

AGENDA

Meeting of the San Marcos Traffic Commission

Meeting Date: March 3, 2021 | **Meeting Time:** 6:00 PM

Location: City Council Chambers, 1 Civic Center Drive, San Marcos CA 92069

Pursuant to Governor Newsom's Executive Order N-29-20 dated March 17, 2020, and Executive Order N 33-20 dated March 19, 2020, issued with respect to the COVID-19 pandemic, this Traffic Commission meeting will be conducted utilizing teleconferencing and electronic means. In the interest of reducing the spread of COVID-19, members of the public may only call in to hear the meeting and may not be present in the Council Chamber. The public will dial using your phone to 1-877-309-2073 and enter Access Code: 649-202-709

Public Comment: To submit a public comment at the Traffic Commission meeting, please email avelasquez@san-marcos.net and write "Public Comment" in the subject line, or identify the number of the Agenda item on which you are commenting. In the body of the email, include the item number and/or title of the item as well as your comments. Email comments on matters not on the agenda must be submitted prior to the time the Chair calls the Oral Communications item. Email comments on any agenda item must be submitted prior to the time the Chair closes public comments on the agenda item. Please be advised that all emailed comments are subject to the same rules as would otherwise apply to speaker comments at any Traffic Commission meeting, and that electronic comments on agenda items for this meeting may only be submitted by email. Comments via text message and/or social media (Facebook, Twitter, Instagram, etc.) will not be accepted.

The Traffic Commission Secretary will read all email comments, provided that the reading will not exceed five (5) minutes, or such other time as the Chair may provide, consistent with its ability to set time parameters for public comment at the Traffic Commission meeting. If persons submitting comments do not want their comment to be read out loud at the meeting (not to exceed five minutes), they should write "Do Not Read Out Loud at Meeting" at the top of the email. All emailed comments received by 4:00 pm will be provided to the Traffic Commission members and included as "Supplemental information" on the City's website prior to the meeting. Those comments received after 4:00 pm and prior to the close of public comment on the applicable agenda item will be added to the record and will be shared with the Traffic Commission members at the meeting.

Americans with Disabilities Act: If you need special assistance to participate in this meeting, please contact the City Clerk Department at (760) 744-1050, ext. 3105. Notification 48 hours in advance will enable the City to make reasonable arrangements to ensure accessibility to this meeting. Assisted listening devices are available for the hearing impaired. Please see the City Clerk if you wish to use this device.

Agendas: Agenda packets are available for public inspection 72 hours prior to scheduled meetings at the Information Desk counter located on the first floor of City Hall, 1 Civic Center Drive, San Marcos, during normal business hours or online at www.san-marcos.net.

Agenda-related writings or documents provided to a majority of the Commission after distribution of the agenda packet will be available for public inspection at the time of distribution at the Information Desk counter located on the first floor of City Hall, 1 Civic Center Drive, San Marcos, CA, during normal business hours.

1. CALL TO ORDER - 6:00 P.M.

2. PLEDGE OF ALLEGIANCE

3. ROLL CALL

Anyone wishing to speak to the Commission on any item must first complete a Request to Speak form and turn it in to the secretary

4. ORAL COMMUNICATIONS

Persons wishing to speak on a matter not on the agenda may be heard at this time; however, no action will be taken until placed on a future agenda.

5. APPROVAL OF MINUTES

February 03, 2021

6. OLD BUSINESS

- a. Melrose Drive – Request for Bike Shared Lane Markings (Sharrows) - Update

7. NEW BUSINESS

None

8. REPORTS AND INFORMATION ITEMS

- a. Speed Cushion Pilot Project Presentation
- b. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log
- c. Traffic Commission Commentary
- d. Staff Commentary

ADJOURNMENT

AFFIDAVIT OF POSTING

STATE OF CALIFORNIA)
COUNTY OF SAN DIEGO) ss.
CITY OF SAN MARCOS)

I, Aurelia Velasquez, Secretary, San Marcos Traffic Commission, hereby certify that I caused the posting on February 24, 2021 of this agenda in the glass display case at the north entrance of City Hall.

DATED: February 24, 2021

Aurelia Velasquez,
Traffic Commission Secretary

MINUTES

Meeting of the San Marcos Traffic Commission

Wednesday, February 3, 2021 | 6:00 PM

City Council Chambers, 1 Civic Center Drive, San Marcos, CA 92069

CALL TO ORDER:

Chairman Rico called the Traffic Commission Meeting to order at 6:00 p.m.

INTRODUCTIO OF NEW COMMISSIONERS:

Neill Kovrig (New Commissioner), Rosemary Schellenger (New Regular Commissioner), Jennifer Freeman (New Alternate)

SELECTION OF NEW CHAIRMAN AND VICE CHAIRMAN:

CHAIRMAN ELECTION:

Commissioner Hoaglin make a motion to elect Commissioner Arturo Rico as Chairman. Commissioner Hansen seconds the motion. No other nominations were made. Re-elected 2021 Chairman: Arturo Rico

VICE CHAIRMAN ELECTION:

Commissioner Rico makes a motion to elect Commissioner Gregory Hoaglin as Vice Chairman. Commissioner Hansen seconds the motion. Re-elected 2021 Vice Chairman: Gregory Hoaglin

PLEDGE OF ALLEGIANCE:

Led by Commissioner Hoaglin

ROLL CALL:

PRESENT: COMMISSIONERS: RICO*, KOVRIG*, ERICKSON*, BRIDGE*, HOAGLIN*, SCHELLENGER* AND HANSEN*

ABSENT: COMMISSIONERS:

*Members of the Traffic Commission attending the meeting via teleconference pursuant to Governor Newsom's Executive Order N-25-20.

ALSO PRESENT:

Senior Traffic Engineer, Mike Rafael; Principal Traffic Engineer, Nicholas Abboud; and Traffic Commission Secretary, Aurelia Velasquez.

ORAL COMMUNICATIONS:

None

APPROVAL OF MINUTES – November 4, 2020

Commissioner Hoaglin makes a motion to accept the minutes as recorded. Commissioner Bridge seconds the motion. Motion carries.

AYES: COMMISSIONERS: BRIDGE, ERICKSON, HANSEN, HOAGLIN, AND RICO

NOES: COMMISSIONERS:

ABSTAINS: COMMISSIONERS:

OLD BUSINESS

None

NEW BUSINESS

None

REPORTS AND INFORMATION ITEMS

A. Engineering Staff Updates:

Development Projects (Slated for construction in next 6 months)

Panera Bread Drive-thru

Raising Canes

Mission Villas

Kaiser Hospital

California All-Stars Cheerleading School

Karl Strauss Brewery

University District (CSMUSM)

Highlands Subdivision-KB Homes

Capital Improvement Projects (Streets)-Construction in the next 6 months

Creek Project

Annual Surface Seal Program

Citywide ADA infrastructure project

Traffic Commission (Future agenda items)

Speed Cushion Pilot Project

Proposed Bike Sharrow Lane Markings on Melrose Drive

Rancho Dorado Neighborhood Traffic Calming recommendations

Mulberry and Rose Ranch Traffic Signal improvements

New Traffic Commissioner Technical Manual to be released (formerly known as Traffic Commissioner Guidelines)

B. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log:

None

C. Traffic Commission Commentary:

Commissioner Hoaglin: Form 700 update

D. Staff Commentary:

None

ADJOURNMENT:

Chairman Rico adjourned the meeting at 7:06 pm.

Arturo Rico, Chairman
Traffic Commission

ATTEST:

Aurelia Velasquez, Secretary
Traffic Commission

AGENDA REPORT

Meeting of the San Marcos Traffic Commission

MEETING DATE: March 3, 2021
AGENDA ITEM NO: 6A
SUBMITTED BY: Michael Rafael, P.E. – Senior Civil Engineer
APPROVED BY: Nic Abboud, P.E. – Principal Civil Engineer
SUBJECT: Melrose Drive – Request for Bike Shared Lane Markings (Sharrows)-Update

BACKGROUND:

At the November 2020 Traffic Commission meeting, Engineering staff recommended installation of bike shared lane markings (Sharrows) on Melrose Drive between San Elijo Road and Boulderidge Drive to improve bicycle operations and enhance motorists' awareness of bicyclists riding and taking full control of the outside travel lanes. The original request for bike lane sharrows on Melrose Drive were from bicyclists that normally commute in San Marcos. However, the Traffic Commission felt that the proposed bike sharrows may be disruptive to vehicular traffic and provide a false sense of security for bicyclists especially novice type riders. The sharrows also may be hazardous to bicyclists due to the unsafe roadway conditions and high speed limit. Some of the commissioners felt that the bicycles should be detoured away from Melrose Drive to a dedicated bike route since the street lacked adequate bike lanes or facilities. The Traffic Commission directed staff to obtain additional traffic data (traffic and bicycle volumes, speed, and collision statistics) in order to make an informative decision on the proposed installation of the sharrows on Melrose Drive.

DISCUSSION:

Please refer to the previous Traffic Commission Report (November 2020) on details of the study area and existing traffic conditions on Melrose Drive.

As stated in the previous Traffic Commission meeting, staff was directed to obtain additional traffic data on traffic and bicycle volumes, speed, and collision statistics so that the Traffic Commission could evaluate the need for the installation of bike lane sharrows on Melrose Drive.

Traffic data collected included bicycle volumes and vehicular speed/volume data on Melrose Drive (see attached tables). A video camera was setup at the intersection of San Elijo Road and Melrose Drive where the camera was aimed in the northbound direction of Melrose Drive to capture bicyclists using the roadway for (7) seven days. Based on the data collected, bicycle volumes on Melrose Drive were significantly higher on the weekends than compared to the weekdays. Approximately (97) bicyclists were counted on Saturday and (73) bicyclists on Sunday. On a typical weekday, there were approximately (23) bicyclists counted on Melrose Drive.

It was observed that novice riders, in particular children, would use both the existing unpaved trail on the eastside and sidewalk on the westside. The more experienced bicyclists were observed riding comfortably on Melrose Drive where there are currently no bike lanes.

Based on the data collected, traffic volumes were lower during the weekend than the weekdays on Melrose Drive. The traffic volumes collected on Melrose Drive were considered low for a two-lane roadway where traffic volumes are expected above 28,000 vehicles per day for a 4-lane major arterial road classification per City's urban design criteria. With the lower traffic volumes, there are opportunities for motorists to change lanes in advance if bicyclists are riding on the outside lane which is permissible since the "BICYCLES MAY USE FULL LANE" signs are currently installed. Many of the bicyclists that ride on Melrose Drive indicated that traffic is generally light during the weekends and weekdays which allows motorists to change lanes to pass bicyclists. Vehicle speed data collected on Melrose Drive seem to be consistent through the (7) days with an average 85th percentile speed of 48 MPH. Currently, the speed limit is posted at 40 MPH. Speeds collected are within the 7-10 MPH range of the posted speed limit where speed enforcement is not recommended at this time. City staff will continue to monitor the speeds on Melrose Drive.

In addition, City staff reached out to the bicycle community in North County (see attached correspondences). There is a consensus from the bicyclists in North County for the installation of bike sharrows on Melrose Drive based on increased visibility and overall safety for bicyclists since the roadway is too narrow to share with vehicles. The bicycle community feels that the sharrow markings would educate motorists of the shared lane use thereby reducing potential conflicts. Bicyclists have the right to travel on public streets regardless if there is a bike lane facility or bike lane therefore detouring of bicyclists is not feasible. If the bike sharrows are approved, Staff will conduct a new Engineering and Traffic Survey after installation of the new sharrows to determine if the current posted speed limit would be warranted for a speed reduction based on the 85th percentile speeds.

Engineering staff also reviewed the collision history for the last three (3) years and found a total of eight (8) reported collisions along Melrose Drive between San Elijo Road and Boulderidge Drive. The types of reported collisions included broadside, sideswipe, and hit object collisions. All of the reported collisions have been attributed to unsafe speeding and improper turning along the corridor. There were no collisions that involved pedestrians or bicyclists traveling on Melrose Drive.

As stated in the previous report, per the California Manual on Uniform Traffic Control Devices (CAMUTCD), Section 9C.07, shared lane markings may be used to:

- a) Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle
- b) Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane.
- c) Alert road users of the lateral location of bicyclists are likely to occupy within the traveled way
- d) Encourage safe passing of bicyclists by motorists, and
- e) Reduce the incidence of wrong-way bicycling.

- f) Assist bicyclists with lateral positioning with a traffic circle or roundabout
- g) Supplement a signed bicycle route that is identified as a Class III bicycle facility
- h) Encourage the lateral positioning of bicyclists away from on-street angled parking, and
- i) Indicate that a bicycle can travel straight through a right-turn lane or left-turn lane only.

In addition, the CAMUTCD allows shared lane markings, as an option, to be placed on roadways that have a speed limit above 35 mph, where there is bicycle travel and there is no marked bicycle lane and the right-hand traffic lane is too narrow to allow motor vehicles to safely pass bicyclist. The CAMUTCD allows the option to use either the “BICYCLES MAY USE FULL LANE” signs or shared lane markings to inform road users that bicyclists might occupy the travel lane.

The existing outside travel lanes on Melrose Drive are not wide enough for motor vehicles to pass bicyclists due to the narrow lane widths (12 feet maximum) with the exception of motorists changing lanes to avoid the bicyclists. The existing “BICYCLES MAY USE FULL LANE” signs may also be confusing to both bicyclists and motorists since there are two lanes in each direction on Melrose Drive and there are no bike shared lane markings present to indicate which lane bicyclists can take control of. The visibility of the “BICYCLES MAY USE FULL LANE” signs installed within the public right-of-way could also be a concern with motorists unaware of the signs.

Based on satisfying the CAMUTCD criteria for bike shared lane markings (sharrows), high bicycle volumes, low traffic volumes for a two-lane major arterial street, vehicular speeds in compliance with the 40 MPH posted speed limit, and no reported bicycle/vehicular collisions in the last (3) years, it is recommended that bike sharrows be installed on Melrose Drive between San Elijo Road and Boulderidge Drive to improve bicycle operations and enhance motorists’ awareness of bicyclists, or the possibility of bicyclists riding within the outside travel lanes. The new sharrows shall be installed within the roadway segment (6-feet from face of curb) adjacent to the existing “BICYCLES MAY USE FULL LANE” regulatory signs currently installed within the public right-of-way (see attached exhibit). In addition, the new sharrow markings will provide bicycle connectivity on Melrose Drive between Carlsbad and San Marcos. Melrose Drive in Carlsbad is currently striped with Class 2 buffered bike lanes and San Elijo Road in San Marcos is striped as a standard 5-foot bike lane.

Engineering staff plans to reevaluate this roadway segment for the potential inclusion of buffered or separated bike lanes, while reducing the number of lanes from four to two (one lane in each direction). The analysis would evaluate the capacity of a 2-lane facility to accommodate traffic demands, identify any resulting operational problems and solutions, identify the impact on all types of users, and collect input from the local community. Based on the feasibility of such improvements, a potential design would be brought before the commission for approval. Funding opportunities may be pursued through the City’s own annual slurry seal program or via a future application to federal grants with focus on active transportation, mobility and public safety.

CONCLUSION AND RECOMMENDATIONS:

Engineering staff requests that the Traffic Commission accept staff's recommendations for the installation of bike shared lane markings (Sharrows) on Melrose Drive between San Elijo Road and Boulderidge Drive. The new sharrows will be installed within the roadway segment (6-feet from face of curb) adjacent to the existing "BICYCLES MAY USE FULL LANE" regulatory signs currently installed within the public right-of-way (see attached exhibit).

Engineering staff also recommends selective enforcement by the Sheriff's Department of the "BICYCLES MAY USE FULL LANE" regulatory signs and the new sharrow pavement markings on Melrose Drive.

TRAFFIC DATA/ROADWAY INFORMATION:

Traffic Volumes:

Melrose Drive, San Elijo Road and Rancho Santa Fe Road – 13,603 VPD (vehicles per day, 2019).

