feedback Signs are appropriate for use with advisory speed signs and with temporary signs in temporary traffic control zones.

Basic Speed Law and Prima Facie Speed Limits – See CVC 22350 & 22352

Support:

81 The basic speed law states "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."

Standard:

82 **Prima facie speed limits are specific limits and shall apply unless changed based upon an engineering and traffic survey (E&TS) and signs are posted that display the new speed limit.**

Option:

83 Prima facie speed limits may be preempted by the basic speed law, when roadway, traffic or weather conditions warrant a lower speed.

Use of Metric System Designations – See CVC 21351.3

Option:

84 Dual units for speed limits on signs may be placed on local streets and roads in both Metric and English units.

Guidance:

85 *If used, dual unit speed limits should be rounded to the nearest 10 km/h for Metric and 5 mph for English units for posting on signs on local streets and roads.*

Support:

86 Refer to AASHTO's Traffic Engineering Metric Conversion Factors. See Section 1A.11 for information regarding this publication.

Standard:

87 **Metric speed limits shall not be placed on State highways. For use in this California MUTCD, 70 mph shall be shown as a metric equivalent of 110 km/h, neither of which shall be used on any local street or road.**

Legal Authority for Establishing Speed Limits

Support:

88 Delegation of legal authority to set speed limits on State highways is given to Caltrans District Directors. The District Director of each transportation district is authorized to issue orders regulating the speed of traffic, up to 65 mph on State highways. The Director of Caltrans retains the authority to approve variable, minimum, and maximum speeds up to 70 mph on State freeways.

Standard:

89 **The speed limits shown in Table 2B-101(CA) shall apply, unless changed upon the basis of an engineering and traffic survey (E&TS).**

Option:

90 The speed limits shown in Table 2B-102(CA) may apply, unless changed upon E&TS.

Variable Speed Limits on Freeways - See CVC 22355

Option:

91 The following speed limits may apply:

- Whenever Caltrans determines based upon an engineering and traffic survey (E&TS) that the safe and orderly movement of traffic upon any freeway segment will be facilitated by the establishment of variable speed limits.
- Caltrans may erect, regulate, and control signs upon the state highway which is a freeway, or any portion thereof, which, if used, signs shall be designed to permit display of different speeds at various times of the day or night.
- Such signs need not conform to the standards & specifications per CVC 21400, but if used, shall be of sufficient size and clarity to give adequate notice of the applicable speed limit.

Minimum Speed Limits on State Highways - See CVC 22400

Option:

92 The following speed limits may apply:

- Whenever Caltrans determines based upon an engineering and traffic survey (E&TS) that slow speeds on any part of a state highway consistently impede the normal and reasonable movement of traffic, Caltrans may determine and declare a minimum speed limit. Appropriate signs giving notice shall then be installed on that segment.
- A motorist can be cited for stopping or impeding the normal and reasonable movement of traffic unless the stop is necessary for safe operation and in compliance with the law.

Speed Traps

Support:

93 Refer to CVC 40802 for Speed Traps.

Standard:

94 **A speed trap shall not apply to a local street, road, or school zone.**

95 **A section of highway shall be defined as a speed trap if the prima facie speed limit is not justified by an engineering and traffic survey (E&TS) within five years, and the enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects.**

96 **This time provision shall be extended to seven years when using radar and all of the following criteria are met:**

- **The arresting officer has successfully completed a minimum of 24 hours of certified radar operator course training.**
- **The radar used to measure the speed meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within three years of the alleged violation.**

97 **This time provision shall be extended to seven years when using laser or other electronic device (other than radar) and all of the following criteria are met:**

- **The arresting officer has successfully completed a minimum of 24 hours of certified radar operator course training.**
- **The arresting officer has successfully completed a minimum of 2 hours of additional approved certified training.**
- **The radar used to measure the speed meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration, and has been calibrated within three years of the alleged violation.**

Option:

98 This time provision for an E&TS may be extended to ten years when all of the above conditions are met and no significant changes in roadway or traffic conditions have occurred, including changes in adjoining property or land use, roadway width, or traffic volume as determined by a registered engineer.

Truck Speed Zone on Descending Grades

Guidance:

99 *Highway descending grades, if used for posting TRUCK Speed Limit signs (R2-1 and M4-4) for trucks travelling downhill, should have recorded incident history of runaway commercial vehicles. Descending grades shorter than 1 mile should be avoided for posting signs because deceleration of vehicles due to braking action can generally provide sufficient control on descending grades of less than 1 mile.*

Support:

100 To establish a downhill truck speed limit, a physical profile showing length and gradient and a downhill speed profile for three or more axle commercial vehicles with a gross rating of 10,000 lbs. or more will be provided.

Standard:

101 **Speed profiles for truck speed limits shall be prepared on the same form as other speed surveys. An analysis of collisions involving trucks shall be prepared.**

Guidance:

102 *Posted speeds should be on the low side of the scale, generally within the pace of loaded commercial vehicles.*

Standard:

103 **If warranted, the Caltrans District Director shall issue a standard speed zone order.**

Support:

104 Posting of the regulation will be by placement of a standard 36 x 45 inch Speed Limit (R2-1) sign with a TRUCK (M4-4) plate above.

Standard:

105 **A standard End Speed Limit (R3(CA)) sign with TRUCK (M4-4) plate shall be posted at the end of the truck zone when appropriate.**

Speed Zones in Temporary Traffic Control Areas

Support:

106 For signing and establishing speed zones in temporary traffic control areas, refer to Section 6C.01 in Part 6.

Section 2B.14 Truck Speed Limit Plaque (R2-2P)

Standard:

01 **Where a special speed limit applies to trucks or other vehicles, the legend TRUCKS XX or such similar legend shall be displayed below the legend Speed Limit XX on the same sign ~~or on a separate R2-2P plaque (see Figure 2B-3) below the standard legend.~~**

02 **The Truck Speed Limit (R2-2) sign shall not be used in California. The TRUCK (M4-4) plaque placed above the Speed Limit (R2-1) sign shall be used instead.**

03 **The TRUCK (M4-4) plaque shall be placed above the Speed Limit (R2-1) sign to indicate the truck speed limit. It shall also be placed above the End Speed Limit (R3(CA)) sign to mark the end of truck speed limits.**

Support:

04 Refer to Section 2B.13 for more details.

Section 2B.15 Night Speed Limit Plaque (R2-3P)

Standard:

01 **Where different speed limits are prescribed for day and night, both limits shall be posted.**

Guidance:

02 *A Night Speed Limit (R2-3P) plaque (see Figure 2B-3) should be reversed using a white retroreflectorized legend and border on a black background.*

Option:

03 A Night Speed Limit plaque may be combined with or installed below the standard Speed Limit (R2-1) sign.

Support:

04 Refer to CVC 22355.

Section 2B.16 Minimum Speed Limit Plaque (R2-4P)

Standard:

01 **A Minimum Speed Limit (R2-4P) plaque (see Figure 2B-3) shall be displayed only in combination with a Speed Limit sign.**

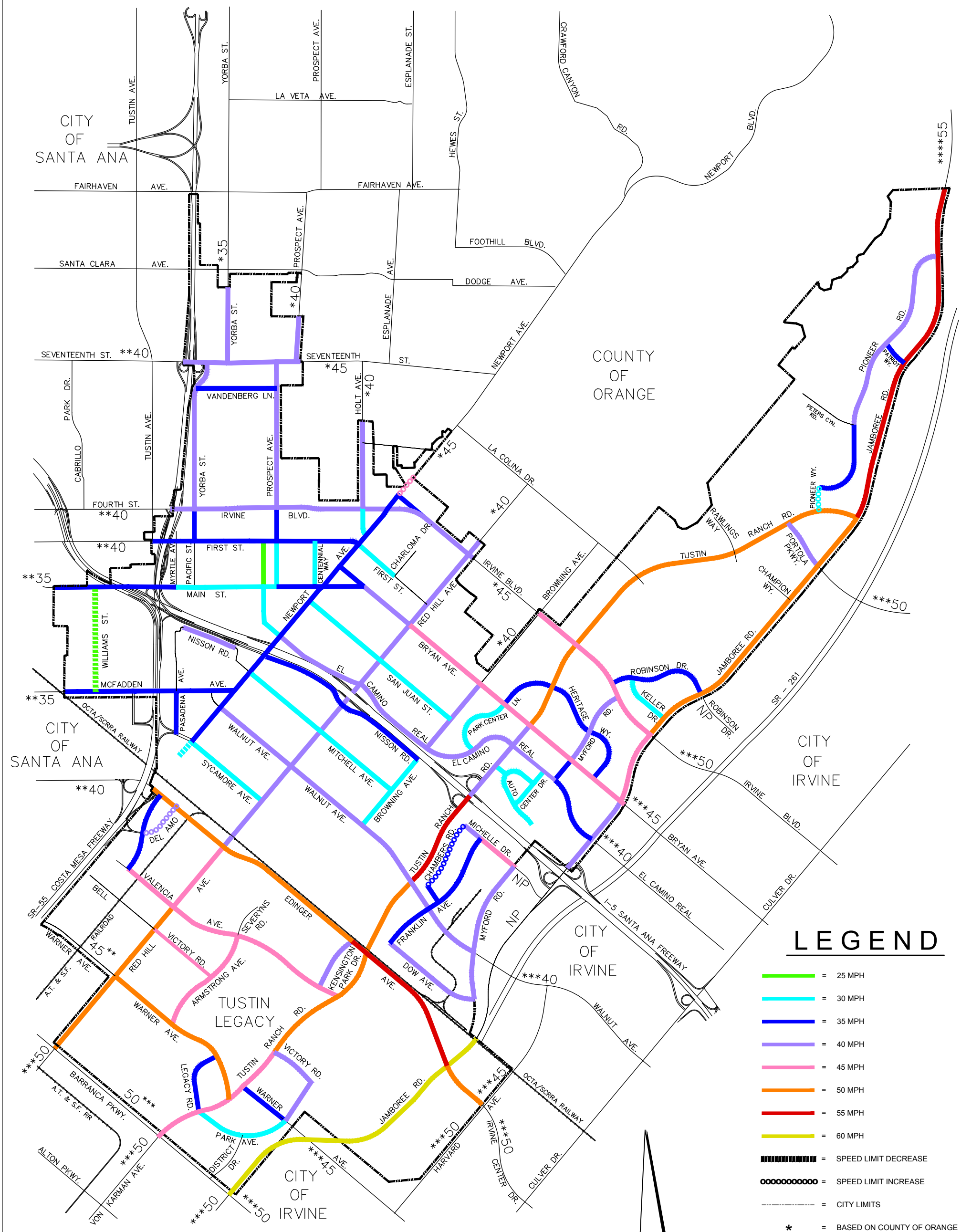
Option:

02 Where engineering judgment determines that slow speeds on a highway might impede the normal and reasonable movement of traffic, the Minimum Speed Limit plaque may be installed below a Speed Limit (R2-1)

APPENDIX C

Speed Limit Map

City of Tustin
2020 Speed Limit Map



ALBERT GROVER & ASSOCIATES

APPENDIX D

Radar Certification

CERTIFICATE OF COMPLETION

THIS IS TO CERTIFY THAT –

1. Thomas L. Hartman of Albert Grover and Associates Traffic Engineering firm has successfully completed a course for Traffic Engineers on the operation of Radar devices in application with Traffic and Engineering Speed Surveys as outlined in the California Vehicle Code and the Manual of Uniform Traffic Control Devices. This course is based upon the standards as outlined by the National Highway Traffic Safety Administration, California Commission on P.O.S.T standards and Section 40802 of the California Vehicle Code.

2. Thomas L. Hartman completed the classroom instruction on operation and theory of Radar devices, case law, traffic and engineering surveys, the California Vehicle Code as well as the test, set-up, operation and identification of erroneous readings.

3. Thomas L. Hartman, in field settings demonstrated competence in the test and set-up of a radar device, operation and trouble shooting of the device and correct evaluation of readings provided by the device.

4. Thomas L. Hartman Roland P. Hizon demonstrated competence in making visual speed estimations in actual field settings.

5. Thomas L. Hartman of Albert Grover and Associates Traffic Engineering firm is recognized for his competence as a Radar Operator this 30th day of November, 2018.

Steve Chauncey
P.O.S.T. Certified Radar Instructor

RHF Inc.
Radar Repair

TRAFFIC RADAR CERTIFICATION

TESTED TO NHTSA SPECIFICATIONS / IACP CRITICAL PERFORMANCE STANDARDS
(NHTSA) National Highway and Traffic Safety Administration.
(IACP) International Association of Chiefs of Police.

16202 Keats Circle
Westminster, Calif. 92683

R.H.F. is a certified independent testing and repair facility.

1	TEST ID	Date Received 11-20-18	Certification Number 73563				
2	DEVICE ID	Make **Decatur**	Model **Genesis VP or VPD**	Type (1-IV) **III**	Directional radar ☑ Yes ☐ No	Same direction ☐ Yes ☑ No	
		Counting unit S/N 1413	Antenna-1 S/N **N/A**		Antenna-2 S/N **N/A**		
3	§ 2.4 / § 5.4 TUNING FORK CALIBRATION	Low speed fork S/N 101052	Last date calib.	Freq. (Hz)	Speed (mph) 33	Measured (Hz) 2390	PASS / FAIL
		High speed fork S/N 101209	Last date calib.	Freq. (Hz)	Speed (mph) 77	Measured (Hz) 5591	
4	§ 2.5 / § 5.5 RADAR DEVICE TUNING FORK TESTS			Lo fork	High fork	PASS / FAIL	
		Stationary mode	Fork speed (mph)	**33**	**77**		
			Disp. Speed (mph)	33	77		
		Moving mode Opposite Direction	TARGET SPEED (Hi fork – Lo fork)	Expected. (mph)	Displayed. (mph) **N/A**		
		Moving mode Same Direction	TARGET SPEED Hi fork + Lo fork Hi fork - Lo fork	Expected. (mph)	Displayed. (mph) **N/A**		
5	§ 2.6.1. / § 5.6.1 TRANSMISSION FREQUENCY STABILITY	Standard supply Voltage (V) **7.2 V**	Antenna 1 Freq. GHz 24.171	Antenna 2 Freq. GHz **N/A**	PASS / FAIL		
		Standard supply Voltage – 20% (V) **6.2 V**	Antenna 1 Freq. GHz N/A	Antenna 2 Freq. GHz **N/A**			
		Standard supply voltage + 20% (V) **8.6 V**	Antenna 1 Freq. GHz N/A	Antenna 2 Freq. GHz **N/A**			
6	§ 2.6.5 / § 5.6.5 POWER DENSITY	Mfg. Spec. (max mW/cm) ≤ **2**	Antenna 1 Power (mW/cm) .34	Antenna 2 Power (mW/cm) **N/A**	PASS / FAIL		
7	§ 2.8 / § 5.8 LOW VOLTAGE	Mfg. spec. (V) ≤ **6.2 V**	LVA activates (V) N/A	LVA deactivates (V) N/A	PASS / FAIL		
8	§ 2.9.1 / § 5.9.1 DOPPLER AUDIO	A. Audio tone correlates with received Doppler signal ☑ Yes ☐ No B. Functioning audio volume-adjustment control ☑ Yes ☐ No			PASS / FAIL		
9	§ 2.12.4 / § 5.12.4 INTERNAL CIRCUIT	Mfg. Spec. **PASS**	Test results PASS		PASS / FAIL		
10	§ 2.12.6.5 / § 5.12.6.5 DIRECTIONAL	A. Selects only targets moving towards radar ☑ Yes ☐ No ☐ N.A. B. Selects only targets moving away from radar ☑ Yes ☐ No ☐ N.A.			PASS / FAIL		
11	§ 2.12.7 / § 2.12.8 / 5.12.7 / 5.12.8 LOW AND HIGH SPEED DISPLAY TEST	Stationary mode: target channel (mph)	Low speed spec. **5**	Lo speed disp. 5	PASS / FAIL		
			Hi speed spec. **200**	Hi speed disp. 200			
		Moving Mode target channel (mph)	Low speed spec. **N/A**	Lo speed disp. **N/A**			
			Hi speed spec. **N/A**	Hi speed disp. **N/A**			
		Moving Mode: patrol channel (mph)	Low speed spec. **N/A**	Lo speed disp. **N/A**			
			Hi speed spec. **N/A**	Hi speed disp. **N/A**			
12	§ 2.13 / § 5.13 RFI TEST				PASS / FAIL		
13	LABORATORY COMMENTS						
14	NHTSA/IACP CERTIFICATION	***This radar device meets or exceeds the minimal operational standards of the National Traffic Highway Safety Administration. California Vehicle Code Section 40802*** ☑ **PASS** ☐ **FAIL** **Certified by:** Fred Bauman **Date:** 11-20-18					
15	INVENTORY	☐ Fork Cert ☐ Manual ☐ 2nd Ant. ☐ Remote ☐ Bat. ☐ Carrying Case ☐ Other: (please list)					

APPENDIX E

Engineering and Traffic Survey Summary Reports

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57	X	X	2	
56	X	X	2	
55			0	
54	XX		2	
53			0	
52		XX	2	
51	XXX	XX	5	^
50	XXXX	XX	6	^
49	XXX	XXX	6	^
48	XXXX	XXXX	8	P
47	XXX	XX	5	A
46	XXXX	XXXX	8	C
45	XXXXXXX	XXXXXX	13	E
44	XXXXXXXXX	XXXXXXX	16	v
43	XXXXX	X	6	v
42	XXX	X	4	v
41	X	XX	3	
40	X	X	2	
39	X		1	
38	X		1	
37	XX	X	3	
36	X		1	
35		X	1	
34	X	X	2	
33			0	
32			0	
31	X		1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Armstrong Avenue

LOCATION: Warner Avenue to Valencia Avenue

DATE: 8/19/19 **TIME START** 12:15 **TIME STOP:** 1:20

SURVEY ADDRESS: 284 Armstrong Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Government, undeveloped

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,400 **SEGMENT LENGTH:** 0.60

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.63 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 49 mph

50TH %: 44 mph

15TH %: 41 mph

AVERAGE SPEED: 46 mph

10 MPH PACE: 42 - 51 mph

% IN PACE: 77%

% OVER PACE: 8%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 001 ArmWarVal.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41		X	1	
40		X	1	
39	X	X	2	
38			0	
37		XX	2	
36			0	
35	X	XXX	4	^
34	X	XXXX	5	^
33	XX	XX	4	^
32	XXX	XXXXXX	9	P
31	XXX	XXXXXXX	10	A
30	XXXX	XXXXX	9	C
29	XXXXXX		6	E
28	XXXXXXX	XX	9	V
27	XXX	XX	5	V
26	XXX	XX	5	V
25	XX	X	3	
24	XX	X	3	
23	XX	X	3	
22	XXXXX	X	6	
21	XX	XX	4	
20	XX	X	3	
19	X	X	2	
18		X	1	
17			0	
16			0	
15			0	
		GRAND TOTAL	97	

ROADWAY: Auto Center Drive (East)

LOCATION: El Camino Real to Auto Center Drive South

DATE: 8/19/19 **TIME START** 9:25 **TIME STOP:** 10:11

SURVEY ADDRESS: 30 Auto Center Dr

ROAD CONDITION: Good

WEATHER: Overcast

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,500 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.30 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 33 mph

50TH %: 28 mph

15TH %: 21 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 26 - 35 mph

% IN PACE: 68%

% OVER PACE: 6%

% UNDER PACE: 26%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 002 AutCamAut.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39		X	1	
38			0	
37	X		1	
36	XXX		3	
35	XX	X	3	
34	XX		2	
33	XXXXX	XXX	8	^^^PACE VVV
32	XX	XXX	5	
31	XXX	XXXXXX	9	
30	XXXXXXXXXX	XX	11	
29	XXX	XXXXX	8	
28	XXXXXXX	XXXXXX	13	
27	XXXX	X	5	
26	XXXXXX	XXXX	10	
25	X	XX	3	
24	X	XXXX	5	
23	XXXX	XXX	7	
22			0	
21	XX	X	3	
20	X		1	
19	X	X	2	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Auto Center Drive (North)

LOCATION: North Intersection to Auto Center Drive West

DATE: 8/19/19 **TIME START** 10:23 **TIME STOP:** 11:04

SURVEY ADDRESS: 36 Auto Center Dr

ROAD CONDITION: Good

WEATHER: Overcast

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,100 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.23 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 32 mph

50TH %: 28 mph

15TH %: 23 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 24 - 33 mph

% IN PACE: 77%

% OVER PACE: 10%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 003 AutAutAut.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38			0	
37		X	1	
36			0	
35	XXX	X	4	
34			0	
33	X	X	2	
32	X	XXX	4	
31	XXXX	XXX	7	^
30	XXX	XXX	6	^
29	XXXXX	X	6	^
28	XXXXXX	XXXXX	11	P
27	XX	XXXXXX	8	A
26	XXXXXXX	XX	9	C
25	X	XXXXX	6	E
24	XXXXXXX	XXXXXXX	14	V
23	XXX	XXXXXX	9	V
22	XX	XXX	5	V
21	XXXX	XX	6	
20		X	1	
19	X		1	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Auto Center Drive (South)

LOCATION: West Intersection to End of Street

DATE: 8/19/19 **TIME START** 11:12 **TIME STOP:** 11:57

SURVEY ADDRESS: 9 Auto Center Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,800 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 3.26 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 30 mph

50TH %: 26 mph

15TH %: 22 mph

AVERAGE SPEED: 27 mph

10 MPH PACE: 22 - 31 mph

% IN PACE: 81%

% OVER PACE: 11%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 004 AutWestEnd.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50	X		1	
49	X		1	
48		X	1	
47	XXX		3	
46	X	XX	3	
45	X	XX	3	
44	XX		2	
43		X	1	
42	XXXXX		5	
41		XXXXX	5	
40	XXXXX	XXXXX	10	
39	XXXX		4	
38	XXXX		4	
37	XXXX	XXXXX	9	
36	XXXX	XXXXX	9	
35	XXX	X	4	
34	XXXXX	XX	7	
33	XXX	X	4	
32	XXXX	XXXXX	9	
31	XX	X	3	
30	XX		2	
29	XX	XX	4	
28		X	1	
27			0	
26	XX		2	
25	X	X	2	
24			0	
23	X		1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

^^^PACE^^^

ROADWAY: Browning Avenue

LOCATION: Bryan Avenue to El Camino Real

DATE: 8/30/19 **TIME START** 11:09 **TIME STOP:** 11:59

SURVEY ADDRESS: 13719 Iroquois

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, school

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking, school zone

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,300 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.21 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 42 mph

50TH %: 36 mph

15TH %: 31 mph

AVERAGE SPEED: 37 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 65%

% OVER PACE: 20%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 005 BroBryCam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38			0	
37		XXXX	4	
36	XXX	XX	5	^
35	XXXXXX	XXX	9	^
34	XXXXXX	XXXXXXXXXXXXX	19	^
33	XXXX	XXXXXX	10	P
32	XXXXX	XX	7	A
31	XXXXXXXXXXXXXX	XXXX	18	C
30	XXXXX	XXXXXXX	13	E
29	XX	XX	4	v
28	XX	XX	4	v
27	XX	XXXX	6	v
26			0	
25	X		1	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Browning Avenue

LOCATION: Nisson Road to Walnut Avenue

DATE: 8/30/19 **TIME START** 12:06 **TIME STOP:** 12:41

SURVEY ADDRESS: 14163 Browning Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, school

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, on-street parking, school zone

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.28 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 34 mph

50TH %: 31 mph

15TH %: 29 mph

AVERAGE SPEED: 32 mph

10 MPH PACE: 27 - 36 mph

% IN PACE: 95%

% OVER PACE: 4%

% UNDER PACE: 1%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 006 BroNisWal.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44	X		1	
43			0	
42	XX		2	
41	X		1	
40	XX		2	
39	XXXX		4	
38	XXXX		4	
37	XXXXXXXXX	XXX	12	^
36	XXXX		4	^
35	XXXXXXX	XXX	10	^
34	XXXXXXXXXX	X	10	P
33	XXXXX	XXX	8	A
32	XXXXXXXX	X	9	C
31	XXXX	XXXXXXXXXXXXX	17	E
30	XX	XXXX	6	V
29		XXXXX	5	V
28	XXX	XX	5	V
27	XX	XXXX	6	V
26		X	1	
25	XXX		3	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	110	

ROADWAY: Bryan Avenue

LOCATION: Newport Avenue to Main Street

DATE: 8/27/19 **TIME START** 2:16 **TIME STOP:** 2:44

SURVEY ADDRESS: 1131 E Main St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,100 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.01 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 36 mph

