

## AGENDA

### Meeting of the San Marcos Traffic Commission

**Meeting Date:** April 3, 2019 | **Meeting Time:** 6:00 PM

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

**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](http://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 6, 2019

#### 6. OLD BUSINESS

a. None

#### 7. NEW BUSINESS

a. Wild Canyon Drive – Speeding Concerns and Pedestrian Safety

- b. Camino Magnifico – Speeding Concerns

## **8. REPORTS AND INFORMATION ITEMS**

- a. Engineering Staff Updates
- b. San Diego County Sheriff's Department Traffic Collision Summary And Accident Investigation Log
- c. Traffic Commission Commentary
- d. Staff Commentary

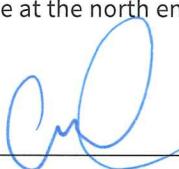
## **ADJOURNMENT**

## **AFFIDAVIT OF POSTING**

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

I, Aurelia Cabrera, Secretary, San Marcos Traffic Commission, hereby certify that I caused the posting on March 27, 2019 of this agenda in the glass display case at the north entrance of City Hall.

DATED: March 27, 2019



Aurelia Cabrera  
Traffic Commission Secretary

# MINUTES

## Meeting of the San Marcos Traffic Commission

**WEDNESDAY, FEBRUARY 6, 2019 | 6:00 PM**

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

**1. CALL TO ORDER:** Chairman Hansen called the Traffic Commission Meeting to order at 6:02 p.m.

**2. SELECTION OF NEW CHAIRMAN AND VICE CHAIRMAN:**

**CHAIRMAN ELECTION:**

- Commissioner Collins makes a motion to elect Commissioner Arturo Rico as Chairman. No other nominations were made, carried by a 6-1 vote. Commissioner Christian abstained. New 2019 Chairman: Arturo Rico

**VICE CHAIRMAN ELECTION:**

- Commissioner Christian makes a motion to elect Commissioner Ed Collins as Vice Chairman. Commissioner Hansen seconds the motion. No other nominations were made, carried by a unanimous 7-0 vote. New 2019 Vice Chairman: Ed Collins

**3. PLEDGE OF ALLEGIANCE:** Led by Commissioner Hansen

**4. ROLL CALL**

PRESENT: MASTERSON, BRIDGE, MAKROGIANNIS, RICO, HANSEN, COLLINS, CHRISTIAN

ABSENT: BUCKLEY

**ALSO PRESENT:** Alternate Commissioner, Gregory Hoaglin; Senior Traffic Engineer, Mike Rafael; Principal Traffic Engineer, Nicholas Abboud; Sheriff Deputy, Nicholas Maryn; and Traffic Commission Secretary, Denise Avila and Aurelia Cabrera

**5. INTRODUCTION OF NEW COMMISSIONERS:** Charles Buckley (Re-appointed), Deborah Bridge (New regular member), Morgan Christian and Gregory Hoaglin (New Alternates)

**6. ORAL COMMUNICATIONS**

- None



**City of San Marcos**  
1 Civic Center Drive  
San Marcos, CA 92069

**7. APPROVAL OF MINUTES – December 5, 2018**

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

AYES: COMMISSIONERS: BRIDGE, MASTERSON

NOES: COMMISSIONERS:

ABSTAINS: COMMISSIONERS:

**8. OLD BUSINESS**

a. None

**9. NEW BUSINESS**

a. None

**10. REPORTS AND INFORMATION ITEMS**

a. Engineering Staff Updates

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

c. Traffic Commission Commentary

d. Staff Commentary

**11. ADJOURNMENT:** New Chairman Rico adjourned the meeting at 7:00 p.m.

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Arturo Rico, Chairman  
Traffic Commission

ATTEST:

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Aurelia Cabrera, Secretary  
Traffic Commission

# AGENDA REPORT

## Meeting of the San Marcos Traffic Commission

**MEETING DATE:** April 3, 2019

**AGENDA ITEM NO:** 7A

**SUBMITTED BY:** Michael Rafael, P.E. – Senior Civil Engineer *MR*

**APPROVED BY:** Nic Abboud, P.E. – Principal Civil Engineer *NA*

**SUBJECT:** Wild Canyon Drive – Speeding and Pedestrian Safety Concerns

### **BACKGROUND:**

Engineering staff received traffic safety concerns from San Elijo Hill residents living adjacent to Wild Canyon Drive. Residents reported excessive speeds along Wild Canyon Drive between Idyllwild and Tucana Drive. Residents are concerned about the lack of pedestrian access to the existing neighborhood sitting area on the west side of Wild Canyon Drive. They are also concerned about the safety of pedestrians crossing to the sitting area due to the speed of vehicles, blind roadway curves, and existing trees obstructing the roadway. Residents are suggesting a 3-way stop at the intersection of Idyllwild and Wild Canyon to provide traffic calming in the neighborhood.

### **DISCUSSION:**

The study area is located on Wild Canyon Drive between Tucana Drive and Rock court in the San Elijo Hills community (see attached Vicinity Map). This roadway section is classified as a two-lane, undivided collector street based on the City's Urban Street Design criteria. The street provides access to single family homes in the San Elijo Hills community north of San Elijo Road. The street varies in width from 34 to 40 feet with sidewalks on both sides. There are no restrictions for on-street parking. There are no striped bike lanes. The slope of the street varies from 3 to 10 percent and has a curvilinear alignment (3 existing short horizontal curves). The street speed limit is posted at 30 MPH, supported by a valid Engineering and Traffic Survey (attached). There is an existing neighborhood sitting area that is situated on the westside of Wild Canyon Drive between Festival Road and Idyllwild Way.

Engineering staff conducted an engineering study to determine if traffic calming measures may be warranted on Wild Canyon Drive. Engineering staff collected both traffic speed and volume data on a typical weekday along (3) locations on Wild Canyon Drive. Based on the data collected, the highest traffic volumes along the roadway segment occurred during the morning peak (7-8am) and afternoon peak (3-4pm) which is consistent with residential traffic patterns (see attached tables). The 85th percentile speeds and ADTs (average daily traffic) were collected on Wild Canyon Drive and are summarized below:

- Location 1, 400 feet north of Festival Road: 85th percentile speed - 31 MPH, ADT - 1758 vehicles per day (VPD) (2/27/19)

- Location 2, 160 feet north of Idyllwild Way: 85th percentile speed - 34 MPH, ADT - 1958 VPD (2/27/19)
- Location 3, 175 feet east of Idyllwild Way; 85 percentile speed - 35 MPH, ADT - 2383 VPD (03/14/19)

The 85th percentiles speeds did not exceed more than 7 MPH over the posted speed limit of 30 MPH which would generally indicates the need for some type of traffic calming on a City street. Traffic volumes are consistent with the collector roadway classification of approximately 2400 vehicles per day. Cut-through traffic is non-existent. There were no collisions reported in the last 5 years along this roadway segment. Motorists were observed driving in the middle of the street.

Engineering staff also conducted a ball bank analysis per the CAMUTCD guidelines to determine if speed advisory limits along Wild Canyon Drive were needed due to "driver discomfort" caused by the existing roadway curvature at the posted speed. Based on the ball bank measurements, a 25 MPH speed advisory should be posted with a curve warning sign to advise drivers of the recommended speed for the roadway curves.

Engineering staff reviewed the community's request for an ALL-WAY STOP control at the intersection of Idyllwild Drive and Wild Canyon Drive to improve pedestrian safety and reduce vehicle speeds. The intersection is located on Wild Canyon Drive in the middle of the curved roadway between Festival Road and Luminara Way. Currently, the intersection is STOP-controlled on Idyllwild Way but not on Wild Canyon Drive. Per the CAMUTCD, ALL-WAY STOP-controls at intersections are intended to assign right-of-way at locations where traffic volumes are approximately equal from all approaches and not used for speed control. Other criteria used for warranting an all-way stop control include the following: (5) five or more reported crashes in a year, high pedestrian volumes, and existing line of sight restrictions at the intersection. Installation of unwarranted stop signs is discouraged for it has been shown to result in higher speeds between controlled intersections, rolling stops through intersections, and increased noise pollution. Based on staff's evaluation of the intersection, an ALL-WAY STOP control is currently not warranted based on the CAMUTCD criteria. Traffic volumes are not equal from all approaches. Intersection stopping sight distance was measured to approximately 350 feet to the west and 330 to the east, which is adequate for the posted speed limit of 30 MPH. There were no collisions reported at the intersection for the last 5 years. Low pedestrian volume was observed crossing at the intersection during peak hours.

Engineering staff reviewed the community's request for a new pedestrian ramp serving the neighborhood sitting area. After reviewing the existing access points to the site, a new curb ramp should be installed on the northwest side of the intersection of Festival Road and Wild Canyon Drive. The proposed curb ramp should be installed on the northwest side of the T-intersection adjacent to the existing street light where visibility and line of sight are not impacted. Pedestrian warning signs should also be installed to inform motorists of the possibility of pedestrian crossing at this uncontrolled location. Currently, the only ADA (American Disabilities Act) access to the sitting area for residents east of Wild Canyon Drive is at the intersection of Luminara Way and Wild Canyon Drive which is approximately 550 feet south of the sitting area. The proposed curb ramp provides ADA access on the northern end of the sitting area.

Based on the findings of this study, Engineering staff proposes the use of centerline striping and curve warning and speed advisory signs to improve traffic safety on Wild Canyon Drive. Centerline striping helps delineate the travel lane for the driver, restricts passing of other vehicles, improves line of sight around a roadway curve, and provides a preview of changing roadway alignment. The CAMUTCD guidelines allow the use of centerline striping to improve delineation on horizontal curves. Based on the traffic data collected, traffic calming devices are not warranted at this time. Staff also proposes installation of a new pedestrian curb ramp and pedestrian warning signs to announce the presence of the new pedestrian curb ramp and the potential for pedestrians in the vicinity of the neighborhood's sitting area on the west side of Wild Canyon Drive.

In the course of the field investigations, the intersection of Festival Road and Wild Canyon Drive was found to have no intersection control. Engineering staff recommends that one-way STOP sign, limit line, and "STOP" pavement legend should be installed to enhance the right-of-way operations and sight distance on Festival Road at Wild Canyon Drive. In addition, 50-feet of solid double-yellow lines are recommended at the intersection of Idyllwild Way and Wild Canyon Drive, and Luminara Way and Wild Canyon Drive to improve channelization of vehicles turning into the intersection.

### **CONCLUSION AND RECOMMENDATIONS:**

Engineering staff recommends the following improvements (see attached exhibits):

- 1) Installation of centerline striping, curve warning and 25 MPH speed advisory signs on Wild Canyon Drive between Tucana Drive and Luminara Way to improve traffic safety.
- 2) Installation of a new pedestrian curb ramp at the northwest side of the intersection of Wild Canyon Drive and Festival Road to provide ADA access to the existing neighborhood sitting area. Installation of new pedestrian warning signs to inform motorists of uncontrolled mid-block crossing.
- 3) Installation of a new one-way STOP sign, limit line, pavement legend, and 50-feet of solid double yellow lines at the intersection of Festival Road and Wild Canyon Drive. Installation of 50-feet of solid double yellow lines on Idyllwild Way at Wild Canyon Drive, and Luminara Way and Wild Canyon Drive to improve channelization of vehicles turning into the intersection.
- 4) Trim existing trees adjacent to intersections where line of sight may be impacted.
- 5) Deployment of the City's speed radar trailers to help build and reinforce speed compliance on Wild Canyon Drive.

