

TECHNICAL APPENDICES - LTA  
**SANTA FE FLORES PROJECT**  
San Marcos, California  
July 27, 2022

LLG Ref. 3-22-3523

**Linscott, Law &  
Greenspan, Engineers**  
4542 Ruffner Street  
Suite 100  
San Diego, CA 92111  
**858.300.8800** T  
858.300.8810 F  
[www.llgengineers.com](http://www.llgengineers.com)

## APPENDICES

---

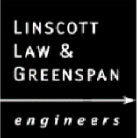
### APPENDIX

---

- A. Intersection and Segment Manual Count Sheets
- B. City of San Marcos Roadway Classification Table
- C. Analysis Worksheets – Existing
- D. K&D Factors Definitions
- E. Travel Route Maps
- F. Analysis Worksheets – Near-Term
- G. Analysis Worksheets – Near-Term + Project
- H. Analysis Worksheets – Long-Term
- I. Analysis Worksheets – Long- Term + Project
- J. Sight Distance Exhibit

**APPENDIX A**  
**INTERSECTION AND SEGMENT MANUAL COUNT SHEETS**

## Intersection Turning Movement - Peak Hour Vehicle Count



<b>Location:</b>	#01	<b>File Name:</b>	ITM-22-009-01
<b>Intersection:</b>	South Santa Fe Avenue & Smilax Road	<b>Project:</b>	LLG Ref. 3-22-3523
<b>Date of Count:</b>	Thursday, February 17, 2022		Santa Fe Las Flores

AM	South Santa Fe Avenue Southbound			Smilax Road Westbound			South Santa Fe Avenue Northbound			Smilax Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	89	31	0	0	1	33	42	1	21	0	33	251
7:15	0	98	47	0	0	0	50	45	2	17	0	46	305
7:30	1	90	38	0	0	0	59	77	0	23	0	48	336
7:45	0	124	70	0	0	0	69	74	2	18	0	34	391
8:00	0	83	55	0	0	0	60	76	0	23	0	23	320
8:15	0	101	52	0	0	0	51	56	0	27	0	42	329
8:30	1	96	46	0	0	0	35	77	0	19	0	28	302
8:45	0	82	35	0	0	0	18	93	0	15	0	16	259
<b>Total</b>	<b>2</b>	<b>763</b>	<b>374</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>375</b>	<b>540</b>	<b>5</b>	<b>163</b>	<b>0</b>	<b>270</b>	<b>2493</b>
Approach%	0.2	67.0	32.8	-	-	100.0	40.8	58.7	0.5	37.6	-	62.4	
Total%	0.1	30.6	15.0	-	-	0.0	15.0	21.7	0.2	6.5	-	10.8	

**AM Intersection Peak Hour: 07:30 to 08:30**

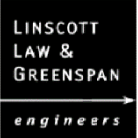
Volume	1	398	215	-	-	-	239	283	2	91	-	147	1,376
Approach%	0.2	64.8	35.0	-	-	-	45.6	54.0	0.4	38.2	-	61.8	
Total%	0.1	28.9	15.6	-	-	-	17.4	20.6	0.1	6.6	-	10.7	
PHF			0.79			#DIV/0!			0.90			0.84	0.88

PM	South Santa Fe Avenue Southbound			Smilax Road Westbound			South Santa Fe Avenue Northbound			Smilax Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	147	39	0	0	1	40	122	0	15	0	51	415
16:15	0	153	28	0	0	0	22	130	0	21	0	57	411
16:30	0	170	42	0	0	0	26	140	0	31	0	60	469
16:45	10	157	39	0	0	0	41	130	0	19	0	57	453
17:00	0	159	38	0	0	3	35	150	0	23	0	56	464
17:15	0	155	37	0	0	0	41	105	1	30	0	52	421
17:30	0	143	32	0	0	0	26	129	0	24	0	68	422
17:45	0	105	37	0	0	0	41	141	0	25	0	54	403
<b>Total</b>	<b>10</b>	<b>1189</b>	<b>292</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>272</b>	<b>1047</b>	<b>1</b>	<b>188</b>	<b>0</b>	<b>455</b>	<b>3458</b>
Approach%	0.7	79.7	19.6	-	-	100.0	20.6	79.3	0.1	29.2	-	70.8	
Total%	0.3	34.4	8.4	-	-	0.1	7.9	30.3	0.0	5.4	-	13.2	

**PM Intersection Peak Hour: 16:30 to 17:30**

Volume	10	641	156	-	-	3	143	525	1	103	-	225	1,807
Approach%	1.2	79.4	19.3	-	-	100.0	21.4	78.5	0.1	31.4	-	68.6	
Total%	0.6	35.5	8.6	-	-	0.2	7.9	29.1	0.1	5.7	-	12.5	
PHF			0.95			0.25			0.90			0.90	0.96

## Intersection Turning Movement - Bicycle & Pedestrian Count

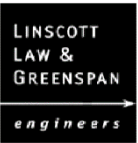


<b>Location:</b>	#01	<b>File Name:</b>	ITM-22-009-01
<b>Intersection:</b>	South Santa Fe Avenue & Smilax Road	<b>Project:</b>	LLG Ref. 3-22-3523
<b>Date of Count:</b>	Thursday, February 17, 2022		Santa Fe Las Flores

AM	South Santa Fe Avenue Southbound				Smilax Road Westbound				South Santa Fe Avenue Northbound				Smilax Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Ped Total</b>	<b>1</b>				<b>0</b>				<b>0</b>				<b>0</b>				<b>1</b>	
<b>Bike Total</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>		<b>0</b>	

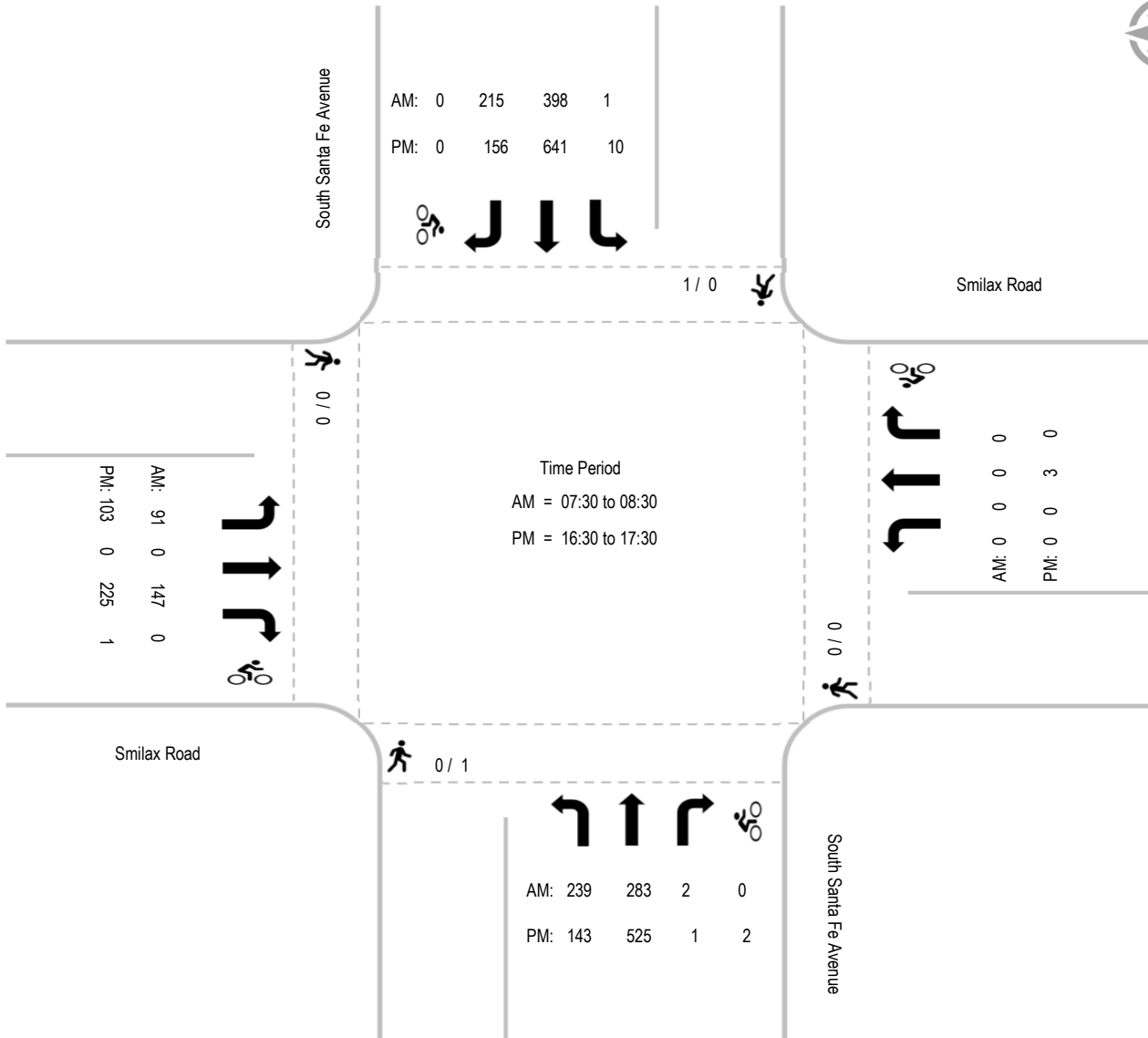
PM	South Santa Fe Avenue Southbound				Smilax Road Westbound				South Santa Fe Avenue Northbound				Smilax Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Ped Total</b>	<b>0</b>				<b>0</b>				<b>1</b>				<b>0</b>				<b>1</b>	
<b>Bike Total</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>2</b>	<b>0</b>		<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	

# Intersection Turning Movement - Peak Hour Summary



Location: #01  
 Intersection: South Santa Fe Avenue & Smilax Road  
 Date of Count: Thursday, February 17, 2022

File Name: ITM-22-009-01  
 Project: LLG Ref. 3-22-3523  
 Santa Fe Las Flores



## Intersection Turning Movement - Peak Hour Vehicle Count

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #02	File Name: ITM-22-009-02
	Intersection: South Santa Fe Avenue & Bosstick Boulevard	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	Santa Santa Fe Avenue Southbound			Bosstick Boulevard Westbound			Santa Santa Fe Avenue Northbound			Bosstick Boulevard Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	23	96	1	6	0	2	2	72	28	1	2	9	242
7:15	22	127	1	13	0	6	6	91	16	2	0	3	287
7:30	16	113	3	23	0	13	2	120	19	2	0	9	320
7:45	23	127	1	21	0	11	4	151	20	0	0	6	364
8:00	17	99	1	12	0	5	9	131	31	6	0	4	315
8:15	15	120	2	11	0	3	6	93	21	2	0	6	279
8:30	4	125	1	16	0	2	4	107	19	0	0	4	282
8:45	8	90	2	5	0	6	3	100	15	4	0	6	239
<b>Total</b>	<b>128</b>	<b>897</b>	<b>12</b>	<b>107</b>	<b>0</b>	<b>48</b>	<b>36</b>	<b>865</b>	<b>169</b>	<b>17</b>	<b>2</b>	<b>47</b>	<b>2328</b>
Approach%	12.3	86.5	1.2	69.0	-	31.0	3.4	80.8	15.8	25.8	3.0	71.2	
Total%	5.5	38.5	0.5	4.6	-	2.1	1.5	37.2	7.3	0.7	0.1	2.0	