50TH %: 32 mph

15TH %: 28 mph

AVERAGE SPEED: 33 mph

10 MPH PACE: 28 - 37 mph

% IN PACE: 78%

% OVER PACE: 13%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 007 BryNewMai.xls 11/22/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59	X		1	
58	X		1	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51	X		1	
50	XX		2	
49			0	
48		X	1	
47	X	X	2	
46	XX	XXX	5	^
45	XXXX	XX	6	^
44	XXXXXX		6	^
43	X	XXX	4	P
42	XXX	XX	5	A
41	XX	XXXXXX	8	C
40	XXXX	XXXXXX	10	E
39	XXXX	XXXXX	9	V
38	XXXXXXX	XXXXX	12	V
37	XXXXX	XXXX	9	V
36	X	XX	3	
35	XXX	XXX	6	
34	X		1	
33	X	XXX	4	
32		XX	2	
31			0	
30		XX	2	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Bryan Avenue

LOCATION: Main Street to Red Hill Avenue

DATE: 8/30/19 **TIME START** 12:55 **TIME STOP:** 1:08

SURVEY ADDRESS: 1291 Lear Ln

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, park

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 14,400 **SEGMENT LENGTH:** 0.35

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.36 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 74%

% OVER PACE: 8%

% UNDER PACE: 18%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 008 BryMaiRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54		X	1	
53	X		1	
52		XX	2	
51		X	1	
50		X	1	
49	X		1	
48	XXX	XXXX	7	
47	XX	XXXXX	7	^
46	XXXXX	XXX	8	^
45	XXX	XXX	6	^
44	XXX	XX	5	P
43	XX	XXX	5	A
42	XXXXXXX	XXXXXX	12	C
41	XXX	X	4	E
40	XXXXXXXXXXX	XXX	14	v
39	XXXXXXX	XX	9	v
38	XX	XXXXXXXX	9	v
37	XX	X	3	
36	X	X	2	
35		X	1	
34			0	
33			0	
32			0	
31		X	1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Bryan Avenue

LOCATION: Red Hill Avenue to Farmington Road

DATE: 8/30/19 **TIME START** 1:13 **TIME STOP:** 1:31

SURVEY ADDRESS: 13502 Diamond Head Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,200 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.40 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 46 mph

50TH %: 41 mph

15TH %: 38 mph

AVERAGE SPEED: 43 mph

10 MPH PACE: 38 - 47 mph

% IN PACE: 79%

% OVER PACE: 14%

% UNDER PACE: 7%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 009 BryRedFar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65	X		1	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55	X		1	
54	X	X	2	
53			0	
52		X	1	
51	XX		2	
50	XX	XXX	5	
49	XX	XX	4	
48	XXXX	XX	6	
47	XXXXXX	XXXXXX	12	^
46	XXXXX	XXXXXXXXXX	16	^
45	XXXX	XXXXXXXXXXXXXX	18	^
44	XXXXXXXX	XXXXXXXXX	18	P
43	XXXXXXXXX	XXXXXXXXXX	19	A
42	XXXXXXXXXX	XXXXXXX	18	C
41	XXXX	XXXXXXXXXX	15	E
40	XXXXX	XXXXXXXXX	15	V
39	XXXXXXXXXX	XXX	13	V
38	XXXXXXXX	XX	10	V
37	XXXXXXX	XXX	10	V
36	XX	X	3	
35	XXXX	X	5	
34	XX		2	
33		XX	2	
32	X		1	
31	X		1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Bryan Avenue

LOCATION: Farmington Road to Browning Avenue

DATE: 8/30/19 TIME START 1:44 TIME STOP: 2:33

SURVEY ADDRESS: NB - 13471 Stonehenge Dr, SB - 1889 Bryan Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, school

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, bike lane, school zone

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,200 SEGMENT LENGTH: 0.25

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm EXPECTED RATE: 3.58 acc/mvm

85TH %: 46 mph

50TH %: 42 mph

15TH %: 37 mph

AVERAGE SPEED: 43 mph

10 MPH PACE: 38 - 47 mph

% IN PACE: 77%

% OVER PACE: 11%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 PROPOSED SPEED LIMIT: 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 010 BryFarBro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65	X		1	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57		X	1	
56	X		1	
55	X	X	2	
54	X		1	
53		X	1	
52		XX	2	
51	X	XX	3	
50		XXXXX	5	
49	XXXX	X	5	
48	XXXX	XXXX	8	^
47	XXXXXXXXXXX	XXXXXXXXXX	22	^
46	XXXXXXXXX	XXXXXXX	16	^
45	XXXXXXXXXX	XXXXXXXX	18	P
44	XXXXXXXXXX	XXXXXXXXX	19	A
43	XXXXXXXXXX	XXXXXXX	18	C
42	XXXXXXXX	XXXXXXXXXXX	19	E
41	XXXXXXXX	XXXXXXXX	17	V
40	XXXXXXXX	XXXXXXXXX	17	V
39	XXXXX	XXXXXX	12	V
38	XXXX	XX	6	
37	XX	X	3	
36	X		1	
35		XX	2	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Bryan Avenue

LOCATION: Browning Avenue to Myford Road

DATE: 8/30/19 **TIME START** 2:44 **TIME STOP:** 3:37

SURVEY ADDRESS: 2111 Bryan Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 18,300 **SEGMENT LENGTH:** 0.75

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.20 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 47 mph

50TH %: 43 mph

15TH %: 39 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 39 - 48 mph

% IN PACE: 83%

% OVER PACE: 11%

% UNDER PACE: 6%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 011 BryBroMyf.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57		X	1	
56		X	1	
55		X	1	
54		X	1	
53			0	
52			0	
51		XX	2	
50	XXXXXX	XX	8	
49	XXXX	XX	6	
48	XXXX	XXXX	8	
47	XXXX	XXX	7	^
46	XXXX	XXXX	8	^
45	XXXX	XXXXX	9	^
44	XXXXXX	XXXXXXXXXXXX	18	P
43	XXXXXX	XXXXXXXXX	15	A
42	XXXXXXXXXX	XXXXXXXXXXXXX	22	C
41	XXXXXXXXXX	XXXXXXXX	19	E
40	XXXXXXXXXX	XXXXXXXXXXXX	22	V
39	XXXXXXXXX	XXXXXX	15	V
38	XXXXXXXXXXXX	XXXXXXXXXXX	21	V
37	XXXXX	XX	7	
36	XXX	XXX	6	
35	X	XX	3	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Bryan Avenue

LOCATION: Myford Road to Jamboree Road

DATE: 9/17/19 **TIME START** 11:32 **TIME STOP:** 12:22

SURVEY ADDRESS: NB: 13404 Heritage Way, SB: 2770 Bryan Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 18,400 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.50 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 47 mph

50TH %: 41 mph

15TH %: 37 mph

AVERAGE SPEED: 42 mph

10 MPH PACE: 38 - 47 mph

% IN PACE: 78%

% OVER PACE: 14%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 012 BryMyfJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46		X	1	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38		X	1	
37		X	1	
36	XX		2	
35	XX	XX	4	
34	X		1	
33	XXX	X	4	^
32	XXXXXX	XX	8	^
31	XXXXXXXX	XXXX	12	^
30	XX	XXX	5	P
29	XXX	XXXXXX	10	A
28	XXXXXXXX	XXXXXX	14	C
27	XXXXX	XXXXXX	11	E
26	XXXXXXXX	XX	10	V
25	XXX	XXXX	7	V
24	XXXX		4	V
23	X	X	2	
22	X	X	2	
21		X	1	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Centennial Way

LOCATION: First Street to Main Street

DATE: 9/4/19 **TIME START** 11:56 **TIME STOP:** 12:28

SURVEY ADDRESS: 275 Centennial Way

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,000 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.74 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 32 mph

50TH %: 28 mph

15TH %: 25 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 24 - 33 mph

% IN PACE: 85%

% OVER PACE: 10%

% UNDER PACE: 5%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 013 CenFirMai.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	X	X	2	
42		XX	2	
41		X	1	
40	XXXX	XXX	7	^
39	XXXX	XX	6	^
38	XX	XX	4	^
37	XX	XXXXX	7	P
36	XX	XXXXXXXXXX	12	A
35	XXXXXXX	XXXXXXXX	15	C
34	XXX	XXXXX	8	E
33	XX	XXXXXX	8	V
32	X	XXXXXX	7	V
31	X	XXX	4	V
30	X	XXX	4	
29	XXXX	X	5	
28	XXXXX	X	6	
27	X		1	
26			0	
25			0	
24	X		1	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Chambers Road

LOCATION: Michelle Drive to Frnaklin Avenue

DATE: 9/17/19 **TIME START** 12:32 **TIME STOP:** 1:35

SURVEY ADDRESS: 14352 Chambers Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, 90° turn at south end

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 1,500 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 38 mph

50TH %: 34 mph

15TH %: 29 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 78%

% OVER PACE: 5%

% UNDER PACE: 17%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 014 ChaMicFra.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50	XX	X	3	
49	X	X	2	
48	XX		2	
47	XXXX		4	
46	X		1	
45	X	X	2	
44	XXXXX	X	6	^
43	XXX	XX	5	^
42	XXXXX	XXX	8	^
41	XXXXXXX	XX	9	P
40	X	XXXX	5	A
39		XXXXXXX	7	C
38	XXX	XXXXX	8	E
37	XX	XXXXXXXX	10	V
36	X	XXXXXX	7	V
35	XXXX	XXX	7	V
34	XX	XXXX	6	
33	X	XXXX	5	
32		X	1	
31	XX		2	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Del Amo Avenue

LOCATION: Edinger Avenue to Newport Avenue/SR-55 Ramps

DATE: 9/20/19 **TIME START** 10:26 **TIME STOP:** 11:09

SURVEY ADDRESS: 1200 Edinger Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, bike lane, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,200 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 43 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 72%

% OVER PACE: 14%

% UNDER PACE: 14%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 015 DelEdiNew.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47	X		1	
46	XX		2	
45		X	1	
44	X		1	
43	XX	XX	4	
42	XXXXXX	XXXXX	11	^
41	XXXXX	XXX	8	^
40	XXXXXXX	XX	9	^
39	XX	XX	4	P
38	X	XXXXXXX	8	A
37	XXXX	XXX	7	C
36	XX	XXX	5	E
35	XX	XXXXXXX	10	v
34	X	XXXX	5	v
33	XXXXX	XXXXXX	12	v
32	XX	X	3	
31	X		1	
30	X	X	2	
29			0	
28			0	
27	XX	XX	4	
26	X		1	
25	X		1	
24			0	
23			0	
22	X		1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	101	

ROADWAY: Dow Avenue

LOCATION: Franklin Avenue to Myford Road

DATE: 9/20/19 **TIME START** 11:21 **TIME STOP:** 12:04

SURVEY ADDRESS: 2811 Dow Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 1,900 **SEGMENT LENGTH:** 0.60

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.80 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 41 mph

50TH %: 36 mph

15TH %: 32 mph

AVERAGE SPEED: 37 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 78%

% OVER PACE: 9%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 016 DowFraMyf.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65	XX		2	
64			0	
63			0	
62		X	1	
61			0	
60	X		1	
59			0	
58			0	
57		X	1	
56		XX	2	
55	X		1	
54		XXX	3	
53		XX	2	
52		XXX	3	
51	XXX	XXXXXX	9	
50	X	XX	3	
49	XXX	XXX	6	
48	XXXX	XXXXXXX	11	^
47	XXXXXXX	XXXXX	12	^
46	XXXXXXXX	XXXXX	13	^
45	XXXXXXXX	XXXXXXXXXX	18	P
44	XXXXXXX	XXXXX	12	A
43	XXX	XXXXXXXX	11	C
42	XXXXXXXXXX	XXXXXXXXX	19	E
41	XXXXX	XXXXXX	11	V
40	XXXXXXXXX	XXXXXXX	16	V
39	XXXXXXXXX	XX	11	V
38	XX	XXX	5	
37	XXXXXX	XXX	9	
36	X	XXX	4	
35	XXXXX	X	6	
34	XX	XX	4	
33	XX	X	3	
32			0	
31	X		1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Edinger Avenue

LOCATION: West of Newport Avenue-West City Limit to Red Hill Avenue

DATE: 8/29/19 **TIME START** 11:32 **TIME STOP:** 12:50

SURVEY ADDRESS: EB: 1100 Edinger Aven, WB: 1021 Edinger Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 29,300 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.12 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 49 mph

50TH %: 43 mph

15TH %: 38 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 39 - 48 mph

% IN PACE: 67%

% OVER PACE: 17%

% UNDER PACE: 16%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 017 EdiNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62	X		1	
61		XX	2	
60		X	1	
59		XX	2	
58	X	X	2	
57	XXX	XXXX	7	
56	X	XXXXX	6	
55	XXXXX	XXXXX	10	^
54	XXX	XXXX	7	^
53	XX	XXXXXX	8	^
52	XXX	XXXXXXXX	11	P
51	XXXXXXX	XXXXXXXX	15	A
50	XXXXXXX	XXXXXXXXXX	17	C
49	XXXXXX	XXXXXXXXXXXX	17	E
48	XXXXXXXX	XXXXXX	14	V
47	XXXXXXXX	XXXXX	13	V
46	XXXXXXXXX	XXXX	14	V
45	XXXX	XX	6	
44	XXXX	XXX	7	
43	XXX	XX	5	
42	XXXXX	XX	7	
41	XXXX	X	5	
40	XXXXX	XXXX	9	
39	X	X	2	
38	XXX	X	4	
37	XXX		3	
36	XX	X	3	
35	X	X	2	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Edinger Avenue

LOCATION: Red Hill Avenue to 1500' E/O Red Hill Avenue

DATE: 8/26/19 **TIME START** 10:57 **TIME STOP:** 11:18

SURVEY ADDRESS: EB - 1702 Edinger Ave. WB - 1807 Edinger Ave

ROAD CONDITION: Very good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 27,200 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 5 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.56 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 48 mph

15TH %: 41 mph

AVERAGE SPEED: 48 mph

10 MPH PACE: 46 - 55 mph

% IN PACE: 63%

% OVER PACE: 11%

% UNDER PACE: 27%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 018 EdiRedRed.xls 9/6/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59	X	X X	3	
58	X X X	X X X	6	
57	X X X	X X X X	7	
56	X X X X	X X X X X X	11	
55	X X X	X X	5	^
54	X X X X X	X X X X X X	12	^
53	X X X X X	X X X X X X X X X X	17	^
52	X X X X	X X X X X X	11	P
51	X X X X X X X X	X X X X X X X X X X X X X X	24	A
50	X X X X X X X X X X X X X	X X X X X	19	C
49	X X X X X X X X X	X X X X X X	16	E
48	X X X X X X X X	X X X X X X	14	V
47	X X X X X X X X X	X X X X X X	16	V
46	X X X X X X X X X	X X X	13	V
45	X X	X X X	5	
44	X X	X	3	
43	X X	X	3	
42	X X X X X	X X X	8	
41	X	X	2	
40		X	1	
39		X	1	
38		X X	2	
37			0	
36			0	
35			0	
34		X	1	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Edinger Avenue

LOCATION: 1500' E/O Red Hill Avenue to Kensington Park Drive

DATE: 8/26/19 **TIME START** 11:20 **TIME STOP:** 11:41

SURVEY ADDRESS: EB - 2034 Edinger Ave, WB - 2015 Edinger Ave

ROAD CONDITION: Very good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 27,200 **SEGMENT LENGTH:** 0.45

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.30 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 49 mph

15TH %: 45 mph

AVERAGE SPEED: 50 mph

10 MPH PACE: 46 - 55 mph

% IN PACE: 74%

% OVER PACE: 14%

% UNDER PACE: 13%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 019 EdiRedKen.xls 9/6/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75		X	1	
74			0	
73			0	
72			0	
71		X	1	
70			0	
69			0	
68			0	
67			0	
66	X	X	2	
65		XXX	3	
64	XX	X	3	
63	X	XX	3	
62	X	XXXX	5	
61	XXXX	X	5	
60	X	XXXXXX	7	
59	XX	XXXXXX	8	
58	XXXXXXX	XXXXX	13	^
57	XXXXX	X	6	^
56	XXXXXXX	XXX	10	^
55	XXXXXX	XXXX	10	P
54	XXXXXXXXXX	XXXXXX	17	A
53	XXXXXXXXXXXX	XXXXXXXXXXX	24	C
52	XXXXX	XXXX	9	E
51	XXXX	XXX	7	v
50	XXXXXXXX	X	10	v
49	XXXX	XXXXX	9	v
48	XXXXX	XXXXXX	12	
47	XX	XX	4	
46	XX	XXXXXX	9	
45	X	XXX	4	
44		XXXX	4	
43	X	XX	3	
42	XXX	XXX	6	
41	XX	X	3	
40		X	1	
39		XX	2	
38			0	
37		X	1	
36		X	1	
35			0	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	203	

ROADWAY: Edinger Avenue

LOCATION: Kensington Park Drive to Jamboree Road

DATE: 8/26/19 **TIME START** 12:20 **TIME STOP:** 12:42

SURVEY ADDRESS: EB - 2734 Edinger Ave, WB - 2679 Edinger Ave

ROAD CONDITION: Very good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane, curve

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 26,100 **SEGMENT LENGTH:** 1.00

ACCIDENT HISTORY: 9 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.31 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 59 mph

50TH %: 52 mph

15TH %: 45 mph

AVERAGE SPEED: 53 mph

10 MPH PACE: 49 - 58 mph

% IN PACE: 57%

% OVER PACE: 19%

% UNDER PACE: 25%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 55 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 55 **PROPOSED SPEED LIMIT:** 55

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 020 EdiKenJam.xls 9/6/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61	X	X	2	
60			0	
59			0	
58			0	
57		X	1	
56	X		1	
55	X		1	
54	XXXX	XXX	7	
53	XXXXXX	XX	8	
52	XX		2	
51	XXXXXX	XXXXXX	12	^
50	XXXXX	XXXXXX	11	^
49	XXXXXX	XXXXXXX	13	^
48	XXXXXX	XXXX	10	P
47	XXXXXXXXX	XXXXXX	16	A
46	XXXXX	XXXXXX	12	C
45	XXXXXXX	XXXXX	13	E
44	XXXXXXX	XXXXXXXXX	17	V
43	XXXXXX	XXXXXXX	14	V
42	XXXX	XXXXX	10	V
41	XXXXX	XXXXX	11	
40	XXXXX	XXXXXX	12	
39	XXXX	XXX	7	
38	X	XX	3	
37	XXX	XXX	6	
36	XX	XX	4	
35	XX	X	3	
34	X	X	2	
33	X	X	2	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Edinger Avenue

LOCATION: Jamboree Road to Harvard Avenue

DATE: 9/1919 **TIME START** 1:34 **TIME STOP:** 2:34

SURVEY ADDRESS: EB - 3222 Edinger Ave, WB - 3249 Edinger Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 26,200 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.23 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 50 mph

50TH %: 44 mph

15TH %: 39 mph

AVERAGE SPEED: 45 mph

10 MPH PACE: 42 - 51 mph

% IN PACE: 64%

% OVER PACE: 11%

% UNDER PACE: 25%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 021 EdiJamHar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38	X		1	
37			0	
36	X		1	
35			0	
34			0	
33			0	
32	X		1	
31		XXX	3	
30	X	XXX	4	
29	XX	X	3	
28	XX	XXX	5	^
27	XXXXXX	XXXX	10	^
26	XXX	XX	5	^
25	XXXXXXXX		8	P
24	XXXX	XXXXXX	10	A
23	XXXXX	XXXXXX	11	C
22	XXXXXXXXXX	XXX	12	E
21	XXXX	XXXXXX	10	V
20	XX	XX	4	V
19	XXXX	XXX	7	V
18	X	XXX	4	
17			0	
16		X	1	
15			0	
		GRAND TOTAL	100	

ROADWAY: El Camino Real

LOCATION: First Street to Main Street

DATE: 8/23/19 **TIME START** 8:30 **TIME STOP:** 9:07

SURVEY ADDRESS: 202 El Camino Real

ROAD CONDITION: Good

WEATHER: Cloudy

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,700 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.78 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 27 mph

50TH %: 23 mph

15TH %: 20 mph

AVERAGE SPEED: 24 mph

10 MPH PACE: 19 - 28 mph

% IN PACE: 82%

% OVER PACE: 13%

% UNDER PACE: 5%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 25 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 25 **PROPOSED SPEED LIMIT:** 25

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 022 CamFirMai.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39		X	1	
38			0	
37		X	1	
36	X	X	2	
35		XXXXX	5	
34	X	XXXX	5	^
33	XX	XXX	5	^
32	XX	XXXX	6	^
31	XXXX	XXXXX	10	P
30	XXXX	XXXX	9	A
29	XXXXX	XXXXXXX	13	C
28	XXXX	XXXXXX	11	E
27	XXXXXX	XXXX	10	V
26	XXXXX	XX	7	V
25	XXX	XXXX	7	V
24	XX	XX	4	V
23	XXX		3	
22			0	
21	X		1	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: El Camino Real

LOCATION: Main Street to Newport Avenue

DATE: 8/23/19 **TIME START** 9:13 **TIME STOP:** 9:46

SURVEY ADDRESS: 556 El Camino Real

ROAD CONDITION: Good

WEATHER: Cloudy

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking, curve at south end of segment

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,600 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.27 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 32 mph

50TH %: 28 mph

15TH %: 25 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 83%

% OVER PACE: 9%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 023 CamMaiNew.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47		XX	2	
46	X	XXXX	5	^
45	XXX	XXXXX	8	^
44	XX	X	3	^
43	XX	X	3	P
42	XXXXX	XXXXXXXXXXXXX	18	A
41	XXXXX	XXXXXXXX	13	C
40	XXXX	XXXX	8	E
39	XXXX	XXX	7	v
38	XXXXX	X	6	v
37	XXXXXXX	XXX	10	v
36	XX		2	
35	XXX	XX	5	
34	XX	XX	4	
33			0	
32		X	1	
31	XXXXX		5	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: El Camino Real

LOCATION: Newport Avenue to Red Hill Avenue

DATE: 8/23/19 **TIME START** 9:52 **TIME STOP:** 10:13

SURVEY ADDRESS: 1361 El Camino Real

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail, residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, school

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 13,200 **SEGMENT LENGTH:** 0.51

ACCIDENT HISTORY: 13 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.76 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 81%

% OVER PACE: 2%

% UNDER PACE: 17%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 024 CamNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54	X		1	
53			0	
52			0	
51			0	
50			0	
49		X	1	
48	XX	X	3	
47	XX	X	3	
46		XX	2	
45	XX	XXXX	6	^
44	XXX	XXXX	7	^
43	XXX	XXXXX	8	^
42	XXXX	XXXXX	9	P
41	XXXXX	XX	7	A
40	XXX	XXXXXX	9	C
39	XXXXX	XXXXXXXX	13	E
38	XXX	XXXX	7	v
37	XXXXX	X	6	v
36	XXX		3	v
35	XX	XX	4	
34	X	XX	3	
33	XX		2	
32	X	X	2	
31	X		1	
30	X	X	2	
29			0	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: El Camino Real

LOCATION: Red Hill Avenue to Browning Avenue

DATE: 8/23/19 **TIME START** 11:32 **TIME STOP:** 11:53

SURVEY ADDRESS: 1839 El Camino Real

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,600 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 7 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.33 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 75%

% OVER PACE: 10%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 025 CamRedBro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55		X	1	
54			0	
53		X	1	
52		X	1	
51			0	
50			0	
49	X		1	
48	XX	X	3	
47		XXXX	4	
46	XXX	X	4	
45	XXX	XXX	6	
44	XXXXX	XXXXX	10	^
43	XXXXX	XXXXXX	11	^
42	XXXXXXXXXX	XXXXXXXXXX	19	^
41	XXXX	XXXXX	9	P
40	XXXXXXXXX	XXXXXXXXXX	20	A
39	XXXXXXXXXXX	XXXXXXXXX	20	C
38	XXXXXXXXXX	XXXXXXXXXXXXX	23	E
37	XXXXXXXXXXX	XXXXXXXXX	22	v
36	XXXXXXXXX	XXXXXXXX	19	v
35	XXXXX	XXXX	9	v
34	XXXX	XXXX	8	
33	XXX		3	
32	X	X	2	
31		X	1	
30	X	XX	3	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: El Camino Real

LOCATION: Browning Avenue to Tustin Ranch Road

DATE: 9/18/19 **TIME START** 8:35 **TIME STOP:** 9:25

SURVEY ADDRESS: 2087 El Camino Real

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, park, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 6,600 **SEGMENT LENGTH:** 0.45

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.31 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 43 mph