### **Traffic Data/Roadway Information:**

#### **Traffic Volumes:**

Wild Canyon Drive, Tucana Drive and Luminara Way - 2383 VPD (vehicles per day, March 2019).

#### **Speed Limit:**

Wild Canyon Drive, Tucana Drive and San Elijo Road, 30 MPH posted (2014).



**City of San Marcos**  
1 Civic Center Drive  
San Marcos, CA 92069

**Accident History (last 5 years):**

None reported.

**Unusual Conditions:** None.

**Attachment(s)**

Vicinity Map

Proposed Traffic Signing and Striping Improvements Exhibits

Sight Distance Exhibits

Ball Bank Data Exhibits

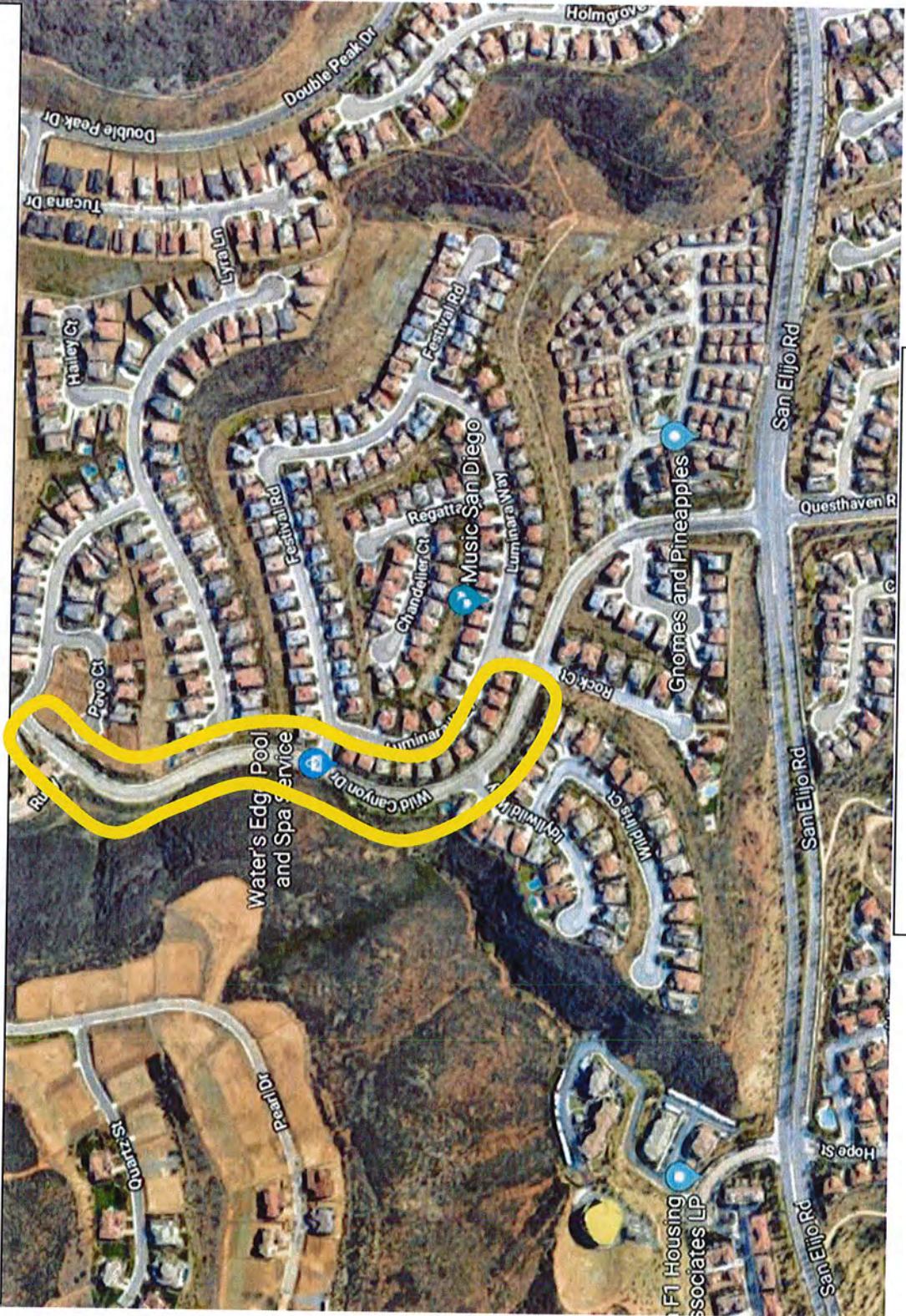
Traffic Volume and Speed Data Sheets

Engineering and Traffic Survey

Photos

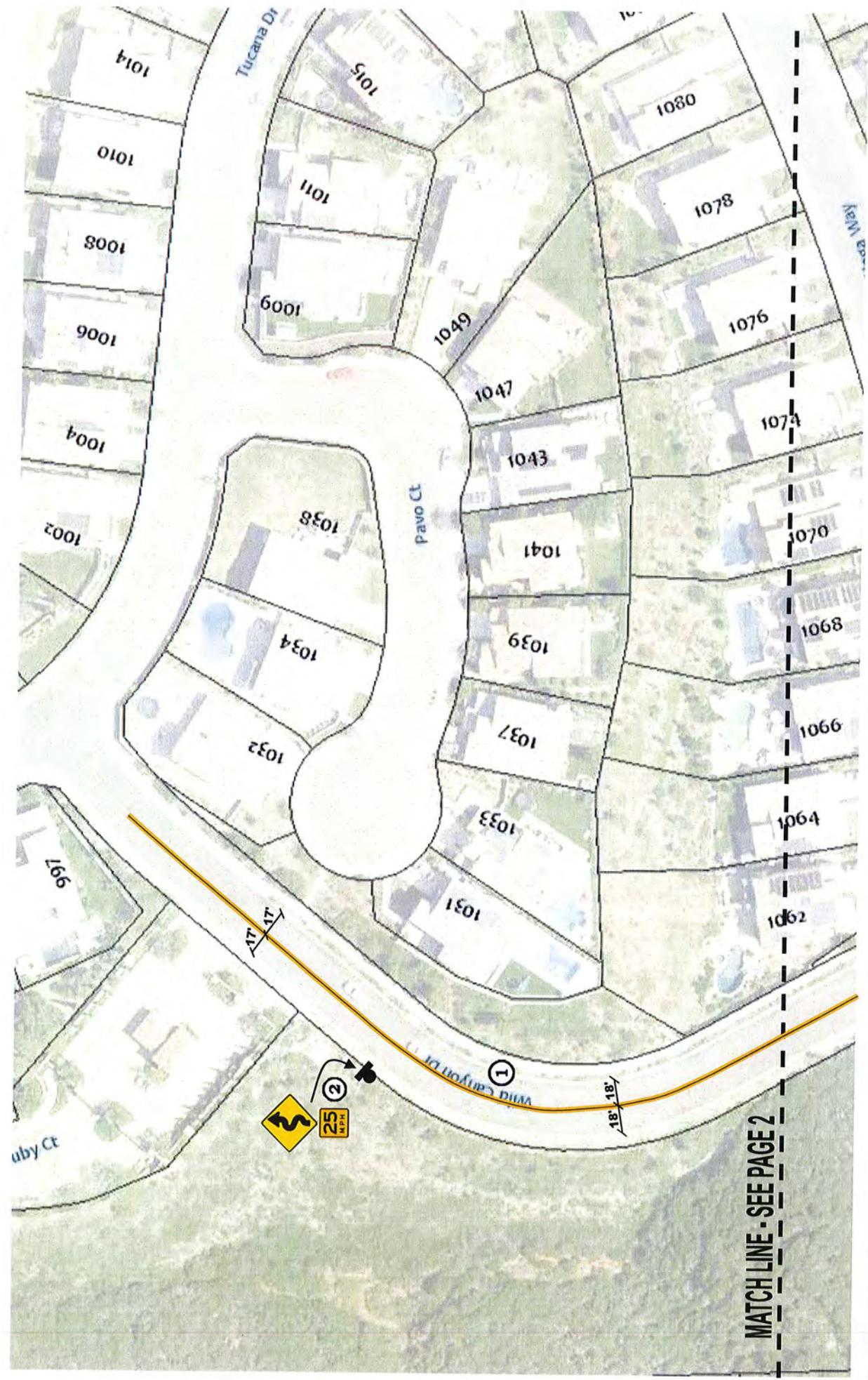
## VICINITY MAP

### WILD CANYON DR BETWEEN TUCANA DRIVE AND ROCK COURT



TC AGENDA #7A  
APRIL 3, 2019

\*NOT TO SCALE



PAGE 1 of 3



\*NOT TO SCALE

## PROPOSED TRAFFIC STRIPING IMPROVEMENTS

WILD CANYON DRIVE

TC AGENDA #7A

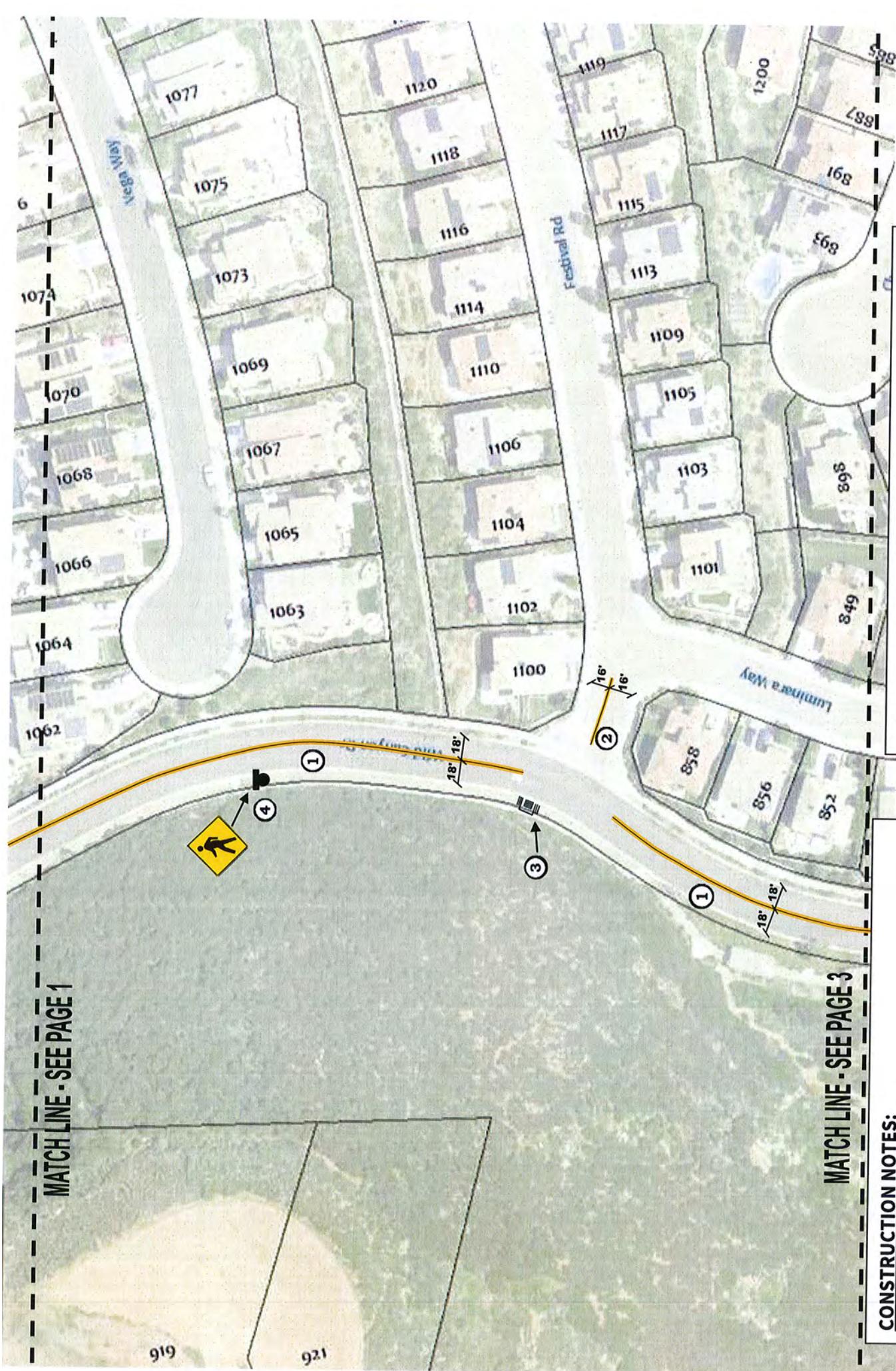
APRIL 3, 2019

### CONSTRUCTION NOTES:

① INSTALL DOUBLE YELLOW CENTER LINE (DETAIL 22) AND CONNECT WITH EXISTING DOUBLE YELLOW CENTER LINE.