Speed Limit:

40 MPH, posted.

Accident History (last 3 years):

- 05/16/17, 8:00 PM, Melrose [Dr@Longstaff](#) Ct, Broadside, Auto R/W Violation
- 12/19/17, 3:36 PM, Melrose [Dr@Sparrow](#) Ln, Sideswipe, Improper Turning
- 03/30/18, 7:30 PM, Melrose [Dr@Diamond](#) St., Hit Object, Improper Turning
- 06/06/18, 11:40 AM, Melrose [Dr@Boulderidge](#) Dr, Hit Object, Improper Turning
- 07/06/18, 1:05 AM, Melrose [Dr@Diamond](#) St., Hit Object, Unsafe Speed, (1) injury
- 02/24/19, 9:41 PM, Melrose [Dr@Diamond](#) St., Hit Object, Unsafe Speed
- 05/14/19, 5:25 PM, Melrose Dr@Longstaff Ct, Broadside, Unsafe Lane Change, (3) injuries
- 04/03/20, 8:19 AM, Melrose Dr@Longstaff Ct, Broadside, Auto R/W Violation, (1) injury

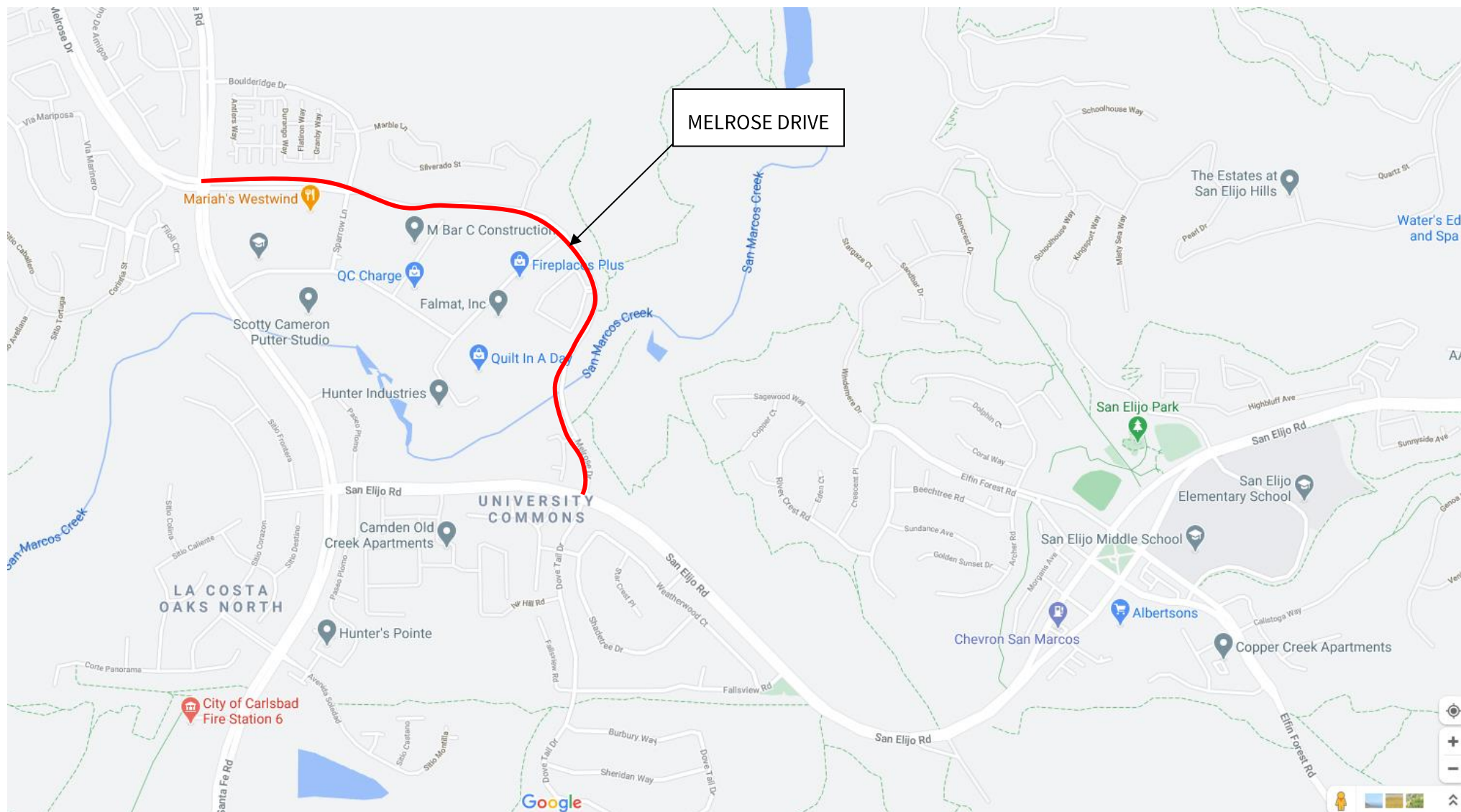
ATTACHMENT(S)

Vicinity Map

Speed/Traffic Volumes/Bicycle Volumes

Correspondences

Traffic Commission Report (November 2020)



VICINITY MAP

MELROSE DRIVE – BIKE SHARED LANE MARKINGS (SHARROWS)-UPDATE

AGENDA ITEM #6A – MARCH 2021



*NOT TO SCALE

AGENDA #6A - MELROSE DRIVE SHARED LANE MARKINGS

MARCH 2021 TRAFFIC COMMISSION

Bicycle Count for Melrose Drive @ San Elijo Road

Date: Saturday, January 16, 2021

Weather: Sunny, clear

Time	Melrose Drive			
	Southbound		Northbound	
	On Street	On Sidewalk	On Street	On Trail
6:00-6:30	0	0	0	1
6:30-7:00	1	0	0	0
7:00-7:30	1	0	0	0
7:30-8:00	2	4	2	0
8:00-8:30	13	0	0	1
8:30-9:00	12	0	1	0
9:00-9:30	4	0	4	0
9:30-10:00	5	3	6	0
10:00-10:30	9	0	1	0
10:30-11:00	6	0	4	0
11:00-11:30	2	0	4	0
11:30-12:00	1	0	1	0
12:00-12:30	3	1	2	1
12:30-1:00	3	0	0	0
1:00-1:30	1	0	0	0
1:30-2:00	0	1	0	0
2:00-2:30	1	1	2	0
2:30-3:00	0	6	1	1
3:00-3:30	1	9	2	0
3:30-4:00	1	1	0	0
4:00-4:30	0	1	0	0
4:30-5:00	0	2	1	0
5:00-5:30	0	0	0	0
5:30-6:00	0	0	0	0
Total	66	29	31	4

AGENDA #6A - MELROSE DRIVE SHARED LANE MARKINGS

MARCH 2021 TRAFFIC COMMISSION

Bicycle Count for Melrose Drive @ San Elijo Road

Date: Sunday, January 17, 2021

Weather: Sunny, clear

Time	Melrose Drive			
	Southbound		Northbound	
	On Street	On Sidewalk	On Street	On Trail
6:00-6:30	0	0	0	0
6:30-7:00	1	0	1	0
7:00-7:30	1	0	1	0
7:30-8:00	2	0	0	0
8:00-8:30	1	0	1	1
8:30-9:00	12	2	4	1
9:00-9:30	5	1	2	1
9:30-10:00	3	1	3	0
10:00-10:30	4	0	5	1
10:30-11:00	5	0	0	0
11:00-11:30	1	0	3	0
11:30-12:00	1	0	1	0
12:00-12:30	1	1	1	0
12:30-1:00	1	1	2	0
1:00-1:30	1	0	2	0
1:30-2:00	1	0	0	0
2:00-2:30	1	0	0	0
2:30-3:00	0	0	1	0
3:00-3:30	2	1	1	3
3:30-4:00	1	0	1	0
4:00-4:30	0	0	0	0
4:30-5:00	0	0	0	0
5:00-5:30	0	0	0	0
5:30-6:00	0	0	0	0
Total	44	7	29	7

AGENDA #6A - MELROSE DRIVE SHARED LANE MARKINGS

MARCH 2021 TRAFFIC COMMISSION

Bicycle Count for Melrose Drive @ San Elijo Road

Date: Wednesday, January 13, 2021

Weather: Sunny, clear

Time	Melrose Drive			
	Southbound		Northbound	
	On Street	On Sidewalk	On Street	On Trail
6:00-6:30	0	0	0	0
6:30-7:00	0	0	0	0
7:00-7:30	0	0	0	0
7:30-8:00	1	0	0	0
8:00-8:30	0	0	1	0
8:30-9:00	1	0	0	0
9:00-9:30	0	0	3	0
9:30-10:00	0	0	0	0
10:00-10:30	1	0	0	1
10:30-11:00	0	0	0	0
11:00-11:30	0	0	1	0
11:30-12:00	1	0	0	0
12:00-12:30	2	0	0	1
12:30-1:00	0	0	1	0
1:00-1:30	2	0	1	0
1:30-2:00	1	1	0	0
2:00-2:30	1	1	0	1
2:30-3:00	1	1	1	0
3:00-3:30	0	1	1	0
3:30-4:00	0	0	2	1
4:00-4:30	0	0	0	1
4:30-5:00	1	0	0	0
5:00-5:30	0	2	0	1
5:30-6:00	0	0	0	0
Total	12	6	11	6

AGENDA #6A - MELROSE DRIVE SHARED LANE MARKINGS
MARCH 2021 TRAFFIC COMMISSION

7-DAY TRAFFIC SPEED/VOLUME COUNT

LOCATION: MELROSE DRIVE (770 FEET SOUTH OF DIAMOND ST.)

POSTED SPEED LIMIT: 40 MPH

Date	Day	85th Percentile Speeds (MPH)			Average Daily Traffic (ADT) - Vehicles Per Day		
		Northbound	Southbound	Average	Northbound	Southbound	Total
1/7/2021	Thursday	49	47	48	4078	3828	7906
1/8/2021	Friday	49	48	48.5	4046	3811	7857
1/9/2021	Saturday	49	48	48.5	3431	3039	6470
1/10/2021	Sunday	48	48	48	2834	2502	5336
1/11/2021	Monday	49	48	48.5	3924	3700	7624
1/12/2021	Tuesday	49	47	48	3988	3673	7661
1/13/2021	Wednesday	49	47	48	4077	3834	7911

SPEED

Melrose Dr 770' S/O Diamond St

Day: Thursday

Date: 1/7/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	1	1	4	2	0	0	1	0	0	0	9
01:00	0	0	0	0	2	0	2	0	0	0	0	0	0	4
02:00	0	0	0	0	1	0	0	1	0	0	0	0	0	2
03:00	0	0	0	0	1	2	1	2	1	0	0	0	0	7
04:00	0	0	0	0	1	0	5	6	2	0	0	0	0	14
05:00	0	0	0	0	3	7	26	24	9	0	1	0	0	70
06:00	0	0	0	0	3	25	76	61	20	2	0	1	0	188
07:00	0	0	0	1	3	39	121	118	17	5	1	0	0	305
08:00	0	0	1	1	8	61	152	131	33	1	2	0	0	390
09:00	0	0	0	0	8	35	111	66	21	2	0	0	0	243
10:00	0	0	0	0	6	43	103	57	16	2	0	0	0	227
11:00	0	0	0	1	14	48	99	62	13	2	0	0	0	239
12:00 PM	0	0	0	0	7	47	107	81	21	3	0	0	0	266
13:00	0	0	0	0	6	41	111	74	17	1	0	0	0	250
14:00	0	0	0	1	5	49	119	83	17	4	0	0	0	278
15:00	0	0	0	1	8	49	154	105	24	8	1	1	0	351
16:00	0	0	0	1	11	66	132	95	15	3	0	0	0	323
17:00	0	0	0	0	18	46	162	74	9	2	0	0	0	311
18:00	0	0	0	0	13	63	87	51	17	2	1	0	0	234
19:00	0	0	0	1	6	24	67	45	7	1	0	0	0	151
20:00	0	0	0	1	3	25	42	26	8	1	0	0	0	106
21:00	0	0	0	0	3	13	21	9	6	0	0	0	0	52
22:00	0	0	1	1	11	7	10	7	4	0	0	0	0	41
23:00	0	0	0	0	0	3	8	4	2	0	0	0	0	17
Totals			2	10	142	697	1718	1182	279	40	6	2		4078
% of Totals			0%	0%	3%	17%	42%	29%	7%	1%	0%	0%		100%

AM Volumes	0	0	1	4	51	264	698	528	132	15	4	1	0	1698
% AM			0%	0%	1%	6%	17%	13%	3%	0%	0%	0%		42%
AM Peak Hour			08:00		11:00	08:00	08:00	08:00	08:00	07:00	08:00	06:00		08:00
Volume			1	1	14	61	152	131	33	5	2	1		390
PM Volumes	0	0	1	6	91	433	1020	654	147	25	2	1	0	2380
% PM			0%	0%	2%	11%	25%	16%	4%	1%	0%	0%		58%
PM Peak Hour			22:00	14:00	17:00	16:00	17:00	15:00	15:00	15:00	15:00	15:00		15:00
Volume			1	1	18	66	162	105	24	8	1	1		351
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			695	↔	17%	516	↔	13%	634	↔	16%	2233	↔	55%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	44	49	52	4078
Melrose Dr	South Bound	37	42	42	47	50	3828

SPEED

Melrose Dr 770' S/O Diamond St

Day: Thursday

Date: 1/7/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	2	2	3	1	0	0	0	0	9
01:00	0	0	0	0	0	0	3	1	1	0	0	0	0	5
02:00	0	0	0	0	1	0	1	1	0	0	0	0	0	3
03:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
04:00	0	0	0	0	1	3	3	0	0	0	0	0	0	7
05:00	0	0	0	0	2	6	7	7	1	0	0	0	0	23
06:00	0	0	0	3	4	15	23	12	1	0	0	0	0	58
07:00	1	0	0	2	6	29	65	24	6	0	0	0	0	133
08:00	0	0	0	0	4	32	80	50	6	0	0	0	0	172
09:00	0	0	0	2	3	27	57	37	3	1	0	0	0	130
10:00	0	0	0	0	6	29	91	45	3	1	0	0	0	175
11:00	0	0	0	0	5	41	98	42	3	1	1	0	0	191
12:00 PM	0	0	0	1	14	36	115	58	14	0	1	0	0	239
13:00	0	1	0	3	16	52	103	57	10	2	0	0	0	244
14:00	0	0	1	2	6	58	124	61	9	0	1	0	0	262
15:00	0	0	0	2	21	89	213	78	10	3	0	0	0	416
16:00	0	0	0	1	13	92	253	94	6	3	0	0	0	462
17:00	0	0	0	1	12	157	266	80	14	1	0	0	0	531
18:00	0	0	0	0	10	68	155	70	9	0	0	1	0	313
19:00	0	0	0	1	1	28	75	47	10	0	1	0	0	163
20:00	0	0	0	1	5	25	73	41	6	3	0	0	0	154
21:00	0	0	0	1	4	12	36	25	3	2	0	0	0	83
22:00	0	0	0	5	3	11	12	4	0	0	0	0	0	35
23:00	0	0	0	0	0	5	7	6	0	0	0	0	0	18
Totals	1	1	1	25	138	819	1862	843	116	17	4	1		3828
% of Totals	0%	0%	0%	1%	4%	21%	49%	22%	3%	0%	0%	0%		100%

AM Volumes	1	0	0	7	33	186	430	222	25	3	1	0	0	908
% AM	0%			0%	1%	5%	11%	6%	1%	0%	0%			24%
AM Peak Hour	07:00			06:00	07:00	11:00	11:00	08:00	07:00	09:00	11:00			11:00
Volume	1			3	6	41	98	50	6	1	1			191
PM Volumes	0	1	1	18	105	633	1432	621	91	14	3	1	0	2920
% PM		0%	0%	0%	3%	17%	37%	16%	2%	0%	0%	0%		76%
PM Peak Hour		13:00	14:00	22:00	15:00	17:00	17:00	16:00	12:00	15:00	12:00	18:00		17:00
Volume		1	1	5	21	157	266	94	14	3	1	1		531
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			305	8%	↔	483	13%	↔	993	26%	↔	2047	53%	↔

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	44	49	52	4078
Melrose Dr	South Bound	37	42	42	47	50	3828

SPEED

Melrose Dr 770' S/O Diamond St

Day: Thursday

Date: 1/7/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	1	2	6	4	3	1	1	0	0	0	18
01:00	0	0	0	0	2	0	5	1	1	0	0	0	0	9
02:00	0	0	0	0	2	0	1	2	0	0	0	0	0	5
03:00	0	0	0	0	1	4	1	2	1	0	0	0	0	9
04:00	0	0	0	0	2	3	8	6	2	0	0	0	0	21
05:00	0	0	0	0	5	13	33	31	10	0	1	0	0	93
06:00	0	0	0	3	7	40	99	73	21	2	0	1	0	246
07:00	1	0	0	3	9	68	186	142	23	5	1	0	0	438
08:00	0	0	1	1	12	93	232	181	39	1	2	0	0	562
09:00	0	0	0	2	11	62	168	103	24	3	0	0	0	373
10:00	0	0	0	0	12	72	194	102	19	3	0	0	0	402
11:00	0	0	0	1	19	89	197	104	16	3	1	0	0	430
12:00 PM	0	0	0	1	21	83	222	139	35	3	1	0	0	505
13:00	0	1	0	3	22	93	214	131	27	3	0	0	0	494
14:00	0	0	1	3	11	107	243	144	26	4	1	0	0	540
15:00	0	0	0	3	29	138	367	183	34	11	1	1	0	767
16:00	0	0	0	2	24	158	385	189	21	6	0	0	0	785
17:00	0	0	0	1	30	203	428	154	23	3	0	0	0	842
18:00	0	0	0	0	23	131	242	121	26	2	1	1	0	547
19:00	0	0	0	2	7	52	142	92	17	1	1	0	0	314
20:00	0	0	0	2	8	50	115	67	14	4	0	0	0	260
21:00	0	0	0	1	7	25	57	34	9	2	0	0	0	135
22:00	0	0	1	6	14	18	22	11	4	0	0	0	0	76
23:00	0	0	0	0	0	8	15	10	2	0	0	0	0	35
Totals	1	1	3	35	280	1516	3580	2025	395	57	10	3		7906
% of Totals	0%	0%	0%	0%	4%	19%	45%	26%	5%	1%	0%	0%		100%

AM Volumes	1	0	1	11	84	450	1128	750	157	18	5	1	0	2606
% AM	0%		0%	0%	1%	6%	14%	9%	2%	0%	0%	0%		33%
AM Peak Hour	07:00		08:00	06:00	11:00	08:00	08:00	08:00	08:00	07:00	08:00	06:00		08:00
Volume	1		1	3	19	93	232	181	39	5	2	1		562
PM Volumes	0	1	2	24	196	1066	2452	1275	238	39	5	2	0	5300
% PM		0%	0%	0%	2%	13%	31%	16%	3%	0%	0%	0%		67%
PM Peak Hour		13:00	14:00	22:00	17:00	17:00	17:00	16:00	12:00	15:00	12:00	15:00		17:00
Volume		1	1	6	30	203	428	189	35	11	1	1		842
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			1000	↔	13%	999	↔	13%	1627	↔	21%	4280	↔	54%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	51	7906

