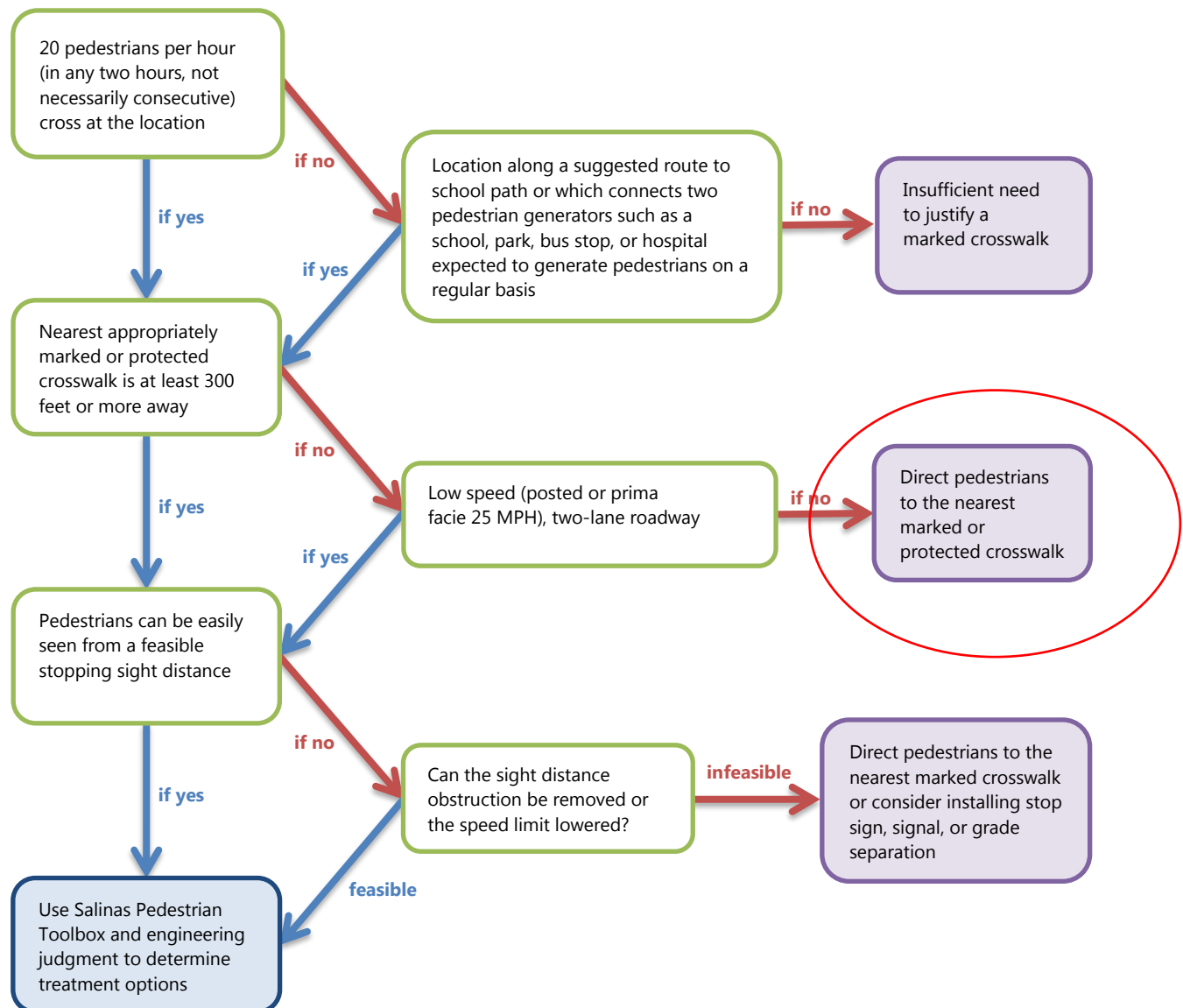


Figure 6: Feasibility Analysis for Treatments at Uncontrolled Locations



Note: Where no engineering action is recommended in Chart 2, consider applicable education and enforcement efforts.



Table 1. Recommendations for installing marked crosswalks and other needed pedestrian improvements at uncontrolled locations.*

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT ≤ 9,000			Vehicle ADT >9000 to 12,000			Vehicle ADT >12,000 - 15,000			Vehicle ADT > 15,000		
	Speed Limit**											
	≤ 30 mi/h	35 mi/h	40 mi/h	≤ 30 mi/h	35 mi/h	40 mi/h	≤ 30 mi/h	35 mi/h	40 mi/h	≤ 30 mi/h	35 mi/h	40 mi/h
2 Lanes	C	C	P	C	C	P	C	C	N	C	P	N
3 Lanes	C	C	P	C	P	P	P	P	N	P	N	N
Multi-Lane (4 or More Lanes) With Raised Median***	C	C	P	C	P	N	P	P	N	N	N	N
Multi-Lane (4 or More Lanes) Without Raised Median	C	P	N	P	P	N	N	N	N	N	N	N

* These guidelines include intersection and midblock locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. A two-way center turn lane is not considered a median. Crosswalks should not be installed at locations that could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, a substantial volume of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone **will not** make crossings safer, nor will they necessarily result in more vehicles stopping for pedestrians. Whether or not marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (e.g., raised median, traffic signal, roadway narrowing, enhanced overhead lighting, traffic-calming measures, curb extensions), as needed, to improve the safety of the crossing. **These are general recommendations; good engineering judgment should be used in individual cases for deciding where to install crosswalks.**

** Where the speed limit exceeds 40 mi/h (64.4 km/h) marked crosswalks alone should not be used at unsignalized locations.