② INSTALL NEW CURVE WARNING SIGN (W1-5) (RIGHT) AND 25 MPH SPEED ADVISORY SIGN (W13-1P) ON NEW BREAKAWAY POST.

**MATCH LINE - SEE PAGE 1**



**MATCHLINE - SEE PAGE 3**

**CONSTRUCTION NOTES:**

- (1) INSTALL DOUBLE YELLOW CENTER LINE (DETAIL 22).
- (2) INSTALL STOP BAR, STOP LEGEND AND 50 FT OF DOUBLE YELLOW CENTER LINE (DETAIL 21).
- (3) INSTALL TYPE "C" CURB RAMP PER SDRSD G-29.
- (4) INSTALL NEW W11-2 (PEDESTRIAN WALKING) SIGNS ON NEW BREAKAWAY POST.

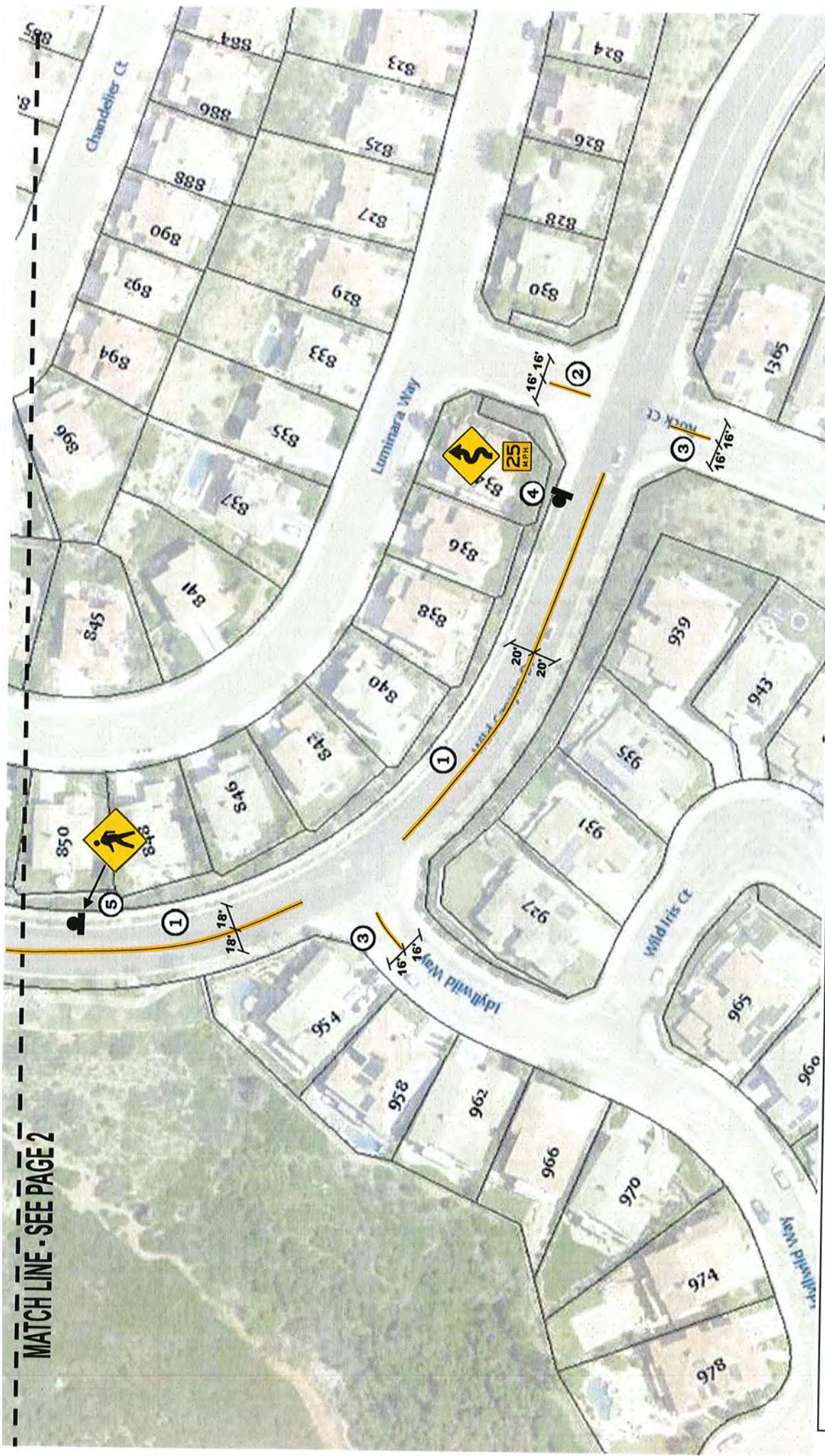
**PROPOSED TRAFFIC STRIPING IMPROVEMENTS**

**WILD CANYON DR  
TC AGENDA #7A  
APRIL 3, 2019**

**PAGE 2 of 3**



\*NOT TO SCALE



**CONSTRUCTION NOTES:**

- ① INSTALL DOUBLE YELLOW CENTER LINE (DETAIL 22)
- ② INSTALL STOP LEGEND AND 50 FT OF DOUBLE YELLOW CENTER LINE (DETAIL 21)
- ③ INSTALL 50 FT OF DOUBLE YELLOW CENTER LINE (DETAIL 21)
- ④ INSTALL NEW CURVE WARNING SIGN (W1-5) (LEFT) AND 25 MPH SPEED ADVISORY SIGN (W13-1P) ON NEW BREAKAWAY POST.
- ⑤ INSTALL NEW W11-2 (PEDESTRIAN WALKING) SIGN ON EXISTING STREET LIGHT.

