



ENGINEERING AND TRAFFIC SURVEY FOR SPEED LIMITS

Final Report

November 5, 2015

Prepared for:

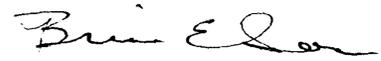


Prepared by:



CERTIFICATION

I, Brian E. Sowers, do hereby certify that this Engineering and Traffic Survey for the City of Fremont was performed under my supervision. I certify that I am experienced in performing surveys of this type and duly registered in the State of California as a professional Civil Engineer.



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1.0 INTRODUCTION

This Engineering and Traffic Survey is intended to serve as the basis for the establishment and enforcement of speed limits for selected streets within the City of Fremont. This survey was authorized by the City and independently conducted by the private consulting firm Kimley-Horn and Associates, Inc (Kimley-Horn).

Engineering and traffic surveys for speed limits are regularly conducted once every five (5) years by governing municipalities for the purpose of complying with Section 40802(a) of the *California Vehicle Code (CVC)* and the national *Uniform Vehicle Code*. Engineering and traffic surveys may be extended to every seven (7) years if criteria is met, or every ten (10) years if a registered engineer evaluates the section of the highway and determines that no significant changes in roadway or traffic conditions have occurred as specified in Section 40802(c) of the *California Vehicle Code (CVC)*. In addition, an engineering and traffic survey should be conducted on newly constructed roadways or roadways where the roadway conditions have significantly changed.

1.1 Regulations and Guidelines

Division 11, Chapter 7, of the 2015 California Vehicle Code defines the California Speed Laws. Section 22352 of the CVC indicates that prima facie speed limits are 15 miles per hour (mph) at unprotected railroad grade crossings, highway intersections with site restrictions, and on any alley. In addition, the prima facie speed limit is 25 mph in residential and business districts, when approaching or passing a school building or grounds thereof or when passing a senior center or other facility primarily used by senior citizens. Division 1 of the CVC defines a business district and residence district in Section 235 and 515, respectively.

"A "business district" is that portion of a highway and the property contiguous thereto (a) upon one side of which highway, for a distance of 600 feet, 50 percent or more of the contiguous property fronting thereon is occupied by buildings in use for business, or (b) upon both sides of which highway, collectively, for a distance of 300 feet, 50 percent or more of the contiguous property fronting thereon is so occupied. A business district may be longer than the distances specified in this section if the above ratio of buildings in use for business to the length of the highway exists."¹

"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

¹ California Department of Motor Vehicles, California Vehicle Code, Division 1, Section 235, 2015.

a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 13 or more separate dwelling houses or business structures, or (b) upon both sides of which highway, collectively, within a distance of a quarter of a mile, the contiguous property fronting thereon is occupied by 16 or more separate dwelling houses or business structures. A residence district may be longer than one-quarter of a mile if the above ratio of separate dwelling houses or business structures to the length of the highway exists.”²

Section 22357(a) permits the establishment of speed limits greater than 25 mph based on the following text:

“Whenever a local authority determines upon the basis of an engineering and traffic survey that a speed greater than 25 miles per hour would facilitate the orderly movement of vehicular traffic and would be reasonable and safe upon any street other than a state highway otherwise subject to a prima facie limit of 25 miles per hour, the local authority may by ordinance determine and declare a prima facie speed limit of 30, 35, 40, 45, 50, 55, or 60 miles per hour or a maximum speed limit of 65 miles per hour, whichever is found most appropriate to facilitate the orderly movement of traffic and is reasonable and safe.”³

Therefore, the CVC allows local authorities to increase or decrease the prima facie limits by ordinance or resolution to appropriate limits as determined by an engineering and traffic survey. Posted speed limits not defined in the CVC or established by ordinance are not valid. The CVC requires that speed surveys must be performed with the use of radar or other electronic devices at locations where speed limits are to be enforced with the use of radar. The current survey must be completed within five years as specified in Section 40802(a); seven years as specified in Section 40802(c), or ten years as specified in Section 40802(c), of the date of the preceding survey. A survey allowed to expire passed the valid duration of the previous survey would constitute a speed trap as defined in Sections 40802(a) and 40802(b) of the CVC:

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

² California Department of Motor Vehicles, [California Vehicle Code](#), Division 1, Section 515, 2015.

³ California Department of Motor Vehicles, [California Vehicle Code](#), Division 11, Chapter 7, Section 22357(a), 2015.

(2) A particular section of a highway with a prima facie speed limit that is provided by this code or by local ordinance under subparagraph (A) of paragraph (2) of subdivision (a) of Section 22352, or established under Section 22354, 22357, 22358, or 22358.3, if that prima facie speed limit is not justified by an engineering and traffic survey conducted within five years prior to the date of the alleged violation, and enforcement of the speed limit involves the use of radar or any other electronic device that measures the speed of moving objects. This paragraph does not apply to a local street, road, or school zone.

(b) (1) For purposes of this section, a local street or road is one that is functionally classified as "local" on the "California Road System Maps," that are approved by the Federal Highway Administration and maintained by the Department of Transportation. When a street or road does not appear on the "California Road System Maps," it may be defined as a "local street or road" if it primarily provides access to abutting residential property and meets the following three conditions:

(A) Roadway width of not more than 40 feet.

(B) Not more than one-half of a mile of uninterrupted length. Interruptions shall include official traffic control signals as defined in Section 445.

(C) Not more than one traffic lane in each direction.

(2) For purposes of this section "school zone" means that area approaching or passing a school building or the grounds thereof that is contiguous to a highway and on which is posted a standard "SCHOOL" warning sign, while children are going to or leaving the school either during school hours or during the noon recess period. "School zone" also includes the area approaching or passing any 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 if that highway is posted with a standard "SCHOOL" warning sign."⁴

⁴ California Department of Motor Vehicles, [California Vehicle Code](#), Division 17, Chapter 2, Section 40802, 2015.

1.2 Requirements and Methodology of an Engineering and Traffic Study

Speed zones are primarily established to protect the public from the unreasonable behavior of reckless, unreliable, or otherwise dangerous drivers. Speed limits are generally established at or near the 85th percentile speed, which is defined as the speed at or below which 85 percent of traffic is moving. Speed limits established on this basis conform to the consensus of those who drive on the roadways as to what speed is reasonable and safe, and are not dependent on the judgment of one or a few individuals.

The Engineering and Traffic Survey, as defined in Section 627 of the CVC, must consider the prevailing speeds, collision records, pedestrian and bicycle activity, and roadway traffic and roadside conditions not readily apparent to the driver. Speed zones are also established to advise motorists of road conditions or hazards, which may not be readily apparent to a reasonable driver. For this reason, a field review of related road/traffic variables is conducted which is considered in combination with the statistical data and collision history of a particular roadway segment to determine a safe and reasonable speed limit. The specific procedures used in the performance of an Engineering and Traffic Study are outlined in the *2014 California MUTCD*. The statistical factors used to analyze the collected speed survey data and additional factors as noted in the *2014 California MUTCD* to consider are defined in the following section.

2.0 SPEED SURVEY EVALUATION

One hundred and forty (140) locations were evaluated by Kimley-Horn and included in this report. These roadway sections and limits of the sections are listed in Table 1.

Table 1: Survey Locations and Limits Evaluated by Kimley-Horn

NO	STREET	LIMIT 1	LIMIT 2
1	Albrae Street	Stevenson Blvd	Stewart Ave
2	Albrae Street	Stewart Ave	Christy St
3	Alvarado Blvd	Deep Creek Rd	City Limits
4	Antelope Drive	Mission Blvd	Boar Circle
5	Ardenwood Blvd	Union City Limit	Newark City Limit
6	Argonaut Way	Mowry Ave	Walnut Ave
7	Auto Mall Parkway	Westerly end	Boyce Road
8	Auto Mall Parkway	Boyce Road	I-880
9	Auto Mall Parkway	I-880	Fremont Blvd
10	Auto Mall Parkway	Fremont Blvd	I-680
11	Bayside Pkwy	Warren Ave	Bayview Dr
12	Bayview Drive	Lakeview Blvd	Fremont Blvd
13	Beacon Avenue	Fremont Blvd	Liberty St
14	Blacow Road	Fremont Blvd	Stevenson Blvd
15	Blacow Road	Stevenson Blvd	Central Ave
16	Blacow Road	Central Ave	Thornton Ave
17	Boscell Road	Stewart Ave	Auto Mall Pkwy
18	Boscell Road	Auto Mall Pkwy	Bunche Dr
19	Boyce Road	Stevenson Blvd	Auto Mall Pkwy
20	Business Center Dr/Technology Pl	Grimmer Blvd	Technology Dr
21	Capitol Avenue	Paseo Padre Pkwy	State St
22	Central Avenue	Fremont Blvd	Blacow Road
23	Central Avenue	Blacow Rd	I-880
24	Christy Street	Stewart Ave	Auto Mall Pkwy
25	Christy Street	Auto Mall Pkwy	Brandin Ct
26	Christy Street	Brandin Ct	Southerly end
27	Civic Center Drive	Mowry Ave	Bart Way
28	Civic Center Drive	Bart Way	Stevenson Blvd
29	Commerce Drive	Ardenwood Blvd	Paseo Padre Pkwy
30	Commerce Drive	Tupelo St	Ardenwood Blvd
31	Cougar Drive	Mission Blvd	Cougar Circle
32	Country Drive	Fremont Blvd	Stivers St
33	Curie Street	Christy St	Boscell Rd
34	Cushing Parkway	Auto Mall Pkwy	Bunche Dr
35	Cushing Parkway	Bunche Dr	South end of causeway
36	Cushing Parkway	South end of causeway	Fremont Blvd

Table 1, continued: Survey Locations and Limits Evaluated by Kimley-Horn

NO	STREET	LIMIT 1	LIMIT 2
37	Decoto Road	City Limits	Fremont Blvd
38	Decoto Road	Fremont Blvd	I-880
39	Deep Creek Road	Paseo Padre Pkwy	Ridgewood Dr
40	Deep Creek Road	Alvarado Blvd	Paseo Padre Pkwy
41	Driscoll Road	Mission Blvd	Paseo Padre Pkwy
42	Driscoll Road	Paseo Padre Pkwy	Washington Blvd
43	Dumbarton Circle	Paseo Padre Pkwy	Kaiser Dr
44	Durham Road	I-680	Mission Blvd
45	Dusterberry Way	Central Ave	Thornton Ave
46	Enterprise Street	Grimmer Blvd	Grimmer Blvd
47	Farwell Drive	Mowry Ave	Flamingo Ln
48	Fremont Boulevard	Beard Rd	Decoto Rd
49	Fremont Boulevard	Decoto Rd	Thornton Ave
50	Fremont Boulevard	Peralta Blvd	Central Ave
51	Fremont Boulevard	Central Ave	Mowry Ave
52	Fremont Boulevard	Mowry Ave	Stevenson Blvd
53	Fremont Boulevard	Stevenson Blvd	Washington Blvd
54	Fremont Boulevard	Washington Blvd	Auto Mall Pkwy
55	Fremont Boulevard	Auto Mall Pkwy	I-880
56	Fremont Boulevard	I-880	Warren Ave
57	Fremont Boulevard	Warren Ave	Lakeview Blvd
58	Gallaudet Drive	Walnut Ave	Stevenson Blvd
59	Gateway Blvd	Fremont Blvd	Lakeview Blvd
60	Grimmer Blvd (South)	Paseo Padre Pkwy	Osgood Rd
61	Grimmer Blvd (South)	Osgood Rd	Fremont Blvd
62	Grimmer Blvd (South)	Fremont Blvd	Auto Mall Pkwy
63	Grimmer Blvd	Auto Mall Pkwy	Blacow Road
64	Grimmer Blvd	Blacow Rd	Fremont Blvd
65	Grimmer Blvd	Fremont Blvd	Paseo Padre Pkwy
66	Guardino Drive	Stevenson Blvd	Mowry Ave
67	Hansen Avenue	Blacow Rd	Yolo Terrace
68	Hansen Avenue	Yolo Terrace	Dusterberry Wy
69	Hastings Street	Capitol Ave	Country Drive
70	High Street	Grimmer Blvd	Chapel Wy
71	Irvington Avenue	Fremont Blvd	Grimmer Blvd
72	Isherwood Way	Paseo Padre Pkwy	City Limits
73	Kaiser Drive	Ardenwood Blvd	Paseo Padre Pkwy
74	Kato Road	Warm Springs Blvd	Milmont Dr
75	Kato Road	Milmont Dr	Warren Ave
76	Lakeview Boulevard	Fremont Blvd	Warren Ave
77	Landing Parkway	Fremont Blvd	Warren Ave
78	Liberty Street	Stevenson Blvd	Capitol Ave
79	Lowry Road	Alvarado Blvd	City Limits

Table 1, continued: Survey Locations and Limits Evaluated by Kimley-Horn

NO	STREET	LIMIT 1	LIMIT 2
80	Milmont Drive	Page Ave	City Limits
81	Mission Boulevard	Mission Road	St. Joseph Terr
82	Mission Boulevard	St. Joseph Terr	Pine St
83	Mission Boulevard	Pine St	Durham Rd
84	Mission Boulevard	Durham Rd	Curtner Rd
85	Mowry Avenue	Peralta Blvd	Paseo Padre Pkwy
86	Mowry Avenue	Paseo Padre Pkwy	Argonaut Wy
87	Mowry Avenue	Argonaut Wy	I-880
88	Niles Blvd	City Limits	Rock Ave
89	Niles Blvd	Rock Ave	Hillview Dr
90	Nobel Drive	Auto Mall Pkwy	Cushing Pkwy
91	Northport Loop	Cushing	Cushing
92	Old Canyon Road	Clarke Dr	Niles Canyon Rd
93	Old Warm Springs Boulevard	Fremont Blvd	Grimmer Blvd
94	Osgood Road	Washington Blvd	Grimmer Blvd
95	Overacker Avenue	Walnut Ave	Mowry Ave
96	Pacific Commons Boulevard	Auto Mall Pkwy	Bunche Dr
97	Page Avenue	Kato Rd	Milmont Dr
98	Paseo Padre Parkway	City Limits	Ardenwood Blvd
99	Paseo Padre Parkway	Ardenwood Blvd	Fremont Blvd
100	Paseo Padre Parkway	Fremont Blvd	Decoto Rd
101	Paseo Padre Parkway	Decoto Rd	Thornton Ave
102	Paseo Padre Parkway	Thornton Ave	Peralta Blvd
103	Paseo Padre Parkway	Peralta Blvd	Mowry Ave
104	Paseo Padre Parkway	Mowry Ave	Stevenson Blvd
105	Paseo Padre Parkway	Stevenson Blvd	Driscoll Rd
106	Paseo Padre Parkway	Driscoll Rd	Washington Blvd
107	Paseo Padre Parkway	Washington Blvd	Durham Rd
108	Paseo Padre Parkway	Durham Rd	Onondaga Wy
109	Paseo Padre Parkway	Onondaga Wy	Mission Blvd
110	Paseo Padre Parkway	Mission Blvd	Curtner Rd
111	Peralta Boulevard	Fremont Blvd	Dusterberry Wy
112	Pine Street	Mission Blvd	Paseo Padre Pkwy
113	Pine Street	Paseo Padre Pkwy	Sabercat Rd
114	Rancho Arroyo Parkway	Niles Blvd	Riviera Dr
115	Sabercat Road	Durham Rd	northerly end
116	Scott Creek Road	Warm Springs Blvd	I-680
117	Scott Creek Road	I-680	Easterly end
118	Shinn Street	Peralta Blvd	Von Euw Common
119	Solar Way	Grimmer	Technology
120	Stevenson Boulevard	Mission Blvd	Civic Center Dr
121	Stevenson Boulevard	Civic Center Dr	Fremont Blvd
122	Stevenson Boulevard	Fremont Blvd	Blacow Road

Table 1, continued: Survey Locations and Limits Evaluated by Kimley-Horn

NO	STREET	LIMIT 1	LIMIT 2
123	Stevenson Boulevard	Blacow Rd	I-880
124	Stevenson Boulevard	I-880	Westerly end
125	Stewart Avenue	Albrae St	Boyce Rd
126	Sundale Drive	Liberty St	Fremont Blvd
127	Technology Drive	Auto Mall Pkwy	Grimmer Blvd
128	Thornton Avenue	Fremont Blvd	Paseo Padre Pkwy
129	Vargas Road	I-680	600' north of Pico Road
130	Walnut Avenue	Argonaut Wy	Fremont Blvd
131	Walnut Avenue	Fremont Blvd	Paseo Padre Pkwy
132	Walnut Avenue	Paseo Padre Pkwy	Mission Blvd
133	Warm Springs Boulevard	Grimmer Blvd	Warren Ave
134	Warm Springs Boulevard	Warren Ave	City Limits
135	Warren Avenue	Curtner Rd	Warm Springs Blvd
136	Warren Avenue	Warm Springs Blvd	I-880
137	Warren Avenue	I-880	Fremont Blvd
138	Washington Boulevard	Fremont Blvd	Driscoll Rd
139	Washington Boulevard	Driscoll Rd	Paseo Padre Pkwy
140	Washington Boulevard	Paseo Padre Pkwy	Mission Blvd

2.1 Field Review

Speed data was collected using manual radar surveys performed by a sub-consultant to Kimley-Horn, All Traffic Data, Inc. (ATD). Each of the radar speed checks were made from an inconspicuously parked, unmarked vehicle. An effort was made to ensure that the presence of the vehicle in no way affected the speed of the traffic being surveyed. Field information from these speed surveys and other roadway characteristics were recorded on field data forms and later coded into engineering software for analysis purposes. Chapter 2B of the *2014 California MUTCD* indicates that it is desirable to have a minimum sample of 100 vehicles for a speed zone survey for an arterial street. This may result in excessive survey periods for low volume roadways, but a survey should not contain less than 50 vehicles. In addition, average daily traffic volumes (ADT) were collected at all the locations.

Examples of the field data collected for the purposes of analyzing related roadway characteristics as they pertain to the determination of appropriate speed limits are listed below. The results of the field review for related roadway and traffic variables are summarized in the Engineering and Traffic Survey forms included in the Appendix.

1. Segment length, width and alignment;
2. Level of pedestrian, bicycle, and truck activity
3. Traffic flow characteristics;
4. Number of lanes and other channelization/stripping factors;
5. Frequency of intersections, driveways, on-street parking, bike lanes;
6. Locations of stop signs, traffic signals, and other regulatory traffic control devices;
7. Pavement condition;
8. Obstructions to driver/pedestrian visibility;
9. Land use and proximity of schools, parks/recreation areas and senior centers;
10. Uniformity with existing speed zones in adjacent jurisdictions; and,
11. Any other unusual conditions or hazards not readily apparent to the driver.

2.2 Statistical Analysis Factors

Significant factors used to analyze the collected survey data are summarized below:

1. **85th Percentile Speed.** The Critical Speed, or the 85th percentile speed, is defined as that speed at or below which 85 percent of the traffic is moving. This factor is the primary guide in determining what speeds the majority of safe and reasonable drivers are traveling. Therefore, the practice is to set the speed limit to the nearest 5 mph increment from the critical speed unless other factors require a lower limit. Speed limits set on this basis provide law enforcement officials with a means of controlling reckless or unreliable drivers who will not conform to what the majority finds reasonable.
2. **The 10-mph Pace.** The 10-mph Pace is the 10-mph increment range, which contains the largest number of recorded vehicles. The pace is a measure of the dispersion of speeds within the sample surveyed. Speed limits should normally be set to fall within the 10-mph pace. However, conditions not readily apparent to the driver or adhering to State mandated limits such as in Residence Districts may require setting speed limits below the 10-mph pace.
3. **50th Percentile Speed.** The Median Speed, or 50th Percentile Speed, represents the mid-point value within the range of recorded speeds for a particular roadway location. In other words, 50 percent of the vehicles travel faster than and 50 percent travel slower than, the median speed. This value is another measure of the central tendency of the vehicle speed distribution. Typically speed limits should not be set below the 50th Percentile Speed, since it would result in greater than 50-percent of the drivers exceeding the speed limit.

4. 15th Percentile Speed. The 15th Percentile Speed is that speed at or below which 15 percent of the vehicles are traveling. This value is important in determining the minimum allowable speed limit, given that the vehicles traveling below this speed tend to obstruct the flow of traffic, thereby increasing the collision potential.
5. Percent of Vehicles in Pace Speed. The percent of vehicles in the 10-mph pace speed is an indication of the grouping of vehicular speeds. Ideally, if all vehicles were traveling at or about the same speed, there would be a reduced likelihood of vehicular collisions. In speed limit analysis, the higher the percent of vehicles within the pace speed, the more favorable the speed distribution. The percent of the 10-mph pace is often between 60 and 90 percent.

2.3 2014 California MUTCD and CVC Guidance

Based on the *2014 California MUTCD*, speed limits "shall be established at the nearest 5 mph increment of the 85th-percentile speed of free-flowing traffic."⁵ In matching existing conditions with the traffic safety needs of the community, engineering judgment may indicate the need for a reduction of the posted speed limit by 5 mph due to specific factors such as road characteristics, the pace speed, roadside development and environment, pedestrian activity, and collision history. Alternatively, the *2014 California MUTCD* states that "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."⁵ The following are some other factors to consider when establishing speed limits between adjacent street segments:

1. Avoid Short Segments. Short speed zones of less than ½ mile should be avoided, except in transition areas.
2. Change in Roadway Conditions or Roadside Development. Speed zone changes should be coordinated with changes in roadway conditions or roadside development.
3. Minimize Change in Speed between Adjacent Segments. Speed zoning should be in 10 mph increments except in urban areas where 5 mph increments are preferable.
4. Coordinate Speed Zoning with Adjacent Jurisdictions.

⁵ California Department of Transportation, 2014 California MUTCD, Chapter 2B, page 134, 7 November 2014.

2.4 Collision History

The Engineering and Traffic Survey forms summarize the available collision information for each of the street segments. The collision information was obtained from the City of Fremont from January 1, 2011 to April 17, 2015. For this analysis, only collisions during the 4-year period between April 18, 2011 and April 17, 2015 were considered. The collisions were reviewed and corridor related collisions, those not related to signalized intersections, were summarized for each segment. Based on the number of total collisions studied over the 4-year period and ADT counts, a collision rate per million vehicle miles was calculated for each segment. To provide a general comparison of the collision rates on the segments to expected collisions rates for similar types of local roadways, the collision rates for each segment were compared to the statewide average rate listed in the 2012 Collision Data on California State Highways (road miles, travel, collisions, collision rates) as listed in Table 2.

Table 2: 2012 California State Highways Collision Rates

Lane Type	Total Collision Rate Per Million Vehicle Miles (3-year rates for 2010, 2011, and 2012)
2&3 Lanes	1.37
4 lanes (undivided highway)	1.85
4 lanes (divided highway)	1.45

3.0 RESULTS AND RECOMMENDATIONS

The recommendations contained in this report are intended to establish prima facie speed limits. Prima facie limits attempt to advise the motorist and enforcement of the reasonable speed for a particular section of roadway for the prevailing conditions. In many cases, the recommendations made produce a uniform speed limit along the road. As a result, the speed limits in adjacent jurisdictions were considered as well as along the various street segments surveyed within the City of Fremont.

The Engineering and Traffic Survey forms, presented in the Appendix, illustrate the results of a thorough evaluation of the available data and indicate a recommended speed limit for each of the street segments surveyed. A summary of the data analysis, along with recommended speed limits can be found in Table 3.

Table 3: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
1	Albrae Street between Stevenson Boulevard and Stewart Avenue	30	30	32.7	29.2	25 – 34	89.4	85th-percentile speed rounded down per CVC Section 21400(b)
2	Albrae Street between Stewart Avenue and Christy Street	40	35	41.2	34.7	30 – 39	71.2	85th-percentile speed downgraded 5 mph due to pace speed
3	Alvarado Boulevard between Deep Creek Road and City Limits	45	45	46.0	40.3	36 – 45	63.8	85th-percentile speed
4	Antelope Drive between Mission Boulevard and Boar Circle	25	25	40.6	35.8	31 – 40	71.2	Due to the roadway width and fronting residential, a speed limit of 25 mph is recommended.
5	Ardenwood Boulevard between Union City Limit and Newark City Limit	45	40	44.7	33.5	34 – 43	65.9	85th-percentile speed rounded down per CVC Section 21400(b)
6	Argonaut Way between Mowry Avenue and Walnut Avenue	30	30	36.3	32.4	29 – 38	88.5	85th-percentile speed downgraded 5 mph due to fronting residential and uncontrolled crosswalk

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
7	Auto Mall Parkway between Westerly end and Boyce Road	45	45	43.8	40.2	36 – 45	47.1	85th-percentile speed
8	Auto Mall Parkway between Boyce Road and I-880	40	35	37.2	33.6	30 – 39	90.0	85th-percentile speed
9	Auto Mall Parkway between I-880 and Fremont Boulevard	45	45	45.9	41.1	38 – 47	68.9	85th-percentile speed
10	Auto Mall Parkway between Fremont Boulevard and I-680	45	45	47.4	43.3	38 – 47	74.7	85th-percentile speed
11	Bayside Parkway between Warren Avenue and Bayview Drive	35	35	38.3	34.8	31 – 40	92.7	85th-percentile speed rounded down per CVC Section 21400(b)
12	Bayview Drive between Lakeview Boulevard and Fremont Boulevard	35	35	38.5	34.8	31 – 40	87.3	85th-percentile speed rounded down per CVC Section 21400(b)
13	Beacon Avenue between Fremont Boulevard and Liberty Street	30	30	32.6	28.8	24 – 33	85.0	85th-percentile speed, downgraded 5 mph due to crosswalk visibility and pace range
14	Blacow Road between Fremont Boulevard and Stevenson Boulevard	40	40	46.8	42.1	37 – 46	79.6	85th-percentile speed downgraded 5 mph due to high pedestrian activity and proximity to park
15	Blacow Road between Stevenson Boulevard and Central Avenue	40	40	43.0	39.4	35 - 44	92.3	85th-percentile speed downgraded 5 mph due to fronting residential, crosswalks, and school
16	Blacow Road between Central Avenue and Thornton Avenue	35	35	39.6	35.9	33 - 42	88.2	85th-percentile speed rounded down per CVC Section 21400(b)

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
17	Boscell Road between Stewart Avenue and Auto Mall Parkway	35	35	39.8	35.4	31 - 40	84.6	85th-percentile speed rounded down per CVC Section 21400(b)
18	Boscell Road between Auto Mall Parkway and Bunche Drive	35	35	36.6	33.6	29 - 38	86.8	85th-percentile speed
19	Boyce Road between Stevenson Boulevard and Auto Mall Parkway	45	45	48.4	44.0	40 - 49	84.1	85th-percentile speed rounded down per CVC Section 21400(b)
20	Business Center Drive between Grimmer Boulevard and Technology Drive	40	40	42.1	37.6	35 - 44	78.6	85th-percentile speed
21	Capitol Avenue between Paseo Padre Parkway and State Street	30	30	33.0	29.2	26 - 35	94.1	85th-percentile speed rounded down per CVC Section 21400(b)
22	Central Avenue between Fremont Boulevard and Blacow Road	35	35	37.6	35.1	32 - 41	91.7	85th-percentile speed rounded down per CVC Section 21400(b)
23	Central Avenue between Blacow Road and I-880	40	40	44.0	39.0	35 - 44	79.6	85th-percentile speed rounded down per CVC Section 21400(b)
24	Christy Street between Stewart Avenue and Auto Mall Parkway	35	35	40.0	34.6	30 - 39	80.7	85th-percentile speed downgraded 5 mph due to pace speed
25	Christy Street between Auto Mall Parkway and Brandin Court	35	35	35.8	33.0	28 - 37	91.5	85th-percentile speed
26	Christy Street between Brandin Court and Southerly end	35	35	35.2	32.5	27 - 36	89.4	85th-percentile speed

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
27	Civic Center Drive between Mowry Avenue and BART Way	30	30	27.8	25.2	22 - 31	97.2	85th-percentile speed
28	Civic Center Drive between BART Way and Stevenson Boulevard	30	30	33.6	29.7	27 - 36	91.3	85th-percentile speed rounded down per CVC Section 21400(b)
29	Commerce Drive between Ardenwood Boulevard and Paseo Padre Parkway	35	35	34.3	32.2	28 - 37	94.2	85th-percentile speed
30	Commerce Drive between Tupelo Street and Ardenwood Boulevard	25	25	28.8	24.9	21 - 30	91.9	85th-percentile speed downgraded 5 mph due to fronting residential, pedestrian activity, and proximity to park
31	Cougar Drive between Mission Boulevard and Cougar Circle	25	30	34.9	30.1	26 - 35	80.4	85th-percentile speed rounded down per CVC Section 21400(b)
32	Country Drive between Fremont Boulevard and Stivers Street	25/30	30	36.2	30.8	27 - 36	75.4	85th-percentile speed downgraded 5 mph due to high pedestrian activity and proximity to school
33	Curie Street between Christy Street and Boscell Road	30	30	31.1	27.8	23 - 32	84.4	85th-percentile speed
34	Cushing Parkway between Auto Mall Parkway and Bunche Drive	40	40	44.0	40.4	37 - 46	88.3	85th-percentile speed rounded down per CVC Section 21400(b)
35	Cushing Parkway between Bunche Drive and South End of Causeway	45	45	50.7	45.3	40 - 49	68.4	85th-percentile speed downgraded 5 mph due to pace speed, pending engineering investigation as required by CVC 22404
36	Cushing Parkway between South End of Causeway and Fremont Boulevard	45	40	42.2	37.7	34 - 43	77.7	85th-percentile speed

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
37	Decoto Road between City Limits and Fremont Boulevard	40	40	45.9	41.6	37 - 46	76.7	85th-percentile speed downgraded 5 mph for consistency with adjacent segments
38	Decoto Road between Fremont Boulevard and I-880	40	40	43.0	38.2	34 - 43	74.8	85th-percentile speed rounded down per CVC Section 21400(b)
39	Deep Creek Road between Paseo Padre Parkway and Ridgewood Drive	30	30	34.8	31.9	28 - 37	94.7	85th-percentile speed
40	Deep Creek Road between Alvarado Boulevard and Paseo Padre Parkway	35	35	34.0	30.0	27 - 36	79.9	85th-percentile speed
41	Driscoll Road between Mission Boulevard and Paseo Padre Parkway	40	40	43.3	40.0	36 - 45	90.4	85th-percentile speed downgraded 5 mph due to proximity to school, fronting residential, uncontrolled crosswalks, and high pedestrian activity
42	Driscoll Road between Paseo Padre Parkway and Washington Boulevard	40	40	44.2	40.0	37 - 46	88.3	85th-percentile speed downgraded 5 mph due to fronting residential and uncontrolled crosswalk
43	Dumbarton Circle between Paseo Padre Parkway and Kaiser Drive	40	35	38.5	34.1	30 - 39	82.5	85th-percentile speed rounded down per CVC Section 21400(b)
44	Durham Road between I-680 and Mission Boulevard	40	40	43.9	40.2	36 - 45	86.7	85th-percentile speed rounded down per CVC Section 21400(b)
45	Dusterberry Way between Central Avenue and Thornton Avenue	35	35	36.7	32.0	27 - 36	75.5	85th-percentile speed