SPEED

Melrose Dr 770' S/O Diamond St

Day: Friday

Date: 1/8/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	1	2	1	2	0	1	0	0	0	0	7
01:00	0	0	0	0	2	0	1	0	0	0	0	0	0	3
02:00	0	0	0	0	0	1	2	0	0	0	0	0	0	3
03:00	0	0	0	0	0	1	4	1	1	1	0	0	0	8
04:00	0	0	0	0	1	3	6	5	2	1	0	0	0	18
05:00	0	0	0	1	2	8	31	20	12	2	0	0	0	76
06:00	0	0	0	1	2	22	65	50	9	2	0	0	0	151
07:00	0	0	0	1	4	32	111	90	28	3	1	0	0	270
08:00	0	0	0	2	15	52	134	105	21	6	0	0	0	335
09:00	0	0	0	0	5	42	107	92	16	7	0	0	0	269
10:00	0	0	0	0	7	41	104	79	19	3	2	0	0	255
11:00	0	0	0	1	10	59	116	76	7	4	0	0	0	273
12:00 PM	0	0	0	0	5	47	140	81	10	5	0	0	0	288
13:00	0	0	0	0	7	49	96	95	16	2	0	0	0	265
14:00	0	0	0	1	11	58	153	66	16	4	0	0	0	309
15:00	0	0	0	1	3	57	133	109	19	1	0	0	0	323
16:00	0	0	0	1	13	70	120	91	17	1	0	0	0	313
17:00	0	0	0	0	15	78	123	55	16	1	0	0	0	288
18:00	0	0	0	1	11	58	97	56	6	1	2	0	0	232
19:00	0	0	0	1	9	31	67	34	9	2	0	0	0	153
20:00	0	0	0	0	5	19	38	26	5	2	0	0	0	95
21:00	0	0	0	4	10	16	16	2	1	1	0	0	0	50
22:00	0	0	0	0	1	9	15	11	1	1	0	0	0	38
23:00	0	0	0	1	1	7	9	4	2	0	0	0	0	24
Totals				17	141	761	1690	1148	234	50	5			4046
% of Totals				0%	3%	19%	42%	28%	6%	1%	0%			100%

AM Volumes	0	0	0	7	50	262	683	518	116	29	3	0	0	1668
% AM				0%	1%	6%	17%	13%	3%	1%	0%			41%
AM Peak Hour				08:00	08:00	11:00	08:00	08:00	07:00	09:00	10:00			08:00
Volume				2	15	59	134	105	28	7	2			335
PM Volumes	0	0	0	10	91	499	1007	630	118	21	2	0	0	2378
% PM				0%	2%	12%	25%	16%	3%	1%	0%			59%
PM Peak Hour				21:00	17:00	17:00	14:00	15:00	15:00	12:00	18:00			15:00
Volume				4	15	78	153	109	19	5	2			323
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			605	↔	15%	553	↔	14%	601	↔	15%	2287	↔	57%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	4046
Melrose Dr	South Bound	38	43	43	48	50	3811

SPEED

Melrose Dr 770' S/O Diamond St

Day: Friday

Date: 1/8/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	5	6	1	0	0	0	0	0	12
01:00	0	0	0	0	2	1	0	1	0	0	0	0	0	4
02:00	0	0	0	1	0	0	2	1	0	0	0	0	0	4
03:00	0	0	0	0	1	2	1	2	0	0	0	0	0	6
04:00	0	0	0	0	1	1	2	2	0	0	0	0	0	6
05:00	0	0	0	1	2	3	11	3	0	0	0	0	0	20
06:00	0	0	0	3	1	12	30	9	2	0	0	0	0	57
07:00	0	0	0	1	6	24	42	18	3	0	0	0	0	94
08:00	0	0	1	1	7	35	80	36	6	0	0	0	0	166
09:00	0	0	0	0	4	26	77	41	7	1	0	0	0	156
10:00	0	0	0	1	5	18	91	49	8	0	0	0	0	172
11:00	0	0	1	1	9	36	96	68	7	0	0	0	0	218
12:00 PM	0	0	0	1	6	46	143	66	10	1	0	0	0	273
13:00	0	0	0	1	14	76	99	55	13	4	0	0	0	262
14:00	0	0	1	0	17	74	139	78	7	1	0	0	0	317
15:00	0	0	0	0	14	100	221	82	8	2	0	0	0	427
16:00	0	0	0	3	11	100	234	85	7	2	0	0	0	442
17:00	0	0	0	0	8	96	213	114	6	1	1	0	0	439
18:00	0	0	0	0	10	40	121	69	9	1	0	0	0	250
19:00	0	0	0	1	4	32	105	39	6	2	0	0	0	189
20:00	0	0	0	0	1	27	66	27	10	0	1	0	0	132
21:00	0	0	0	1	7	15	26	19	1	1	0	0	0	70
22:00	0	0	1	2	5	11	15	16	2	1	0	0	0	53
23:00	0	0	0	0	1	15	14	11	1	0	0	0	0	42
Totals			4	18	136	795	1834	892	113	17	2			3811
% of Totals			0%	0%	4%	21%	48%	23%	3%	0%	0%			100%

AM Volumes	0	0	2	9	38	163	438	231	33	1	0	0	0	915
% AM			0%	0%	1%	4%	11%	6%	1%	0%				24%
AM Peak Hour			08:00	06:00	11:00	11:00	11:00	11:00	10:00	09:00				11:00
Volume			1	3	9	36	96	68	8	1				218
PM Volumes	0	0	2	9	98	632	1396	661	80	16	2	0	0	2896
% PM			0%	0%	3%	17%	37%	17%	2%	0%	0%			76%
PM Peak Hour			14:00	16:00	14:00	15:00	16:00	17:00	13:00	13:00	17:00			16:00
Volume			1	3	17	100	234	114	13	4	1			442
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			260	↔	7%	535	↔	14%	881	↔	23%	2135	↔	56%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	4046
Melrose Dr	South Bound	38	43	43	48	50	3811

SPEED

Melrose Dr 770' S/O Diamond St

Day: Friday

Date: 1/8/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	1	2	6	8	1	1	0	0	0	0	19
01:00	0	0	0	0	4	1	1	1	0	0	0	0	0	7
02:00	0	0	0	1	0	1	4	1	0	0	0	0	0	7
03:00	0	0	0	0	1	3	5	3	1	1	0	0	0	14
04:00	0	0	0	0	2	4	8	7	2	1	0	0	0	24
05:00	0	0	0	2	4	11	42	23	12	2	0	0	0	96
06:00	0	0	0	4	3	34	95	59	11	2	0	0	0	208
07:00	0	0	0	2	10	56	153	108	31	3	1	0	0	364
08:00	0	0	1	3	22	87	214	141	27	6	0	0	0	501
09:00	0	0	0	0	9	68	184	133	23	8	0	0	0	425
10:00	0	0	0	1	12	59	195	128	27	3	2	0	0	427
11:00	0	0	1	2	19	95	212	144	14	4	0	0	0	491
12:00 PM	0	0	0	1	11	93	283	147	20	6	0	0	0	561
13:00	0	0	0	1	21	125	195	150	29	6	0	0	0	527
14:00	0	0	1	1	28	132	292	144	23	5	0	0	0	626
15:00	0	0	0	1	17	157	354	191	27	3	0	0	0	750
16:00	0	0	0	4	24	170	354	176	24	3	0	0	0	755
17:00	0	0	0	0	23	174	336	169	22	2	1	0	0	727
18:00	0	0	0	1	21	98	218	125	15	2	2	0	0	482
19:00	0	0	0	2	13	63	172	73	15	4	0	0	0	342
20:00	0	0	0	0	6	46	104	53	15	2	1	0	0	227
21:00	0	0	0	5	17	31	42	21	2	2	0	0	0	120
22:00	0	0	1	2	6	20	30	27	3	2	0	0	0	91
23:00	0	0	0	1	2	22	23	15	3	0	0	0	0	66
Totals			4	35	277	1556	3524	2040	347	67	7			7857
% of Totals			0%	0%	4%	20%	45%	26%	4%	1%	0%			100%

AM Volumes	0	0	2	16	88	425	1121	749	149	30	3	0	0	2583
% AM			0%	0%	1%	5%	14%	10%	2%	0%	0%			33%
AM Peak Hour			08:00	06:00	08:00	11:00	08:00	11:00	07:00	09:00	10:00			08:00
Volume			1	4	22	95	214	144	31	8	2			501
PM Volumes	0	0	2	19	189	1131	2403	1291	198	37	4	0	0	5274
% PM			0%	0%	2%	14%	31%	16%	3%	0%	0%			67%
PM Peak Hour			14:00	21:00	14:00	17:00	15:00	15:00	13:00	12:00	18:00			16:00
Volume			1	5	28	174	354	191	29	6	2			755
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			865	↔	11%	1088	↔	14%	1482	↔	19%	4422	↔	56%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	50	7857

SPEED

Melrose Dr 770' S/O Diamond St

Day: Saturday

Date: 1/9/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	0	4	4	0	0	0	0	0	9
01:00	0	0	1	0	1	0	1	2	0	0	0	0	0	5
02:00	0	0	0	0	3	0	1	2	2	0	0	0	0	8
03:00	0	0	0	0	0	2	0	2	0	0	0	0	0	4
04:00	0	0	0	0	0	1	2	4	2	0	0	0	0	9
05:00	0	0	0	0	0	3	4	6	3	1	0	0	0	17
06:00	0	0	0	0	1	10	19	15	7	2	1	0	0	55
07:00	0	0	0	1	4	25	61	26	3	4	0	0	0	124
08:00	0	0	0	2	7	33	89	51	9	2	0	0	0	193
09:00	0	0	0	0	5	40	129	63	20	6	0	0	0	263
10:00	0	0	0	0	8	45	112	78	14	2	0	0	0	259
11:00	0	0	0	2	6	58	147	74	20	3	0	0	0	310
12:00 PM	0	0	0	0	5	51	135	101	27	1	3	0	0	323
13:00	0	0	0	0	4	54	125	74	5	1	1	0	0	264
14:00	0	0	1	0	6	53	145	86	21	5	1	0	0	318
15:00	0	0	0	1	11	46	130	94	18	3	2	0	0	305
16:00	0	0	0	4	9	55	104	63	8	3	0	1	0	247
17:00	0	0	0	1	14	63	101	46	9	3	1	0	0	238
18:00	0	0	0	1	7	31	56	41	12	5	0	1	0	154
19:00	0	0	0	1	7	21	46	24	8	0	0	0	0	107
20:00	0	0	0	1	5	23	23	24	3	1	0	0	0	80
21:00	0	1	1	1	9	25	16	10	2	1	1	0	0	67
22:00	0	0	0	1	5	12	17	7	3	0	0	0	0	45
23:00	0	0	0	1	2	7	13	3	0	1	0	0	0	27
Totals		1	3	17	120	658	1480	900	196	44	10	2		3431
% of Totals		0%	0%	0%	3%	19%	43%	26%	6%	1%	0%	0%		100%

AM Volumes	0	0	1	5	36	217	569	327	80	20	1	0	0	1256
% AM			0%	0%	1%	6%	17%	10%	2%	1%	0%			37%
AM Peak Hour			01:00	08:00	10:00	11:00	11:00	10:00	09:00	09:00	06:00			11:00
Volume			1	2	8	58	147	78	20	6	1			310
PM Volumes	0	1	2	12	84	441	911	573	116	24	9	2	0	2175
% PM		0%	0%	0%	2%	13%	27%	17%	3%	1%	0%	0%		63%
PM Peak Hour		21:00	14:00	16:00	17:00	17:00	14:00	12:00	12:00	14:00	12:00	16:00		12:00
Volume		1	1	4	14	63	145	101	27	5	3	1		323
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume		%	Volume		%	Volume		%	Volume		%
			317	↔	9%	587	↔	17%	485	↔	14%	2042	↔	60%

SPEED

Melrose Dr 770' S/O Diamond St

Day: Saturday

Date: 1/9/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	2	4	1	0	0	1	0	0	9
01:00	0	0	1	0	0	1	2	2	0	0	0	0	0	6
02:00	0	0	0	0	0	1	1	1	0	0	0	0	0	3
03:00	0	0	0	0	1	0	1	0	1	0	0	0	0	3
04:00	0	0	0	1	1	0	3	2	0	0	0	0	0	7
05:00	0	0	0	0	0	3	7	2	1	0	0	0	0	13
06:00	0	0	0	1	1	4	11	7	2	0	0	0	0	26
07:00	0	0	0	0	1	16	28	7	2	0	0	0	0	54
08:00	0	0	0	0	2	19	47	37	7	0	0	0	0	112
09:00	0	0	0	1	2	30	66	44	7	0	0	0	0	150
10:00	0	0	0	1	8	38	70	54	10	1	1	0	0	183
11:00	0	0	0	0	7	44	125	44	12	2	0	0	0	234
12:00 PM	0	0	0	0	7	57	160	63	14	4	0	2	1	308
13:00	0	0	0	1	12	61	105	65	8	1	0	0	0	253
14:00	0	0	0	2	12	71	118	64	11	2	0	1	0	281
15:00	0	0	0	1	11	73	172	72	4	5	0	0	0	338
16:00	0	0	0	1	6	63	157	62	11	3	0	0	0	303
17:00	0	0	0	1	5	49	110	53	13	3	0	0	0	234
18:00	0	0	0	1	2	38	79	45	8	3	0	0	0	176
19:00	0	0	0	0	6	26	54	29	12	1	0	0	0	128
20:00	0	0	0	0	0	15	36	20	7	1	2	0	0	81
21:00	0	0	0	3	8	18	13	10	2	1	0	0	0	55
22:00	0	0	0	0	4	8	23	9	2	0	1	0	0	47
23:00	0	0	0	0	1	5	12	12	3	1	0	0	1	35
Totals			1	14	98	642	1404	705	137	28	5	3	2	3039
% of Totals			0%	0%	3%	21%	46%	23%	5%	1%	0%	0%	0%	100%

AM Volumes	0	0	1	4	24	158	365	201	42	3	2	0	0	800
% AM			0%	0%	1%	5%	12%	7%	1%	0%	0%			26%
AM Peak Hour			01:00	04:00	10:00	11:00	11:00	10:00	11:00	11:00				11:00
Volume			1	1	8	44	125	54	12	2	1			234
PM Volumes	0	0	0	10	74	484	1039	504	95	25	3	3	2	2239
% PM				0%	2%	16%	34%	17%	3%	1%	0%	0%	0%	74%
PM Peak Hour				21:00	13:00	15:00	15:00	15:00	12:00	15:00	20:00	12:00	12:00	15:00
Volume				3	12	73	172	72	14	5	2	2	1	338
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume		%	Volume		%	Volume		%	Volume		%
			166	↔	5%	561	↔	18%	537	↔	18%	1775	↔	58%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	3431
Melrose Dr	South Bound	38	43	43	48	51	3039

SPEED

Melrose Dr 770' S/O Diamond St

Day: Saturday

Date: 1/9/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	2	2	8	5	0	0	1	0	0	18
01:00	0	0	2	0	1	1	3	4	0	0	0	0	0	11
02:00	0	0	0	0	3	1	2	3	2	0	0	0	0	11
03:00	0	0	0	0	1	2	1	2	1	0	0	0	0	7
04:00	0	0	0	1	1	1	5	6	2	0	0	0	0	16
05:00	0	0	0	0	0	6	11	8	4	1	0	0	0	30
06:00	0	0	0	1	2	14	30	22	9	2	1	0	0	81
07:00	0	0	0	1	5	41	89	33	5	4	0	0	0	178
08:00	0	0	0	2	9	52	136	88	16	2	0	0	0	305
09:00	0	0	0	1	7	70	195	107	27	6	0	0	0	413
10:00	0	0	0	1	16	83	182	132	24	3	1	0	0	442
11:00	0	0	0	2	13	102	272	118	32	5	0	0	0	544
12:00 PM	0	0	0	0	12	108	295	164	41	5	3	2	1	631
13:00	0	0	0	1	16	115	230	139	13	2	1	0	0	517
14:00	0	0	1	2	18	124	263	150	32	7	1	1	0	599
15:00	0	0	0	2	22	119	302	166	22	8	2	0	0	643
16:00	0	0	0	5	15	118	261	125	19	6	0	1	0	550
17:00	0	0	0	2	19	112	211	99	22	6	1	0	0	472
18:00	0	0	0	2	9	69	135	86	20	8	0	1	0	330
19:00	0	0	0	1	13	47	100	53	20	1	0	0	0	235
20:00	0	0	0	1	5	38	59	44	10	2	2	0	0	161
21:00	0	1	1	4	17	43	29	20	4	2	1	0	0	122
22:00	0	0	0	1	9	20	40	16	5	0	1	0	0	92
23:00	0	0	0	1	3	12	25	15	3	2	0	0	1	62
Totals		1	4	31	218	1300	2884	1605	333	72	15	5	2	6470
% of Totals		0%	0%	0%	3%	20%	45%	25%	5%	1%	0%	0%	0%	100%

AM Volumes	0	0	2	9	60	375	934	528	122	23	3	0	0	2056
% AM			0%	0%	1%	6%	14%	8%	2%	0%	0%			32%
AM Peak Hour			01:00	08:00	10:00	11:00	11:00	10:00	11:00	09:00				11:00
Volume			2	2	16	102	272	132	32	6	1			544
PM Volumes	0	1	2	22	158	925	1950	1077	211	49	12	5	2	4414
% PM		0%	0%	0%	2%	14%	30%	17%	3%	1%	0%	0%	0%	68%
PM Peak Hour		21:00	14:00	16:00	15:00	14:00	15:00	15:00	12:00	15:00	12:00	12:00	12:00	15:00
Volume		1	1	5	22	124	302	166	41	8	3	2	1	643
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume		%	Volume		%	Volume		%	Volume		%
			483	↔	7%	1148	↔	18%	1022	↔	16%	3817	↔	59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	52	6470