C = Candidate sites for marked crosswalks. Marked crosswalks must be installed carefully and selectively. Before installing new marked crosswalks, an engineering study is needed to determine whether the location is suitable for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, while a more in-depth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, etc. may be needed at other sites. It is recommended that a minimum of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) exist at a location before placing a high priority on the installation of a marked crosswalk alone.

P = Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements. These locations should be closely monitored and enhanced with other pedestrian crossing improvements, if necessary, before adding a marked crosswalk.

N = Marked crosswalks alone are insufficient, since pedestrian crash risk may be increased due to providing marked crosswalks alone. Consider using other treatments, such as traffic-calming treatments, traffic signals with pedestrian signals where warranted, or other substantial crossing improvement to improve crossing safety for pedestrians.

*** The raised median or crossing island must be at least 4 ft (1.2 m) wide and 6 ft (1.8 m) long to adequately serve as a refuge area for pedestrians in accordance with MUTCD and American Association of State Highway and Transportation Officials (AASHTO) guidelines.

With these studies as a backdrop, the remainder of this chapter outlines a decision making process to identify appropriate treatments and presents a variety of treatment options to mitigate safety, visibility, or operational concerns at specific locations.

TREATMENT SELECTION

At uncontrolled locations, a marked crosswalk with striping only may not provide adequate visibility to the pedestrian crossing, especially at high volume, high speed, or multi-lane crossings. Enhancements should



TABLE 3: EXISTING STUDY SEGMENT VOLUMES AND LOS

Name	Functional Class	No. of Lanes	Observed Daily Volume (Average)	Segment LOS	Jurisdiction
Boronda Road between McKinnon Street and El Dorado Drive	Arterial	2	21,088	F	City
Boronda Road between N Davis Road and US-101	Divided Arterial	4	19,608	A	City
Boronda Road between N Main Street and San Juan Grade Road	Divided Arterial	4	22,896	B	City
Boronda Road between US-101 and N Main Street	Expressway	6	40,996	B	City
Castroville Road (SR 183) between Boronda Road and San Jon Road (Caltrans)	Collector	4	7,869	A	Caltrans
Castroville Road (SR183) between Espinosa Road and SR 156 (Caltrans)	Arterial	2	18,890	F	Caltrans
Constitution Boulevard between E Laurel Drive and Independence Boulevard (use City monitoring counts)	Divided Arterial	4	24,990	B	City
Constitution Boulevard between Independence Boulevard and E Boronda Road	Collector	4	8,601	A	City
Crazy Horse Canyon Road south of US-101	Collector	2	5,184	A	County
Davis Road between West Market Street and Central Avenue	Arterial	2	31,678	F	City
Davis Road south of Blanco Road	Collector	2	6,595	B	County
E Alisal Street between US-101 and Sanborn Road	Divided Arterial	4	15,657	A	City
E Alisal Street between Williams Road/John Street and Bardin Road	Arterial	2	12,693	C	City
E Blanco Road between SR 68 and Abbott Street	Divided Arterial	4	18,756	A	City



TURNING MOVEMENT PROGRAM

Constitution Blvd. @ Manchester Dr.
Weather: Clear

File Name : Constitution Blvd at Manchester Dr.

Site Code :