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
46	Enterprise Street between Grimmer Boulevard and Grimmer Boulevard	25	25	28.9	24.3	20 - 29	82.7	85th-percentile speed rounded down per CVC Section 21400(b)
47	Farwell Drive between Mowry Avenue and Flamingo Lane	25	30	34.2	30.5	27 - 36	93.2	85th-percentile speed rounded down per CVC Section 21400(b)
48	Fremont Boulevard between Beard Road and Decoto Road	40	40	44.1	40.9	37 - 46	90.8	85th-percentile speed rounded down per CVC Section 21400(b)
49	Fremont Boulevard between Decoto Road and Thornton Avenue	40	40	44.2	39.7	35 - 44	72.1	85th-percentile speed rounded down per CVC Section 21400(b)
50	Fremont Boulevard between Peralta Boulevard and Central Avenue	30	30	33.0	29.6	25 - 34	90.5	85th-percentile speed rounded down per CVC Section 21400(b)
51	Fremont Boulevard between Central Avenue and Mowry Avenue	35	35	37.5	34.9	31 - 40	96.6	85th-percentile speed
52	Fremont Boulevard between Mowry Avenue and Stevenson Boulevard	35	35	34.1	29.6	26 - 35	81.4	85th-percentile speed
53	Fremont Boulevard between Stevenson Boulevard and Washington Boulevard	35	35	41.9	37.9	34 - 50	92.2	85th-percentile speed downgraded 5 mph due to high pedestrian activity and uncontrolled crosswalk
54	Fremont Boulevard between Washington Boulevard and Auto Mall Parkway	40	40	42.8	39.2	35 - 44	81.3	85th-percentile speed rounded down per CVC Section 21400(b)
55	Fremont Boulevard between Auto Mall Parkway and I-880	45	45	47.6	43.5	40 - 49	87.0	85th-percentile speed rounded down per CVC Section 21400(b)

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
56	Fremont Boulevard between I-880 and Warren Avenue	45	45	45.7	42.9	39 - 48	88.9	85th-percentile speed
57	Fremont Boulevard between Warren Avenue and Lakeview Boulevard	45	45	44.5	41.7	37 - 46	94.8	85th-percentile speed
58	Gallaudet Drive between Walnut Avenue and Stevenson Boulevard	35	35	38.3	34.4	31 - 40	87.3	85th-percentile speed downgraded 5 mph due to proximity to schools for the blind and deaf
59	Gateway Boulevard between Fremont Boulevard and Lakeview Boulevard	35	30	29.9	26.1	22 - 31	83.7	85th-percentile speed
60	Grimmer Boulevard (South) between Paseo Padre Parkway and Osgood Road	40	40	42.7	38.9	35 - 44	90.9	85th-percentile speed rounded down per CVC Section 21400(b)
61	Grimmer Boulevard (South) between Osgood Road and Fremont Boulevard	40	40	44.5	41.6	37 - 46	95.8	85th-percentile speed rounded down per CVC Section 21400(b)
62	Grimmer Boulevard (South) between Fremont Boulevard and Auto Mall Parkway	40	40	44.1	40.7	36 - 45	86.7	85th-percentile speed rounded down per CVC Section 21400(b)
63	Grimmer Boulevard between Auto Mall Parkway and Blacow Road	40	40	44.0	40.9	37 - 46	92.7	85th-percentile speed rounded down per CVC Section 21400(b)
64	Grimmer Boulevard between Blacow Road and Fremont Boulevard	40	40	45.4	41.8	37 - 46	80.4	85th-percentile speed downgraded 5 mph due to proximity to school and moderate pedestrian activity
65	Grimmer Boulevard between Fremont Boulevard and Paseo Padre Parkway	35	35	38.9	35.1	32 - 41	92.2	85th-percentile speed rounded down per CVC Section 21400(b)

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
66	Guardino Drive between Stevenson Boulevard and Mowry Avenue	30	30	34.0	30.5	27 - 36	84.8	85th-percentile speed rounded down per CVC Section 21400(b)
67	Hansen Avenue between Blacow Road and Yolo Terrace	35	35	42.0	36.4	32 - 41	76.9	85th-percentile speed downgraded 5 mph due to proximity to school
68	Hansen Avenue between Yolo Terrace and Dusterberry Way	25	25	24.8	21.7	18 - 27	88.2	85th-percentile speed
69	Hastings Street between Capitol Avenue and Country Drive	30	30	31.2	27.5	22 - 32	85.5	85th-percentile speed
70	High Street between Grimmer Boulevard and Chapel Way	25	25	32.3	27.5	24 - 33	85.0	85th-percentile speed downgraded 5 mph due to dense housing and moderate pedestrian activity
71	Irvington Avenue between Fremont Boulevard and Grimmer Boulevard	30	30	33.0	29.4	25 - 34	91.4	85th-percentile speed rounded down per CVC Section 21400(b)
72	Isherwood Way between Paseo Padre Parkway and City Limits	35	35	36.6	32.2	27 - 36	75.7	85th-percentile speed
73	Kaiser Drive between Ardenwood Boulevard and Paseo Padre Parkway	40	40	39.4	36.2	31 - 40	82.9	85th-percentile speed
74	Kato Road between Warm Springs Boulevard and Milmont Drive	40	40	43.5	38.7	35 - 44	77.2	85th-percentile speed rounded down per CVC Section 21400(b)
75	Kato Road between Milmont Drive and Warren Avenue	40	40	38.6	32.9	27 - 36	68.8	85th-percentile speed

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
76	Lakeview Boulevard between Fremont Boulevard and Warren Avenue	35	35	40.1	36.5	32 - 41	80.4	85th-percentile speed downgraded due to uncontrolled crosswalks and moderate pedestrian activity
77	Landing Parkway between Fremont Boulevard and Warren Avenue	35	35	34.8	30.7	37 - 36	83.8	85th-percentile speed
78	Liberty Street between Stevenson Boulevard and Capitol Avenue	30	30	31.4	28.6	24 - 33	89.3	85th-percentile speed
79	Lowry Road between Alvarado Boulevard and City Limits	30/40	35	38.6	33.0	29 - 38	67.9	85th-percentile speed, rounded down per CVC Section 21400 (b)
80	Milmont Drive between Page Avenue and City Limits	40	35	41.0	34.2	29 - 38	67.9	85th-percentile speed downgraded 5 mph due to pace speed
81	Mission Boulevard between Mission Road and St. Josephs Terrace	35	35	39.5	34.6	31 - 40	84.0	85th-percentile speed, rounded down per CVC Section 21400 (b)
82	Mission Boulevard between St. Josephs Terrace and Pine Street	35	35	34.8	31.8	27 - 36	90.4	85th-percentile speed
83	Mission Boulevard between Pine Street and Durham Road	45	45	50.5	44.4	40 - 49	70.7	85th-percentile speed downgraded due to pace speed and to be within 10 mph of adjacent segments
84	Mission Boulevard between Durham Road and Curtner Road	45	45	45.8	42.2	38 - 47	84.4	85th-percentile speed
85	Mowry Avenue between Peralta Boulevard and Paseo Padre Parkway	35	35	37.4	32.6	29 - 38	70.8	85th-percentile speed

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
86	Mowry Avenue between Paseo Padre Parkway and Argonaut Way	40	40	41.8	36.6	34 - 43	70.4	85th-percentile speed
87	Mowry Avenue between Argonaut Way and I-880	40	40	39.0	35.2	31 - 40	82.9	85th-percentile speed
88	Niles Boulevard between City Limits and Rock Avenue	40	40	43.7	39.6	36 - 45	81.1	85th-percentile speed, rounded down per CVC Section 21400 (b)
89	Niles Boulevard between Rock Avenue and Hillview Drive	35	35	37.7	32.2	28 - 37	78.0	85th-percentile speed, rounded down per CVC Section 21400 (b)
90	Nobel Drive between Auto Mall Parkway and Cushing Parkway	35	35	40.8	35.3	32 - 41	63.9	85th-percentile speed downgraded 5 mph due to moderate pedestrian activity and low percentage in 10 mph pace speed
91	Northport Loop between Cushing Parkway and Cushing Parkway	No speed limit posted	35	36.2	30.1	27 - 36	62.6	85th-percentile speed
92	Old Canyon Road between Clarke Drive and Niles Canyon Road	35	35	38.3	33.3	31 - 40	72.3	85th-percentile speed, rounded down per CVC Section 21400 (b)
93	Old Warm Springs Boulevard between Fremont Boulevard and Grimmer Boulevard	40	35	36.4	33.4	29 - 38	95.2	85th-percentile speed
94	Osgood Road between Washington Boulevard and Grimmer Blvd	40	40	44.9	39.5	36 - 45	58.4	85th-percentile speed, rounded down per CVC Section 21400 (b)
95	Overacker Avenue between Walnut Avenue and Mowry Avenue	30	35	39.5	33.1	28 - 37	57.4	85th-percentile speed, rounded down per CVC Section 21400 (b)

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
96	Pacific Commons Boulevard between Auto Mall Parkway and Bunche Drive	30	30	35.0	29.6	24 - 33	63.5	85th-percentile speed downgraded due to pedestrian activity, crosswalks, and width
97	Page Avenue between Kato Road and Millmont Drive	30	35	36.1	29.6	26 - 35	63.5	85th-percentile speed
98	Paseo Padre Parkway between City Limits and Ardenwood Boulevard	45	45	51.5	48.3	44 - 53	85.1	85th-percentile speed downgraded 5 mph due to uncontrolled crosswalks and proximity to trail
99	Paseo Padre Parkway between Ardenwood Boulevard and Fremont Boulevard	40	40	45.2	39.5	35 - 44	67.3	85th-percentile speed downgraded 5 mph due to pace speed and proximity to preschool and after school facilities
100	Paseo Padre Parkway between Fremont Boulevard and Decoto Road	40	45	45.2	41.8	38 - 47	90.9	85th-percentile speed
101	Paseo Padre Parkway between Decoto Road and Thornton Avenue	45	45	50.2	46.4	43 - 52	82.8	85th-percentile speed downgraded 5 mph due to uncontrolled crosswalks and proximity to trail
102	Paseo Padre Parkway between Thornton Avenue and Peralta Boulevard	45	40	37.9	35.0	32 - 41	91.6	85th-percentile speed
103	Paseo Padre Parkway between Peralta Boulevard and Mowry Avenue	35	35	37.1	32.8	29 - 38	71.4	85th-percentile speed
104	Paseo Padre Parkway between Mowry Avenue and Stevenson Boulevard	35	35	41.7	36.2	33 - 42	69.2	85th-percentile speed downgraded 5 mph due to moderate pedestrian activity and proximity to downtown city center

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
105	Paseo Padre Parkway between Stevenson Boulevard and Driscoll Road	35	35	38.5	34.9	32 - 41	93.6	85th-percentile speed, rounded down per CVC Section 21400 (b)
106	Paseo Padre Parkway between Driscoll Road and Washington Boulevard	35	35	39.6	36.5	33 - 42	92.2	85th-percentile speed, rounded down per CVC Section 21400 (b)
107	Paseo Padre Parkway between Washington Boulevard and Durham Road	35	35	38.3	35.4	31 - 40	93.3	85th-percentile speed, rounded down per CVC Section 21400 (b)
108	Paseo Padre Parkway between Durham Road and Onondaga Way	35	35	40.2	36.2	32 - 41	86.7	85th-percentile speed downgraded due to uncontrolled crosswalk and proximity to park and school
109	Paseo Padre Parkway between Onondaga Way and Mission Boulevard	35	35	41.8	36.7	33 - 42	80.0	85th-percentile speed downgraded 5 mph due to uncontrolled crosswalks and proximity to school
110	Paseo Padre Parkway between Mission Boulevard and Curtner Road	30	30	37.0	33.3	29 - 38	86.1	85th-percentile speed downgraded 5 mph due to fronting residential
111	Peralta Boulevard between Fremont Boulevard and Dusterberry Way	35	35	34.8	29.8	26 - 35	70.6	85th-percentile speed
112	Pine Street between Mission Boulevard and Paseo Padre Parkway	25/30	30	36.8	31.8	27 - 36	82.5	85th-percentile speed downgraded 5 mph due to fronting residential and proximity to park
113	Pine Street between Paseo Padre Parkway and Sabercat Road	30	30	34.1	30.7	27 - 36	93.3	85th-percentile speed, rounded down per CVC Section 21400 (b)

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
114	Rancho Arroyo Parkway between Niles Boulevard and Riviera Drive	30	30	33.4	29.0	26 - 35	74.8	85th-percentile speed, rounded down per CVC Section 21400 (b)
115	Sabercat Road between Durham Road and Northerly end	40	40	43.7	39.6	35 - 44	80.2	85th-percentile speed, rounded down per CVC Section 21400 (b)
116	Scott Creek Road between Warm Springs Boulevard and I-680	40	40	46.3	42.0	38 - 47	80.1	85th-percentile speed downgraded due to high bicycle traffic
117	Scott Creek Road between I-680 and Easterly end	30	35	35.2	30.4	25 - 34	68.9	85th-percentile speed
118	Shinn Street between Peralta Boulevard and Von Euw Common	25	30	33.1	27.9	24 - 33	67.5	85th-percentile speed, rounded down per CVC Section 21400 (b)
119	Solar Street between Grimmer Boulevard and Technology Drive	25	30	30.7	26.5	22 - 31	66.1	85th-percentile speed
120	Stevenson Boulevard between Mission Boulevard and Civic Center Drive	40	40	46.2	41.4	37 - 46	77.3	85th-percentile speed downgraded due to proximity to the schools for the deaf and blind and park
121	Stevenson Boulevard between Civic Center Drive and Fremont Boulevard	40	40	41.9	37.2	33 - 42	75.7	85th-percentile speed
122	Stevenson Boulevard between Fremont Boulevard and Blacow Road	40	40	43.9	39.2	35 - 44	68.3	85th-percentile speed, rounded down per CVC Section 21400 (b)

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
123	Stevenson Boulevard between Blacow Road and I-880	40	40	45.2	39.1	35 - 44	71.7	85th-percentile speed downgraded 5 mph due to pace speed and for consistency with adjacent segments
124	Stevenson Boulevard between I-880 and Westerly end	40	40	42.9	39.1	34 - 43	76.1	85th-percentile speed, rounded down per CVC Section 21400 (b)
125	Stewart Avenue between Albrae Street and Boyce Road	30	35	41.8	36.4	33 - 42	75.8	85th-percentile speed downgraded 5 mph due to high truck traffic and for segment consistency
126	Sundale Drive between Liberty Street and Fremont Boulevard	30	30	36.6	30.8	27 - 36	73.7	85th-percentile speed downgraded 5 mph due to proximity to hospital and senior housing
127	Technology Drive between Auto Mall Parkway and Grimmer Boulevard	30	35	35.5	30.9	27 - 36	83.9	85th-percentile speed
128	Thornton Avenue between Fremont Boulevard and Paseo Padre Parkway	35	40	41.4	37.0	33 - 42	83.4	85th-percentile speed
129	Vargas Road between I-680 and 600' north of Pico Road	35	35	37.2	31.0	26 - 35	63.8	85th-percentile speed
130	Walnut Avenue between Argonaut Way and Fremont Boulevard	30	30	35.2	30.3	27 - 36	76.8	85th-percentile speed downgraded 5 mph due to high pedestrian activity and uncontrolled crosswalk
131	Walnut Avenue between Fremont Boulevard and Paseo Padre Parkway	35	35	41.2	35.3	30 - 39	69.3	85th-percentile speed downgraded 5 mph due to pace speed and moderate pedestrian activity
132	Walnut Avenue between Paseo Padre Parkway and Mission Boulevard	35	35	42.3	39.4	35 - 44	86.3	85th-percentile speed downgraded due to fronting residential and proximity to schools for the blind and deaf

Table 3, continued: Speed Survey Recommendations

No.	Street Segment	Existing Speed Limit (mph)	Recom Speed Limit (mph)	85% Speed (mph)	Median Speed (mph)	10 mph Pace Range (mph)	% of Veh. In Pace	Justification
133	Warm Springs Boulevard between Grimmer Blvd and Warren Avenue	40	35	37.4	30.9	26 - 35	57.3	85th-percentile speed
134	Warm Springs Boulevard between Warren Avenue and City Limits	45	40	46.8	40.9	38 - 47	67.4	85th-percentile speed downgraded due to proximity to school and moderate pedestrian activity
135	Warren Avenue between Curtner Road and Warm Springs Boulevard	35	35	40.0	35.4	32 - 41	81.3	85th-percentile speed downgraded due to uncontrolled crosswalk and proximity to school
136	Warren Avenue between Warm Springs Boulevard and I-880	40	40	43.1	39.8	35 - 44	87.8	85th-percentile speed, rounded down per CVC Section 21400 (b)
137	Warren Avenue between I-880 and Fremont Boulevard	35	40	40.5	36.4	31 - 40	77.7	85th-percentile speed
138	Washington Boulevard between Fremont Boulevard and Driscoll Road	25	35	34.6	30.3	26 - 35	82.8	85th-percentile speed
139	Washington Boulevard between Driscoll Road and Paseo Padre Parkway	40	40	43.5	38.8	35 - 44	76.5	85th-percentile speed, rounded down per CVC Section 21400 (b)
140	Washington Boulevard between Paseo Padre Parkway and Mission Boulevard	40	40	44.0	40.6	36 - 45	88.5	85th-percentile speed, rounded down per CVC Section 21400 (b)

Appendix

Engineering and Traffic Survey Forms

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

1

STREET: Albrae Street
FROM: Stevenson Boulevard

SURVEY DATE: 3/23/2015
TO: Stewart Avenue

SPEED DATA

Location of Speed Survey	40528 Albrae Street	Posted Speed Limit	30 mph
Time of Speed Survey	9:30 AM - 10:15 AM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.2 mph	Speed Limit Change	No
85th Percentile Speed	32.7 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	25 - 34 mph		
Percentage of Vehicles in Pace	89.4%		
Number of Survey Samples	207		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	4
Collision Rate (ACC/MVM)	0.29
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	15,313
Type of Traffic Control	Traffic signal at Stevenson Blvd
Pedestrian Traffic	Low
Truck Traffic	High

ROADWAY CHARACTERISTICS

Length of Segment	3249'
Width	44'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - 2 approx 90 degree turns mid-segment
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Industrial and commercial

COMMENTS

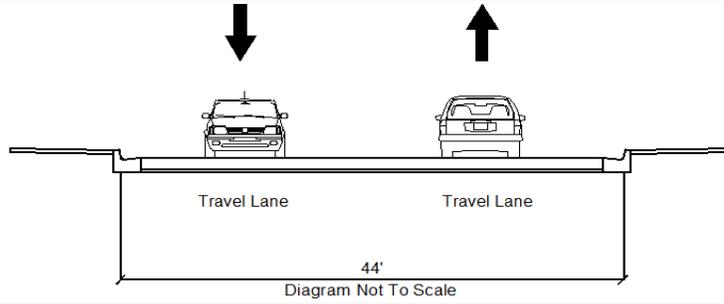
The 85th-percentile speed of 32.7 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 25 mph to 34 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Albrae Street

Limits: Stevenson Boulevard to Stewart Avenue

**Typical
Cross-section**



Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30		
60							0	
							0	
							0	
							0	
							0	
55							0	
							0	
							0	
							0	
50							0	
							0	
							0	
							0	
45							0	
							0	
							0	
							0	
40	X	X					2	1.0% 100.0%
	/						1	0.5% 99.0%
	X						1	0.5% 98.6%
	X	X	X	X	/	/	8	3.9% 98.1%
	X	X	/	/			5	2.4% 94.2%
35	X	X	/				3	1.4% 91.8%
	X	X	/	/			5	2.4% 90.3%
	X	X	X	X	X	X	18	8.7% 87.9%
	X	X	X	X	X	/	14	6.8% 79.2%
	X	X	X	X	X	X	25	12.1% 72.5%
30	X	X	X	X	X	X	26	12.6% 60.4%
	X	X	X	X	X	X	29	14.0% 47.8%
	X	X	X	X	X	X	29	14.0% 33.8%
	X	X	X	X	X	X	21	10.1% 19.8%
	X	X	X	X	X	/	13	6.3% 9.7%
25	X	X	X	/	/		5	2.4% 3.4%
	X	/					2	1.0% 1.0%
							0	
							0	
20							0	
							0	
							0	
							0	
15							0	
							0	
							0	
							0	
10							0	

Total Samples = 207

85th Percentile Speed: 32.7 mph
50th Percentile Speed: 29.2 mph
15th Percentile Speed: 26.5 mph
10 MPH Pace: 25 - 34
Number in Pace: 185
Percent in Pace: 89.4%

Date of Survey: 3/23/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 9:30 AM
End Time: 10:15 AM
Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

2

STREET: Albrae Street
FROM: Stewart Avenue

SURVEY DATE: 3/23/2015
TO: Christy Street

SPEED DATA

Location of Speed Survey	41348 Albrae St.	Posted Speed Limit	40 mph
Time of Speed Survey	10:30 AM - 11:30 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.7 mph	Speed Limit Change	Yes
85th Percentile Speed	41.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to pace speed
10 mph Pace Speed	30 - 39 mph		
Percentage of Vehicles in Pace	71.2%		
Number of Survey Samples	205		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.42
Expected Collisions (ACC/MVM)	1.46

TRAFFIC FACTORS

Average Daily Traffic	5,348
Type of Traffic Control	Stop sign at Christy
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4828'
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - near Public Storage
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Industrial, commercial, and hotel

COMMENTS

The 85th-percentile speed of 41.2 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 30 mph to 39 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the pace speed, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit be decreased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

3

STREET: Alvarado Boulevard
FROM: Deep Creek Road

SURVEY DATE: 3/3/2015
TO: City Limits

SPEED DATA

Location of Speed Survey	Alvarado Rd.-485 Ft. East of Alameda Creek	Posted Speed Limit	45 mph
Time of Speed Survey	9:30 AM - 10:45 AM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	40.3 mph	Speed Limit Change	No
85th Percentile Speed	46.0 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	36-45 mph		
Percentage of Vehicles in Pace	63.8%		
Number of Survey Samples	213		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.47
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	33,896
Type of Traffic Control	Traffic signals at Deep Creek Rd, Lowry Rd, Merganser Dr, and Falcon Dr
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	674'
Width	94'
Number of Lanes	EB - 3 WB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	None
Vertical Curve	Yes - Alameda Creek overpass
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential

COMMENTS

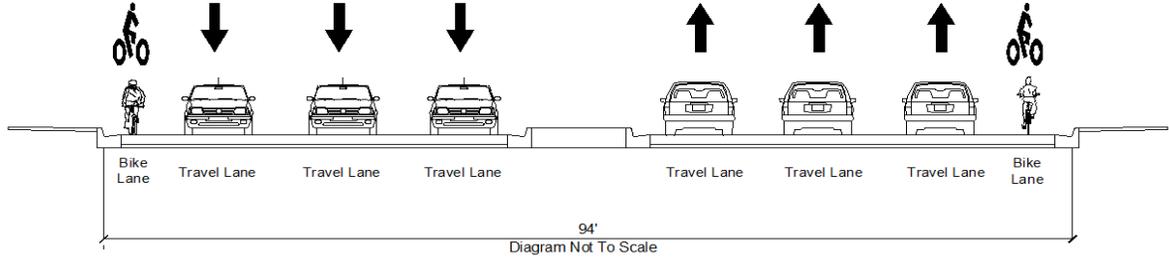
The 85th-percentile speed of 46.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Alvarado Boulevard

Limits: Deep Creek Road to City Limits

Typical Cross-section



Radars Survey Sheet

X = East / = West

	5	10	15	20	25	30				
70	/							1	0.5%	100.0%
								0		
								0		
								0		
								0		
65	X							1	0.5%	99.5%
								0		
								0		
								0		
60	X							1	0.5%	99.1%
	/							1	0.5%	98.6%
								0		
								0		
55	/							1	0.5%	98.1%
	X							1	0.5%	97.7%
	/							1	0.5%	97.2%
	/							1	0.5%	96.7%
	X /							2	0.9%	96.2%
50	/ /							2	0.9%	95.3%
	X /							2	0.9%	94.4%
	X X X	/ / /						6	2.8%	93.4%
	X X X X X X X	/ / / / /						12	5.6%	90.6%
	X X X X X X X	/ / / / /						10	4.7%	85.0%
45	X X X X	/ / / / /						12	5.6%	80.3%
	X X X	/ / / / /						10	4.7%	74.6%
	X X X X X X X X X X X	/ / / / / / / /						19	8.9%	70.0%
	X X X X X X X X X X	/ / / / / / /						14	6.6%	61.0%
	X X X X X X X / / / / / / /							14	6.6%	54.5%
40	X X X X X X X X X	/ / / / /						11	5.2%	47.9%
	X X X X X X X X X	/ / / / /						14	6.6%	42.7%
	X X X X X X X X	/ / / / / / /						14	6.6%	36.2%
	X X X X X X X X X X	/ / / / / / / /						15	7.0%	29.6%
	X X X / / / / / / / /							13	6.1%	22.5%
35	X X X X X X / / / / /							11	5.2%	16.4%
	X / / / / / / / /							8	3.8%	11.3%
	X X X / / / / /							7	3.3%	7.5%
	X X X / / / /							6	2.8%	4.2%
	/							1	0.5%	1.4%
30								0		
	/							1	0.5%	0.9%
	/							1	0.5%	0.5%
								0		
								0		
25								0		
								0		
								0		
								0		
								0		
20								0		

Total Samples = 213

85th Percentile Speed: 46.0 mph
50th Percentile Speed: 40.3 mph
15th Percentile Speed: 34.7 mph
10 MPH Pace: 36-45
Number in Pace: 136
Percent in Pace: 63.8%

Date of Survey: 3/3/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Arterial - major
Field Study by: ATD / KHA

Start Time: 9:30 AM
End Time: 10:45 AM
Posted Speed: 45 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

4

STREET: Antelope Drive
FROM: Boar Circle

SURVEY DATE: 3/16/2015
TO: Mission Boulevard

SPEED DATA

Location of Speed Survey	45548 Antelope Drive	Posted Speed Limit	25 mph
Time of Speed Survey	9:30 AM - 11:30 AM	Recommended Speed Limit	25 mph
50th Percentile Speed (Mean Speed)	35.8 mph	Speed Limit Change	No
85th Percentile Speed	40.6 mph	Speed Justification	Due to the roadway width and fronting residential, a speed limit of 25 mph is recommended.
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	71.2%		
Number of Survey Samples	104		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,339
Type of Traffic Control	Traffic signal at Mission Blvd, one-way stop at Boar Circle
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2819'
Width	40'
Number of Lanes	EB - 1 WB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	Yes - Uphill from Mission Boulevard to Boar Circle
Horizontal Curve	Yes - Small curves between Mission Blvd and Weibel Dr, 2 larger curves between Vineyard Ave and Boar Cir
Visibility	Fair
Pavement Condition	Good
Adjacent Land Use	Residential

COMMENTS

The 85th-percentile speed of 40.6 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Since the roadway width is 40 feet and there is fronting residential, the roadway meets the criteria of a local road. Therefore, it is recommended that the speed limit be posted 25 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

5

STREET: Ardenwood Boulevard
FROM: Union City Limit

SURVEY DATE: 3/25/2015
TO: Newark City Limit

SPEED DATA

Location of Speed Survey	34275 Ardenwood Blvd.	Posted Speed Limit	45 mph
Time of Speed Survey	9:40 AM - 10:10 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	38.6 mph	Speed Limit Change	Yes
85th Percentile Speed	44.7 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	34 - 43 mph		
Percentage of Vehicles in Pace	65.9%		
Number of Survey Samples	258		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.10
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	17,570
Type of Traffic Control	Traffic signals at Paseo Padre Pkwy, Commerce Dr, Kaiser Dr, Ardenwood Terrace, and 84 ramp
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	6393'
Width	118'
Number of Lanes	NB - 2/3 SB - 2/3
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	Yes - at Tan Oak Dr
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	Yes - at railroad overpass
Horizontal Curve	Yes - between Union City city limit and Paseo Padre Pkwy and between Newark city limit and Kaiser Dr
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office, non-fronting residential, and park

COMMENTS

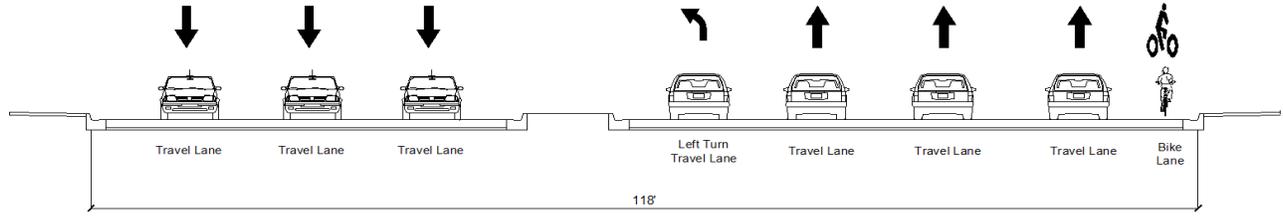
The 85th-percentile speed of 44.7 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 34 mph to 43 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit be decreased to 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Ardenwood Boulevard

Limits: Union City Limit to Newark City Limit

**Typical
Cross-section**



Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30		
60							0	
							0	
							0	
							0	
							0	
55	/	/	/				3	1.2% 100.0%
	/						1	0.4% 98.8%
	/	/					2	0.8% 98.4%
							0	
50	X	X	/	/			4	1.6% 97.7%
	X	/	/	/			4	1.6% 96.1%
	X	/	/	/	/	/	7	2.7% 94.6%
	X	X	/	/	/	/	9	3.5% 91.9%
	X	X	/	/	/	/	7	2.7% 88.4%
45	X	X	X	/	/	/	6	2.3% 85.7%
	X	X	X	X	/	/	15	5.8% 83.3%
	X	X	X	X	/	/	16	6.2% 77.5%
	X	/	/	/	/	/	12	4.7% 71.3%
	X	X	X	/	/	/	14	5.4% 66.7%
40	X	X	X	X	X	X	20	7.8% 61.2%
	X	X	X	X	X	X	24	9.3% 53.5%
	X	X	X	X	X	/	15	5.8% 44.2%
	X	X	X	X	X	/	15	5.8% 38.4%
	X	X	X	X	X	X	19	7.4% 32.6%
35	X	X	X	X	X	X	18	7.0% 25.2%
	X	X	X	X	X	X	17	6.6% 18.2%
	X	X	X	X	/	/	12	4.7% 11.6%
	X	X	/				3	1.2% 7.0%
	X	X	/				4	1.6% 5.8%
30	X	X	X	/			4	1.6% 4.3%
	X	X					2	0.8% 2.7%
	X						1	0.4% 1.9%
	X	X					2	0.8% 1.6%
	X	/					2	0.8% 0.8%
25							0	
							0	
							0	
							0	
20							0	
							0	
							0	
							0	
15							0	
							0	
							0	
							0	
10							0	

Total Samples = 258

85th Percentile Speed: 44.7 mph
50th Percentile Speed: 38.6 mph
15th Percentile Speed: 33.5 mph
10 MPH Pace: 34 - 43
Number in Pace: 170
Percent in Pace: 65.9%

Date of Survey: 3/25/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Arterial - minor
Field Study by: ATD / KHA

Start Time: 9:40 AM
End Time: 10:10 AM
Posted Speed: 45 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

6

STREET: Argonaut Way
FROM: Mowry Ave

SURVEY DATE: 3/9/2015
TO: Walnut Ave

SPEED DATA

Location of Speed Survey	39331 Argonaut Way	Posted Speed Limit	30 mph
Time of Speed Survey	11:00 AM - 12:00 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	32.4 mph	Speed Limit Change	No
85th Percentile Speed	36.3 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to fronting residential and uncontrolled crosswalk
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	88.5%		
Number of Survey Samples	209		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	9,300
Type of Traffic Control	Traffic signals at Mowry Ave and Sacramento Ave; roundabout at Walnut Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1997'
Width	64'
Number of Lanes	EB - 1-2 WB - 1-2
Street Classification	Collector
Divided Median?	TWLT east of Sacramento Ave
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	Yes - at roundabout
On-Street Parking?	Yes - on south side of street east of Sacramento Ave
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and fronting residential

COMMENTS

The 85th-percentile speed of 36.3 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the fronting residential and uncontrolled crosswalk near the roundabout, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