SPEED

Melrose Dr 770' S/O Diamond St

Day: Sunday

Date: 1/10/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	2	7	2	1	0	0	0	0	12
01:00	0	0	0	1	0	1	0	1	1	0	0	0	0	4
02:00	0	0	0	0	0	2	2	2	0	0	0	0	0	6
03:00	0	0	0	1	1	0	1	1	0	0	0	0	0	4
04:00	0	0	0	0	0	2	1	1	1	0	0	0	0	5
05:00	0	0	0	1	0	3	3	12	2	0	0	0	0	21
06:00	0	0	0	0	0	6	19	9	1	0	0	0	0	35
07:00	0	0	0	0	3	16	28	21	0	1	0	0	0	69
08:00	0	0	0	0	3	32	59	34	10	0	0	0	0	138
09:00	0	0	0	0	5	39	79	56	6	3	1	0	0	189
10:00	0	0	0	0	5	52	122	69	13	3	0	0	0	264
11:00	0	0	0	0	2	47	110	60	18	1	0	1	0	239
12:00 PM	0	0	0	1	9	46	121	81	17	3	0	0	0	278
13:00	0	0	0	2	12	59	103	54	12	1	1	0	0	244
14:00	0	0	0	0	10	50	104	67	17	3	1	0	0	252
15:00	0	0	0	1	5	57	96	64	19	3	1	1	0	247
16:00	0	0	1	1	7	48	103	55	9	6	1	0	0	231
17:00	0	0	1	0	10	48	76	57	3	0	2	1	0	198
18:00	0	0	0	0	3	39	64	20	4	3	0	0	0	133
19:00	0	0	0	3	9	30	33	23	11	1	1	1	0	112
20:00	0	0	0	0	1	15	26	14	2	3	0	1	0	62
21:00	0	1	1	1	5	17	18	6	5	2	0	0	0	56
22:00	0	0	1	0	3	9	6	3	2	1	0	0	0	25
23:00	0	0	1	0	0	2	3	4	0	0	0	0	0	10
Totals		1	5	12	93	622	1184	716	154	34	8	5		2834
% of Totals		0%	0%	0%	3%	22%	42%	25%	5%	1%	0%	0%		100%

AM Volumes	0	0	0	3	19	202	431	268	53	8	1	1	0	986
% AM				0%	1%	7%	15%	9%	2%	0%	0%	0%		35%
AM Peak Hour				01:00	09:00	10:00	10:00	10:00	11:00	09:00	09:00	11:00		10:00
Volume				1	5	52	122	69	18	3	1	1		264
PM Volumes	0	1	5	9	74	420	753	448	101	26	7	4	0	1848
% PM		0%	0%	0%	3%	15%	27%	16%	4%	1%	0%	0%		65%
PM Peak Hour		21:00	16:00	19:00	13:00	13:00	12:00	12:00	15:00	16:00	17:00	15:00		12:00
Volume		1	1	3	12	59	121	81	19	6	2	1		278
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			207	↔	7%	522	↔	18%	429	↔	15%	1676	↔	59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	48	52	2834
Melrose Dr	South Bound	38	43	43	48	50	2502

SPEED

Melrose Dr 770' S/O Diamond St

Day: Sunday

Date: 1/10/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	0	5	2	1	0	0	0	0	9
01:00	0	0	0	0	0	1	2	2	1	0	0	0	0	6
02:00	0	0	0	1	0	2	2	3	1	0	0	0	0	9
03:00	0	0	0	0	1	2	3	0	0	0	0	0	0	6
04:00	0	0	0	0	0	2	0	1	0	0	0	0	0	3
05:00	0	0	0	0	2	0	4	3	1	0	0	0	0	10
06:00	0	0	0	0	2	4	6	2	1	0	0	0	0	15
07:00	0	0	0	0	0	7	26	9	2	0	0	0	0	44
08:00	0	0	0	1	3	19	41	21	1	1	0	0	0	87
09:00	0	0	0	1	4	16	60	27	2	0	0	0	0	110
10:00	0	0	0	1	7	36	85	41	6	0	0	0	0	176
11:00	0	0	0	1	5	36	103	42	7	1	0	0	0	195
12:00 PM	0	0	0	0	3	38	119	55	7	2	1	0	0	225
13:00	0	0	0	1	11	54	123	56	5	3	0	0	0	253
14:00	0	0	0	0	6	55	97	60	13	2	0	0	0	233
15:00	0	0	0	0	6	51	113	50	9	2	0	1	1	233
16:00	0	0	0	2	8	31	112	48	7	0	0	0	0	208
17:00	0	0	0	2	2	30	117	55	12	2	0	0	0	220
18:00	0	0	0	0	0	35	89	42	6	2	1	0	0	175
19:00	0	0	0	0	1	18	59	29	3	2	0	0	1	113
20:00	0	0	0	1	6	10	31	20	4	1	0	1	0	74
21:00	0	0	0	1	5	7	24	11	8	1	0	0	0	57
22:00	0	0	1	3	2	11	4	5	0	1	0	0	0	27
23:00	0	0	1	0	0	3	5	4	0	1	0	0	0	14
Totals			2	15	75	468	1230	588	97	21	2	2	2	2502
% of Totals			0%	1%	3%	19%	49%	24%	4%	1%	0%	0%	0%	100%

AM Volumes	0	0	0	5	25	125	337	153	23	2	0	0	0	670
% AM				0%	1%	5%	13%	6%	1%	0%				27%
AM Peak Hour				02:00	10:00	10:00	11:00	11:00	11:00	08:00				11:00
Volume				1	7	36	103	42	7	1				195
PM Volumes	0	0	2	10	50	343	893	435	74	19	2	2	2	1832
% PM			0%	0%	2%	14%	36%	17%	3%	1%	0%	0%	0%	73%
PM Peak Hour			22:00	22:00	13:00	14:00	13:00	14:00	14:00	13:00	12:00	15:00	15:00	13:00
Volume			1	3	11	55	123	60	13	3	1	1	1	253
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			131	↔	5%	478	↔	19%	428	↔	17%	1465	↔	59%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	48	52	2834
Melrose Dr	South Bound	38	43	43	48	50	2502

SPEED

Melrose Dr 770' S/O Diamond St

Day: Sunday

Date: 1/10/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	2	12	4	2	0	0	0	0	21
01:00	0	0	0	1	0	2	2	3	2	0	0	0	0	10
02:00	0	0	0	1	0	4	4	5	1	0	0	0	0	15
03:00	0	0	0	1	2	2	4	1	0	0	0	0	0	10
04:00	0	0	0	0	0	4	1	2	1	0	0	0	0	8
05:00	0	0	0	1	2	3	7	15	3	0	0	0	0	31
06:00	0	0	0	0	2	10	25	11	2	0	0	0	0	50
07:00	0	0	0	0	3	23	54	30	2	1	0	0	0	113
08:00	0	0	0	1	6	51	100	55	11	1	0	0	0	225
09:00	0	0	0	1	9	55	139	83	8	3	1	0	0	299
10:00	0	0	0	1	12	88	207	110	19	3	0	0	0	440
11:00	0	0	0	1	7	83	213	102	25	2	0	1	0	434
12:00 PM	0	0	0	1	12	84	240	136	24	5	1	0	0	503
13:00	0	0	0	3	23	113	226	110	17	4	1	0	0	497
14:00	0	0	0	0	16	105	201	127	30	5	1	0	0	485
15:00	0	0	0	1	11	108	209	114	28	5	1	2	1	480
16:00	0	0	1	3	15	79	215	103	16	6	1	0	0	439
17:00	0	0	1	2	12	78	193	112	15	2	2	1	0	418
18:00	0	0	0	0	3	74	153	62	10	5	1	0	0	308
19:00	0	0	0	3	10	48	92	52	14	3	1	1	1	225
20:00	0	0	0	1	7	25	57	34	6	4	0	2	0	136
21:00	0	1	1	2	10	24	42	17	13	3	0	0	0	113
22:00	0	0	2	3	5	20	10	8	2	2	0	0	0	52
23:00	0	0	2	0	0	5	8	8	0	1	0	0	0	24
Totals		1	7	27	168	1090	2414	1304	251	55	10	7	2	5336
% of Totals		0%	0%	1%	3%	20%	45%	24%	5%	1%	0%	0%	0%	100%

AM Volumes	0	0	0	8	44	327	768	421	76	10	1	1	0	1656
% AM				0%	1%	6%	14%	8%	1%	0%	0%	0%		31%
AM Peak Hour				01:00	10:00	10:00	11:00	10:00	11:00	09:00	09:00	11:00		10:00
Volume				1	12	88	213	110	25	3	1	1		440
PM Volumes	0	1	7	19	124	763	1646	883	175	45	9	6	2	3680
% PM		0%	0%	0%	2%	14%	31%	17%	3%	1%	0%	0%	0%	69%
PM Peak Hour		21:00	22:00	13:00	13:00	13:00	12:00	12:00	14:00	16:00	17:00	15:00	15:00	12:00
Volume		1	2	3	23	113	240	136	30	6	2	2	1	503
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			338	6%	↔	1000	19%	↔	857	16%	↔	3141	59%	↔

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	51	5336

SPEED

Melrose Dr 770' S/O Diamond St

Day: Monday

Date: 1/11/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	4
01:00	0	0	0	0	0	0	2	1	0	0	0	0	0	3
02:00	0	0	0	0	1	0	1	0	0	0	0	0	0	2
03:00	0	0	0	0	1	2	2	1	0	1	0	0	0	7
04:00	0	0	0	0	0	4	5	5	3	1	0	0	0	18
05:00	0	0	0	0	2	7	26	23	12	2	0	0	0	72
06:00	0	0	0	0	2	30	73	56	9	4	1	0	0	175
07:00	0	0	0	0	5	39	149	106	29	1	0	1	0	330
08:00	0	0	0	0	6	51	150	110	28	1	0	0	0	346
09:00	0	0	0	1	2	41	95	78	12	4	0	0	0	233
10:00	0	0	0	1	5	47	92	58	11	3	1	0	0	218
11:00	0	0	0	0	9	44	106	83	18	2	0	1	0	263
12:00 PM	0	0	0	2	6	43	117	79	16	0	0	0	0	263
13:00	0	0	0	2	5	48	104	97	15	3	1	0	0	275
14:00	0	0	0	0	6	39	122	82	15	4	0	1	0	269
15:00	0	0	0	1	7	48	142	111	27	3	0	0	0	339
16:00	0	0	0	2	17	58	148	88	20	3	0	0	0	336
17:00	0	0	0	0	13	73	145	56	10	2	0	0	0	299
18:00	0	0	0	1	5	41	79	40	8	2	0	0	0	176
19:00	0	0	0	0	7	31	55	31	5	3	0	0	0	132
20:00	0	1	2	9	14	25	12	7	1	0	0	0	0	71
21:00	0	0	0	0	3	16	18	11	2	0	1	1	0	52
22:00	0	0	0	2	1	4	8	7	2	0	0	0	0	24
23:00	0	0	0	0	1	4	8	3	1	0	0	0	0	17
Totals		1	2	21	118	695	1661	1135	244	39	4	4		3924
% of Totals		0%	0%	1%	3%	18%	42%	29%	6%	1%	0%	0%		100%

AM Volumes	0	0	0	2	33	265	703	523	122	19	2	2	0	1671
% AM				0%	1%	7%	18%	13%	3%	0%	0%	0%		43%
AM Peak Hour				09:00	11:00	08:00	08:00	08:00	07:00	06:00	06:00	07:00		08:00
Volume				1	9	51	150	110	29	4	1	1		346
PM Volumes	0	1	2	19	85	430	958	612	122	20	2	2	0	2253
% PM		0%	0%	0%	2%	11%	24%	16%	3%	1%	0%	0%		57%
PM Peak Hour		20:00	20:00	20:00	16:00	17:00	16:00	15:00	15:00	14:00	13:00	14:00		15:00
Volume		1	2	9	17	73	148	111	27	4	1	1		339
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			676	17%	↔	538	14%	↔	635	16%	↔	2075	53%	↔

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	3924
Melrose Dr	South Bound	37	42	42	48	50	3700

SPEED

Melrose Dr 770' S/O Diamond St

Day: Monday

Date: 1/11/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	1	3	0	1	0	0	0	0	5
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	3	0	1	0	0	0	0	4
03:00	0	0	0	0	1	0	1	0	0	0	0	0	0	2
04:00	0	0	0	0	1	1	7	3	0	0	0	0	0	12
05:00	0	0	0	1	1	1	5	3	0	0	0	0	0	11
06:00	0	0	0	2	5	13	17	14	9	0	0	0	0	60
07:00	0	0	0	1	6	32	53	30	10	1	0	0	0	133
08:00	0	0	0	0	3	45	67	46	6	0	0	0	0	167
09:00	0	0	0	1	4	28	72	36	4	1	0	0	0	146
10:00	1	0	0	0	4	21	71	39	4	0	0	0	0	140
11:00	0	0	0	1	9	46	93	79	10	0	0	0	0	238
12:00 PM	0	0	0	1	10	60	113	52	6	1	0	0	0	243
13:00	0	0	0	2	6	53	143	51	7	0	0	0	0	262
14:00	0	0	1	2	8	67	114	60	8	2	0	0	0	262
15:00	0	0	0	0	10	106	171	71	13	1	0	0	0	372
16:00	0	0	0	5	18	134	233	82	18	2	0	0	0	492
17:00	0	0	0	1	11	130	244	87	13	2	0	0	0	488
18:00	0	1	0	2	8	45	140	59	13	1	0	0	0	269
19:00	0	0	0	2	3	37	85	41	11	1	0	0	0	180
20:00	0	1	1	3	18	29	22	14	2	0	0	0	0	90
21:00	0	0	0	1	3	9	18	18	5	1	0	0	0	55
22:00	0	0	0	1	3	8	18	13	3	0	0	0	0	46
23:00	0	0	1	0	0	7	9	2	4	0	0	0	0	23
Totals	1	2	3	26	132	876	1699	801	147	13				3700
% of Totals	0%	0%	0%	1%	4%	24%	46%	22%	4%	0%				100%

AM Volumes	1	0	0	6	34	191	389	251	44	2	0	0	0	918
% AM	0%			0%	1%	5%	11%	7%	1%	0%				25%
AM Peak Hour	10:00			06:00	11:00	11:00	11:00	11:00	07:00	07:00				11:00
Volume	1			2	9	46	93	79	10	1				238
PM Volumes	0	2	3	20	98	685	1310	550	103	11	0	0	0	2782
% PM		0%	0%	1%	3%	19%	35%	15%	3%	0%				75%
PM Peak Hour		18:00	14:00	16:00	16:00	16:00	17:00	17:00	16:00	14:00				16:00
Volume		1	1	5	18	134	244	87	18	2				492
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			300	↔	8%	505	↔	14%	980	↔	26%	1915	↔	52%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	3924
Melrose Dr	South Bound	37	42	42	48	50	3700

SPEED

Melrose Dr 770' S/O Diamond St

Day: Monday

Date: 1/11/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	1	5	2	1	0	0	0	0	9
01:00	0	0	0	0	0	0	2	1	0	0	0	0	0	3
02:00	0	0	0	0	1	3	1	1	0	0	0	0	0	6
03:00	0	0	0	0	2	2	3	1	0	1	0	0	0	9
04:00	0	0	0	0	1	5	12	8	3	1	0	0	0	30
05:00	0	0	0	1	3	8	31	26	12	2	0	0	0	83
06:00	0	0	0	2	7	43	90	70	18	4	1	0	0	235
07:00	0	0	0	1	11	71	202	136	39	2	0	1	0	463
08:00	0	0	0	0	9	96	217	156	34	1	0	0	0	513
09:00	0	0	0	2	6	69	167	114	16	5	0	0	0	379
10:00	1	0	0	1	9	68	163	97	15	3	1	0	0	358
11:00	0	0	0	1	18	90	199	162	28	2	0	1	0	501
12:00 PM	0	0	0	3	16	103	230	131	22	1	0	0	0	506
13:00	0	0	0	4	11	101	247	148	22	3	1	0	0	537
14:00	0	0	1	2	14	106	236	142	23	6	0	1	0	531
15:00	0	0	0	1	17	154	313	182	40	4	0	0	0	711
16:00	0	0	0	7	35	192	381	170	38	5	0	0	0	828
17:00	0	0	0	1	24	203	389	143	23	4	0	0	0	787
18:00	0	1	0	3	13	86	219	99	21	3	0	0	0	445
19:00	0	0	0	2	10	68	140	72	16	4	0	0	0	312
20:00	0	2	3	12	32	54	34	21	3	0	0	0	0	161
21:00	0	0	0	1	6	25	36	29	7	1	1	1	0	107
22:00	0	0	0	3	4	12	26	20	5	0	0	0	0	70
23:00	0	0	1	0	1	11	17	5	5	0	0	0	0	40
Totals	1	3	5	47	250	1571	3360	1936	391	52	4	4		7624
% of Totals	0%	0%	0%	1%	3%	21%	44%	25%	5%	1%	0%	0%		100%

AM Volumes	1	0	0	8	67	456	1092	774	166	21	2	2	0	2589
% AM	0%			0%	1%	6%	14%	10%	2%	0%	0%	0%		34%
AM Peak Hour	10:00			06:00	11:00	08:00	08:00	11:00	07:00	09:00	06:00	07:00		08:00
Volume	1			2	18	96	217	162	39	5	1	1		513
PM Volumes	0	3	5	39	183	1115	2268	1162	225	31	2	2	0	5035
% PM		0%	0%	1%	2%	15%	30%	15%	3%	0%	0%	0%		66%
PM Peak Hour		20:00	20:00	20:00	16:00	17:00	17:00	15:00	15:00	14:00	13:00	14:00		16:00
Volume		2	3	12	35	203	389	182	40	6	1	1		828
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			976	↔	13%	1043	↔	14%	1615	↔	21%	3990	↔	52%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	51	7624