**AM Intersection Peak Hour: 07:15 to 08:15**

Volume	78	466	6	69	-	35	21	493	86	10	-	22	1,286
Approach%	14.2	84.7	1.1	66.3	-	33.7	3.5	82.2	14.3	31.3	-	68.8	
Total%	6.1	36.2	0.5	5.4	-	2.7	1.6	38.3	6.7	0.8	-	1.7	
PHF			0.91			0.72			0.86			0.73	0.88

PM	Santa Santa Fe Avenue Southbound			Bosstick Boulevard Westbound			Santa Santa Fe Avenue Northbound			Bosstick Boulevard Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	6	190	4	26	0	12	19	150	12	1	0	4	424
16:15	4	219	2	27	0	18	8	139	7	1	0	4	429
16:30	4	226	2	24	0	30	10	139	9	2	0	2	448
16:45	2	224	2	11	1	17	11	167	9	3	0	4	451
17:00	4	208	5	31	0	17	10	177	13	1	0	1	467
17:15	6	196	4	16	1	11	13	138	8	1	0	3	397
17:30	6	207	4	18	0	14	7	141	10	5	0	1	413
17:45	1	155	1	11	0	11	6	158	9	2	0	2	356
<b>Total</b>	<b>33</b>	<b>1625</b>	<b>24</b>	<b>164</b>	<b>2</b>	<b>130</b>	<b>84</b>	<b>1209</b>	<b>77</b>	<b>16</b>	<b>0</b>	<b>21</b>	<b>3385</b>
Approach%	2.0	96.6	1.4	55.4	0.7	43.9	6.1	88.2	5.6	43.2	-	56.8	
Total%	1.0	48.0	0.7	4.8	0.1	3.8	2.5	35.7	2.3	0.5	-	0.6	

**PM Intersection Peak Hour: 16:15 to 17:15**

Volume	14	877	11	93	1	82	39	622	38	7	-	11	1,795
Approach%	1.6	97.2	1.2	52.8	0.6	46.6	5.6	89.0	5.4	38.9	-	61.1	
Total%	0.8	48.9	0.6	5.2	0.1	4.6	2.2	34.7	2.1	0.4	-	0.6	
PHF			0.97			0.81			0.87			0.64	0.96

## Intersection Turning Movement - Bicycle & Pedestrian Count

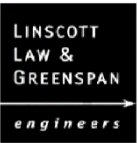
<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #02	File Name: ITM-22-009-02
	Intersection: South Santa Fe Avenue & Bosstick Boulevard	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	Santa Santa Fe Avenue Southbound				Bosstick Boulevard Westbound				Santa Santa Fe Avenue Northbound				Bosstick Boulevard Eastbound				Totals		
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle	
7:00	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2	0
7:15	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	1
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	1	0	0	0	3	0	0	0	0	3	0	0	0	7	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				2				5					8				15	
Bike Total		0	1	0		0	0	0		0	0	0			0	0	0		1

PM	Santa Santa Fe Avenue Southbound				Bosstick Boulevard Westbound				Santa Santa Fe Avenue Northbound				Bosstick Boulevard Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	1	0	1	0	3	0	0	0	4	1
16:15	0	0	0	0	1	0	0	0	2	0	0	0	8	0	0	0	11	0
16:30	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	3	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	3	0
17:15	0	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	2	1
17:30	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0
17:45	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Ped Total	0				4				6				16				26	
Bike Total		0	0	0		0	0	0		0	2	0		0	0	0		2

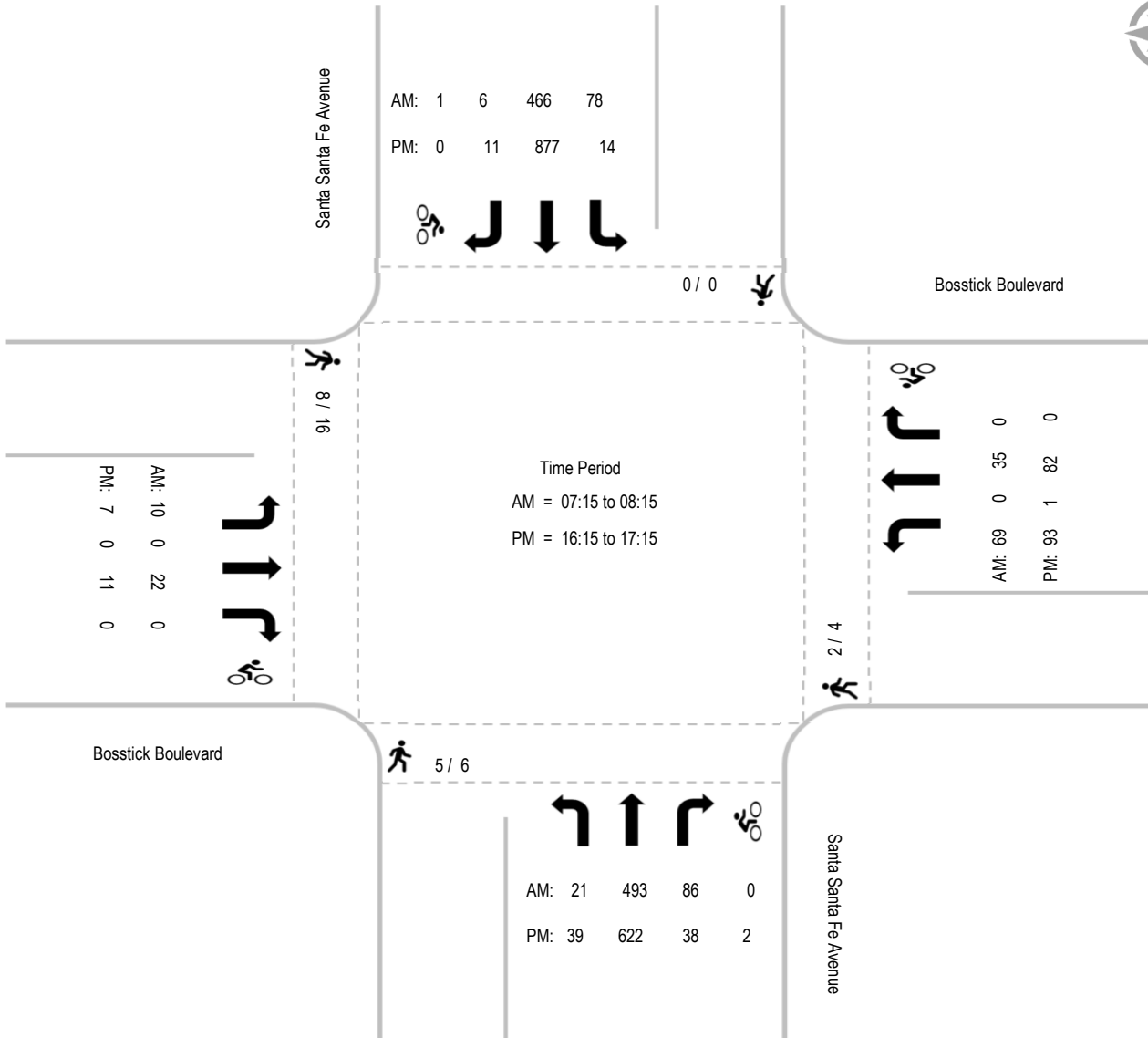


# Intersection Turning Movement - Peak Hour Summary



Location: #02  
 Intersection: South Santa Fe Avenue & Bosstick Boulevard  
 Date of Count: Thursday, February 17, 2022

File Name: ITM-22-009-02  
 Project: LLG Ref. 3-22-3523  
 Santa Fe Las Flores



## Intersection Turning Movement - Peak Hour Vehicle Count

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #03	File Name: ITM-22-009-08
	Intersection: South Santa Fe Avenue & Smilax Road	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	South Santa Fe Avenue Southbound			- Westbound			South Santa Fe Avenue Northbound			Vern Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	126	3	0	0	0	2	120	0	2	0	0	253
7:15	0	138	2	0	0	0	2	99	0	0	0	4	245
7:30	0	194	1	0	0	0	3	140	0	4	0	2	344
7:45	0	168	1	0	0	0	2	142	0	1	0	2	316
8:00	0	145	3	0	0	0	3	181	0	1	0	3	336
8:15	0	155	1	0	0	0	2	138	0	3	0	0	299
8:30	0	150	1	0	0	0	3	128	0	2	0	1	285
8:45	0	113	2	0	0	0	3	81	0	1	0	0	200
<b>Total</b>	<b>0</b>	<b>1189</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>1029</b>	<b>0</b>	<b>14</b>	<b>0</b>	<b>12</b>	<b>2278</b>
Approach%	-	98.8	1.2	-	-	-	1.9	98.1	-	53.8	-	46.2	
Total%	-	52.2	0.6	-	-	-	0.9	45.2	-	0.6	-	0.5	

**AM Intersection Peak Hour: 07:30 to 08:30**

Volume	-	662	6	-	-	-	10	601	-	9	-	7	1,295
Approach%	-	99.1	0.9	-	-	-	1.6	98.4	-	56.3	-	43.8	
Total%	-	51.1	0.5	-	-	-	0.8	46.4	-	0.7	-	0.5	
PHF			0.86			#DIV/0!			0.83			0.67	0.94

PM	South Santa Fe Avenue Southbound			- Westbound			South Santa Fe Avenue Northbound			Vern Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	296	0	0	0	0	8	173	0	1	0	2	480
16:15	0	297	1	0	0	0	3	172	0	0	0	1	474
16:30	0	254	0	0	0	0	3	167	0	0	0	1	425
16:45	0	248	2	0	0	0	6	156	0	1	0	1	414
17:00	0	264	0	0	0	0	17	174	0	3	0	1	459
17:15	0	269	2	0	0	0	6	202	0	0	0	1	480
17:30	0	253	2	0	0	0	8	188	0	2	0	1	454
17:45	0	226	0	0	0	0	3	159	0	0	0	1	389
<b>Total</b>	<b>0</b>	<b>2107</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>54</b>	<b>1391</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>9</b>	<b>3575</b>
Approach%	-	99.7	0.3	-	-	-	3.7	96.3	-	43.8	-	56.3	
Total%	-	58.9	0.2	-	-	-	1.5	38.9	-	0.2	-	0.3	

**PM Intersection Peak Hour: 16:45 to 17:45**

Volume	-	1,034	6	-	-	-	37	720	-	6	-	4	1,807
Approach%	-	99.4	0.6	-	-	-	4.9	95.1	-	60.0	-	40.0	
Total%	-	57.2	0.3	-	-	-	2.0	39.8	-	0.3	-	0.2	
PHF			0.96			#DIV/0!			0.91			0.63	0.94

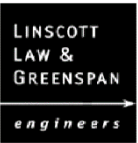
## Intersection Turning Movement - Bicycle & Pedestrian Count

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #03	File Name: ITM-22-009-08
	Intersection: South Santa Fe Avenue & Smilax Road	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	South Santa Fe Avenue Southbound				- Westbound				South Santa Fe Avenue Northbound				Vern Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
7:45	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:00	2	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
8:15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
8:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:45	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	6				0				0				0				6	
Bike Total		0	0	0		0	0	0		0	2	0		4	0	0		6