7

STREET: Auto Mall Parkway
FROM: Westerly End

SURVEY DATE: 3/23/2015
TO: Boyce Road

SPEED DATA

Location of Speed Survey	6028 Auto Mall Parkway	Posted Speed Limit	45 mph
Time of Speed Survey	11:45 AM - 1:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	40.2 mph	Speed Limit Change	No
85th Percentile Speed	43.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	36 - 45 mph		
Percentage of Vehicles in Pace	47.1%		
Number of Survey Samples	121		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	5164
Type of Traffic Control	Traffic signal at Boyce Rd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	3,753'
Width	88'
Number of Lanes	EB- 1/2 WB - 1/2
Street Classification	Arterial - minor
Divided Median?	Yes - only on east end
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - On south side only from approx 1000' west of Nobel Drive to Boyce Road
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and industrial

COMMENTS

The 85th-percentile speed of 43.8 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

8

STREET: Auto Mall Parkway
FROM: Boyce Road

SURVEY DATE: 3/25/2015
TO: I-880

SPEED DATA

Location of Speed Survey	400' east of Pacific Commons Blvd	Posted Speed Limit	40 mph
Time of Speed Survey	12:45 PM - 1:20 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.6 mph	Speed Limit Change	Yes
85th Percentile Speed	37.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	30 - 39 mph		
Percentage of Vehicles in Pace	90.0%		
Number of Survey Samples	211		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.03
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	30,179
Type of Traffic Control	Traffic signals at Boyce Rd, Boscell Rd, Pacific Commons Blvd, Christy St, and I-880 SB Ramp
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	3901'
Width	120'
Number of Lanes	EB - 3 WB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Except for approx 500' stretch on north side of the road west of Boscell Rd
Driveways?	Few
Vertical Curve	Yes - At I-880 overpass
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and office

COMMENTS

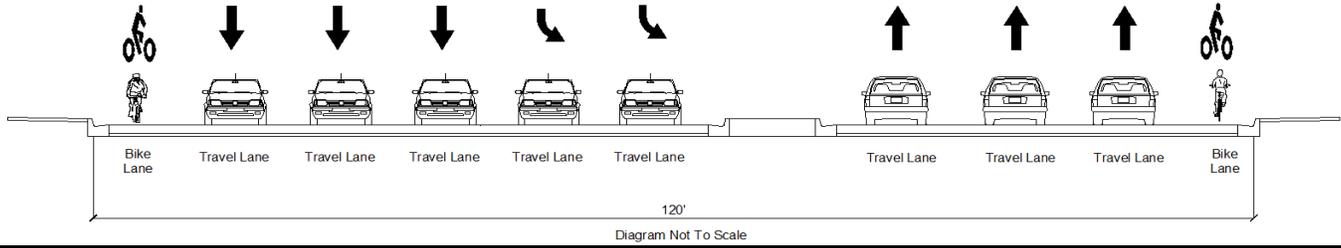
The 85th-percentile speed of 37.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 30 mph to 39 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit is decreased to 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Auto Mall Parkway

Limits: Boyce Road to I-880

Typical Cross-section



Radars Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
45							0		
							0		
	/						1	0.5%	100.0%
							0		
	X						1	0.5%	99.5%
	X	/					2	0.9%	99.1%
40	X	X	X	/	/		5	2.4%	98.1%
	X	X	X	/	/	/	9	4.3%	95.7%
	X	X	X	X	X	/	17	8.1%	91.5%
	X	X	X	X	X	X	17	8.1%	83.4%
	X	X	X	X	X	X	17	8.1%	75.4%
35	X	X	X	X	X	X	27	12.8%	67.3%
	X	X	X	X	X	X	27	12.8%	54.5%
	X	X	X	X	X	X	24	11.4%	41.7%
	X	X	X	X	X	X	23	10.9%	30.3%
	X	X	X	X	X	X	17	8.1%	19.4%
30	X	X	X	/	/	/	12	5.7%	11.4%
	X	X	/	/	/		5	2.4%	5.7%
	X	X	X	/	/		5	2.4%	3.3%
	/						1	0.5%	0.9%
							0		
25	/						1	0.5%	0.5%
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 211

85th Percentile Speed: 37.2 mph
50th Percentile Speed: 33.6 mph
15th Percentile Speed: 30.5 mph
10 MPH Pace: 30 - 39
Number in Pace: 190
Percent in Pace: 90.0%

Date of Survey: 3/25/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - major
Field Study by: ATD / KHA

Start Time: 12:45 PM
End Time: 1:20 PM
Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

9

STREET: Auto Mall Parkway
FROM: I-880

SURVEY DATE: 3/20/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	4580 Auto Mall Parkway	Posted Speed Limit	45 mph
Time of Speed Survey	2:00 PM - 3:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	41.1 mph	Speed Limit Change	No
85th Percentile Speed	45.9 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	38 - 47 mph		
Percentage of Vehicles in Pace	68.9%		
Number of Survey Samples	212		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	10
Collision Rate (ACC/MVM)	0.19
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	38,140
Type of Traffic Control	Traffic signals at I-880 NB Ramp, Grimmer Blvd, Technology Dr, and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	5089'
Width	35' on each side of median between Grimmer Blvd and Fremont Blvd, 102' west of Grimmer Blvd
Number of Lanes	EB - 2/3 WB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Except on south side between 880 and Grimmer Blvd and near Technology Dr
Driveways?	Few
Vertical Curve	Yes - At I-880 overpass
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, non-fronting residential, and apartments

COMMENTS

The 85th-percentile speed of 45.9 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

10

STREET: Auto Mall Parkway
FROM: I-680

SURVEY DATE: 3/20/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	575 feet east of Hugo Terrace	Posted Speed Limit	45 mph
Time of Speed Survey	11:00 AM - 12:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	43.3 mph	Speed Limit Change	No
85th Percentile Speed	47.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	38 - 47 mph		
Percentage of Vehicles in Pace	74.7%		
Number of Survey Samples	221		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	5
Collision Rate (ACC/MVM)	0.11
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	47,531
Type of Traffic Control	Traffic signals at Fremont Blvd, Osgood Rd, and I-680 Ramps
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	3470'
Width	70'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Except south side btwn Fremont Blvd and Home Depot entrance and north side btwn Osgood Rd and I-680
Driveways?	Few
Vertical Curve	Yes - At railroad and 680 overpasses
Horizontal Curve	Yes - Between Fremont Blvd and railroad
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial

COMMENTS

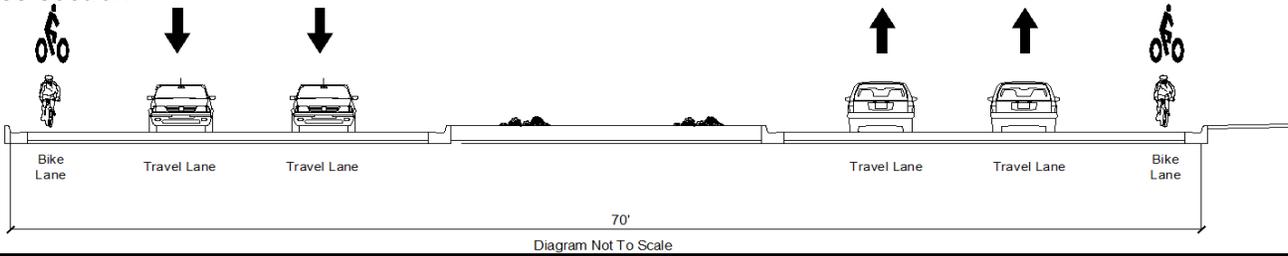
The 85th-percentile speed of 47.4 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Auto Mall Parkway

Limits: I-680 to Fremont Boulevard

Typical Cross-section



Radars Survey Sheet

X = East / = West

	5	10	15	20	25	30				
65	X							1	0.5%	100.0%
								0		
								0		
								0		
60								0		
								0		
								0		
								0		
55	X	X	/					3	1.4%	99.5%
	X							1	0.5%	98.2%
	X	/						2	0.9%	97.7%
	X	/	/					3	1.4%	96.8%
	X	X						2	0.9%	95.5%
50	X	X	X	X	X	/	/	11	5.0%	94.6%
	X	X	X	/	/			5	2.3%	89.6%
	X	X	X	X	X	/	/	9	4.1%	87.3%
	X	X	X	X	X	X	/	19	8.6%	83.3%
	X	X	X	X	X	X	/	18	8.1%	74.7%
45	X	X	X	X	X	X	/	17	7.7%	66.5%
	X	X	X	X	X	X	/	28	12.7%	58.8%
	X	X	X	X	X	X	/	19	8.6%	46.2%
	X	X	X	X	X	X	/	18	8.1%	37.6%
	X	X	X	X	/	/	/	10	4.5%	29.4%
40	X	X	X	X	X	X	/	17	7.7%	24.9%
	X	X	X	/	/	/	/	7	3.2%	17.2%
	X	X	X	/	/	/	/	12	5.4%	14.0%
	X	X	/	/				4	1.8%	8.6%
	X	X	X					3	1.4%	6.8%
35	X	X	X	/	/			5	2.3%	5.4%
	X	X	X	/				4	1.8%	3.2%
	/							1	0.5%	1.4%
								0		
								0		
30	/							1	0.5%	0.9%
								0		
								0		
								0		
25								0		
	X							1	0.5%	0.5%
								0		
								0		
20								0		
								0		
								0		
								0		
15								0		

Total Samples = 221

85th Percentile Speed: 47.4 mph
 50th Percentile Speed: 43.3 mph
 15th Percentile Speed: 38.3 mph
 10 MPH Pace: 38 - 47
 Number in Pace: 165
 Percent in Pace: 74.7%

Date of Survey: 3/20/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Arterial - major
 Field Study by: ATD / KHA

Start Time: 11:00 AM
 End Time: 12:00 PM
 Posted Speed: 45 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

11

STREET: Bayside Parkway
FROM: Warren Avenue

SURVEY DATE: 3/23/2015
TO: Bayview Drive

SPEED DATA

Location of Speed Survey	47284 Bayside Parkway	Posted Speed Limit	35 mph
Time of Speed Survey	1:30 PM - 2:15 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.8 mph	Speed Limit Change	No
85th Percentile Speed	38.3 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	92.7%		
Number of Survey Samples	109		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	460
Type of Traffic Control	Traffic signal at Gateway Blvd; stop signs at Bayview Dr and Warren Ave (future signal)
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4432'
Width	52'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - North of Gateway Blvd
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 38.3 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Bayside Parkway

Limits: Warren Avenue to Bayview Drive

**Typical
Cross-section**

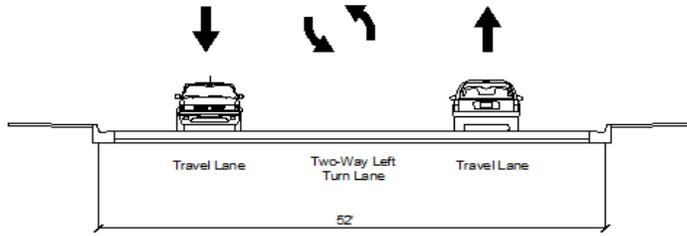


Diagram Not To Scale

Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
45							0		
							0		
	/	/					2	1.8%	100.0%
	/						1	0.9%	98.2%
	X						1	0.9%	97.2%
40	X	X	X	/	/	/	6	5.5%	96.3%
	X	X	X	X	/	/	9	8.3%	90.8%
	X	X	X	X	/	/	8	7.3%	82.6%
	X	X	X	X	/	/	9	8.3%	75.2%
	X	X	X	X	X	X	16	14.7%	67.0%
35	X	X	X	X	X	X	16	14.7%	52.3%
	X	X	X	X	X	X	14	12.8%	37.6%
	X	X	X	/	/	/	9	8.3%	24.8%
	X	X	X	X	X	/	9	8.3%	16.5%
	X	X	/	/	/		5	4.6%	8.3%
30	X	X	/				3	2.8%	3.7%
							0		
	X						1	0.9%	0.9%
							0		
							0		
25							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 109

85th Percentile Speed: 38.3 mph
50th Percentile Speed: 34.8 mph
15th Percentile Speed: 31.8 mph
10 MPH Pace: 31 - 40
Number in Pace: 101
Percent in Pace: 92.7%

Date of Survey: 3/23/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 1:30 PM
End Time: 2:15 PM
Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

12

STREET: Bayview Drive
FROM: Lakeview Boulevard

SURVEY DATE: 3/24/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	2937 Bayview Dr	Posted Speed Limit	35 mph
Time of Speed Survey	9:30 AM - 12:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.8 mph	Speed Limit Change	No
85th Percentile Speed	38.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	87.3%		
Number of Survey Samples	102		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	973
Type of Traffic Control	Stop signs at Fremont Blvd and Lakeview Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1915'
Width	53'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between Bayside Pkwy and Lakeview Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 38.5 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

13

STREET: Beacon Avenue
FROM: Fremont Boulevard

SURVEY DATE: 3/9/2015
TO: Liberty Street

SPEED DATA

Location of Speed Survey	3569 Beacon Avenue	Posted Speed Limit	30 mph
Time of Speed Survey	12:20 PM - 12:55 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	28.8 mph	Speed Limit Change	No
85th Percentile Speed	32.6 mph	Speed Justification	85th-percentile speed, downgraded 5 mph due to crosswalk visibility and pace range
10 mph Pace Speed	24 - 33 mph		
Percentage of Vehicles in Pace	85.0%		
Number of Survey Samples	206		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	3,854
Type of Traffic Control	Traffic signal at Fremont Blvd, stop sign at Liberty St
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1706'
Width	50'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	None
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At California St and State St
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Fremont Blvd and State St
Visibility	Moderate
Pavement Condition	Good
Adjacent Land Use	Commercial, offices, non-fronting residential, and apartments

COMMENTS

The 85th-percentile speed of 32.6 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 24 mph to 33 mph and the suggested speed limit is above this range. The collision rate for this segment is below the expected rate. Due to the poor visibility at the uncontrolled crosswalks and pace ranges, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

14

STREET: Blacow Road
FROM: Fremont Boulevard

SURVEY DATE: 3/20/2015
TO: Stevenson Boulevard

SPEED DATA

Location of Speed Survey	Blacow Rd 1,000 feet south of Hilo St	Posted Speed Limit	40 mph
Time of Speed Survey	9:30 AM - 10:15 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	42.1 mph	Speed Limit Change	No
85th Percentile Speed	46.8 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to high pedestrian activity and proximity to park
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	79.6%		
Number of Survey Samples	216		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	21,107
Type of Traffic Control	Traffic signals at Stevenson Blvd, Hilo St, Omar St, Grimmer Blvd, Greenpark Dr, Sherwood St, and Fremont Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	8,047
Width	71'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Gatewood St
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - between Robin St and Grimmer Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, non-fronting residential, apartments, school, park, and library

COMMENTS

The 85th-percentile speed of 46.8 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the high pedestrian activity and proximity to a park, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Blacow Road

Limits: Fremont Boulevard to Stevenson Boulevard

Typical Cross-section

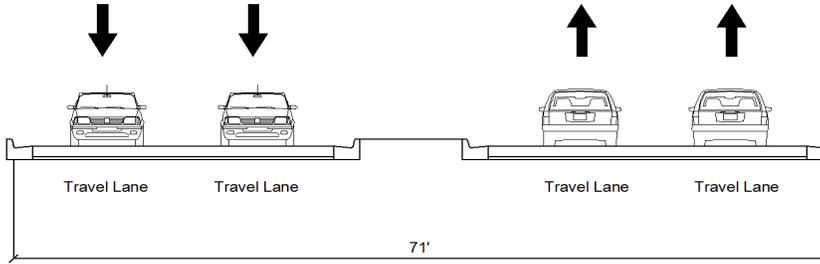


Diagram Not To Scale

Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60								0	
								0	
								0	
								0	
								0	
55								0	
	X							1	0.5%
	X							1	0.5%
	X	/	/					3	1.4%
	X	X	X	/	/	/	/	7	3.2%
50	X	/	/	/	/	/	/	7	3.2%
	X	X	/	/	/			5	2.3%
	X	X	X	X	/	/	/	7	3.2%
	X	X	X	/	/	/		6	2.8%
	X	X	X	X	/	/	/	10	4.6%
45	X	X	X	X	X	X	/	14	6.5%
	X	X	X	X	X	X	X	26	12.0%
	X	X	X	X	X	X	X	23	10.6%
	X	X	X	X	X	X	X	18	8.3%
	X	X	X	X	X	X	X	18	8.3%
40	X	X	X	X	X	X	X	22	10.2%
	X	X	X	X	X	X	X	19	8.8%
	X	X	X	X	X	X	/	15	6.9%
	X	X	X	/	/	/	/	7	3.2%
	X	X	/	/	/			4	1.9%
35	X	X	/					3	1.4%
								0	
								0	
								0	
								0	
30								0	
								0	
								0	
								0	
								0	
25								0	
								0	
								0	
								0	
								0	
20								0	
								0	
								0	
								0	
								0	
15								0	
								0	
								0	
								0	
								0	
10								0	
								0	

Total Samples = 216

85th Percentile Speed: 46.8 mph
 50th Percentile Speed: 42.1 mph
 15th Percentile Speed: 38.2 mph
 10 MPH Pace: 37 - 46
 Number in Pace: 172
 Percent in Pace: 79.6%

Date of Survey: 3/20/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Arterial - minor
 Field Study by: ATD / KHA

Start Time: 9:30 AM
 End Time: 10:15 AM
 Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

15

STREET: Blacow Road
FROM: Central Avenue

SURVEY DATE: 3/9/2015
TO: Stevenson Boulevard

SPEED DATA

Location of Speed Survey	38643 Blacow Road	Posted Speed Limit	40 mph
Time of Speed Survey	2:30 PM - 3:15 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.4 mph	Speed Limit Change	No
85th Percentile Speed	43.0 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to fronting residential, crosswalks, and school
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	92.3%		
Number of Survey Samples	209		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	9
Collision Rate (ACC/MVM)	0.17
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	18,418
Type of Traffic Control	Traffic signals at Central Ave, Eggers Dr, Mowry Ave, Calaveras Ave, Coco Palm Dr, Boone Dr, Stevenson Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	10622'
Width	63'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	At Mattos Dr
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, fronting residential, apartments, commercial, school

COMMENTS

The 85th-percentile speed of 43.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the fronting residential, uncontrolled crosswalk, and proximity to John F Kennedy High School, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

16

STREET: Blacow Road
FROM: Central Avenue

SURVEY DATE: 9/25/2015
TO: Thornton Avenue

SPEED DATA

Location of Speed Survey	37307 Blacow Rd	Posted Speed Limit	35 mph
Time of Speed Survey	10:00 AM - 10:45 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.9 mph	Speed Limit Change	No
85th Percentile Speed	39.6 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	33 - 42 mph		
Percentage of Vehicles in Pace	88.2%		
Number of Survey Samples	204		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,626
Type of Traffic Control	Traffic signal at Thornton Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,698
Width	84'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	No
Uncontrolled Crosswalks?	At Garden Way
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Many
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential and apartments

COMMENTS

The 85th-percentile speed of 39.6 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Blacow Road

Limits: Central Avenue to Thornton Avenue

**Typical
Cross-section**

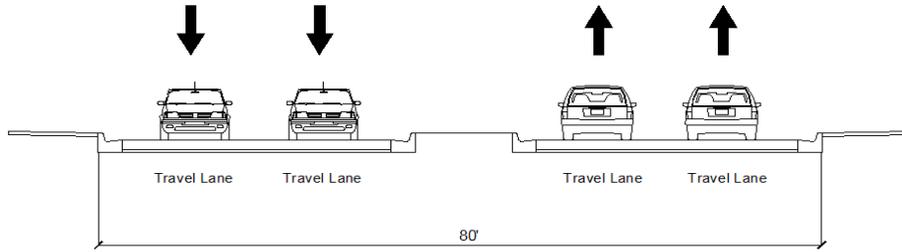


Diagram Not To Scale

Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
							0		
50	/						1	0.5%	100.0%
							0		
							0		
							0		
							0		
45	X						1	0.5%	99.5%
							0		
	/						1	0.5%	99.0%
	X						1	0.5%	98.5%
	X	X	X	X	X	/	10	4.9%	98.0%
	X	/	/	/	/	/	10	4.9%	93.1%
40	X	X	X	X	/	/	17	8.3%	88.2%
	X	X	X	X	X	X	16	7.8%	79.9%
	X	X	X	X	/	/	22	10.8%	72.1%
	X	X	X	X	X	/	20	9.8%	61.3%
	X	X	X	X	X	X	30	14.7%	51.5%
35	X	X	X	X	X	X	28	13.7%	36.8%
	X	X	X	X	X	/	16	7.8%	23.0%
	X	X	X	X	X	X	11	5.4%	15.2%
	X	X	X				3	1.5%	9.8%
	X	X	X	X	X	/	9	4.4%	8.3%
30	/	/	/				3	1.5%	3.9%
	X	X	X	/			4	2.0%	2.5%
							0		
	X						1	0.5%	0.5%
							0		
25							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 204

85th Percentile Speed: 39.6 mph
50th Percentile Speed: 35.9 mph
15th Percentile Speed: 33.0 mph
10 MPH Pace: 33 - 42
Number in Pace: 180
Percent in Pace: 88.2%

Date of Survey: 9/25/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - minor
Field Study by: ATD / KHA

Start Time: 10:00 AM
End Time: 10:45 AM
Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

17

STREET: Boscell Road
FROM: Stewart Avenue

SURVEY DATE: 3/20/2015
TO: Auto Mall Parkway

SPEED DATA

Location of Speed Survey	41702 Boscell Rd	Posted Speed Limit	35 mph
Time of Speed Survey	10:45 AM - 12:15 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.4 mph	Speed Limit Change	No
85th Percentile Speed	39.8 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	84.6%		
Number of Survey Samples	104		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	3,455
Type of Traffic Control	Traffic signal at Auto Mall Pkwy; stop sign at Stewart Ave
Pedestrian Traffic	Low
Truck Traffic	High

ROADWAY CHARACTERISTICS

Length of Segment	4,133
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - except in front of Auto Mall RV and vacant lot
Driveways?	Many
Vertical Curve	None
Horizontal Curve	Yes - Slight curve at south end
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, office, and industrial

COMMENTS

The 85th-percentile speed of 39.8 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

18

STREET: Boscell Road
FROM: Auto Mall Parkway

SURVEY DATE: 3/24/2015
TO: Bunche Drive

SPEED DATA

Location of Speed Survey	Boscell Rd. - 375 ft N of Curie St.	Posted Speed Limit	35 mph
Time of Speed Survey	12:45 PM - 1:45 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.6 mph	Speed Limit Change	No
85th Percentile Speed	36.6 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	86.8%		
Number of Survey Samples	121		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.35
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	4,272
Type of Traffic Control	Traffic signals at Auto Mall Pkwy, Braun St, Curie St, and Bunche Dr
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,420
Width	46'
Number of Lanes	NB - 2 SB - 2
Street Classification	Local
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Near Braun St
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and office

COMMENTS

The 85th-percentile speed of 36.6 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

19

STREET: Boyce Road
FROM: Stevenson Boulevard

SURVEY DATE: 3/24/2015
TO: Auto Mall Parkway

SPEED DATA

Location of Speed Survey	41604 Boyce Rd	Posted Speed Limit	45 mph
Time of Speed Survey	2:00 PM - 3:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	44.0 mph	Speed Limit Change	No
85th Percentile Speed	48.4 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	40 - 49 mph		
Percentage of Vehicles in Pace	84.1%		
Number of Survey Samples	157		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	21,020
Type of Traffic Control	Traffic signals at Stevenson Blvd and Auto Mall Pkwy
Pedestrian Traffic	Low
Truck Traffic	Moderate - high

ROADWAY CHARACTERISTICS

Length of Segment	6,147
Width	71'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous on both sides
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Commercial and industrial

COMMENTS

The 85th-percentile speed of 48.4 mph indicates a 50 mph speed limit. The 10 mph pace ranges from 40 mph to 49 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

20

STREET: Business Center Drive/Technology Place
FROM: Grimmer Boulevard

SURVEY DATE: 3/19/2015
TO: Technology Drive

SPEED DATA

Location of Speed Survey	4179 Business Center Drive/Technology Place	Posted Speed Limit	40 mph
Time of Speed Survey	12:45 PM - 3:00 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	37.6 mph	Speed Limit Change	No
85th Percentile Speed	42.1 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	78.6%		
Number of Survey Samples	103		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,523
Type of Traffic Control	Stop signs at Technology Dr and Grimmer Blvd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	3077'
Width	44'
Number of Lanes	EB - 1 WB - 1
Street Classification	Local
Divided Median?	Two-way left-turn lane
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Except on north side of street between Technology Dr and the 90 degree bend
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Approx 800' east of Technology Dr
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 42.1 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

21

STREET: Capitol Avenue
FROM: Paseo Padre Parkway

SURVEY DATE: 3/9/2015
TO: State Street

SPEED DATA

Location of Speed Survey	3340 Capitol Ave.	Posted Speed Limit	30 mph
Time of Speed Survey	12:45 PM - 2:10 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.2 mph	Speed Limit Change	No
85th Percentile Speed	33.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	94.1%		
Number of Survey Samples	119		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	5,304
Type of Traffic Control	Traffic signal at Paseo Padre Pkwy; stop sign at State St
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,637
Width	60'
Number of Lanes	NB -1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Hastings St and Liberty St
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and office

COMMENTS

The 85th-percentile speed of 33.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

22

STREET: Central Avenue
FROM: Fremont Boulevard

SURVEY DATE: 9/24/2015
TO: Blacow Road

SPEED DATA

Location of Speed Survey	4535 Central Avenue	Posted Speed Limit	35 mph
Time of Speed Survey	13:30 PM - 14:15 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.1 mph	Speed Limit Change	No
85th Percentile Speed	37.6 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	91.7%		
Number of Survey Samples	204		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	4
Collision Rate (ACC/MVM)	0.18
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	15,158
Type of Traffic Control	Traffic signals at Blacow Rd, Glenmoor Dr, Logan Dr, Dusterberry Way, and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5315'
Width	77'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Joseph St and Teakwood Dr
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Many
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential, commercial, apartments, and church

COMMENTS

The 85th-percentile speed of 37.6 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit is within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Central Avenue

Limits: Fremont Boulevard to Blacow Road

Typical Cross-section

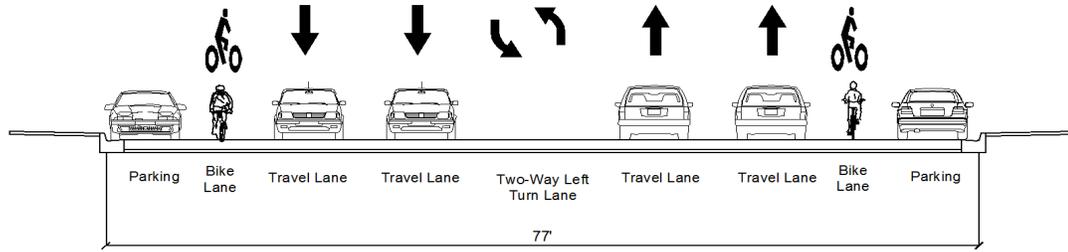


Diagram Not To Scale

Radars Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
45							0		
							0		
	X	X					2	1.0%	100.0%
	/						1	0.5%	99.0%
	X	X	/	/	/	/	6	2.9%	98.5%
40	X	X	X	X	X	X	9	4.4%	95.6%
	X	X	X	/	/	/	6	2.9%	91.2%
	X	X	X	X	X	X	17	8.3%	88.2%
	X	X	X	X	X	X	30	14.7%	79.9%
	X	X	X	X	X	X	34	16.7%	65.2%
35	X	X	X	X	X	X	32	15.7%	48.5%
	X	X	X	X	X	X	27	13.2%	32.8%
	X	X	X	X	X	X	16	7.8%	19.6%
	X	X	X	/	/	/	10	4.9%	11.8%
	X	/	/	/	/	/	5	2.5%	6.9%
30	X	X	X	/			4	2.0%	4.4%
	X	/					2	1.0%	2.5%
	X						1	0.5%	1.5%
	/						1	0.5%	1.0%
	/						1	0.5%	0.5%
25							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 204

85th Percentile Speed: 37.6 mph
 50th Percentile Speed: 35.1 mph
 15th Percentile Speed: 32.4 mph
 10 MPH Pace: 32 - 41
 Number in Pace: 187
 Percent in Pace: 91.7%

Date of Survey: 9/24/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Arterial - minor
 Field Study by: ATD / KHA

Start Time: 13:30 PM
 End Time: 14:15 PM
 Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

23

STREET: Central Avenue
FROM: Blacow Road

SURVEY DATE: 3/9/2015
TO: I-880

SPEED DATA

Location of Speed Survey	5206 Central Avenue	Posted Speed Limit	40 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.0 mph	Speed Limit Change	No
85th Percentile Speed	44.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35-44 mph		
Percentage of Vehicles in Pace	79.6%		
Number of Survey Samples	216		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	14,152
Type of Traffic Control	Traffic signals at Farwell Dr and Blacow Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2110'
Width	80'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - On east side of street between Centralmont Pl and Farwell Dr
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, commercial, and cemetery

COMMENTS

The 85th-percentile speed of 44.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Central Avenue

Limits: Blacow Road to I-880

Typical Cross-section

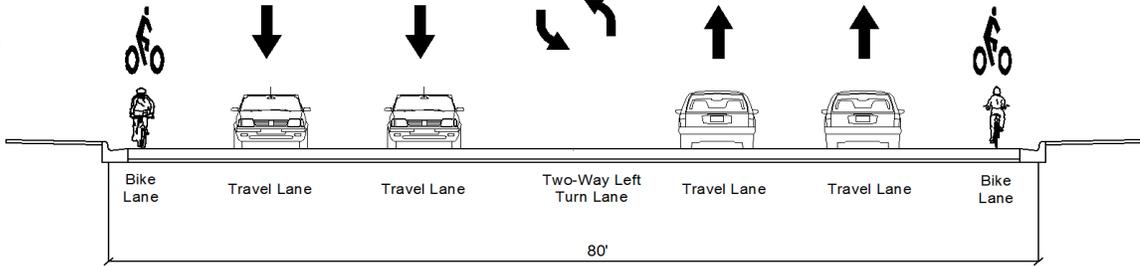


Diagram Not To Scale

Radars Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
							0		
50							0		
							2	0.9%	100.0%
	X	/					9	4.2%	99.1%
	X	X	X	X	/	/	4	1.9%	94.9%
	/	/	/	/	/	/	8	3.7%	93.1%
	X	/	/	/	/	/	9	4.2%	89.4%
45	X	X	X	/	/	/	12	5.6%	85.2%
	X	X	X	X	X	/	16	7.4%	79.6%
	X	X	X	X	X	X	14	6.5%	72.2%
	X	X	X	X	X	/	11	5.1%	65.7%
	X	X	X	X	X	/	22	10.2%	60.6%
40	X	X	X	X	X	X	23	10.6%	50.5%
	X	X	X	X	X	X	27	12.5%	39.8%
	X	X	X	X	X	X	20	9.3%	27.3%
	X	X	X	X	X	X	14	6.5%	18.1%
35	X	X	X	X	X	X	13	6.0%	11.6%
	X	X	X	/	/	/	8	3.7%	5.6%
	X	/	/	/	/	/	3	1.4%	1.9%
	X						1	0.5%	0.5%
							0		
30							0		
							0		
							0		
							0		
							0		
25							0		
							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
							0		
10							0		

Total Samples = 216

85th Percentile Speed: 44.0 mph
 50th Percentile Speed: 39.0 mph
 15th Percentile Speed: 35.5 mph
 10 MPH Pace: 35-44
 Number in Pace: 172
 Percent in Pace: 79.6%

Date of Survey: 3/9/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Arterial - minor
 Field Study by: ATD / KHA

Start Time: 9:30 AM
 End Time: 10:30 AM
 Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

24

STREET: Christy Street
FROM: Stewart Avenue

SURVEY DATE: 3/20/2015
TO: Auto Mall Parkway

SPEED DATA

Location of Speed Survey	Christy St 1800 Feet South of Stewart Ave	Posted Speed Limit	35 mph
Time of Speed Survey	1:35 PM - 2:35 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.6 mph	Speed Limit Change	No
85th Percentile Speed	40.0 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to pace speed
10 mph Pace Speed	30 - 39 mph		
Percentage of Vehicles in Pace	80.7%		
Number of Survey Samples	166		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	5,551
Type of Traffic Control	Traffic signal at Auto Mall Pkwy; stop signs at Stewart Ave and Albrae St
Pedestrian Traffic	Low
Truck Traffic	High