50TH %: 38 mph

15TH %: 35 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 81%

% OVER PACE: 11%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 026 CamBroTus.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53		X	1	
52			0	
51	X		1	
50			0	
49		XX	2	
48	XXX	X	4	
47	XX	XXXX	6	
46	X	X	2	
45	XX	XXXXXX	8	
44	XX	XXXXXX	8	
43	XXXXXX	XXXXX	11	^
42	XXX	XXXXXXXXXX	13	^
41	XXXXXXXXX	XXXXXXX	16	^
40	XXXXXXXXXXXXX	XXXXXXXXX	22	P
39	XXXXXXXXXXXXX	XXXXXXXXXXX	24	A
38	XXXXXXXXXXXXX	XXXXXXXXX	21	C
37	XXXX	XXXXXXXXXXX	15	E
36	XXXXXXX	XXXXX	12	v
35	XXXXXXXXX	XXXX	13	v
34	XXXXX	XXXX	9	v
33	X	XXX	4	
32	X	X	2	
31	X		1	
30	XX	X	3	
29	XX		2	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: El Camino Real

LOCATION: Tustin Ranch Road to Myford Road

DATE: 9/18/19 **TIME START** 9:38 **TIME STOP:** 11:19

SURVEY ADDRESS: NB: 2719 El Camino Real, SB: 2709 El Camino Real

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 12,500 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 43 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 78%

% OVER PACE: 16%

% UNDER PACE: 6%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b) it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 027 CamTusMyf.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	NORTHBOUND	SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55		X	1	
54			0	
53			0	
52			0	
51			0	
50	X		1	
49	XX		2	
48			0	
47	X		1	
46	X		1	
45		X	1	
44	X	XX	3	
43	X	XX	3	
42	XX	XXX	5	
41	X	XX	3	
40	XXXXXXX	XXX	10	
39	XXX	XXXXXXXX	11	^
38	XXXXXXXX	XXXX	12	^
37	XXXXXXXXXX	XXXXXXXXXXXXX	23	^
36	XXXXXXXX	XXXXXXXXXXXXXXX	23	P
35	XXXX	XXXX	8	A
34	XXXXXXXXX	XXXXXXXX	18	C
33	XXXXX	XXXXXXXXX	15	E
32	XXXXXXXXXX	XXXXXXXX	19	V
31	XXXX	XX	6	V
30	XXXXXXX	XXXX	11	V
29	XXXX	XX	6	
28	XXXXXX	X	7	
27	XX	XXX	5	
26	X	X	2	
25		X	1	
24			0	
23	X		1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	199	

ROADWAY: El Camino Real

LOCATION: Myford Road to Jamboree Road

DATE: 9/19/19 **TIME START** 8:30 **TIME STOP:** 9:53

SURVEY ADDRESS: 3002 El Camino Real

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 12,500 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 29 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 30 - 39 mph

% IN PACE: 73%

% OVER PACE: 16%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 028 CamMyfJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XX	XX	4	
42	XXXXXX	XXX	9	^
41	XXXXXXXXXXX	XXXX	15	^
40	XXXXXXXXX	XX	11	^
39	XXXXXX	XXXXXXXXXXXXXX	20	P
38	XXXXXX	XX	8	A
37	XXXXXXX	XXXXXXXXXXXX	19	C
36	XXXXXXXXXXX	XXXXXXXXXXXXXXX	30	E
35	XXXXXXXX	XXXXXXXXX	18	V
34	XXXXXXXXXX	XXXXX	15	V
33	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXX	31	V
32	XXX	X	4	
31		XXXX	4	
30	X	XXX	4	
29	X	XXXX	5	
28	X		1	
27	X		1	
26		X	1	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: First Street

LOCATION: West of Tustin Avenue to El Camino Real

DATE: 9/24/19 **TIME START** 8:50 **TIME STOP:** 9:36

SURVEY ADDRESS: EB: 450 W First St, WB: 215 W First St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, on-street parking, park

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,700 **SEGMENT LENGTH:** 0.54

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.76 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 32 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 88%

% OVER PACE: 2%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 029 FirTusCam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46		XX	2	
45	X		1	
44	X	XXX	4	
43	X	X	2	
42	X	X	2	
41	XX	XX	4	
40	XXX	XXXXXXX	11	^
39	XXXXXXX	XXX	10	^
38	XXXXXX	XX	8	^
37	XXXXXXXXXXX	XXXXXXXXXXXX	23	P
36	XXXXXXXXXXX	XXXXXXXXXX	21	A
35	XXXXXXX	XXXXXXX	15	C
34	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	28	E
33	XXXXXXXXXX	XXXXXXXXXX	20	V
32	XXXXXXX	XXXXXX	15	V
31	XXXXX	XXXXXX	12	V
30	XXXX	XXXX	8	
29	XXXX	XX	6	
28	XXX		3	
27		X	1	
26	XX		2	
25		X	1	
24			0	
23			0	
22	X		1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: First Street

LOCATION: El Camino Real to Centennial Way

DATE: 9/9/19 **TIME START** 2:24 **TIME STOP:** 3:15

SURVEY ADDRESS: EB: 240 E First St, WB: 429 E First St

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,400 **SEGMENT LENGTH:** 0.28

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.12 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 38 mph

50TH %: 34 mph

15TH %: 30 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 82%

% OVER PACE: 8%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 030 FirCamCen.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XXXX	X	5	
42	XXX	XXX	6	
41	XXX	XXX	6	
40	XXXXXXXX	XXXXXX	14	
39	XXXXX	XXX	8	
38	XXXXXXX	XXXX	11	
37	XXXXXXXXXX	XXXXX	15	
36	XXXXXXXXXXX	XXXXXXXXX	20	
35	XXXXXXX	XXXXXXXXXX	17	
34	XXXX	XXXXXXXXXXXXXXX	18	
33	XXXXXXXXX	XXXXXXXXX	18	
32	XXXXXXXXXX	XXXXXX	16	
31	XXXXXXX	XXXXXXXXXXX	19	
30	XXXX	XXXX	8	
29	XXXXXX	XXXXXXX	13	
28	X	X	2	
27		XX	2	
26		X	1	
25	X		1	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

^^^PACE VVV

ROADWAY: First Street

LOCATION: Centennial Way to Newport Avenue

DATE: 9/9/19 **TIME START** 1:09 **TIME STOP:** 2:18

SURVEY ADDRESS: EB: 662 E First St, WB: 615 E First St

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 14,300 **SEGMENT LENGTH:** 0.24

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.06 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 34 mph

15TH %: 30 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 78%

% OVER PACE: 9%

% UNDER PACE: 14%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 031 FirCenNew.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38			0	
37			0	
36	XX	XXX	5	^
35	XXXXX	XXXX	9	^
34	XXXXXXXXXXXXXXX	XXXX	24	^
33	X	XXX	4	P
32	X	XXXX	5	A
31	XXXXXXXXXXXXXXXX	XXXX	19	C
30		XXXXXXX	7	E
29	XXXX	XXXXXXXXX	14	V
28	XXXX	XXX	7	V
27	XX	XX	4	V
26	X		1	
25			0	
24		X	1	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: First Street

LOCATION: Newport Avenue to Charloma Drive

DATE: 9/9/19 TIME START 12:38 TIME STOP: 1:07

SURVEY ADDRESS: 1239 E First St

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,900 SEGMENT LENGTH: 0.50

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.75 acc/mvm EXPECTED RATE: 3.58 acc/mvm

85TH %: 33 mph

50TH %: 30 mph

15TH %: 28 mph

AVERAGE SPEED: 32 mph

10 MPH PACE: 27 - 36 mph

% IN PACE: 98%

% OVER PACE: 0%

% UNDER PACE: 2%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 PROPOSED SPEED LIMIT: 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 032 FirNewCha.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42	X	XXXX	5	
41	XXX	XXX	6	
40	XX	XX	4	^
39	XXXX	XXXXXX	11	^
38	XXX	XXXX	7	^
37	XXXXX	XXXX	10	P
36	XXX	XXXXXX	10	A
35	X	XXXXX	7	C
34	XXXXX	XXXXXXX	13	E
33	XX	XXX	5	V
32	XX	XXXX	7	V
31	XXXXX	XXX	8	V
30	X		1	
29		XXX	3	
28		X	1	
27	XX		2	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Franklin Avenue

LOCATION: Michelle Drive to Walnut Avenue

DATE: 9/20/19 **TIME START** 12:51 **TIME STOP:** 1:42

SURVEY ADDRESS: 14352 Frankilin Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,400 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.34 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 82%

% OVER PACE: 11%

% UNDER PACE: 7%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 033 FraMicWal.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44	X		1	
43	XXXX	XXX	7	
42	X	X	2	
41	XXXX	XX	6	^
40	XXX	XXX	6	^
39	X	X	2	^
38	XXX	XXX	6	P
37	XXXXXXX	XXXX	11	A
36	XXXXX	XXXXX	10	C
35	XXXX	XXXX	8	E
34	XXXXX	XXXXX	10	V
33	XXXXX	XX	7	V
32	XXXXX	XXXX	9	V
31		XXXX	4	
30	X	XXXXX	6	
29	XX		2	
28	X	X	2	
27	X		1	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Franklin Avenue

LOCATION: Walnut Avenue to Dow Avenue

DATE: 9/20/19 **TIME START** 12:08 **TIME STOP:** 12:48

SURVEY ADDRESS: 14792 Franklin Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 6,400 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.71 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 40 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 75%

% OVER PACE: 10%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the higher than anticipated collision rate it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 034 FraWalDow.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45		XXX	3	
44	XX	X	3	
43	X	X	2	
42	XX	XXX	5	
41			0	
40	XXXX	X	5	^
39	XXXXXXXXX	XXX	12	^
38	XXXXXXXX	XXXX	12	^
37	XXX	XXXXXX	9	P
36	XX	XXX	5	A
35	XXXX	X	5	C
34	XXXX	XXXXX	9	E
33	XXXXXX	XX	8	V
32	XXXXXX	XXX	9	V
31	X		1	V
30	X	X	2	
29	X	X	2	
28	XXXXX	X	6	
27			0	
26	X	X	2	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Heritage Way

LOCATION: Tustin Ranch Road to Myford Road

DATE: 8/23/19 **TIME START** 1:17 **TIME STOP:** 2:16

SURVEY ADDRESS: 2441 Paseo Circulo

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking, parks, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 1,900 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 39 mph

50TH %: 36 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 75%

% OVER PACE: 13%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 035 HerTusMyf.xls 11/22/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39		XX	2	
38	X	X	2	
37	XX		2	
36			0	
35	X	XX	3	^
34	X		1	^
33	XXX	X	4	^
32	XXXX	X	5	P
31	XX		2	A
30	XX	XXX	5	C
29	X		1	E
28	XXX		3	V
27	XX	X	3	V
26	X		1	V
25			0	
24	X	X	2	
23		X	1	
22			0	
21	X		1	
20	X		1	
19	X	X	2	
18	X		1	
17			0	
16			0	
15			0	
		GRAND TOTAL	42	

ROADWAY: Heritage Way

LOCATION: Myford Road to Bryan Avenue

DATE: 8/23/19 **TIME START** 12:14 **TIME STOP:** 1:14

SURVEY ADDRESS: 13408 Heritage Way

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 1,000 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 36 mph

50TH %: 30 mph

15TH %: 23 mph

AVERAGE SPEED: 30 mph

10 MPH PACE: 26 - 35 mph

% IN PACE: 67%

% OVER PACE: 14%

% UNDER PACE: 19%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 036 HerMyfBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49		X	1	
48	XX	X	3	
47	X	XX	3	
46		XXX	3	
45	XXXXX	XXX	8	^
44	XXXX	X	5	^
43	XXX	XXXXX	9	^
42	XX	XXXXXXXX	10	P
41	XXXX	XX	6	A
40	XXXXXX	XXX	9	C
39	XXX	XX	5	E
38	XXXX	XXX	7	V
37	XXXXXXX	XXXX	11	V
36	XX	XXXXXX	8	V
35	X	XXX	4	
34	XXXX	X	5	
33	XX		2	
32			0	
31		X	1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Holt Avenue

LOCATION: North of Warren Avenue to Irvine Boulevard

DATE: 8/30/19 **TIME START** 10:34 **TIME STOP:** 10:56

SURVEY ADDRESS: 14562 Holt Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,000 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 78%

% OVER PACE: 10%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 037 HolWarIrv.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38	X		1	
37			0	
36		XX	2	
35	X	XX	3	
34		XXX	3	^
33		XXXXXX	6	^
32		XXXXXX	6	^
31	XXXXXX	XXXXX	11	P
30	XXXX	XXXX	8	A
29	XXXXXX	XXXX	10	C
28	XXXXX	XXXXXXX	12	E
27	XXXX	XXXXXXXXXXX	15	V
26	XX	XXXX	7	V
25		XXXXXXX	7	V
24	X	XX	3	
23	XX	XX	4	
22	X	X	2	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Holt Avenue

LOCATION: Irvine Boulevard to Newport Avenue

DATE: 9/4/19 **TIME START** 11:10 **TIME STOP:** 11:50

SURVEY ADDRESS: 18302 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,000 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.83 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 32 mph

50TH %: 28 mph

15TH %: 25 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 85%

% OVER PACE: 6%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 038 HolIrvNew.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52	X		1	
51			0	
50	X	XX	3	
49	XX		2	
48	X	X	2	
47	XXXX	XXXX	8	
46	XXXX	XXXXXXX	11	
45	XXXXXX	X	7	
44	XXXXXXXXX	XXXXX	14	^
43	XXXXXXXXXXX	XXXXXXX	18	^
42	XXXXXXX	XXXXXX	13	^
41	XXXXXXXXXXX	XXXXXX	17	P
40	XXXXXXXXXXX	XXXXXXXXXXX	22	A
39	XXXXX	XXXXXXX	12	C
38	XXXXXXXX	XXXXXXXXX	16	E
37	XXXXXXX	XXXXXX	13	v
36	XXX	XXXXXX	9	v
35	XXXX	XXXXXXXXXX	14	v
34	XX	X	3	
33	X	XXXXXXX	8	
32	X	XXX	4	
31		X	1	
30	X	X	2	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Irvine Boulevard

LOCATION: SR-55 (West City Limit) to Prospect Avenue

DATE: 8/21/19 **TIME START** 11:09 **TIME STOP:** 12:20

SURVEY ADDRESS: EB: 17620 Irvine Blvd, WB: 17621 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 31,000 **SEGMENT LENGTH:** 0.58

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.30 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 34 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 74%

% OVER PACE: 17%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 039 IrvSR55Pro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49	XXX		3	
48	XX	XX	4	
47	XXXXXXX	X	8	
46	XX	XXXXXXX	10	
45	XXXXX	XXXX	9	^
44	XXXXX	XXXXXXXXX	15	^
43	XXXXXXXXX	XXXXXXXXX	19	^
42	XXXXXX	XXXXXXXXXXX	18	P
41	XXXXXXXXXXXXXX	XXXXX	21	A
40	XXX	XXXXXXX	11	C
39	XXXXXXXXX	XXXXXXXXXXX	21	E
38	XXXXXXX	XXXX	11	v
37	XXXXXXXXX	XXXXXXXXX	19	v
36	XXXX	XXXXXX	11	v
35	XXXX	XXX	7	
34	XXX	XX	5	
33	XX	XX	4	
32		X	1	
31	X		1	
30	XX		2	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Irvine Boulevard

LOCATION: Prospect Ave to Newport Ave

DATE: 8/21/2019 **TIME START** 12:52 **TIME STOP:** 13:49

SURVEY ADDRESS: EB: 18182 Irvine Blvd, WB: 18191 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial, residential, school

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, school xing at Prospect

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 28,500 **SEGMENT LENGTH:** 0.60

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.43 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 78%

% OVER PACE: 13%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 040 IrvProNew.xls 8/28/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED: EASTBOUND	VEHICLES SURVEYED: WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52		X	1	
51		X	1	
50			0	
49		XX	2	
48	X	XX	3	
47	X	XXX	4	
46	XXX	XXX	6	
45	X	XX	3	
44	XXXXXX	XXXXXX	12	^
43	XXXXXX	XXXX	10	^
42	XXXXXXXX	XXXX	12	^
41	XXXXXXXXXXXXXX	XXXXX	19	P
40	XXXXXXXXX	XXXXX	14	A
39	XXXXXXXXXXXXX	XXXXXXXXX	21	C
38	XXXXXXXXXXXXX	XXXXXXXXXXX	23	E
37	XXXXX	XXXXXXXX	13	V
36	XXXXXXXXX	XXXXX	14	V
35	XXXX	XXXXXXXXX	13	V
34	XX	XXXXXXXXX	11	
33		XXXXXX	6	
32	XX	XXX	5	
31	X	X	2	
30	X	XXX	4	
29			0	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Irvine Boulevard

LOCATION: Newport Ave to Charloma Dr

DATE: 8/21/2019 **TIME START** 14:05 **TIME STOP:** 14:59

SURVEY ADDRESS: EB: 1150 Irvine Blvd, WB:1095 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median, school xing at Charloma

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 38,800 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 9 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.71 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 43 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 76%

% OVER PACE: 10%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 041 IrvNewCha.xls 8/28/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49	XX	X	3	
48	XXX	X	4	
47	XXXXXX	XX	8	
46	XXX	XXXXXXXXX	12	^
45	XXXXXXXXX	XXXXX	14	^
44	XXXX	X	5	^
43	XXXXXXXX	XXXXXXX	15	P
42	XXXXXXXXXXX	XXXXXXXXXXXXXXXX	27	A
41	XXX	XXXXXX	9	C
40	XXXXXXXXX	XXXXXXXXXX	20	E
39	XXXXXXXXXXXX	XXXXX	18	v
38	XXXXXXXXXX	XXXXXXXXXXX	21	v
37	XXXXX	XXXXXXXX	14	v
36	X	XXXXX	6	
35	XXXXX	XXXXX	10	
34	XXXX	XXXXX	9	
33	X		1	
32		X	1	
31			0	
30		X	1	
29		X	1	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Irvine Boulevard

LOCATION: Charloma Dr to Red Hill Ave

DATE: 8/21/2019 **TIME START** 8:58 **TIME STOP:** 09:48

SURVEY ADDRESS: EB: 1352 Irvine Blvd, WB:12972 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, commercial

ROAD GEOMETRICS: 3 lanes each direction, 2-way left-turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 38,800 **SEGMENT LENGTH:** 0.13

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.45 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 78%

% OVER PACE: 8%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 042 IrvChaRed.xls 8/28/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59		X	1	
58			0	
57			0	
56			0	
55	X		1	
54	X		1	
53	XX	XXXX	6	
52	XX		2	
51	XXXXX		5	
50	X	XXX	4	
49	XXX	XXXXX	8	
48	XXXXXXX	XXXX	11	^
47	XXXXX	XXXXXXXXX	14	^
46	XXXX	XXXXXXX	11	^
45	XXXXXX	XXXXXXXXXX	16	P
44	XXXXX	XXXXXX	12	A
43	XXXXXX	XXXXX	11	C
42	XXXXXXX	XXXXXXXX	15	E
41	XXXXXX	XXXXXXX	14	V
40	XXXXX	XXXXXXX	13	V
39	XXXXXXX	XXXXXX	13	V
38	XXXXXXX	XXXX	11	
37	XXXX		4	
36	XXX	XXX	6	
35	XXXX	XXXX	8	
34	XXX	XXX	6	
33	X	X	2	
32	XX		2	
31	X		1	
30	XX		2	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Irvine Boulevard

LOCATION: Browning Avenue to Tustin Ranch Road

DATE: 8/22/19 **TIME START** 10:01 **TIME STOP:** 10:40

SURVEY ADDRESS: EB: 13022 Ranchwood Rd, WB: 2101 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 35,000 **SEGMENT LENGTH:** 0.79

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.10 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 47 mph

50TH %: 42 mph

15TH %: 37 mph

AVERAGE SPEED: 43 mph

10 MPH PACE: 39 - 48 mph

% IN PACE: 65%

% OVER PACE: 14%

% UNDER PACE: 21%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 043 IrvBroTus.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56		X	1	
55		XX	2	
54	X	XX	3	
53	X	X	2	
52	X	XXX	4	
51	XX	XXXXXX	8	
50	XX	X	3	
49	X	XXX	4	
48	XXXX	XXXXXXXX	12	
47	XXXXXX	XXXX	10	^
46	XXXXXX	XXXXXXXXXX	16	^
45	XXXXXXXXXXXX	XXXXXX	20	^
44	XXXXXX	XXXXXXXXX	15	P
43	XXXXXXXXXXX	XXXXXXX	20	A
42	XXXXXXXXX	XXXXXX	17	C
41	XXXXXXX	XXXXXX	14	E
40	XXX	XXXXX	9	V
39	XXXXXXX	XXXX	12	V
38	XXXXXXXX	XXXX	13	V
37	XX	XXX	5	
36	XXXX		4	
35	X	X	2	
34		XX	2	
33			0	
32	X		1	
31		X	1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Irvine Boulevard

LOCATION: Tustin Ranch Road to Jamboree Road

DATE: 8/22/19 **TIME START** 10:47 **TIME STOP:** 11:42

SURVEY ADDRESS: EB: 2354 Irvine Blvd, WB: 2457 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 27,400 **SEGMENT LENGTH:** 0.64

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.42 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 47 mph

50TH %: 43 mph

15TH %: 38 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 38 - 47 mph

% IN PACE: 73%

% OVER PACE: 20%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 044 IrvTusJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61		X	1	
60	XXXXXX	XXXXXXX	13	^
59	XXXXXXXXXX	XXXXXXX	17	^
58	XXXXX	XXXXXXXXXX	16	^
57	XXXX	XXXXXXXXXX	15	P
56	XXXXXXX	XXXXXXX	14	A
55	XXXXXXXXXX	XXXXXXXXXXX	22	C
54	XXXXXXXX	XXXXXXXXXXXXXX	25	E
53	XXXXXX	XXXXXXXX	15	V
52	XXXXXXXXXXXX	XXX	16	V
51	XXXXXXXXXX	X	11	V
50	XXXXXXXXXX	XXX	13	
49	XXX		3	
48	XX	XXXXXX	8	
47		X	1	
46	X	XX	3	
45	XX	X	3	
44	XX		2	
43	X	X	2	
42			0	
41			0	
40			0	
39			0	
38			0	
37			0	
36			0	
35			0	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: North City Limit to Pioneer Road

DATE: 8/27/19 **TIME START** 9:01 **TIME STOP:** 9:28

SURVEY ADDRESS: NB: 10134 Albee Ave, SB: 10008 Albee Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Undeveloped

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 20,200 **SEGMENT LENGTH:** 0.51

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.18 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 58 mph

50TH %: 54 mph

15TH %: 49 mph

AVERAGE SPEED: 54 mph

10 MPH PACE: 51 - 60 mph

% IN PACE: 82%

% OVER PACE: 1%

% UNDER PACE: 18%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 55 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 55 **PROPOSED SPEED LIMIT:** 55

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 045 JamNCLPio.xls 9/13/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68	X		1	
67			0	
66			0	
65		XX	2	
64	XXXXX	X	6	
63	XX	X	3	
62	X	XXXX	5	
61	XXXXX	XXXX	9	^
60	XXXXXXXXX	XXX	12	^
59	XXX	XXXXXXXXX	12	^
58	XXXXX	XXXXXX	12	P
57	XXXXXX	XXXXXXXX	15	A
56	XXXXX	XXXXXXXXX	15	C
55	XXXXXXXX	XXXXXXX	16	E
54	XXXXXXX	XXXXXXXXXXXX	20	V
53	XXXX	XXXXXX	10	V
52	XXXXXXXXXX	XXXX	15	V
51	XXXXX	X	7	
50	XXXXX	XXX	8	
49	XXXXX	XXXXX	11	
48	XXXXX	XXXXX	11	
47	XXX	X	4	
46			0	
45	X	X	2	
44	X		1	
43		X	1	
42			0	
41			0	
40	X		1	
39			0	
38	X		1	
37			0	
36			0	
35			0	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: Pioneer Road to Patriot Way

DATE: 8/26/19 **TIME START** 3:36 **TIME STOP:** 3:53

SURVEY ADDRESS: NB - 10424 Vernon Ln, SB - 10540 Bruns Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential on west side, undeveloped on east side

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane. Curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 20,200 **SEGMENT LENGTH:** 0.63

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.43 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 59 mph

50TH %: 54 mph

15TH %: 49 mph

AVERAGE SPEED: 55 mph

10 MPH PACE: 52 - 61 mph

% IN PACE: 68%

% OVER PACE: 9%

% UNDER PACE: 24%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 55 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 55 **PROPOSED SPEED LIMIT:** 55