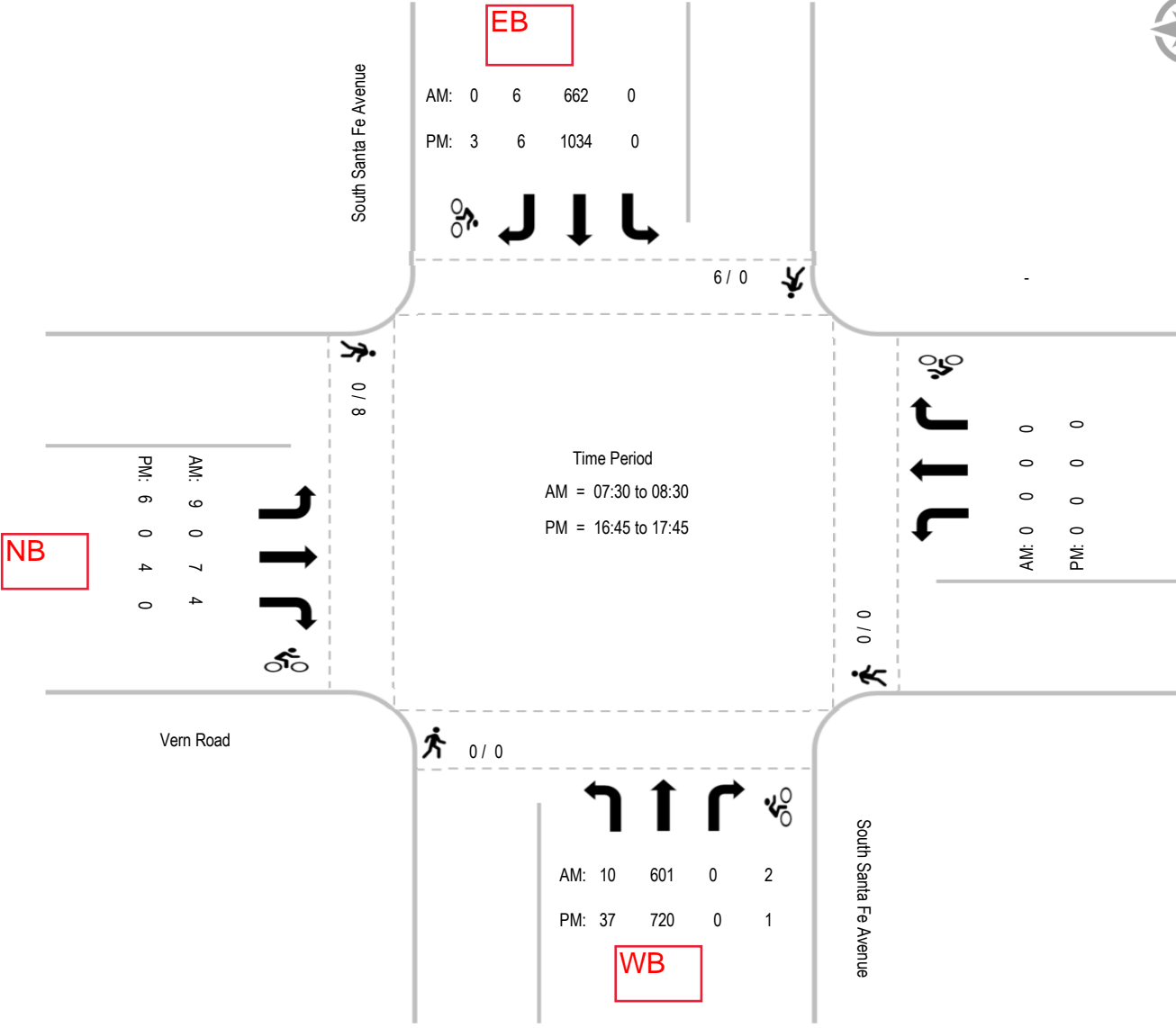
PM	South Santa Fe Avenue Southbound				- Westbound				South Santa Fe Avenue Northbound				Vern Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
16:30	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
16:45	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:00	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
17:15	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	2	1
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0				0				8				8	
Bike Total		0	3	0		0	0	0		0	1	0		0	0	0		4

# Intersection Turning Movement - Peak Hour Summary

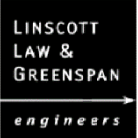


**Location:** #03  
**Intersection:** South Santa Fe Avenue & Smilax Road  
**Date of Count:** Thursday, February 17, 2022

**File Name:** ITM-22-009-08  
**Project:** LLG Ref. 3-22-3523  
 Santa Fe Las Flores



## Intersection Turning Movement - Peak Hour Vehicle Count



<b>Location:</b>	#04	<b>File Name:</b>	ITM-22-009-03
<b>Intersection:</b>	South Santa Fe Avenue & Las Flores Drive	<b>Project:</b>	LLG Ref. 3-22-3523
<b>Date of Count:</b>	Thursday, February 17, 2022		Santa Fe Las Flores

AM	Santa Santa Fe Avenue Southbound			Las Flores Drive Westbound			Santa Santa Fe Avenue Northbound			Las Flores Drive Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	7	95	5	26	0	6	0	102	9	6	0	4	260
7:15	5	127	9	29	1	7	13	104	10	7	1	5	318
7:30	12	129	5	43	2	6	10	118	5	9	0	9	348
7:45	8	149	8	33	6	16	14	125	6	15	0	8	388
8:00	10	106	5	22	2	9	7	147	13	9	1	7	338
8:15	11	112	10	22	5	20	4	105	13	8	1	6	317
8:30	15	119	15	15	0	13	3	124	13	9	0	6	332
8:45	9	93	6	11	0	6	4	103	14	6	0	4	256
<b>Total</b>	<b>77</b>	<b>930</b>	<b>63</b>	<b>201</b>	<b>16</b>	<b>83</b>	<b>55</b>	<b>928</b>	<b>83</b>	<b>69</b>	<b>3</b>	<b>49</b>	<b>2557</b>
Approach%	7.2	86.9	5.9	67.0	5.3	27.7	5.2	87.1	7.8	57.0	2.5	40.5	
Total%	3.0	36.4	2.5	7.9	0.6	3.2	2.2	36.3	3.2	2.7	0.1	1.9	

**AM Intersection Peak Hour: 07:15 to 08:15**

Volume	35	511	27	127	11	38	44	494	34	40	2	29	1,392
Approach%	6.1	89.2	4.7	72.2	6.3	21.6	7.7	86.4	5.9	56.3	2.8	40.8	
Total%	2.5	36.7	1.9	9.1	0.8	2.7	3.2	35.5	2.4	2.9	0.1	2.1	
PHF			0.87			0.80			0.86			0.77	0.90

PM	Santa Santa Fe Avenue Southbound			Las Flores Drive Westbound			Santa Santa Fe Avenue Northbound			Las Flores Drive Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	15	206	20	17	1	9	9	154	24	7	1	4	467
16:15	18	218	14	13	1	4	9	148	12	10	0	3	450
16:30	10	246	19	9	0	6	9	141	13	7	0	10	470
16:45	13	202	19	18	1	9	10	156	22	11	1	2	464
17:00	13	212	19	13	0	15	7	146	32	12	0	5	474
17:15	12	210	15	9	0	8	5	137	20	15	0	3	434
17:30	17	16	22	24	2	7	7	136	19	9	0	4	263
17:45	16	164	22	13	1	2	4	149	25	11	0	4	411
<b>Total</b>	<b>114</b>	<b>1474</b>	<b>150</b>	<b>116</b>	<b>6</b>	<b>60</b>	<b>60</b>	<b>1167</b>	<b>167</b>	<b>82</b>	<b>2</b>	<b>35</b>	<b>3433</b>
Approach%	6.6	84.8	8.6	63.7	3.3	33.0	4.3	83.7	12.0	68.9	1.7	29.4	
Total%	3.3	42.9	4.4	3.4	0.2	1.7	1.7	34.0	4.9	2.4	0.1	1.0	

**PM Intersection Peak Hour: 16:15 to 17:15**

Volume	54	878	71	53	2	34	35	591	79	40	1	20	1,858
Approach%	5.4	87.5	7.1	59.6	2.2	38.2	5.0	83.8	11.2	65.6	1.6	32.8	
Total%	2.9	47.3	3.8	2.9	0.1	1.8	1.9	31.8	4.3	2.2	0.1	1.1	
PHF			0.91			0.79			0.94			0.90	0.98

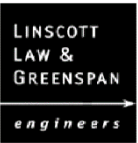
## Intersection Turning Movement - Bicycle & Pedestrian Count

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #04	File Name: ITM-22-009-03
	Intersection: South Santa Fe Avenue & Las Flores Drive	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	Santa Santa Fe Avenue Southbound				Las Flores Drive Westbound				Santa Santa Fe Avenue Northbound				Las Flores Drive Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:15	1	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	3	1
7:30	2	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	4	1
7:45	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	0
8:00	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
8:45	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
<b>Ped Total</b>	<b>4</b>				<b>3</b>				<b>7</b>				<b>1</b>				<b>15</b>	
<b>Bike Total</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>1</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>1</b>	<b>0</b>	<b>0</b>		<b>2</b>

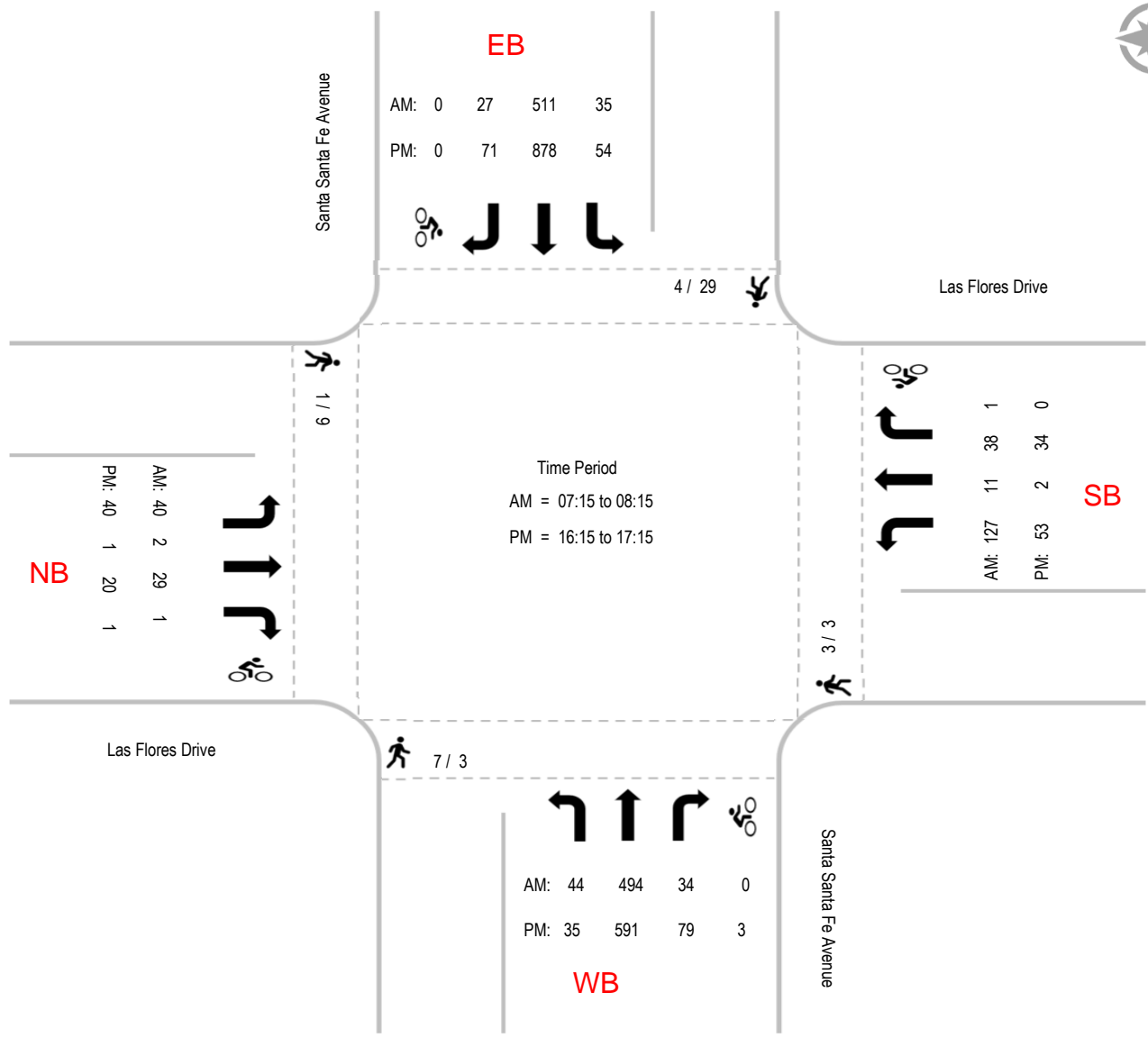
PM	Santa Santa Fe Avenue Southbound				Las Flores Drive Westbound				Santa Santa Fe Avenue Northbound				Las Flores Drive Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	2	0	0	0	0	0	0	0	1	0	1	0	2	0	0	0	5	1
16:15	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	1
16:30	1	0	0	0	0	0	0	0	1	0	0	0	4	0	0	0	6	0
16:45	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0
17:00	3	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	5	0
17:15	2	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	3	1
17:30	5	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	7	1
17:45	11	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	12	0
<b>Ped Total</b>	<b>29</b>				<b>3</b>				<b>3</b>				<b>9</b>				<b>44</b>	
<b>Bike Total</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	<b>3</b>	<b>0</b>		<b>1</b>	<b>0</b>	<b>0</b>		<b>4</b>