ROADWAY CHARACTERISTICS

Length of Segment	4,983
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	Two-way left-turn lane - between Albrae St and Auto Mall Pkwy
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous on both sides
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Boscell Common and Albrae St
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office and industrial

COMMENTS

The 85th-percentile speed of 40.0 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 30 mph to 39 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the pace speed, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

25

STREET: Christy Street
FROM: Auto Mall Parkway

SURVEY DATE: 3/25/2015
TO: Brandin Court

SPEED DATA

Location of Speed Survey	Christy St - 525 Feet South of Auto Mall Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.0 mph	Speed Limit Change	No
85th Percentile Speed	35.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	28 - 37 mph		
Percentage of Vehicles in Pace	91.5%		
Number of Survey Samples	141		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.25
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,053
Type of Traffic Control	Traffic signals at Auto Mall Pkwy, Curie St, and Brandin Ct
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1909'
Width	80'
Number of Lanes	NB - 2/3 SB - 2/3
Street Classification	Local
Divided Median?	Yes
Designated Bike Route?	Yes
 Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial

COMMENTS

The 85th-percentile speed of 35.8 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 28 mph to 37 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

26

STREET: Christy Street
FROM: Brandin Court

SURVEY DATE: 3/25/2015
TO: Southerly End

SPEED DATA

Location of Speed Survey	44096 Christy Street	Posted Speed Limit	35 mph
Time of Speed Survey	10:45 AM - 12:10 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.5 mph	Speed Limit Change	No
85th Percentile Speed	35.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	89.4%		
Number of Survey Samples	104		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,063
Type of Traffic Control	Traffic Signal at Brandin Ct
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1995'
Width	68'
Number of Lanes	NB - 2 SB - 2
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Only on east end adjacent to businesses
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Approx 1000' east of Brandin Ct
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 35.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

27

STREET: Civic Center Drive
FROM: Mowry Avenue

SURVEY DATE: 3/12/2015
TO: Bart Way

SPEED DATA

Location of Speed Survey	Civic Center Dr - 350 Feet North of Bart Way	Posted Speed Limit	30 mph
Time of Speed Survey	12:00 PM - 1:30 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	25.2 mph	Speed Limit Change	No
85th Percentile Speed	27.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	22 - 31 mph		
Percentage of Vehicles in Pace	97.2%		
Number of Survey Samples	107		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.67
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	10,111
Type of Traffic Control	Traffic signals at Mowry Ave and Bart Way
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,075
Width	70'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Washington Hospital entrance
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office, hospital, and BART

COMMENTS

The 85th-percentile speed of 27.8 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 22 mph to 31 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

28

STREET: Civic Center Drive
FROM: Bart Way

SURVEY DATE: 3/12/2015
TO: Stevenson Drive

SPEED DATA

Location of Speed Survey	Civic Center Dr - 750 Feet South of Walnut Ave	Posted Speed Limit	30 mph
Time of Speed Survey	1:45 PM - 2:45 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.7 mph	Speed Limit Change	No
85th Percentile Speed	33.6 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	91.3%		
Number of Survey Samples	138		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.39
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	12,102
Type of Traffic Control	Traffic signals at Walnut Ave and Stevenson Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,295
Width	70'-90'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	No
Uncontrolled Crosswalks?	At Kaiser Driveway
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, office, hospital, and park

COMMENTS

The 85th-percentile speed of 33.6 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Civic Center Drive

Limits: Bart Way to Stevenson Drive

Typical Cross-section

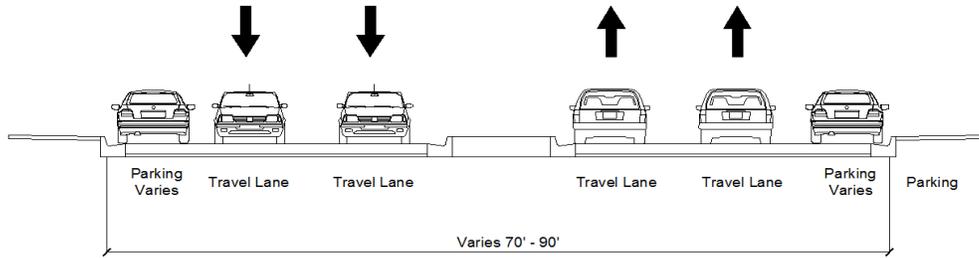


Diagram Not To Scale

Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60								0	
								0	
								0	
								0	
								0	
55								0	
								0	
								0	
								0	
50								0	
								0	
								0	
								0	
45								0	
								0	
								0	
								0	
40								0	
								0	
								0	
	/							1	0.7%
	/	/						2	1.4%
	X	X	/					3	2.2%
	X	X	X	/	/	/		6	4.3%
35	X	X	X	X	/	/		6	4.3%
	X	X	X	X	/	/		7	5.1%
	X	X	X	X	X	/	/	13	9.4%
	X	X	X	X	/	/	/	11	8.0%
	X	X	X	X	X	X	/	14	10.1%
30	X	X	X	X	X	X	X	22	15.9%
	X	X	X	X	X	X	X	20	14.5%
	X	X	X	X	X	X	X	19	13.8%
	X	X	/	/	/	/	/	8	5.8%
	X	X	/	/				4	2.9%
25	X	/						2	1.4%
								0	
								0	
								0	
20								0	
								0	
								0	
								0	
15								0	
								0	
								0	
								0	
10								0	

Total Samples = 138

85th Percentile Speed: 33.6 mph
 50th Percentile Speed: 29.7 mph
 15th Percentile Speed: 27.4 mph
 10 MPH Pace: 27 - 36
 Number in Pace: 126
 Percent in Pace: 91.3%

Date of Survey: 3/12/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Collector
 Field Study by: ATD / KHA

Start Time: 1:45 PM
 End Time: 2:45 PM
 Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

29

STREET: Commerce Drive
FROM: Ardenwood Boulevard

SURVEY DATE: 3/4/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	Commerce Dr btwn Paseo Padre & Ardenwood	Posted Speed Limit	35 mph
Time of Speed Survey	11:15 AM - 2:00 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.2 mph	Speed Limit Change	No
85th Percentile Speed	34.3 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	28 - 37 mph		
Percentage of Vehicles in Pace	94.2%		
Number of Survey Samples	120		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	828
Type of Traffic Control	Traffic signal at Ardenwood Blvd; stop sign at Paseo Padre Pkwy
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,479
Width	47'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - On south side only
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Horizontal curve along entire segment
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 34.3 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 28 mph to 37 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

30

STREET: Commerce Drive
FROM: Tupelo Street

SURVEY DATE: 3/4/2015
TO: Ardenwood Boulevard

SPEED DATA

Location of Speed Survey	Commerce Blvd 650' East of Ardenwood Blvd	Posted Speed Limit	25 mph
Time of Speed Survey	9:45 AM - 11:15 AM	Recommended Speed Limit	25 mph
50th Percentile Speed (Mean Speed)	24.9 mph	Speed Limit Change	No
85th Percentile Speed	28.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	21 - 30 mph		downgraded 5 mph due to fronting
Percentage of Vehicles in Pace	91.9%		residential, moderate pedestrian
Number of Survey Samples	111		activity, and proximity to park

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,805
Type of Traffic Control	Traffic signal at Ardenwood Blvd; stop sign at Tupelo St
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1790'
Width	40'
Number of Lanes	EB - 1 WB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Many
Vertical Curve	None
Horizontal Curve	Yes - Between Tan Bark Dr and Mimosa Terr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, fronting residential, and park

COMMENTS

The 85th-percentile speed of 28.8 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 21 mph to 30 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the fronting residential, moderate pedestrian activity, and proximity to a park, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 25 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

31

STREET: Cougar Drive
FROM: Mission Boulevard

SURVEY DATE: 3/17/2015
TO: Cougar Circle

SPEED DATA

Location of Speed Survey	Cougar Dr - 100 Feet East of Lynx Dr	Posted Speed Limit	25 mph
Time of Speed Survey	10:30 AM - 12:15 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.1 mph	Speed Limit Change	Yes
85th Percentile Speed	34.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	80.4%		
Number of Survey Samples	107		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,574
Type of Traffic Control	Traffic signal at Mission Blvd; stop sign at Cougar Cir
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1045'
Width	40'
Number of Lanes	EB - 1 WB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - Between Trout Ct and Cougar Cir
Horizontal Curve	Yes - Between Lynx Ct and Cougar Cir
Visibility	Fair
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 34.9 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment indicating a 30 mph speed limit. Therefore, it is recommended that the posted speed limit be increased to 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

32

STREET: Country Drive
FROM: Fremont Boulevard

SURVEY DATE: 3/5/2015
TO: Stivers Street

SPEED DATA

Location of Speed Survey	3400 Country Dr	Posted Speed Limit	25/30 mph
Time of Speed Survey	11:05 AM - 12:05 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.8 mph	Speed Limit Change	Yes
85th Percentile Speed	36.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to high pedestrian activity and proximity to school
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	75.4%		
Number of Survey Samples	171		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.29
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	4,854
Type of Traffic Control	Traffic signals at Fremont Blvd and Paseo Padre Pkwy; stop signs at Lexington St and Hastings St
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,630
Width	64'
Number of Lanes	EB - 2 WB -2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Paseo Padre Pkwy and Stivers St
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Fronting residential, apartments, commercial, and school

COMMENTS

The 85th-percentile speed of 36.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Due to the high pedestrian activity and proximity to school, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit be increased to 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Country Drive

Limits: Fremont Boulevard to Stivers Street

Typical Cross-section

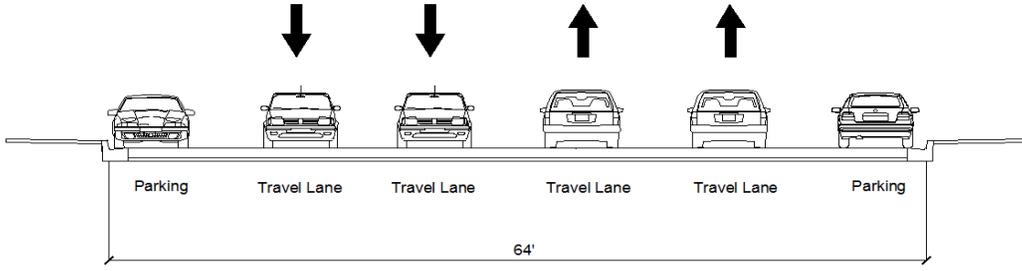


Diagram Not To Scale

Radars Survey Sheet

X = East / = West

	5	10	15	20	25	30		
60							0	
							0	
							0	
							0	
							0	
55							0	
							0	
							0	
							0	
50							0	
							0	
							0	
							0	
45	X						1	0.6% 100.0%
	/						0	
							1	0.6% 99.4%
							0	
	/	/	/	/			4	2.3% 98.8%
40	X	/	/	/	/		5	2.9% 96.5%
	X	/					2	1.2% 93.6%
	X	/	/	/	/		6	3.5% 92.4%
	X	X	X	/	/	/	8	4.7% 88.9%
	X	X	X	X	/	/	7	4.1% 84.2%
35	X	X	X	X	X	/	9	5.3% 80.1%
	X	X	X	X	X	/	10	5.8% 74.9%
	X	X	X	X	X	X	12	7.0% 69.0%
	X	X	X	X	X	X	17	9.9% 62.0%
	X	X	X	X	X	/	14	8.2% 52.0%
30	X	X	X	X	X	X	15	8.8% 43.9%
	X	X	X	X	X	/	11	6.4% 35.1%
	X	X	X	X	X	X	19	11.1% 28.7%
	X	X	X	X	X	/	15	8.8% 17.5%
	X	/	/	/	/		6	3.5% 8.8%
25	X	X	X	X			4	2.3% 5.3%
	/						1	0.6% 2.9%
	X						1	0.6% 2.3%
	/						1	0.6% 1.8%
	X	/					2	1.2% 1.2%
20							0	
							0	
							0	
							0	
15							0	
							0	
							0	
							0	
10							0	

Total Samples = 171

85th Percentile Speed: 36.2 mph
50th Percentile Speed: 30.8 mph
15th Percentile Speed: 26.7 mph
10 MPH Pace: 27 - 36
Number in Pace: 129
Percent in Pace: 75.4%

Date of Survey: 3/5/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 11:05 AM
End Time: 12:05 PM
Posted Speed: 25/30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

33

STREET: Curie Street
FROM: Christy Street

SURVEY DATE: 3/24/2015
TO: Boscell Road

SPEED DATA

Location of Speed Survey	Curie St - 330 Ft East of Boscell Rd	Posted Speed Limit	30 mph
Time of Speed Survey	12:15 PM - 1:15 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	27.8 mph	Speed Limit Change	No
85th Percentile Speed	31.1 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	23 - 32 mph		
Percentage of Vehicles in Pace	84.4%		
Number of Survey Samples	154		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	5,589
Type of Traffic Control	Traffic signals at Boscell Rd, Pacific Commons Blvd, and Christy St
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,588
Width	46'
Number of Lanes	EB - 1 WB -1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial

COMMENTS

The 85th-percentile speed of 31.1 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 23 mph to 32 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Curie Street

Limits: Christy Street to Boscell Road

Typical Cross-section

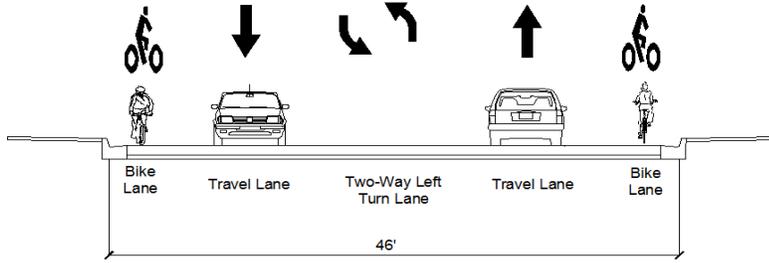


Diagram Not To Scale

Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60								0	
								0	
								0	
								0	
								0	
55								0	
								0	
								0	
								0	
								0	
50								0	
								0	
								0	
								0	
								0	
45								0	
								0	
								0	
								0	
	X							1	0.6% 100.0%
								0	
								0	
40	/							1	0.6% 99.4%
								0	
								0	
								0	
								0	
	X / /							3	1.9% 98.7%
35	X / / / /							5	3.2% 96.8%
	X X / /							4	2.6% 93.5%
	X X /							3	1.9% 90.9%
	X X X X / / /							7	4.5% 89.0%
	X X X X X X X X X X / / / / / / /							16	10.4% 84.4%
30	X X X X X X X X X X / / / / / / / / /							17	11.0% 74.0%
	X X X X X X X / / / / / / / / / / /							15	9.7% 63.0%
	X X X X X X X X X X X X / / / / / / / / / / / / / / / / /							22	14.3% 53.2%
	X X X X X X X X X X X X / / / / / / / / / / / / / / / / /							19	12.3% 39.0%
	X X X X /							9	5.8% 26.6%
25	X X X X X X /							11	7.1% 20.8%
	X X X X /							9	5.8% 13.6%
	X X /							5	3.2% 7.8%
	X /							2	1.3% 4.5%
	X X /							2	1.3% 3.2%
20	/ /							2	1.3% 1.9%
	X /							1	0.6% 0.6%
								0	
								0	
								0	
								0	
								0	
								0	
								0	
								0	
15								0	
								0	
								0	
								0	
								0	
								0	
								0	
10								0	

Total Samples = 154

85th Percentile Speed: 31.1 mph
 50th Percentile Speed: 27.8 mph
 15th Percentile Speed: 24.2 mph
 10 MPH Pace: 23 - 32
 Number in Pace: 130
 Percent in Pace: 84.4%

Date of Survey: 3/24/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Local
 Field Study by: ATD / KHA

Start Time: 12:15 PM
 End Time: 1:15 PM
 Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

34

STREET: Cushing Parkway
FROM: Auto Mall Parkway

SURVEY DATE: 3/24/2015
TO: Bunche Drive

SPEED DATA

Location of Speed Survey	Cushing Pkwy-650 Ft N of Auto Mall Pkwy Cir Signal	Posted Speed Limit	40 mph
Time of Speed Survey	2:30 PM - 3:15 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.4 mph	Speed Limit Change	No
85th Percentile Speed	44.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	88.3%		
Number of Survey Samples	205		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.18
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	14,577
Type of Traffic Control	Traffic signals at Auto Mall Pkwy and Bunche Dr
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	2,773
Width	77'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Slight curve at Auto Mall Cir
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial

COMMENTS

The 85th-percentile speed of 44.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

35

STREET: Cushing Parkway
FROM: Bunche Drive

SURVEY DATE: 3/24/2015
TO: South End of Causeway

SPEED DATA

Location of Speed Survey	Cushing Pkwy-1350 Ft S of Bunche Dr Signal	Posted Speed Limit	45 mph
Time of Speed Survey	1:35 PM - 2:15 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	45.3 mph	Speed Limit Change	No
85th Percentile Speed	50.7 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	40 - 49 mph		downgraded 5 mph due to pace
Percentage of Vehicles in Pace	68.4%		speed, pending investigation as
Number of Survey Samples	212		required by CVC 22404

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.05
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,721
Type of Traffic Control	Traffic signal at Bunche Dr
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4400'
Width	60'-90'
Number of Lanes	NB -2 SB -2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	None
Vertical Curve	None
Horizontal Curve	Yes - At causeway
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Undeveloped wetlands

COMMENTS

The 85th-percentile speed of 50.7 mph indicates a 50 mph speed limit. The 10 mph pace ranges from 40 mph to 49 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the pace speed a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 45 mph. CVC 22404 requires that an engineering investigation be performed and a public hearing be held prior to making a determination of the maximum safe speed upon an elevated structure.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

36

STREET: Cushing Parkway
FROM: South End of Causeway

SURVEY DATE: 3/26/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	4435 Cushing Pkwy	Posted Speed Limit	45 mph
Time of Speed Survey	11:55 AM - 12:55 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	37.7 mph	Speed Limit Change	Yes
85th Percentile Speed	42.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	34 - 43 mph		
Percentage of Vehicles in Pace	77.7%		
Number of Survey Samples	211		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.16
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	19,113
Type of Traffic Control	Traffic signals at Northport Loop E, Northport Loop W, and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3560'
Width	60'-95'
Number of Lanes	EB - 3 WB - 3
Street Classification	Arterial - minor
Divided Median?	Yes - Two-way left-turn lane between Northport Loop E and Northport Loop W
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and office

COMMENTS

The 85th-percentile speed of 42.2 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 34 mph to 43 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be decreased to 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

37

STREET: Decoto Rd
FROM: City Limits

SURVEY DATE: 3/4/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	3364 Decoto Rd.	Posted Speed Limit	40 mph
Time of Speed Survey	11:20 AM - 12:15 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	41.6 mph	Speed Limit Change	No
85th Percentile Speed	45.9 mph	Speed Justification	85th-percentile speed downgraded 5 mph for consistency with adjacent segments
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	76.7%		
Number of Survey Samples	210		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	31,313
Type of Traffic Control	Traffic signals at Fremont Blvd and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,606
Width	108'
Number of Lanes	EB - 2/3 WB - 2
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Except on south side of street between Paseo Padre Pkwy and city limit
Driveways?	Few
Vertical Curve	Yes - At Alameda Creek bridge
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, commercial, and church

COMMENTS

The 85th-percentile speed of 45.9 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the adjacent City of Fremont and City of Union City segments having speed limits of 40 mph and 35 mph, respectively, and to limit speed transitions between adjacent segments, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

38

STREET: Decoto Road
FROM: Fremont Boulevard

SURVEY DATE: 3/3/2015
TO: I-880

SPEED DATA

Location of Speed Survey	4300 Decoto Road	Posted Speed Limit	40 mph
Time of Speed Survey	2:10 PM - 3:10 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	38.2 mph	Speed Limit Change	No
85th Percentile Speed	43.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	34 - 43 mph		
Percentage of Vehicles in Pace	74.8%		
Number of Survey Samples	222		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	5
Collision Rate (ACC/MVM)	0.15
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	37,679
Type of Traffic Control	Traffic signals at 880 NB Ramp, Cabrillo Ct, Ozark River Way, and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,200
Width	95'
Number of Lanes	EB -2/3 WB -3
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - On south side between 880 and Cabrillo Ct and north side between Canal Terrace and Fremont Blvd
Driveways?	Few
Vertical Curve	Yes - At 880 overpass
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 43.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 34 mph to 43 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

39

STREET: Deep Creek Road
FROM: Paseo Padre Parkway

SURVEY DATE: 3/3/2015
TO: Ridgewood Drive

SPEED DATA

Location of Speed Survey	Between Creekwood Dr & Dunsmuir Common	Posted Speed Limit	30 mph
Time of Speed Survey	1:00 PM - 2:00 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	31.9 mph	Speed Limit Change	No
85th Percentile Speed	34.8 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to moderate pedestrian activity and crosswalk
10 mph Pace Speed	28 - 37 mph		
Percentage of Vehicles in Pace	94.7%		
Number of Survey Samples	150		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	6,817
Type of Traffic Control	Traffic signal at Paseo Padre Pkwy; stop sign at Ridgewood Dr
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2804'
Width	64'
Number of Lanes	NB -1 SB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Crandallwood Dr
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Creekwood Dr and Maybird Cir
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential, commercial, apartments, and school

COMMENTS

The 85th-percentile speed of 34.8 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 28 mph to 37 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Due to the moderate pedestrian activity, uncontrolled crosswalk, and proximity to a school, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

40

STREET: Deep Creek Road
FROM: Alvarado Boulevard

SURVEY DATE: 3/3/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	4619 Deep Creek Rd	Posted Speed Limit	35 mph
Time of Speed Survey	12:25 PM - 1:25 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.0 mph	Speed Limit Change	No
85th Percentile Speed	34.0 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	79.9%		
Number of Survey Samples	194		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.30
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	7,346
Type of Traffic Control	Traffic signals at Paseo Padre Pkwy and Alvarado Blvd; speed tables at Macbeth Ave and Emilia Ln
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4931'
Width	63'
Number of Lanes	NB -1 SB -1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Macbeth Ave and Emilia Ln
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Frederick Rd and Emilia Ln
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and school

COMMENTS

The 85th-percentile speed of 34.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

41

STREET: Driscoll Road
FROM: Mission Boulevard

SURVEY DATE: 3/10/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	Driscoll Rd - 275 Ft North of Harrington St	Posted Speed Limit	40 mph
Time of Speed Survey	11:00 AM - 11:45 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.0 mph	Speed Limit Change	No
85th Percentile Speed	43.3 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to proximity to school, fronting residential, uncontrolled crosswalks, and high pedestrian activity
10 mph Pace Speed	36 - 45 mph		
Percentage of Vehicles in Pace	90.4%		
Number of Survey Samples	209		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,294
Type of Traffic Control	Traffic signals at Mission Blvd, Amapola Dr, and Paseo Padre Pkwy
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,923
Width	70'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At St. Anthony Dr, Chiltern Dr, and Durillo Dr
On-Street Parking?	Yes - between Amapola Dr and St. Anthony Dr
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential and school

COMMENTS

The 85th-percentile speed of 43.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the proximity to a school, fronting residential, uncontrolled crosswalks, and high pedestrian activity, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

42

STREET: Driscoll Road
FROM: Paseo Padre Parkway

SURVEY DATE: 3/10/2015
TO: Washington Boulevard

SPEED DATA

Location of Speed Survey	Driscoll Road - 315 Feet North of Denise Street	Posted Speed Limit	40 mph
Time of Speed Survey	1:40 PM - 2:40 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.0 mph	Speed Limit Change	No
85th Percentile Speed	44.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	37 - 46 mph		downgraded 5 mph due
Percentage of Vehicles in Pace	88.3%		to fronting residential and
Number of Survey Samples	213		uncontrolled crosswalks

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,858
Type of Traffic Control	Traffic Signal at Washington Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,409
Width	80'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Joyce Ave and Alice St
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	Yes - Near Alice St
Horizontal Curve	Yes - Near Washington Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, and commercial

COMMENTS

The 85th-percentile speed of 44.2 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the fronting residential and uncontrolled crosswalks, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

43

STREET: Dumbarton Circle
FROM: Paseo Padre Parkway

SURVEY DATE: 3/5/2015
TO: Kaiser Drive

SPEED DATA

Location of Speed Survey	6595 Dumbarton Circle	Posted Speed Limit	40 mph
Time of Speed Survey	10:00 AM - 11:45 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.1 mph	Speed Limit Change	Yes
85th Percentile Speed	38.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	30 - 39 mph		
Percentage of Vehicles in Pace	82.5%		
Number of Survey Samples	137		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.57
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	1,375
Type of Traffic Control	Stop sign at Kaiser Dr and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4,630
Width	52'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - Near Ardentech Ct.
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 38.5 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 30 mph to 39 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Based on the 85th-percentile speed, it is recommended that the posted speed limit be decreased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

44

STREET: Durham Road
FROM: I-680

SURVEY DATE: 3/19/2015
TO: Mission Blvd

SPEED DATA

Location of Speed Survey	2250 Durham Road	Posted Speed Limit	40 mph
Time of Speed Survey	10:50 AM - 11:50 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.2 mph	Speed Limit Change	No
85th Percentile Speed	43.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	36 - 45 mph		
Percentage of Vehicles in Pace	86.7%		
Number of Survey Samples	165		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.10
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	11,244
Type of Traffic Control	Signals at I-680 NB Ramp, Paseo Padre Pkwy, and Mission Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	6169'
Width	63'
Number of Lanes	EB - 1/2 WB - 1/2
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Except on the north side for approx 1200' east of I-680
Driveways?	Few
Vertical Curve	Yes - At I-880 overpass
Horizontal Curve	Yes - Between I-880 and Laurel Canyon Way, between Topaz Way and Gabrielino Way
Visibility	Fair
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 43.9 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

45

STREET: Dusterberry Way
FROM: Central Avenue

SURVEY DATE: 3/5/2015
TO: Thornton Avenue

SPEED DATA

Location of Speed Survey	37010 Dusterberry Way	Posted Speed Limit	35 mph
Time of Speed Survey	9:40 AM - 10:40 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.0 mph	Speed Limit Change	No
85th Percentile Speed	36.7 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	75.5%		
Number of Survey Samples	208		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.16
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	8,140
Type of Traffic Control	Traffic signal at Central Ave, Peralta Blvd, and Thornton Ave; stop sign at Hansen Ave;
Pedestrian Traffic	Low RR crossing btwn Peralta Blvd and Hansen Ave
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2716'
Width	64'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - near Hansen Ave
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, commercial, and school

COMMENTS

The 85th-percentile speed of 36.7 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

46

STREET: Enterprise Street
FROM: Grimmer Boulevard

SURVEY DATE: 3/24/2015
TO: Grimmer Boulevard

SPEED DATA

Location of Speed Survey	4444 Enterprise Street	Posted Speed Limit	25 mph
Time of Speed Survey	9:30 AM - 12:00 PM	Recommended Speed Limit	25 mph
50th Percentile Speed (Mean Speed)	24.3 mph	Speed Limit Change	No
85th Percentile Speed	28.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	20 - 29 mph		
Percentage of Vehicles in Pace	82.7%		
Number of Survey Samples	104		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	914
Type of Traffic Control	Traffic Signal at Grimmer Blvd; stop sign at Grimmer Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,600
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	No
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - 2 approx. 90 degree turns
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office and industrial

COMMENTS

The 85th-percentile speed of 28.9 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 20 mph to 29 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 25 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

47

STREET: Farwell Drive
FROM: Mowry Avenue

SURVEY DATE: 3/11/2015
TO: Flamingo Lane

SPEED DATA

Location of Speed Survey	39083 Farwell Dr	Posted Speed Limit	25 mph
Time of Speed Survey	11:45 AM - 12:50 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.5 mph	Speed Limit Change	Yes
85th Percentile Speed	34.2 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	93.2%		
Number of Survey Samples	161		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	1.42
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	5,492
Type of Traffic Control	Traffic Signal at Mowry Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,390
Width	62'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - Between Brophy Dr. and Mowry Ave
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, apartments, commercial, park/recreation, and school

COMMENTS

The 85th-percentile speed of 34.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit be increased to 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

48

STREET: Fremont Boulevard
FROM: Beard Road

SURVEY DATE: 3/3/2015
TO: Decoto Road

SPEED DATA

Location of Speed Survey	Fremont Blvd between Decoto Rd and Ferry Ln	Posted Speed Limit	40 mph
Time of Speed Survey	10:00 AM - 10:45 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.9 mph	Speed Limit Change	No
85th Percentile Speed	44.1 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	90.8%		
Number of Survey Samples	238		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	5
Collision Rate (ACC/MVM)	0.16
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	24,881
Type of Traffic Control	Traffic signal at Enea Ct, Paseo Padre Pkwy, Darwin Dr, Ferry Ln, and Decoto Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4577'
Width	87'
Number of Lanes	EB - 3 WB - 2/3
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - between Ferry Ln and Darwin Dr on north side of street
Sidewalks?	Yes - Discontinuous near Decoto Rd
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Poor
Adjacent Land Use	Fronting and non-fronting residential, apartments, and commercial

COMMENTS

The 85th-percentile speed of 44.1 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

49

STREET: Fremont Boulevard
FROM: Decoto Road

SURVEY DATE: 3/4/2015
TO: Thornton Avenue

SPEED DATA

Location of Speed Survey	36046 Fremont Blvd.	Posted Speed Limit	40 mph
Time of Speed Survey	10:00 AM - 10:45 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.7 mph	Speed Limit Change	No
85th Percentile Speed	44.2 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	72.1%		
Number of Survey Samples	215		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	7
Collision Rate (ACC/MVM)	0.14
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	25,203
Type of Traffic Control	Traffic signal at Decoto Rd, Tamayo St, Nicolet Ave, Gibraltar Dr, Alder Ave, and Thornton Ave.
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	7072'
Width	90'
Number of Lanes	NB -2 SB -2
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - Discontinuous
Sidewalks?	Yes - Discontinuous near Decoto Rd
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good/Moderate
Adjacent Land Use	Fronting and non-fronting residential, apartments, and commercial

COMMENTS

The 85th-percentile speed of 44.2 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

50

STREET: Fremont Boulevard
FROM: Peralta Boulevard

SURVEY DATE: 3/5/2015
TO: Central Avenue

SPEED DATA

Location of Speed Survey	37482 Fremont Blvd.	Posted Speed Limit	30 mph
Time of Speed Survey	9:30 AM - 10:00 AM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.6 mph	Speed Limit Change	No
85th Percentile Speed	33.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	25 - 34 mph		
Percentage of Vehicles in Pace	90.5%		
Number of Survey Samples	200		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.15
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	22,527
Type of Traffic Control	Traffic signal at Peralta Blvd and Central Ave
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,062
Width	60'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - primary
Divided Median?	Yes - between Central Ave and Parish Ave
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Parish Ave
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Fronting residential, commercial, church, and school

COMMENTS

The 85th-percentile speed of 33.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 25 mph to 34 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

51

STREET: Fremont Boulevard
FROM: Central Avenue

SURVEY DATE: 3/5/2015
TO: Mowry Avenue

SPEED DATA

Location of Speed Survey	38239 Fremont Blvd.	Posted Speed Limit	35 mph
Time of Speed Survey	10:20 AM - 10:55 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.9 mph	Speed Limit Change	No
85th Percentile Speed	37.5 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	96.6%		
Number of Survey Samples	203		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	8
Collision Rate (ACC/MVM)	0.20
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	27,511
Type of Traffic Control	Traffic signal at Central Ave, Eggers Dr, Country Dr, and Mowry Ave
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5308'
Width	80'
Number of Lanes	NB -2 SB - 2
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Norris Rd and Mattos Dr
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, apartments, and commercial

COMMENTS

The 85th-percentile speed of 37.5 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