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 046 JamPioPat.xls 9/13/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59	XXXXX	XXXXXXX	12	^
58	XXX	XXXXX	8	^
57	XXXXXXXX	XXXXXXXXXXXXX	21	^
56	XXXXXXXXXXXXXX	XXXXXXXX	22	P
55	XXXXXXXXX	XXXXXXXXXXXXXXXXX	25	A
54	XXXXXXXX	XXXXXXXX	16	C
53	XXXXXXXXXXXXXXX	XXXXXXXXXXXX	25	E
52	XXXXXXXXXXXX	XXXXXXX	20	v
51	XXXX	XXXXXXXXX	13	v
50	XXXX	XXXX	8	v
49	XX	XXXX	6	
48	XXXXX	X	6	
47	XXX	XXX	6	
46	XXX		3	
45	X	XXX	4	
44	X	X	2	
43	X		1	
42		X	1	
41	X		1	
40			0	
39			0	
38			0	
37			0	
36			0	
35			0	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: Patriot Way to Tustin Ranch Road

DATE: 8/26/19 **TIME START** 2:51 **TIME STOP:** 3:06

SURVEY ADDRESS: NB - 2860 Watson, SB - 2739 Dietrick Dr

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential on west side, undeveloped on east side

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 22,300 **SEGMENT LENGTH:** 0.75

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 56 mph

50TH %: 53 mph

15TH %: 49 mph

AVERAGE SPEED: 53 mph

10 MPH PACE: 50 - 59 mph

% IN PACE: 85%

% OVER PACE: 0%

% UNDER PACE: 15%

Speed Limit Justification:

Based on the 85th percentile it is recommended to post the speed limit at 55 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 55 **PROPOSED SPEED LIMIT:** 55

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 047 JamPatTus.xls 9/13/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67		X	1	
66			0	
65			0	
64			0	
63	XX		2	
62	X	X	2	
61			0	
60	XXX	XX	5	
59		XX	2	
58	X	X	2	
57	XXX	XXX	6	
56	XXXX	XXX	7	
55	XXX	XXXX	7	
54	XXXXX	XXX	8	
53	XX	XXX	5	^
52	XXXXXXXX	XXXX	12	^
51	XXXXXXXXXXXXX	XXXX	17	^
50	XXXX	XXXXXXXXXX	14	P
49	XXXXX	XXXXXXX	13	A
48	XXXXXX	XXXXXXXXX	16	C
47	XXXXXXX	XXXXXXX	15	E
46	XXXXXX	XXXXXXXXX	15	V
45	XXXXX	XXXX	9	V
44	XXX	XXXXXX	9	V
43	XX	XX	4	
42		XXXXXX	6	
41	XXXXXX	XXX	9	
40	XXXX		4	
39	X	XX	3	
38	XX		2	
37	X	X	2	
36	XX		2	
35			0	
34	X		1	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: Tustin Ranch Road to Champion Way

DATE: 9/12/19 **TIME START** 1:42 **TIME STOP:** 2:27

SURVEY ADDRESS: NB: 23 Elizabeth Ln, SB: 74 Linhaven

ROAD CONDITION: Very good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane, park

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 24,300 **SEGMENT LENGTH:** 0.62

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.18 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %:	54 mph
50TH %:	48 mph
15TH %:	42 mph
AVERAGE SPEED:	49 mph
10 MPH PACE:	44 - 53 mph
% IN PACE:	63%
% OVER PACE:	21%
% UNDER PACE:	17%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 048 JamTusCha.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	NORTHBOUND	SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59	X	XX	3	
58	XXXX	XX	6	
57	X	XXXXXXX	8	
56	XXXXXX	XXX	9	
55	XXXX	XXXXXXX	11	^
54	XXXXXXXX	XXXXXXXXX	17	^
53	XXXXXXXX	XXXXXXXXXX	18	^
52	XXXXXXXXX	XXXX	13	P
51	XXXXX	XXXXXXXXXXXXX	18	A
50	XXXXXX	XXXXXXXXXX	16	C
49	XXXXXXXXX	XXXXXXX	17	E
48	XXXXXXXXX	XX	12	V
47	XXXXXXX	XXXXXX	13	V
46	XXXX	XXXXXXXX	12	V
45	XXXX	XXXXX	9	
44	XXXX		4	
43	XXX	XX	5	
42	X		1	
41	X		1	
40	XX	X	3	
39			0	
38			0	
37	X		1	
36			0	
35	X		1	
34		X	1	
33		X	1	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: Champion Way to Irvine Boulevard

DATE: 9/13/19 **TIME START** 10:44 **TIME STOP:** 11:25

SURVEY ADDRESS: NB: 49 Statehouse Pl, SB: 31 Monument Pl

ROAD CONDITION: Very good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane, sports park, golf course, schools

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 28,900 **SEGMENT LENGTH:** 0.35

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.36 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 50 mph

15TH %: 45 mph

AVERAGE SPEED: 50 mph

10 MPH PACE: 46 - 55 mph

% IN PACE: 74%

% OVER PACE: 13%

% UNDER PACE: 14%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 049 JamChalrv.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68	X		1	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56	X	X	2	
55		X	1	
54	X	XXXX	5	
53	XX	X	3	
52	XXX	X	4	
51	XXX	XX	5	
50	XXX	XX	5	
49	XXX	XXXXXXXXX	12	^
48	XXXXXX	XXXXXXX	13	^
47	XXXX	XX	6	^
46	XXXXXX	XXXXXXXXXXXXX	19	P
45	XXXXXXXXXX	XXXXXXXXX	20	A
44	XXXXXXXX	XXXXXXXXXXXX	20	C
43	XXXXXXXXX	XXXXX	14	E
42	XXXXXXXXX	XXXXX	14	V
41	XXXXX	XXXXX	10	V
40	XXXXX	XXXXXXXXX	15	V
39	XXXXXX	XXXXX	11	V
38	XXX	X	4	
37	XX	XXXXX	7	
36	XXXX		4	
35	XXXX		4	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	199	

ROADWAY: Jamboree Road

LOCATION: Irvine Boulevard to Bryan Avenue

DATE: 9/13/19 **TIME START** 11:32 **TIME STOP:** 12:16

SURVEY ADDRESS: NB: 13404 Heritage Wy, SB: 13369 Jamboree Rd

ROAD CONDITION: Very good

WEATHER: Clear

ROAD DESCRIPTION: Retail, residential

ROAD GEOMETRICS: 4 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 42,000 **SEGMENT LENGTH:** 0.39

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.22 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 48 mph

50TH %: 43 mph

15TH %: 39 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 40 - 49 mph

% IN PACE: 72%

% OVER PACE: 13%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 050 JamIrvBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49	XXX	XXXX	7	
48	XXXXX		5	
47	X	XXXX	5	
46	XXX	XXXXX	8	
45	XXXXXXX	XXX	10	^
44	XXXXXXX	XXXXXXX	14	^
43	XXXXXXX	XXXX	11	^
42	XXXXXX	XXXXXXX	13	P
41	XXXXXXXXXXXX	XXXXXXX	19	A
40	XXXXXXXXX	XXXXXXXX	17	C
39	XXXXXXXXXXX	XXXXXXXXXXXXXXXX	26	E
38	XXXXXX	XXXXXX	12	V
37	XXXXXXXX	XXXXXXXXXXX	19	V
36	XXXX	XXXXX	9	V
35	XXXXXXX	XXX	10	
34	XX	XXXXX	7	
33	X	X	2	
32	X	XXX	4	
31		XX	2	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: Bryan Avenue to I-5 (City Limit)

DATE: 9/17/19 **TIME START** 10:10 **TIME STOP:** 10:59

SURVEY ADDRESS: NB: 13738 Jamboree Rd, SB: 13768 Jamboree Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 4 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 66,700 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.05 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 75%

% OVER PACE: 13%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 051 JamBryI-5.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69		X	1	
68		XXXX	4	
67	X		1	
66	XX	X	3	
65	X	XXX	4	
64	XXX	XXX	6	
63	X	XXX	4	
62	XX	X	3	
61	XXXX	XXXXXX	10	^
60	XXXXXX	XXXXXXX	13	^
59	XXXXXXX	XXXXXXXXX	15	^
58	X	XXXXX	6	P
57	XXXXXXXXX	XXXXX	14	A
56	XXXX	XXXXX	9	C
55	XXXXXXX	XXXX	11	E
54	XXXXXXXXXX	XXXXXXXXX	18	v
53	XXXXXXXXXX	XXXXX	15	v
52	XXXXXX	XXXXXXX	13	v
51	XXX	XXXX	7	
50	XX	XXXXXX	8	
49	XXXXX	XX	7	
48	XXXX	XX	6	
47	XXX	XXXX	7	
46	XX	XXX	5	
45	X		1	
44	XX	XXX	5	
43	X		1	
42			0	
41			0	
40			0	
39	X		1	
38			0	
37			0	
36	X		1	
35			0	
34			0	
33	X		1	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Jamboree Road

LOCATION: OCTA/SCRRA TO Barranca Parkway

DATE: 8/26/19 **TIME START** 1:44 **TIME STOP:** 2:12

SURVEY ADDRESS: NB - 16321 Construction Cir W, SB - 2765 Park Ave

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, retail/commercial

ROAD GEOMETRICS: 4 lanes each direction, raised median with landscaping, bike lane, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 83,700 **SEGMENT LENGTH:** 1.60

ACCIDENT HISTORY: 27 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.18 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 60 mph

50TH %: 54 mph

15TH %: 48 mph

AVERAGE SPEED: 55 mph

10 MPH PACE: 52 - 61 mph

% IN PACE: 62%

% OVER PACE: 13%

% UNDER PACE: 25%

Speed Limit Justification:

Based on the 85th percentile it is recommended to post the speed limit at 60 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 60 **PROPOSED SPEED LIMIT:** 60

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 052 JamOCTABar.xls 9/13/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39	X X		2	
38			0	^
37			0	^
36	X	X	2	^
35	X	X	2	P
34	X		1	A
33	X X		2	C
32	X X		2	E
31			0	v
30		X	1	v
29	X X	X	3	v
28			0	
27			0	
26			0	
25			0	
24			0	
23		X	1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	16	

ROADWAY: Keller Drive

LOCATION: Robinson Drive to Jamboree Road

DATE: 11/7/19 **TIME START** 8:42 AM **TIME STOP:** 9:49 AM

SURVEY ADDRESS: 2874 Keller Dr

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, 1 lane each direction, double yellow centerline, on-street parking, school, park

ROAD GEOMETRICS: Curve at north end

CONDITIONS NOT READILY APPARENT: High collision rate

AVERAGE DAILY TRAFFIC: 500 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 7.31 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 35 mph

50TH %: 32 mph

15TH %: 28 mph

AVERAGE SPEED: 33 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 81%

% OVER PACE: 13%

% UNDER PACE: 6%

Speed Limit Justification:
Based on the 85th percentile and collision rate, it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 053-2 KelRobJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48	X		1	
47		X	1	
46	X		1	
45		X	1	
44	XXXX	XXX	7	
43			0	
42		X	1	
41		X	1	
40	XXXXX	XXXXXXX	12	^
39	XX	XXXXX	7	^
38	XXXXX	XXXXX	10	^
37	XXXXXX	XX	8	P
36	XXXXX	XX	7	A
35	XXX	XXX	6	C
34	XXXXXXXXX		9	E
33	XXXXX	XXXXX	10	v
32	X	XXXXX	6	v
31	XX		2	v
30	X	XXXX	5	
29		XX	2	
28		XX	2	
27		X	1	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Kensington Park Drive

LOCATION: Valencia Avenue to Edinger Road

DATE: 9/19/19 **TIME START** 2:46 **TIME STOP:** 3:36

SURVEY ADDRESS: 15080 Kensington Park Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail/commercial

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 7,100 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 36 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 77%

% OVER PACE: 13%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 054 KenValEdi.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XXX	XX	5	
42	XX	XX	4	
41	XXX	XX	5	
40	XXXX	XXX	7	^
39	XXXXX	X	6	^
38	XXXXX	XXXX	9	^
37	XXXXXXX	XX	9	P
36	XXXXXXX	XXXXX	12	A
35	XXX	XXXX	7	C
34	XXXXX	XX	7	E
33	XXXX	XXXXX	9	v
32	XXXX	XXX	7	v
31	XX	XXXX	6	v
30		XX	2	
29		XXX	3	
28			0	
27		XX	2	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Legacy Road

LOCATION: Warner Avenue to Tustin Ranch Road

DATE: 9/24/19 **TIME START** 12:41 **TIME STOP:** 1:09

SURVEY ADDRESS: 16014 Legacy Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, undeveloped

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,800 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 3.20 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 79%

% OVER PACE: 14%

% UNDER PACE: 7%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 055 LegWarTus.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47	X		1	
46			0	
45			0	
44		X	1	
43	X		1	
42	X		1	
41	XXXXX	XX	7	
40	XX	XXXX	6	^
39	XXXXX	X	6	^
38	XXXXXX	XXXXX	11	^
37	XXX	XX	5	P
36	XX	XXX	5	A
35	XX	XXXXXXXXX	11	C
34	XXXXX	XX	7	E
33	XXXXX	XXXXXX	12	V
32	X	XXXX	5	V
31	XXXX	XXXXXXXX	12	V
30	XX	X	3	
29	XX		2	
28	X	X	2	
27	XX		2	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Main Street

LOCATION: West City Limit to William Street

DATE: 9/23/19 **TIME START** 2:35 **TIME STOP:** 2:55

SURVEY ADDRESS: 16282 E Main St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, park

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,900 **SEGMENT LENGTH:** 0.24

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.28 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 39 mph

50TH %: 34 mph

15TH %: 30 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 80%

% OVER PACE: 11%

% UNDER PACE: 9%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 056 MaiWCLWil.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XX	X	3	
42	XXX	XXXXX	8	^
41	XXXXXXXXX	XXXXXX	15	^
40	XXXXXXX	XXXXXXXXXXXXX	21	^
39	XXXXXXXXXXXXXXX	XXXXXXXX	29	P
38	XXXXXXXXXXXX	XXXXXXXXXXXXXXX	31	A
37	XXXXXXXXXXXXXX	XXXXXX	20	C
36	XXXX	XXXXXXXXXXXX	17	E
35	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	28	V
34	XXXXXXXX	XXXX	13	V
33	XXXX	X	5	V
32		XXXX	4	
31	X	X	2	
30		X	1	
29	X	X	2	
28		X	1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Main Street

LOCATION: William Street to Myrtle Avenue

DATE: 8/26/19 **TIME START** 8:30 **TIME STOP:** 8:53

SURVEY ADDRESS: EB - 690 W Main St, WB - 695 W Main St

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, school

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,900 **SEGMENT LENGTH:** 0.46

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.67 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 39 mph

50TH %: 37 mph

15TH %: 34 mph

AVERAGE SPEED: 37 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 94%

% OVER PACE: 2%

% UNDER PACE: 5%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 057 MaiWilMyr.xls 9/6/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38			0	
37			0	
36	XXX	X	4	^
35	X	XXXXXX	8	^
34	XXXXXX	XXXXXX	13	^
33	XXX	XXXX	7	P
32	XXXXXXXX	XXXXXX	15	A
31	XXXXXX	XXXXXX	12	C
30	XXXX	XXX	7	E
29	XXX	XXXX	7	V
28	XXXXXXX	XXXXXXX	16	V
27	XX	XX	4	V
26		X	1	
25	XXXX	X	5	
24		X	1	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Main Street

LOCATION: Myrtle Avenue to Prospect Avenue

DATE: 12/20/19 **TIME START** 1:31 **TIME STOP:** 1:59

SURVEY ADDRESS: 225 W Main St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,900 **SEGMENT LENGTH:** 0.53

ACCIDENT HISTORY: 7 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.01 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 33 mph

50TH %: 30 mph

15TH %: 27 mph

AVERAGE SPEED: 31 mph

10 MPH PACE: 27 - 36 mph

% IN PACE: 93%

% OVER PACE: 0%

% UNDER PACE: 7%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER MARK H. MILLER No. 40956 CIVIL STATE OF CALIFORNIA

TRAFFIC No. 1575

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: Mark Miller

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 058 MaiMyrPro-2.xls 1/9/2020

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45		X	1	
44			0	
43		XX	2	
42	XXXX	X	5	
41	XXXXX	X	6	^
40	XXXXX	XX	7	^
39	XXXX	X	5	^
38	XXXXXX	XXXX	10	P
37	XXXXXX	XX	8	A
36	XXXX	XXXXXX	10	C
35	XXXXXXXXX	XX	11	E
34	XX	XXXXXX	8	V
33	XX	XXX	5	V
32	X	XXXXXXX	8	V
31	X	XXXXX	6	
30		XX	2	
29	X	X	2	
28		XX	2	
27		XX	2	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Main Street

LOCATION: Prospect Avenue to Newport Avenue

DATE: 9/24/19 **TIME START** 8:30 **TIME STOP:** 8:46

SURVEY ADDRESS: 220 E Main St

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Civic Center, retail

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 12,500 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.34 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 78%

% OVER PACE: 8%

% UNDER PACE: 14%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 059 MaiProNew.xls 11/22/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44		X	1	
43			0	
42	XX	XX	4	
41	XXXXX	XXX	8	^
40	XXXXXXXX	XXX	11	^
39	XXXXXX	XXX	9	^
38	XXXXXX	XXX	9	P
37	XXXXX	XXXXXXXX	13	A
36	XXX	XXXXX	8	C
35	XX	XXXX	6	E
34	XXXXXXXXXX	XXXX	14	V
33		X	1	V
32	XXXXXXX	X	8	V
31	XXX	X	4	
30		X	1	
29	X	XX	3	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Main Street

LOCATION: Newport Avenue to Bryan Avenue

DATE: 9/23/19 **TIME START** 2:05 **TIME STOP:** 2:27

SURVEY ADDRESS: 1140 E Main St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail, residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,100 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 10 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.74 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 36 mph

15TH %: 32 mph

AVERAGE SPEED: 37 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 87%

% OVER PACE: 5%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 060 MaiNewBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XX		2	
42			0	
41	XX	XXXXXXX	9	^
40	XXXX	XXX	7	^
39	XX	XXXXXXXX	10	^
38	XXXX	XXXXXXXXXX	13	P
37	XXXXX	XXX	8	A
36	XXXXXX	XXXX	10	C
35	XXX	XXX	6	E
34	XXXX	XXX	7	V
33	XXXXX	XXX	8	V
32	XXX	XXXXXX	9	V
31	XXXXX	XX	7	
30		X	1	
29	X		1	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	98	

ROADWAY: McFadden Avenue

LOCATION: West City Limit to SR-55

DATE: 9/24/19 **TIME START** 9:50 **TIME STOP:** 10:07

SURVEY ADDRESS: 16661 E McFadden Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial, residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 25,200 **SEGMENT LENGTH:** 0.60

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 36 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 89%

% OVER PACE: 2%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 061 McfWCLSR-55.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43		XXX	3	
42		XXX	3	
41	X	X	2	
40	XXX	XXXXX	8	^
39	XX	XXXXX	7	^
38	XXXXX	XXXXXX	11	^
37	XX	XXXXXXXXX	11	P
36	XXXXX	XXXXXXXXXXX	17	A
35	XXXXXXX		7	C
34	XXXX	XXX	7	E
33	XXX	XXX	6	V
32	XXXXXXXX	XXX	12	V
31	XX	XX	4	V
30	X		1	
29	X		1	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: McFadden Avenue

LOCATION: SR-55 to Newport Avenue

DATE: 9/24/19 **TIME START** 10:11 **TIME STOP:** 10:42

SURVEY ADDRESS: 17311 McFadden Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,800 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 90%

% OVER PACE: 8%

% UNDER PACE: 2%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 062 McfSR-55New.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51	X		1	
50	X		1	
49			0	
48	X		1	
47	X		1	
46	XXXX		4	
45	XXX		3	
44	X		1	
43	XXXX		4	
42	XXX	X	4	^
41	XXXXXX	X	7	^
40	XXXX	X	5	^
39	XXX	XXX	6	P
38	XXXXX	XXXX	9	A
37	XXX	XXXX	7	C
36	X	XXX	4	E
35	XXXXXXXX	XXX	11	v
34	XX	XXX	5	v
33	XXXXX	XX	7	v
32	X	XX	3	
31		XXX	3	
30		XX	2	
29	XXX	X	4	
28	X	XX	3	
27		X	1	
26		X	1	
25	X		1	
24			0	
23			0	
22		X	1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Michelle Drive

LOCATION: Chambers Road to Franklin Avenue

DATE: 9/13/19 **TIME START** 12:38 **TIME STOP:** 1:32

SURVEY ADDRESS:

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,400 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.69 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 42 mph

50TH %: 36 mph

15TH %: 31 mph

AVERAGE SPEED: 37 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 65%

% OVER PACE: 16%

% UNDER PACE: 19%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 063 MicChaFra.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55	XX		2	
54		X	1	
53	X		1	
52	XX		2	
51		X	1	
50	XX		2	
49	XX		2	
48	X	XX	3	
47	XX	XXX	5	
46	XX		2	^
45	XXXX	XX	6	^
44	XXX	X	4	^
43	XXXXXX	XX	8	P
42	XXXXXXXXX	XXX	12	A
41	XXXX	XXXX	8	C
40	XXXXXX	X	7	E
39	XXXXX	XXX	8	V
38	XX	XXXX	6	V
37	XXXX	XXXXX	9	V
36	X	X	2	
35	X		1	
34		X	1	
33	X	X	2	
32		XX	2	
31		X	1	
30		X	1	
29			0	
28		X	1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Michelle Drive

LOCATION: Franklin Avenue to Myford Road-East City Limit

DATE: 9/25/19 **TIME START** 10:17 **TIME STOP:** 10:46

SURVEY ADDRESS: 2721 Michelle Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 laneS each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,400 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 46 mph

50TH %: 41 mph

15TH %: 36 mph

AVERAGE SPEED: 42 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 70%

% OVER PACE: 19%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 064 MicFraMyf.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39		X	1	
38		XXX	3	
37	XX	X	3	^
36	XXX	XXXX	7	^
35	XXXX	XXXX	8	^
34	XXXXX	XXXXXXXXXX	14	P
33	XX	XXXX	6	A
32	XXXXXXXXXXXX	XXXXXXX	19	C
31	XXXXXX	XXXX	10	E
30	XX	XX	4	V
29	XXX	X	4	V
28	XXXXXXXX		8	V
27		X	1	
26	XXX	XXXXX	8	
25		XX	2	
24		X	1	
23		X	1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Mitchell Avenue

LOCATION: Newport Avenue to Red Hill Avenue

DATE: 9/25/19 **TIME START** 10:54 **TIME STOP:** 11:29

SURVEY ADDRESS: 1331 Mitchell Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, school, park

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,900 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 9 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.79 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 34 mph

50TH %: 31 mph

15TH %: 27 mph

AVERAGE SPEED: 32 mph

10 MPH PACE: 28 - 37 mph

% IN PACE: 83%

% OVER PACE: 4%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 065 MitNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39	X		1	
38	XX		2	
37	XX		2	
36	XX	XXX	5	
35	XX	XXX	5	^
34	XXXXX	XXX	8	^
33	XX	XXXX	6	^
32	X	XXXXXXX	8	P
31	XXXXXXX	XXXXXXXX	15	A
30	XXX	XXXX	7	C
29	XXX	XXX	6	E
28	XXX	XXX	6	v
27	XXXXXXXX	XXXX	12	v
26	XXXXX	XXX	8	v
25	X	XXX	4	
24	XX	X	3	
23	X	X	2	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Mitchell Avenue

LOCATION: Red Hill Avenue to Browning Avenue

DATE: 9/25/19 **TIME START** 11:35 **TIME STOP:** 12:23

SURVEY ADDRESS: 1731 Mitchell Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,400 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 7 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 3.76 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 34 mph

50TH %: 30 mph

15TH %: 25 mph

AVERAGE SPEED: 30 mph

10 MPH PACE: 26 - 35 mph

% IN PACE: 81%

% OVER PACE: 10%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 066 MitRedBro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	NORTHBOUND	SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49		XX	2	
48		X	1	
47	XXX	XXXXXX	9	
46	XXXX	XXXX	8	
45	XXXXXX	XXXXX	11	^
44	XXXXXXX	XXXXXX	14	^
43	XXXXXXXXXX	XXXXXXXXXX	22	^
42	XXXXXXXX	XXXXXXXXXX	19	P
41	XXXXX	XXXXXX	11	A
40	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	28	C
39	XXXXXXX	XXXXXXXX	16	E
38	XXXXXXXXXXXX	XXXXXXXXXX	22	V
37	XXXXX	XXXXX	10	V
36	XXXXXXXXX	XXX	12	V
35	XXX	XXXXX	8	V
34	X	X	2	
33	XXX	X	4	
32			0	
31			0	
30		X	1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Myford Road

LOCATION: Irvine Boulevard to Bryan Avenue

DATE: 9/18/19 **TIME START** 12:29 **TIME STOP:** 1:56

SURVEY ADDRESS: 13339 Myford Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, park

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,600 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.41 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 83%