# Intersection Turning Movement - Peak Hour Summary

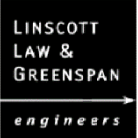


Location: #04  
 Intersection: South Santa Fe Avenue & Las Flores Drive  
 Date of Count: Thursday, February 17, 2022

File Name: ITM-22-009-03  
 Project: LLG Ref. 3-22-3523  
 Santa Fe Las Flores



## Intersection Turning Movement - Peak Hour Vehicle Count



Location: #05	File Name: ITM-22-009-04
Intersection: Hollencrest Road & Las Flores Drive	Project: LLG Ref. 3-22-3523
Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	-			Las Flores Drive			Hollencrest Road			Las Flores Drive			Total
	Southbound			Westbound			Northbound			Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	0	3	4	0	3	0	2	0	8	1	21
7:15	0	0	0	1	15	0	1	0	2	0	11	1	31
7:30	0	0	0	3	15	0	1	0	6	0	14	1	40
7:45	0	0	0	2	16	0	1	0	12	0	13	0	44
8:00	0	0	0	0	14	0	0	0	4	0	9	2	29
8:15	0	0	0	7	16	0	5	0	3	0	15	1	47
8:30	0	0	0	1	12	0	1	0	3	0	4	1	22
8:45	0	0	0	0	10	0	0	0	4	0	5	1	20
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>17</b>	<b>102</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>36</b>	<b>0</b>	<b>79</b>	<b>8</b>	<b>254</b>
Approach%	-	-	-	14.3	85.7	-	25.0	-	75.0	-	90.8	9.2	
Total%	-	-	-	6.7	40.2	-	4.7	-	14.2	-	31.1	3.1	

**AM Intersection Peak Hour: 07:30 to 08:30**

Volume	-	-	-	12	61	-	7	-	25	-	51	4	160
Approach%	-	-	-	16.4	83.6	-	21.9	-	78.1	-	92.7	7.3	
Total%	-	-	-	7.5	38.1	-	4.4	-	15.6	-	31.9	2.5	
PHF			#DIV/0!			0.79			0.62			0.86	0.85

PM	-			Las Flores Drive			Hollencrest Road			Las Flores Drive			Total
	Southbound			Westbound			Northbound			Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	0	0	6	23	0	2	0	5	0	7	4	47
16:15	0	0	0	5	13	0	2	0	6	2	8	1	37
16:30	0	0	0	5	20	0	0	0	3	1	9	0	38
16:45	0	0	0	10	22	0	1	0	4	0	12	2	51
17:00	0	0	0	9	17	0	0	0	3	0	16	2	47
17:15	0	0	0	6	15	0	0	0	3	0	16	0	40
17:30	0	0	0	6	23	0	2	0	1	0	10	1	43
17:45	0	0	0	10	15	0	0	0	1	0	12	0	38
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>57</b>	<b>148</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>26</b>	<b>3</b>	<b>90</b>	<b>10</b>	<b>341</b>
Approach%	-	-	-	27.8	72.2	-	21.2	-	78.8	2.9	87.4	9.7	
Total%	-	-	-	16.7	43.4	-	2.1	-	7.6	0.9	26.4	2.9	

**PM Intersection Peak Hour: 16:45 to 17:45**

Volume	-	-	-	31	77	-	3	-	11	-	54	5	181
Approach%	-	-	-	28.7	71.3	-	21.4	-	78.6	-	91.5	8.5	
Total%	-	-	-	17.1	42.5	-	1.7	-	6.1	-	29.8	2.8	
PHF			#DIV/0!			0.84			0.70			0.82	0.89



## Intersection Turning Movement - Bicycle & Pedestrian Count

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #05	File Name: ITM-22-009-04
	Intersection: Hollencrest Road & Las Flores Drive	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	-				Las Flores Drive				Hollencrest Road				Las Flores Drive				Totals		
	Southbound				Westbound				Northbound				Eastbound						
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle	
7:00	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	2	0	
7:15	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	2	1
7:30	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	0	4	0
7:45	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				1				6				4				11		
Bike Total		0	0	0		0	0	0		0	0	1		0	0	0		1	

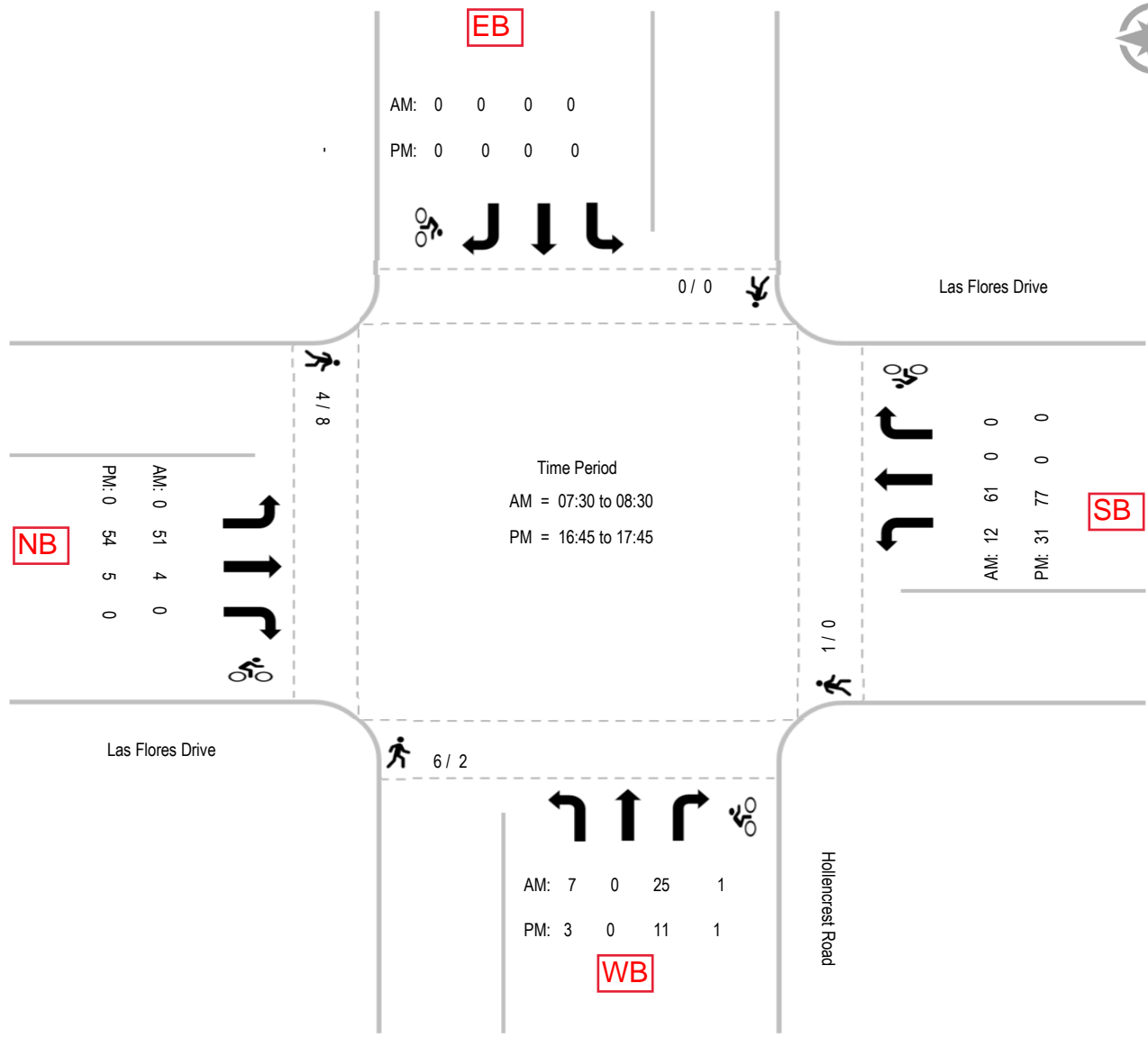
PM	-				Las Flores Drive				Hollencrest Road				Las Flores Drive				Totals		
	Southbound				Westbound				Northbound				Eastbound						
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle	
16:00	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	1	1
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
Ped Total	0				0				2				8				10		
Bike Total		0	0	0		0	0	0		1	0	0		0	0	0		1	

# Intersection Turning Movement - Peak Hour Summary

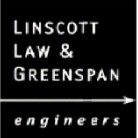


**Location:** #05  
**Intersection:** Hollencrest Road & Las Flores Drive  
**Date of Count:** Thursday, February 17, 2022

**File Name:** ITM-22-009-04  
**Project:** LLG Ref. 3-22-3523  
 Santa Fe Las Flores



## Intersection Turning Movement - Peak Hour Vehicle Count



<b>Location:</b>	#06	<b>File Name:</b>	ITM-22-009-05
<b>Intersection:</b>	West Mission Road & N. Rancho Santa Fe Rd	<b>Project:</b>	LLG Ref. 3-22-3523
<b>Date of Count:</b>	Thursday, February 17, 2022		Santa Fe Las Flores

AM	West Mission Road Southbound			- Westbound			West Mission Road Northbound			N. Rancho Santa Fe Rd Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	74	52	0	0	0	32	45	0	68	0	11	282
7:15	0	94	70	0	0	0	30	81	0	42	0	19	336
7:30	0	107	74	0	0	0	27	73	0	60	0	23	364
7:45	0	121	69	0	0	0	33	92	0	53	0	23	391
8:00	0	78	60	0	0	0	26	90	0	81	0	21	356
8:15	1	64	55	0	0	0	35	57	0	74	0	23	309
8:30	0	79	60	0	0	0	32	66	0	69	0	27	333
8:45	0	62	47	0	0	0	27	56	0	74	0	21	287
<b>Total</b>	<b>1</b>	<b>679</b>	<b>487</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>242</b>	<b>560</b>	<b>0</b>	<b>521</b>	<b>0</b>	<b>168</b>	<b>2658</b>
Approach%	0.1	58.2	41.7	-	-	-	30.2	69.8	-	75.6	-	24.4	
Total%	0.0	25.5	18.3	-	-	-	9.1	21.1	-	19.6	-	6.3	