52

STREET: Fremont Boulevard
FROM: Mowry Avenue

SURVEY DATE: 9/24/2015
TO: Stevenson Boulevard

SPEED DATA

Location of Speed Survey	39150 Fremont Blvd.	Posted Speed Limit	35 mph
Time of Speed Survey	10:00 AM - 10:45 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	29.6 mph	Speed Limit Change	No
85th Percentile Speed	34.1 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	81.4%		
Number of Survey Samples	220		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	6
Collision Rate (ACC/MVM)	0.14
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	28,494
Type of Traffic Control	Traffic signal at Mowry Ave, Shopping Ctr, Beacon Ave, Walnut Ave, Sundale Dr, Bidwell Dr, and Stevenson Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5,305
Width	110'
Number of Lanes	EB -3 WB - 3
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, non-fronting residential, and apartments

COMMENTS

The 85th-percentile speed of 34.1 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

53

STREET: Fremont Boulevard
FROM: Stevenson Boulevard

SURVEY DATE: 3/12/2015
TO: Washington Boulevard

SPEED DATA

Location of Speed Survey	40431 Fremont Blvd.	Posted Speed Limit	35 mph
Time of Speed Survey	10:40 AM - 11:20 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	37.9 mph	Speed Limit Change	No
85th Percentile Speed	41.9 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to high pedestrian activity, uncontrolled crosswalk
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	73.4%		
Number of Survey Samples	218		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	7
Collision Rate (ACC/MVM)	0.16
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	31,780
Type of Traffic Control	Traffic signal at Eugene St, Grimmer Blvd, Mission View Dr, Stevenson Blvd, Washington Blvd, and Chapel Wy
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4,917
Width	66'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - primary
Divided Median?	Yes - Discontinuous
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	At Clough Ave
On-Street Parking?	Yes - Discontinuous
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential, apartments, commercial, and school

COMMENTS

The 85th-percentile speed of 41.9 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to high pedestrian activity and the uncontrolled crosswalk, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

54

STREET: Fremont Blvd
FROM: Washington Blvd

SURVEY DATE: 3/19/2015
TO: Auto Mall Pkwy

SPEED DATA

Location of Speed Survey	175 feet north of Stanley Ave	Posted Speed Limit	40 mph
Time of Speed Survey	12:15 PM - 12:50 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.2 mph	Speed Limit Change	No
85th Percentile Speed	42.8 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	81.3%		
Number of Survey Samples	219		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	5
Collision Rate (ACC/MVM)	0.12
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	18,883
Type of Traffic Control	Traffic signals at Washington Blvd, Irvington Ave, Carol Ave, Blacow Rd, Delaware Dr, and Auto Mall Pkwy
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	8045'
Width	82'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Michael Ave and Doane St
On-Street Parking?	Yes - near Adams Ave
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - 450' south of Blacow Rd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and commercial

COMMENTS

The 85th-percentile speed of 42.8 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

55

STREET: Fremont Boulevard
FROM: Auto Mall Parkway

SURVEY DATE: 3/19/2015
TO: I-880

SPEED DATA

Location of Speed Survey	44255 Fremont Blvd	Posted Speed Limit	45 mph
Time of Speed Survey	9:30 AM - 10:10 AM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	43.5 mph	Speed Limit Change	No
85th Percentile Speed	47.6 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	40 - 49 mph		
Percentage of Vehicles in Pace	87.0%		
Number of Survey Samples	207		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	18,754
Type of Traffic Control	Signals at Auto Mall Pkwy, Ice House Terrace, Grimmer Blvd, Industrial Dr, and I-880 NB Ramp
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	7147'
Width	86'
Number of Lanes	NB - 2 SB - 2/3
Street Classification	Arterial - primary
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - discontinuous on both sides
Driveways?	Few
Vertical Curve	At I-880 overpass
Horizontal Curve	At Old Warm Springs Blvd and near I-880
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 47.6 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 40 mph to 49 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

56

STREET: Fremont Boulevard
FROM: I-880

SURVEY DATE: 3/26/2015
TO: Warren Avenue

SPEED DATA

Location of Speed Survey	46669 Fremont Blvd	Posted Speed Limit	45 mph
Time of Speed Survey	12:00 PM - 1:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	42.9 mph	Speed Limit Change	No
85th Percentile Speed	45.7 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	39 - 48 mph		
Percentage of Vehicles in Pace	88.9%		
Number of Survey Samples	207		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.19
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	12,913
Type of Traffic Control	Traffic signal at Warren Ave and Cushing Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4,345
Width	40'
Number of Lanes	NB - 1 SB - 1
Street Classification	Arterial - minor
Divided Median?	Yes - Near Cushing Pkwy
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - Near Bayside Tech
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - Near I-880
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Commercial and office

COMMENTS

The 85th-percentile speed of 45.7 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 39 mph to 48 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

57

STREET: Fremont Boulevard
FROM: Warren Avenue

SURVEY DATE: 3/26/2015
TO: Lakeview Boulevard

SPEED DATA

Location of Speed Survey	48000 Fremont Boulevard	Posted Speed Limit	45 mph
Time of Speed Survey	1:00 PM - 2:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	41.7 mph	Speed Limit Change	No
85th Percentile Speed	44.5 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	94.8%		
Number of Survey Samples	172		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	2,718
Type of Traffic Control	Traffic signal at Warren Ave, Gateway Blvd, and Bayview Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	7,573
Width	66'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Bayview Dr
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Clipper Ct. and Spinnaker Ct.
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 44.5 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

58

STREET: Gallaudet Dr
FROM: Walnut Avenue

SURVEY DATE: 3/5/2015
TO: Stevenson Boulevard

SPEED DATA

Location of Speed Survey	39309 Gallaudet Drive	Posted Speed Limit	35 mph
Time of Speed Survey	11:30 AM - 12:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.4 mph	Speed Limit Change	No
85th Percentile Speed	38.3 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to proximity to California School for the Blind and California School for the Deaf
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	87.3%		
Number of Survey Samples	157		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	4,272
Type of Traffic Control	Traffic signals at Stevenson Blvd and Walnut Ave.
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,392
Width	52'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes- Between Stevenson Blvd and Del Oro Teraza
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Apartments, school for the deaf, school for the blind, and church

COMMENTS

The 85th-percentile speed of 38.3 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the proximity to California School for the Blind and California School for the Deaf, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

59

STREET: Gateway Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/26/2015
TO: Lakeview Boulevard

SPEED DATA

Location of Speed Survey	3100 Gateway Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	12:15 PM - 1:15 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	26.1 mph	Speed Limit Change	Yes
85th Percentile Speed	29.9 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	22 - 31 mph		
Percentage of Vehicles in Pace	83.7%		
Number of Survey Samples	147		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	2,348
Type of Traffic Control	Traffic signal at Fremont Blvd and Bayside Pkwy; stop sign at Lakeview Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,306
Width	72'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 29.9 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 22 mph to 31 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be decreased to 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

60

STREET: Grimmer Boulevard
FROM: Paseo Padre Parkway

SURVEY DATE: 3/19/2015
TO: Osgood Road

SPEED DATA

Location of Speed Survey	45000 Grimmer Blvd (South)	Posted Speed Limit	40 mph
Time of Speed Survey	10:30 AM - 11:20 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	38.9 mph	Speed Limit Change	No
85th Percentile Speed	42.7 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	90.9%		
Number of Survey Samples	208		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	9,027
Type of Traffic Control	Traffic Signal at Osgood Rd; stop sign at Parkmeadow Dr and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5,459
Width	42'
Number of Lanes	EB - 1 WB - 1
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - East of Underpass
Driveways?	Few
Vertical Curve	Yes - at Underpass and West of Paseo Padre Pkwy
Horizontal Curve	Yes - at Underpass
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 42.7 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

61

STREET: Grimmer Boulevard
FROM: Osgood Road

SURVEY DATE: 3/26/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	44834 South Grimmer Blvd	Posted Speed Limit	40 mph
Time of Speed Survey	2:15 PM - 3:00 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	41.6 mph	Speed Limit Change	No
85th Percentile Speed	44.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	95.8%		
Number of Survey Samples	213		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	17,180
Type of Traffic Control	Traffic signal at Fremont Blvd, Old Warm Springs Blvd, and Osgood Rd.
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	3380'
Width	88'
Number of Lanes	EB -2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - near Fremont Blvd
Sidewalks?	Yes - north side between Old Warm Springs Blvd and Osgood Rd
Driveways?	Few
Vertical Curve	Yes - at railroad underpass
Horizontal Curve	Yes - at Old Warm Springs Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Rural and industrial

COMMENTS

The 85th-percentile speed of 44.5 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

62

STREET: S. Grimmer Boulevard
FROM: Fremont Blvd

SURVEY DATE: 3/20/2015
TO: Auto Mall Pkwy

SPEED DATA

Location of Speed Survey	44124 Grimmer Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	11:30 AM - 12:15 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.7 mph	Speed Limit Change	No
85th Percentile Speed	44.1 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	36 - 45 mph		
Percentage of Vehicles in Pace	86.7%		
Number of Survey Samples	210		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	14,808
Type of Traffic Control	Traffic signals at Fremont Blvd, Technology Dr, and Auto Mall Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5195'
Width	75'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - At Business Center Dr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office and industrial

COMMENTS

The 85th-percentile speed of 44.1 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: S. Grimmer Boulevard

Limits: Fremont Blvd to Auto Mall Pkwy

Typical Cross-section

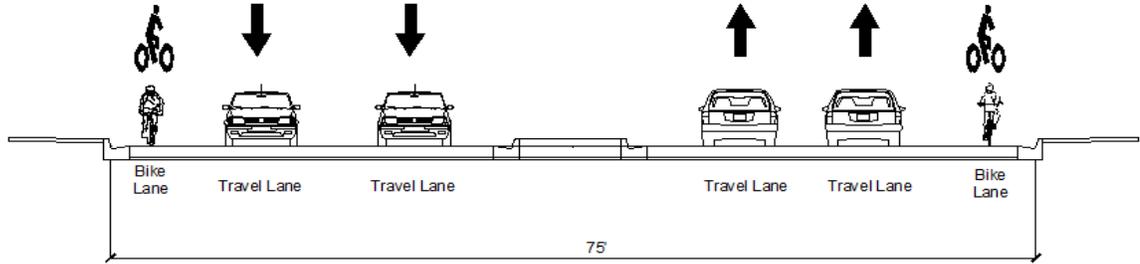


Diagram Not To Scale

Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
/							1	0.5%	100.0%
							0		
X							1	0.5%	99.5%
50	X	/					2	1.0%	99.0%
	X	X	/	/			4	1.9%	98.1%
/							1	0.5%	96.2%
X	/	/	/	/	/		6	2.9%	95.7%
X	X	/	/	/			5	2.4%	92.9%
45	X	X	X	X	/	/	13	6.2%	90.5%
	X	X	X	X	X	/	20	9.5%	84.3%
	X	X	X	X	X	X	21	10.0%	74.8%
	X	X	X	X	X	X	23	11.0%	64.8%
	X	X	X	X	X	X	23	11.0%	53.8%
40	X	X	X	X	X	X	25	11.9%	42.9%
	X	X	X	X	X	X	25	11.9%	31.0%
	X	X	X	X	X	X	16	7.6%	19.0%
	X	X	X	X	X	/	9	4.3%	11.4%
	X	X	X	/	/	/	7	3.3%	7.1%
35	X	X	X	/	/		5	2.4%	3.8%
	X						1	0.5%	1.4%
/	/						2	1.0%	1.0%
							0		
							0		
30							0		
							0		
							0		
							0		
							0		
25							0		
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							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 210

85th Percentile Speed: 44.1 mph
50th Percentile Speed: 40.7 mph
15th Percentile Speed: 37.5 mph
10 MPH Pace: 36 - 45
Number in Pace: 182
Percent in Pace: 86.7%

Date of Survey: 3/20/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - minor
Field Study by: ATD / KHA

Start Time: 11:30 AM
End Time: 12:15 PM
Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

63

STREET: Grimmer Boulevard
FROM: Auto Mall Parkway

SURVEY DATE: 3/19/2015
TO: Blacow Road

SPEED DATA

Location of Speed Survey	43136 Grimmer Blvd	Posted Speed Limit	40 mph
Time of Speed Survey	10:30 AM - 11:15 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.9 mph	Speed Limit Change	No
85th Percentile Speed	44.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	92.7%		
Number of Survey Samples	206		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.03
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	22,351
Type of Traffic Control	Traffic signals at Auto Mall Pkwy, Yellowstone Park Dr, Valpey Park Ave, and Blacow Rd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5187'
Width	80'
Number of Lanes	NB - 2 SB - 2/3
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Seneca Park Ave
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Approximately 300' north of Seneca Park Ave
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, and commercial

COMMENTS

The 85th-percentile speed of 44.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

64

STREET: Grimmer Boulevard
FROM: Blacow Road

SURVEY DATE: 3/19/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	Grimmer Blvd-185 Ft N. of Carol Ave	Posted Speed Limit	40 mph
Time of Speed Survey	1:15 PM - 2:15 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	41.8 mph	Speed Limit Change	No
85th Percentile Speed	45.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	37 - 46 mph		downgraded 5 mph due to
Percentage of Vehicles in Pace	80.4%		proximity to school and moderate
Number of Survey Samples	230		pedestrian activity

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.06
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	20,455
Type of Traffic Control	Traffic signal at Blacow Rd, Carol Ave, Irvington Ave, Davis St, Bay St, and Fremont Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5490'
Width	84'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Victoria Ave and Irvington Ave
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, commercial, and school

COMMENTS

The 85th-percentile speed of 45.4 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the proximity to a Irvington High School and moderate pedestrian activity, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

65

STREET: Grimmer Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/11/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	40449 Grimmer Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	1:15 PM - 2:00 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.1 mph	Speed Limit Change	No
85th Percentile Speed	38.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	92.2%		
Number of Survey Samples	206		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	16,250
Type of Traffic Control	Traffic signal at Fremont Blvd and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,337
Width	38'
Number of Lanes	NB - 1 SB - 1
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	Yes - West side
Bike Lanes?	Yes - West side
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - between 7:00 PM and 7:00 AM on east side only
Sidewalks?	Yes - East side
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Slight curve near Paseo Padre Pkwy
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, and park

COMMENTS

The 85th-percentile speed of 38.9 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

66

STREET: Guardino Drive
FROM: Stevenson Boulevard

SURVEY DATE: 3/5/2015
TO: Mowry Avenue

SPEED DATA

Location of Speed Survey	39088 Guardino Dr.	Posted Speed Limit	30 mph
Time of Speed Survey	1:00 PM - 2:00 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.5 mph	Speed Limit Change	No
85th Percentile Speed	34.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	84.8%		
Number of Survey Samples	112		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	3,805
Type of Traffic Control	Traffic signal at Walnut Ave, Mowry Ave, and Stevenson Blvd; stop sign at Litchfield Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2778'
Width	70'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	Yes - Near Walnut Ave, Two-way left turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	No
Horizontal Curve	Yes - Between Litchfield Ave. and Walnut Ave and between Red Hawk Ctr and Stevenson Blvd
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Fronting residential, non-fronting residential, apartments, and park

COMMENTS

The 85th-percentile speed of 34.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

67

STREET: Hansen Avenue
FROM: Blacow Road

SURVEY DATE: 3/6/2015
TO: Yolo Terrace

SPEED DATA

Location of Speed Survey	4703 Hansen Ave	Posted Speed Limit	35 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.4 mph	Speed Limit Change	No
85th Percentile Speed	42.0 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to proximity to school
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	76.9%		
Number of Survey Samples	134		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	3,146
Type of Traffic Control	Stop sign at Blacow Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,385
Width	37'
Number of Lanes	NB -1 SB -1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - West side
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential, apartments, and school

COMMENTS

The 85th-percentile speed of 42.0 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the proximity to a school, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

68

STREET: Hansen Avenue
FROM: Yolo Terrace

SURVEY DATE: 3/5/2015
TO: Dusterberry Way

SPEED DATA

Location of Speed Survey	222 Hansen Ave	Posted Speed Limit	25 mph
Time of Speed Survey	10:36 AM - 11:36 AM	Recommended Speed Limit	25 mph
50th Percentile Speed (Mean Speed)	21.7 mph	Speed Limit Change	No
85th Percentile Speed	24.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	18-27 mph		
Percentage of Vehicles in Pace	88.2%		
Number of Survey Samples	127		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	3,068
Type of Traffic Control	Stop sign at Dusterberry Way
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1,214
Width	37'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous at Yolo Terrace
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - At Contra Costa Ave
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential, non-fronting residential, and apartments

COMMENTS

The 85th-percentile speed of 24.8 mph indicates a 25 mph speed limit. The 10 mph pace ranges from 18 mph to 27 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 25 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

69

STREET: Hastings Street
FROM: Capitol Avenue

SURVEY DATE: 3/6/2015
TO: Country Drive

SPEED DATA

Location of Speed Survey	38780 Hastings St	Posted Speed Limit	30 mph
Time of Speed Survey	10:50 AM - 12:30 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	27.5 mph	Speed Limit Change	No
85th Percentile Speed	31.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	22 - 32 mph		
Percentage of Vehicles in Pace	85.5%		
Number of Survey Samples	110		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	2,131
Type of Traffic Control	Traffic signal at Mowry Ave; stop signs at Country Dr and Capitol Ave
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1366'
Width	48'
Number of Lanes	EB - 1/2 WB - 1/2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Approx 600' east of Country Dr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and apartments

COMMENTS

The 85th-percentile speed of 31.2 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 22 mph to 32 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

70

STREET: High Street
FROM: Grimmer Boulevard

SURVEY DATE: 3/11/2015
TO: Chapel Way

SPEED DATA

Location of Speed Survey	40625 High Street	Posted Speed Limit	25 mph
Time of Speed Survey	2:10 PM - 3:50 PM	Recommended Speed Limit	25 mph
50th Percentile Speed (Mean Speed)	27.5 mph	Speed Limit Change	No
85th Percentile Speed	32.3 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to dense housing and moderate pedestrian activity
10 mph Pace Speed	24 - 33 mph		
Percentage of Vehicles in Pace	85.0%		
Number of Survey Samples	113		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,850
Type of Traffic Control	Stop sign at Chapel Way and Grimmer Blvd.
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1227'
Width	40'
Number of Lanes	EB - 1 WB -1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - along entire segment
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Apartments

COMMENTS

The 85th-percentile speed of 32.3 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 24 mph to 33 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the dense housing along this corridor and moderate pedestrian activity, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 25 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

71

STREET: Irvington Ave
FROM: Fremont Boulevard

SURVEY DATE: 3/10/2015
TO: Grimmer Boulevard

SPEED DATA

Location of Speed Survey	4177 Irvington Avenue	Posted Speed Limit	30 mph
Time of Speed Survey	12:15 PM - 1:15 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.4 mph	Speed Limit Change	No
85th Percentile Speed	33.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	25 - 34 mph		
Percentage of Vehicles in Pace	91.4%		
Number of Survey Samples	128		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.27
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	4,193
Type of Traffic Control	Traffic signals at Grimmer Blvd and Fremont Blvd; stop signs at Thurston St and Chapel Ave
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3137'
Width	65'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Trimboli Way
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - near Thurston St
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Fronting residential, apartments, commercial, cemetery, church, and school

COMMENTS

The 85th-percentile speed of 33.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 25 mph to 34 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Irvington Ave

Limits: Fremont Boulevard to Grimmer Boulevard

Typical Cross-section

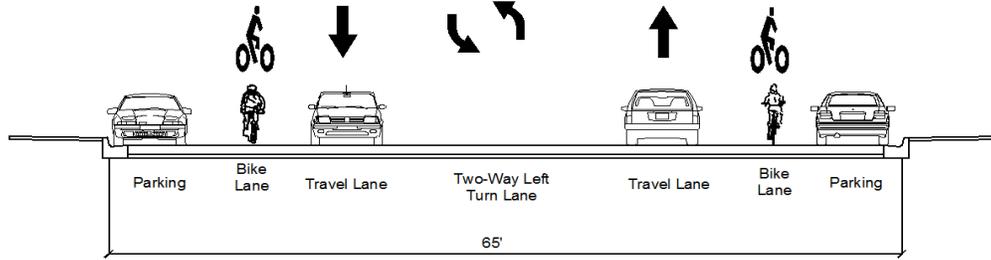


Diagram Not To Scale

Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60								0	
								0	
								0	
								0	
								0	
55								0	
								0	
								0	
								0	
								0	
50								0	
								0	
								0	
								0	
								0	
45								0	
								0	
								0	
								0	
	/							1	0.8%
								0	100.0%
40								0	
	X	/						2	1.6%
								0	99.2%
	/							1	0.8%
								4	3.1%
	X	X	X	/				3	2.3%
								8	6.3%
35	X	X	/	/	/	/	/	6	4.7%
								11	8.6%
	X	X	X	X	/	/	/	18	14.1%
								18	14.1%
30	X	X	X	X	X	X	X	20	15.6%
								16	12.5%
	X	X	X	X	X	X	X	11	8.6%
								5	3.9%
	X	X	X	/	/			4	3.1%
25	X	X	X	/				0	3.1%
								0	
								0	
								0	
20								0	
								0	
								0	
								0	
15								0	
								0	
								0	
								0	
10								0	

Total Samples = 128

85th Percentile Speed: 33.0 mph
50th Percentile Speed: 29.4 mph
15th Percentile Speed: 26.9 mph
10 MPH Pace: 25 - 34
Number in Pace: 117
Percent in Pace: 91.4%

Date of Survey: 3/10/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 12:15 PM
End Time: 1:15 PM
Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

72

STREET: Isherwood Way
FROM: Paseo Padre Parkway

SURVEY DATE: 3/5/2015
TO: City Limits

SPEED DATA

Location of Speed Survey	Isherwood Way 600 ft N of Paseo Padre Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	12:35 PM - 1:35 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.2 mph	Speed Limit Change	No
85th Percentile Speed	36.6 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	75.7%		
Number of Survey Samples	210		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.24
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	10,123
Type of Traffic Control	Traffic signal at Paseo Padre Pkwy; stop sign at Chaplin Dr, Barnard Dr, and Quarry Lake Dr
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1461'
Width	40'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
 Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	None
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and Quarry Lakes Regional Recreation Area

COMMENTS

The 85th-percentile speed of 36.6 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

73

STREET: Kaiser Drive
FROM: Ardenwood Boulevard

SURVEY DATE: 3/4/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	6552 Kaiser Dr	Posted Speed Limit	40 mph
Time of Speed Survey	2:00 PM - 4:00 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	36.2 mph	Speed Limit Change	No
85th Percentile Speed	39.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	82.9%		
Number of Survey Samples	111		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	1,074
Type of Traffic Control	Traffic signal at Ardenwood Blvd; stop sign at Paseo Padre Pkwy,
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3257'
Width	86'
Number of Lanes	EB -2 WB -2
Street Classification	Collector
Divided Median?	Yes
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - South side
Sidewalks?	Yes - Except south side near ends of segment
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Near Dumbarton Cir and Paseo Padre Pkwy
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 39.4 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

74

STREET: Kato Road
FROM: Warm Springs Boulevard

SURVEY DATE: 9/24/2015
TO: Milmont Drive

SPEED DATA

Location of Speed Survey	48907 Kato Road	Posted Speed Limit	40 mph
Time of Speed Survey	13:30 PM - 14:00 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	38.7 mph	Speed Limit Change	No
85th Percentile Speed	43.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	77.2%		
Number of Survey Samples	206		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.17
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	17,804
Type of Traffic Control	Traffic Signal at Warm Springs Blvd and Milmont Dr.
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	2350'
Width	66'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes - At underpass
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	Yes - At underpass
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and office

COMMENTS

The 85th-percentile speed of 43.5 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Kato Road

Limits: Warm Springs Boulevard to Millmont Drive

Typical
Cross-section

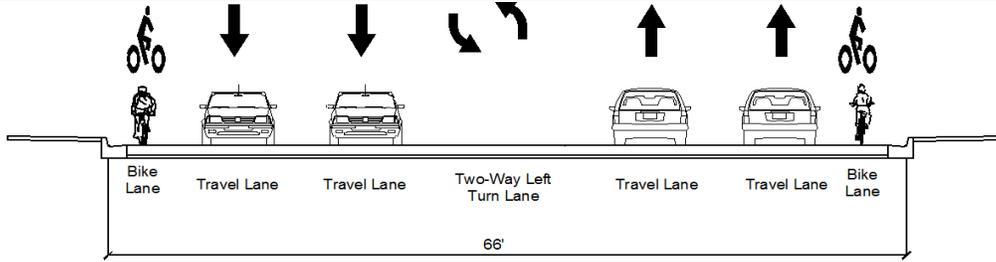


Diagram Not To Scale

Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60	/						0		
	X						1	0.5%	100.0%
							1	0.5%	99.5%
							0		
							0		
55							0		
	/						1	0.5%	99.0%
							0		
	X						1	0.5%	98.5%
50	/	/					2	1.0%	98.1%
	X						1	0.5%	97.1%
	X	X	/				3	1.5%	96.6%
	X	/					2	1.0%	95.1%
	X	X	X	/			5	2.4%	94.2%
45	X	X	X	X	/	/	8	3.9%	91.7%
	X	X	X	X	/	/	11	5.3%	87.9%
	X	X	X	X	X	/	15	7.3%	82.5%
	X	X	X	X	X	X	21	10.2%	75.2%
	X	X	X	X	X	X	12	5.8%	65.0%
40	X	X	X	X	X	X	12	5.8%	59.2%
	X	X	X	X	X	X	22	10.7%	53.4%
	X	X	X	X	/	/	14	6.8%	42.7%
	X	X	X	X	X	X	18	8.7%	35.9%
	X	X	X	X	X	X	15	7.3%	27.2%
35	X	X	X	X	X	X	19	9.2%	19.9%
	X	/	/	/			4	1.9%	10.7%
	X	X	/	/	/		5	2.4%	8.7%
	X	X	/	/	/		5	2.4%	6.3%
	/	/	/	/			3	1.5%	3.9%
30	X	/					2	1.0%	2.4%
	X	/	/				3	1.5%	1.5%
							0		
							0		
25							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 206

85th Percentile Speed: 43.5 mph
50th Percentile Speed: 38.7 mph
15th Percentile Speed: 34.5 mph
10 MPH Pace: 35 - 44
Number in Pace: 159
Percent in Pace: 77.2%

Date of Survey: 9/24/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - major
Field Study by: ATD / KHA

Start Time: 13:30 PM
End Time: 14:00 PM
Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

75

STREET: Kato Road
FROM: Milmont Drive

SURVEY DATE: 9/24/2015
TO: Warren Avenue

SPEED DATA

Location of Speed Survey	47031 Kato Rd.	Posted Speed Limit	40 mph
Time of Speed Survey	13:30 PM - 14:30 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	32.9 mph	Speed Limit Change	No
85th Percentile Speed	38.6 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	68.8%		
Number of Survey Samples	218		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	7
Collision Rate (ACC/MVM)	0.27
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	8,877
Type of Traffic Control	Traffic signals at Milmont Dr and Warren Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	10665'
Width	68'
Number of Lanes	NB - 1 SB - 1
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous on east side
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - 4 near Warren Ave and Milmont Dr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, office, and sports field

COMMENTS

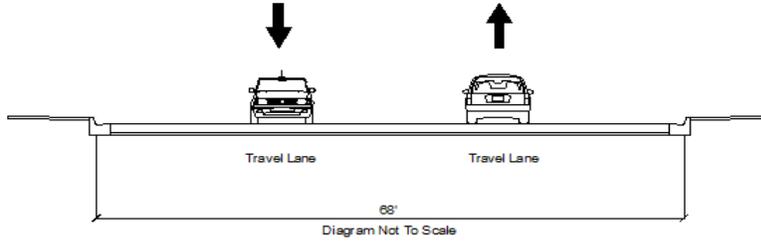
The 85th-percentile speed of 38.6 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Kato Road

Limits: Milmont Drive to Warren Avenue

**Typical
Cross-section**



Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
							0		
	X						1	0.5%	100.0%
	X	X					2	0.9%	99.5%
45							0		
	/						1	0.5%	98.6%
	X	/	/				3	1.4%	98.2%
	X	X	X	/	/		5	2.3%	96.8%
	X	X	X	/	/		6	2.8%	94.5%
40	X	X	X	X	X	X	12	5.5%	91.7%
	X	X	X	/	/	/	6	2.8%	86.2%
	X	X	X	X	X	X	11	5.0%	83.5%
	X	X	/	/	/	/	9	4.1%	78.4%
	X	X	X	X	X	/	14	6.4%	74.3%
35	X	X	X	X	X	X	19	8.7%	67.9%
	X	X	X	X	X	X	19	8.7%	59.2%
	X	X	X	/	/	/	11	5.0%	50.5%
	X	X	X	X	/	/	9	4.1%	45.4%
	X	X	X	X	X	X	23	10.6%	41.3%
30	X	X	X	X	X	X	20	9.2%	30.7%
	X	X	X	/	/	/	11	5.0%	21.6%
	X	X	X	X	X	X	13	6.0%	16.5%
	X	X	X	/	/	/	11	5.0%	10.6%
	X	X	/				3	1.4%	5.5%
25	X	X	/	/	/		6	2.8%	4.1%
							0		
							0		
							0		
	X	/					2	0.9%	1.4%
20	X						1	0.5%	0.5%
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 218

85th Percentile Speed: 38.6 mph
50th Percentile Speed: 32.9 mph
15th Percentile Speed: 27.7 mph
10 MPH Pace: 27 - 36
Number in Pace: 150
Percent in Pace: 68.8%

Date of Survey: 9/24/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - minor
Field Study by: ATD / KHA

Start Time: 13:30 PM
End Time: 14:30 PM
Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

76

STREET: Lakeview Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/24/2015
TO: Warren Avenue

SPEED DATA

Location of Speed Survey	47687 Lakeview Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	12:15 PM - 2:15 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.5 mph	Speed Limit Change	No
85th Percentile Speed	40.1 mph	Speed Justification	85th-percentile speed downgraded due to uncontrolled crosswalks and moderate pedestrian activity
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	80.4%		
Number of Survey Samples	112		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.44
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,079
Type of Traffic Control	Traffic Signal at Warren Ave; stop sign at Fremont Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	7608'
Width	36'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane north of Gateway
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	At Gateway Blvd
On-Street Parking?	No
Sidewalks?	Yes - West side and east side north of Gateway
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - 4 near Fremont Blvd and Gateway Blvd
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office

COMMENTS

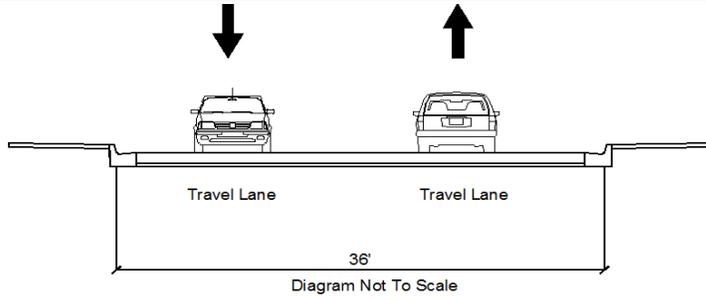
The 85th-percentile speed of 40.1 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the uncontrolled crosswalks at Gateway Boulevard and moderate pedestrian activity, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Lakeview Boulevard

Limits: Fremont Boulevard to Warren Avenue

**Typical
Cross-section**



Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
/							1	0.9%	100.0%
X X							2	1.8%	99.1%
X X							2	1.8%	97.3%
45	X /						2	1.8%	95.5%
/ / / /							4	3.6%	93.8%
/ /							2	1.8%	90.2%
/ /							2	1.8%	88.4%
X X X X X X / / /							9	8.0%	86.6%
40	X X X / / / / /						7	6.3%	78.6%
X / / / / / / /							7	6.3%	72.3%
X X X X X / / / / / / / /							13	11.6%	66.1%
X X X / / / / / / / /							10	8.9%	54.5%
X X X X X X / / / /							10	8.9%	45.5%
35	X X X X X X X X / / / / /						13	11.6%	36.6%
X X X / / / / / / /							9	8.0%	25.0%
X X X X X X X /							8	7.1%	17.0%
X X / /							4	3.6%	9.8%
/ /							2	1.8%	6.3%
30	X X /						3	2.7%	4.5%
/							1	0.9%	1.8%
							0		
X							1	0.9%	0.9%
25							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 112