Start Date : 6/21/2018

Page No : 1

Groups Printed- Vehicles - Axles 2 & 3 - Axles 4 & Up

	Manchester Dr. From North					Constitution Blvd. From East					Manchester Dr. From South					Constitution Blvd. From West					
Start Time	Right	Thru	Left	UTrn	Peds	Right	Thru	Left	UTrn	Peds	Right	Thru	Left	UTrn	Peds	Right	Thru	Left	UTrn	Peds	Int. Total
07:00 AM	9	0	0	0	0	8	113	8	1	0	18	0	0	0	0	1	258	7	0	0	423
07:15 AM	6	0	0	0	0	8	86	4	1	0	12	0	0	0	0	3	211	12	0	0	343
07:30 AM	1	0	0	0	0	10	88	3	0	1	7	0	0	0	1	0	190	1	0	0	302
07:45 AM	2	0	0	0	0	12	83	2	0	2	14	0	0	0	0	1	199	12	0	0	327
Total	18	0	0	0	0	38	370	17	2	3	51	0	0	0	1	5	858	32	0	0	1395
08:00 AM	3	0	0	0	0	10	95	4	0	1	9	0	0	0	0	2	163	10	0	0	297
08:15 AM	19	0	0	0	0	18	95	5	0	2	9	0	0	0	0	1	153	12	0	0	314
08:30 AM	11	0	0	0	0	10	84	7	1	0	14	0	0	0	0	1	164	7	0	1	300
08:45 AM	14	0	0	0	0	9	97	5	0	0	9	0	0	0	1	3	184	4	0	0	326
Total	47	0	0	0	0	47	371	21	1	3	41	0	0	0	1	7	664	33	0	1	1237
BREAK																					
04:00 PM	16	0	0	0	0	16	335	17	0	0	12	0	0	0	0	6	247	5	0	0	654
04:15 PM	6	0	0	0	0	17	318	27	0	1	8	0	0	0	1	4	231	9	0	1	623
04:30 PM	13	0	0	0	0	13	312	21	1	1	7	0	0	0	0	4	244	8	0	0	624
04:45 PM	17	0	0	0	0	23	320	21	0	0	14	0	0	0	0	6	232	6	0	0	639
Total	52	0	0	0	0	69	1285	86	1	2	41	0	0	0	1	20	954	28	0	1	2540
05:00 PM	9	0	0	0	1	22	259	13	1	0	14	0	0	0	0	6	233	9	0	0	567
05:15 PM	9	0	0	0	1	16	242	10	0	0	5	1	0	0	0	4	202	12	0	0	502
05:30 PM	10	0	0	0	0	11	262	11	0	0	6	0	0	0	1	1	214	11	0	1	528
05:45 PM	10	0	0	0	4	33	230	17	1	0	10	0	0	0	0	4	197	7	0	0	513
Total	38	0	0	0	6	82	993	51	2	0	35	1	0	0	1	15	846	39	0	1	2110
Grand Total	155	0	0	0	6	236	3019	175	6	8	168	1	0	0	4	47	3322	132	0	3	7282
Apprch %	96.3	0	0	0	3.7	6.9	87.7	5.1	0.2	0.2	97.1	0.6	0	0	2.3	1.3	94.8	3.8	0	0.1	
Total %	2.1	0	0	0	0.1	3.2	41.5	2.4	0.1	0.1	2.3	0	0	0	0.1	0.6	45.6	1.8	0	0	
Vehicles	155	0	0	0	5	236	3010	175	6	5	168	1	0	0	3	47	3317	132	0	2	7262
% Vehicles	100	0	0	0	83.3	100	99.7	100	100	62.5	100	100	0	0	75	100	99.8	100	0	66.7	99.7
Axles 2 & 3	0	0	0	0	1	0	6	0	0	3	0	0	0	0	1	0	4	0	0	1	16
% Axles 2 & 3	0	0	0	0	16.7	0	0.2	0	0	37.5	0	0	0	0	25	0	0.1	0	0	33.3	0.2
Axles 4 & Up	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	4
% Axles 4 & Up	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1

Constitution Blvd. @ Manchester Dr.
Weather: Clear

File Name : Constitution Blvd at Manchester Dr.
Site Code :
Start Date : 6/21/2018
Page No : 3

Peak Hour Analysis From 07:00 AM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM							04:00 PM							07:00 AM							04:00 PM						
+0 mins.	16	0	0	0	0	16		16	335	17	0	0	368		18	0	0	0	0	18		6	247	5	0	0	258	
+15 mins.	6	0	0	0	0	6		17	318	27	0	1	363		12	0	0	0	0	12		4	231	9	0	1	245	
+30 mins.	13	0	0	0	0	13		13	312	21	1	1	348		7	0	0	0	1	8		4	244	8	0	0	256	
+45 mins.	17	0	0	0	0	17		23	320	21	0	0	364		14	0	0	0	0	14		6	232	6	0	0	244	
Total Volume	52	0	0	0	0	52		69	1285	86	1	2	1443		51	0	0	0	1	52		20	954	28	0	1	1003	
% App. Total	100	0	0	0	0			4.8	89.1	6	0.1	0.1			98.1	0	0	0	1.9			2	95.1	2.8	0	0.1		
PHF	.765	.000	.000	.000	.000	.765		.750	.959	.796	.250	.500	.980		.708	.000	.000	.000	.250	.722		.833	.966	.778	.000	.250	.972	
Vehicles	52	0	0	0	0	52		69	1285	86	1	1	1442		51	0	0	0	1	52		20	954	28	0	1	1003	
% Vehicles	10	0	0	0	0	100		10	10	10	10	50	99.9		10	0	0	0	10	100		10	10	10	0	10	100	
Axles 2 & 3	0	0	0	0	0	0		0	0	0	0	1	1		0	0	0	0	0	0		0	0	0	0	0	0	
% Axles 2 & 3	0	0	0	0	0	0		0	0	0	0	50	0.1		0	0	0	0	0	0		0	0	0	0	0	0	
Axles 4 & Up	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0	
% Axles 4 & Up	0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0		0	0	0	0	0	0	