**AM Intersection Peak Hour: 07:15 to 08:15**

Volume	-	400	273	-	-	-	116	336	-	236	-	86	1,447
Approach%	-	59.4	40.6	-	-	-	25.7	74.3	-	73.3	-	26.7	
Total%	-	27.6	18.9	-	-	-	8.0	23.2	-	16.3	-	5.9	
PHF			0.89			#DIV/0!			0.90			0.79	0.93

PM	West Mission Road Southbound			- Westbound			West Mission Road Northbound			N. Rancho Santa Fe Rd Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	1	168	59	0	0	0	45	93	0	95	0	76	537
16:15	0	184	38	0	0	0	34	81	0	66	0	75	478
16:30	1	181	58	0	0	0	33	67	0	98	0	108	546
16:45	1	187	46	0	0	0	44	123	0	83	0	72	556
17:00	0	194	56	0	0	0	35	95	0	87	0	74	541
17:15	1	155	46	0	0	0	42	91	0	76	0	79	490
17:30	0	156	51	0	0	0	37	93	0	77	0	74	488
17:45	2	144	42	0	0	0	37	94	0	69	0	57	445
<b>Total</b>	<b>6</b>	<b>1369</b>	<b>396</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>307</b>	<b>737</b>	<b>0</b>	<b>651</b>	<b>0</b>	<b>615</b>	<b>4081</b>
Approach%	0.3	77.3	22.4	-	-	-	29.4	70.6	-	51.4	-	48.6	
Total%	0.1	33.5	9.7	-	-	-	7.5	18.1	-	16.0	-	15.1	

**PM Intersection Peak Hour: 16:30 to 17:30**

Volume	3	717	206	-	-	-	154	376	-	344	-	333	2,133
Approach%	0.3	77.4	22.2	-	-	-	29.1	70.9	-	50.8	-	49.2	
Total%	0.1	33.6	9.7	-	-	-	7.2	17.6	-	16.1	-	15.6	
PHF			0.93			#DIV/0!			0.79			0.82	0.96

## Intersection Turning Movement - Bicycle & Pedestrian Count

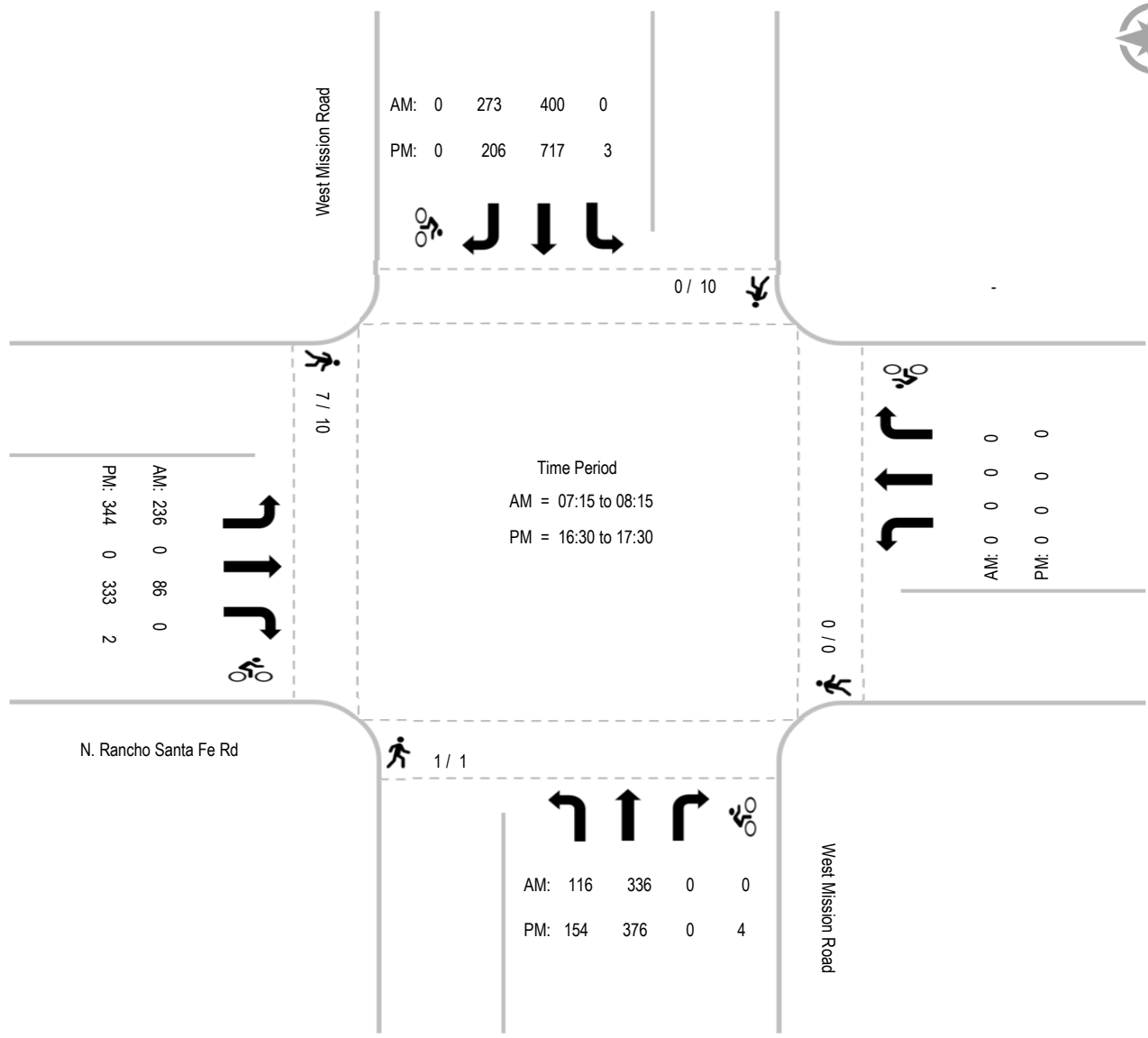
<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #06	File Name: ITM-22-009-05
	Intersection: West Mission Road & N. Rancho Santa Fe Rd	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	West Mission Road Southbound				- Westbound				West Mission Road Northbound				N. Rancho Santa Fe Rd Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
7:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
8:45	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
Ped Total	0				0				1				7				8	
Bike Total		0	0	0		0	0	0		0	0	0		0	0	0		0

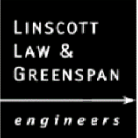
PM	West Mission Road Southbound				- Westbound				West Mission Road Northbound				N. Rancho Santa Fe Rd Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	10	0	0	0	0	0	0	0	0	1	0	0	3	1	0	0	13	2
16:15	0	0	0	0	0	0	0	0	0	2	0	0	3	1	0	0	3	3
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	1
17:30	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
Ped Total	10				0				1				10				21	
Bike Total		0	0	0		0	0	0		3	1	0		2	0	0		6

# Intersection Turning Movement - Peak Hour Summary

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #06	File Name: ITM-22-009-05
	Intersection: West Mission Road & N. Rancho Santa Fe Rd	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores



## Intersection Turning Movement - Peak Hour Vehicle Count



Location: #07	File Name: ITM-22-009-06
Intersection: Capalina Road & Hollencrest Road	Project: LLG Ref. 3-22-3523
Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	Capalina Road Southbound			Hollencrest Road Westbound			Capalina Road Northbound			- Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	37	0	15	0	0	0	8	3	0	0	0	63
7:15	0	35	0	23	0	1	0	15	13	0	0	0	87
7:30	0	61	0	31	0	2	0	10	7	0	0	0	111
7:45	0	55	0	28	0	1	0	28	12	0	0	0	124
8:00	0	36	0	22	0	1	0	14	16	0	0	0	89
8:15	1	20	0	20	0	0	0	24	14	0	0	0	79
8:30	0	32	0	9	0	0	0	18	6	0	0	0	65
8:45	0	13	0	8	0	0	0	17	4	0	0	0	42
<b>Total</b>	<b>1</b>	<b>289</b>	<b>0</b>	<b>156</b>	<b>0</b>	<b>5</b>	<b>0</b>	<b>134</b>	<b>75</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>660</b>
Approach%	0.3	99.7	-	96.9	-	3.1	-	64.1	35.9	-	-	-	
Total%	0.2	43.8	-	23.6	-	0.8	-	20.3	11.4	-	-	-	

**AM Intersection Peak Hour: 07:15 to 08:15**

Volume	-	187	-	104	-	5	-	67	48	-	-	-	411
Approach%	-	100.0	-	95.4	-	4.6	-	58.3	41.7	-	-	-	
Total%	-	45.5	-	25.3	-	1.2	-	16.3	11.7	-	-	-	
PHF			0.77			0.83			0.72			#DIV/0!	0.83

PM	Capalina Road Southbound			Hollencrest Road Westbound			Capalina Road Northbound			- Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	U-Turn	Thru	Right	Left	Thru	Right	
16:00	1	21	0	9	0	2	0	37	29	0	0	0	99
16:15	0	23	0	7	0	0	0	47	14	0	0	0	91
16:30	0	25	0	4	0	0	0	26	18	0	0	0	73
16:45	1	31	0	13	0	1	0	43	19	0	0	0	108
17:00	0	18	0	11	0	2	0	24	18	0	0	0	73
17:15	0	31	0	12	0	1	0	35	21	0	0	0	100
17:30	2	33	0	10	0	1	0	28	15	0	0	0	89
17:45	2	26	0	11	0	2	0	47	16	0	0	0	104
<b>Total</b>	<b>6</b>	<b>208</b>	<b>0</b>	<b>77</b>	<b>0</b>	<b>9</b>	<b>0</b>	<b>287</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>737</b>
Approach%	2.8	97.2	-	89.5	-	10.5	-	65.7	34.3	-	-	-	
Total%	0.8	28.2	-	10.4	-	1.2	-	38.9	20.4	-	-	-	

**PM Intersection Peak Hour: 16:00 to 17:00**

Volume	2	100	-	33	-	3	-	153	80	-	-	-	371
Approach%	2.0	98.0	-	91.7	-	8.3	-	65.7	34.3	-	-	-	
Total%	0.5	27.0	-	8.9	-	0.8	-	41.2	21.6	-	-	-	
PHF			0.80			0.64			0.88			#DIV/0!	0.86

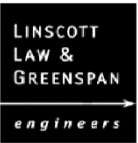
## Intersection Turning Movement - Bicycle & Pedestrian Count

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #07	File Name: ITM-22-009-06
	Intersection: Capalina Road & Hollencrest Road	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	Capalina Road Southbound				Hollencrest Road Westbound				Capalina Road Northbound				- Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4	0
7:15	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	10	0
7:30	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	2	1
7:45	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	9	0
8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Ped Total	0				26					0							26	
Bike Total		0	0	0		0	0	0			0	1	0		0	0		1