% OVER PACE: 10%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 067 MyfIrvBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48		X	1	
47			0	
46			0	
45			0	
44		X	1	
43	XX		2	
42		X	1	
41	XX		2	
40	X	XXX	4	^
39	XX	X	3	^
38	XX	XX	4	^
37	XXXXX	XXXX	9	P
36	XXXXX	XXXXX	10	A
35	XXXXXXXXX	X	10	C
34	XX	XXXXX	7	E
33	XXXXXX	XXXXX	11	V
32	XXXX	XXXXX	9	V
31	XXX	XXXX	7	V
30		XXXX	4	
29	X	X	2	
28	X	XXXX	5	
27	XX		2	
26	XX	X	3	
25		X	1	
24	X		1	
23		X	1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Myford Road

LOCATION: Bryan Avenue to El Camino Real

DATE: 9/18/19 **TIME START** 11:46 **TIME STOP:** 12:13

SURVEY ADDRESS: 2740 Bryan Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 3 lanes each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,500 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 38 mph

50TH %: 33 mph

15TH %: 29 mph

AVERAGE SPEED: 34 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 74%

% OVER PACE: 7%

% UNDER PACE: 19%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER MARK H. MILLER No. 40956 CIVIL STATE OF CALIFORNIA

TRAFFIC No. 1575

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: Mark Miller

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 068 MyfBryCam.xls 1/23/2020

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48	X		1	
47			0	
46	XXX		3	
45	X	XXX	4	^
44	XXXX		4	^
43	X	XXXX	5	^
42	XXXX	XXXX	8	P
41	XX	X	3	A
40	XXXXX	XXXXX	10	C
39	XXX	XX	5	E
38	XXXX	XXXXXXX	12	V
37	X	XXXXXXXXXXXXXXX	15	V
36	XXX	XXXXXX	9	V
35	XX	XX	4	
34	X	XX	3	
33	X	X	2	
32			0	
31		X	1	
30	X	X	2	
29	XXXXXXXX		8	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Myford Road

LOCATION: Michelle Drive to Dow Avenue

DATE: 9/18/19 TIME START 1:18 TIME STOP: 2:56

SURVEY ADDRESS: 14430 Myford Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,800 SEGMENT LENGTH: 0.70

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm EXPECTED RATE: 3.58 acc/mvm

85TH %: 42 mph

50TH %: 37 mph

15TH %: 33 mph

AVERAGE SPEED: 38 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 75%

% OVER PACE: 4%

% UNDER PACE: 21%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 069 MyfMicDow.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55	X		1	
54			0	
53		X	1	
52		XX	2	
51	XX	X	3	
50	XX	XXX	5	^
49	XXX	XX	5	^
48	XXXXX	X	6	^
47	XX		2	P
46	XXX	XXXXX	8	A
45	XXXX	XXXXXXX	11	C
44	XXXX	XXXXXX	10	E
43	XXXXXX	XXXXX	11	V
42	XXXX	XXXXXX	10	V
41	XXXXX	XXX	8	V
40	XXX	X	4	
39	XX	X	3	
38	X	XX	3	
37			0	
36	XX	X	3	
35	X	X	2	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	98	

ROADWAY: Newport Avenue

LOCATION: North of Warren Avenue to Old Irvine Boulevard

DATE: 8/30/19 **TIME START** 8:30 **TIME STOP:** 8:41

SURVEY ADDRESS: 12581 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial/retail, residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, on-street parking, bike lane, church school

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 30,200 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 10 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.01 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 48 mph

50TH %: 43 mph

15TH %: 40 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 41 - 50 mph

% IN PACE: 78%

% OVER PACE: 7%

% UNDER PACE: 15%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER MARK H. MILLER No. 40956 CIVIL STATE OF CALIFORNIA

TRAFFIC No. 1575

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: Mark Miller

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 070 NewWarOld.xls 1/23/2020

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XX	XXXX	6	
42	XXXXXXX	XXXXXXX	14	^
41	XXX	XX	5	^
40	XXXXX	XXXXX	10	^
39	XXXXX	XXXXXXXXXXXXX	18	P
38	XXXXXXXXXXXXXX	XXXXXXXX	22	A
37	XXXXXXXXXXXXXXX	XXXXXX	21	C
36	XXXXXXXXXXX	XXXXX	16	E
35	XXXXX	XXXXXXXXXXXXXXX	23	v
34	XXXXXXXXXX	XXXXX	15	v
33	XXXXXXXXXX	XXXXXXXX	18	v
32	XXX	XXXXX	9	
31	X	XXXXXX	8	
30	XXXX	XXXX	8	
29			0	
28	XXX	X	4	
27		X	1	
26			0	
25			0	
24	X		1	
23			0	
22	X		1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Newport Avenue

LOCATION: Old Irvine Boulevard to Bryan Avenue

DATE: 8/30/19 **TIME START** 8:48 **TIME STOP:** 9:37

SURVEY ADDRESS: NB: 13224 Newport Ave, SB: 13270 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 27,200 **SEGMENT LENGTH:** 0.80

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.34 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 81%

% OVER PACE: 3%

% UNDER PACE: 16%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 071 NewOldBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42	XXXXX	XX	7	
41	XX	XXXX	6	
40	XXXXXX	XXXXXXXXXXX	17	^
39	XXX	XXXXXX	9	^
38	XXXXXX	XXXXXXXXXX	16	^
37	XXXXXX	XXXXXXXXXXXXXXXX	22	P
36	XXXXXXXXXXXXXXXX	XXXXX	26	A
35	XXXXXXXXX	XXXXXXXXX	17	C
34	XXXXXXXX	XXXXXXXXX	17	E
33	XXXXXXX	XXXXXXXXXXX	18	v
32	XXXXXXX	XXXXXX	15	v
31	XXXXX	XXXXXX	11	v
30	XXX	XXX	6	
29	XXXXXX		6	
28	XX	X	3	
27		X	1	
26	XX		2	
25			0	
24			0	
23	X		1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Newport Avenue

LOCATION: Bryan Avenue to El Camino Real

DATE: 8/27/19 **TIME START** 1:10 **TIME STOP:** 1:38

SURVEY ADDRESS: NB: 13842 Newport Ave, SB: 13821 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 28,500 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.51 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 84%

% OVER PACE: 7%

% UNDER PACE: 10%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 072 NewBryCam.xls 9/23/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53	X		1	
52			0	
51			0	
50			0	
49			0	
48	X		1	
47		X	1	
46		X	1	
45		X	1	
44			0	
43	X		1	
42	XX	X	3	
41			0	
40	X	X	2	^
39	XXXXXX	XXXX	10	^
38	XXX	XXXX	7	^
37	X	XX	3	P
36	XXXXXXX	XXXXX	12	A
35	XXXXXXX	XXXXXXXXX	17	C
34	XXXXXX	XX	8	E
33	XXXXX	XXX	8	V
32	XXXXXXXX	XXXX	12	V
31	XX	XXXXX	7	V
30			0	
29	XXX		3	
28			0	
27		X	1	
26		X	1	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Newport Avenue

LOCATION: El Camino Real to Sycamore Avenue

DATE: 8/29/19 **TIME START** 2:25 **TIME STOP:** 2:50

SURVEY ADDRESS: 14191 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail, residential

ROAD GEOMETRICS: 3 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 28,800 **SEGMENT LENGTH:** 0.70

ACCIDENT HISTORY: 24 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.09 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 38 mph

50TH %: 34 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 86%

% OVER PACE: 9%

% UNDER PACE: 5%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 073 NewCamSyc.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39		X	1	
38			0	
37		X	1	
36	X		1	
35	X		1	
34	X	XXX	4	
33	X	XXX	4	
32	XX	XX	4	^
31	XX	XXXXX	7	^
30	XXXX	XXXXX	9	^
29	XXX	XXXXXX	9	P
28	XXX	XXXXXXXX	11	A
27	XXXX	XXXXXX	10	C
26	XXXX	XXX	7	E
25	XXXXX	XXXXX	10	V
24	XXXXX	X	6	V
23	X	XXXX	5	V
22	XX		2	
21	X	X	2	
20	XX		2	
19	X	XXX	4	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Newport Avenue

LOCATION: Sycamore Avenue to 1100' South of Sycamore Avenue

DATE: 8/29/19 **TIME START** 1:03 **TIME STOP:** 1:53

SURVEY ADDRESS: 14901 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,000 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 5 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.08 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 31 mph

50TH %: 27 mph

15TH %: 23 mph

AVERAGE SPEED: 28 mph

10 MPH PACE: 23 - 32 mph

% IN PACE: 78%

% OVER PACE: 12%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile and th collision rate, is is recommended to post the speed at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	XX		2	
42	XXXXXXX	XXXXXX	13	
41	X	XXXXXXX	8	
40	XXXXXX	XXXXXX	12	
39	XXXXXXXX	XXXXXXX	15	
38	XXXXXXXXX	XXXXXXX	16	
37	XXXXXXXX	XXXXXXXXXX	18	
36	XXXXXXX	XXXXXXXXXXX	18	
35	XXXXX	XXXXXXXXXXXXXX	19	
34	XXXXXXXXXX	XXXXXXXXXX	20	
33	XXXXXXXX	XXXXXXXXXX	18	
32	XXXXXXX	XXXXXXXX	15	
31	XXX	X	4	
30	XXXXXXXXXXXXX	XX	14	
29	X	X	2	
28	X		1	
27	X		1	
26	XX		2	
25	X		1	
24			0	
23			0	
22	X		1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

^^^PACE^^^

ROADWAY: Newport Avenue

LOCATION: Edinger Avenue to Del Amo Avenue-SR-55 Ramps

DATE: 8/29/19 **TIME START** 9:57 **TIME STOP:** 11:17

SURVEY ADDRESS: NB: 15045 Newport Ave, SB: 15181 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 3 lanes each direction, raised median, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 13,800 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.33 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 80%

% OVER PACE: 8%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 075 NewEdiDel.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43		XXXXX	5	
42		XXXXXXXXX	9	
41	XXXXX	XXXXXXXX	13	^
40	XXXXXXX	XXXXXXXXXX	17	^
39	XXXXXXXXXX	XXXXXXXXXXX	20	^
38	XXXXXXXX	XXXXX	13	P
37	XXXXXXXX	XXXXXXXXXXX	19	A
36	XXXXXXXXXX	XXXXXXXXXXXXXXX	24	C
35	XXXXXXXXXXXX	XXXXXXX	20	E
34	XXXXXXXX	XXXXX	13	V
33	XXXXX	XXXXXXXXXXXX	17	V
32	XXXXXXXXXX	XX	12	V
31	XXX	X	4	
30	XXXXXXXXXX		10	
29	X		1	
28	X		1	
27	X		1	
26			0	
25			0	
24		X	1	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Newport Avenue

LOCATION: Del Amo Avenue-SR-55 Ramps to Valencia Avenue

DATE: 8/29/19 **TIME START** 8:40 **TIME STOP:** 9:46

SURVEY ADDRESS: 15442 Newport Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Undeveloped, commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,000 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.42 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 32 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 84%

% OVER PACE: 7%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 076 NewDelVal.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54	X		1	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44	X		1	
43			0	
42			0	
41	X		1	
40	XXXX	XXX	7	
39	X	X	2	
38	XXXX	XXXXXX	10	^
37	XXXX	XXXXXXXXX	13	^
36	XXXXX	XXXXX	10	^
35	X	XX	3	P
34	XXX	XXXXXX	9	A
33	XXXX	XXXXX	9	C
32	XXX	XX	5	E
31	XXXX	XXX	7	V
30	XX		2	V
29	XXXX	XXXX	8	V
28			0	
27		XX	2	
26		XXXXXX	6	
25		X	1	
24			0	
23		XX	2	
22		X	1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Nisson Road

LOCATION: Pasadena Avenue to B Street

DATE: 12/20/19 **TIME START** 2:08 **TIME STOP:** 3:02

SURVEY ADDRESS: 17181 Nisson Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,700 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.65 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 37 mph

50TH %: 33 mph

15TH %: 28 mph

AVERAGE SPEED: 34 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 76%

% OVER PACE: 12%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER MARK H. MILLER No. 40956 CIVIL STATE OF CALIFORNIA

TRAFFIC No. 1575

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: Mark Miller

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 077 NisPasB-2.xls 1/9/2020

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44		XX	2	
43	X		1	
42	X	XXX	4	
41	X	XXX	4	^
40	X	XXXXX	6	^
39	XXX	XXXXX	8	^
38	XXXXX	XXXXXXXX	13	P
37	XXXXXXXX	XXXXXXX	15	A
36	XXXXX	XXXXX	10	C
35	X	XX	3	E
34	X	XXXXXXX	8	V
33	X	XXXXX	6	V
32	XXXXX	X	6	V
31	X	X	2	
30		X	1	
29	XX	XX	4	
28		XXXX	4	
27	X		1	
26			0	
25	XX		2	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Nisson Road

LOCATION: Newport Avenue to Red Hill Avenue

DATE: 8/20/19 **TIME START** 9:41 **TIME STOP:** 10:11

SURVEY ADDRESS: 14011 Charloma Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 5,800 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 12 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 3.78 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 39 mph

50TH %: 36 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 79%

% OVER PACE: 7%

% UNDER PACE: 14%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 078 NisNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43	X		1	
42	XX	XXX	5	
41	XXX	XXXX	7	^
40	XXXXXX	XXX	9	^
39	X	XX	3	^
38	XXXX	XXX	7	P
37	XX	XXXXX	7	A
36	XXX	XXXX	7	C
35	XXXXX	XXXXX	10	E
34	XXXXXXXXXX		10	v
33	XXXXXXXXX	XXX	12	v
32	XXXXXXXX	XXXXXXX	15	v
31		XX	2	
30	X	X	2	
29	XX		2	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Nisson Road

LOCATION: Red Hill Avenue to Browning Avenue

DATE: 8/20/19 **TIME START** 8:48 **TIME STOP:** 9:33

SURVEY ADDRESS: 1782 Nisson Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,200 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.61 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 39 mph

50TH %: 34 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 32 - 41 mph

% IN PACE: 87%

% OVER PACE: 6%

% UNDER PACE: 7%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 079 NisRedBro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42		XX	2	
41		X	1	
40		XXX	3	
39			0	
38		XX	2	
37		XXX	3	
36		XXXXXX	6	^
35		XXXX	4	^
34	X	XXXXX	6	^
33	X	XXXXX	6	P
32	XXX	XXX	6	A
31	XXX	XXXX	7	C
30	X	XXXXXXX	8	E
29	XXXX	XXXXXXXX	13	v
28	XXXXX	XXX	8	v
27	XXXX	XXXXX	9	v
26	XX	XX	4	
25	XXX	XXX	6	
24	X	XX	3	
23	X		1	
22			0	
21			0	
20		X	1	
19	X		1	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Old Irvine Boulevard

LOCATION: Newport Avenue to Irvine Boulevard

DATE: 8/30/19 **TIME START** 9:52 **TIME STOP:** 10:23

SURVEY ADDRESS: 1091 Irvine Blvd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 12,600 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 35 mph

50TH %: 29 mph

15TH %: 26 mph

AVERAGE SPEED: 31 mph

10 MPH PACE: 27 - 36 mph

% IN PACE: 73%

% OVER PACE: 11%

% UNDER PACE: 16%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 080 OldNewIrv.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	EASTBOUND	WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47	X		1	
46	X		1	
45			0	
44	X	X	2	
43	X	XXXX	5	
42	XX	XXXXX	7	
41	XXXX	XXXX	8	
40	XXX	XX	5	
39	XXXXXXXX	X	9	
38	XXXXXXX	XX	9	^
37	XXXXXXXXXX	XXXXX	15	^
36	XXXXXX	XXXXXX	12	^
35	XXXXXXXXXXX	XXXXXXX	18	P
34	XXXXXXXX	XXXXXXXXXX	17	A
33	XXXXXX	XXXXXXXX	14	C
32	XXXXXXX	XXXXXXXXXXXXX	19	E
31	XXXXX	XXXXXXXXXXX	16	V
30	XXXX	XXXXXXX	11	V
29	XXXXXXXXXX	XX	12	V
28	X	XXXXX	6	
27		XXX	3	
26	X	XX	3	
25	X	X	2	
24		X	1	
23	X	X	2	
22		X	1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	199	

ROADWAY: Park Avenue

LOCATION: Victory Road to Warner Avenue

DATE: 9/24/19 **TIME START** 2:18 **TIME STOP:** 3:43

SURVEY ADDRESS: 3198 Park Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, park

ROAD GEOMETRICS: 2 lanes each direction, raised median, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 7,900 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.77 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 39 mph

50TH %: 33 mph

15TH %: 29 mph

AVERAGE SPEED: 34 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 72%

% OVER PACE: 19%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 081 ParVicWar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39	X		1	
38	XX		2	
37	XXX		3	^
36	XXX	XX	5	^
35	XXXX	XXX	7	^
34	XXXXXXXXXXXXXXXX	XX	20	P
33	XXXXXX	XXXXXXX	13	A
32	XXXX	XXXXX	10	C
31	XXX	XXXXXXX	10	E
30	XXX	XXXXX	9	V
29	XXXXX	XXXXXXX	12	V
28		XXXX	5	V
27	X	X	2	
26			0	
25	X		1	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Park Avenue

LOCATION: Warner Avenue to District Drive

DATE: 9/24/19 **TIME START** 1:24 **TIME STOP:** 1:51

SURVEY ADDRESS: 2810 Warner Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,300 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 5 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.35 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 34 mph

50TH %: 32 mph

15TH %: 28 mph

AVERAGE SPEED: 32 mph

10 MPH PACE: 28 - 37 mph

% IN PACE: 94%

% OVER PACE: 3%

% UNDER PACE: 3%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44		X	1	
43	X		1	
42			0	
41		X	1	
40	X		1	
39	XXX	X	4	
38		XXXX	4	
37	XX	XXX	5	
36	XXX	XX	5	
35	X	XXXX	5	
34	XXX	XXXXXXXXX	12	^
33	XXX	XXXXXXXX	11	^
32	XXXXXXX	XXXXXX	13	^
31	XXXX	XXXXXXXXXXX	16	P
30	XXXX	XXXXXXXX	12	A
29	XXXXXXXXXXXX	XXXXXXXX	21	C
28	XXXXXXXXX	XXXXXXXXX	18	E
27	XXXXXXXXX	XXXXXXXX	17	V
26	XXXXXXXXXXXX	XXXXXXXX	19	V
25	XXXXXXXXXX	XXXXX	16	V
24	XXXXXXXX	X	10	
23	XX	XX	4	
22	XX		2	
21	XX		2	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Park Avenue

LOCATION: District Drive to Tustin Ranch Road

DATE: 9/25/19 **TIME START** 8:32 **TIME STOP:** 10:01

SURVEY ADDRESS: 2601 Park Ave

ROAD CONDITION: Good

WEATHER: Cloudy

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 2 lanes each direction, raised median, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 15,800 **SEGMENT LENGTH:** 0.15

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 33 mph

50TH %: 28 mph

15TH %: 24 mph

AVERAGE SPEED: 30 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 78%

% OVER PACE: 14%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 083 ParDisTus.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45	X		1	
44	X		1	
43			0	
42			0	
41		X	1	
40	XX	XXXX	6	
39	X	XX	3	
38	XXX	XXX	6	^
37	XXXX	XXXXX	9	^
36	XX	XXXX	6	^
35	XXXXXX	XXX	9	P
34	XX	XXXXXXX	9	A
33	XXXX	XXX	7	C
32	X	XXXXXXXX	10	E
31	XX	XXXXX	7	V
30	XXXX	XXX	7	V
29	XXXX	XX	6	V
28	XX	X	3	
27	XXXX	XX	6	
26	X		1	
25		X	1	
24	X		1	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Parkcenter Lane

LOCATION: Tustin Ranch Road to Bryan Avenue

DATE: 9/4/19 **TIME START** 2:51 **TIME STOP:** 3:52

SURVEY ADDRESS: 13252 Tiburon Way

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, bike lane, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 1,400 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 5.22 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 37 mph

50TH %: 33 mph

15TH %: 28 mph

AVERAGE SPEED: 34 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 76%

% OVER PACE: 12%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 084 ParTusBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38		X	1	
37			0	
36	X	X	2	
35		X	1	
34	XX	XX	4	^
33	XXXX	XXX	7	^
32	XXXXXX	XXXX	10	^
31	XX	XXXX	6	P
30	X	XXXX	5	A
29	XXXXX	XXXXXXXXXX	15	C
28	XXXXX	XXXXXXX	13	E
27	XXXX	XXXXXXX	11	v
26	XXXXXX	XXXX	10	v
25	XXXX	XX	6	v
24	XXX		3	
23	XXX		3	
22			0	
21	X		1	
20	X		1	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	99	

ROADWAY: Parkcenter Lane

LOCATION: Bryan Avenue to El Camino Real

DATE: 9/4/19 **TIME START** 2:09 **TIME STOP:** 2:47

SURVEY ADDRESS: 13869 Parkcenter Ln

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 1,700 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.15 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 32 mph

50TH %: 28 mph

15TH %: 25 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 88%

% OVER PACE: 4%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 085 ParBryCam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48		X	1	
47			0	
46	X		1	
45	XX		2	
44			0	
43			0	
42	X		1	
41	X		1	
40	XXXX	XX	6	^
39	X	XXX	4	^
38	XXX	XXX	6	^
37	XXX	XXXXX	8	P
36	XXX	XXXX	7	A
35	XXXXXXX	XXXXXX	13	C
34	XXXXXXX	XXXXXXXXX	16	E
33	XXXXX	XXXXX	10	v
32	XXX	XXXXXXX	11	v
31	XXXX	XXXXXXX	11	v
30	XX	XXX	5	v
29	X	X	2	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	105	

ROADWAY: Pasadena Avenue

LOCATION: McFadden Avenue to Sycamore Avenue

DATE: 9/20/19 **TIME START** 1:56 **TIME STOP:** 2:22

SURVEY ADDRESS: 15992 Pasadena Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 13,600 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.15 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 38 mph

50TH %: 33 mph

15TH %: 30 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 88%

% OVER PACE: 6%

% UNDER PACE: 7%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 38 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 086 PasMcfSyc.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52		X	1	
51			0	
50			0	
49			0	
48			0	
47	X		1	
46			0	
45			0	
44			0	
43	X	XX	3	
42	X		1	
41	X		1	
40	XXX	XX	5	
39	XXXXXXXXXX	XX	12	
38	XXXX	XXXXXXXXXXX	14	
37	XXXXXXXXX	XX	11	
36	XXXXXXXXXXXXXXX	XXXXXX	20	
35	XXXXXX	XXXXX	11	
34	XXXXX	XXXXXXXXXXX	15	
33	XXXXXXXXX	XXXX	13	
32	XXXXXXXXXX	XXXXXXXXXXX	21	
31	XXXXXXXXXX	XXXXXXXXX	19	
30	XXXXXXXXX	XXXXXXXXX	18	
29	XXXXXX	XXXX	10	
28	XXXX	XXXX	8	
27	XXXXX	X	6	
26	XXXX	XX	6	
25	XXX		3	
24			0	
23			0	
22		X	1	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

PACE

ROADWAY: Patriot Way

LOCATION: Pioneer Road to Jamboree Road

DATE: 9/13/19 **TIME START** 8:36 **TIME STOP:** 10:36

SURVEY ADDRESS: 10740 Bridger Way

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,200 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 37 mph

50TH %: 32 mph

15TH %: 28 mph

AVERAGE SPEED: 33 mph

10 MPH PACE: 30 - 39 mph

% IN PACE: 77%

% OVER PACE: 6%

% UNDER PACE: 17%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 087 PatPioJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53	X		1	
52			0	
51	X	X	2	
50		XXX	3	
49	X		1	
48		X	1	
47	X		1	
46	XX	XXX	5	^
45	XXXX	XXXXXX	11	^
44	XXX	XX	5	^
43	XXXXXXX	XXX	10	P
42	XX	XXXX	6	A
41	XXX	XXXXX	8	C
40	XXXXXXX	X	8	E
39	XX	XXX	5	v
38	XXXXXX	XX	8	v
37	XX	XXXXX	7	v
36	XXX	X	4	
35	XXXX	X	5	
34	XX		2	
33		XX	2	
32	X		1	
31	X		1	
30		X	1	
29		XX	2	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Pioneer Road

LOCATION: Jamboree Road to Patriot Way

DATE: 9/12/19 **TIME START** 10:18 **TIME STOP:** 11:22

SURVEY ADDRESS: 10501 Prather Ln

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, bike lane, park, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,100 **SEGMENT LENGTH:** 0.60

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.72 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 35 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 73%