**PROPOSED TRAFFIC STRIPING IMPROVEMENTS**

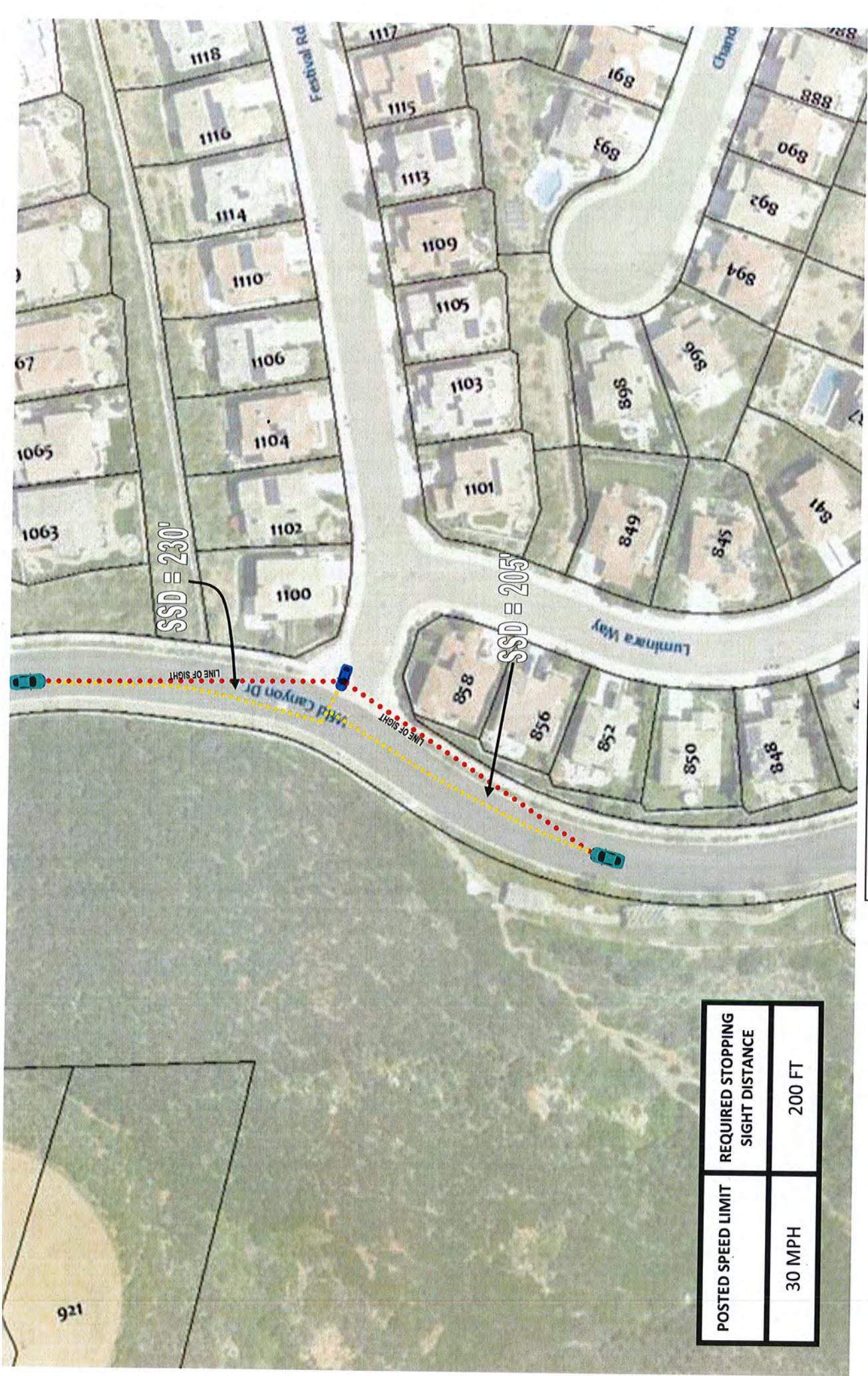
PAGE 3 of 3

**WILD CANYON DR**  
**TC AGENDA #7A**

**APRIL 3, 2019**



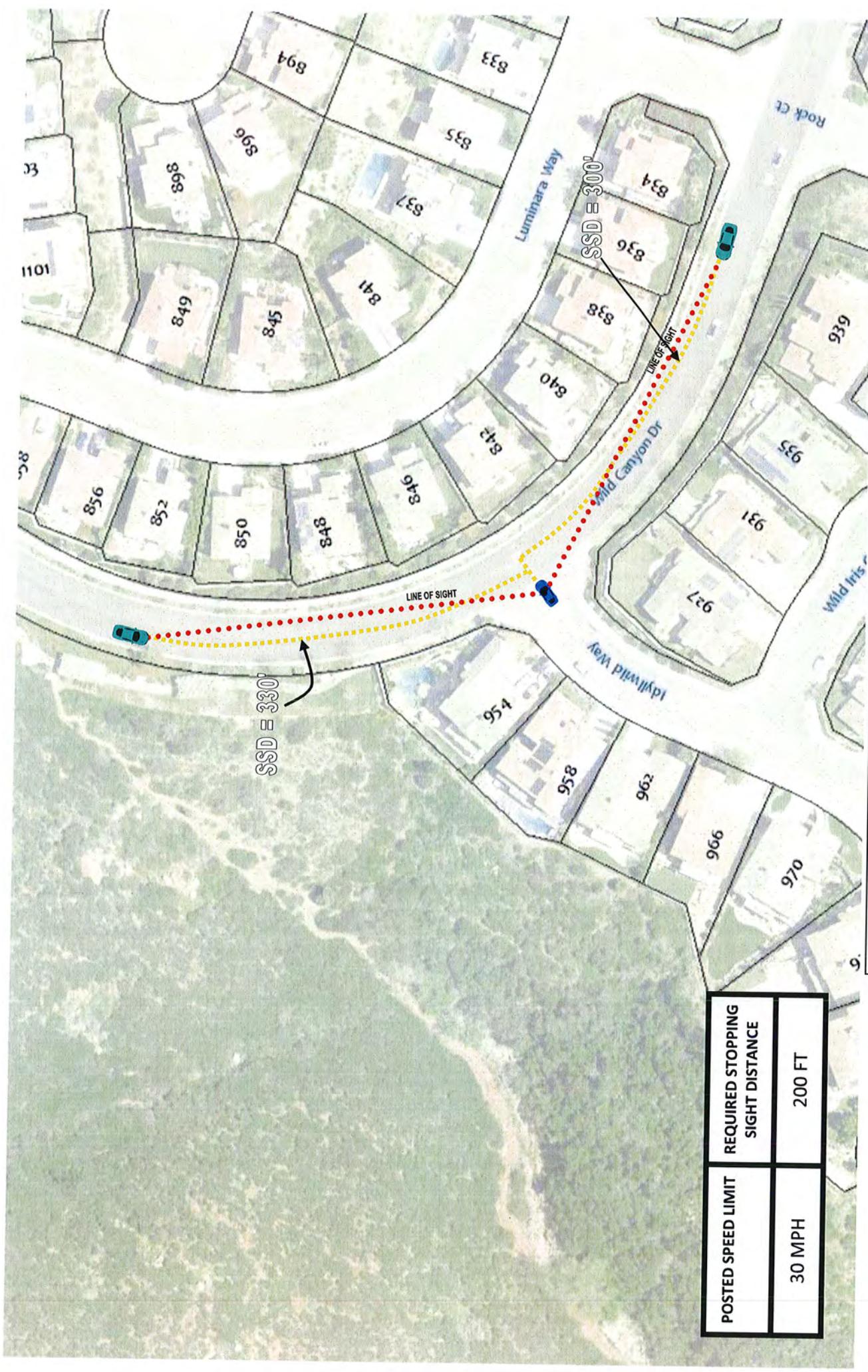
\* NOT TO SCALE



**SIGHT DISTANCE EXHIBIT**  
**FESTIVAL RD @ WILD CANYON DR**  
**TC AGENDA #7A, APRIL 3, 2019**



\*NOT TO SCALE



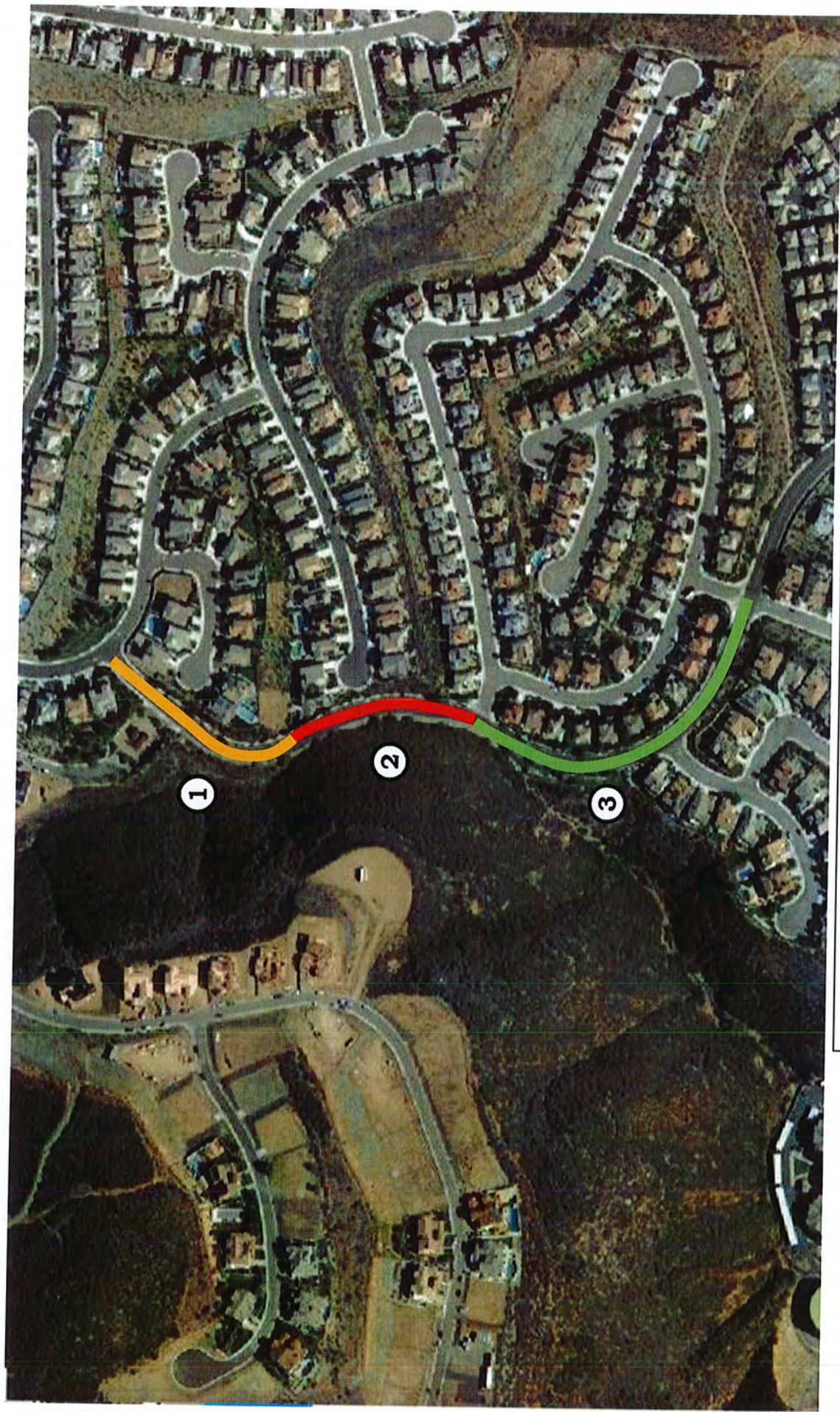
**SIGHT DISTANCE EXHIBIT**

IDYLWILD WAY @ WILD CANYON DB

TC AGENDA #7A, APRIL 3, 2019

\*NOT TO SCALE

POSTED SPEED LIMIT	REQUIRED STOPPING SIGHT DISTANCE	30 MPH	200 FT
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\*NOT TO SCALE

BALL BANK ANALYSIS EXHIBIT - CURVE LOCATIONS

TC AGENDA #7A

APRIL 3, 2019

# BALL BANK WORKSHEET

Road Name: Wild Canyon Drive  
 Municipality: City of San Marcos  
 Date/Time: 02/19: 10:00 am  
 Driver: MR  
 Observer: MR  
 Vehicle: Ford Fusion  
 Weather: Clear  
 Surface condition: Dry  
 Speed Limit: 30 MPH

Speed Range	Maximum Ball Bank Reading
≤ 24 mph	16 degrees
25-34 mph	14 degrees
35-49 mph	12 degrees
≥ 50 mph	10 degrees

# of Curves	Advisory Speed (mph)		
	Less than or equal 20 mph	25 or 30 mph	Greater than or equal 35 mph
1	W1-1 		W1-2 
2	W1-3 		W1-4 
3 or more	W1-5 		

XX  
W13-1

\* The decision should be based on the geometry and general appearance of the particular curve(s)

Curve No.	Existing Advisory Speed (mph)	Driving Direction	Recorded Ball Bank Reading (Degrees)										New Advisory Speed (mph)
			15	20	25	30	35	40	45	50	55	60	
1	N/A	NB			6	10							25
		SB			8	12							
1	N/A	NB			5	9							25
		SB			8	13							
1	N/A	NB			6	10							25
		SB			7	12							
2	N/A	NB			7	13							25
		SB			9	14							
2	N/A	NB			8	13							25
		SB			10	15							
2	N/A	NB			8	12							25
		SB			11	15							
3	N/A	NB			6	8							25
		SB			7	12							
3	N/A	NB			5	7							25
		SB			7	11							
3	N/A	NB			5	8							25
		SB			6	10							

**SPEED**

Wild Canyon Dr 400' N/O Festival Rd  
Location #1

Day: Wednesday  
Date: 2/27/2019

City: San Marcos

Project #: CA19\_4095\_002

**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	3	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	2	0	0	0	0	0	0	0	4
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:00	0	0	3	2	1	0	0	0	0	0	0	0	0	1
05:00	0	0	0	3	4	2	0	0	0	0	0	0	0	6
06:00	0	5	37	45	12	2	0	0	0	0	0	0	0	9
07:00	2	10	36	85	17	0	0	0	0	0	0	0	0	101
08:00	1	11	33	62	26	0	0	0	0	0	0	0	0	150
09:00	0	0	34	59	15	1	0	0	0	0	0	0	0	133
10:00	1	2	29	56	20	3	0	0	0	0	0	0	0	109
11:00	0	9	18	50	28	1	0	0	0	0	0	0	0	111
12:00 PM	1	3	32	58	22	2	0	0	0	0	0	0	0	106
13:00	0	2	30	55	20	0	0	0	0	0	0	0	0	118
14:00	0	3	41	85	20	1	0	0	0	0	0	0	0	107
15:00	0	11	32	79	27	1	0	0	0	0	0	0	0	150
16:00	0	10	42	66	20	0	0	0	0	0	0	0	0	150
17:00	1	5	25	66	21	0	0	0	0	0	0	0	0	138
18:00	1	5	28	56	19	1	0	0	0	0	0	0	0	118
19:00	0	1	12	37	13	0	0	0	0	0	0	0	0	110
20:00	0	1	12	23	9	1	0	0	0	0	0	0	0	63
21:00	0	1	2	7	5	0	0	0	0	0	0	0	0	46
22:00	0	0	2	5	1	0	0	0	0	0	0	0	0	15
23:00	0	1	0	0	1	0	0	0	0	0	0	0	0	8
<b>Totals</b>	<b>7</b>	<b>30</b>	<b>451</b>	<b>902</b>	<b>304</b>	<b>14</b>	<b>17%</b>	<b>1%</b>						<b>1758</b>
<b>% of Totals</b>	<b>0%</b>	<b>5%</b>	<b>26%</b>	<b>51%</b>										<b>100%</b>