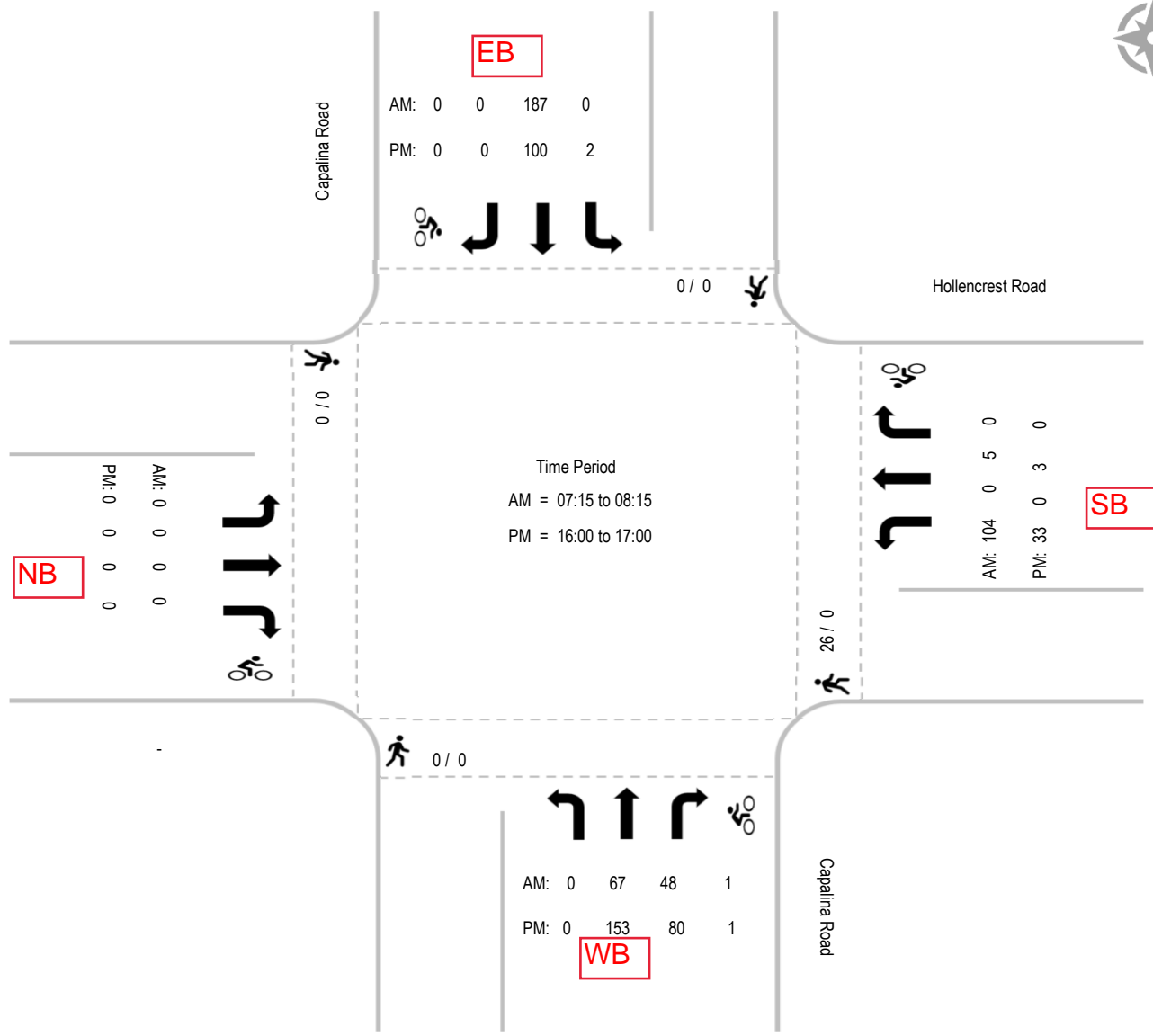
PM	Capalina Road Southbound				Hollencrest Road Westbound				Capalina Road Northbound				- Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	0				0					0							0	
Bike Total		0	0	0		0	0	0			0	0	1		0	0		1

# Intersection Turning Movement - Peak Hour Summary



Location: #07  
 Intersection: Capalina Road & Hollencrest Road  
 Date of Count: Thursday, February 17, 2022

File Name: ITM-22-009-06  
 Project: LLG Ref. 3-22-3523  
 Santa Fe Las Flores





## Intersection Turning Movement - Peak Hour Vehicle Count



<b>Location:</b>	#08 Revised	<b>File Name:</b>	ITM-22-009-07
<b>Intersection:</b>	N. Rancho Santa Fe Road & Capalina Road	<b>Project:</b>	LLG Ref. 3-22-3523
<b>Date of Count:</b>	Thursday, February 17, 2022		Santa Fe Las Flores

AM	N. Rancho Santa Fe Rd Southbound			Capalina Road Westbound			N. Rancho Santa Fe Rd Northbound			Capalina Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	70	1	18	2	5	20	78	23	0	9	43	269
7:15	1	102	0	30	5	4	32	46	32	1	7	51	311
7:30	3	91	0	18	1	5	29	76	31	2	8	78	342
7:45	6	97	0	22	5	4	49	76	32	0	5	77	373
8:00	3	82	2	19	4	2	35	94	24	3	1	40	309
8:15	0	91	4	26	2	6	41	81	28	0	2	36	317
8:30	5	85	4	13	2	3	33	90	24	2	7	33	301
8:45	1	68	4	18	5	5	30	84	33	2	3	17	270
<b>Total</b>	<b>19</b>	<b>686</b>	<b>15</b>	<b>164</b>	<b>26</b>	<b>34</b>	<b>269</b>	<b>625</b>	<b>227</b>	<b>10</b>	<b>42</b>	<b>375</b>	<b>2492</b>
Approach%	2.6	95.3	2.1	73.2	11.6	15.2	24.0	55.8	20.2	2.3	9.8	87.8	
Total%	0.8	27.5	0.6	6.6	1.0	1.4	10.8	25.1	9.1	0.4	1.7	15.0	

**AM Intersection Peak Hour: 07:30 to 08:30**

Volume	12	361	6	85	12	17	154	327	115	5	16	231	1,341
Approach%	3.2	95.3	1.6	74.6	10.5	14.9	25.8	54.9	19.3	2.0	6.3	91.7	
Total%	0.9	26.9	0.4	6.3	0.9	1.3	11.5	24.4	8.6	0.4	1.2	17.2	
PHF			0.92			0.84			0.95			0.72	0.90

PM	N. Rancho Santa Fe Rd Southbound			Capalina Road Westbound			N. Rancho Santa Fe Rd Northbound			Capalina Road Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	U-Turn	Thru	Right	Left	Thru	Right	
16:00	6	91	6	16	3	13	63	163	25	3	8	22	419
16:15	5	68	0	16	5	9	48	145	27	3	3	23	352
16:30	3	86	7	26	9	9	39	173	30	2	7	24	415
16:45	4	75	4	13	11	5	60	139	30	0	11	33	385
17:00	3	100	5	26	5	5	42	160	18	2	0	19	385
17:15	3	83	5	19	8	2	54	152	23	3	4	33	389
17:30	2	78	1	17	9	9	42	123	22	4	10	33	350
17:45	5	75	7	20	11	4	56	122	36	0	10	29	375
<b>Total</b>	<b>31</b>	<b>656</b>	<b>35</b>	<b>153</b>	<b>61</b>	<b>56</b>	<b>404</b>	<b>1177</b>	<b>211</b>	<b>17</b>	<b>53</b>	<b>216</b>	<b>3070</b>
Approach%	4.3	90.9	4.8	56.7	22.6	20.7	22.5	65.7	11.8	5.9	18.5	75.5	
Total%	1.0	21.4	1.1	5.0	2.0	1.8	13.2	38.3	6.9	0.6	1.7	7.0	

**PM Intersection Peak Hour: 16:30 to 17:30**

Volume	13	344	21	84	33	21	195	624	101	7	22	109	1,574
Approach%	3.4	91.0	5.6	60.9	23.9	15.2	21.2	67.8	11.0	5.1	15.9	79.0	
Total%	0.8	21.9	1.3	5.3	2.1	1.3	12.4	39.6	6.4	0.4	1.4	6.9	
PHF			0.88			0.78			0.95			0.78	0.95

## Intersection Turning Movement - Bicycle & Pedestrian Count

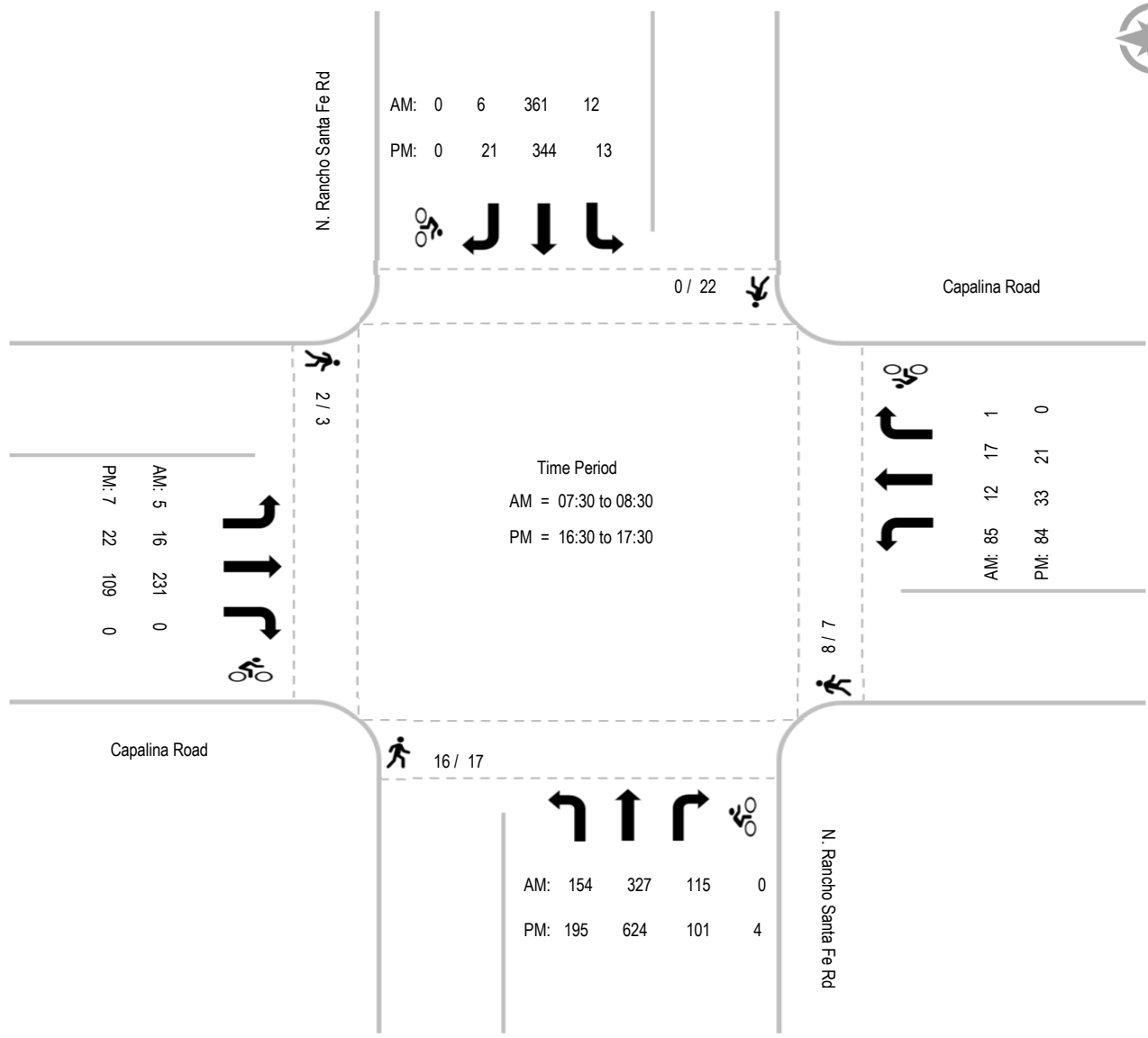
<b>LINSOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #08 Revised	File Name: ITM-22-009-07
	Intersection: N. Rancho Santa Fe Road & Capalina Road	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores

AM	N. Rancho Santa Fe Rd Southbound				Capalina Road Westbound				N. Rancho Santa Fe Rd Northbound				Capalina Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2	0
8:15	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
8:30	0	0	0	0	5	0	0	0	5	0	0	0	1	0	0	0	11	0
8:45	0	0	0	0	1	0	0	0	9	0	0	0	0	0	0	0	10	0
Ped Total	0				8				16				2				26	
Bike Total		0	0	0		1	0	0		0	0	0		0	0	0		1

PM	N. Rancho Santa Fe Rd Southbound				Capalina Road Westbound				N. Rancho Santa Fe Rd Northbound				Capalina Road Eastbound				Totals	
	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	B-Left	B-Thru	B-Right	Ped	Bicycle
16:00	3	0	0	0	0	0	0	0	9	1	0	0	0	0	0	0	12	1
16:15	0	0	0	0	2	0	0	0	4	0	0	0	0	0	0	0	6	0
16:30	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
16:45	5	0	0	0	3	0	0	0	3	1	0	0	0	0	0	11	1	
17:00	6	0	0	0	1	0	0	0	0	0	0	0	1	0	0	8	0	
17:15	4	0	0	0	1	0	0	0	1	0	0	2	1	0	0	7	2	
17:30	3	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	0	
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Total	22				7				17				3				49	
Bike Total		0	0	0		0	0	0		2	0	2		0	0	0		4

# Intersection Turning Movement - Peak Hour Summary

<b>LINSCOTT LAW &amp; GREENSPAN</b> <i>engineers</i>	Location: #08 Revised	File Name: ITM-22-009-07
	Intersection: N. Rancho Santa Fe Road & Capalina Road	Project: LLG Ref. 3-22-3523
	Date of Count: Thursday, February 17, 2022	Santa Fe Las Flores



# Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

## Average Daily Traffic

Location: **BC 22-009 Loc #A S. Santa Fe Ave, between Smilax Rd and Bosstick Blvd**

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>14854</b>																				Description: <b>Total Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
54	36	18	37	105	351	593	989	906	682	683	767	827	771	1081	1294	1755	1519	866	587	377	283	169	104
20	11	4	6	11	45	110	200	262	161	177	192	185	153	221	286	426	444	266	174	96	81	57	31
20	8	4	11	12	75	126	259	238	181	168	189	198	210	248	310	438	400	240	173	90	84	38	22
9	9	5	9	33	114	148	265	218	148	169	191	212	197	312	347	450	378	195	127	96	55	40	26
5	8	5	11	49	117	209	265	188	192	169	195	232	211	300	351	441	297	165	113	95	63	34	25

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>7083</b>																				Description: <b>Northbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
32	18	9	22	58	152	229	451	425	329	325	376	404	397	543	560	813	751	397	307	191	149	87	58
11	6	2	1	3	23	56	86	131	87	75	104	90	83	107	128	169	199	124	88	58	43	25	15
11	3	3	6	7	25	52	114	117	84	65	91	93	105	128	133	183	197	100	89	35	41	21	14
7	5	1	8	18	60	45	115	93	69	90	81	106	100	152	135	245	192	91	77	50	24	23	19
3	4	3	7	30	44	76	136	84	89	95	100	115	109	156	164	216	163	82	53	48	41	18	10

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>7771</b>																				Description: <b>Southbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
22	18	9	15	47	199	364	538	481	353	358	391	423	374	538	734	942	768	469	280	186	134	82	46
9	5	2	5	8	22	54	114	131	74	102	88	95	70	114	158	257	245	142	86	38	38	32	16
9	5	1	5	5	50	74	145	121	97	103	98	105	105	120	177	255	203	140	84	55	43	17	8
2	4	4	1	15	54	103	150	125	79	79	110	106	97	160	212	205	186	104	50	46	31	17	7
2	4	2	4	19	73	133	129	104	103	74	95	117	102	144	187	225	134	83	60	47	22	16	15

Report Generated by "Count Data" all rights reserved

# Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

## Average Daily Traffic

Location: **BC 22-009 Loc #B S. Santa Fe Ave, between Bosstick Blvd and Las Flores Dr**

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>16657</b>																				Description: <b>Total Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
55	37	28	44	120	410	769	1112	1009	796	818	857	923	932	1220	1413	1830	1658	948	641	441	304	188	104
18	12	5	10	11	54	158	226	285	182	209	203	217	186	257	314	425	496	308	196	121	85	55	30
19	7	7	12	17	84	160	279	277	202	202	213	242	250	283	327	467	441	261	187	94	86	42	19
11	8	6	10	40	131	180	288	250	197	205	217	215	238	370	375	481	407	200	122	115	64	53	32
7	10	10	12	52	141	271	319	197	215	202	224	249	258	310	397	457	314	179	136	111	69	38	23

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>7926</b>																				Description: <b>Northbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
31	17	13	25	78	236	394	539	483	396	400	421	447	478	555	593	779	760	430	330	213	156	95	57
11	6	3	4	3	32	92	117	155	98	94	106	100	102	126	138	158	215	135	97	66	41	28	14
7	3	4	5	12	44	84	130	136	100	90	98	120	119	130	140	190	201	123	100	37	39	23	12
8	3	1	8	28	76	78	129	110	96	107	102	108	122	159	134	208	183	86	66	54	32	28	21
5	5	5	8	35	84	140	163	82	102	109	115	119	135	140	181	223	161	86	67	56	44	16	10

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>8731</b>																				Description: <b>Southbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
24	20	15	19	42	174	375	573	526	400	418	436	476	454	665	820	1051	898	518	311	228	148	93	47
7	6	2	6	8	22	66	109	130	84	115	97	117	84	131	176	267	281	173	99	55	44	27	16
12	4	3	7	5	40	76	149	141	102	112	115	122	131	153	187	277	240	138	87	57	47	19	7
3	5	5	2	12	55	102	159	140	101	98	115	107	116	211	241	273	224	114	56	61	32	25	11
2	5	5	4	17	57	131	156	115	113	93	109	130	123	170	216	234	153	93	69	55	25	22	13

Report Generated by "Count Data" all rights reserved

# Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

## Average Daily Traffic

Location: **BC 22-009 Loc #C S. Santa Fe Ave, between Las Flores Dr and N. Rancho Santa Fe Rd**

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>14595</b>																				Description: <b>Total Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
18	23	18	20	119	396	774	1202	1093	802	861	880	936	951	1262	1439	1664	848	508	273	226	143	96	43
5	6	3	5	7	47	157	236	307	197	222	205	213	204	257	330	447	257	169	85	60	42	27	14
9	6	3	7	18	82	157	305	282	203	209	219	253	255	292	312	480	230	138	78	55	51	20	6
3	6	6	3	37	129	184	330	273	200	211	231	218	244	385	393	444	216	118	49	60	29	24	10
1	5	6	5	57	138	276	331	231	202	219	225	252	248	328	404	293	145	83	61	51	21	25	13

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>5755</b>																				Description: <b>Northbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
0	0	0	0	63	208	360	518	517	390	413	431	464	501	587	643	659	0	1	0	0	0	0	0
0	0	0	0	0	28	76	98	149	105	99	103	107	111	125	151	186	0	0	0	0	0	0	0
0	0	0	0	8	42	71	132	142	96	96	101	123	139	130	144	219	0	0	0	0	0	0	0
0	0	0	0	21	67	78	127	113	92	103	111	110	126	183	159	192	0	0	0	0	0	0	0
0	0	0	0	34	71	135	161	113	97	115	116	124	125	149	189	62	0	1	0	0	0	0	0

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>8840</b>																				Description: <b>Southbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
18	23	18	20	56	188	414	684	576	412	448	449	472	450	675	796	1005	848	507	273	226	143	96	43
5	6	3	5	7	19	81	138	158	92	123	102	106	93	132	179	261	257	169	85	60	42	27	14
9	6	3	7	10	40	86	173	140	107	113	118	130	116	162	168	261	230	138	78	55	51	20	6
3	6	6	3	16	62	106	203	160	108	108	120	108	118	202	234	252	216	118	49	60	29	24	10
1	5	6	5	23	67	141	170	118	105	104	109	128	123	179	215	231	145	82	61	51	21	25	13

Report Generated by "Count Data" all rights reserved

# Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

## Average Daily Traffic

Location: **BC 22-009 Loc #D S. Santa Fe Ave-Mission Rd, between N. Rancho Santa Fe Rd and N. Pacific St**

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>13500</b>																				Description: <b>Total Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
38	32	21	36	68	267	468	983	836	534	516	576	643	651	1000	1298	1772	1650	821	491	337	243	162	57
13	10	7	9	12	27	80	162	233	136	119	140	135	141	177	272	438	472	290	138	88	74	49	13
15	7	2	9	10	49	95	244	220	161	133	148	179	159	246	346	483	427	233	142	86	77	43	12
6	6	4	6	24	99	112	310	200	124	124	131	140	164	298	329	413	435	165	112	74	38	40	19
4	9	8	12	22	92	181	267	183	113	140	157	189	187	279	351	438	316	133	99	89	54	30	13

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>5893</b>																				Description: <b>Northbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
13	18	8	20	36	146	216	452	418	268	226	270	306	317	460	442	627	691	333	258	159	113	74	22
5	6	1	4	7	18	38	70	128	75	52	77	66	77	83	82	150	189	107	72	44	33	22	2
3	3	0	6	3	25	42	120	109	85	59	72	82	82	105	131	151	188	101	75	40	34	21	6
2	3	1	4	13	52	52	133	89	58	55	56	72	75	154	105	155	178	63	65	28	17	18	9
3	6	6	6	13	51	84	129	92	50	60	65	86	83	118	124	171	136	62	46	47	29	13	5

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>7607</b>																				Description: <b>Southbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
25	14	13	16	32	121	252	531	418	266	290	306	337	334	540	856	1145	959	488	233	178	130	88	35
8	4	6	5	5	9	42	92	105	61	67	63	69	64	94	190	288	283	183	66	44	41	27	11
12	4	2	3	7	24	53	124	111	76	74	76	97	77	141	215	332	239	132	67	46	43	22	6
4	3	3	2	11	47	60	177	111	66	69	75	68	89	144	224	258	257	102	47	46	21	22	10
1	3	2	6	9	41	97	138	91	63	80	92	103	104	161	227	267	180	71	53	42	25	17	8

Report Generated by "Count Data" all rights reserved

# Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

## Average Daily Traffic

Location: **BC 22-009 Loc #E Hollencrest Rd, between De Leone Rd and Hollenbeck Rd**

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>562</b>																				Description: <b>Total Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
9	2	1	4	3	11	28	32	41	19	15	16	21	31	36	34	61	53	52	34	20	29	5	5
2	1	0	1	1	0	10	9	16	4	5	3	6	12	5	13	14	13	15	9	3	6	5	2
5	1	0	3	0	1	1	5	7	4	3	5	2	4	6	3	17	6	13	10	8	9	0	2
0	0	0	0	1	4	6	9	13	7	3	3	9	7	10	10	14	19	17	5	5	8	0	1
2	0	1	0	1	6	11	9	5	4	4	5	4	8	15	8	16	15	7	10	4	6	0	0