% OVER PACE: 9%

% UNDER PACE: 18%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 088 PioJamPat.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47	X	XX	3	
46	XXXXX	XX	7	^
45	XXXX	X	5	^
44	XX	XXXX	6	^
43	XX	X	3	P
42	XX	XXX	5	A
41	XXXX	XXXXXX	10	C
40	XXXX	XXXX	8	E
39	XXXXXXXX	XX	10	V
38	XXXXXX	XXXX	10	V
37	XX	XXXX	6	V
36	XX	XXXX	6	V
35		XXX	3	
34	XXX	XXX	6	
33	XX	X	3	
32	X	XX	3	
31	X	XX	3	
30			0	
29			0	
28			0	
27		X	1	
26		X	1	
25			0	
24	X		1	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Pioneer Road

LOCATION: Patriot Way to Peters Canyon Road

DATE: 9/12/19 **TIME START** 9:23 **TIME STOP:** 10:15

SURVEY ADDRESS: 2560 Reynolds Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,900 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 44 mph

50TH %: 38 mph

15TH %: 33 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 70%

% OVER PACE: 3%

% UNDER PACE: 27%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 089 PioPatPet.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45		XXX	3	
44		X	1	
43		XXXXXX	6	^
42		XXXXX	5	^
41	X	XXX	4	^
40	XXXXX	XXXX	9	P
39	XXXXXX	XXXXXXX	13	A
38	XXXXXXX	XXXX	11	C
37	X	XX	3	E
36	XXXXXXXXXXXX	XX	14	v
35	XXXXXXXXXX	XXXX	14	v
34	XXX	XXX	6	v
33	X	XXX	4	
32	XX	XX	4	
31	X	X	2	
30	X		1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Pioneer Road

LOCATION: Peters Canyon Road to Pioneer Way

DATE: 9/12/19 **TIME START** 11:34 **TIME STOP:** 12:04

SURVEY ADDRESS: 11165 Hayden

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, bike lane, school, park, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 6,200 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.47 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 41 mph

50TH %: 37 mph

15TH %: 33 mph

AVERAGE SPEED: 38 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 85%

% OVER PACE: 4%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the collision rate it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
MARK H. MILLER
No. 40956
CIVIL
STATE OF CALIFORNIA

TRAFFIC No. 1575

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 090-2 PioPetPio.xls 1/9/2020

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38		XX	2	
37		XXXXXX	6	
36		XXXXXXXXX	9	
35	XXXXXXXXX	XXXXX	15	^
34	XXXXXXXXX	XXXXXXXXXX	20	^
33	XXXXXXXXXX	XXXXXXXXX	20	^
32	XXXXXX	XXXXXXXXXXXXXX	21	P
31	XXXXXX	XXXXXXXXXXXXXX	22	A
30	XXXXXXXX	XXX	11	C
29	XXXXXX	XXXX	10	E
28	XXXXXXXXXXXXXX	XXXXXX	20	V
27	XXXXXXXXXXX	XXXXX	17	V
26	XXXXXX	XXXX	10	V
25	X	X	2	
24	XXX	X	4	
23	XXX		3	
22	XXXXX		5	
21	XX		2	
20		X	1	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Pioneer Way

LOCATION: Tustin Ranch Road to Pioneer Road

DATE: 9/12/19 **TIME START** 12:14 **TIME STOP:** 1:16

SURVEY ADDRESS: 11490 Pioneer Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, raised median with landscaping, school, fire station, church

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 10,700 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 34 mph

50TH %: 30 mph

15TH %: 26 mph

AVERAGE SPEED: 31 mph

10 MPH PACE: 26 - 35 mph

% IN PACE: 83%

% OVER PACE: 9%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 25 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 091 PioTusPio.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49		X	1	
48	X	XXX	4	
47	XXXXX	XXXXX	10	
46	XXXX	XX	6	
45	XX	XXXX	6	
44	XXXX	XXXX	8	
43	XXXXXXXXX	XXXXXXXXXX	19	^
42	XXXXXXXX	XXXXXXXXXXXX	20	^
41	XXXXXXXX	XXXXXXXX	17	^
40	XXXXXXXXXXXX	XXXXXXXX	20	P
39	XXXXXXXXXXXXXXX	XXXXXX	21	A
38	XXXXXXXX	XXXXXXXXX	17	C
37	XXXXXXXXXX	XXXXXXXXX	19	E
36	XXXX	XXX	7	V
35	XXX	XX	5	V
34	XXX	XXXXXXXXX	12	V
33	XX	XX	4	
32	XX		2	
31		X	1	
30		X	1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Portola Parkway

LOCATION: Tustin Ranch Road to Jamboree Road

DATE: 9/23/19 **TIME START** 12:43 **TIME STOP:** 1:36

SURVEY ADDRESS: 2976 Penman

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, park

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,700 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 43 mph

50TH %: 39 mph

15TH %: 36 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 79%

% OVER PACE: 18%

% UNDER PACE: 4%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 092 PorTusJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51		X	1	
50			0	
49			0	
48			0	
47			0	
46		X	1	
45	X	XX	3	
44	X	X	2	
43		XX	2	
42	X	XX	3	^
41	XX	XXXXX	7	^
40	XXX	XXXXXXXXXXXXX	16	^
39	XXX	XXXX	7	P
38	XXX	XXXXXXX	10	A
37	XXXX	XXXXXXXX	12	C
36	XXXXXXXX	XXXXXX	14	E
35	XX	XX	4	V
34	XXXX		4	V
33	XXXX	XX	6	V
32	X	XX	3	
31	X	X	2	
30		X	1	
29			0	
28	X		1	
27			0	
26	X		1	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Prospect Avenue

LOCATION: Anglin Lane-North City Limit to 17th Street

DATE: 8/23/19 **TIME START** 10:26 **TIME STOP:** 10:53

SURVEY ADDRESS: 13912 Prospect Ave

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking, school

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 8,800 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 40 mph

50TH %: 37 mph

15TH %: 33 mph

AVERAGE SPEED: 38 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 83%

% OVER PACE: 9%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 093 ProAng17.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47		XX	2	
46	XXXX	XXXX	8	^
45	XXXXX		5	^
44	XXXXXXXX	X	9	^
43	XX	XXXXXXX	9	P
42	XXXXXX	XXXXXXX	13	A
41	XXXXXX	XXXX	10	C
40	XXXXX	XXXX	9	E
39	XXXXX	XXXXX	10	V
38	XXXX		4	V
37	XXXXXX	XXX	9	V
36	X	XXX	4	
35	X	XXX	4	
34	X	XX	3	
33			0	
32		X	1	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Prospect Avenue

LOCATION: 17th Street to Amaganset Way

DATE: 8/22/19 **TIME START** 1:58 **TIME STOP:** 2:17

SURVEY ADDRESS: 17772 Orange Tree Ln

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, commercial

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 12,000 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 5 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.76 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 86%

% OVER PACE: 2%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 094 Pro17Ama.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59	X		1	
58			0	
57			0	
56			0	
55			0	
54		X	1	
53			0	
52			0	
51			0	
50	X		1	
49		XX	2	
48			0	
47		X	1	
46	X	X	2	
45		XX	2	
44	X	XX	3	
43	XX		2	
42	XXX	X	4	^
41	XXXXX	XXX	8	^
40	XXX	XXXX	7	^
39	XXX		3	P
38	XXXXXXX	XXXXXXX	14	A
37	XXXXX	XXXXXXX	12	C
36	XXXXXX	XXX	9	E
35	XXXXXX	XXXX	10	V
34	XXXX	XXXX	8	V
33	XXXX	XXX	7	V
32	XX		2	
31	X	X	2	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	101	

ROADWAY: Prospect Avenue

LOCATION: Amaganset Way to Irvine Boulevard

DATE: 8/22/19 **TIME START** 1:24 **TIME STOP:** 1:44

SURVEY ADDRESS: 17752 Miller Dr

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking, school

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 12,000 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 42 mph

50TH %: 37 mph

15TH %: 33 mph

AVERAGE SPEED: 38 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 81%

% OVER PACE: 15%

% UNDER PACE: 4%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 095 ProAmaIrv.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46		X	1	
45			0	
44	X		1	
43	XX		2	
42	X		1	
41		X	1	
40	XXX	X	4	
39		XX	2	
38	XXXX	X	5	^
37	XX	XXXX	6	^
36	XX	XXXX	6	^
35	XXXXX	XXXX	9	P
34	XXXXX	XXXX	9	A
33	XXXXXXXX	XXXX	12	C
32	XXX	XXXXXX	9	E
31	XXXXX	XXXXXXXX	13	v
30	XX	XX	4	v
29	XXXXX	XX	7	v
28	XX		2	
27	XX	XXX	5	
26			0	
25			0	
24			0	
23			0	
22			0	
21		X	1	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Prospect Avenue

LOCATION: Irvine Boulevard to First Street

DATE: 8/22/19 **TIME START** 12:34 **TIME STOP:** 12:56

SURVEY ADDRESS: 161 N Prospect Ave

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, commercial

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,500 **SEGMENT LENGTH:** 0.15

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.92 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 37 mph

50TH %: 32 mph

15TH %: 29 mph

AVERAGE SPEED: 34 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 80%

% OVER PACE: 12%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 096 ProIrvFir.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40		X	1	
39			0	
38		X	1	
37			0	
36	X	XXX	4	
35	X	XXX	4	
34	XXXX	XX	6	^
33	XXXX	X	5	^
32	XXXX	XXXXX	9	^
31	XXXXX	XXX	8	P
30	XXXX	XXXXXXXX	12	A
29	XXXXXXX	XX	9	C
28	XXXX	XXXXX	9	E
27	XXXX	X	5	V
26	XXXXXX	XX	8	V
25	XXXX	XXXX	8	V
24	XX	X	3	V
23	X	XX	3	
22	X		1	
21	XX		2	
20		X	1	
19	X		1	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Prospect Avenue

LOCATION: First Street to Main Street

DATE: 8/22/19 **TIME START** 12:00 **TIME STOP:** 12:30

SURVEY ADDRESS: 215 S Prospect Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, commercial

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,800 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.92 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 33 mph

50TH %: 29 mph

15TH %: 24 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 79%

% OVER PACE: 10%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 097 ProFirMai.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47	XXXXX		5	
46	XXXX	XXXXXX	11	
45	XXXXXXXXX	XXXXXXXX	17	
44	XXXXXX	XXXXXX	13	
43	XXXXXXX	XXXXX	13	
42	XXXXXXXX	XXXXXXXX	17	
41	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	30	
40	XXXXXXXX	XXXXX	15	
39	XXXXXXX	XXXXXXXXX	18	
38	XXXXXXX	XXXXXXXXXXXXXX	23	
37	XXXXXXXXXXXXX	XXXXX	20	
36	XX	XXX	5	
35	XX	XXX	5	
34	XX	XX	4	
33			0	
32	X	X	2	
31		X	1	
30	X		1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

^^^PACE^^^

ROADWAY: Red Hill Avenue

LOCATION: North of Irvine Boulevard to Bryan Avenue

DATE: 9/4/19 **TIME START** 9:52 **TIME STOP:** 10:41

SURVEY ADDRESS: NB: 13378 Red Hill Ave, SB: 13202 Coral Reef Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane, on-street parking, school

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,300 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.84 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 89%

% OVER PACE: 3%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 098 RedIrvBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51	X		1	
50	X		1	
49	X	XXX	4	
48	XXXXX	XX	7	
47	XXX	XX	5	
46	X	XXXXXXX	8	
45	XXXXXXX	XXXX	11	
44	XXXXXXX	XXXXXX	13	^
43	XXXX	XXXXXX	10	^
42	XXXXXXX	XXXXXXX	14	^
41	XXXXXXXX	XXXXXXXXX	18	P
40	XXXXXXXXXX	XXX	14	A
39	XXXXXXXXX	XXXXXX	15	C
38	XXXX	XXXXXXX	12	E
37	XXXXXXXXXX	XXXXX	15	V
36	XXXXX	XXXXXXXX	14	V
35	XX	XXXXXXXXXXXXX	15	V
34	XXXX	XXXX	8	
33	XX	XX	4	
32	XXXX	X	5	
31	XXX		3	
30		X	1	
29		X	1	
28			0	
27			0	
26	X		1	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Red Hill Avenue

LOCATION: Bryan Avenue to El Camino Real

DATE: 9/4/19 **TIME START** 9:01 **TIME STOP:** 9:47

SURVEY ADDRESS: NB: 13586 Red Hill Ave, SB: 13631 Red Hil Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 3 lanes each direction, 2-way left turn lane, park

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 25,300 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.72 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 34 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 70%

% OVER PACE: 19%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 099 RedBryCam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50		X	1	
49		X	1	
48			0	
47	X	X	2	
46	X		1	
45	X	X	2	
44	XXXX	X	5	
43			0	
42	XXXX	XXX	7	^
41	XXX	XX	5	^
40	XXXX	XXX	7	^
39	XXX	XXXXXX	9	P
38	XXXXXXX	XXX	10	A
37	XXXXXXXXX	XXX	12	C
36	XXXXXX	XXX	9	E
35	XXXX	XX	6	V
34	XXX	XXX	6	V
33	XXXXX	XX	7	V
32	XXXX	X	5	
31		XX	2	
30	X		1	
29			0	
28	X	X	2	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Red Hill Avenue

LOCATION: El Camino Real to Mitchell Avenue

DATE: 9/4/19 **TIME START** 8:30 **TIME STOP:** 8:53

SURVEY ADDRESS: 14232 Red Hill Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail, residential

ROAD GEOMETRICS: 3 lanes each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 34,600 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.70 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 41 mph

50TH %: 37 mph

15TH %: 32 mph

AVERAGE SPEED: 38 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 78%

% OVER PACE: 12%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 100 RedCamMit.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50		XX	2	
49	XX	X	3	
48		X	1	
47		XXX	3	
46	X	XX	3	
45	X	XX	3	
44	XXX	XXX	6	
43	XX	XXXXX	7	
42	XXXXXXXXXXXX	XXXXXXXX	19	^^^PACEVVV
41	XXXXXXX	XXXXXXX	14	
40	XXXXXXXX	XXXXXXXXXX	18	
39	XXXXXXXX	XXXXXXXXXXXX	20	
38	XXXXXXXXXXXX	XXXXXXXXXX	21	
37	XXXXXXXX	XXXXXXXXXX	18	
36	XXXXXXXXXXXXXX	XXXXXXX	21	
35	XXX	XXXXXX	10	
34	XXXXXXXXXX	XXX	12	
33	X	XXXX	5	
32	XXXXX	X	6	
31	X	XXX	4	
30	XX		2	
29	X		1	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Red Hill Avenue

LOCATION: Mitchell Avenue to Walnut Avenue

DATE: 9/3/19 **TIME START** 1:55 **TIME STOP:** 2:46

SURVEY ADDRESS: NB: 14444 Red Hill Ave, SB: 14601 Red Hill Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 24,100 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.61 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 42 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 80%

% OVER PACE: 11%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 101 RedMitWal.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49		XX	2	
48		XX	2	
47	XXX	X	3	
46	X	XX	3	
45	XXX	XXXX	7	
44	XXX	XXXXX	8	^
43	XXXXXXX	XXXXXXX	14	^
42	XXXXXXXXX	XXXXXXXXXXX	18	^
41	XXXX	XXXXXXX	12	P
40	XXXXXXXXX	XXXXXXXXXXXX	21	A
39	XXXXXXXXXX	XXXXXXXXXXX	22	C
38	XXXXXX	XXXXXX	12	E
37	XXXXX	XXXXXXX	13	V
36	XXXXXXXXXX	XXXXXXXXXX	21	V
35	XXXXXXXXXXXXX	XXX	17	V
34	XXXX	XX	6	
33	XXXXX	X	6	
32	XX	XXXX	6	
31	XXX	X	4	
30	X	X	2	
29			0	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Red Hill Avenue

LOCATION: Walnut Avenue to Sycamore Avenue

DATE: 9/3/19 **TIME START** 1:03 **TIME STOP:** 1:49

SURVEY ADDRESS: 14601 Red Hill Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 26,600 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.82 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 42 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 79%

% OVER PACE: 9%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 102 RedWalSyc.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60	X		1	
59			0	
58			0	
57	X		1	
56			0	
55			0	
54		X	1	
53			0	
52		X	1	
51		XX	2	
50		XX	2	
49	XX		2	
48	X	XXX	4	
47	XX	XXX	5	
46	XXX	XXXXX	8	
45	XXXXXX	X	7	
44		XXXX	4	
43	XXXXXXX	XXXXX	12	^
42	XXXXXXXXX	XXXXXXXX	17	^
41	XXXXXXXXX	XXXXXXXXXXXXX	22	^
40	XXXXXXXXX	XXXXX	14	P
39	XXXXX	XXXXXX	11	A
38	XXXXX	XXXX	9	C
37	XXXXXXXXXXX	XXXXXXX	20	E
36	XXXXX	XXXXXXXXXXXX	18	V
35	XXXX	XXXX	8	V
34	XXXXXX	XXX	9	V
33	XX	XXXX	6	
32	XXXXX	X	6	
31	XX	X	3	
30	X	XX	3	
29	XX	X	3	
28			0	
27	X		1	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Red Hill Avenue

LOCATION: Sycamore Avenue to Edinger Avenue

DATE: 9/3/19 **TIME START** 12:07 **TIME STOP:** 12:52

SURVEY ADDRESS: 14941 Braeburn Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, retail

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, school

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 26,600 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.23 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 34 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 70%

% OVER PACE: 19%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 103 RedSycEdi.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54		X	1	
53		XX	2	
52	XXX	XXXX	7	
51	XXXX	XXX	7	
50	XXXX	XXXXX	9	
49	XX	XXXXXX	8	
48	XXXXXXXXXXX	XXXXXX	17	^
47	XXX	XXXXXXXX	11	^
46	XXXXXXX	XXXXXXXXX	16	^
45	XXXXXXXXXXXXX	XXXXXXXXXXXX	25	^
44	XXXXXXX	XXXXXXX	14	P
43	XXXXX	XXXX	9	A
42	XXXXXXXXXXX	XXXX	15	C
41	XXXXX	XXX	8	E
40	XXXXXXXX	XXXXXX	14	V
39	XXXXX	XXXXXXXXX	15	V
38	XXX	XXXXXX	9	V
37	XXXXXXX	X	8	
36		XXX	3	
35			0	
34		X	1	
33	X		1	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Red Hill Avenue

LOCATION: Edinger Avenue to Valencia Avenue

DATE: 9/3/19 **TIME START** 9:57 **TIME STOP:** 10:53

SURVEY ADDRESS: NB: 15102 Red Hill Ave, SB: 15101 Red Hill Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 4 lanes NB, 3 lanes SB, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 21,300 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.11 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 48 mph

50TH %: 44 mph

15TH %: 38 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 39 - 48 mph

% IN PACE: 72%

% OVER PACE: 17%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 104 RedEdiVal.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75	X		1	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64	X		1	
63			0	
62	X		1	
61	X		1	
60			0	
59	XXX	X	4	
58	X		1	
57	XXX	XX	5	
56		XXX	3	
55	XXX	X	4	
54	XXXX	XXX	7	
53	XXXXXXX	XXX	10	
52	XXXXX	XX	7	
51	XXXX	XX	6	
50	XXX	XX	5	
49	XXX	XXX	6	^
48	XXXXXX	XXXXXX	12	^
47	XXXXXX	XXXXXXXX	14	^
46	XXXXXXXX	XXXXXXXXXXXXX	21	P
45	XXXX	XXXXX	9	A
44	XXXXXXXXXX	XXXXXXXXX	19	C
43	XXXXXXX	XXXXX	12	E
42	XXXXXXX	XXXXXXXX	15	V
41	XXXXX	XXXX	9	V
40	XXXX	XXXXXXXXXX	15	V
39	XXX		3	
38		XXXXXX	6	
37		X	1	
36		X	1	
35		X	1	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Red Hill Avenue

LOCATION: Valencia Avenue to Warner Avenue

DATE: 9/3/19 **TIME START** 10:58 **TIME STOP:** 11:46

SURVEY ADDRESS: NB: 15841 Red Hill Ave, SB: 15501 Red Hill Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 4 lanes NB, 3 lanes SB, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 24,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.22 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 52 mph

50TH %: 45 mph

15TH %: 40 mph

AVERAGE SPEED: 47 mph

10 MPH PACE: 40 - 49 mph

% IN PACE: 66%

% OVER PACE: 28%

% UNDER PACE: 6%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 105 RedValWar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58	XX	XX	4	
57	XX		2	
56	XXXXX	XXX	8	
55	XXX	XXXX	7	
54	XXXXXX	XXX	8	
53	XXXX	X	5	
52	XXXX	XX	6	
51	XXXXXXXXX	XXXXX	14	
50	XXXXXX	XXXXX	11	
49	XXXXXX	XXXXXX	12	
48	XXXXXXXXXXXXXX	XXXX	18	
47	XXXXXXX	XXXXXXX	14	
46	XXXXXXXXXX	XXXXXXXXXXXXXXXXXXX	29	
45	XXXXXX	XXXXXX	12	
44	XXXX	XXXXXXXX	12	
43	XXX	XXXXXXXXXXXX	14	
42	XX	XXX	5	
41	XXX	XXX	6	
40	XX	XXX	5	
39		XXX	3	
38	X	X	2	
37			0	
36	X		1	
35	X	X	2	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

^^^PACE^^^

ROADWAY: Red Hill Avenue

LOCATION: Warner Avenue to Barranca Parkway

DATE: 9/3/19 **TIME START** 8:30 **TIME STOP:** 9:24

SURVEY ADDRESS: NB: 2001 Carnegie Ave, SB: 2500 Carnegie Ave

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 4 lanes NB, 3 lanes SB, double yellow centerline, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 26,300 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.21 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 53 mph

50TH %: 46 mph

15TH %: 42 mph

AVERAGE SPEED: 48 mph

10 MPH PACE: 43 - 52 mph

% IN PACE: 71%

% OVER PACE: 17%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 106 RedWarBar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46	X	XX	3	
45		X	1	
44		XXX	3	
43		X	1	
42			0	
41	XX	XXX	5	
40	XXX	XXX	6	^
39		XX	2	^
38	XXXXXX	XXXXXX	12	^
37	XXXX	XXXXXXX	12	P
36	XXXXXXX	XXX	10	A
35	X	XXXXXX	8	C
34	XXX	XXXXX	8	E
33	XXX	XXX	6	V
32	XXXX	XXX	7	V
31	XXX	XXXXX	8	V
30	X	X	2	
29	X	XXXX	5	
28			0	
27		X	1	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Robinson Drive

LOCATION: Irvine Boulevard to Jamboree Road

DATE: 9/19/19 **TIME START** 11:13 **TIME STOP:** 11:55

SURVEY ADDRESS: 131 Robinson Dr

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential, school, sports park

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 4,600 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.40 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 31 - 40 mph

% IN PACE: 79%

% OVER PACE: 13%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 107 RobIrvJam.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38	X		1	
37	X	X	2	^
36	XXX	XXXXX	8	^
35	X	XXX	4	^
34	X	XXXXX	6	P
33	XX	XXX	5	A
32	XX	XXXXXX	8	C
31	XXXXXXX	XXXXXXXXXXXXXX	20	E
30	XXXXXXX	XXXXX	12	V
29	XXXXXXX	XXXXXXX	14	V
28	XXXXX	XXXXXXX	12	V
27		X	1	
26	X	XX	3	
25		XXX	3	
24			0	
23	X		1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: San Juan Street

LOCATION: Newport Avenue to Red Hill Avenue

DATE: 9/4/19 **TIME START** 12:39 **TIME STOP:** 1:13

SURVEY ADDRESS: 1281 San Juan St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking, school, sports park

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.49 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 34 mph

50TH %: 30 mph

15TH %: 27 mph

AVERAGE SPEED: 31 mph

10 MPH PACE: 28 - 37 mph

% IN PACE: 91%

% OVER PACE: 1%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 108 SanNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40	XX	X	3	
39	X		1	
38	X		1	
37	XX	X	3	
36	XXXX		4	
35	XX	XX	4	
34	XXX	XXX	6	^
33	X	XX	3	^
32	XXXXX	X	6	^
31	XXX	XX	5	P
30	XXXXXXXXX	XXXXX	14	A
29	XXXX	XXXXXX	10	C
28	XXXXXX	XX	8	E
27	XXXXXXXXX	XX	11	V
26	XXX	XX	5	V
25	XXX	XXXX	7	V
24	X		1	
23	XX	XX	4	
22	XXX	X	4	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: San Juan Street

LOCATION: Red Hill Avenue to Browning Avenue

DATE: 9/4/19 **TIME START** 1:21 **TIME STOP:** 2:01

SURVEY ADDRESS: 1570 San Juan St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking, 2 schools, retail

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,800 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.61 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 34 mph