AM Volumes	4	37	193	365	126	7	0	0	0	0	0	0	0	732
% AM Peak Hour	0%	2%	11%	21%	7%	0%								42%
AM Peak Hour Volume	07:00	08:00	06:00	07:00	11:00	10:00								07:00
PM Volumes	2	11	37	85	28	3								150
% PM Peak Hour Volume	0%	2%	15%	31%	10%	0%								1026
PM Peak Hour Volume	12:00	15:00	16:00	14:00	15:00	12:00								58%
Directional Peak Periods														14:00
<b>All Speeds</b>														<b>150</b>
<b>AM 7-9</b>														
Volume	283	225	225	225	225	225	225	225	225	225	225	225	225	
<b>NOON 12-2</b>														
Volume	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	16%	
<b>PM 4-6</b>														
Volume	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	13%	
<b>Off Peak Volumes</b>														
Volume	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	15%	
<b>Percentiles</b>														
85th	27	27	27	27	27	27	27	27	27	27	27	27	27	
95th	31	31	31	31	31	31	31	31	31	31	31	31	31	
ADT	34	34	34	34	34	34	34	34	34	34	34	34	34	
<b>Total</b>														
Volume	994	994	994	994	994	994	994	994	994	994	994	994	994	
<b>%</b>														
57%														

Street Name	Direction	15th	50th	Average	85th	95th	ADT
Wild Canyon Dr	Summary	22	27	27	31	34	1758

**SPEED**

Wild Canyon Dr 160' N/O Idyllwild Way  
Location #2

Day: Wednesday  
Date: 2/27/2019

City: San Marcos  
Project #: CA19\_4095\_001

**Summary**

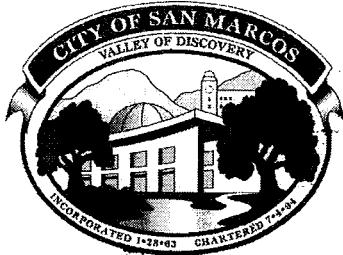
Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	0	0	0	2	2	0	0	0	0	0	0	4
01:00	0	0	0	0	0	1	1	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	2	0	0	0	0	0	0	0	2
04:00	0	0	3	0	2	2	0	0	0	0	0	0	0	7
05:00	0	0	0	0	7	7	1	0	0	0	0	0	0	15
06:00	1	3	20	48	33	7	0	0	0	0	0	0	0	112
07:00	1	4	27	94	40	6	0	0	0	0	0	0	0	172
08:00	0	1	25	63	48	13	1	0	0	0	0	0	0	151
09:00	0	2	20	57	34	8	0	0	0	0	0	0	0	121
10:00	0	6	25	46	40	10	2	0	0	0	0	0	0	129
11:00	0	3	14	35	42	9	1	0	0	0	0	0	0	104
12:00 PM	2	5	37	52	33	6	1	0	0	0	0	0	0	136
13:00	0	0	22	53	38	4	0	0	0	0	0	0	0	117
14:00	1	3	21	67	57	6	0	0	0	0	0	0	0	155
15:00	2	7	35	79	34	4	0	0	0	0	0	0	0	161
16:00	1	0	20	65	55	6	0	0	0	0	0	0	0	147
17:00	4	2	13	68	46	6	0	0	0	0	0	0	0	139
18:00	0	5	14	54	42	8	0	0	0	0	0	0	0	123
19:00	0	0	4	36	22	4	3	0	0	0	0	0	0	69
20:00	0	1	4	28	19	4	1	0	0	0	0	0	0	57
21:00	0	0	1	9	7	0	0	0	0	0	0	0	0	17
22:00	0	0	1	2	5	1	0	0	0	0	0	0	0	9
23:00	0	0	2	4	2	1	0	0	0	0	0	0	0	9
Totals	12	42	308	867	611	109	9	0	0	0	0	0	0	1958
% of Totals	1%	2%	16%	44%	31%	6%	0%							100%

AM Volumes	AM 7-9		NOON 12-2		PM 4-6		Off Peak Volumes		ADT	
	AM Speeds	AM Volume	NOON Speeds	NOON Volume	PM Speeds	PM Volume	Peak Volume	Off Peak Volume	Peak %	Off Peak %
% AM	2	19	134	251	59	4	0	0	0	0
AM Peak Hour	0%	1%	7%	18%	3%	0%	0	0	0	0
AM Peak Hour Volume	06:00	10:00	07:00	08:00	10:00					
PM Volumes	1	6	27	94	48	13	2	0	0	0
% PM	10	23	174	517	360	50	5	0	0	0
PM Peak Hour	1%	1%	9%	26%	18%	3%	0%	0	0	0
PM Peak Hour Volume	17:00	15:00	12:00	14:00	18:00	19:00	3	0	0	0
Volume	4	7	37	79	57	8	3	0	0	0
Directional Peak Periods										
All Speeds	Volume	323	Volume	253	Volume	286	Volume	1096	Volume	1096
Street Name	Direction	15th	50th	Average	85th	95th	Volume	Volume	Volume	Volume
Wild Canyon Dr	Summary	24	29	29	34	36	34	36	36	1958

## Summary

MAY

**City:** San Marcos  
**Project #:** CA19 4110 001



## CITY OF SAN MARCOS ENGINEERING AND TRAFFIC SURVEY

STREET: WILD CANYON DRIVE  
LIMITS: TUCANA DRIVE AND SAN ELIO ROAD

DATE OF SURVEY: 07/08/14  
REVIEWED BY: M.RAFael

**A. PREVAILING DATA:**

DIRECTIONS: : NORTH/SOUTH  
WEATHER CONDITION: : SUNNY, CLEAR  
LOCATION OF SURVEY: : MID-BLOCK (850 FEET NORTH OF ROCK CT.)  
85TH PERCENTILE: : 30 MPH  
10 MPH PACE: : 22-31 MPH  
PERCENT IN PACE: : 87%  
POSTED SPEED LIMIT (ON DATE OF SURVEY): : NONE  
SPEED LIMIT CHANGE: : N/A  
RECOMMENDED SPEED LIMIT: : 30 MPH

**B. ACCIDENT HISTORY:**

NO. OF MONTHS COVERED: : 36  
TOTAL ACCIDENTS: : 0  
COLLISION RATE: : 0 ACCIDENT/MILLION VEHICLE MILES (MVM)  
CALIFORNIA STATEWIDE COLLISION RATE: 1.03 ACCIDENTS/MVM  
(2010, DISTRICT 11, URBAN, 2 AND 3 LANES)

**C. TRAFFIC FACTORS:**

AVERAGE DAILY TRAFFIC: : 500 VEHICLES PER DAY (ESTIMATED)  
LENGTH OF SEGMENT: : 0.5 MILES  
LANE CONFIGURATION: : 1 LANE EACH DIRECTION, DIVIDED

**D. EXISTING ROAD CONDITIONS:**

X-WALKS - CNTRL/UNCNRL: : NO/NO HORIZONTAL ALIGNMENT: MODERATE  
PEDESTRIANS/BICYCLES: : MODERATE/LOW VERTICAL ALIGNMENT: MODERATE  
SIDEWALKS/BIKE LANES: : YES/NO INTERSECTIONS: MODERATE  
ON-STREET PARKING: : YES DRIVEWAYS: NONE

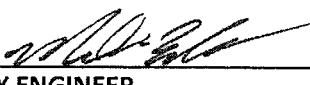
**E. ADJACENT LAND USE:**

SINGLE FAMILY HOMES, OPEN SPACE

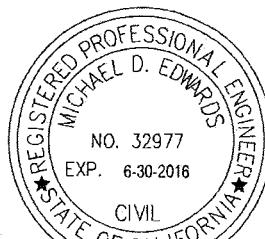
**F. TRAFFIC ENGINEER'S RECOMMENDATION (EXPLANATION):**

THIS SPEED ZONE SATISFIES THE CONDITIONS OF SECTION 627 OF THE CALIFORNIA VEHICLE CODE AND HAS BEEN PREPARED AND EVALUATED IN ACCORDANCE WITH THE CALIFORNIA MANUAL OF TRAFFIC CONTROL DEVICES, SECTION 2B.13 (2012). A SPEED LIMIT POSTING OF 30 MPH IS FOUND TO BE APPROPRIATE AND JUSTIFIED BASED ON THE NEAREST 5 MPH INCREMENT OF THE 85<sup>TH</sup> PERCENTILE SPEED BEING 30 MPH.

APPROVED AND CERTIFIED BY:

  
CITY ENGINEER  
CITY OF SAN MARCOS

DATE



**CITY OF SAN MARCOS - SPEED SURVEY**

SPEED RANGES	NUMBER OF VEHICLES	PERCENT OF TOTAL	PERCENT ACCUMULATION
15	0	0.0%	0.0%
16	0	0.0%	0.0%
17	0	0.0%	0.0%
18	0	0.0%	0.0%
19	0	0.0%	0.0%
20	1	1.5%	1.5%
21	0	0.0%	1.5%
22	3	4.4%	5.9%
23	4	5.9%	11.8%
24	5	7.4%	19.1%
25	4	5.9%	25.0%
26	2	2.9%	27.9%
27	7	10.3%	38.2%
28	8	11.8%	50.0%
29	7	10.3%	60.3%
30	14	20.6%	80.9%
31	5	7.4%	88.2%
32	1	1.5%	89.7%
33	2	2.9%	92.6%
34	1	1.5%	94.1%
35	1	1.5%	95.6%
36	1	1.5%	97.1%
37	0	0.0%	97.1%
38	1	1.5%	98.5%
39	1	1.5%	100.0%
40	0	0.0%	100.0%
41	0	0.0%	100.0%
42	0	0.0%	100.0%
43	0	0.0%	100.0%
44	0	0.0%	100.0%
45	0	0.0%	100.0%
46	0	0.0%	100.0%
47	0	0.0%	100.0%
48	0	0.0%	100.0%
49	0	0.0%	100.0%
50	0	0.0%	100.0%
51	0	0.0%	100.0%
52	0	0.0%	100.0%
53	0	0.0%	100.0%
54	0	0.0%	100.0%
55	0	0.0%	100.0%
56	0	0.0%	100.0%
57	0	0.0%	100.0%
58	0	0.0%	100.0%
59	0	0.0%	100.0%
60	0	0.0%	100.0%
61	0	0.0%	100.0%
62	0	0.0%	100.0%
63	0	0.0%	100.0%
64	0	0.0%	100.0%
65	0	0.0%	100.0%
66	0	0.0%	100.0%
67	0	0.0%	100.0%
68	0	0.0%	100.0%
69	0	0.0%	100.0%
70	0	0.0%	100.0%
<b>TOTAL VEHICLES:</b> 68			

RECORDER: SLPHAN

LOCATION:

WILD CANYON DRIVE - TUCANA DRIVE AND SAN ELIJAH RD.