85th Percentile Speed: 40.1 mph
50th Percentile Speed: 36.5 mph
15th Percentile Speed: 32.7 mph
10 MPH Pace: 32 - 41
Number in Pace: 90
Percent in Pace: 80.4%

Date of Survey: 3/24/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 12:15 PM
End Time: 2:15 PM
Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

77

STREET: Landing Parkway
FROM: Fremont Boulevard

SURVEY DATE: 3/25/2015
TO: Warren Avenue

SPEED DATA

Location of Speed Survey	46661 Landing Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	9:30 AM - 10:50 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.7 mph	Speed Limit Change	No
85th Percentile Speed	34.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	83.8%		
Number of Survey Samples	105		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.40
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,113
Type of Traffic Control	Stop signs at Warren Ave and Fremont Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4,254
Width	30' -50'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous on east side next to freeway
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - 3 mid-segment
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and office

COMMENTS

The 85th-percentile speed of 34.8 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

78

STREET: Liberty Street
FROM: Stevenson Boulevard

SURVEY DATE: 3/10/2015
TO: Capitol Avenue

SPEED DATA

Location of Speed Survey	39814 Liberty St.	Posted Speed Limit	30 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	28.6 mph	Speed Limit Change	No
85th Percentile Speed	31.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	24 - 33 mph		
Percentage of Vehicles in Pace	89.3%		
Number of Survey Samples	140		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.22
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	4,501
Type of Traffic Control	Traffic signals at Walnut Ave and Stevenson Blvd; stop sign at Capitol Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,730
Width	50'
Number of Lanes	EB - 1/2 WB - 1/2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Beacon Ave
On-Street Parking?	Yes - Discontinuous
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Near Stevenson Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, commercial, office, and school

COMMENTS

The 85th-percentile speed of 31.4 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 24 mph to 33 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

79

STREET: Lowry Road
FROM: Alvarado Boulevard

SURVEY DATE: 3/3/2015
TO: City Limits

SPEED DATA

Location of Speed Survey	4081 Lowry Rd.	Posted Speed Limit	30/40 mph
Time of Speed Survey	11:05 AM - 12:05 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.0 mph	Speed Limit Change	Yes
85th Percentile Speed	38.6 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	67.9%		
Number of Survey Samples	187		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	10,238
Type of Traffic Control	Traffic signal at Alvarado Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,975
Width	40'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - Discontinuous on east side
Sidewalks?	Yes - On east side
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, park, church, and school

COMMENTS

The 85th-percentile speed of 38.6 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment indicating a 35 mph speed limit. Therefore, it is recommended that the posted speed limit be changed to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

80

STREET: Milmont Drive
FROM: Page Avenue

SURVEY DATE: 3/25/2015
TO: City Limits

SPEED DATA

Location of Speed Survey	48501 Milmont Dr	Posted Speed Limit	40 mph
Time of Speed Survey	11:00 AM - 12:45 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.2 mph	Speed Limit Change	Yes
85th Percentile Speed	41.0 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to pace speed
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	67.9%		
Number of Survey Samples	106		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,066
Type of Traffic Control	Traffic signal at Kato Rd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	4,613
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - On west side
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good/Moderate South of Kato Rd
Adjacent Land Use	Office and industrial

COMMENTS

The 85th-percentile speed of 41.0 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the pace speed, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit be decreased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

81

STREET: Mission Boulevard
FROM: Mission Road

SURVEY DATE: 3/13/2015
TO: St. Joseph Terrace

SPEED DATA

Location of Speed Survey	42812 Mission Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.6 mph	Speed Limit Change	No
85th Percentile Speed	39.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 24100(b)
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	84.0%		
Number of Survey Samples	212		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	14,185
Type of Traffic Control	Traffic signal at Mission Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1910'
Width	59'
Number of Lanes	NB - 1 SB - 1
Street Classification	Arterial - minor
Divided Median?	Yes - between Mission Rd and Starr St, two-way left-turn lane/paved median between St Joseph Terr and Starr St
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Starr St - Mill Creek Rd
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, fronting residential, non-fronting residential, and school

COMMENTS

The 85th-percentile speed of 39.5 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Mission Boulevard

Limits: Mission Road to St. Joseph Terrace

Typical Cross-section

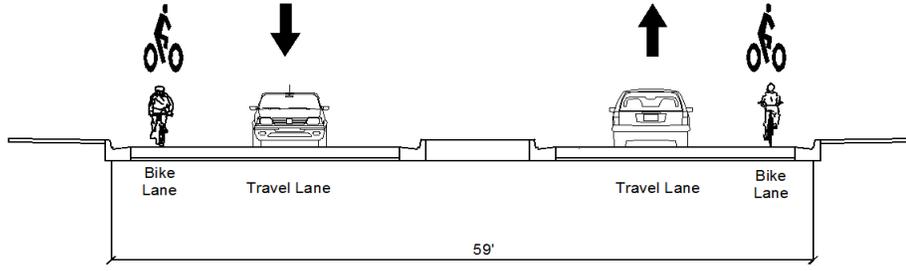


Diagram Not To Scale

Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
	X						1	0.5%	100.0%
	/						1	0.5%	99.5%
							0		
45	X	X	/				3	1.4%	99.1%
	X	/					2	0.9%	97.6%
	X	X	X	X			4	1.9%	96.7%
	X	X	X	X	X	X	9	4.2%	94.8%
	X	X	X	/	/	/	8	3.8%	90.6%
40	X	X	X	/	/	/	7	3.3%	86.8%
	X	X	X	X	X	/	7	3.3%	83.5%
	X	X	X	X	X	X	13	6.1%	80.2%
	X	X	X	X	X	X	18	8.5%	74.1%
	X	X	X	X	X	X	24	11.3%	65.6%
35	X	X	X	X	X	X	24	11.3%	54.2%
	X	X	X	X	X	X	25	11.8%	42.9%
	X	X	X	X	X	X	31	14.6%	31.1%
	X	X	X	X	X	X	18	8.5%	16.5%
	X	X	/	/	/	/	11	5.2%	8.0%
30	X	X	/	/	/	/	5	2.4%	2.8%
	X						1	0.5%	0.5%
							0		
							0		
							0		
25							0		
							0		
							0		
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 212

85th Percentile Speed: 39.5 mph
50th Percentile Speed: 34.6 mph
15th Percentile Speed: 31.8 mph
10 MPH Pace: 31 - 40
Number in Pace: 178
Percent in Pace: 84.0%

Date of Survey: 3/13/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - minor
Field Study by: ATD / KHA

Start Time: 9:30 AM
End Time: 10:30 AM
Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

82

STREET: Mission Boulevard
FROM: St. Joseph Terrace

SURVEY DATE: 3/13/2015
TO: Pine Street

SPEED DATA

Location of Speed Survey	43342 Mission Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	10:45 AM - 12:00 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	31.8 mph	Speed Limit Change	No
85th Percentile Speed	34.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	90.4%		
Number of Survey Samples	157		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	4
Collision Rate (ACC/MVM)	0.28
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	15,490
Type of Traffic Control	Traffic signals at Washington Blvd, Anza St, and Pine St
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,374
Width	44'
Number of Lanes	NB - 1 SB -1
Street Classification	Arterial - minor
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Cedar St
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, Ohlone College, school, and office

COMMENTS

The 85th-percentile speed of 34.8 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

83

STREET: Mission Boulevard
FROM: Pine Street

SURVEY DATE: 3/17/2015
TO: Durham Road

SPEED DATA

Location of Speed Survey	Mission Blvd - 500 ft North of Montclair Dr	Posted Speed Limit	45 mph
Time of Speed Survey	12:15 PM - 12:45 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	44.4 mph	Speed Limit Change	No
85th Percentile Speed	50.5 mph	Speed Justification	85th-percentile speed downgraded due to pace and to be within 10 mph of adjacent segments
10 mph Pace Speed	40 - 49 mph		
Percentage of Vehicles in Pace	70.7%		
Number of Survey Samples	215		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.14
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	17,248
Type of Traffic Control	Traffic signals at Pine St, Hunter Ln, and Durham Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4602'
Width	84'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - Between Hunter and Durham
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and cemetery

COMMENTS

The 85th-percentile speed of 50.5 mph indicates a 50 mph speed limit. The 10 mph pace ranges from 40 mph to 49 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the pace speed and to maintain a speed limit within 10 mph of adjacent segments, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

84

STREET: Mission Boulevard
FROM: Durham Road

SURVEY DATE: 3/17/2015
TO: Curtner Road

SPEED DATA

Location of Speed Survey	Mission Blvd - 600 Ft S. of Grimmer Blvd Signal	Posted Speed Limit	45 mph
Time of Speed Survey	9:30 AM - 10:15 AM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	42.2 mph	Speed Limit Change	No
85th Percentile Speed	45.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	38 - 47 mph		
Percentage of Vehicles in Pace	84.4%		
Number of Survey Samples	205		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,863
Type of Traffic Control	Traffic signals at Durham Rd, Grimmer Blvd, Stanford Ave, and Paseo Padre Pkwy
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	6027'
Width	88'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	None
Vertical Curve	Yes - North of Antelope/Grimmer
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 45.8 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

85

STREET: Mowry Avenue
FROM: Peralta Boulevard

SURVEY DATE: 3/10/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	2290 Mowry Ave	Posted Speed Limit	35 mph
Time of Speed Survey	9:50 AM - 10:50 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.6 mph	Speed Limit Change	No
85th Percentile Speed	37.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	70.8%		
Number of Survey Samples	219		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.07
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	36,050
Type of Traffic Control	Traffic signals at Peralta Blvd, Parkside Dr, Civic Center Dr, Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4221'
Width	109'
Number of Lanes	NB - 3 SB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Bonner Ave and Waterside Cir
On-Street Parking?	Yes - Discontinuous
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between Peralta Blvd and Waterside Cir
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, Medical Center, church, and BART

COMMENTS

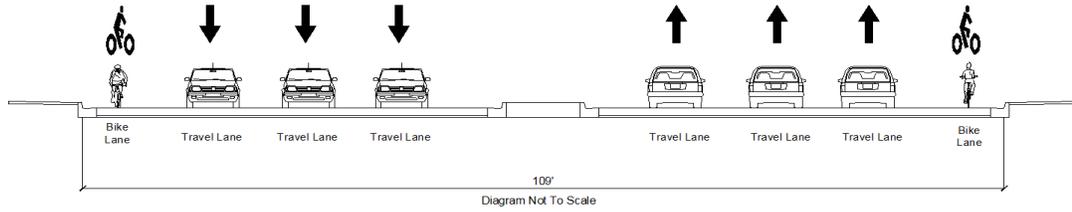
The 85th-percentile speed of 37.4 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Mowry Avenue

Limits: Peralta Boulevard to Paseo Padre Parkway

Typical Cross-section



Radars Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
	X /						2	0.9%	100.0%
	/ /						2	0.9%	99.1%
45	X						1	0.5%	98.2%
	/						1	0.5%	97.7%
							0		
	X X X /						4	1.8%	97.3%
	X X X X /						5	2.3%	95.4%
40	X X / /						4	1.8%	93.2%
	X X X / / /						6	2.7%	91.3%
	X X X X X X X X / / / / / / / /						14	6.4%	88.6%
	X X X X X X X X X X X / / / / / / / / / /						18	8.2%	82.2%
	X X X X X X X X X X X X / / / / / / / / / /						16	7.3%	74.0%
35	X X X X X X X X X X X / / / / / / / / / /						15	6.8%	66.7%
	X X X X X X X / / / / / / / / / / / / / /						15	6.8%	59.8%
	X X X X X X X X X X / / / / / / / / / / / / / /						17	7.8%	53.0%
	X X X X X / / / / / / / / / / / / / / / / / / /						15	6.8%	45.2%
	X X X X X X X / / / / / / / / / / / / / / / / / / /						20	9.1%	38.4%
30	X X X X X X X / / / / / / / / / / / / / / / / / / /						17	7.8%	29.2%
	X X X /						8	3.7%	21.5%
	X X X X /						10	4.6%	17.8%
	X X X X X /						12	5.5%	13.2%
	/ /						5	2.3%	7.8%
25	X /						5	2.3%	5.5%
	/ /						1	0.5%	3.2%
	X /						1	0.5%	2.7%
	X /						1	0.5%	2.3%
	/ /						1	0.5%	1.8%
20	X /						3	1.4%	1.4%
							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
							0		
10							0		

Total Samples = 219

85th Percentile Speed: 37.4 mph
50th Percentile Speed: 32.6 mph
15th Percentile Speed: 27.4 mph
10 MPH Pace: 29 - 38
Number in Pace: 155
Percent in Pace: 70.8%

Date of Survey: 3/10/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - major
Field Study by: ATD / KHA

Start Time: 9:50 AM
End Time: 10:50 AM
Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

86

STREET: Mowry Avenue
FROM: Paseo Padre Parkway

SURVEY DATE: 3/10/2015
TO: Argonaut Way

SPEED DATA

Location of Speed Survey	3370 Mowry Ave	Posted Speed Limit	40 mph
Time of Speed Survey	11:10 AM - 11:50 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	36.6 mph	Speed Limit Change	No
85th Percentile Speed	41.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	34 - 43 mph		
Percentage of Vehicles in Pace	70.4%		
Number of Survey Samples	213		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	11
Collision Rate (ACC/MVM)	0.28
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	35,600
Type of Traffic Control	Traffic signals at Paseo Padre Pkwy, Hastings St, State St, Fremont Blvd, and Argonaut Wy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4026'
Width	110'
Number of Lanes	NB - 3 SB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and apartments

COMMENTS

The 85th-percentile speed of 41.8 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 34 mph to 43 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

87

STREET: Mowry Avenue
FROM: Argonaut Way

SURVEY DATE: 9/24/2015
TO: I-880

SPEED DATA

Location of Speed Survey	Mowry Ave-midblock btwn Blacow & Farwell	Posted Speed Limit	40 mph
Time of Speed Survey	10:45 AM - 11:30 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	35.2 mph	Speed Limit Change	No
85th Percentile Speed	39.0 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	82.9%		
Number of Survey Samples	217		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	11
Collision Rate (ACC/MVM)	0.14
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	42,220
Type of Traffic Control	Traffic signals at I-880 NB ramps, Farwell Dr, Blacow Rd, Glenview Dr, Logan Dr, and Argonaut Way
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	6882'
Width	114'
Number of Lanes	NB - 3 SB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	No
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and commercial

COMMENTS

The 85th-percentile speed of 39.0 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

88

STREET: Niles Boulevard
FROM: City Limits

SURVEY DATE: 3/4/2015
TO: Rock Avenue

SPEED DATA

Location of Speed Survey	35855 Niles Blvd	Posted Speed Limit	40 mph
Time of Speed Survey	12:50 PM - 1:30 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.6 mph	Speed Limit Change	No
85th Percentile Speed	43.7 mph	Speed Justification	85th-percentile rounded down per CVC Section 21400(b)
10 mph Pace Speed	36 - 45 mph		
Percentage of Vehicles in Pace	81.1%		
Number of Survey Samples	227		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	16,217
Type of Traffic Control	None
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3,236
Width	75'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At El Portal Ave, Linda Dr, and Rock Ave
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	Yes - South of City Limit
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential and school

COMMENTS

The 85th-percentile speed of 43.7 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

89

STREET: Niles Boulevard
FROM: Rock Avenue

SURVEY DATE: 3/4/2015
TO: Hillview Drive

SPEED DATA

Location of Speed Survey	36350 Niles Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	1:45 PM - 2:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.2 mph	Speed Limit Change	No
85th Percentile Speed	37.7 mph	Speed Justification	85th-percentile rounded down per CVC Section 21400(b)
10 mph Pace Speed	28 - 37 mph		
Percentage of Vehicles in Pace	78.0%		
Number of Survey Samples	209		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	18,612
Type of Traffic Control	Traffic signal at Nursery Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2,379
Width	55'
Number of Lanes	EB - 1/2 WB - 1/2
Street Classification	Arterial - minor
Divided Median?	Yes - Between Rancho Arroyo Pkwy and Nursery Ave
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Hillview Dr and Rancho Arroyo Pkwy
On-Street Parking?	Yes
Sidewalks?	Yes- Discontinuous
Driveways?	Many
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 37.7 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 28 mph to 37 mph and the suggested speed is above this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

90

STREET: Nobel Drive
FROM: Auto Mall Parkway

SURVEY DATE: 3/24/2015
TO: Cushing Parkway

SPEED DATA

Location of Speed Survey	44235 Nobel Dr	Posted Speed Limit	35 mph
Time of Speed Survey	11:15 AM - 12:40 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.3 mph	Speed Limit Change	No
85th Percentile Speed	40.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	32 - 41 mph		downgraded 5 mph due to
Percentage of Vehicles in Pace	63.9%		moderate pedestrian activity and
Number of Survey Samples	108		low percentage in 10 mph pace

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,035
Type of Traffic Control	Traffic signal at Cushing Pkwy; stop sign at Auto Mall Pkwy
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2680'
Width	48'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - South of Cushing Pkwy
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 40.8 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the moderate pedestrian activity and low percentage in the 10 mph pace speed, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

91

STREET: Northport Loop
FROM: Cushing Parkway

SURVEY DATE: 3/24/2015
TO: Cushing Parkway

SPEED DATA

Location of Speed Survey	45541 Northport Loop	Posted Speed Limit	No speed limit posted
Time of Speed Survey	12:55 PM - 3:40 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.1 mph	Speed Limit Change	
85th Percentile Speed	36.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	62.6%		
Number of Survey Samples	107		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	1.18
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	894
Type of Traffic Control	Traffic signal at Cushing Pkwy (W) and Cushing Pkwy (E)
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3420'
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous
Driveways?	Many
Vertical Curve	None
Horizontal Curve	Yes - At Northport Ct
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 36.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit is 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

92

STREET: Old Canyon Road
FROM: Clarke Drive

SURVEY DATE: 3/4/2015
TO: Niles Canyon Road

SPEED DATA

Location of Speed Survey	585 Old Canyon Rd	Posted Speed Limit	35 mph
Time of Speed Survey	2:45 PM - 3:45 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.3 mph	Speed Limit Change	No
85th Percentile Speed	38.3 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	72.3%		
Number of Survey Samples	141		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,988
Type of Traffic Control	Stop sign at Niles Canyon Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1932'
Width	33'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Discontinuous on east side
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - West of Clarke Dr
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential, apartments, and Alameda Creek

COMMENTS

The 85th-percentile speed of 38.3 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate for this segment is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

93

STREET: Old Warm Springs Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/19/2015
TO: Grimmer Boulevard

SPEED DATA

Location of Speed Survey	44387 Old Warm Springs Blvd	Posted Speed Limit	40 mph
Time of Speed Survey	11:30 AM - 2:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.4 mph	Speed Limit Change	Yes
85th Percentile Speed	36.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	95.2%		
Number of Survey Samples	21		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	3,767
Type of Traffic Control	Traffic signal at Grimmer Blvd; stop sign at Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	2673'
Width	46'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - East of Fremont Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office and industrial

COMMENTS

The 85th-percentile speed of 36.4 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit is decreased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

94

STREET: Osgood Road
FROM: Washington Boulevard

SURVEY DATE: 3/11/2015, 3/19/2015, 9/24/2015
TO: Grimmer Boulevard

SPEED DATA

Location of Speed Survey	42972 Osgood Road, 44320 Osgood Road, Between Auto Mall Pkwy & Wal-Mart Driveway	Posted Speed Limit	40 mph
Time of Speed Survey	10:05 AM-11:05 AM, 11:40 AM-12:15 PM, 10:00 AM-10:40 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.5 mph	Speed Limit Change	No
85th Percentile Speed	44.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400 (b)
10 mph Pace Speed	36 - 45 mph		
Percentage of Vehicles in Pace	58.4%		
Number of Survey Samples	651		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	15
Collision Rate (ACC/MVM)	0.18
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	18,709
Type of Traffic Control	Traffic signals at Washington Blvd, Blacow Rd, Auto Mall Pkwy, Wal-Mart Dwy, and Grimmer Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	11190'
Width	70'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - major
Divided Median?	Yes - Two-way left turn lane south of Blacow Rd
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Many
Vertical Curve	Yes - At Washington Blvd
Horizontal Curve	Yes - South of Washington Blvd and at Wal-Mart
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential, office, and commercial

COMMENTS

The 85th-percentile speed of 44.9 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Osgood Road

Limits: Washington Boulevard to Grimmer Boulevard

Typical Cross-section

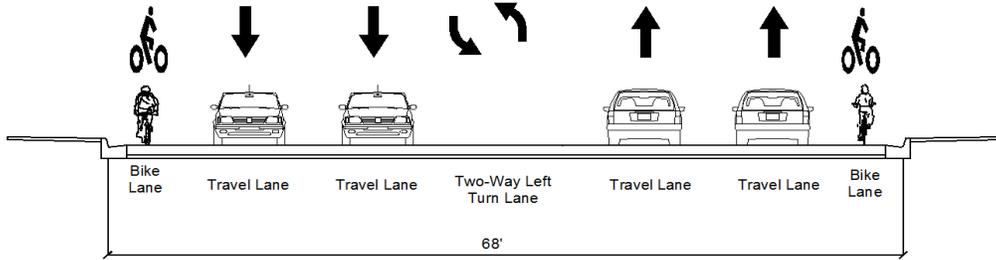


Diagram Not To Scale

Radars Survey Sheet

X = North / = South

	5	10	15	20	25	30			
65								0	
								0	
								0	
/								1	0.2% 100.0%
X								1	0.2% 99.8%
60								0	
								0	
/								1	0.2% 99.7%
								0	
X /								2	0.3% 99.5%
/								1	0.2% 99.2%
X								1	0.2% 99.1%
X / / /								4	0.6% 98.9%
X X X /								4	0.6% 98.3%
/ / / / / /								6	0.9% 97.7%
X X X / / / / / / / / / /								13	2.0% 96.8%
X X X X / / / / / / / / / /								9	1.4% 94.8%
X X X X X X / / / / / / / / / /								13	2.0% 93.4%
X X X X X X X X / / / / / / / / / /								17	2.6% 91.4%
X X X X X X X X X X / / / / / / / / / /								21	3.2% 88.8%
X X X X X X X X X X X X / / / / / / / / / /								35	5.4% 85.6%
X X X X X X X X X X X X X X X X X X / / / / / / / / / /								52	8.0% 80.2%
X / / / / / / / / / /								48	7.4% 72.2%
X / / / / / / / / / /								37	5.7% 64.8%
X / / / / / / / / / /								38	5.8% 59.1%
X / / / / / / / / / /								43	6.6% 53.3%
X / / / / / / / / / /								36	5.5% 46.7%
X / / / / / / / / / /								37	5.7% 41.2%
X / / / / / / / / / /								30	4.6% 35.5%
X / / / / / / / / / /								24	3.7% 30.9%
35 X X X X /								13	2.0% 27.2%
X X X X X X X X X X /								15	2.3% 25.2%
X X X X X X X X X X /								15	2.3% 22.9%
X / / / / / / / / / / / /								32	4.9% 20.6%
X / / / / / / / / / / / /								21	3.2% 15.7%
30 X X X X X X X X X X /								19	2.9% 12.4%
X X X X X X X X X X /								18	2.8% 9.5%
X X X X X X X X X X /								18	2.8% 6.8%
X X X X X X X X X X /								12	1.8% 4.0%
X X X X X /								7	1.1% 2.2%
25 X X								2	0.3% 1.1%
X X /								3	0.5% 0.8%
X								1	0.2% 0.3%
								0	
								0	
20 X								1	0.2% 0.2%
								0	
								0	
								0	
15								0	

Total Samples = 651

85th Percentile Speed: <u>44.9 mph</u> 50th Percentile Speed: <u>39.5 mph</u> 15th Percentile Speed: <u>30.8 mph</u> 10 MPH Pace: <u>36 - 45</u> Number in Pace: <u>380</u> Percent in Pace: <u>58.4%</u>	Date of Survey: <u>3/11/2015, 3/19/2015, 9/24/2015</u> Weather: <u>Clear</u> Pavement Condition: <u>Good</u> Street Class.: <u>Arterial - major</u> Field Study by: <u>ATD / KHA</u>	Survey Time: <u>10:05AM-11:05AM 11:40AM-12:15PM 10:00AM-10:40AM</u> Posted Speed: <u>40 mph</u>
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CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

95

STREET: Overacker Avenue
FROM: Walnut Avenue

SURVEY DATE: 3/5/2015
TO: Mowry Avenue

SPEED DATA

Location of Speed Survey	38885 Overacker Ave	Posted Speed Limit	30 mph
Time of Speed Survey	12:00 PM - 3:00 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	33.1 mph	Speed Limit Change	Yes
85th Percentile Speed	39.5 mph	Speed Justification	85-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	28 - 37 mph		
Percentage of Vehicles in Pace	57.4%		
Number of Survey Samples	129		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	869
Type of Traffic Control	Stop signs at Mowry Ave and Walnut Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3166'
Width	30'
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	no
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - On west side
Sidewalks?	Yes - Discontinuous on west side
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - 550 feet east of Mowry Ave
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 39.5 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 28 mph to 37 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment indicating a 35 mph speed limit. Therefore, it is recommended that the posted speed limit be increased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

96

STREET: Pacific Commons Boulevard
FROM: Auto Mall Parkway

SURVEY DATE: 3/24/2015
TO: Bunche Drive

SPEED DATA

Location of Speed Survey	Pacific Commons Blvd - 600 Ft S. of Auto Mall Pkwy Signa	Posted Speed Limit	30 mph
Time of Speed Survey	9:30 AM - 10:45 AM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.6 mph	Speed Limit Change	No
85th Percentile Speed	35.0 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	24 - 33 mph		downgraded due to
Percentage of Vehicles in Pace	63.5%		pedestrian activity,
Number of Survey Samples	115		crosswalks, and width

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	17,603
Type of Traffic Control	Traffic signals at Bunche Dr, Curie St, Auto Mall Pkwy; stop signs at two parking lot driveways
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2180'
Width	56' (varies)
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	Yes - South of Curie St
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	At Dick's Sporting Goods
On-Street Parking?	Yes - South of Curie St
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial

COMMENTS

The 85th-percentile speed of 35.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 24 mph to 33 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the moderate pedestrian traffic, uncontrolled crosswalks, and 25-foot roadway width in some locations, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

97

STREET: Page Avenue
FROM: Kato Road

SURVEY DATE: 3/24/2015
TO: Milmont Drive

SPEED DATA

Location of Speed Survey	1180 Page Ave	Posted Speed Limit	30 mph
Time of Speed Survey	9:30 AM - 11:25 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	29.6 mph	Speed Limit Change	Yes
85th Percentile Speed	36.1 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	65.4%		
Number of Survey Samples	104		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,190
Type of Traffic Control	Stop sign at Kato Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	871'
Width	44'
Number of Lanes	EB - 1 WB -1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	At Milmont Dr
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 36.1 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

98

STREET: Paseo Padre Parkway
FROM: City Limits

SURVEY DATE: 3/3/2015
TO: Ardenwood Boulevard

SPEED DATA

Location of Speed Survey	Paseo Padre Pkwy btwn Patterson Ranch Rd & Kaiser Dr	Posted Speed Limit	45 mph
Time of Speed Survey	2:00 PM - 2:45 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	48.3 mph	Speed Limit Change	No
85th Percentile Speed	51.5 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	44 - 53 mph		downgraded due to
Percentage of Vehicles in Pace	85.1%		uncontrolled crosswalks
Number of Survey Samples	228		and proximity to trail

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.05
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	18,745
Type of Traffic Control	Traffic signals at Ardenwood Blvd, SR-84 EB Ramps, and SR-84 WB Ramps
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	7887'
Width	79'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Dumbarton Cir, Kaiser Dr, and Commerce Dr
On-Street Parking?	No
Sidewalks?	Yes - Continuous on east side only
Driveways?	Few
Vertical Curve	Yes - SR-84 overpass
Horizontal Curve	Yes - West of Ardenwood Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 51.5 mph indicates a 50 mph speed limit. The 10 mph pace ranges from 44 mph to 53 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the uncontrolled crosswalks and proximity to the Alameda Creek Trail, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

99

STREET: Paseo Padre Parkway
FROM: Ardenwood Boulevard

SURVEY DATE: 12/14/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	4765 Paseo Padre Parkway	Posted Speed Limit	40 mph
Time of Speed Survey	1:15 PM - 2:00 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.5 mph	Speed Limit Change	No
85th Percentile Speed	45.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	35 - 44 mph		downgraded 5 mph due to pace
Percentage of Vehicles in Pace	67.3%		speed and proximity to preschool
Number of Survey Samples	205		and after school facilities

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.03
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	16,199
Type of Traffic Control	Traffic signals at Ardenwood Blvd, Tupelo St, Deep Creek Rd, Siward Rd, and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	8717'
Width	80'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - At Siward
Horizontal Curve	Yes - East of Tupelo and east of I-880
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, commercial, preschool, and after school facilities

COMMENTS

The 85th-percentile speed of 45.2 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Due to the pace speed and proximity to preschool and after school facilities, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

100

STREET: Paseo Padre Parkway
FROM: Fremont Blvd

SURVEY DATE: 3/3/2015
TO: Decoto Road

SPEED DATA

Location of Speed Survey	Paseo Padre Pkwy btwn Warwick Rd & Darwin Dr	Posted Speed Limit	40 mph
Time of Speed Survey	12:15 PM - 1:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	41.8 mph	Speed Limit Change	Yes
85th Percentile Speed	45.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	38 - 47 mph		
Percentage of Vehicles in Pace	90.9%		
Number of Survey Samples	220		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.06
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	21,261
Type of Traffic Control	Traffic signals at Fremont Blvd, Milton St, Whitehead Ln, Warwick Rd, and Decoto Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5988'
Width	79'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Sylvester Dr and Darwin Dr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, church, school, and park

COMMENTS

The 85th-percentile speed of 45.2 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

101

STREET: Paseo Padre Parkway
FROM: Decoto Road

SURVEY DATE: 3/3/2015
TO: Thornton Avenue

SPEED DATA

Location of Speed Survey	Paseo Padre Pkwy btwn Cornish Dr & Tamayo St	Posted Speed Limit	45 mph
Time of Speed Survey	11:15 AM - 12:00 PM	Recommended Speed Limit	45 mph
50th Percentile Speed (Mean Speed)	46.4 mph	Speed Limit Change	No
85th Percentile Speed	50.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to uncontrolled crosswalks and proximity to Alameda Creek Trail
10 mph Pace Speed	43 - 52 mph		
Percentage of Vehicles in Pace	82.8%		
Number of Survey Samples	227		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	5
Collision Rate (ACC/MVM)	0.09
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	25,487
Type of Traffic Control	Traffic signals at Decoto Rd, Isherwood Wy, and Thornton Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	7550'
Width	104'
Number of Lanes	EB - 2/3 WB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Wyndham Dr and Surry Pl
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Puttenham Way and Thornton Ave
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and Alameda Creek Trail

COMMENTS

The 85th-percentile speed of 50.2 mph indicates a 50 mph speed limit. The 10 mph pace ranges from 43 mph to 52 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the uncontrolled crosswalks and proximity to the Alameda Creek Trail, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 45 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

102

STREET: Paseo Padre Parkway
FROM: Thornton Avenue

SURVEY DATE: 9/23/2015
TO: Peralta Boulevard

SPEED DATA

Location of Speed Survey	Paseo Padre Pkwy - 350 Ft W. of Sequoia Dr	Posted Speed Limit	45 mph
Time of Speed Survey	14:00 PM - 14:30 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	35.0 mph	Speed Limit Change	Yes
85th Percentile Speed	37.9 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	91.6%		
Number of Survey Samples	215		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	6
Collision Rate (ACC/MVM)	0.16
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	31,197
Type of Traffic Control	Traffic signals at Thornton Ave, Sequoia Rd, and Peralta Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4392'
Width	82'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - East of Sequoia and north of Peralta
Horizontal Curve	Yes - West of Sequoia Rd; west of Riverwalk Dr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Apartments and church