SPEED

Melrose Dr 770' S/O Diamond St

Day: Tuesday

Date: 1/12/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	2
01:00	0	0	0	1	2	1	1	1	0	0	0	0	0	6
02:00	0	0	0	0	0	1	2	0	0	0	0	0	0	3
03:00	0	0	1	2	0	5	2	0	0	0	0	0	0	10
04:00	0	0	0	0	2	3	8	4	2	0	0	0	0	19
05:00	0	0	0	1	3	11	26	26	14	1	0	0	0	82
06:00	0	0	0	1	3	21	70	43	21	4	0	0	0	163
07:00	0	0	0	0	4	43	126	110	14	6	0	0	0	303
08:00	0	0	0	1	13	63	148	116	23	4	3	0	0	371
09:00	0	0	0	0	7	37	104	67	21	4	0	0	0	240
10:00	0	0	0	0	7	39	80	55	15	1	0	0	0	197
11:00	0	0	0	2	15	47	101	64	14	3	0	0	0	246
12:00 PM	1	0	0	1	4	44	83	74	18	5	1	0	0	231
13:00	0	0	0	1	9	54	114	61	20	3	0	0	0	262
14:00	0	0	0	0	7	38	131	64	30	3	0	0	0	273
15:00	0	0	0	3	10	54	150	118	21	1	1	0	0	358
16:00	0	0	0	0	8	77	166	91	12	1	0	0	0	355
17:00	0	0	0	2	7	69	146	91	17	2	1	0	0	335
18:00	0	0	0	1	7	58	99	49	6	2	1	0	0	223
19:00	0	0	0	1	5	29	63	17	5	1	0	0	0	121
20:00	0	0	0	2	15	27	29	11	2	2	0	0	0	88
21:00	0	0	1	0	3	11	22	9	6	1	0	0	0	53
22:00	0	0	0	1	4	9	8	8	3	1	0	0	0	34
23:00	0	0	0	0	1	4	3	4	1	0	0	0	0	13
Totals	1		2	20	136	746	1682	1084	265	45	7			3988
% of Totals	0%		0%	1%	3%	19%	42%	27%	7%	1%	0%			100%

AM Volumes	0	0	1	8	56	272	668	487	124	23	3	0	0	1642
% AM			0%	0%	1%	7%	17%	12%	3%	1%	0%			41%
AM Peak Hour			03:00	03:00	11:00	08:00	08:00	08:00	08:00	07:00	08:00			08:00
Volume			1	2	15	63	148	116	23	6	3			371
PM Volumes	1	0	1	12	80	474	1014	597	141	22	4	0	0	2346
% PM	0%		0%	0%	2%	12%	25%	15%	4%	1%	0%			59%
PM Peak Hour	12:00		21:00	15:00	20:00	16:00	16:00	15:00	14:00	12:00	12:00			15:00
Volume	1		1	3	15	77	166	118	30	5	1			358
Directional Peak Periods			AM 7-9				NOON 12-2				PM 4-6			
All Speeds			Volume	%		Volume	%		Volume	%	Volume	%		
			674	↔	17%	493	↔	12%	690	↔	17%	2131	↔	53%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	3988
Melrose Dr	South Bound	37	42	42	47	50	3673

SPEED

Melrose Dr 770' S/O Diamond St

Day: Tuesday

Date: 1/12/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	1	0	0	1	3	2	0	0	0	0	0	7
01:00	0	0	0	0	1	2	0	0	0	0	0	0	0	3
02:00	0	0	0	0	0	1	2	2	0	0	0	0	0	5
03:00	0	0	0	0	0	0	1	1	0	0	0	0	0	2
04:00	0	0	0	0	1	2	5	0	0	0	0	0	0	8
05:00	0	0	0	2	1	5	7	1	2	0	0	0	0	18
06:00	0	0	0	3	4	11	26	14	3	1	0	0	0	62
07:00	0	0	0	0	4	27	64	36	5	0	0	0	0	136
08:00	0	0	0	1	5	32	98	43	5	0	0	0	0	184
09:00	0	0	1	2	9	45	70	35	4	0	0	0	0	166
10:00	0	0	0	2	3	34	66	40	7	0	0	0	0	152
11:00	0	0	0	1	5	22	85	41	6	0	1	0	0	161
12:00 PM	0	0	0	1	9	50	102	51	6	2	0	0	0	221
13:00	0	0	1	0	6	36	109	53	6	1	0	0	0	212
14:00	0	0	0	1	9	57	152	45	8	3	1	0	0	276
15:00	0	0	0	1	16	101	226	75	10	0	0	0	0	429
16:00	0	0	0	0	13	153	214	81	12	2	0	0	0	475
17:00	0	0	0	3	18	132	244	68	7	1	0	0	0	473
18:00	0	0	0	0	6	54	138	59	4	2	0	0	0	263
19:00	0	0	0	1	5	27	80	39	4	2	0	0	0	158
20:00	0	0	2	7	10	39	55	17	8	0	0	0	0	138
21:00	0	0	0	1	3	14	30	18	3	1	0	0	0	70
22:00	0	0	0	1	0	9	13	7	0	0	0	0	0	30
23:00	0	0	0	0	1	6	12	4	1	0	0	0	0	24
Totals			5	27	129	860	1802	732	101	15	2			3673
% of Totals			0%	1%	4%	23%	49%	20%	3%	0%	0%			100%

AM Volumes	0	0	2	11	33	182	427	215	32	1	1	0	0	904
% AM			0%	0%	1%	5%	12%	6%	1%	0%	0%			25%
AM Peak Hour				06:00	09:00	09:00	08:00	08:00	10:00	06:00	11:00			08:00
Volume			1	3	9	45	98	43	7	1	1			184
PM Volumes	0	0	3	16	96	678	1375	517	69	14	1	0	0	2769
% PM			0%	0%	3%	18%	37%	14%	2%	0%	0%			75%
PM Peak Hour			20:00	20:00	17:00	16:00	17:00	16:00	16:00	14:00	14:00			16:00
Volume			2	7	18	153	244	81	12	3	1			475
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			320	↔	9%	433	↔	12%	948	↔	26%	1972	↔	54%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	43	49	52	3988
Melrose Dr	South Bound	37	42	42	47	50	3673

SPEED

Melrose Dr 770' S/O Diamond St

Day: Tuesday

Date: 1/12/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	1	0	0	2	3	3	0	0	0	0	0	9
01:00	0	0	0	1	3	3	1	1	0	0	0	0	0	9
02:00	0	0	0	0	0	2	4	2	0	0	0	0	0	8
03:00	0	0	1	2	0	5	3	1	0	0	0	0	0	12
04:00	0	0	0	0	3	5	13	4	2	0	0	0	0	27
05:00	0	0	0	3	4	16	33	27	16	1	0	0	0	100
06:00	0	0	0	4	7	32	96	57	24	5	0	0	0	225
07:00	0	0	0	0	8	70	190	146	19	6	0	0	0	439
08:00	0	0	0	2	18	95	246	159	28	4	3	0	0	555
09:00	0	0	1	2	16	82	174	102	25	4	0	0	0	406
10:00	0	0	0	2	10	73	146	95	22	1	0	0	0	349
11:00	0	0	0	3	20	69	186	105	20	3	1	0	0	407
12:00 PM	1	0	0	2	13	94	185	125	24	7	1	0	0	452
13:00	0	0	1	1	15	90	223	114	26	4	0	0	0	474
14:00	0	0	0	1	16	95	283	109	38	6	1	0	0	549
15:00	0	0	0	4	26	155	376	193	31	1	1	0	0	787
16:00	0	0	0	0	21	230	380	172	24	3	0	0	0	830
17:00	0	0	0	5	25	201	390	159	24	3	1	0	0	808
18:00	0	0	0	1	13	112	237	108	10	4	1	0	0	486
19:00	0	0	0	2	10	56	143	56	9	3	0	0	0	279
20:00	0	0	2	9	25	66	84	28	10	2	0	0	0	226
21:00	0	0	1	1	6	25	52	27	9	2	0	0	0	123
22:00	0	0	0	2	4	18	21	15	3	1	0	0	0	64
23:00	0	0	0	0	2	10	15	8	2	0	0	0	0	37
Totals	1		7	47	265	1606	3484	1816	366	60	9			7661
% of Totals	0%		0%	1%	3%	21%	45%	24%	5%	1%	0%			100%

AM Volumes	0	0	3	19	89	454	1095	702	156	24	4	0	0	2546
% AM			0%	0%	1%	6%	14%	9%	2%	0%	0%			33%
AM Peak Hour				06:00	11:00	08:00	08:00	08:00	08:00	07:00	08:00			08:00
Volume			1	4	20	95	246	159	28	6	3			555
PM Volumes	1	0	4	28	176	1152	2389	1114	210	36	5	0	0	5115
% PM	0%		0%	0%	2%	15%	31%	15%	3%	0%	0%			67%
PM Peak Hour	12:00		20:00	20:00	15:00	16:00	17:00	15:00	14:00	12:00	12:00			16:00
Volume	1		2	9	26	230	390	193	38	7	1			830
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			994	↔	13%	926	↔	12%	1638	↔	21%	4103	↔	54%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	51	7661

SPEED

Melrose Dr 770' S/O Diamond St

Day: Wednesday

Date: 1/13/2021

City: San Marcos

Project #: CA20_040246_001n

North Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	2	1	1	0	0	0	0	0	4
02:00	0	0	0	0	0	3	2	0	0	1	0	0	0	6
03:00	0	0	0	0	1	1	1	3	0	0	0	0	0	6
04:00	0	0	0	0	0	5	4	3	1	0	0	0	0	13
05:00	0	0	0	0	1	11	26	27	8	1	0	1	0	75
06:00	0	0	0	1	4	24	73	48	24	2	0	0	0	176
07:00	0	0	0	0	6	42	148	95	23	4	1	1	0	320
08:00	0	0	0	0	5	41	165	135	32	1	2	0	0	381
09:00	0	0	0	1	3	38	93	84	18	3	0	0	0	240
10:00	0	0	0	1	5	30	96	61	13	0	0	0	0	206
11:00	0	0	0	1	14	35	109	58	18	1	0	0	0	236
12:00 PM	0	0	0	3	10	39	90	79	18	3	0	1	0	243
13:00	0	0	0	3	11	52	113	82	21	4	0	0	0	286
14:00	0	0	0	1	16	63	127	70	16	3	0	0	0	296
15:00	0	0	0	2	11	55	169	116	24	6	1	0	0	384
16:00	0	0	0	4	18	69	144	95	19	1	0	0	0	350
17:00	0	0	0	2	14	74	147	70	11	6	0	0	0	324
18:00	0	0	0	0	6	44	102	54	14	3	1	0	0	224
19:00	0	0	0	0	3	27	58	33	8	3	0	0	0	132
20:00	0	0	0	1	4	23	30	12	1	2	3	0	0	76
21:00	0	0	1	0	1	12	16	16	4	3	1	0	0	54
22:00	1	0	1	2	8	8	8	2	0	0	0	0	0	30
23:00	0	0	0	0	1	4	6	2	2	0	0	0	0	15
Totals	1		2	22	142	702	1728	1146	275	47	9	3		4077
% of Totals	0%		0%	1%	3%	17%	42%	28%	7%	1%	0%	0%		100%

AM Volumes	0	0	0	4	39	232	718	515	137	13	3	2	0	1663
% AM				0%	1%	6%	18%	13%	3%	0%	0%	0%		41%
AM Peak Hour				06:00	11:00	07:00	08:00	08:00	08:00	07:00	08:00	05:00		08:00
Volume				1	14	42	165	135	32	4	2	1		381
PM Volumes	1	0	2	18	103	470	1010	631	138	34	6	1	0	2414
% PM	0%		0%	0%	3%	12%	25%	15%	3%	1%	0%	0%		59%
PM Peak Hour	22:00		21:00	16:00	16:00	17:00	15:00	15:00	15:00	15:00	20:00	12:00		15:00
Volume	1		1	4	18	74	169	116	24	6	3	1		384
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			701	↔	17%	529	↔	13%	674	↔	17%	2173	↔	53%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	44	49	52	4077
Melrose Dr	South Bound	37	42	42	47	50	3834

SPEED

Melrose Dr 770' S/O Diamond St

Day: Wednesday

Date: 1/13/2021

City: San Marcos

Project #: CA20_040246_001s

South Bound

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	0	1	5	1	1	0	0	0	9
01:00	0	0	0	0	0	2	2	1	2	0	0	0	0	7
02:00	0	0	0	0	0	0	2	2	1	0	0	0	0	5
03:00	0	0	0	0	0	2	1	0	0	0	0	0	0	3
04:00	0	0	0	0	2	4	3	2	0	0	0	0	0	11
05:00	0	0	0	1	5	2	7	3	2	0	0	0	0	20
06:00	0	0	0	2	5	13	28	10	1	0	0	0	0	59
07:00	0	1	0	0	4	30	58	32	4	1	0	0	0	130
08:00	0	0	0	1	6	54	89	34	6	0	0	0	0	190
09:00	0	0	0	0	7	34	62	30	5	0	0	0	0	138
10:00	0	0	0	0	8	30	62	43	11	0	0	0	0	154
11:00	0	0	0	1	5	41	97	33	9	0	0	0	0	186
12:00 PM	0	0	0	1	13	44	125	59	9	0	0	0	0	251
13:00	0	0	0	0	7	43	112	66	13	2	1	0	0	244
14:00	0	0	2	6	15	89	123	58	5	0	0	0	0	298
15:00	0	0	0	4	17	119	227	75	10	2	0	0	0	454
16:00	0	0	0	2	23	125	214	55	14	0	0	0	0	433
17:00	0	0	0	2	13	136	252	87	17	3	0	0	0	510
18:00	0	0	0	1	7	46	147	52	13	0	0	0	0	266
19:00	0	0	0	0	4	36	77	44	11	2	2	0	0	176
20:00	0	0	0	0	4	21	67	39	4	1	0	0	0	136
21:00	0	0	0	2	7	20	35	24	3	3	1	0	0	95
22:00	0	0	1	1	6	6	8	7	1	0	0	0	0	30
23:00	0	0	0	1	1	6	12	7	2	0	0	0	0	29
Totals		1	3	25	160	903	1811	768	144	15	4			3834
% of Totals		0%	0%	1%	4%	24%	47%	20%	4%	0%	0%			100%

AM Volumes	0	1	0	5	43	212	412	195	42	2	0	0	0	912
% AM		0%		0%	1%	6%	11%	5%	1%	0%				24%
AM Peak Hour		07:00		06:00	10:00	08:00	11:00	10:00	10:00					08:00
Volume		1		2	8	54	97	43	11	1				190
PM Volumes	0	0	3	20	117	691	1399	573	102	13	4	0	0	2922
% PM			0%	1%	3%	18%	36%	15%	3%	0%	0%			76%
PM Peak Hour			14:00	14:00	16:00	17:00	17:00	17:00	17:00	17:00	19:00			17:00
Volume			2	6	23	136	252	87	17	3	2			510
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			320	8%	↔	495	13%	↔	943	25%	↔	2076	54%	↔

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	North Bound	38	43	44	49	52	4077
Melrose Dr	South Bound	37	42	42	47	50	3834

SPEED

Melrose Dr 770' S/O Diamond St

Day: Wednesday

Date: 1/13/2021

City: San Marcos

Project #: CA20_040246_001

Summary

Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	1	0	1	5	1	1	0	0	0	9
01:00	0	0	0	0	0	4	3	2	2	0	0	0	0	11
02:00	0	0	0	0	0	3	4	2	1	1	0	0	0	11
03:00	0	0	0	0	1	3	2	3	0	0	0	0	0	9
04:00	0	0	0	0	2	9	7	5	1	0	0	0	0	24
05:00	0	0	0	1	6	13	33	30	10	1	0	1	0	95
06:00	0	0	0	3	9	37	101	58	25	2	0	0	0	235
07:00	0	1	0	0	10	72	206	127	27	5	1	1	0	450
08:00	0	0	0	1	11	95	254	169	38	1	2	0	0	571
09:00	0	0	0	1	10	72	155	114	23	3	0	0	0	378
10:00	0	0	0	1	13	60	158	104	24	0	0	0	0	360
11:00	0	0	0	2	19	76	206	91	27	1	0	0	0	422
12:00 PM	0	0	0	4	23	83	215	138	27	3	0	1	0	494
13:00	0	0	0	3	18	95	225	148	34	6	1	0	0	530
14:00	0	0	2	7	31	152	250	128	21	3	0	0	0	594
15:00	0	0	0	6	28	174	396	191	34	8	1	0	0	838
16:00	0	0	0	6	41	194	358	150	33	1	0	0	0	783
17:00	0	0	0	4	27	210	399	157	28	9	0	0	0	834
18:00	0	0	0	1	13	90	249	106	27	3	1	0	0	490
19:00	0	0	0	0	7	63	135	77	19	5	2	0	0	308
20:00	0	0	0	1	8	44	97	51	5	3	3	0	0	212
21:00	0	0	1	2	8	32	51	40	7	6	2	0	0	149
22:00	1	0	2	3	14	14	16	9	1	0	0	0	0	60
23:00	0	0	0	1	2	10	18	9	4	0	0	0	0	44
Totals	1	1	5	47	302	1605	3539	1914	419	62	13	3		7911
% of Totals	0%	0%	0%	1%	4%	20%	45%	24%	5%	1%	0%	0%		100%

AM Volumes	0	1	0	9	82	444	1130	710	179	15	3	2	0	2575
% AM		0%		0%	1%	6%	14%	9%	2%	0%	0%	0%		33%
AM Peak Hour		07:00		06:00	11:00	08:00	08:00	08:00	08:00	07:00	08:00	05:00		08:00
Volume		1		3	19	95	254	169	38	5	2	1		571
PM Volumes	1	0	5	38	220	1161	2409	1204	240	47	10	1	0	5336
% PM	0%		0%	0%	3%	15%	30%	15%	3%	1%	0%	0%		67%
PM Peak Hour	22:00		14:00	14:00	16:00	17:00	17:00	15:00	13:00	17:00	20:00	12:00		15:00
Volume	1		2	7	41	210	399	191	34	9	3	1		838
Directional Peak Periods			AM 7-9			NOON 12-2			PM 4-6			Off Peak Volumes		
All Speeds			Volume	%		Volume	%		Volume	%		Volume	%	
			1021	↔	13%	1024	↔	13%	1617	↔	20%	4249	↔	54%

Street Name	Direction	Percentiles					
		15th	50th	Average	85th	95th	ADT
Melrose Dr	Summary	38	43	43	48	51	7911

Rafael, Michael

From: Serge Issakov
Sent: Tuesday, February 16, 2021 10:27 AM
To: Judy Frankel
Cc: Abboud, Nicholas; Karl Rudnick; Pete Penseyres; Rafael, Michael
Subject: Re: 2017 San Marcos Slurry Seal Coat Project (Buffered Bike Lanes)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Yes, what Judy said. Encouraging riders to take a conspicuous lane position with properly placed shared lane markings would be very helpful. A center lane position makes the cyclist more noticeable and predictable sooner, allowing approaching motorists to plan a safe pass sooner. It also improves the cyclists's vantage ahead, allowing them to see and plan for potential conflicts ahead better.