APPROACH: SB/NB

SURFACE: DRY

WEATHER: CLEAR

DATE: 7/8/14

TIME: 3:00 - 4:00 PM

**SURVEY STATISTICS**

**POSTED SPEED:** 35 MPH

**AVERAGE SPEED:** 28 MPH

**MEDIAN SPEED:** 28 MPH  
(50th PERCENTILE)

**MODAL SPEED:** 30 MPH

**85TH PERCENTILE SPEED:** 30 MPH

**10 MPH PACE:** 22 - 31 MPH

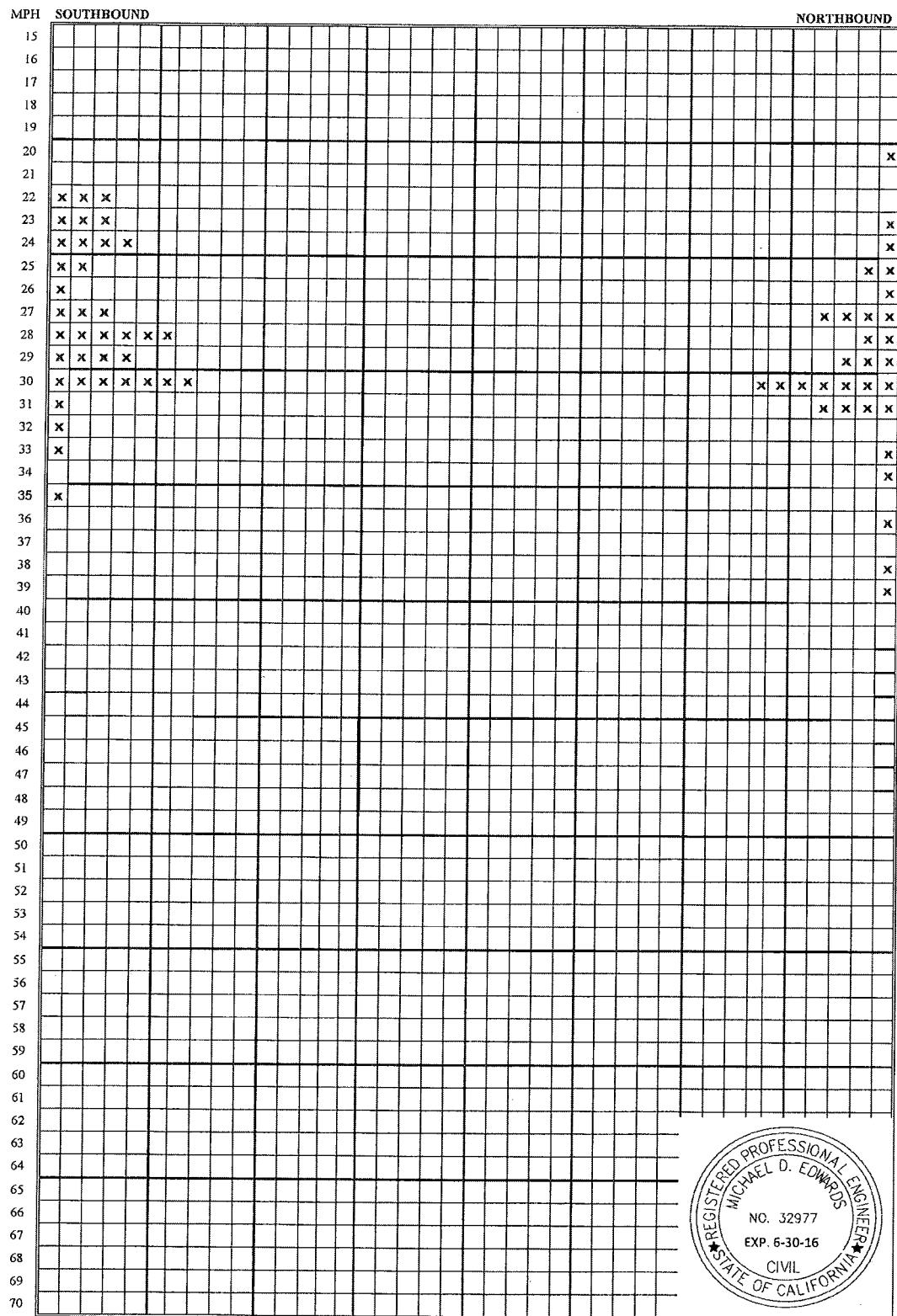
**PERCENT IN PACE:** 87%

COMMENTS:

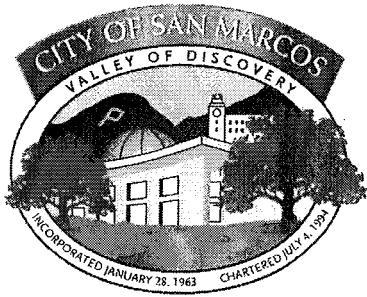


**CITY OF SAN MARCOS - SPEED SURVEY**

LOCATION: WILD CANYON DRIVE - TUCANA DRIVE AND SAN ELIJAH RD APPROACH: SB/NB SURFACE: DRY  
 DATE: 7/8/14 TIME: 3:00 - 4:00 PM WEATHER: CLEAR POSTED SPEED: NONE RECORDER: SI PHAN



TOTAL: 68



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

I, Phillip Scollick, City Clerk, for the City of San Marcos, California, hereby certify, under penalty of perjury, that the attached and foregoing is a true and correct copy of the **ENGINEERING AND TRAFFIC SURVEY SUMMARY**, dated July 8, 2014, for **WILD CANYON DRIVE, BETWEEN TUCANA DRIVE AND SAN ELIJO ROAD**.

Phillip Scollick  
City Clerk  
City of San Marcos

10/3/14  
Date

# AGENDA REPORT

## Meeting of the San Marcos Traffic Commission

**MEETING DATE:** April 3, 2019  
**AGENDA ITEM NO.:** 7B  
**SUBMITTED BY:** Michael Rafael, P.E. – Senior Civil Engineer   
**APPROVED BY:** Nic Abboud, P.E. – Principal Civil Engineer   
**SUBJECT:** Camino Magnifico – Speeding Concerns

### BACKGROUND:

Engineering staff received traffic safety concerns on Camino Magnifico between Borden Road and Via Barquero. Residents reported motorists speeding on Camino Magnifico during the morning peak periods. Residents would like the City to implement traffic calming devices such as speed bumps to reduce vehicular speeds.

### DISCUSSION:

The study area is located on Camino Magnifico between Avenida Arana and Via Barquero in the Santa Fe Hills community (see attached Vicinity Map). This roadway section is classified as a two-lane, undivided residential street based on the City's Urban Street Design criteria. The residential street is 48 feet curb to curb with sidewalks on both sides. The slope of the street varies from 2 to 6 percent and has a mild curvilinear alignment. There are no posted speed limits on Camino Magnifico, however, the street satisfies the residential district criteria for a *prima facie* speed of 25 MPH per the California Vehicle Code (CVC) section 515 and 22352 (b)(1). The roadway segment provides access to single family homes in the Santa Fe Hills community north of Paloma Elementary school.

Engineering staff collected traffic speed and volume data to evaluate the need for traffic calming measures on Camino Magnifico. Based on the data collected, the highest hourly traffic volumes on one typical weekday occurred during the following times: southbound towards Borden Road (43 vph, 8-9 am), northbound towards Via Barquero (29 vph, 3-4 pm) (see attached tables). The 85<sup>th</sup> percentile speeds were measured at 35 MPH in both directions which exceeds the *prima facie* speed limit of 25 MPH for a residential street. Vehicle speeds over 32 MPH typically necessitate some type of traffic calming improvements. However, the traffic volumes were considerably light with a total of 482 vehicles per day on Camino Magnifico. The speed data collected indicates that the excessive speeds (32 MPH and over) are generated by residents during the (8-9 am) and (3-4 pm) peak hours. Cut-through traffic is nonexistent. There were no collisions reported along the roadway segment for the last 5 years. There were also no observed pedestrian crossings along Camino Magnifico during the peak hour periods. Motorists were observed driving in the middle of the street where their speeds appear to be excessive.

Based on the findings of this study, Engineering staff proposes the use of centerline striping (limited at the intersections) and 25 MPH speed limit signs and pavement speed legends as a viable, low-cost traffic calming option for speed reduction on Camino Magnifico. Centerline striping helps delineate the travel lane for the driver, restricts passing of other vehicles, improves line of sight around a roadway curve, and provides a preview of changing roadway alignment. The CAMUTCD per Section 3B.01 allows the use of centerline striping to improve delineation on horizontal curves. New speed limit signs and pavement speed legends will help reinforce the posted speed limit on a residential street and can be used as traffic calming.

Speed cushions and/or bumps are not recommended on City streets for traffic calming benefits. However, the City is currently exploring the use and benefits of speed cushions on residential streets and developing appropriate implementation criteria.

City staff also recommends deployment of the City's speed radar trailers in combination with the proposed traffic striping and signing improvements to help build speed compliance in the neighborhood. Staff will monitor the effects of the new traffic striping and speed limit signage for at least a year to ensure its continued benefit to the neighborhood. More aggressive traffic calming devices may be considered in the event that the proposed improvements are not successful in reaching the speed reduction goals desired by the community. A reassessment of the conditions would be necessary before more aggressive options are considered.

In the course of the field investigations, the intersections of Camino Magnifico and Avenida Fragata and Camino Magnifico and Avenida Amistad were found to currently not have one-way STOP signs installed on the minor street. It is recommended that one-way STOP signs, limit lines, pavement legends, and 50-feet of solid double yellow lines be installed to enhance the right-of-way operations and sight distances at the intersections. Camino Magnifico is designated as the major street where Avenida Amistad and Avenida Fragata are the minor streets.

#### **CONCLUSION AND RECOMMENDATIONS:**

Engineering staff recommends the following improvements:

- 1) Installation of limited centerline striping at the intersections of Camino Magnifico and Avenida Amistad and Camino Magnifico and Avenida Fragata.
- 2) Installation of new 25 MPH speed limit signs on breakaway posts on Camino Magnifico between Via Barquero and Borden Road to help reduce vehicular speeds and provide traffic calming.
- 3) Installation of new one-way STOP signs, limit line, pavement legends, and 50-feet of solid double yellow lines at the intersections of Avenida Fragata and Camino Magnifico, and Avenida Amistad and Camino Magnifico to improve right-of-way operations and sight distance.
- 4) Deployment of the City's speed radar trailers to help build and reinforce speed compliance on Camino Magnifico.

**Traffic Data/Roadway Information:**

**Traffic Volumes:**

Camino Magnifico, Avenida Arana and Via Barquero – 482 VPD (2019).  
Borden Road, Las Posas Road and Comet Circle – 10,789 VPD (2017).

**Speed Limit:**

Camino Magnifico, Avenida Arana and Via Barquero, non-posted.