50TH %: 29 mph

15TH %: 25 mph

AVERAGE SPEED: 30 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 75%

% OVER PACE: 16%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 109 SanRedBro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52	XX	X	3	
51	X		1	
50	XX	X	3	
49	X	X	2	
48			0	
47	X	X	2	
46	XX	XXXX	6	
45	XXXXX	XXXXX	10	
44	XXXXX	XX	7	
43	XXXXXX	XXXXX	11	^
42	XXXXXXX	XXX	10	^
41	XXXXXXXX	XXX	11	^
40	XXXXXXXXXXXX	XXXXXXXXXXXXXXX	27	P
39	XXXXXXXXX	XXXXXXX	16	A
38	XXXXXXXXX	XXXXXXXXXXXX	21	C
37	XXXXXX	XXXXXXXXX	16	E
36	XXXX	XXXXXXXXX	14	V
35	XXXXXXX	XX	9	V
34	XXXXXXXX	XXXXXXXXXXX	19	V
33	XXX	XX	5	
32		X	1	
31	X	X	2	
30	X	XX	3	
29		X	1	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: 17th Street

LOCATION: SR-55 West City Limit to Yorba Street North

DATE: 9/9/19 **TIME START** 9:02 **TIME STOP:** 10:19

SURVEY ADDRESS: EB: 17480 E 17th St, WB: 17313 E 17th St

ROAD CONDITION: Good

WEATHER: Cloudy

ROAD DESCRIPTION: Retail

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 34,800 **SEGMENT LENGTH:** 0.10

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 43 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 77%

% OVER PACE: 17%

% UNDER PACE: 6%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 110 17SR-55Yor.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52	X		1	
51	X		1	
50	X	XX	3	
49	X	XX	3	
48	XXXXX	X	6	
47	XXXXXX		6	
46	XXX	XXXX	7	
45	XXXXXX	XXXXXXXX	14	^
44	XXXXXXX	XXXXXX	13	^
43	XXX	XXXXXXXXX	12	^
42	XXXXX	XXXXXXXX	13	P
41	XXXXX	XXXXXXXXXXXXX	18	A
40	XXXXXXXXXXXXXXX	XXXX	19	C
39	XXXXXXXXXXX	XXXXXXXXX	21	E
38	XXXXXX	XXXXXXXXXXXX	18	V
37	XXXXXXX	XXXX	11	V
36	XXXX	XXXX	8	V
35	XXXXXXX	XXXX	11	
34	XXX	XXXXXXX	10	
33		X	1	
32	X	X	2	
31	X	X	2	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: 17th Street

LOCATION: Yorba Street North to Prospect Avenue North

DATE: 9/9/19 **TIME START** 10:27 **TIME STOP:** 11:22

SURVEY ADDRESS: EB: 17554 E 17th St, WB: 17741 E 17th St

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail/commercial, residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 36,500 **SEGMENT LENGTH:** 0.46

ACCIDENT HISTORY: 6 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.33 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 36 - 45 mph

% IN PACE: 74%

% OVER PACE: 14%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 111 17YorPro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39			0	
38		XX	2	
37	X	XXX	4	
36	X	XXX	4	
35	X	XX	3	^
34	XXXX	XX	6	^
33	XXXX	XXXXXX	10	^
32	XXXXX	XXXXX	10	P
31	XXXX	XXXXXXXX	12	A
30	XXXXX	XXXXX	10	C
29	XXX	XXXXXXXXXXX	14	E
28	XXXXXXX	XXXX	11	v
27	XX	XXX	5	v
26	XXX	XX	5	v
25		X	1	
24	X	X	2	
23		X	1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Sycamore Avenue

LOCATION: Newport Avenue to Red Hill Avenue

DATE: 9/20/19 **TIME START** 9:46 **TIME STOP:** 10:12

SURVEY ADDRESS: 1182 Sycamore Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, schools, medical center

ROAD GEOMETRICS: 1 lane each direction, 2-way left turn lane, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 8,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 12 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.52 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 33 mph

50TH %: 30 mph

15TH %: 27 mph

AVERAGE SPEED: 31 mph

10 MPH PACE: 26 - 35 mph

% IN PACE: 86%

% OVER PACE: 10%

% UNDER PACE: 4%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 30 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 30

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 112 SycNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	EASTBOUND	WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64		X	1	
63			0	
62		X	1	
61		X	1	
60	X	XXX	4	
59	X	X	2	
58	XXXXX	XX	7	
57	X		1	
56	XX	XXX	5	
55	XXXX	XX	6	
54	XXXX	XXXX	8	
53	XXXXX	XXX	8	^
52	XXX	XXXXXX	9	^
51	XXXXX	XXXXXXXXXX	15	^
50	XXXXXXXXXX	XXXXX	15	P
49	XXXX	XXXXXXX	12	A
48	XXXXXXXX	XXXXXXXXXX	19	C
47	XXXXXX	XXXXXXX	14	E
46	XXXXXXXX	XXXX	12	V
45	XXXXXXXXXX	XXXXXXXXX	21	V
44	XXXXXXXX	XXXXX	13	V
43	XXX	XXXX	7	
42	XXXX	XXX	7	
41	XXXX		4	
40	X	X	2	
39		XX	2	
38	X		1	
37			0	
36		X	1	
35			0	
34		X	1	
33	X		1	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Jamboree Road to Rawlings Way

DATE: 9/23/19 **TIME START** 11:37 **TIME STOP:** 12:04

SURVEY ADDRESS: EB: 2621 Augusta, WB: 2625 Annadale

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane, curve at east end

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,700 **SEGMENT LENGTH:** 0.73

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.14 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 47 mph

15TH %: 43 mph

AVERAGE SPEED: 49 mph

10 MPH PACE: 44 - 53 mph

% IN PACE: 69%

% OVER PACE: 18%

% UNDER PACE: 13%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 113 TusJamRaw.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72	X		1	
71			0	
70			0	
69			0	
68		X	1	
67	X	X	2	
66			0	
65			0	
64	X	X	2	
63		X	1	
62			0	
61		X	1	
60			0	
59			0	
58	XX	XXX	5	
57	XX	XXXXXX	8	
56	X	XXXXX	6	
55	XXXX	XXXX	8	
54	XXXX	XXXXXXXX	12	^
53	XXXX	XXXX	8	^
52	XXXXX	XXXXXXXXX	14	^
51	XXXXXXXX	XXXXXXX	15	P
50	XXXXXX	XX	8	A
49	XXXXXXX	XXXXXXX	14	C
48	XXX	XXXXXXXX	11	E
47	XXXXXX	XXXXX	11	V
46	XXXXXX	XXXXXXXX	14	V
45	XXXXX	XXXX	9	V
44	XXXXX	XXX	8	
43	XXXXX	XXX	8	
42	XXXXXXXX	XXX	11	
41	XX	XX	4	
40	X	X	2	
39	XXXX	X	5	
38	XXX		3	
37	XXX		3	
36	X		1	
35	X	X	2	
34	X	X	2	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Rawlings Way to La Colina Drive

DATE: 9/23/19 **TIME START** 10:33 **TIME STOP:** 11:31

SURVEY ADDRESS: EB: 12436 Tustin Ranch Rd, WB: 2526 Lewis Dr

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,700 **SEGMENT LENGTH:** 0.63

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.16 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 48 mph

15TH %: 41 mph

AVERAGE SPEED: 49 mph

10 MPH PACE: 45 - 54 mph

% IN PACE: 58%

% OVER PACE: 18%

% UNDER PACE: 25%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 114 TusRawCol.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73		X	1	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65		X	1	
64			0	
63			0	
62		X	1	
61		X	1	
60		X	1	
59			0	
58	X	XXX	4	
57			0	
56	XXX	X	4	
55	XXX	XXXXX	8	
54	XXX	XXX	6	
53	XXXX	XXXX	8	
52	XXXXXX	XXX	9	^
51	XXXX	XXXXXXX	11	^
50	XXXX	XXXXXXX	12	^
49	XXXXXXXXX	XXXXXXX	17	P
48	XXXXXXX	XXXXXXX	15	A
47	XXX	XXXXX	9	C
46	XXXXXXXX	XXXXXXX	16	E
45	XXXXX	XXXXXXX	13	v
44	XXXXXX	XXXXXXXXXX	17	v
43	XXXXXX	XXXX	10	v
42	XX	XXX	5	
41	XXXXXX	XX	8	
40	XXXXX	X	6	
39	XX		2	
38	XXXX	X	5	
37	XX		2	
36	XXXX		4	
35	XX	X	3	
34	X		1	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Irvine Boulevard to Bryan Avenue

DATE: 9/23/19 **TIME START** 8:30 **TIME STOP:** 9:29

SURVEY ADDRESS: EB: 13212 Cortina, WB: 13242 Cortina

ROAD CONDITION: Good

WEATHER: Overcast

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 26,200 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.21 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 52 mph

50TH %: 47 mph

15TH %: 41 mph

AVERAGE SPEED: 47 mph

10 MPH PACE: 43 - 52 mph

% IN PACE: 65%

% OVER PACE: 18%

% UNDER PACE: 18%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 116 TusIrvBry.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71		X	1	
70			0	
69			0	
68			0	
67		X	1	
66			0	
65			0	
64			0	
63			0	
62			0	
61	X	X X	3	
60	X	X X	3	
59		X X	2	
58	X	X	2	
57	X X X	X	4	
56	X X	X	3	
55	X X X	X	4	
54	X X	X X X X X	7	
53	X X X	X X X X	7	
52	X X X	X X X X X X X	10	
51	X X	X X X X X X	8	^
50	X X	X X X X X X X	9	^
49	X X X X X X	X X X X X	11	^
48	X X X X X X X X X X X	X X X X X X	17	P
47	X X X X X X X X X X X	X X X X X X X X	19	A
46	X X X X X X X X	X X X X	12	C
45	X X X X X X X X X	X X X X X X X X X X X X	21	E
44	X X X X	X X X X X X X	11	V
43	X X X X X X	X X X X X	11	V
42	X X X X X X X	X X X X X X	13	V
41	X X X X	X	5	
40	X	X	2	
39	X X X X	X	5	
38	X X X	X	4	
37	X	X	2	
36	X	X	2	
35	X		1	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: La Colina Drive to Irvine Boulevard

DATE: 9/23/19 **TIME START** 9:35 **TIME STOP:** 10:30

SURVEY ADDRESS: EB: 12921Ternberry Ct, WB: 12650 Stanton Ave

ROAD CONDITION: Good

WEATHER: Overcast

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 24,000 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.25 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 53 mph

50TH %: 46 mph

15TH %: 41 mph

AVERAGE SPEED: 48 mph

10 MPH PACE: 42 - 51 mph

% IN PACE: 66%

% OVER PACE: 24%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 115 TusColIrv.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49	XXXXX		5	
48	XXXX	XXX	7	
47	XXX	XXXX	7	
46	XXXXXX	X	7	
45	XXXXX	XXXXXXX	12	^
44	XXXXXXXXX	XXXXXX	15	^
43	XXXXXXXXXXXXX	XXXXXXX	20	^
42	XXXXXXXXXX	XXXXXX	16	P
41	XXXXXXXXXX	XXXXXXX	18	A
40	XXXXXXXXX	XXXXXXXXXXXXX	22	C
39	XXXX	XXXXXXXXX	14	E
38	XXXXXXXXXX	XXXXXXXX	18	V
37	XXX	XX	5	V
36	XXXX	XXXXXXXXXXXX	16	V
35	XXX	XXXXX	9	
34	XX	XXXX	6	
33		X	1	
32			0	
31	X		1	
30		X	1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Bryan Avenue to I-5

DATE: 9/20/19 **TIME START** 8:26 **TIME STOP:** 9:36

SURVEY ADDRESS: EB: 28 Auto Center Dr, WB: 17 Auto Center Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential on west side, commercial on east side

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 41,500 **SEGMENT LENGTH:** 0.28

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.24 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %:	44 mph
50TH %:	40 mph
15TH %:	35 mph
AVERAGE SPEED:	41 mph
10 MPH PACE:	36 - 45 mph
% IN PACE:	78%
% OVER PACE:	13%
% UNDER PACE:	9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 117 TusBryI-5.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66	X		1	
65			0	
64		X	1	
63			0	
62	XX	X	3	
61	X	XX	3	
60		X	1	
59	X	XX	3	
58	X	XXXXX	6	
57	X	XXX	4	
56	X	XX	3	
55	XX	XXXX	6	
54	XXX	XXXXXX	9	^
53	XXXXX	XXXXX	10	^
52	XXXXXXX	XXXXXXXXX	16	^
51	XXXX	XXXXXX	10	P
50	XXXXXXX	XXXXXXXXXXXXX	19	A
49	XXXXXX	XXXXXXXX	14	C
48	XXXXX	XXXXX	10	E
47	XXXXXXX	XXXXXXXX	15	V
46	XXXXXX	XXXXXXX	13	V
45	XXXXXX	XXXXXX	12	V
44	XXXXXXX	X	8	
43	XXXXXXXXX	XX	11	
42	XXXXXX	XX	8	
41	X	X	2	
40	XXXX		4	
39	XXXX		4	
38	X		1	
37			0	
36	XX		2	
35			0	
34			0	
33			0	
32			0	
31		X	1	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: I-5 to Walnut Avenue

DATE: 8/27/19 **TIME START** 12:26 **TIME STOP:** 12:42

SURVEY ADDRESS: NB: 14058 Tustin Ranch Rd, SB: 14037 Tustin Ranch Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential on north side, commercial on south side

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane`

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 39,900 **SEGMENT LENGTH:** 0.80

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.09 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 48 mph

15TH %: 42 mph

AVERAGE SPEED: 49 mph

10 MPH PACE: 45 - 54 mph

% IN PACE: 64%

% OVER PACE: 16%

% UNDER PACE: 21%

Speed Limit Justification:

Based on the 85th percentile, it is recommended to post the speed limit at 55 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 55 **PROPOSED SPEED LIMIT:** 55

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 118 TusI-5Wal.xls 9/19/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57		XX	2	
56	XXX	XXXXXX	9	^
55	XXXX	XXXXXXXXXXX	15	^
54	XXXXXXXXXX	XXXXXX	16	^
53	XXXXXXXX	XX	10	P
52	XXXX	XXXXXXXXXXX	15	A
51	XXXXXXXXXXX	XXXXX	16	C
50	XXXXXXXXX	XXXXXXXX	17	E
49	XXXXXXXXXXXX	XXXXXXXXX	22	V
48	XXXXXXXXXXXXX	XXXX	18	V
47	XXXX	XXXXXXXXXXXX	16	V
46	XXX	XXXX	7	
45	XXX	XXXXXXX	10	
44	XXXXXX	XXXX	10	
43	XX	X	3	
42	XX	X	3	
41	X	XXXXXX	7	
40	XXX		3	
39			0	
38		X	1	
37			0	
36			0	
35			0	
34			0	
33			0	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Walnut Avenue to Valencia Avenue

DATE: 8/27/19 **TIME START** 12:08 **TIME STOP:** 12:24

SURVEY ADDRESS: NB: 14831 Franklin Ave, SB: 2361 Ana Tree Pl

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential/retail on north side, commercial/undeveloped on south side

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 31,600 **SEGMENT LENGTH:** 0.75

ACCIDENT HISTORY: 8 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.31 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 53 mph

50TH %: 49 mph

15TH %: 44 mph

AVERAGE SPEED: 49 mph

10 MPH PACE: 47 - 56 mph

% IN PACE: 77%

% OVER PACE: 1%

% UNDER PACE: 22%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 119 TusWalVal.xls 9/19/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58	XXXXXX	XXX	9	
57	XXXXXX	XXX	9	
56	XXXXX	XX	7	
55	XXX	XX	5	
54	XXXXXX	XXX	9	^
53	XXXXXXXXX	XXXXX	14	^
52	XXXXXXXXX	XXXXXXXXX	18	^
51	XXXXX	XXXXXX	11	P
50	XXXXXXXX	XXXXXXX	15	A
49	XXXXXXXX	XXXXXXXX	16	C
48	XXXX	XXXX	8	E
47	XX	XXXXXXXX	10	V
46	XXXXXXXXXXXX	XXXXXXX	21	V
45	XXXX	XXXXX	9	V
44	X	XXXXX	6	
43	XXXX	XXXXX	9	
42	XXX	XXXXXXXX	12	
41	X	XXX	4	
40	X		1	
39		XXX	3	
38			0	
37			0	
36			0	
35		X	1	
34	X		1	
33			0	
32			0	
31	X	X	2	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Valencia Avenue to Victory Road

DATE: 8/27/19 **TIME START** 11:47 **TIME STOP:** 12:06

SURVEY ADDRESS:

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Undeveloped

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 29,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.06 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 48 mph

15TH %: 42 mph

AVERAGE SPEED: 49 mph

10 MPH PACE: 45 - 54 mph

% IN PACE: 66%

% OVER PACE: 15%

% UNDER PACE: 20%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 120 TusValVic.xls 9/19/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58		X	1	
57			0	
56		XX	2	
55			0	
54		XX	2	
53		XXXXX	5	
52	X	XXXXXXXX	9	
51	XX	XXXXXX	8	
50	XXXXXX	XXXXXX	12	
49	XX	XXXXX	7	^
48	XX	XXX	5	^
47	XXXXX	XXXX	9	^
46	XXXXXXXXXXXX	XXXXX	18	P
45	XXXXXXXXXXXXX	XXXXXXXXXXXXXX	26	A
44	XXXXXXXXX	XXX	12	C
43	XXXXX	XXXXXXXXXXX	16	E
42	XXXXXXX	XXXXXX	13	V
41	XXXXXX	XX	8	V
40	XXXXXXXXXX	XXXXXX	16	V
39	X		1	
38	XXX	XXX	6	
37	XX	X	3	
36	XXXXXX	XX	8	
35	XXX		3	
34	XX	X	3	
33		X	1	
32	X	X	2	
31	X	X	2	
30		XX	2	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Victory Road to Warner Avenue

DATE: 8/27/19 **TIME START** 11:20 **TIME STOP:** 11:45

SURVEY ADDRESS: EB: 3136 Park Ave, WB: 3100 Park Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Undeveloped, retail, residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 29,700 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.20 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 49 mph

50TH %: 44 mph

15TH %: 39 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 40 - 49 mph

% IN PACE: 65%

% OVER PACE: 20%

% UNDER PACE: 16%

Speed Limit Justification:

Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 121 TusVicWar.xls 9/19/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73	X		1	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65	X	X	2	
64			0	
63			0	
62			0	
61			0	
60	X		1	
59	XX	X	3	
58	X	X	2	
57			0	
56	X	X	2	
55	X	XX	3	
54	X		1	
53	XX	XXXX	6	
52	XX	X	3	
51		XX	2	
50	XXX	XXX	6	
49	XXXXX	XXXXX	10	
48	XXXXX	XXXX	9	
47	XXX	XXXXX	8	
46	XX	XXXXXXXXXXX	12	^
45	XXXX	XXXX	8	^
44	XXXXXXX	XXXXX	12	^
43	XXX	XXXXXXX	10	P
42	XXXXXXXXXX	XXXXXXX	17	A
41	XXXXX	XXXXXXX	13	C
40	XXXXXX	XXXXX	11	E
39	XXXXXXX	XXXX	11	V
38	XXXXXXX	XXXXX	12	V
37	XXXXXXX	XXXX	11	V
36	XXXXXXX	XXXXX	12	
35	XXXX	XX	6	
34	XX	XX	4	
33		X	1	
32		X	1	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Warner Avenue to Park Avenue

DATE: 9/5/19 **TIME START** 12:52 **TIME STOP:** 2:00

SURVEY ADDRESS: EB: 2300 Park Ave, WB: 16004 Legacy Rd

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail, residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 20,900 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 49 mph

50TH %: 42 mph

15TH %: 36 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 59%

% OVER PACE: 30%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 122 TusWarPar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56		X	1	
55			0	
54	X		1	
53	X	X	2	
52		X	1	
51			0	
50	XX	XXXXX	7	
49	XXXX	X	5	
48	XXX	XX	5	
47	XXXXXXX	XXXXXXX	14	
46	XX	XXXXXXXXXX	12	^
45	XXXXXXX	XXXXXXXX	15	^
44	XXXXXXXXXX	XXXXXXXX	18	^
43	XXXXX	XXXXXXXX	14	P
42	XXXXX	XXXXX	10	A
41	XXXXX	XXXXXXXXX	15	C
40	XXXXXXX	XXXXXXX	15	E
39	XXXXXXXX	XXXXX	13	V
38	XX	XXXX	6	V
37	XXXXXXXXXX	XXXXXXX	17	V
36	XXXXXXXX	XXX	11	
35	XXX	XX	5	
34	X	XX	3	
33	XXXXXX		6	
32	X	X	2	
31	X		1	
30	X		1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Tustin Ranch Road

LOCATION: Park Avenue to Barranca Parkway

DATE: 9/5/19 **TIME START** 11:57 **TIME STOP:** 12:47

SURVEY ADDRESS: EB: 2237 Park Ave, WB: 2201 Park Ave

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Retail, undeveloped

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 25,900 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.35 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %:	46 mph
50TH %:	41 mph
15TH %:	36 mph
AVERAGE SPEED:	42 mph
10 MPH PACE:	37 - 46 mph
% IN PACE:	68%
% OVER PACE:	18%
% UNDER PACE:	15%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 123 TusParBar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52	XX		2	
51			0	
50		X	1	
49		XX	2	
48	X	XXX	4	
47	X	XX	3	
46	X		1	
45		XXX	3	
44	XXX	XX	5	^
43	XXX	XXX	6	^
42	XXX	XXXXXXXX	11	^
41	XXXXXXXX	XXX	11	P
40	XXXXX	XX	7	A
39	XXXX	XXXXXXXX	11	C
38	XX	XX	4	E
37	XXXX	XXX	7	V
36	X	X	2	V
35	XX	XX	4	V
34	X	X	2	
33	XX	X	3	
32	X	X	2	
31	XX	X	3	
30	X		1	
29		X	1	
28	XX	X	3	
27			0	
26	X		1	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Valencia Avenue

LOCATION: Newport Avenue to Red Hill Avenue

DATE: 9/6/19 **TIME START** 11:22 **TIME STOP:** 11:47

SURVEY ADDRESS: 1311 Valencia Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,400 **SEGMENT LENGTH:** 0.30

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.80 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 34 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 68%

% OVER PACE: 16%

% UNDER PACE: 16%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 124 ValNewRed.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60	X	X	2	
59			0	
58			0	
57			0	
56	XX		2	
55		XX	2	
54	XX		2	
53	XX	X	3	
52	XX		2	
51	X	XX	3	
50	XX	XXXX	6	
49	XXX	XXXXXXX	10	
48	XXXXX	XXXXXXXX	13	
47	X	XXXX	5	
46	XXXXXX	XX	8	^
45	XXXXX	XXXXXXXX	13	^
44	XXXXXXXXX	XXXXX	14	^
43	XXXX	XXXXXXXXXXXXXXX	18	P
42	XXXXXXX	XXXXXXXX	15	A
41	XXXX	XXXX	8	C
40	XXXXXXX	XXXXXXXX	15	E
39	XXXXXXXX	XXXX	12	V
38	XXXXXXX	XXXX	11	V
37	XXXXXXXXX	XXXXXXXX	18	V
36	XXXX	XX	6	
35	XXX	XX	5	
34	X	X	2	
33	XX		2	
32	X		1	
31			0	
30			0	
29	X		1	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	199	

ROADWAY: Valencia Avenue

LOCATION: Red Hill Avenue to Armstrong Avenue-Severyns Road

DATE: 9/6/19 **TIME START** 11:59 **TIME STOP:** 12:45

SURVEY ADDRESS: NB: 1600 Valencia Ave, SB: 15400 Lansdowne Rd

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, raised median, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,400 **SEGMENT LENGTH:** 0.35

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 48 mph

50TH %: 42 mph

15TH %: 36 mph

AVERAGE SPEED: 43 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 66%

% OVER PACE: 25%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 125 ValRedArm.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54		XXX	3	
53		XX	2	
52		XXXX	4	
51	XXXX	XXXXX	9	
50	XXXXXXXXX	XXX	12	
49	XXXXX	XXXXXX	11	^
48	XXXXX	XXXXXX	11	^
47	XXXXXXXXXX	XXXXXXXXX	19	^
46	XXXXXXX	XXXXXX	13	P
45	XXXXXX	XXXX	10	A
44	XXXXXXXX	XXXXXXX	15	C
43	XXXXXXXXXX	XXXX	15	E
42	XXXXXXXX	XXXXXXXXXX	18	V
41	XXXX	XXXXXX	10	V
40	XXXXXXXX	XXXXXX	14	V
39	XXXXXXX	XXX	10	
38		XXXXX	5	
37	XX	XX	4	
36	XXXX	XXXXXXX	11	
35	X		1	
34	X		1	
33		XX	2	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Valencia Avenue

LOCATION: Armstrong Avenue-Severyns Road to Kensington Park Road

DATE: 9/6/19 **TIME START** 1:12 **TIME STOP:** 2:10

SURVEY ADDRESS: NB: 15208 Grant Wy, SB: 1440 Vanlencia Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, undeveloped