Thank you.

Serge

On Tue, Feb 16, 2021 at 9:47 AM Judy Frankel [wrote](#):

Hi Michael,

Thanks for writing.

Hundreds of cyclists use this section of road already using the full lane and have been requesting sharrows for 20 years.

There is no speed limitation in the MUTCD for sharrows. So of course they should be implemented if there is no bike lane. Cyclist use this road to commute as well and do use the full lane on the roadway. They must use the full lane as the lane is too narrow to share with a car. There are also many driveways here. Edge riding subjects cyclists to and encourages unsafe close passes and also puts cyclists in danger of pullout and right hook crashes at driveways. Sharrows educate motorists and cyclists to the law. It doesn't change the law. It reduces harassment of cyclists by motorists by educating them. Signs are not as noticeable compared with stencils in the roadway.

Motorist traffic on this section of road is not high and they have no problem changing lanes to pass. This is a perfect place for sharrows.

As an example, there are sharrows on coast highway in Cardiff the speed limit was lowered after sharrows were added.

You may want to do a speed survey after putting them down because they may serve as traffic calming and you may be able to lower the speed limit.

We would really appreciate the sharrows.



How wide he thinks his car is



How wide it really is



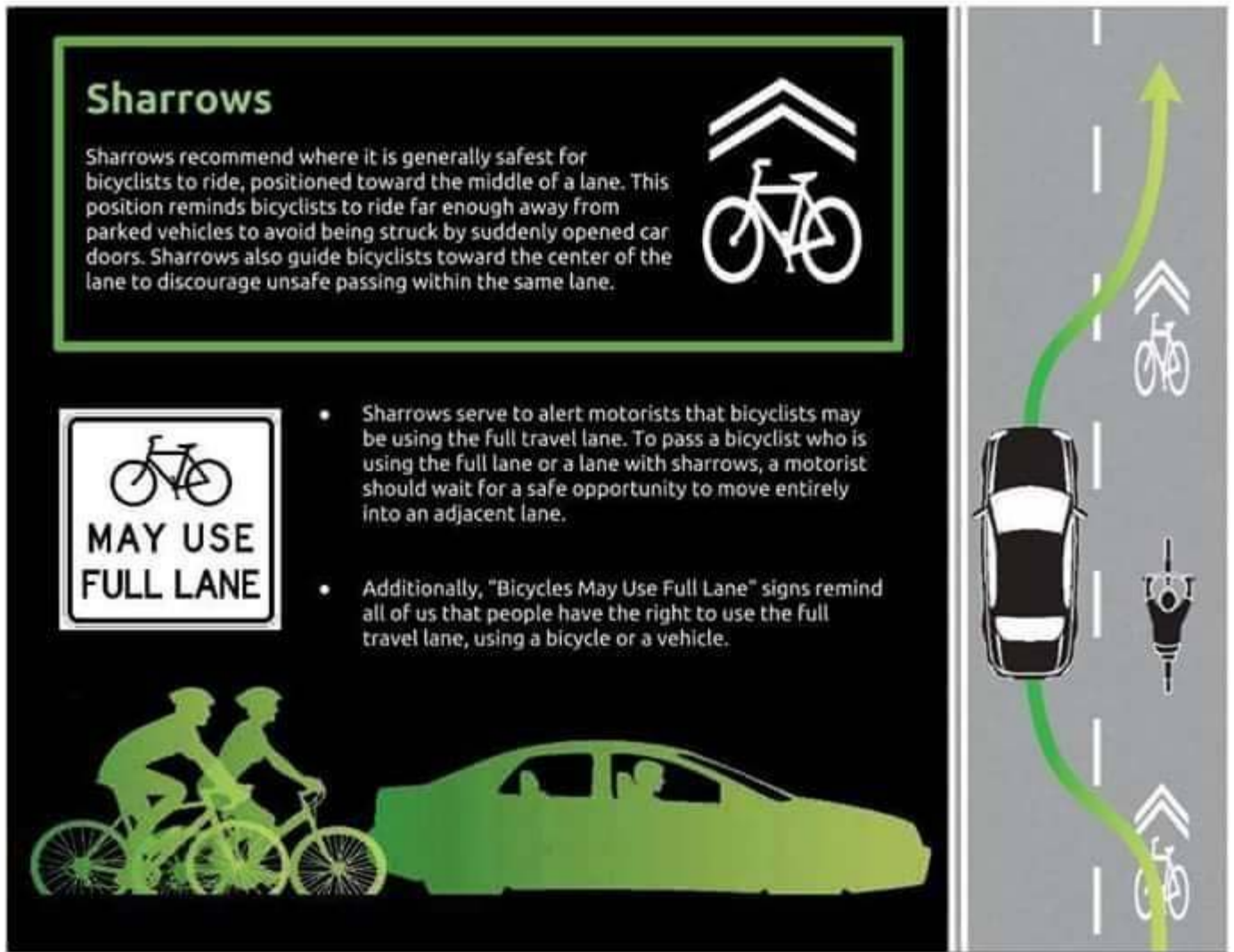
Where Savvy Cyclists ride to discourage that mistake.



Most lanes are too narrow for a car to pass a bicyclist safely within the lane. Savvy Cyclists make that clear by leaving less space to their left. This is defensive driving. And it is legal in all 50 states. Regardless of where a bicyclist is, please don't risk a mistake. Change lanes to pass.

i am traffic.org  /iamtraffic

Graphic: i am traffic - iamtraffic.org



I've ccd other stake holders who can help with any input as well.
Thank you

Judy Frankel
Bike Walk North County

On Tue, Feb 16, 2021 at 9:02 AM, Rafael, Michael
<MRafael@san-marcos.net> wrote:

Hi Judy,

Hope all is well and safe. It's been awhile since we had dialogue. I just wanted to reach out to you and the NC Bike group on their feedback from a cyclists perspective regarding the use of proposed sharrows per CAMUTCD standards on Melrose Drive in the City of San Marcos. There is currently no bike lanes striped on Melrose Drive between Boulderridge Drive and San Elijo Road, however there are existing "BICYCLES MAY USE FULL LANE" signs installed. We had proposed to install bike sharrows to supplement the signs along this segment and presented it to our Traffic Commission for approval last November. However, they wanted to review additional information on bike volume/collisions/vehicle speed data before they make a

decision since they feel that the road is unsafe due to the windy, curved nature and the 40 MPH posted speed limit.

Based on our recent collected bike volume counts (used video), there is significant bicycle traffic on Melrose Drive during the weekends (up to 90 cyclists on Saturday). On weekdays, there is less bicycle volume (approx. 12 riders in each direction for the entire day). I'm hoping to present to the Traffic Commission next month to recommend sharrows based on our data collection. Also, the inexperienced or novice riders will take either the sidewalk or unpaved trail. I appreciate your input. Please let me know if you have questions.



MICHAEL RAFAEL, PE, TE | Senior Civil Engineer (Transportation)

City of San Marcos | [1 Civic Center Drive, San Marcos CA 92069](#)

T: (760) 744-1050 x3274

mrafael@san-marcos.net | www.san-marcos.net

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At the City of San Marcos, the health and safety of our community is our top priority. For real-time updates about the City's response to COVID-19, visit www.san-marcos.net/covid19

AGENDA REPORT

Meeting of the San Marcos Traffic Commission

MEETING DATE: November 4, 2020
AGENDA ITEM NO: 7B
SUBMITTED BY: Michael Rafael, P.E. – Senior Civil Engineer
APPROVED BY: Nic Abboud, P.E. – Principal Civil Engineer
SUBJECT: Melrose Drive – Request for Bike Shared Lane Markings (Sharrows)

BACKGROUND:

Engineering staff received bicycle safety complaints on Melrose Drive between San Elijo Road and Boulderidge Drive. Residents feel unsafe while riding their bicycles on Melrose Drive, which permits bicycle travel to share the roadway with vehicles. Bicyclists are also concerned with motorists honking at them while taking full control of the lane. Residents are requesting the City to install bike shared lane markings (sharrows) to indicate dual use of the travel lane for both bicycles and vehicles. Based on these concerns, Engineering staff initiated a traffic safety evaluation on Melrose Drive to determine if the sharrow pavement markings would be warranted.

DISCUSSION:

The study area is located on Melrose Drive between San Elijo Road and Boulderidge Drive in the City of San Marcos (see attached Vicinity Map). Melrose Drive is classified as a divided, 4-lane secondary arterial which is approximately 0.80 miles long. The roadway segment measures between 50 to 62 feet (curb-to-curb width). The typical cross section consists of each travel lane measuring at least 11 feet minimum with a painted center turn lane or raised median. This roadway configuration makes it infeasible to accommodate a separated bike lane on the roadway segment. Melrose Drive between Boulderidge Drive and Rancho Santa Fe Road consist of a standard 5-foot bike lane. The existing two way turn lane serves multiple commercial and multi-family developments within the roadway segment. Melrose Drive is also signalized at the intersections of Diamond Street and Boulderidge Drive. The street grade varies up to a maximum of 6.7 percent and consist of several horizontal curves. With no exclusive bike lane, Melrose Drive is classified as a Class III bike route with existing “BICYCLES MAY USE FULL LANE” (R4-11) regulatory signs currently installed. Per CAMUTCD, these signs may be used on roadways where no bicycle lanes or adjacent shoulders usable by bicyclists are present and where travel lanes are too narrow for bicyclists and motor vehicles to occupy the travel lane. These signs were initially installed in 2017 to inform motorists that bicyclists might occupy the outside travel lane on Melrose Drive. The posted speed limit within the roadway segment is established at 40 MPH with an average daily traffic (ADT) of 13,603 vehicles per day (VPD).

Engineering staff also reviewed the collision history for the last three (3) years and found a total of seven (7) reported collisions along Melrose Drive between San Elijo Road and Boulderidge Drive. The

types of reported collisions included broadside, sideswipe, and hit object collisions. All of the reported collisions have been attributed to unsafe speeding and improper turning along the corridor. There were no collisions that involved pedestrians or bicyclists traveling on Melrose Drive.

Engineering staff reviewed residents' request for bike shared lane markings (sharrows) on Melrose Drive. Per the California Manual on Uniform Traffic Control Devices (CAMUTCD), Section 9C.07, shared lane markings may be used to:

- a) Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle
- b) Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane.
- c) Alert road users of the lateral location of bicyclists are likely to occupy within the traveled way
- d) Encourage safe passing of bicyclists by motorists, and
- e) Reduce the incidence of wrong-way bicycling.
- f) Assist bicyclists with lateral positioning with a traffic circle or roundabout
- g) Supplement a signed bicycle route that is identified as a Class III bicycle facility
- h) Encourage the lateral positioning of bicyclists away from on-street angled parking, and
- i) Indicate that a bicycle can travel straight through a right-turn lane or left-turn lane only.

In addition, the CAMUTCD allows shared lane markings, as an option, to be placed on roadways that have a speed limit above 35 mph, where there is bicycle travel and there is no marked bicycle lane and the right-hand traffic lane is too narrow to allow motor vehicles to safely pass bicyclist. The CAMUTCD allows the option to use either the "BICYCLES MAY USE FULL LANE" signs or shared lane markings to inform road users that bicyclists might occupy the travel lane.

The existing outside travel lanes on Melrose Drive are not wide enough for motor vehicles to pass bicyclists due to the narrow lane widths (12 feet maximum) with the exception of motorists changing lanes to avoid the bicyclists. The existing "BICYCLES MAY USE FULL LANE" signs may also be confusing to both bicyclists and motorists since there are two lanes in each direction on Melrose Drive and there are no bike shared lane markings present to indicate which lane bicyclists can take control of. The visibility of the "BICYCLES MAY USE FULL LANE" signs installed within the public right-of-way could also be a concern with motorists unaware of the signs.

Other nearby public agencies (Carlsbad and Encinitas) have implemented the use of both bike lane sharrows and signs to improve bicycle operations and safety within their jurisdiction. One disadvantage of implementing sharrow markings is that they may convey a false sense of security and encourage novice cyclists to travel on public roadways above their skill level. However, the majority of bicyclists observed riding on similar arterial City streets are generally experienced and appear comfortable in traveling with vehicular traffic.

Based on satisfying the CAMUTCD criteria for bike shared lane markings (sharrows), it is recommended that sharrows be installed on Melrose Drive between San Elijo Road and Boulderidge Drive to improve

bicycle operations and enhance motorists' awareness of bicyclists, or the possibility of bicyclists riding within the outside travel lanes. The new sharrows shall be installed within the roadway segment (6-feet from face of curb) adjacent to the existing "BICYCLES MAY USE FULL LANE" regulatory signs currently installed within the public right-of-way (see attached exhibit). In addition, the new sharrow markings will provide bicycle connectivity on Melrose Drive between Carlsbad and San Marcos. Melrose Drive in Carlsbad is currently striped with Class 2 buffered bike lanes and San Elijo Road in San Marcos is striped as a standard 5-foot bike lane.

Engineering staff plans to reevaluate this roadway segment for the potential inclusion of buffered or separated bike lanes, while reducing the number of lanes from four to two (one lane in each direction). The analysis would evaluate the capacity of a 2-lane facility to accommodate traffic demands, identify any resulting operational problems and solutions, identify the impact on all types of users, and collect input from the local community. Based on the feasibility of such improvements, a potential design would be brought before the commission for approval. Funding opportunities may be pursued through the City's own annual slurry seal program or via a future application to federal grants with focus on active transportation, mobility and public safety.

CONCLUSION AND RECOMMENDATIONS:

Engineering staff requests that the Traffic Commission accept staff's recommendations for the installation of bike shared lane markings (Sharrows) on Melrose Drive between San Elijo Road and Boulderidge Drive. The new sharrows will be installed within the roadway segment (6-feet from face of curb) adjacent to the existing "BICYCLES MAY USE FULL LANE" regulatory signs currently installed within the public right-of-way (see attached exhibit).

Engineering staff also recommends selective enforcement by the Sheriff's Department of the "BICYCLES MAY USE FULL LANE" regulatory signs and the new sharrow pavement markings on Melrose Drive.

TRAFFIC DATA/ROADWAY INFORMATION:

Traffic Volumes:

Melrose Drive, San Elijo Road and Rancho Santa Fe Road – 13,603 VPD (vehicles per day, 2019).

Speed Limit:

40 MPH, posted.

Accident History (last 3 years):

- 05/16/17, 8:00 PM, Melrose [Dr.@Longstaff](#) Ct, Broadside, Auto R/W Violation
- 12/19/17, 3:36 PM, Melrose [Dr.@Sparrow](#) Ln, Sideswipe, Improper Turning
- 03/30/18, 7:30 PM, Melrose [Dr.@Diamond](#) St., Hit Object, Improper Turning
- 06/06/18, 11:40 AM, Melrose [Dr.@Boulderidge](#) Dr, Hit Object, Improper Turning

- 07/06/18, 1:05 AM, Melrose [Dr.@Diamond](#) St., Hit Object, Unsafe Speed, (1) injury
- 02/24/19, 9:41 PM, Melrose [Dr.@Diamond](#) St., Hit Object, Unsafe Speed
- 05/14/19, 5:25 PM, Melrose@Longstaff Ct, Broadside, Unsafe Lane Change, (3) injuries

ATTACHMENT(S)