**Accident History (last 5 years):**

None

**Unusual Conditions:** None.

**Attachment(s)**

Vicinity Map

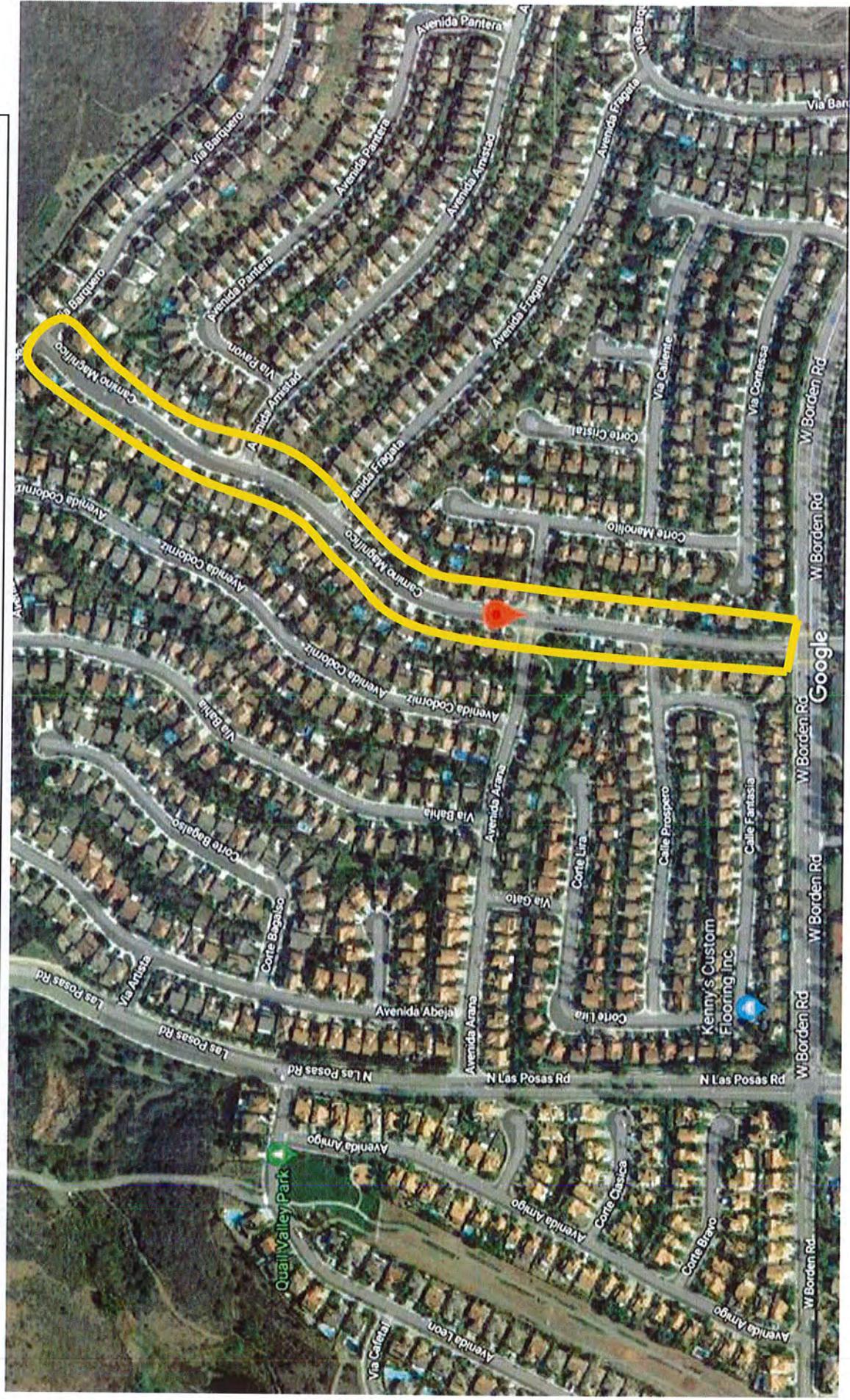
Proposed Signing and Striping Improvements Exhibits

Traffic Volume and Speed Data Sheet

Photos

## VICINITY MAP

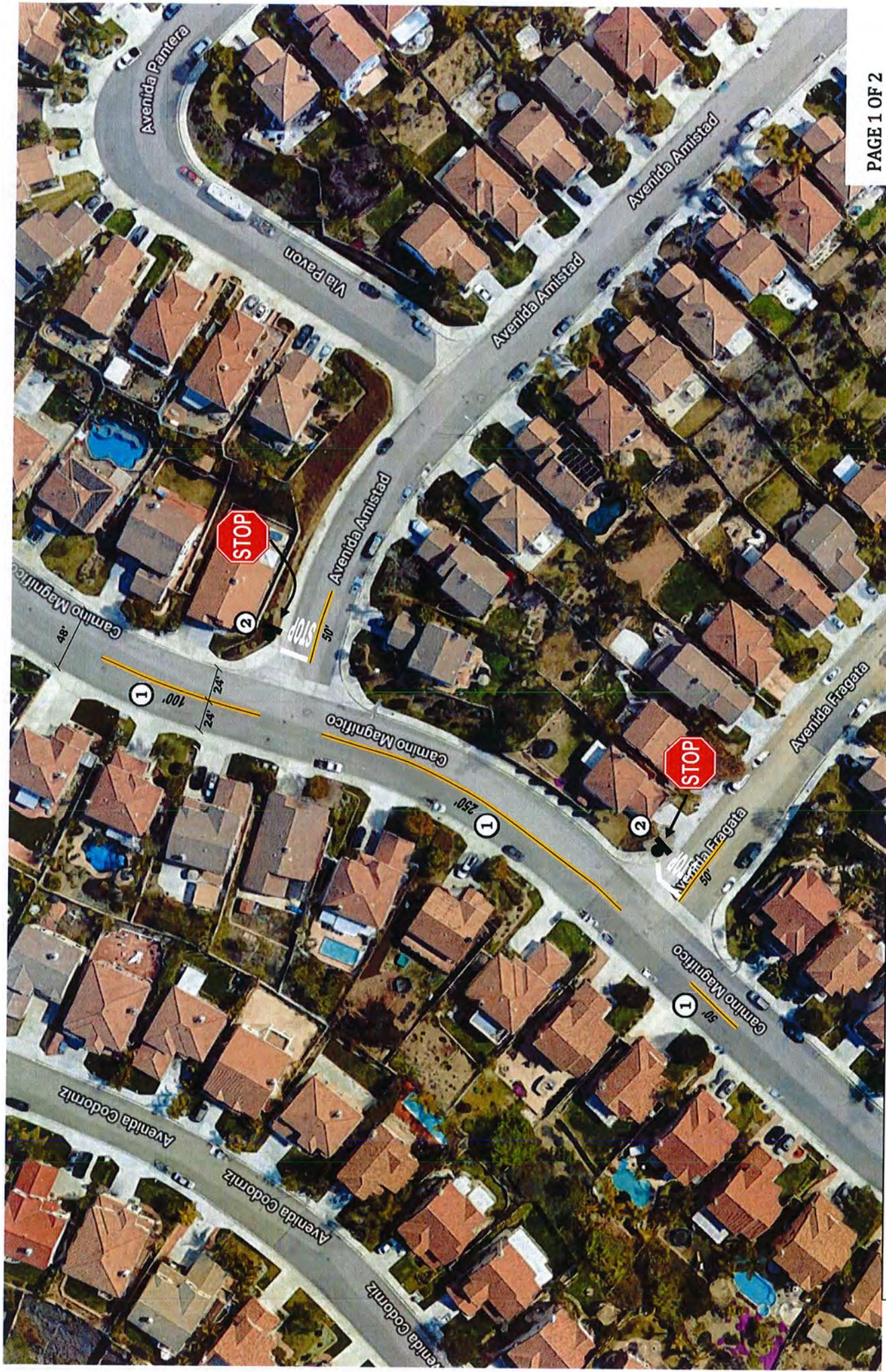
### CAMINO MAGNIFICO BETWEEN BORDEN RD. AND VIA BARQUERO



\*NOT TO SCALE

TC AGENDA #7B

APRIL 3, 2019

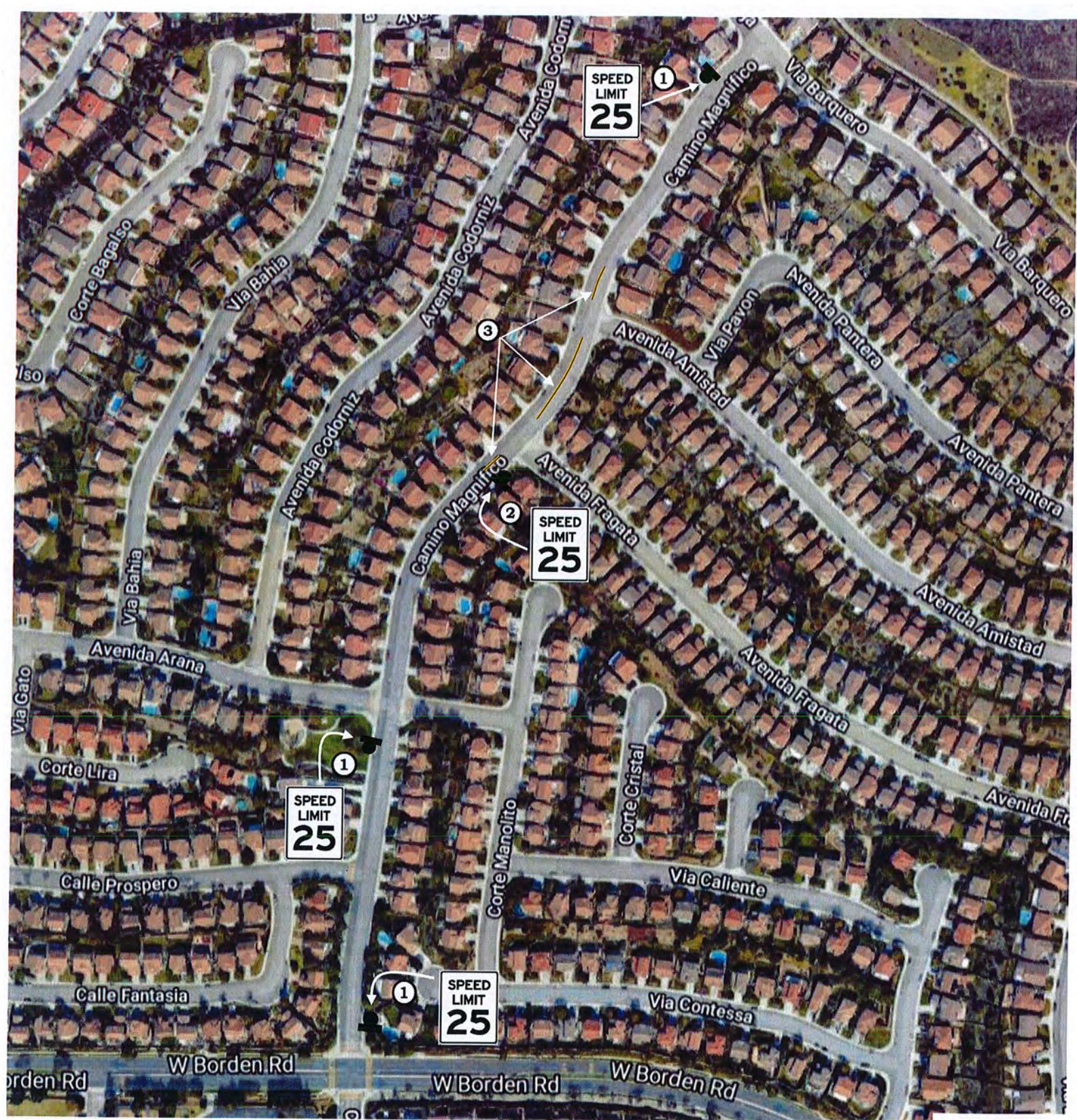


**PROPOSED SIGNING AND STRIPPING IMPROVEMENTS  
CAMINO MAGNIFICO – SPEEDING ISSUE**

**AGENDA #7B  
APRIL 3, 2019**

**CONSTRUCTION NOTES:**

- ① INSTALL DOUBLE YELLOW CENTERLINE (DETAIL 21)
- ② INSTALL R1-1 "STOP" SIGN (30" X 30") ON NEW ROUND POST, STOP LEGEND, STOP BAR, AND 50 FT OF DOUBLE YELLOW CENTER LINE. RELOCATE STREET NAME SIGNS ON NEW POST.