COMMENTS

The 85th-percentile speed of 37.9 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit is within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be decreased to 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

103

STREET: Paseo Padre Parkway
FROM: Peralta Boulevard

SURVEY DATE: 3/6/2015
TO: Mowry Avenue

SPEED DATA

Location of Speed Survey	Paseo Padre Pkwy - 210 Ft E. of Country Dr	Posted Speed Limit	35 mph
Time of Speed Survey	10:00 AM - 10:30 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	32.8 mph	Speed Limit Change	No
85th Percentile Speed	37.1 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	71.4%		
Number of Survey Samples	213		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	4
Collision Rate (ACC/MVM)	0.12
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	28,597
Type of Traffic Control	Traffic signals at Peralta Blvd, Eggers Dr, Country Dr, Whole Food Market, and Mowry Ave
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4169'
Width	76'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Parkside Dr
On-Street Parking?	Yes - Discontinuous
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, apartments, commercial, childcare, and church

COMMENTS

The 85th-percentile speed of 37.1 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

104

STREET: Paseo Padre Parkway
FROM: Mowry Avenue

SURVEY DATE: 3/10/2015
TO: Stevenson Boulevard

SPEED DATA

Location of Speed Survey	39209 Paseo Padre Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	10:50 AM - 11:40 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.2 mph	Speed Limit Change	No
85th Percentile Speed	41.7 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	33 - 42 mph		downgraded 5 mph due to
Percentage of Vehicles in Pace	69.2%		moderate pedestrian activity and
Number of Survey Samples	214		proximity to downtown city center

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	12
Collision Rate (ACC/MVM)	0.37
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	30,695
Type of Traffic Control	Traffic signals at Mowry Ave, Capitol Ave, Gateway Plaza, Walnut Ave, and Stevenson Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3814'
Width	106'
Number of Lanes	EB - 3 WB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - Discontinuous
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, medical center, and Downtown City Center

COMMENTS

The 85th-percentile speed of 41.7 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to moderate pedestrian activity and proximity to downtown city center, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

105

STREET: Paseo Padre Parkway
FROM: Stevenson Boulevard

SURVEY DATE: 9/23/2015
TO: Driscoll Rd

SPEED DATA

Location of Speed Survey	40259 Paseo Padre Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	13:30 PM - 14:10 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	34.9 mph	Speed Limit Change	No
85th Percentile Speed	38.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	93.6%		
Number of Survey Samples	203		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	8
Collision Rate (ACC/MVM)	0.11
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	30,728
Type of Traffic Control	Traffic signals at Stevenson Blvd, Sailway Dr, Mission View Dr, Grimmer Blvd, Gomes Rd, and Driscoll Rd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	8246'
Width	81'
Number of Lanes	EB - 2/3 WB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes - Between Stevenson Blvd and Mission View Dr and Baylis St and Driscoll Rd
Uncontrolled Crosswalks?	At Baylis St
On-Street Parking?	Yes - East of Baylis St
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - Between Grimmer Blvd and Gomes Rd
Horizontal Curve	Yes - Between Grimmer Blvd and Hancock Dr; between Shadow Brooke Common and Driscoll Rd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, commercial, park, school, and senior center

COMMENTS

The 85th-percentile speed of 38.5 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

106

STREET: Paseo Padre Parkway
FROM: Driscoll Rd

SURVEY DATE: 9/23/2015
TO: Washington Blvd

SPEED DATA

Location of Speed Survey	41429 Paseo Padre Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	10:45 AM - 11:15 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.5 mph	Speed Limit Change	No
85th Percentile Speed	39.6 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	33 - 42 mph		
Percentage of Vehicles in Pace	92.2%		
Number of Survey Samples	206		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.04
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	14,262
Type of Traffic Control	Traffic signals at Driscoll Rd, Chadbourne Dr, and Washington Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5970'
Width	81'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes - west of I-680
Designated Bike Route?	No
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Covington Dr, Mento Dr, and Dorne Pl
On-Street Parking?	Yes - West of I-680
Sidewalks?	Yes
Driveways?	Many
Vertical Curve	Yes - I-680 overpass
Horizontal Curve	Yes - Between Covington Dr and Washington Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential, apartments, commercial, and synagogue

COMMENTS

The 85th-percentile speed of 39.6 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

107

STREET: Paseo Padre Parkway
FROM: Washington Blvd

SURVEY DATE: 9/23/2015
TO: Durham Road

SPEED DATA

Location of Speed Survey	43301 Paseo Padre Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	10:00 AM - 10:45 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.4 mph	Speed Limit Change	No
85th Percentile Speed	38.3 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	93.3%		
Number of Survey Samples	210		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.05
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	8,710
Type of Traffic Control	Traffic signal at Durham Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	8240'
Width	62'
Number of Lanes	EB - 1 WB - 1
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous on the east side
Driveways?	Few
Vertical Curve	Yes - At Quema Dr
Horizontal Curve	Yes - Between Durham Rd and Pine St
Visibility	Fair
Pavement Condition	Good
Adjacent Land Use	Non-fronting and fronting residential and park

COMMENTS

The 85th-percentile speed of 38.3 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

108

STREET: Paseo Padre Parkway
FROM: Durham Road

SURVEY DATE: 3/16/2015
TO: Onondaga Way

SPEED DATA

Location of Speed Survey	Paseo Padre Pkwy 400 ft N. of Parkmeadow Dr	Posted Speed Limit	35 mph
Time of Speed Survey	2:30 PM - 3:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.2 mph	Speed Limit Change	No
85th Percentile Speed	40.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to uncontrolled crosswalk and proximity to park and school
10 mph Pace Speed	32 - 41 mph		
Percentage of Vehicles in Pace	86.7%		
Number of Survey Samples	105		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	6,457
Type of Traffic Control	Traffic signal at Durham Rd; stop sign at Grimmer Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3685'
Width	58'
Number of Lanes	EB - 1 WB - 1
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Onondaga Way
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes
Horizontal Curve	Yes - Between Onondaga Dr and Parkmeadow Dr
Visibility	Fair
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential, park, and school

COMMENTS

The 85th-percentile speed of 40.2 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the uncontrolled crosswalk and proximity to Arroyo Agua Caliente Park and Fred E Weibel Elementary School, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

109

STREET: Paseo Padre Parkway
FROM: Onondaga Way

SURVEY DATE: 3/16/2015
TO: Mission Boulevard

SPEED DATA

Location of Speed Survey	45510 Paseo Padre Pkwy	Posted Speed Limit	35 mph
Time of Speed Survey	1:10 PM - 2:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.7 mph	Speed Limit Change	No
85th Percentile Speed	41.8 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to uncontrolled crosswalks and proximity to school
10 mph Pace Speed	33 - 42 mph		
Percentage of Vehicles in Pace	80.0%		
Number of Survey Samples	110		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	5,198
Type of Traffic Control	Traffic signal at Mission Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3160'
Width	79'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Indian Hill Pl and Onondaga Wy
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes
Horizontal Curve	Yes - At Cayuga Pl
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and school

COMMENTS

The 85th-percentile speed of 41.8 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the uncontrolled crosswalks and proximity to Fred E Weibel Elementary School, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

110

STREET: Paseo Padre Parkway
FROM: Mission Boulevard

SURVEY DATE: 3/16/2015
TO: Curtner Road

SPEED DATA

Location of Speed Survey	45977 Paseo Padre Pkwy	Posted Speed Limit	30 mph
Time of Speed Survey	11:45 AM - 12:50 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	33.3 mph	Speed Limit Change	No
85th Percentile Speed	37.0 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to fronting residential
10 mph Pace Speed	29 - 38 mph		
Percentage of Vehicles in Pace	86.1%		
Number of Survey Samples	108		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	6,082
Type of Traffic Control	Traffic signal at Mission Blvd; stop sign at Sundance Dr and Curtner Rd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3216'
Width	84'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Many
Vertical Curve	Yes
Horizontal Curve	Yes - Between Kootenai Dr and Klamath St; between Sundance Dr and Curtner Rd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting residential

COMMENTS

The 85th-percentile speed of 37.0 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 29 mph to 38 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the fronting residential properties, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

111

STREET: Peralta Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/6/2015
TO: Dusterberry Way

SPEED DATA

Location of Speed Survey	4270 Peralta Blvd	Posted Speed Limit	35 mph
Time of Speed Survey	11:10 AM - 11:52 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	29.8 mph	Speed Limit Change	No
85th Percentile Speed	34.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	70.6%		
Number of Survey Samples	238		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.08
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	5,462
Type of Traffic Control	Traffic signal at Dusterberry Wy and Fremont Blvd; stop sign at Maple St
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	8261'
Width	60'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial

COMMENTS

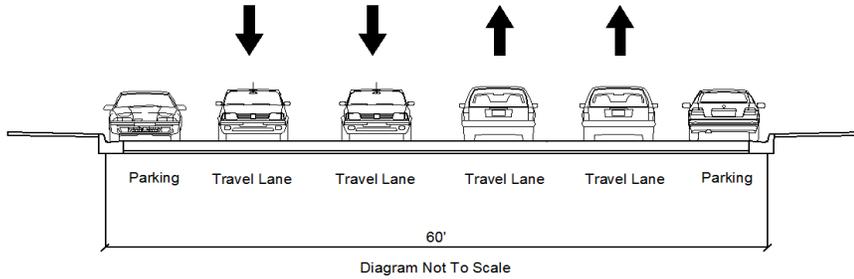
The 85th-percentile speed of 34.8 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Peralta Boulevard

Limits: Fremont Boulevard to Dusterberry Way

Typical Cross-section



Radar Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60								0	
								0	
								0	
								0	
								0	
55								0	
								0	
								0	
								0	
50								0	
								0	
								0	
								0	
								0	
								0	
	/							1	0.4% 100.0%
45								0	
	X							1	0.4% 99.6%
	X /							2	0.8% 99.2%
								0	
	/							1	0.4% 98.3%
40	X X / / / /							6	2.5% 97.9%
	X / / /							4	1.7% 95.4%
	X / /							3	1.3% 93.7%
	X X / / /							5	2.1% 92.4%
	X X X X X / / / / /							9	3.8% 90.3%
35	X X X X X X / / / / / / / / / / / / / / / /							15	6.3% 86.6%
	X X X /							10	4.2% 80.3%
	X X X /							18	7.6% 76.1%
	X X X X X X X /							18	7.6% 68.5%
	X X X X X X X X X X X X X X / / / / / / / / / / / / / / / /							23	9.7% 60.9%
30	X X X X X X X /							18	7.6% 51.3%
	X X X X X X /							17	7.1% 43.7%
	X X X X X X X X X X X X / / / / / / / / / / / / / / / /							23	9.7% 36.6%
	X X X X X X /							15	6.3% 26.9%
	X X X X X /							11	4.6% 20.6%
25	X X X /							8	3.4% 16.0%
	X X X X /							5	2.1% 12.6%
	X X /							5	2.1% 10.5%
	X X X X /							5	2.1% 8.4%
	X /							2	0.8% 6.3%
20	X X X /							3	1.3% 5.5%
	X /							2	0.8% 4.2%
	X /							2	0.8% 3.4%
	/ /							2	0.8% 2.5%
	X /							2	0.8% 1.7%
15	X /							1	0.4% 0.8%
	/ /							1	0.4% 0.4%
								0	
								0	
								0	
10								0	

Total Samples = 238

85th Percentile Speed: 34.8 mph
50th Percentile Speed: 29.8 mph
15th Percentile Speed: 24.7 mph
10 MPH Pace: 26 - 35
Number in Pace: 168
Percent in Pace: 70.6%

Date of Survey: 3/6/15
Weather: Clear
Pavement Condition: Good
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 11:10 AM
End Time: 11:52 AM
Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

112

STREET: Pine Street
FROM: Mission Boulevard

SURVEY DATE: 3/18/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	Pine St - 525 Ft E. of Paseo Padre Pkwy Stop Sign	Posted Speed Limit	25/30 mph
Time of Speed Survey	9:30 AM - 11:00 AM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	31.8 mph	Speed Limit Change	Yes
85th Percentile Speed	36.8 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to fronting residential and proximity to park
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	82.5%		
Number of Survey Samples	103		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,047
Type of Traffic Control	Traffic signal at Mission Blvd; stop signs at Paseo Padre Pkwy and Ibero Wy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3570'
Width	63'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - Between Ibero Wy and Nansa St
Horizontal Curve	Yes - Between Paso Padre Pkwy and Ibero Wy
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential and park

COMMENTS

Pine Street has a speed limit of 25 mph east of Excelso Drive and a speed limit of 30 mph for the rest of the segment. The 85th-percentile speed of 36.8 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to fronting residential and proximity to Old Mission Park, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit be changed to 30 mph for the entire segment.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

113

STREET: Pine Street
FROM: Paseo Padre Parkway

SURVEY DATE: 3/17/2015
TO: Sabercat Road

SPEED DATA

Location of Speed Survey	Pine St - 200 Ft S. of Southerland Way	Posted Speed Limit	30 mph
Time of Speed Survey	1:15 PM - 2:45 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.7 mph	Speed Limit Change	No
85th Percentile Speed	34.1 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	93.3%		
Number of Survey Samples	104		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,112
Type of Traffic Control	Stop signs at Sabercat Rd and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	6936'
Width	40'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - between Rosemere Dr and Skye Rd
Horizontal Curve	Yes - between Sabercat Rd and Greenhills Wy; between Rosemere Dr and Skye Rd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 34.1 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

114

STREET: Rancho Arroyo Parkway
FROM: Niles Boulevard

SURVEY DATE: 3/5/2015
TO: Riviera Drive

SPEED DATA

Location of Speed Survey	405 Rancho Arroyo Parkway	Posted Speed Limit	30 mph
Time of Speed Survey	2:10 PM - 3:10 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	29.0 mph	Speed Limit Change	No
85th Percentile Speed	33.4 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	74.8%		
Number of Survey Samples	115		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	2,658
Type of Traffic Control	Stop sign at Niles Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1412'
Width	67'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	Yes
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	At Serpa Ct, De Valle Ct
On-Street Parking?	No
Sidewalks?	No
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between Serpa Ct and De Valle Ct
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Fronting residential and apartments

COMMENTS

The 85th-percentile speed of 33.4 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Rancho Arroyo Parkway

Limits: Niles Boulevard to Riviera Drive

Typical Cross-section

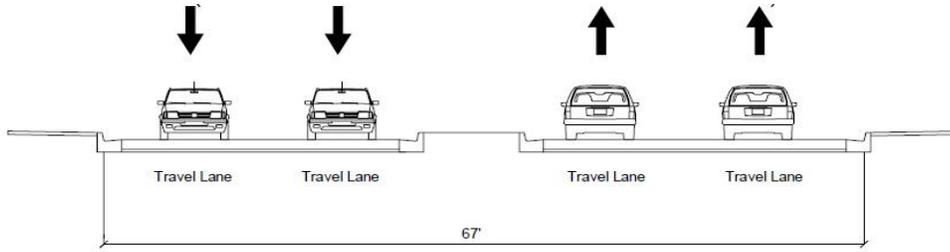


Diagram Not To Scale

Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
45							0		
							0		
							0		
							0		
	X						1	0.9%	100.0%
							0		
40							0		
	/						1	0.9%	99.1%
	/						1	0.9%	98.3%
	X						1	0.9%	97.4%
	/	/					2	1.7%	96.5%
35	X	X	X	/	/	/	9	7.8%	94.8%
	X	X	X	/			4	3.5%	87.0%
	X	X	X	/	/	/	10	8.7%	83.5%
	X	X	X	X	/		5	4.3%	74.8%
	X	X	X	X	X	/	13	11.3%	70.4%
30	X	X	X	/	/	/	11	9.6%	59.1%
	X	X	X	X	/	/	10	8.7%	49.6%
	X	X	X	X	/	/	9	7.8%	40.9%
	X	X	X	X	X	/	10	8.7%	33.0%
	X	/	/	/	/		5	4.3%	24.3%
25	X	X	/	/			4	3.5%	20.0%
	X	X	/				3	2.6%	16.5%
	X	X	X				3	2.6%	13.9%
	X	X	X	/	/	/	7	6.1%	11.3%
	X	X	X	/			4	3.5%	5.2%
20							0		
							0		
	/						1	0.9%	1.7%
							0		
15							1	0.9%	0.9%
							0		
							0		
							0		
10							0		
							0		

Total Samples = 115

85th Percentile Speed: 33.4 mph
50th Percentile Speed: 29.0 mph
15th Percentile Speed: 23.4 mph
10 MPH Pace: 26 - 35
Number in Pace: 86
Percent in Pace: 74.8%

Date of Survey: 3/5/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 2:10 PM
End Time: 3:10 PM
Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

115

STREET: Sabercat Road
FROM: Durham Road

SURVEY DATE: 3/18/2015
TO: Northerly end

SPEED DATA

Location of Speed Survey	43326 Sabercat Road	Posted Speed Limit	40 mph
Time of Speed Survey	12:40 PM - 2:30 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.6 mph	Speed Limit Change	No
85th Percentile Speed	43.7 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	80.2%		
Number of Survey Samples	101		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,480
Type of Traffic Control	Signal at Durham Road
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5450'
Width	34'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	None
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	No
Driveways?	None
Vertical Curve	Yes - Approximately northern 1700'
Horizontal Curve	Yes - Approximately northern 1700' and near Durham Rd
Visibility	Fair
Pavement Condition	Good
Adjacent Land Use	Rural and non-fronting residential

COMMENTS

The 85th-percentile speed of 43.7 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

116

STREET: Scott Creek Road
FROM: Warm Springs Boulevard

SURVEY DATE: 3/25/2015
TO: I-680

SPEED DATA

Location of Speed Survey	350 ft E/O Yampa Road	Posted Speed Limit	40 mph
Time of Speed Survey	1:50 PM - 2:30 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	42.0 mph	Speed Limit Change	No
85th Percentile Speed	46.3 mph	Speed Justification	85th-percentile speed downgraded due to high bicycle traffic
10 mph Pace Speed	38 - 47 mph		
Percentage of Vehicles in Pace	80.1%		
Number of Survey Samples	211		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.10
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	26,784
Type of Traffic Control	Traffic signal at Warm Springs Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2730'
Width	87'
Number of Lanes	EB - 1/2 WB - 1/2
Street Classification	Arterial - major
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - Between I-680 and Warm Springs Blvd
Horizontal Curve	Yes - Between I-680 and Yampa Zinfandel St
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 46.3 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to high bicycle traffic, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

117

STREET: Scott Creek Road
FROM: I-680

SURVEY DATE: 3/17/2015
TO: Easterly End

SPEED DATA

Location of Speed Survey	1665 Scott Creek Road	Posted Speed Limit	30 mph
Time of Speed Survey	9:20 AM - 11:20 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.4 mph	Speed Limit Change	Yes
85th Percentile Speed	35.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	25 - 34 mph		
Percentage of Vehicles in Pace	68.9%		
Number of Survey Samples	103		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.46

TRAFFIC FACTORS

Average Daily Traffic	1,031
Type of Traffic Control	Stop sign at Green Valley Rd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4185'
Width	40'
Number of Lanes	EB -1 /2 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	No
Driveways?	Few
Vertical Curve	Yes - 300' E/O Green Valley Rd
Horizontal Curve	Yes - 300' E/O Green Valley Rd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and church

COMMENTS

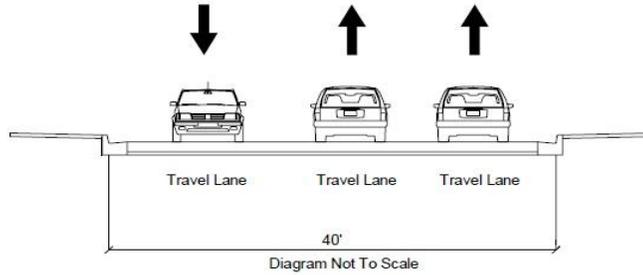
The 85th-percentile speed of 35.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 25 mph to 34 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Scott Creek Road

Limits: I-680 to Easterly End

Typical Cross-section



Radars Survey Sheet

X = East / = West

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
45							0		
							0		
							0		
							0		
	/						1	1.0%	100.0%
							0		
	/						1	1.0%	99.0%
40	/	/	/	/	/		5	4.9%	98.1%
	X	/					2	1.9%	93.2%
							0		
	X	/	/	/			4	3.9%	91.3%
	X	X	/				3	2.9%	87.4%
35	X	/	/	/	/	/	7	6.8%	84.5%
	X	X	X	X	/	/	9	8.7%	77.7%
	X	X	X	X	/	/	8	7.8%	68.9%
	X	X	X	X	/	/	7	6.8%	61.2%
	X	X	X	/	/	/	7	6.8%	54.4%
30	X	/	/	/	/	/	11	10.7%	47.6%
	X	X	X	X	/	/	8	7.8%	36.9%
	X	X	X	X	X		5	4.9%	29.1%
	X	X	X				3	2.9%	24.3%
	X	X	X	X	X	/	6	5.8%	21.4%
25	X	X	X	X	X	/	7	6.8%	15.5%
	X	X	X				3	2.9%	8.7%
	X	X	X	X	/		5	4.9%	5.8%
	X						1	1.0%	1.0%
							0		
20							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 103

85th Percentile Speed: 35.2 mph
50th Percentile Speed: 30.4 mph
15th Percentile Speed: 24.9 mph
10 MPH Pace: 25 - 34
Number in Pace: 71
Percent in Pace: 68.9%

Date of Survey: 3/17/15
Weather: Clear
Pavement Condition: Good
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 9:20 AM
End Time: 11:20 AM
Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

118

STREET: Shinn Street
FROM: Peralta Boulevard

SURVEY DATE: 3/6/2015
TO: Von Euw Common

SPEED DATA

Location of Speed Survey	Shinn St - 65 ft North of Bridges Court	Posted Speed Limit	25 mph
Time of Speed Survey	12:07 PM - 2:52 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	27.9 mph	Speed Limit Change	Yes
85th Percentile Speed	33.1 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	24 - 33 mph		
Percentage of Vehicles in Pace	67.5%		
Number of Survey Samples	120		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	769
Type of Traffic Control	Stop sign at Peralta Blvd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	1522'
Width	36'
Number of Lanes	NB - 1 SB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential and industrial

COMMENTS

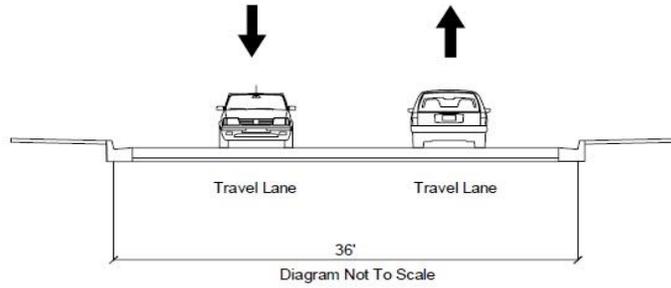
The 85th-percentile speed of 33.1 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 24 mph to 33 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment indicating a 30 mph speed limit. Therefore, it is recommended that the posted speed limit be increased to 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Shinn Street

Limits: Peralta Boulevard to Von Euw Common

**Typical
Cross-section**



Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
							0		
45							0		
							0		
							0		
							0		
	X						1	0.8%	100.0%
							0		
							0		
40							0		
	X	X					2	1.7%	99.2%
	/						1	0.8%	97.5%
	X						1	0.8%	96.7%
	/						1	0.8%	95.8%
35	X	X	/	/	/	/	6	5.0%	95.0%
	X	X	X	X	/	/	7	5.8%	90.0%
	X	X	X	/	/		5	4.2%	84.2%
	X	X	X	X	/	/	8	6.7%	80.0%
	X	X	X	X	/	/	6	5.0%	73.3%
30	X	X	X	X	/	/	11	9.2%	68.3%
	X	X	X	X	X	/	10	8.3%	59.2%
	X	X	X	X	X	/	8	6.7%	50.8%
	X	X	X	X	X	/	10	8.3%	44.2%
	X	/	/	/	/	/	7	5.8%	35.8%
25	X	X	X	/	/	/	8	6.7%	30.0%
	X	X	X	X	X	/	8	6.7%	23.3%
	X	/	/				3	2.5%	16.7%
	X	X	X	/	/	/	8	6.7%	14.2%
	X	X	X				3	2.5%	7.5%
20	X	/					2	1.7%	5.0%
	X	/					2	1.7%	3.3%
							0		
	/						1	0.8%	1.7%
							0		
15	X						1	0.8%	0.8%
							0		
							0		
							0		
							0		
10							0		

Total Samples = 120

85th Percentile Speed: 33.1 mph
50th Percentile Speed: 27.9 mph
15th Percentile Speed: 22.3 mph
10 MPH Pace: 24 - 33
Number in Pace: 81
Percent in Pace: 67.5%

Date of Survey: 3/6/15
Weather: Clear
Pavement Condition: Good
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 12:07 PM
End Time: 2:52 PM
Posted Speed: 25 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

119

STREET: Solar Way
FROM: Grimmer Boulevard

SURVEY DATE: 3/23/2015
TO: Technology Drive

SPEED DATA

Location of Speed Survey	4248 Solar Way	Posted Speed Limit	25 mph
Time of Speed Survey	9:58 AM - 12:58 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	26.5 mph	Speed Limit Change	Yes
85th Percentile Speed	30.7 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	22 - 31 mph		
Percentage of Vehicles in Pace	66.1%		
Number of Survey Samples	109		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	1,183
Type of Traffic Control	Stop signs at Grimmer Blvd, Technology Dr
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1680'
Width	39'
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Discontinuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between 4273 and 4311 Solar Way
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Office

COMMENTS

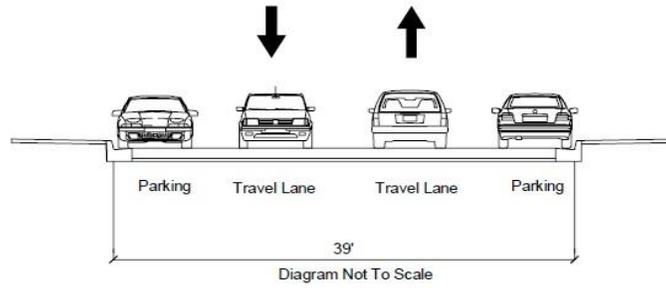
The 85th-percentile speed of 30.7 mph indicates a 30 mph speed limit. The 10 mph pace ranges from 22 mph to 31 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Solar Way

Limits: Grimmer Boulevard to Technology Drive

Typical Cross-section



Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
55							0		
							0		
							0		
							0		
							0		
50							0		
							0		
							0		
							0		
							0		
45							0		
							0		
							0		
							0		
40	X						1	0.9%	100.0%
							0		
							0		
	X						1	0.9%	99.1%
							0		
35	X X						2	1.8%	98.2%
	X X						2	1.8%	96.3%
	X X X X / / /						7	6.4%	94.5%
	X						1	0.9%	88.1%
	X X X X X / / /						8	7.3%	87.2%
30	X X X / /						5	4.6%	79.8%
	X X X X X X X / /						10	9.2%	75.2%
	X X X X X X / / / / / /						12	11.0%	66.1%
	X X X X / / / / / /						10	9.2%	55.0%
	X X X X X /						6	5.5%	45.9%
25	/ / / /						4	3.7%	40.4%
	X X / / /						5	4.6%	36.7%
	/ / / / /						5	4.6%	32.1%
	X X X X / / / /						7	6.4%	27.5%
	X X X / / / /						6	5.5%	21.1%
20	X /						2	1.8%	15.6%
	X X / /						4	3.7%	13.8%
	X /						2	1.8%	10.1%
	X						1	0.9%	8.3%
	X /						2	1.8%	7.3%
15	X X /						3	2.8%	5.5%
							0		
	/						1	0.9%	2.8%
							0		
	X						1	0.9%	1.8%
10	X						1	0.9%	0.9%
Total Samples =							109		

85th Percentile Speed: 30.7 mph
50th Percentile Speed: 26.5 mph
15th Percentile Speed: 19.7 mph
10 MPH Pace: 22 - 31
Number in Pace: 72
Percent in Pace: 66.1%

Date of Survey: 3/23/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Local
Field Study by: ATD / KHA

Start Time: 9:58 AM
End Time: 12:58 PM
Posted Speed: 25 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

120

STREET: Stevenson Boulevard
FROM: Mission Boulevard

SURVEY DATE: 3/12/2015
TO: Civic Center Drive

SPEED DATA

Location of Speed Survey	2200 Stevenson Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	1:20 PM - 2:00 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	41.4 mph	Speed Limit Change	No
85th Percentile Speed	46.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to proximity to a park, California School for the Blind, and California School for the Deaf
10 mph Pace Speed	37 - 46 mph		
Percentage of Vehicles in Pace	77.3%		
Number of Survey Samples	211		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.03
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	19,887
Type of Traffic Control	Traffic signals at Mission Blvd, Gallaudet Dr, Guardino Dr, Civic Center Dr
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	5292'
Width	96'
Number of Lanes	EB - 2/3 WB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between Albany Common and Civic Center Dr
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, police department, park, office, and school for the deaf

COMMENTS

The 85th-percentile speed of 46.2 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 37 mph to 46 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the proximity to California School for the Blind, California School for the Deaf, and Central Park, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

121

STREET: Stevenson Boulevard
FROM: Civic Center Drive

SURVEY DATE: 3/12/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	515 ft S/O Liberty Street	Posted Speed Limit	40 mph
Time of Speed Survey	12:00 PM - 12:50 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	37.2 mph	Speed Limit Change	No
85th Percentile Speed	41.9 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	33 - 42 mph		
Percentage of Vehicles in Pace	75.7%		
Number of Survey Samples	214		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	6
Collision Rate (ACC/MVM)	0.20
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	26,007
Type of Traffic Control	Traffic signals at Civic Center Dr, Paseo Padre Pkwy, Liberty St, Leslie St, Fremont Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	4260'
Width	107'
Number of Lanes	EB - 3 WB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between Civic Center Dr and Paseo Padre Pkwy
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, commercial, and library

COMMENTS

The 85th-percentile speed of 41.9 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

122

STREET: Stevenson Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/10/2015
TO: Blacow Road

SPEED DATA

Location of Speed Survey	4462 Stevenson Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	2:35 PM - 3:10 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.2 mph	Speed Limit Change	No
85th Percentile Speed	43.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	68.3%		
Number of Survey Samples	218		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	9
Collision Rate (ACC/MVM)	0.17
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	36,892
Type of Traffic Control	Traffic signals at Blacow Rd, Sundale Dr, Besco Dr, Davis St, and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	5303'
Width	72'
Number of Lanes	EB - 2/3 WB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Frontage road
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	No
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, commercial, and school

COMMENTS

The 85th-percentile speed of 43.9 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

123

STREET: Stevenson Boulevard
FROM: Blacow Road

SURVEY DATE: 3/10/2015
TO: I-880

SPEED DATA

Location of Speed Survey	450 ft N/O Omar St	Posted Speed Limit	40 mph
Time of Speed Survey	1:30 PM - 2:10 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.1 mph	Speed Limit Change	No
85th Percentile Speed	45.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to pace and consistency with adjacent segments
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	71.7%		
Number of Survey Samples	219		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	6
Collision Rate (ACC/MVM)	0.18
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	45,627
Type of Traffic Control	Traffic signals at I-880 Ramps, Omar St, and Blacow Road
Pedestrian Traffic	Moderate
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	2582'
Width	86'
Number of Lanes	EB - 3 WB - 3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	Yes - I-880 overpass
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, commercial, and school

COMMENTS

The 85th-percentile speed of 45.2 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit does not fall within this range. The collision rate for this segment is below the expected rate. Due to the pace speed and to be consistent with the adjacent segments, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