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,100 **SEGMENT LENGTH:** 0.47

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 49 mph

50TH %: 43 mph

15TH %: 38 mph

AVERAGE SPEED: 44 mph

10 MPH PACE: 40 - 49 mph

% IN PACE: 68%

% OVER PACE: 15%

% UNDER PACE: 17%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER---TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 126 ValArmKen.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55	X		1	
54			0	
53	X		1	
52	XX		2	
51		X	1	
50	X	X	2	
49	X	X	2	
48	XXX	XX	5	
47	XX	XX	4	
46	XXXXXXXXX	XXX	12	
45	XXXXXX	X	7	
44	XXXXXX	XXX	9	^
43	XXXXXXXXXX	XXXXXX	16	^
42	XXXXXX	XXXXXXXXXXX	17	^
41	XXXXXXX	XXXXXXX	14	P
40	XXXXXXX	XXXXXXXXXXXXXXX	23	A
39	XXX	XXXXXXX	11	C
38	XXXXXXXXX	XXXXXXXXXX	19	E
37	XXXXXXX	XXXXXX	14	v
36	XXXXXX	XXXX	10	v
35	XX	XXXXXXX	10	v
34	X	XX	3	
33	XX	XXXX	6	
32	XXXX	X	5	
31	XXXX	XX	6	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Valencia Avenue

LOCATION: Kensington Park Road to Tustin Ranch Road

DATE: 9/24/19 **TIME START** 10:56 **TIME STOP:** 12:26

SURVEY ADDRESS: 1520 Valencia Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Retail, undeveloped

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 11,100 **SEGMENT LENGTH:** 0.15

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 45 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 72%

% OVER PACE: 19%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 127 ValKenTus.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42		X	1	
41		XX	2	
40	X	XXX	4	
39	X	X	2	
38		XX	2	
37	XX	XXXX	6	^
36		XX	2	^
35	X	XXX	4	^
34	XX	XXXXX	7	P
33	XXXXX	XXXXXX	11	A
32	XX	XX	4	C
31	XXXXX	XXXXXXX	12	E
30	XXXX	XXXXXXXXX	12	V
29	XXXXXX	XXXXX	11	V
28	XXXXXX	XXXX	10	V
27	X	XX	3	
26		X	1	
25		X	1	
24	X	X	2	
23		X	1	
22		X	1	
21			0	
20	X		1	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Vandenberg Lane

LOCATION: Yorba Street to Prospect Avenue

DATE: 9/9/19 **TIME START** 11:45 **TIME STOP:** 12:23

SURVEY ADDRESS: 17361 Via Linda

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Commercial, residential

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline, on-street parking, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 3,500 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 1.04 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 36 mph

50TH %: 30 mph

15TH %: 27 mph

AVERAGE SPEED: 32 mph

10 MPH PACE: 28 - 37 mph

% IN PACE: 79%

% OVER PACE: 11%

% UNDER PACE: 10%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 128 VanYorPro.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED EASTBOUND	VEHICLES SURVEYED WESTBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55		X	1	
54		X	1	
53			0	
52			0	
51	X		1	
50			0	
49			0	
48			0	
47			0	
46		X	1	
45			0	
44	X	XXX	4	
43		X	1	
42	XXX	XX	5	
41	XX	XXXXXXX	10	
40	XXXXX	XXX	8	
39	XXX	XXXX	7	
38	XXX	XXXXXXXXXXX	13	^
37	XXXXXXXXX	XXXXXXXXXXXXXX	22	^
36	XXXXXXXXXXX	XXXXXXXXXXXXXX	24	^
35	XXXXXXXXXXXXXXX	XXXXXX	21	P
34	XXXXXXX	XXXXXXX	14	A
33	XXXXXXXXXX	XXXXXX	16	C
32	XXXXXXX	XXXXXXX	15	E
31	XXXXX		5	v
30	XXXXXX	XXXXXXX	13	v
29	XXXXX	XXX	8	v
28	XX	X	3	
27	XX	X	3	
26	XX		2	
25	X		1	
24			0	
23			0	
22			0	
21		X	1	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Victory Road

LOCATION: Tustin Ranch Road to Park Avenue

DATE: 9/5/19 **TIME START** 2:05 **TIME STOP:** 4:07

SURVEY ADDRESS: 3100 Park Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Undeveloped, residential

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, bike lane, park

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 2,700 **SEGMENT LENGTH:** 0.20

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 39 mph

50TH %: 35 mph

15TH %: 30 mph

AVERAGE SPEED: 35 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 76%

% OVER PACE: 20%

% UNDER PACE: 5%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 129 VicTusPar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57	X		1	
56		XX	2	
55			0	
54		XX	2	
53			0	
52			0	
51	X		1	
50	X	XX	3	
49			0	
48		XX	2	
47	X	X	2	
46	XXX		3	
45		X	1	
44		XX	2	
43	X	XXX	4	^
42	XXXXXX	XX	8	^
41			0	^
40	XXX	XXX	6	P
39	XXX	XX	5	A
38	XXX	XXX	6	C
37	XXX	XX	5	E
36	XXXXX	XXXX	9	V
35	XX	XXX	5	V
34	XX	XXX	5	V
33	X	XXX	4	
32			0	
31	XX	XXX	5	
30		XX	2	
29		X	1	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	84	

ROADWAY: Victory Road

LOCATION: Red Hill Avenue to Armstrong Avenue

DATE: 9/5/19 **TIME START** 9:11 **TIME STOP:** 11:11

SURVEY ADDRESS: 208 Armstrong Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Undeveloped, commercial

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 600 **SEGMENT LENGTH:** 0.35

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %:	46 mph
50TH %:	38 mph
15TH %:	33 mph
AVERAGE SPEED:	40 mph
10 MPH PACE:	34 - 43 mph
% IN PACE:	63%
% OVER PACE:	23%
% UNDER PACE:	14%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 45 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 45 **PROPOSED SPEED LIMIT:** 45

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 130 VicRedArm.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52		X	1	
51			0	
50	X		1	
49	X		1	
48		X	1	
47	X	X	2	
46	XXX	X	4	
45	X	X	2	
44	XXX	XXX	6	
43	X	XXXXXXX	8	^
42	XX	XXXXX	7	^
41	XXXXX	XX	7	^
40	XXXXX	XX	7	P
39	XXXXXX	XXXX	10	A
38	XXXX	XXXXXXX	11	C
37	XXX	XXX	6	E
36	XXXXXX	XXXXX	11	V
35	XXXX	XX	6	V
34	XXXX	XXX	7	V
33		X	1	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26		X	1	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Walnut Avenue

LOCATION: Newport Ave to Red Hill Ave

DATE: 8/20/2019 **TIME START** 12:00 **TIME STOP:** 12:21

SURVEY ADDRESS: 1201 Walnut Avenue

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,400 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 27 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 2.83 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 43 mph

50TH %: 38 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 34 - 43 mph

% IN PACE: 80%

% OVER PACE: 18%

% UNDER PACE: 2%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 131 WalNewRed.xls 8/29/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48		XXX	3	
47		XX	2	
46		XXXXXX	6	
45		XXXX	4	
44	X	XXXXX	6	^
43	XX	XXXXXX	8	^
42	XXX	XXXXXXX	10	^
41	XXXX	X	5	P
40	XXXXXXXX	XXXXXX	15	A
39	XXXXXXXXXXXX	X	14	C
38	XXXX	X	5	E
37	XXXXX	XX	7	V
36	XX	XX	4	V
35	XXXXXXX		7	V
34	X		1	
33	X		1	
32			0	
31			0	
30			0	
29	X		1	
28	X		1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Walnut Avenue

LOCATION: Red Hill Ave to Browning Ave

DATE: 8/20/2019 **TIME START** 12:34 **TIME STOP:** 12:59

SURVEY ADDRESS: 14492 Oxford Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left-turn lane, school xing at Browning

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 15,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 4 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.47 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 39 mph

15TH %: 36 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 81%

% OVER PACE: 15%

% UNDER PACE: 4%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 132 WalRedBro.xls 8/29/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51	X		1	
50	XXX	X	4	
49	XXX	X	4	
48	XXXXX	XXX	8	
47	X	XX	3	
46	X	XXXX	5	^
45	XX	XXXXXX	8	^
44	XXXXXXXX	XXXXXX	14	^
43	XXXXXXXXXXXX	XXXXXXXXXXXXXX	24	P
42	XXXXXXXXXXXXX	XXXXXXXXXXXX	24	A
41	XXXXXXX	XXXXXXXXXXXXXXXXX	23	C
40	XXXXXXXXXXX	XXXXXX	17	E
39	XXXXXXXXXXXXXX	XXXXXXXXXXX	23	V
38	XXX	XXXX	7	V
37	XXXXXXXX	XXXXXXXXXXX	18	V
36	XXX	X	4	
35	XXX	XXX	6	
34	X	XX	3	
33	XX		2	
32			0	
31		X	1	
30			0	
29			0	
28		X	1	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Walnut Avenue

LOCATION: Browning Ave to Tustin Ranch Rd

DATE: 8/20/2019 **TIME START** 13:22 **TIME STOP:** 14:33

SURVEY ADDRESS: NB: 2202 Cedar Ln; SB: 2216 Walnut Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, school

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping, school xing at Cherrywood

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 17,700 **SEGMENT LENGTH:** 0.40

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.13 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 40 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 82%

% OVER PACE: 10%

% UNDER PACE: 9%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 133 WalBroTus.xls 8/29/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50		XX	2	
49		XX	2	
48		XXXXXX	6	
47	XXXX	XXXXXX	10	^
46	X	XXXXXX	7	^
45	XXXXXXXXXX	XXXXXXXXX	19	^
44	XXXXXXXX	XXXXXXX	15	P
43	XXXX	XXXXXXXXXXXXXXX	20	A
42	XXXXXXXX	XXXXXXXXXXXX	19	C
41	XXXXXXXXXX	XXXXXXX	18	E
40	XXXXXXXXXXXXXX	XXXXXX	22	V
39	XXXXXXXXXXXXX	XXXXXX	21	V
38	XXX	XXXXX	8	V
37	XXXXXX	XX	8	
36	XXX	XXXXX	8	
35	XXXXX	X	6	
34	XX	X	3	
33	XX	X	3	
32	XX	X	3	
31	X		1	
30		X	1	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	202	

ROADWAY: Walnut Avenue

LOCATION: Tustin Ranch Rd to Myford Rd

DATE: 8/20/2019 **TIME START** 14:50 **TIME STOP:** 16:04

SURVEY ADDRESS: NB: 2680 Walnut Ave; SB: 2752 Walnut Ave

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial

ROAD GEOMETRICS: 2 lanes each direction, raised median with landscaping

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 24,400 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 5 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.37 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 44 mph

50TH %: 41 mph

15TH %: 36 mph

AVERAGE SPEED: 41 mph

10 MPH PACE: 38 - 47 mph

% IN PACE: 79%

% OVER PACE: 5%

% UNDER PACE: 16%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 134 WalTusMyf.xls 8/29/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70		X	1	
69			0	
68			0	
67			0	
66		X X	2	
65	X X		2	
64			0	
63		X	1	
62		X	1	
61	X X X X		4	
60		X	1	
59	X	X X	3	
58	X		1	
57	X	X X X X	5	
56	X X X	X X X	6	
55	X X	X X X	5	
54	X X	X X	4	
53	X X X X X X X	X X X X X X X X	15	^
52	X X X X	X X X X X	9	^
51	X X X X X X	X X	8	^
50	X X X X X X X X X X	X X X X X X X X X X X	21	P
49	X X X X X X X X	X X X X X X X X	16	A
48	X X X X X X X	X X X X X X X	14	C
47	X X X X X X X	X X X X X X	14	E
46	X X X X X	X X X X X X X X	13	V
45	X X X X X X	X X X X X	11	V
44	X X X X X	X X X X X	10	V
43	X X X X X	X X X	8	
42	X X	X	3	
41	X X X X X	X X X	8	
40	X	X X X X	5	
39	X X	X X	4	
38	X		1	
37			0	
36	X		1	
35	X		1	
34		X	1	
33		X	1	
32			0	
31			0	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Warner Avenue

LOCATION: Red Hill Avenue to Tustin Ranch Road

DATE: 9/5/19 **TIME START** 10:15 **TIME STOP:** 11:26

SURVEY ADDRESS: 15991 Armstrong Ave

ROAD CONDITION: Very good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Undeveloped, commercial, residential

ROAD GEOMETRICS: 3 lanes each direction, raised median with landscaping, bike lane, curvilinear

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,500 **SEGMENT LENGTH:** 1.06

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.09 acc/mvm **EXPECTED RATE:** 1.50 acc/mvm

85TH %: 54 mph

50TH %: 48 mph

15TH %: 42 mph

AVERAGE SPEED: 49 mph

10 MPH PACE: 44 - 53 mph

% IN PACE: 66%

% OVER PACE: 18%

% UNDER PACE: 17%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 50 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 50 **PROPOSED SPEED LIMIT:** 50

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 135 WarRedTus.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51		X	1	
50			0	
49			0	
48	XXX		3	
47		X	1	
46	X	X	2	
45		X	1	
44	X		1	
43	XX	XXXXX	7	
42		XXX	3	
41	XX	X	3	
40	X	XXXXXX	7	
39	XX	XXXX	6	
38	XXX	XXXXXXX	10	^
37	XXXXX	XXXXXXXXXX	15	^
36	XXXXXX	XXXXXXXXXXXX	18	^
35	XXXXXXX	XX	9	P
34	XXXXXXXXXX	XXXXXXX	17	A
33	XXXXXXXXXX	XXXXXXXX	18	C
32	XXXXXXXXXXX	XXXXXXXX	21	E
31	XXXXXXXXXXXXX	XXXX	18	V
30	XXX	XXX	6	V
29	XXXXXX	XXXXX	11	V
28	XXXXXX	XXX	9	
27	XXXX	X	5	
26		XXX	3	
25		X	1	
24		X	1	
23		X	1	
22	XX		2	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	200	

ROADWAY: Warner Avenue

LOCATION: Tustin Ranch Road to Park Avenue

DATE: 9/5/19 TIME START 8:30 TIME STOP: 10:07

SURVEY ADDRESS: 2810 Warner Ave

ROAD CONDITION: Good

WEATHER: Partly cloudy

ROAD DESCRIPTION: Undeveloped, commercial

ROAD GEOMETRICS: 3 lanes each direction, raised median, bike lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 19,000 SEGMENT LENGTH: 0.10

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm EXPECTED RATE: 1.50 acc/mvm

85TH %: 39 mph

50TH %: 33 mph

15TH %: 28 mph

AVERAGE SPEED: 34 mph

10 MPH PACE: 29 - 38 mph

% IN PACE: 72%

% OVER PACE: 18%

% UNDER PACE: 11%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 PROPOSED SPEED LIMIT: 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 136 WarTusPar.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48			0	
47			0	
46			0	
45			0	
44			0	
43			0	
42			0	
41			0	
40			0	
39	X		1	
38			0	
37		X	1	
36		X	1	
35		XX	2	
34	XX		2	^
33	X	XXX	4	^
32	XXXXXXX	XXXXXX	13	^
31	XXXXXXX	XXXXXXX	14	P
30	XXXXXX	XXXXXXXXX	14	A
29	XXXXX	XXXX	10	C
28	XXXXX	XXXX	9	E
27	XXX	XXXXXX	9	V
26	XXXXXXX	XXXX	11	V
25	XXXX	XXX	7	V
24	X		1	
23		X	1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Williams Street

LOCATION: Main Street to McFadden Avenue

DATE: 9/23/19 **TIME START** 3:02 **TIME STOP:** 3:32

SURVEY ADDRESS: 15742 Williams St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, school

ROAD GEOMETRICS: 1 lane each direction, double yellow centerline

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 7,700 **SEGMENT LENGTH:** 0.50

ACCIDENT HISTORY: 22 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 5.22 acc/mvm **EXPECTED RATE:** 1.26 acc/mvm

85TH %: 31 mph

50TH %: 29 mph

15TH %: 25 mph

AVERAGE SPEED: 29 mph

10 MPH PACE: 25 - 34 mph

% IN PACE: 93%

% OVER PACE: 5%

% UNDER PACE: 2%

Speed Limit Justification:
Based on the collision rate, it is recommended to post the speed limit at 25 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 30 **PROPOSED SPEED LIMIT:** 25

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 137 WilMaiMcf.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48		X	1	
47	XX	X	3	
46		XXX	3	
45		XXXX	4	
44	X	XXXX	5	^
43	XXXX	XXX	7	^
42	X	XXXXXXX	8	^
41	XXXX	XXX	7	P
40	XXXXXX	XXXXXXX	13	A
39	X	XXXXXXXX	9	C
38	XXXXXX	XXXXXXXX	14	E
37	XXXXXXX	XX	9	V
36	XXX	X	4	V
35	XXXXXX		6	V
34	XX		2	
33	XX		2	
32	X		1	
31		XX	2	
30			0	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Yorba Street

LOCATION: South of Santa Clara Avenue to 17th Street

DATE: 9/9/19 TIME START 8:32 TIME STOP: 8:52

SURVEY ADDRESS: 17521 Medford Ave

ROAD CONDITION: Good

WEATHER: Cloudy

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 9,300 SEGMENT LENGTH: 0.50

ACCIDENT HISTORY: 3 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.59 acc/mvm EXPECTED RATE: 3.58 acc/mvm

85TH %: 43 mph

50TH %: 39 mph

15TH %: 35 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 82%

% OVER PACE: 11%

% UNDER PACE: 7%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER DAVID ROSEMAN No. 1585 TRAFFIC STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 PROPOSED SPEED LIMIT: 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 138 YorSan17.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50		X	1	
49			0	
48	X	XX	3	
47	XX	XX	4	
46	XX	XX	4	
45		XX	2	
44	XXX	XXXXX	8	^
43	X	XXXX	5	^
42	X	XX	3	^
41	X	XXXXX	6	P
40	XXXXX	XXXXXX	11	A
39	XXXXXXX	XXXXX	12	C
38	XXX	XXXXXX	9	E
37	XXX	XX	5	V
36	XXXXXXX	XXX	10	V
35	XXXX	X	5	V
34	XXX	X	4	
33	XX		2	
32	XX	X	3	
31	X	X	2	
30			0	
29		X	1	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Yorba Street

LOCATION: 17th Street to Jacaranda Avenue

DATE: 8/21/19 **TIME START** 8:38 **TIME STOP:** 9:06

SURVEY ADDRESS: 14101 Yorba St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial, residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 8,000 **SEGMENT LENGTH:** 0.25

ACCIDENT HISTORY: 2 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.91 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 40 mph

10 MPH PACE: 35 - 44 mph

% IN PACE: 74%

% OVER PACE: 14%

% UNDER PACE: 12%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 139 Yor17Jac.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49			0	
48		XX	2	
47			0	
46	XX	XXX	5	^
45	XXXXX	XXXX	9	^
44	X	XXX	4	^
43	XX	XXXXXXX	9	P
42	X	XX	3	A
41	XX	XXXX	6	C
40	XXXX	XXXX	8	E
39	XX	XXXXXXXXXXXXXXXXXX	18	v
38	XX		2	v
37	XXXXX	XXXXXX	11	v
36		XX	2	
35	XX	XXXX	6	
34		X	1	
33	XXXXXXXX		8	
32		X	1	
31	XX	X	3	
30	XX		2	
29			0	
28			0	
27			0	
26			0	
25			0	
24			0	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Yorba Street

LOCATION: Jacaranda Avenue to Amaganset Way

DATE: 8/21/19 **TIME START** 9:15 **TIME STOP:** 9:47

SURVEY ADDRESS: 17332 Parker Dr

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 6,300 **SEGMENT LENGTH:** 0.35

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 44 mph

50TH %: 38 mph

15TH %: 34 mph

AVERAGE SPEED: 39 mph

10 MPH PACE: 37 - 46 mph

% IN PACE: 75%

% OVER PACE: 2%

% UNDER PACE: 23%

Speed Limit Justification:
Based on the 85th percentile and CVC 21400(b), it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 140 YorJacAma.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51		X	1	
50			0	
49			0	
48			0	
47	X		1	
46		X	1	
45	X	XX	3	
44		XXX	3	
43			0	
42	X	XXXXX	6	^
41	X		1	^
40		XXX	3	^
39	X	XXXX	5	P
38	XXXX	XXXXXXXXXXX	15	A
37	X	XXX	4	C
36	XXXXXXX	XXXXX	12	E
35	XXXXXXX	XXXXXXX	14	V
34	XXX	X	4	V
33	XXXX	XXXXX	9	V
32	X	XXX	4	
31	X	XX	3	
30		XX	2	
29	XX		2	
28	X		1	
27	XX	X	3	
26		X	1	
25	X		1	
24			0	
23	X		1	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Yorba Street

LOCATION: Amaganset Way to Irvine Boulevard

DATE: 8/21/19 **TIME START** 9:53 **TIME STOP:** 10:25

SURVEY ADDRESS: 14661 Yorba St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Residential, commercial

ROAD GEOMETRICS: 2 lanes each direction, double yellow centerline, on-street parking

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 6,300 **SEGMENT LENGTH:** 0.15

ACCIDENT HISTORY: 1 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.97 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 41 mph

50TH %: 35 mph

15TH %: 31 mph

AVERAGE SPEED: 36 mph

10 MPH PACE: 33 - 42 mph

% IN PACE: 73%

% OVER PACE: 9%

% UNDER PACE: 18%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 40 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 40 **PROPOSED SPEED LIMIT:** 40

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 141 YorAmaIrv.xls 11/21/2019

CITY OF TUSTIN ENGINEERING AND TRAFFIC SURVEY

Speed (mph)	VEHICLES SURVEYED NORTHBOUND	VEHICLES SURVEYED SOUTHBOUND	Total Vehicles	Pace
75			0	
74			0	
73			0	
72			0	
71			0	
70			0	
69			0	
68			0	
67			0	
66			0	
65			0	
64			0	
63			0	
62			0	
61			0	
60			0	
59			0	
58			0	
57			0	
56			0	
55			0	
54			0	
53			0	
52			0	
51			0	
50			0	
49		X	1	
48			0	
47		X	1	
46			0	
45	X		1	
44			0	
43			0	
42	X		1	
41	X	X	2	
40	XX		2	
39			0	
38	X	XXX	4	
37	XXX	X	4	
36	XXXXXX	XX	8	^
35	XXXXX	XXXXX	10	^
34	XXXXXX	XXXXXX	12	^
33	XXX	XXXXXX	9	P
32	XXXXX	X	6	A
31	XXXX	XXXXX	9	C
30	XXXXXX	XXX	9	E
29	XX	X	3	V
28	XXX	XX	5	V
27	XX	XXX	5	V
26	XX	XXX	5	
25			0	
24	XX	X	3	
23			0	
22			0	
21			0	
20			0	
19			0	
18			0	
17			0	
16			0	
15			0	
		GRAND TOTAL	100	

ROADWAY: Yorba Street

LOCATION: Irvine Boulevard to First Street

DATE: 8/21/19 **TIME START** 10:30 **TIME STOP:** 10:54

SURVEY ADDRESS: 151 Yorba St

ROAD CONDITION: Good

WEATHER: Clear

ROAD DESCRIPTION: Commercial, residential

ROAD GEOMETRICS: 2 lanes each direction, 2-way left turn lane

CONDITIONS NOT READILY APPARENT:

AVERAGE DAILY TRAFFIC: 8,200 **SEGMENT LENGTH:** 0.15

ACCIDENT HISTORY: 0 midblock collisions in 3 years (7/1/2016 TO 6-30-19)

ACCIDENT RATE: 0.00 acc/mvm **EXPECTED RATE:** 3.58 acc/mvm

85TH %: 36 mph

50TH %: 32 mph

15TH %: 27 mph

AVERAGE SPEED: 33 mph

10 MPH PACE: 27 - 36 mph

% IN PACE: 76%

% OVER PACE: 16%

% UNDER PACE: 8%

Speed Limit Justification:
Based on the 85th percentile it is recommended to post the speed limit at 35 mph.

REGISTERED PROFESSIONAL ENGINEER
DAVID ROSEMAN
No. 1585
TRAFFIC
STATE OF CALIFORNIA

EXISTING SPEED LIMIT: 35 **PROPOSED SPEED LIMIT:** 35

OBSERVED BY: T.L. Hartman

REVIEWED BY: David Roseman

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF A SPEED ZONE SURVEY AS ON FILE IN THE OFFICE OF THE PUBLIC WORKS MANAGER—TRAFFIC/TRANSPORTATION OF THE CITY OF TUSTIN, CALIFORNIA.

DATE

Filename: 142 YorIrvFir.xls 11/21/2019