#### CONSTRUCTION NOTES:

- ① INSTALL R2-1 (25 MPH) SIGN ON NEW BREAKAWAY POST AND 25 MPH SPEED LEGEND.
- ② INSTALL R2-1 (25 MPH) SIGN ON EXISTING STREET LIGHT AND 25 MPH SPEED LEGEND.
- ③ INSTALL DOUBLE YELLOW CENTER LINE (DETAIL 21)

#### **PROPOSED SIGNING AND STRIPING IMPROVEMENTS**

**CAMINO MAGNIFICO – SPEEDING ISSUE**

**AGENDA #7B**

**APRIL 3, 2019**

**PAGE 2 OF 2**



*\*NOT TO SCALE*

**SPEED****Camino Magnifico S/O 776 Camino Magnifico**

Day: Tuesday  
Date: 12/11/2018

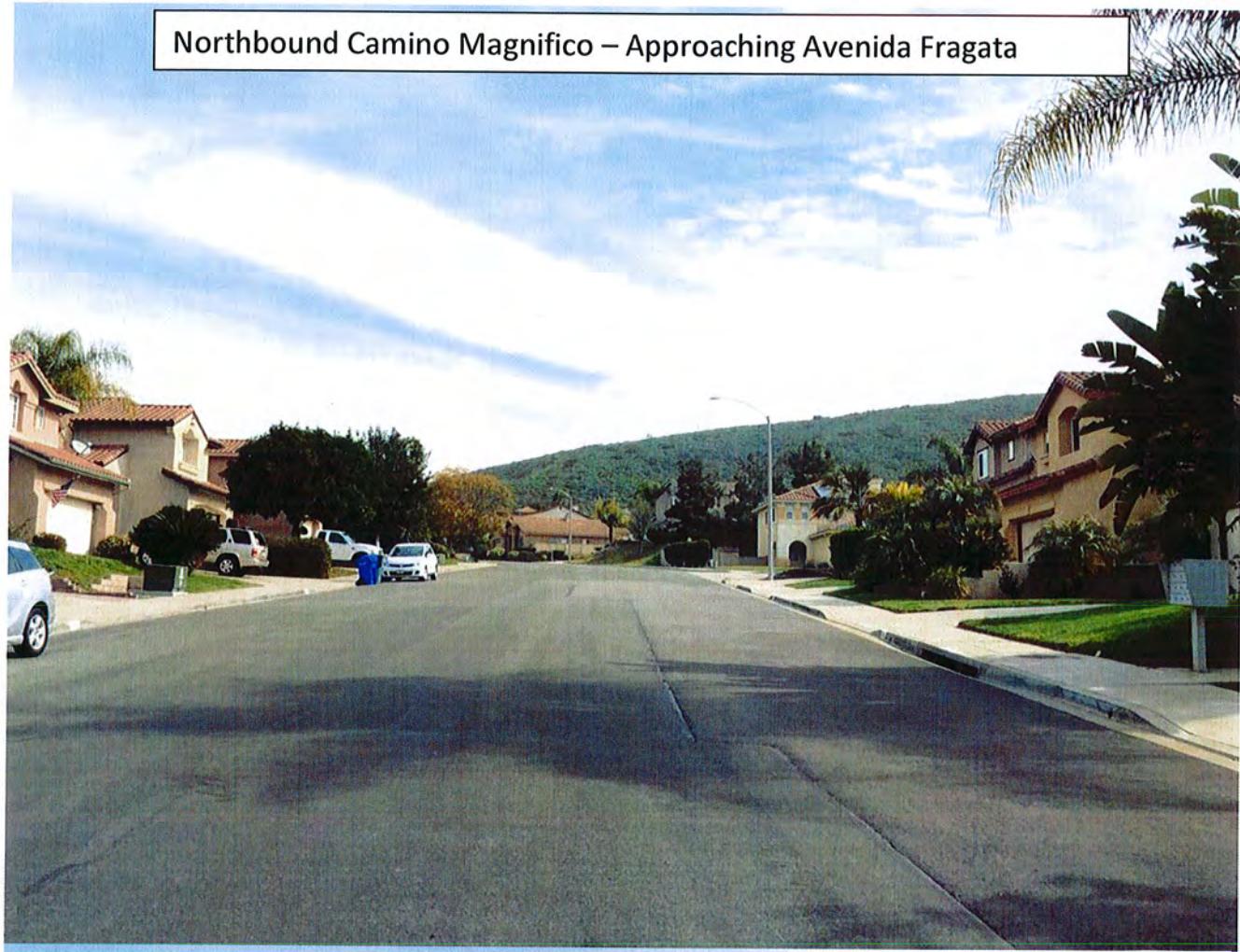
City: San Marcos  
Project #: CA18\_4466\_006

**Summary**

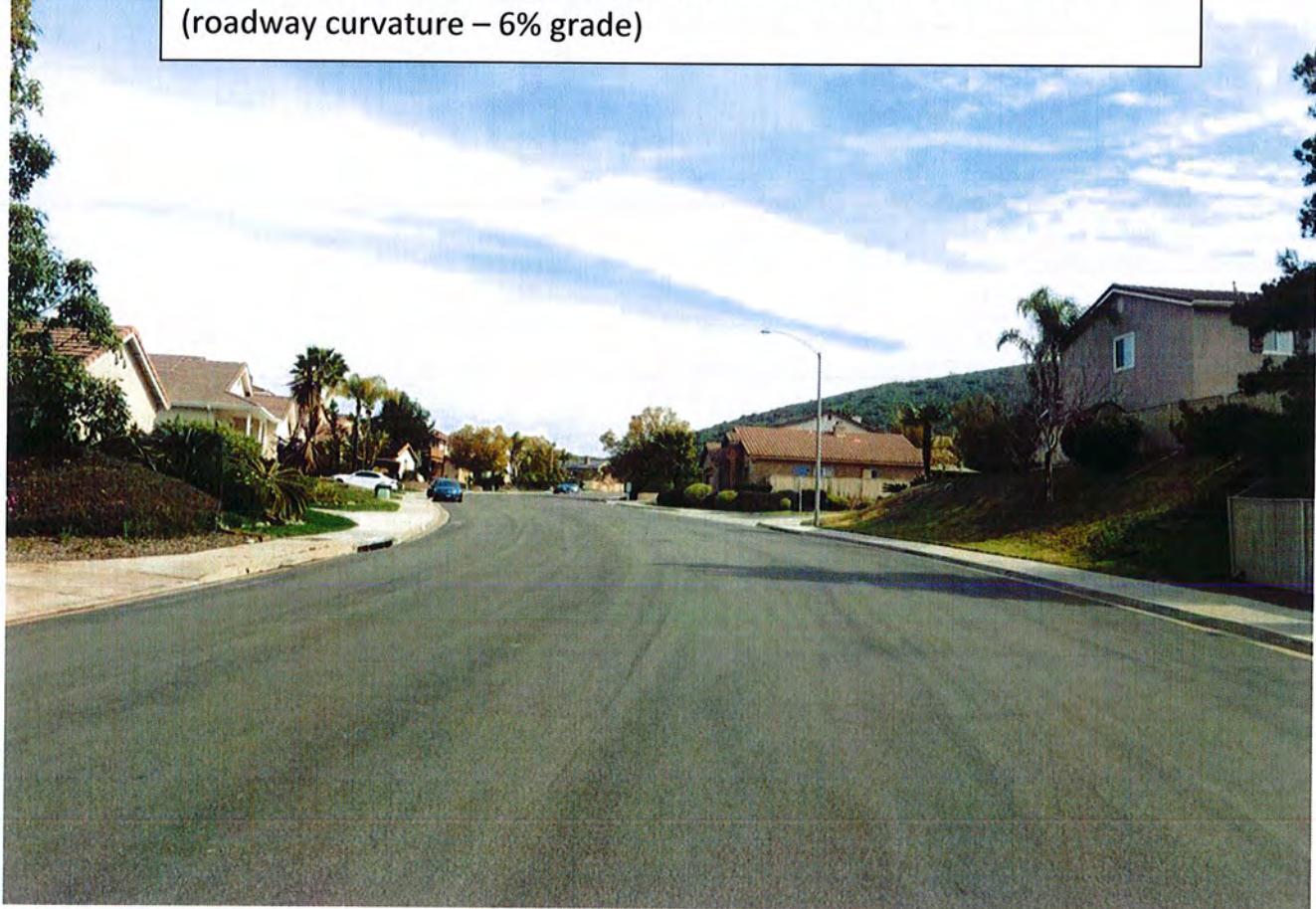
Time	< 15	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 +	Total
00:00 AM	0	0	1	0	2	0	0	0	0	0	0	0	0	3
01:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:00	0	1	0	0	2	1	1	0	0	0	0	0	0	1
05:00	0	1	0	2	1	5	0	0	0	0	0	0	0	5
06:00	0	1	1	6	7	8	0	0	0	0	0	0	0	9
07:00	1	1	2	15	25	20	6	0	0	0	0	0	0	23
08:00	1	2	1	5	7	6	2	3	0	0	0	0	0	69
09:00	2	1	5	7	6	4	3	0	0	0	0	0	0	26
10:00	0	2	3	7	7	10	2	0	0	0	0	0	0	19
11:00	0	1	10	7	10	10	2	0	0	0	0	0	0	30
12:00 PM	2	2	3	7	7	3	1	0	0	0	0	0	0	25
13:00	2	3	7	8	3	1	1	0	0	0	0	0	0	25
14:00	0	1	0	16	10	3	3	0	0	0	0	0	0	33
15:00	0	5	13	16	7	7	1	1	0	0	0	0	0	50
16:00	3	4	8	17	9	5	2	0	0	0	0	0	0	48
17:00	0	4	6	7	8	3	3	0	0	0	0	0	0	31
18:00	0	2	8	8	2	2	1	0	0	0	0	0	0	23
19:00	1	2	1	3	2	4	0	1	0	0	0	0	0	14
20:00	1	4	2	9	5	3	0	1	0	0	0	0	0	25
21:00	0	3	4	1	3	2	0	0	0	0	0	0	0	13
22:00	0	0	0	1	1	1	0	0	0	0	0	0	0	3
23:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
<b>Totals</b>	<b>13</b>	<b>40</b>	<b>96</b>	<b>154</b>	<b>113</b>	<b>48</b>	<b>15</b>	<b>3</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>100%</b>	<b>482</b>
<b>% of Totals</b>	<b>3%</b>	<b>8%</b>	<b>20%</b>	<b>32%</b>	<b>23%</b>	<b>10%</b>	<b>3%</b>	<b>1%</b>						

Street Name	Direction	Percentiles			Off Peak Volumes			ADT
		15th	50th	Average	85th	95th	ADT	
Camino Magnifico	Summary	21	28	28	35	39	482	482
AM Volumes	4	10	43	60	56	14	3	190
% AM	1%	2%	9%	12%	3%	1%	0	39%
AM Peak Hour Volume	09:00	08:00	08:00	08:00	09:00	09:00	0	08:00
PM Volumes	2	2	15	25	20	6	3	69
% PM	2%	6%	11%	20%	12%	7%	1%	292
PM Peak Hour Volume	16:00	15:00	15:00	16:00	14:00	15:00	14:00	15:00
Directional Peak Periods	<b>AM 7-9</b>			<b>NOON 12-2</b>			<b>PM 4-6</b>	
All Speeds	Volume	92	19%	Volume	50	10%	Volume	79
	Direction	21	28	Average	28	35	39	482
				Percentiles	79	10%	Volume	261
					16%	Volume	261	54%

Northbound Camino Magnifico – Approaching Avenida Fragata



Northbound Camino Magnifico – Approaching Avenida Amistad  
(roadway curvature – 6% grade)



Northbound Camino Magnifico – Approaching Via Barquero



Southbound Camino Magnifico – Approaching Avenida Amistad  
(roadway curvature – 6%)