124

STREET: Stevenson Boulevard
FROM: I-880

SURVEY DATE: 3/19/2015
TO: Westerly End

SPEED DATA

Location of Speed Survey	6346 Stevenson Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	11:00 AM - 11:45 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.1 mph	Speed Limit Change	No
85th Percentile Speed	42.9 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	34 - 43 mph		
Percentage of Vehicles in Pace	76.1%		
Number of Survey Samples	218		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	20,363
Type of Traffic Control	Traffic signals at Boyce rd, Cedar Blvd, Balentine Dr, I-880 ramps
Pedestrian Traffic	Moderate
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	9473'
Width	108'
Number of Lanes	EB - 2 WB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes - Discontinuous
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - at Boyce Rd
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential, apartments, commercial, and office

COMMENTS

The 85th-percentile speed of 42.9 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 34 mph to 43 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

125

STREET: Stewart Avenue
FROM: Albrae Street

SURVEY DATE: 3/20/2015
TO: Boyce Road

SPEED DATA

Location of Speed Survey	5977 Stewart Avenue	Posted Speed Limit	30 mph
Time of Speed Survey	12:25 PM - 1:25 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	36.4 mph	Speed Limit Change	Yes
85th Percentile Speed	41.8 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	33 - 42 mph		downgraded 5 mph due to high
Percentage of Vehicles in Pace	75.8%		truck traffic and consistency to
Number of Survey Samples	157		surrounding streets

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.46

TRAFFIC FACTORS

Average Daily Traffic	3/2/1913
Type of Traffic Control	Stop signs at Boyce Rd and Albrae St
Pedestrian Traffic	Low
Truck Traffic	High

ROADWAY CHARACTERISTICS

Length of Segment	3765'
Width	44'
Number of Lanes	EB - 1 WB - 1
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - East side only
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Industrial

COMMENTS

The 85th-percentile speed of 41.8 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the high truck traffic and for consistency with surrounding segments, a downgrading of the speed limit by 5 mph is justified, indicating a 35 mph speed limit. Therefore, it is recommended that the posted speed limit be increased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

126

STREET: Sundale Drive
FROM: Liberty Street

SURVEY DATE: 3/11/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	3587 Sundale Drive	Posted Speed Limit	30 mph
Time of Speed Survey	1:35 PM - 2:35 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.8 mph	Speed Limit Change	No
85th Percentile Speed	36.6 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to proximity to hospital and senior housing
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	73.7%		
Number of Survey Samples	171		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.46

TRAFFIC FACTORS

Average Daily Traffic	3,556
Type of Traffic Control	Traffic sign at Fremont Blvd; stop sign at Liberty St
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1694'
Width	64'
Number of Lanes	NB - 1/2 SB - 1
Street Classification	Collector
Divided Median?	Yes - Two-way left-turn lane
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - between Fremont Blvd and Leslie St
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, commercial, hospital, office, and senior housing

COMMENTS

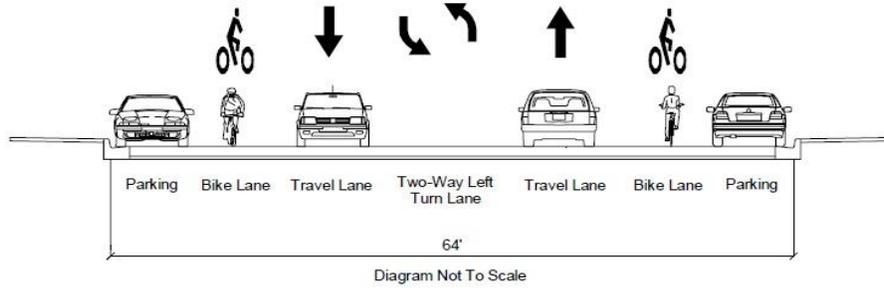
The 85th-percentile speed of 36.6 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the proximity to Fremont Hospital and senior housing, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 30 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Sundale Drive

Limits: Liberty Street to Fremont Boulevard

Typical Cross-section



Radars Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60							0		
							0		
							0		
							0		
							0		
							0		
							0		
							0		
50	X						1	0.6%	100.0%
	/						0		
	/						1	0.6%	99.4%
	/						0		
	/						1	0.6%	98.8%
45	X	X	/				3	1.8%	98.2%
							0		
	X	X	X				3	1.8%	96.5%
							0		
							0		
40	X	X	X	/			4	2.3%	94.7%
	X	X	/	/			4	2.3%	92.4%
	X	X	X	/	/		5	2.9%	90.1%
	X	X	X	X	/	/	10	5.8%	87.1%
	X	X	X	X	X	/	8	4.7%	81.3%
35	X	X	X	/	/	/	9	5.3%	76.6%
	X	X	X	X	/	/	9	5.3%	71.3%
	X	X	X	X	/	/	7	4.1%	66.1%
	X	X	X	X	X	X	16	9.4%	62.0%
	X	X	X	X	X	X	21	12.3%	52.6%
30	X	X	X	X	X	X	14	8.2%	40.4%
	X	X	X	X	X	X	13	7.6%	32.2%
	X	X	X	X	X	X	19	11.1%	24.6%
	X	X	X	X	X	/	9	5.3%	13.5%
	X	/	/	/	/	/	9	5.3%	8.2%
25	X	/					2	1.2%	2.9%
	X	X	/				3	1.8%	1.8%
							0		
							0		
20							0		
							0		
							0		
							0		
							0		
15							0		
							0		
							0		
							0		
10							0		

Total Samples = 171

85th Percentile Speed: 36.6 mph
50th Percentile Speed: 30.8 mph
15th Percentile Speed: 27.1 mph
10 MPH Pace: 27 - 36
Number in Pace: 126
Percent in Pace: 73.7%

Date of Survey: 3/11/15
Weather: Clear
Pavement Condition: Good
Street Class.: Collector
Field Study by: ATD / KHA

Start Time: 1:35 PM
End Time: 2:35 PM
Posted Speed: 30 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

127

STREET: Technology Drive
FROM: Grimmer Boulevard

SURVEY DATE: 3/18/2015
TO: Auto Mall Parkway

SPEED DATA

Location of Speed Survey	4348 Technology Drive	Posted Speed Limit	30 mph
Time of Speed Survey	1:25 PM - 2:45 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.9 mph	Speed Limit Change	Yes
85th Percentile Speed	35.5 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	83.9%		
Number of Survey Samples	118		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.63
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	2,189
Type of Traffic Control	Signals at Grimmer Blvd and Auto Mall Pkwy
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	2635'
Width	44'
Number of Lanes	NB - 1 SB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Solar Way and Technology Ct
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office and industrial

COMMENTS

The 85th Percentile speed of 35.5 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th Percentile speed, it is recommended that the posted speed limit be increased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

128

STREET: Thornton Avenue
FROM: Fremont Boulevard

SURVEY DATE: 3/4/2015
TO: Paseo Padre Pkwy

SPEED DATA

Location of Speed Survey	3781 Thornton Avenue	Posted Speed Limit	35 mph
Time of Speed Survey	1:30 PM - 2:30 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	37.0 mph	Speed Limit Change	Yes
85th Percentile Speed	41.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	33 - 42 mph		
Percentage of Vehicles in Pace	83.4%		
Number of Survey Samples	175		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.10
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	18,629
Type of Traffic Control	Traffic signals at Fremont Blvd, Moraine St, and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1995'
Width	82'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - Near Post St
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	Yes - Between Moraine St and Post St
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, and commercial

COMMENTS

The 85th-percentile speed of 41.4 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 33 mph to 42 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

129

STREET: Vargas Road
FROM: I-680

SURVEY DATE: 3/12/2015
TO: 600' north of Pico Road

SPEED DATA

Location of Speed Survey	41888 Vargas Road	Posted Speed Limit	35 mph
Time of Speed Survey	2:30 PM - 3:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	31.0 mph	Speed Limit Change	No
85th Percentile Speed	37.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	26 - 35 mph		
Percentage of Vehicles in Pace	63.8%		
Number of Survey Samples	80		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	2.75
Expected Collisions (ACC/MVM)	1.37

TRAFFIC FACTORS

Average Daily Traffic	390
Type of Traffic Control	None
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	3376'
Width	38'
Number of Lanes	EB - 1 WB - 1
Street Classification	Local
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	No
Driveways?	Few
Vertical Curve	Yes - Castro Ln
Horizontal Curve	Yes - Castro Ln
Visibility	Poor
Pavement Condition	Moderate
Adjacent Land Use	Non-fronting residential

COMMENTS

The 85th-percentile speed of 37.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is above the expected rate. Although the collision rate would indicate a downgrading of 5 mph is justified, there was only 1 collision on the route in 4 years. Therefore, based on the 85th-percentile speed, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

130

STREET: Walnut Avenue
FROM: Argonaut Way

SURVEY DATE: 3/11/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	Walnut Ave 100 feet south of Ross Common	Posted Speed Limit	30 mph
Time of Speed Survey	12:40 PM - 1:20 PM	Recommended Speed Limit	30 mph
50th Percentile Speed (Mean Speed)	30.3 mph	Speed Limit Change	No
85th Percentile Speed	35.2 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to high pedestrian activity and uncontrolled crosswalk
10 mph Pace Speed	27 - 36 mph		
Percentage of Vehicles in Pace	76.8%		
Number of Survey Samples	207		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	5
Collision Rate (ACC/MVM)	1.01
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	13,209
Type of Traffic Control	Traffic signal at Fremont Blvd; roundabout at Argonaut Wy
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1360'
Width	64'
Number of Lanes	NB - 1/2 SB - 1/2
Street Classification	Collector
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	Yes - at Roundabout
On-Street Parking?	Yes
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial and apartments

COMMENTS

The 85th-percentile speed of 35.2 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 27 mph to 36 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the high pedestrian activity and uncontrolled crosswalk, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 30 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

131

STREET: Walnut Avenue
FROM: Fremont Boulevard

SURVEY DATE: 3/11/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	3800 Walnut Avenue	Posted Speed Limit	35 mph
Time of Speed Survey	11:40 AM - 12:15 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.3 mph	Speed Limit Change	No
85th Percentile Speed	41.2 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	30 - 39 mph		downgraded 5 mph due to pace
Percentage of Vehicles in Pace	69.3%		speed and moderate pedestrian
Number of Survey Samples	215		activity

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	3
Collision Rate (ACC/MVM)	0.26
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,591
Type of Traffic Control	Traffic signals at Fremont Blvd, Liberty St, and Paseo Padre Pkwy
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2659'
Width	82'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	Yes - Near California St
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, apartments, medical center, and Downtown City Center

COMMENTS

The 85th-percentile speed of 41.2 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 30 mph to 39 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Due to the pace speed and moderate pedestrian activity, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

132

STREET: Walnut Avenue
FROM: Paseo Padre Parkway

SURVEY DATE: 3/4/2015
TO: Mission Boulevard

SPEED DATA

Location of Speed Survey	Walnut Ave - 600 ft N. of Guardino Drive	Posted Speed Limit	35 mph
Time of Speed Survey	12:45 PM - 1:30 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	39.4 mph	Speed Limit Change	No
85th Percentile Speed	42.3 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to fronting residential and proximity to California School for the Blind and California School for the Deaf
10 mph Pace Speed	35 - 44 mph		
Percentage of Vehicles in Pace	86.3%		
Number of Survey Samples	226		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	6
Collision Rate (ACC/MVM)	0.24
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	13,045
Type of Traffic Control	Traffic signals at Paseo Padre Pkwy, Civic Center Dr, Bart Wy, Guardino Dr, Gallaudet Dr, and Mission Blvd
Pedestrian Traffic	High
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	6944'
Width	76'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	Yes - At Godfrey St
On-Street Parking?	Yes - Between Langtry Ct and Cherry Ln on west side
Sidewalks?	Yes- Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting and fronting residential, apartments, BART station, church, park, farm, school for the deaf and blind

COMMENTS

The 85th-percentile speed of 42.3 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the fronting residential and proximity to California School for the Deaf and California School for the Blind, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Walnut Avenue

Limits: Paseo Padre Parkway to Mission Boulevard

Typical Cross-section

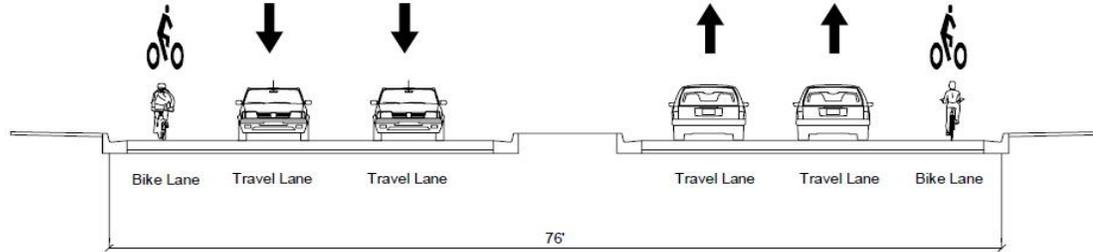


Diagram Not To Scale

Radars Survey Sheet

X = North / = South

	5	10	15	20	25	30		
60							0	
							0	
							0	
							0	
55	/						1	0.4% 100.0%
							0	
							0	
							0	
50							0	
							0	
	/	/					2	0.9% 99.6%
	X	X	X	/	/	/	6	2.7% 98.7%
45	X	X					2	0.9% 96.0%
	X	X	X	X	X	X	11	4.9% 95.1%
	X	X	X	X	X	X	16	7.1% 90.3%
	X	X	X	X	X	X	27	11.9% 83.2%
	X	X	X	X	X	X	36	15.9% 71.2%
40	X	X	X	X	X	X	21	9.3% 55.3%
	X	X	X	X	X	X	28	12.4% 46.0%
	X	X	X	X	X	X	21	9.3% 33.6%
	X	X	X	X	X	X	16	7.1% 24.3%
	X	X	X	/	/	/	8	3.5% 17.3%
35	X	X	X	X	X	X	11	4.9% 13.7%
	X	X	X	/	/	/	9	4.0% 8.8%
	X	/	/	/	/		5	2.2% 4.9%
	X						1	0.4% 2.7%
	/	/	/				3	1.3% 2.2%
30	/						1	0.4% 0.9%
	X						1	0.4% 0.4%
							0	
							0	
25							0	
							0	
							0	
							0	
20							0	
							0	
							0	
							0	
15							0	
							0	
							0	
							0	
10							0	

Total Samples = 226

85th Percentile Speed: 42.3 mph
50th Percentile Speed: 39.4 mph
15th Percentile Speed: 35.4 mph
10 MPH Pace: 35 - 44
Number in Pace: 195
Percent in Pace: 86.3%

Date of Survey: 3/4/15
Weather: Clear
Pavement Condition: Good
Street Class.: Arterial - minor
Field Study by: ATD / KHA

Start Time: 12:45 PM
End Time: 1:30 PM
Posted Speed: 35 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

133

STREET: Warm Springs Boulevard
FROM: Grimmer Boulevard

SURVEY DATE: 2/23/2015
TO: Warren Avenue

SPEED DATA

Location of Speed Survey	46101 Warm Spring Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	2:15 PM - 2:35 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.9 mph	Speed Limit Change	Yes
85th Percentile Speed	37.4 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	26-35 mph		
Percentage of Vehicles in Pace	57.3%		
Number of Survey Samples	232		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	7
Collision Rate (ACC/MVM)	0.28
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	20,103
Type of Traffic Control	Traffic signals at Warren Ave, Mission Blvd, Mission Ct, Fulton Pl, and Grimmer Blvd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	7390'
Width	85'
Number of Lanes	NB - 1/2 SB - 2/3
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	At Warm Springs Ct
Sidewalks?	Yes - Continuous
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Commercial, apartments, and office

COMMENTS

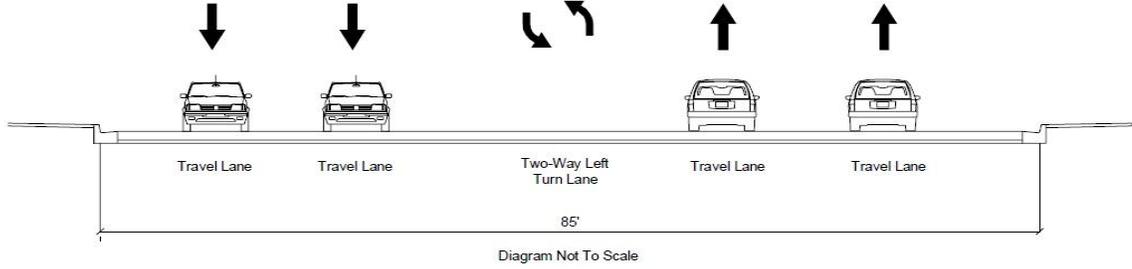
The 85th-percentile speed of 37.4 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be decreased to 35 mph.

**City of Fremont
Transportation Engineering Division**

Street Name: Warm Springs Boulevard

Limits: Grimmer Boulevard to Warren Avenue

Typical Cross-section



Radar Survey Sheet

X = North / = South

	5	10	15	20	25	30		
60							0	
							0	
							0	
							0	
							0	
55							0	
							0	
							0	
							0	
50							0	
							0	
	X						1	0.4% 100.0%
							0	
							0	
45	X						1	0.4% 99.6%
	X						1	0.4% 99.1%
	X /						2	0.9% 98.7%
	X X /						3	1.3% 97.8%
	/ /						2	0.9% 96.6%
40	X X X X / / / /						8	3.4% 95.7%
	X X X X / / / / / / / /						11	4.7% 92.2%
	X X X / / / / / / / / / /						10	4.3% 87.5%
	X X X / / / / / / / / / /						14	6.0% 83.2%
	X X X X X X X / / / / / / / /						14	6.0% 77.2%
35	X X X X X X X / / / / / / / /						16	6.9% 71.1%
	X X X X X / / / / / / / /						13	5.6% 64.2%
	X X X X X X / / / /						9	3.9% 58.6%
	X X X / / / / / / / /						9	3.9% 54.7%
	X X X X X X X / / / / / / / /						15	6.5% 50.9%
30	X X X X X X X / / / / / / / /						13	5.6% 44.4%
	X X X X X X X / / / / / / / / / /						17	7.3% 38.8%
	X X X X X X X / / / / / / / /						12	5.2% 31.5%
	X X X X X X X X / / / / / / / /						13	5.6% 26.3%
	X X X X X X X X X X / / / / / / / /						16	6.9% 20.7%
25	X X X X X / / / / / / / /						11	4.7% 13.8%
	X / / / / / / / /						3	1.3% 9.1%
	X X X X / / / / / / / /						5	2.2% 7.8%
	X X / / / / / / / /						6	2.6% 5.6%
	X X / / / / / / / /						2	0.9% 3.0%
20	X / / / / / / / /						1	0.4% 2.2%
	X / / / / / / / /						2	0.9% 1.7%
	/ / / / / / / /						1	0.4% 0.9%
	/ / / / / / / /						0	
	/ / / / / / / /						1	0.4% 0.4%
15							0	
							0	
							0	
							0	
							0	
10							0	
							0	

Total Samples = 232

85th Percentile Speed: 37.4 mph
50th Percentile Speed: 30.9 mph
15th Percentile Speed: 25.2 mph
10 MPH Pace: 26-35
Number in Pace: 133
Percent in Pace: 57.3%

Date of Survey: 2/23/15
Weather: Clear
Pavement Condition: Moderate
Street Class.: Arterial - major
Field Study by: ATD / KHA

Start Time: 2:15 PM
End Time: 2:35 PM
Posted Speed: 40 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

134

STREET: Warm Springs Boulevard
FROM: Warren Avenue

SURVEY DATE: 3/26/2015
TO: City Limits

SPEED DATA

Location of Speed Survey	48201 Warm Springs Boulevard	Posted Speed Limit	45 mph
Time of Speed Survey	1:17 PM - 1:37 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.9 mph	Speed Limit Change	Yes
85th Percentile Speed	46.8 mph	Speed Justification	85th-percentile speed downgraded 5 mph due to proximity to school and moderate pedestrian activity
10 mph Pace Speed	38-47 mph		
Percentage of Vehicles in Pace	67.4%		
Number of Survey Samples	218		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	4
Collision Rate (ACC/MVM)	0.06
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	22,168
Type of Traffic Control	Traffic signal at Warren Ave, Lippert Ave, Gable Dr, Mayten Wy, Tonopah Dr, and Scott Creek Rd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	10608'
Width	78'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes - Continuous on east side; discontinuous on west side
Driveways?	Few
Vertical Curve	No
Horizontal Curve	No
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Non-fronting residential, apartments, office, commercial, cemetery, church, and elementary school

COMMENTS

The 85th-percentile speed of 46.8 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 38 mph to 47 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to proximity to Warm Springs Elementary School and moderate pedestrian activity, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit be decreased to 40 mph.

City of Fremont

Transportation Engineering Division

Street Name: Warm Springs Boulevard

Limits: Warren Avenue to City Limits

Typical Cross-section

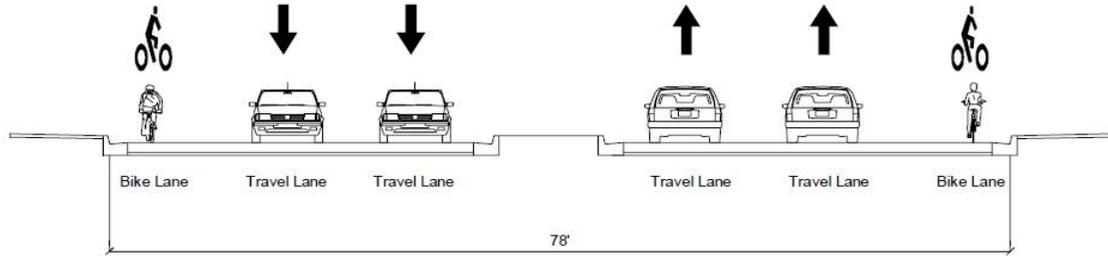


Diagram Not To Scale

Radars Survey Sheet

X = North / = South

	5	10	15	20	25	30			
60								0	
								0	
								0	
	X							1	0.5%
	X	/	/					3	1.4%
55	/							1	0.5%
	/							1	0.5%
	X							1	0.5%
	/	/	/	/				4	1.8%
	X	/	/					3	1.4%
50	X	/	/	/	/			5	2.3%
	X	/	/	/				4	1.8%
	X	X	X	/	/	/	/	7	3.2%
	X	X	X	/	/	/	/	13	6.0%
	X	X	X	/	/	/	/	8	3.7%
45	X	X	X	X	X	/	/	14	6.4%
	X	X	X	X	X	/	/	10	4.6%
	X	X	X	X	X	/	/	14	6.4%
	X	X	X	X	X	X	X	19	8.7%
	X	X	X	X	X	X	X	18	8.3%
40	X	X	X	X	X	X	X	16	7.3%
	X	X	X	X	X	X	X	15	6.9%
	X	X	X	X	X	X	X	20	9.2%
	X	X	X	X	X	X	/	9	4.1%
	X	X	X	X	X	X	/	8	3.7%
35	X	X	X	/				4	1.8%
	X	X	/					3	1.4%
	X	X	/	/				4	1.8%
	X							1	0.5%
	X	/	/	/				4	1.8%
30	X	/	/	/	/			5	2.3%
								0	
	/							1	0.5%
	/							1	0.5%
								0	
25	/							1	0.5%
								0	
								0	
								0	
20								0	
								0	
								0	
								0	
15								0	
								0	
								0	
								0	
10								0	

Total Samples = 218

85th Percentile Speed: 46.8 mph
 50th Percentile Speed: 40.9 mph
 15th Percentile Speed: 36.1 mph
 10 MPH Pace: 38-47
 Number in Pace: 147
 Percent in Pace: 67.4%

Date of Survey: 3/26/15
 Weather: Clear
 Pavement Condition: Good
 Street Class.: Arterial - major
 Field Study by: ATD / KHA

Start Time: 1:17 PM
 End Time: 1:37 PM
 Posted Speed: 45 mph

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

135

STREET: Warren Avenue
FROM: Curtner Road

SURVEY DATE: 3/20/2015
TO: Warm Springs Boulevard

SPEED DATA

Location of Speed Survey	Warren Ave - 300 ft W. Of Windmill Drive	Posted Speed Limit	35 mph
Time of Speed Survey	9:30 AM - 11:15 AM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	35.4 mph	Speed Limit Change	No
85th Percentile Speed	40.0 mph	Speed Justification	85th-percentile speed downgraded due to uncontrolled crosswalk and proximity to school
10 mph Pace Speed	32-41 mph		
Percentage of Vehicles in Pace	81.3%		
Number of Survey Samples	107		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	4,910
Type of Traffic Control	Traffic signal at Fernald St and Warm Springs Blvd; Stop sign at Curtner Rd and Yakima Dr
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5529'
Width	83'
Number of Lanes	NB - 2 SB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes - Discontinuous
Uncontrolled Crosswalks?	Yes - At Bradley St
On-Street Parking?	Yes - Near James Leitch Elementary School
Sidewalks?	Yes- Discontinuous
Driveways?	Few
Vertical Curve	Yes - E/O I-680
Horizontal Curve	Yes - Yakima Dr
Visibility	Good
Pavement Condition	Moderate
Adjacent Land Use	Fronting and non-fronting residential, apartments, commercial, school, and church

COMMENTS

The 85th-percentile speed of 40.0 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 32 mph to 41 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Due to the uncontrolled crosswalk and proximity to James Leitch Elementary School, a downgrading of the speed limit by 5 mph is justified. Therefore, it is recommended that the posted speed limit remains at 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

136

STREET: Warren Avenue
FROM: Warm Springs Boulevard

SURVEY DATE: 3/26/2015
TO: I-880

SPEED DATA

Location of Speed Survey	Warren 400 ft W. of Warm Springs Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	39.8 mph	Speed Limit Change	No
85th Percentile Speed	43.1 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35-44 mph		
Percentage of Vehicles in Pace	87.8%		
Number of Survey Samples	205		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	1
Collision Rate (ACC/MVM)	0.06
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	20,426
Type of Traffic Control	Traffic signals at Warm Springs Blvd, Kato Rd, and I-880 Ramps
Pedestrian Traffic	Low
Truck Traffic	Moderate

ROADWAY CHARACTERISTICS

Length of Segment	2905'
Width	82'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	Yes - I-880 Overpass and railroad underpass
Horizontal Curve	Yes - I-880 Overpass
Visibility	Fair
Pavement Condition	Good
Adjacent Land Use	Commercial and office

COMMENTS

The 85th-percentile speed of 43.1 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit is above this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

137

STREET: Warren Avenue
FROM: I-880

SURVEY DATE: 3/23/2015
TO: Fremont Boulevard

SPEED DATA

Location of Speed Survey	Warren Ave - 600 Feet E. of Fremont Boulevard	Posted Speed Limit	35 mph
Time of Speed Survey	11:30 AM - 12:15 PM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	36.4 mph	Speed Limit Change	Yes
85th Percentile Speed	40.5 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	31 - 40 mph		
Percentage of Vehicles in Pace	77.7%		
Number of Survey Samples	211		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	8,424
Type of Traffic Control	Traffic signals at I-880 Ramps, Lakeview Blvd, Landing Pkwy (future), and Fremont Blvd
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	2298'
Width	68'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - minor
Divided Median?	No
Designated Bike Route?	No
Bike Lanes?	No
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Office

COMMENTS

The 85th-percentile speed of 40.5 mph indicates a 40 mph speed limit. The 10 mph pace ranges from 31 mph to 40 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

138

STREET: Washington Boulevard
FROM: Fremont Boulevard

SURVEY DATE: 3/11/2015
TO: Driscoll Road

SPEED DATA

Location of Speed Survey	3909 Washington Boulevard	Posted Speed Limit	25 mph
Time of Speed Survey	2:50 PM - 3:40 PM	Recommended Speed Limit	35 mph
50th Percentile Speed (Mean Speed)	30.3 mph	Speed Limit Change	Yes
85th Percentile Speed	34.6 mph	Speed Justification	85th-percentile speed
10 mph Pace Speed	26-35 mph		
Percentage of Vehicles in Pace	82.8%		
Number of Survey Samples	238		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	2
Collision Rate (ACC/MVM)	0.02
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	27,143
Type of Traffic Control	Traffic signals at Fremont Blvd, Roberts Ave, and Driscoll Rd
Pedestrian Traffic	Moderate
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	1680'
Width	64'
Number of Lanes	EB - 2/3 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	No
On-Street Parking?	No
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	Yes - E/O Fremont Blvd
Horizontal Curve	Yes - E/O Fremont Blvd
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Commercial, church, and preschool

COMMENTS

The 85th-percentile speed of 34.6 mph indicates a 35 mph speed limit. The 10 mph pace ranges from 26 mph to 35 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on the 85th-percentile speed, it is recommended that the posted speed limit be increased to 35 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

139

STREET: Washington Boulevard
FROM: Driscoll Road

SURVEY DATE: 3/12/2015
TO: Paseo Padre Parkway

SPEED DATA

Location of Speed Survey	1500 Washington Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	10:35 AM - 11:15 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	38.8 mph	Speed Limit Change	No
85th Percentile Speed	43.5 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	35-44 mph		
Percentage of Vehicles in Pace	76.5%		
Number of Survey Samples	221		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	6
Collision Rate (ACC/MVM)	0.24
Expected Collisions (ACC/MVM)	1.45

TRAFFIC FACTORS

Average Daily Traffic	15,896
Type of Traffic Control	Traffic signal at Osgood Rd, Meredith Dr, I-680 Ramps, and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	5805'
Width	78'
Number of Lanes	EB - 2 WB - 2
Street Classification	Arterial - major
Divided Median?	Yes
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Olive Ave
On-Street Parking?	Yes - On north side only
Sidewalks?	Yes
Driveways?	Many
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, commercial, and church

COMMENTS

The 85th-percentile speed of 43.5 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 35 mph to 44 mph and the suggested speed limit does not fall within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

CITY OF FREMONT

ENGINEERING AND TRAFFIC SURVEY

140

STREET: Washington Boulevard
FROM: Paseo Padre Parkway

SURVEY DATE: 3/19/2015
TO: Mission Boulevard

SPEED DATA

Location of Speed Survey	601 Washington Boulevard	Posted Speed Limit	40 mph
Time of Speed Survey	9:30 AM - 10:30 AM	Recommended Speed Limit	40 mph
50th Percentile Speed (Mean Speed)	40.6 mph	Speed Limit Change	No
85th Percentile Speed	44.0 mph	Speed Justification	85th-percentile speed rounded down per CVC Section 21400(b)
10 mph Pace Speed	36-45 mph		
Percentage of Vehicles in Pace	88.5%		
Number of Survey Samples	217		

COLLISION HISTORY

Number of Years Studied	4
Total Collisions	0
Collision Rate (ACC/MVM)	0.00
Expected Collisions (ACC/MVM)	1.85

TRAFFIC FACTORS

Average Daily Traffic	13,729
Type of Traffic Control	Traffic signal at Mission Blvd and Paseo Padre Pkwy
Pedestrian Traffic	Low
Truck Traffic	Low

ROADWAY CHARACTERISTICS

Length of Segment	4116'
Width	82'
Number of Lanes	EB - 2 WB - 2
Street Classification	Collector
Divided Median?	No
Designated Bike Route?	Yes
Bike Lanes?	Yes
Uncontrolled Crosswalks?	At Gallegos Ave, Jerome Ave, Coit Ave, and Bryant St
On-Street Parking?	Yes
Sidewalks?	Yes
Driveways?	Few
Vertical Curve	None
Horizontal Curve	None
Visibility	Good
Pavement Condition	Good
Adjacent Land Use	Fronting and non-fronting residential, commercial, and school

COMMENTS

The 85th-percentile speed of 44.0 mph indicates a 45 mph speed limit. The 10 mph pace ranges from 36 mph to 45 mph and the suggested speed limit falls within this range. The collision rate is below the expected rate. Based on CVC Section 21400(b), the 85th-percentile speed was rounded down to the nearest 5 mph increment. Therefore, it is recommended that the posted speed limit remains at 40 mph.