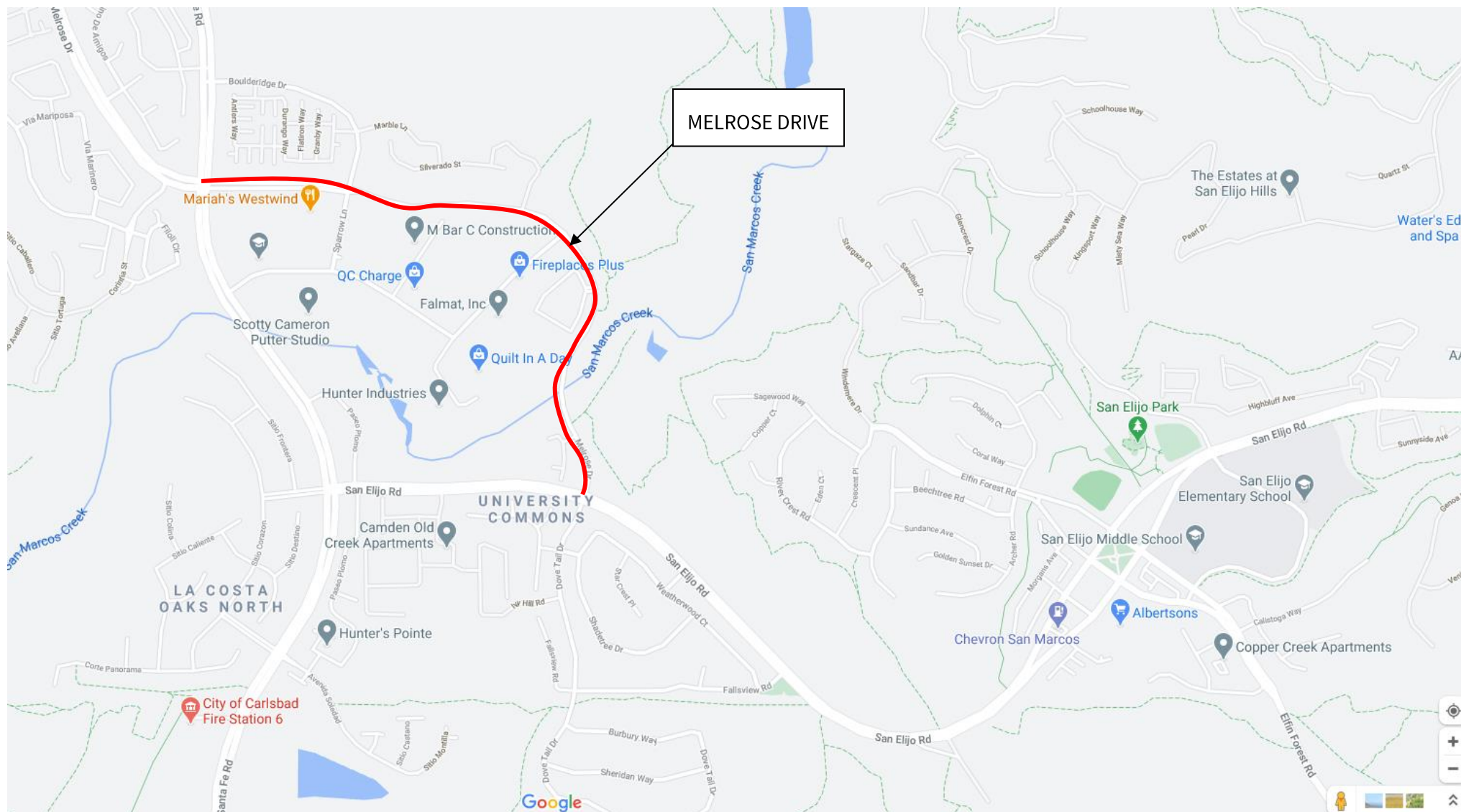
Vicinity Map

Proposed Bike Shared Lane Markings (Sharrows) Exhibit

CAMUTCD References

Correspondence

Photos



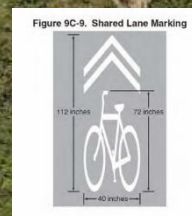
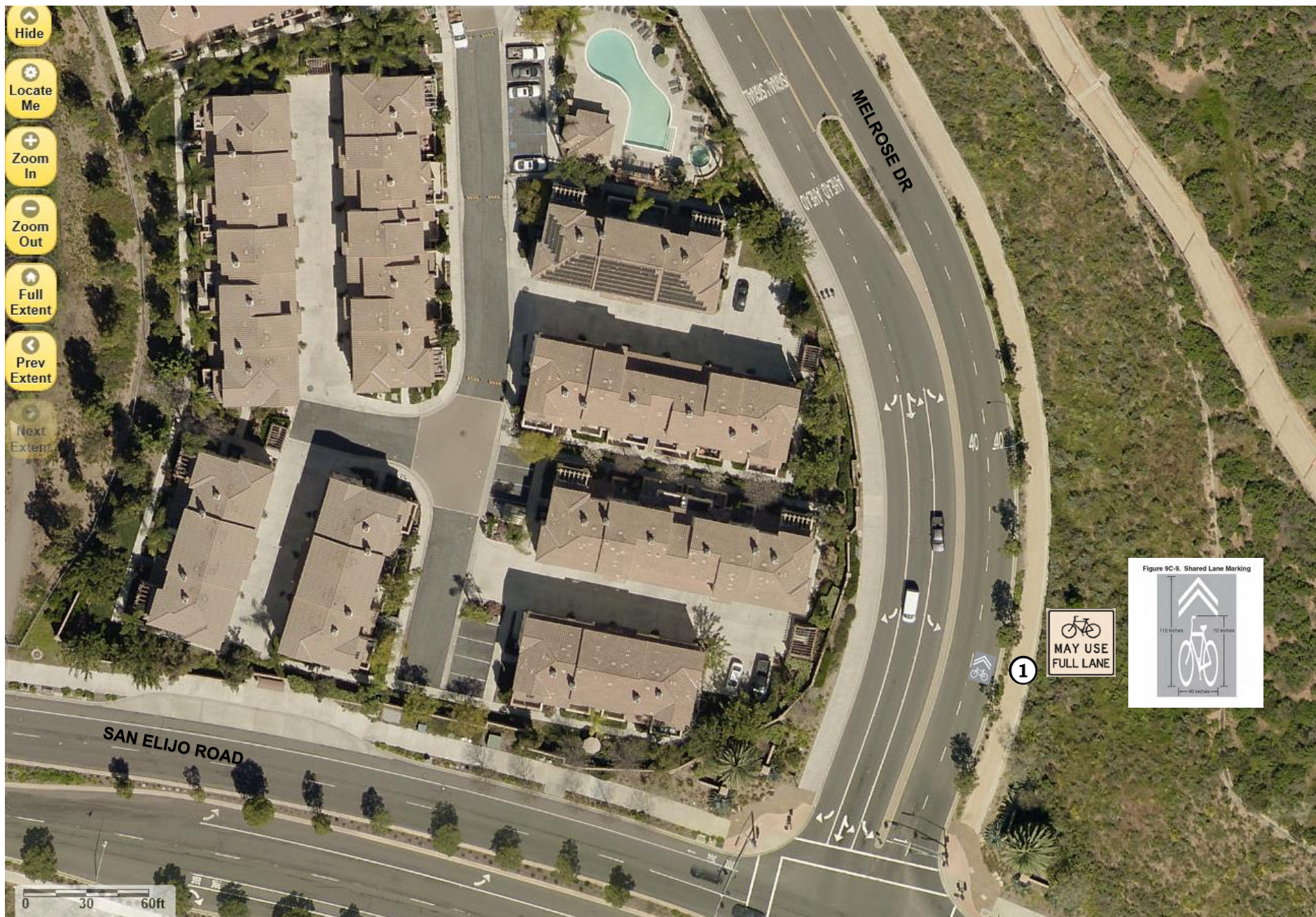
VICINITY MAP

MELROSE DRIVE – BIKE SHARED LANE MARKINGS (SHARROWS)

AGENDA ITEM #7B – NOVEMBER 2020



*NOT TO SCALE

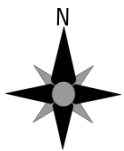
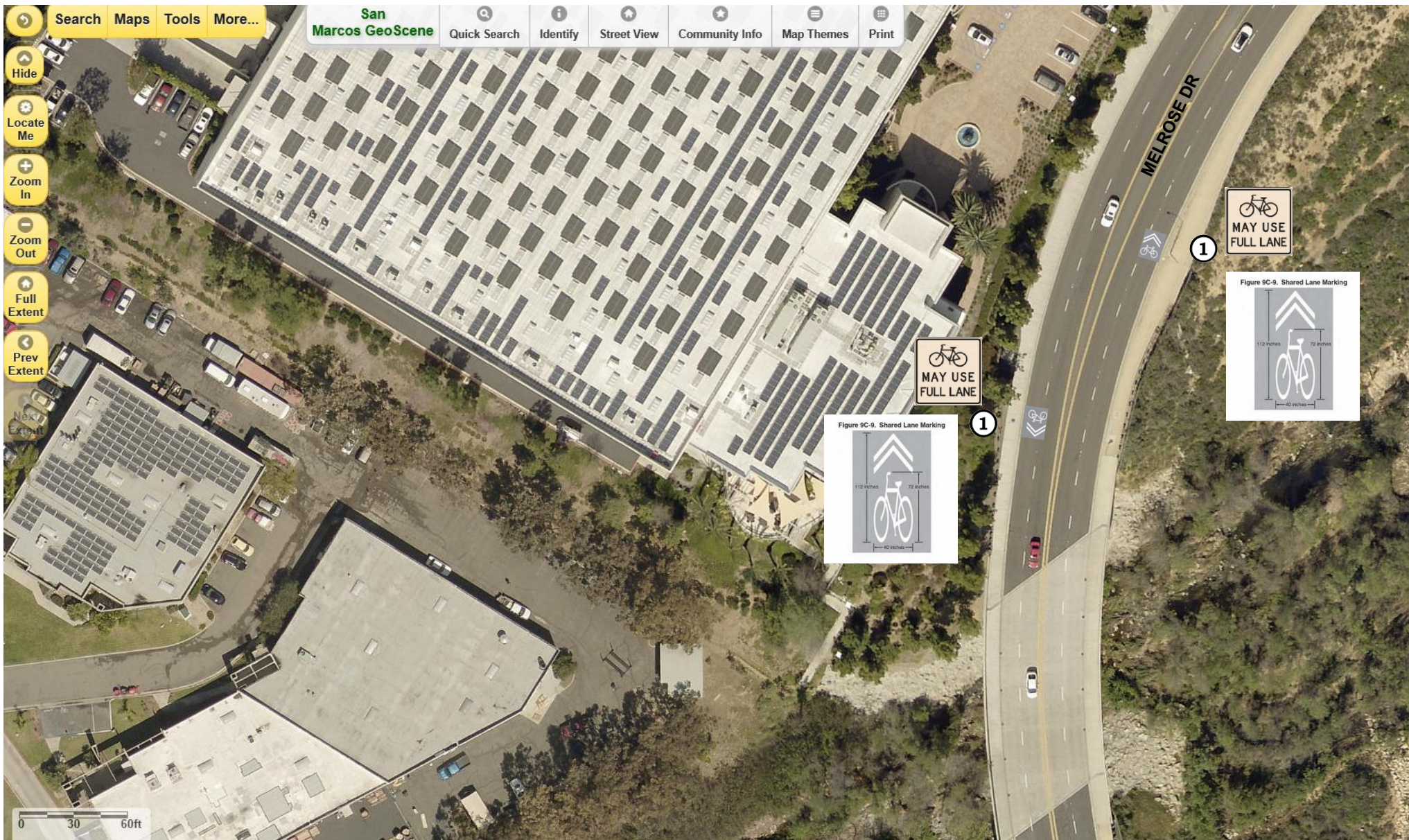


*NOT TO SCALE

MELROSE DRIVE
PROPOSED STRIPING IMPROVEMENTS (SHARROWS)
AGENDA ITEM #7B, NOVEMBER 2020

CONSTRUCTION NOTES:

① INSTALL NEW BIKE LANE SHARROW PER CAMUTCD FIG. 9C-9

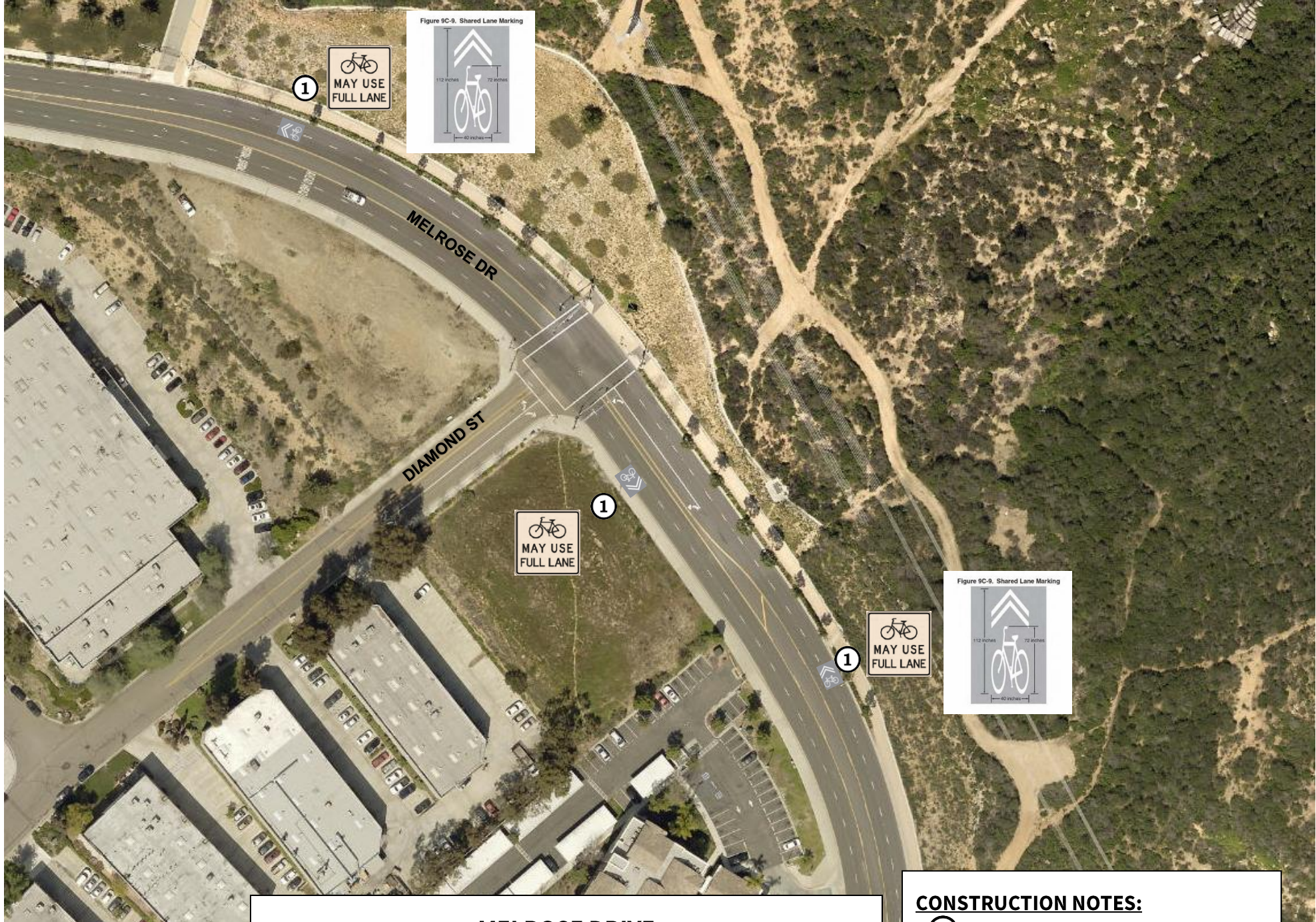


*NOT TO SCALE

MELROSE DRIVE
PROPOSED STRIPING IMPROVEMENTS (SHARROWS)
AGENDA ITEM #7B, NOVEMBER 2020

CONSTRUCTION NOTES:

- 1** INSTALL NEW BIKE LANE SHARROW PER CAMUTCD FIG. 9C-9



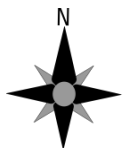
MELROSE DRIVE

PROPOSED STRIPING IMPROVEMENTS (SHARROWS)

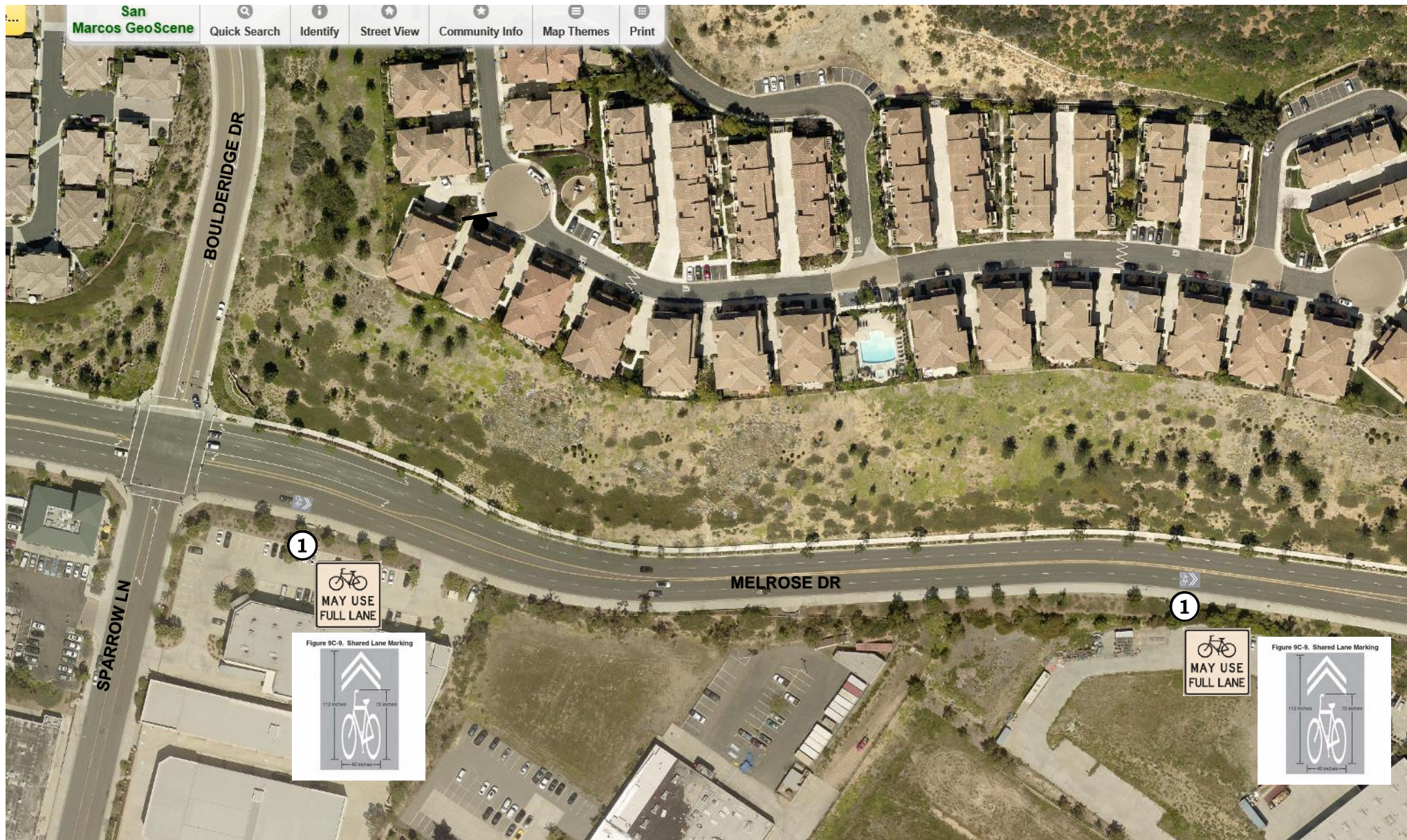
AGENDA ITEM #7B, NOVEMBER 2020

CONSTRUCTION NOTES:

1. INSTALL NEW BIKE LANE SHARROW PER CAMUTCD FIG. 9C-9



*NOT TO SCALE



MELROSE DRIVE

PROPOSED STRIPING IMPROVEMENTS (SHARROWS)

AGENDA ITEM #7B, NOVEMBER 2020

CONSTRUCTION NOTES:

- ① INSTALL NEW BIKE LANE SHARROW PER CAMUTCD FIG. 9C-9

EXCEPT Bicycle plaques (R118(CA)) should be used. If DO NOT ENTER signs (R5-1) are used, an EXCEPT Bicycle plaque(R118(CA)) should be placed under the DO NOT ENTER sign. See Figure 9C-105(CA).

Support:

⁵⁷ Contraflow bicycle travel can be unexpected by motorists crossing the contraflow bicycle lane when entering, exiting, or crossing the roadway. Consideration of additional signalization, signing and/or marking treatments is appropriate for intersections, alleys, grade crossings, and driveways.

Option:

⁵⁸ At locations where a contraflow bicycle lane is provided across an intersection or a driveway entrance, pavement markings that inform intersection or driveway traffic of the presence of the bicycle facility and the direction of permitted bicycle traffic may be placed within the contraflow bicycle lane across the intersection or driveway opening.

Bicycle Lane Line Extensions through Intersections

Support:

⁵⁹ The extension of bicycle lanes through intersections advises motorists that bicyclists are likely to use the intended path.

Option:

⁶⁰ Bicycle lane markings may be extended through intersections consistent with the provisions of Section 3B.08.

⁶¹ Bicycle lane markings as shown in Figure 9C-106(CA) may be used within the boundaries of bicycle lane extensions.

Section 9C.05 Bicycle Detector Symbol

Option:

⁰¹ A symbol (see Figure 9C-7) may be placed on the pavement indicating the optimum position for a bicyclist to actuate the signal.

⁰² An R10-22 sign (see Section 9B.13 and Figure 9B-2) may be installed to supplement the pavement marking.

Support:

⁰³ Section 4D.105(CA) and Figure 4D-111(CA) contain information on bicycle detectors and their locations.

Section 9C.06 Pavement Markings for Obstructions

Guidance:

⁰¹ *In roadway situations where it is not practical to eliminate a drain grate or other roadway obstruction that is inappropriate for bicycle travel, white markings applied as shown in Figure 9C-8 should be used to guide bicyclists around the condition.*

Section 9C.07 Shared Lane Marking

Option:

⁰¹ The Shared Lane Marking shown in Figure 9C-9 may be used to:

- A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle,
- B. Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane,
- C. Alert road users of the lateral location bicyclists are likely to occupy within the traveled way,
- D. Encourage safe passing of bicyclists by motorists, and
- E. Reduce the incidence of wrong-way bicycling.
- F. Assist bicyclists with lateral positioning within a traffic circle or roundabout (See Figure 9C.107),
- G. Supplement a signed bicycle route that is identified as a Class III bicycle facility, and
- H. Encourage the lateral positioning of bicyclists away from on-street angled parking, and
- I. Indicate that a bicycle can travel straight through a right-turn or left-turn only lane.

Guidance:

⁰² *Except as provided in Paragraph 02a and 02b, the Shared Lane Marking should not be placed on roadways that have a speed limit above 35 mph.*

Option:

^{02a} The Shared Lane Marking may be placed on roadways that have a speed limit above 35 mph, where there is bicycle travel and there is no marked bicycle lane and the right-hand traffic lane is too narrow to allow motor vehicles to safely pass bicyclists.

02b The Shared Lane Marking may be placed in a right-turn or left-turn only lane to indicate that bicycle may travel straight through an intersection.

Support:

02c On roadways that have a speed limit above 35 mph, a Class II bikeway or Class IV bikeway is more appropriate to facilitate bicycle travel.

Standard:

03 **Shared Lane Markings shall not be used on shoulders, separated bikeways or in designated bicycle lanes.**

Lateral Positioning

Support:

03a The effective lane width as used in this section indicates the width of the pavement available after subtracting the width of the parked vehicle and door zone from the distance of the lane line/centerline to the face of the curb/edge of the pavement.

Guidance:

04 *If used in a shared lane with on-street parallel parking, if the effective lane width is 14 feet or greater, Shared Lane Markings should be placed so that the centers of the markings are at least ~~4~~ 13 feet from the face of the curb, or from the edge of the pavement where there is no curb. If the effective lane width is less than 14 feet, the marking should be centered within the effective lane width. See Figure 9C-108(CA).*

05 *If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be centered in the travel lane. If used on a street without on-street parking that has an outside travel lane whose width is 14 feet or greater, the shared lane markings should be centered at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.*

05a If used on a shared right-turn or left-turn only lane that is less than 14 feet wide, to indicate that a bicycle may travel straight through an intersection, the centers of the Shared Lane Markings should be centered in the travel lane. If used on a shared right-turn or left-turn only lane that is 14 feet or greater, the Shared Lane Markings should be centered at least 4 feet from the edge of channelizing line. See Figure 9C-111(CA) and Figure 9C-112(CA).

Support:

05b If possible, avoid placing Shared Lane Markings on the wheel paths.

05c When a shared lane is sufficiently wide that motor vehicles can pass bicyclists within the lane, the purpose of the Shared Lane Marking is to indicate a bicyclist line of travel that facilitates passing while avoiding fixed obstructions (e.g. drainage inlet, gutter joint). When a shared lane is not wide enough to enable passing with adequate clearance, the purpose of the marking is to indicate a bicyclist line of travel that deters passing within the lane.

Spacing

06 *If used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.*

Option:

06a Closer spacing between Shared Lane Markings may be considered approaching, traversing, and departing intersections, where there is higher potential for conflicts between motorists and bicyclists. See Figure 9C-109(CA).

06b Closer spacing between Shared Lane Markings may be considered where there are sight distance constraints, for example, approaching the crest of a vertical curve.

06c Closer spacing between Shared Lane Markings may be considered to guide bicyclists when deviating from a straight line of travel (e.g. merging, angled railroad crossing).

Option:

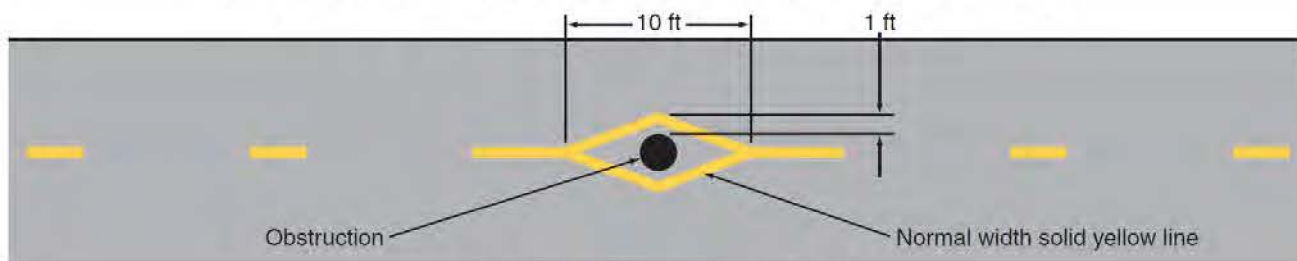
07 Section 9B.06 describes a Bicycles May Use Full Lane sign that may be used in addition to or instead of the Shared Lane Marking to inform road users that bicyclists might occupy the travel lane.

Section 9C.101(CA) Barrier Posts on Class I Bikeways

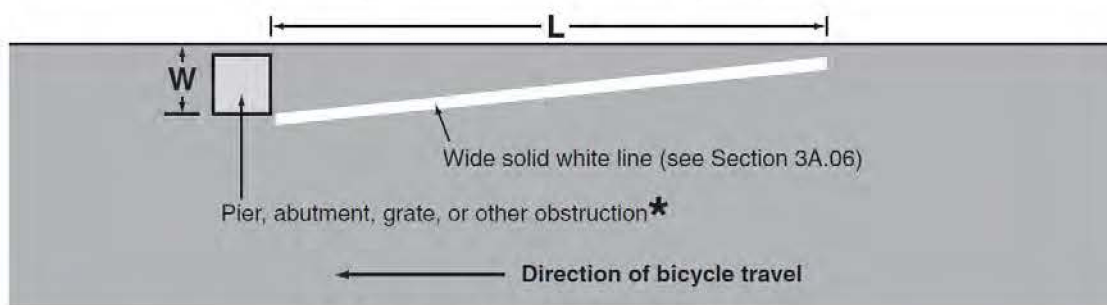
Support:

01 Before a decision is made to install barrier posts, consideration needs to be given to the implementation of other remedial measures, such as Bike Path Exclusion (R44A(CA)) signs (see Section 9B.08) and/or redesigning the path entry so that motorists do not confuse it with vehicle access.

Figure 9C-8. Examples of Obstruction Pavement Markings



A - Obstruction within the path

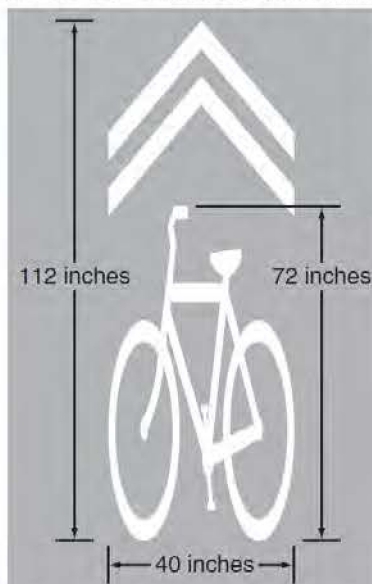


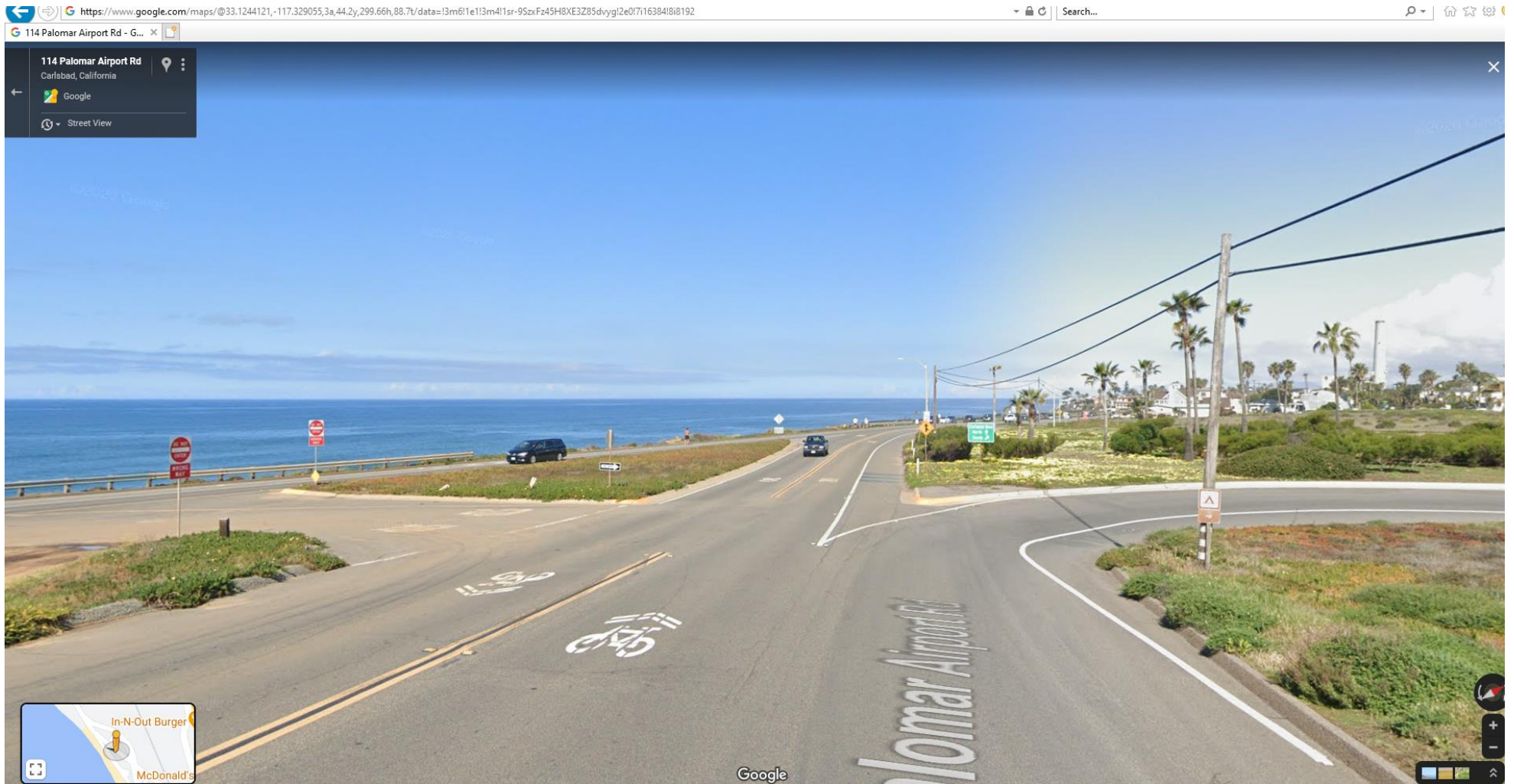
B - Obstruction at edge of path or roadway

$L = WS$, where W is the offset in feet and S is bicycle approach speed in mph

* Provide an additional foot of offset for a raised obstruction and use the formula
 $L = (W+1) S$ for the taper length

Figure 9C-9. Shared Lane Marking





**PALOMAR AIRPORT RD, CARLSBAD
SHARROW MARKINGS W/R4-11 SIGNS
AGENDA ITEM #7B – NOVEMBER 2020**



**COAST HIGHWAY 101, ENCINITAS
SHARROW MARKINGS W/R4-11 SIGNS
AGENDA ITEM #7B - NOVEMBER 2020**

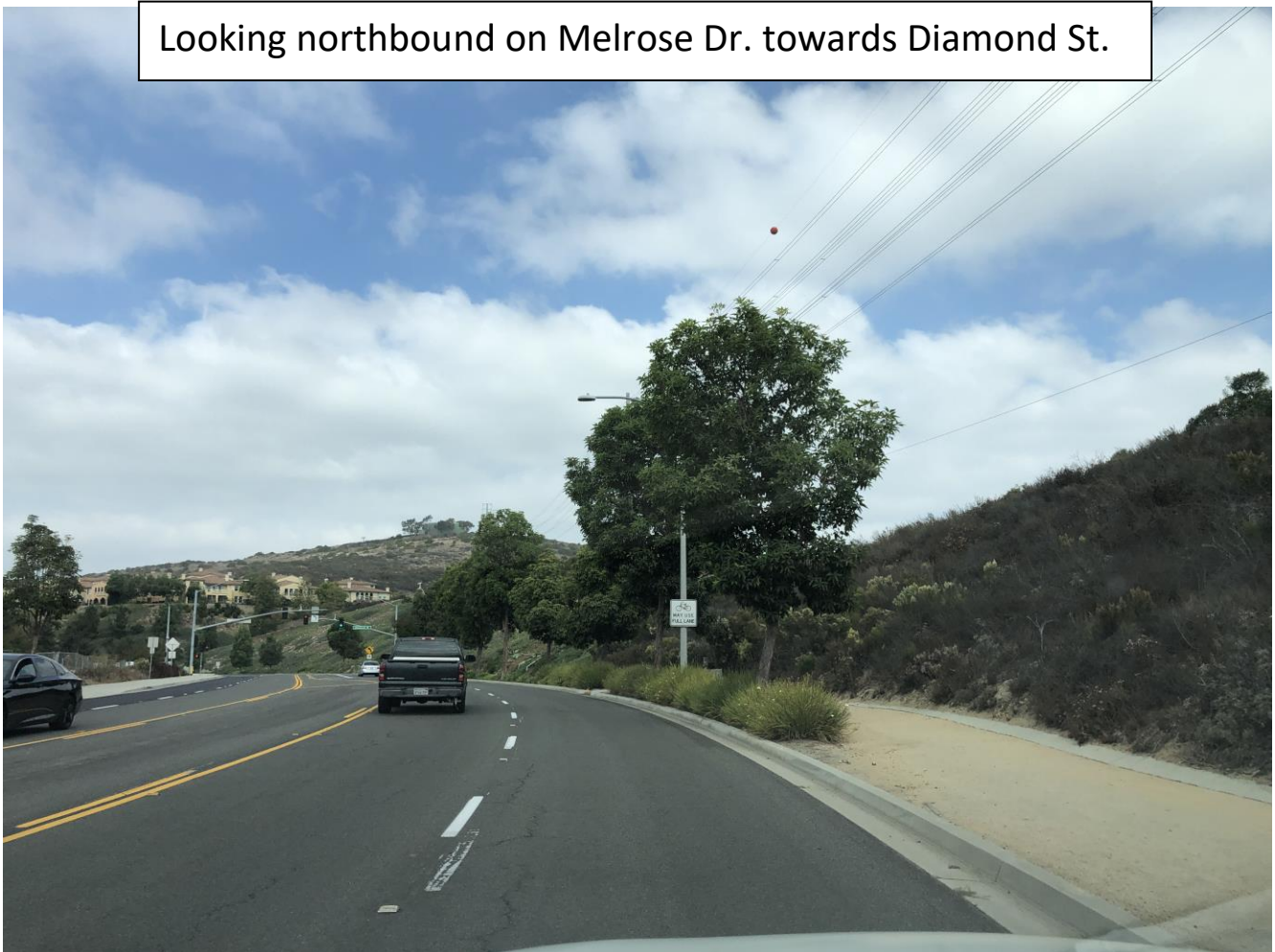
Looking northbound on Melrose Drive @ San Elijo Road



Looking northbound on Melrose Drive



Looking northbound on Melrose Dr. towards Diamond St.



Looking eastbound on Melrose Dr. @ Sparrow Lane



Looking southbound on Melrose Drive @ Diamond St.



Looking southbound on Melrose Dr. towards San Elijo Rd.