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>245</b>																				Description: <b>Northbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
5	1	1	1	2	4	14	12	13	10	8	8	4	11	15	16	27	22	28	10	11	16	1	5
1	1	0	0	1	0	5	5	7	2	3	2	3	5	3	10	5	5	9	4	1	2	1	2
3	0	0	1	0	1	1	0	1	2	1	3	0	1	2	2	7	2	6	4	4	4	0	2
0	0	0	0	1	2	2	5	5	5	3	2	1	3	4	2	5	10	8	0	3	6	0	1
1	0	1	0	0	1	6	2	0	1	1	1	0	2	6	2	10	5	5	2	3	4	0	0

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>317</b>																				Description: <b>Southbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
4	1	0	3	1	7	14	20	28	9	7	8	17	20	21	18	34	31	24	24	9	13	4	0
1	0	0	1	0	0	5	4	9	2	2	1	3	7	2	3	9	8	6	5	2	4	4	0
2	1	0	2	0	0	0	5	6	2	2	2	2	3	4	1	10	4	7	6	4	5	0	0
0	0	0	0	0	2	4	4	8	2	0	1	8	4	6	8	9	9	9	5	2	2	0	0
1	0	0	0	1	5	5	7	5	3	3	4	4	6	9	6	6	10	2	8	1	2	0	0

Report Generated by "Count Data" all rights reserved



# Linscott, Law & Greenspan, Engineers

4542 Ruffner Street, Suite 100, San Diego, CA 92111

## Average Daily Traffic

Location: **BC 22-009 Loc #F N. Rancho Santa Fe Rd, between S. Santa Fe Ave and Capalina Rd**

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>11728</b>																				Description: <b>Total Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
38	30	21	25	100	290	538	706	772	625	682	692	679	690	783	1007	1069	1019	726	419	355	234	144	84
10	6	5	6	9	35	108	159	216	171	183	171	162	149	175	235	261	286	206	129	91	61	40	27
17	7	6	11	16	64	112	177	199	144	167	193	184	183	191	220	277	250	192	109	81	65	33	14
7	8	4	5	35	92	137	179	186	160	166	165	151	188	219	268	269	269	169	97	89	58	37	25
4	9	6	3	40	99	181	191	171	150	166	163	182	170	198	284	262	214	159	84	94	50	34	18

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>6469</b>																				Description: <b>Eastbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
30	13	9	11	55	142	259	301	340	306	352	356	359	386	399	628	720	639	433	236	203	146	88	58
10	3	4	3	3	18	52	61	88	91	87	82	87	81	91	148	171	173	122	70	56	40	29	18
12	4	4	4	9	32	56	73	95	61	78	93	98	103	101	145	196	144	118	68	44	34	21	10
6	2	1	3	22	46	59	69	80	74	93	89	79	106	99	162	168	172	99	51	47	36	21	20
2	4	0	1	21	46	92	98	77	80	94	92	95	96	108	173	185	150	94	47	56	36	17	10

Date: <b>Tuesday, March 1, 2022</b>		Total Daily Volume: <b>5259</b>																				Description: <b>Westbound Volume</b>	
0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
8	17	12	14	45	148	279	405	432	319	330	336	320	304	384	379	349	380	293	183	152	88	56	26
0	3	1	3	6	17	56	98	128	80	96	89	75	68	84	87	90	113	84	59	35	21	11	9
5	3	2	7	7	32	56	104	104	83	89	100	86	80	90	75	81	106	74	41	37	31	12	4
1	6	3	2	13	46	78	110	106	86	73	76	72	82	120	106	101	97	70	46	42	22	16	5
2	5	6	2	19	53	89	93	94	70	72	71	87	74	90	111	77	64	65	37	38	14	17	8

*Report Generated by "Count Data" all rights reserved*

**APPENDIX B**  
**CITY OF SAN MARCOS ROADWAY CLASSIFICATION**  
**TABLE**

**Table 3: Roadway Classifications, Capacity, and LOS**

Street Classification	Lanes	LOS A	LOS B	LOS C	LOS D	LOS E (Capacity)
Expressway	6	30,000	42,000	60,000	70,000	80,000
Prime Arterial	6	25,000	35,000	50,000	55,000	60,000
Major Arterial	6	20,000	28,000	40,000	45,000	50,000
Major Arterial	4	15,000	21,000	30,000	35,000	40,000
Major Arterial (One-Way)	3	12,500	16,500	22,500	25,000	27,500
Major Arterial (One-Way)	2	10,000	13,000	17,500	20,000	22,500
Secondary Arterial/Collector	4	10,000	14,000	20,000	25,000	30,000
Collector (no center lane)	4	5,000	7,000	10,000	13,000	15,000
Collector (continuous left-turn lane)	2	5,000	7,000	10,000	13,000	15,000
Collector (no fronting property)	2	4,000	5,500	7,500	9,000	10,000
Collector (commercial-industrial fronting)	2	2,500	3,500	5,000	6,500	8,000
Collector (multi-family)	2	2,500	3,500	5,000	6,500	8,000
Collector (one-way)	3	11,000	14,000	19,000	22,500	26,000
Collector (one-way)	2	7,500	9,500	12,500	15,000	17,500
Collector (one-way)	1	2,500	3,500	5,000	6,500	7,500
Sub-Collector (single-family)	2	--	--	2,200	--	--

Source: *Guidelines for Transportation Impact Studies in the San Diego Region* (May 2019)

Notes: 1. The volumes and the average daily level of service listed above are only intended as a general planning outline.

2. Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

### 3.7. LEVEL OF SERVICE STANDARDS

The City of San Marcos strives to maintain intersection and roadway segment operations based on LOS standards outlined in the General Plan Mobility Element. The local transportation analysis should note intersections and roadway segments that perform unacceptably (based on standards in the current General Plan Mobility Element) under no project and/or plus project conditions, and improvements that can be applied to increase performance to acceptable levels.

For study intersections, the study should identify if the addition of the traffic generated from the proposed project results in any one of the following, and improvements should be identified to increase performance to acceptable or pre-project conditions under each scenario:

- ▶ Triggers an intersection operating at acceptable LOS to operate at unacceptable LOS and increases the average delay per vehicle by more than 2.0 seconds.
- ▶ Increases the average delay per vehicle for a study intersection that is already operating at unacceptable LOS by more than 2.0 seconds.

**APPENDIX C**  
**ANALYSIS WORKSHEETS – EXISTING**

Intersection						
Int Delay, s/veh	17.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷		↶	↷	
Traffic Vol, veh/h	91	147	239	283	398	215
Future Vol, veh/h	91	147	239	283	398	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	167	272	322	452	244

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1440	574	696	0	-	0
Stage 1	574	-	-	-	-	-
Stage 2	866	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	146	518	900	-	-	-
Stage 1	563	-	-	-	-	-
Stage 2	412	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 92	518	900	-	-	-
Mov Cap-2 Maneuver	~ 92	-	-	-	-	-
Stage 1	356	-	-	-	-	-
Stage 2	412	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	91.8	4.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	900	-	92	518	-	-
HCM Lane V/C Ratio	0.302	-	1.124	0.322	-	-
HCM Control Delay (s)	10.7	0	215.5	15.2	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	1.3	-	7	1.4	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
2: S. Santa Fe Ave & Bosstick Blvd

Existing AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕	↕
Traffic Volume (veh/h)	10	0	22	69	0	35	21	493	86	78	466	6
Future Volume (veh/h)	10	0	22	69	0	35	21	493	86	78	466	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	25	78	0	40	24	560	98	89	530	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	31	0	70	212	0	188	69	684	579	189	1555	21
Arrive On Green	0.06	0.00	0.06	0.12	0.00	0.12	0.04	0.37	0.37	0.11	0.43	0.43
Sat Flow, veh/h	501	0	1139	1781	0	1585	1781	1870	1585	1781	3591	47
Grp Volume(v), veh/h	36	0	0	78	0	40	24	560	98	89	262	275
Grp Sat Flow(s),veh/h/ln	1640	0	0	1781	0	1585	1781	1870	1585	1781	1777	1862
Q Serve(g_s), s	1.2	0.0	0.0	2.3	0.0	1.3	0.7	15.4	2.4	2.7	5.6	5.6
Cycle Q Clear(g_c), s	1.2	0.0	0.0	2.3	0.0	1.3	0.7	15.4	2.4	2.7	5.6	5.6
Prop In Lane	0.31		0.69	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	100	0	0	212	0	188	69	684	579	189	769	806
V/C Ratio(X)	0.36	0.00	0.00	0.37	0.00	0.21	0.35	0.82	0.17	0.47	0.34	0.34
Avail Cap(c_a), veh/h	837	0	0	251	0	223	260	1148	973	260	1091	1143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.6	0.0	0.0	23.1	0.0	22.6	26.6	16.3	12.2	23.9	10.7	10.7
Incr Delay (d2), s/veh	2.2	0.0	0.0	1.1	0.0	0.6	3.0	2.5	0.1	1.8	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.0	0.0	0.5	0.3	5.6	0.7	1.1	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.8	0.0	0.0	24.1	0.0	23.2	29.6	18.8	12.3	25.7	11.0	11.0
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		36			118			682			626	
Approach Delay, s/veh		27.8			23.8			18.3			13.1	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.2	26.2		9.0	6.4	30.0		11.5				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	4.7	17.4		3.2	2.7	7.6		4.3				
Green Ext Time (p_c), s	0.1	3.4		0.1	0.0	2.9		0.1				

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	662	6	10	601	9	7
Future Vol, veh/h	662	6	10	601	9	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	704	6	11	639	10	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	710	0	1049 355
Stage 1	-	-	-	-	707 -
Stage 2	-	-	-	-	342 -
Critical Hdwy	-	-	4.14	-	6.84 6.94
Critical Hdwy Stg 1	-	-	-	-	5.84 -
Critical Hdwy Stg 2	-	-	-	-	5.84 -
Follow-up Hdwy	-	-	2.22	-	3.52 3.32
Pot Cap-1 Maneuver	-	-	885	-	223 641
Stage 1	-	-	-	-	450 -
Stage 2	-	-	-	-	691 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	885	-	220 641
Mov Cap-2 Maneuver	-	-	-	-	220 -
Stage 1	-	-	-	-	450 -
Stage 2	-	-	-	-	683 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	309	-	-	885	-
HCM Lane V/C Ratio	0.055	-	-	0.012	-
HCM Control Delay (s)	17.3	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

Existing AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	35	511	27	44	494	34	40	2	29	127	11	38
Future Volume (veh/h)	35	511	27	44	494	34	40	2	29	127	11	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	568	30	49	549	38	44	2	32	141	12	42
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	105	839	44	106	879	392	131	11	179	279	68	237
Arrive On Green	0.06	0.24	0.24	0.06	0.25	0.25	0.07	0.12	0.12	0.16	0.19	0.19
Sat Flow, veh/h	1781	3433	181	1781	3554	1585	1781	94	1505	1781	365	1276
Grp Volume(v), veh/h	39	294	304	49	549	38	44	0	34	141	0	54
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1585	1781	0	1599	1781	0	1641
Q Serve(g_s), s	1.0	7.3	7.4	1.3	6.7	0.9	1.2	0.0	0.9	3.6	0.0	1.4
Cycle Q Clear(g_c), s	1.0	7.3	7.4	1.3	6.7	0.9	1.2	0.0	0.9	3.6	0.0	1.4
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.94	1.00		0.78
Lane Grp Cap(c), veh/h	105	434	449	106	879	392	131	0	191	279	0	305
V/C Ratio(X)	0.37	0.68	0.68	0.46	0.62	0.10	0.34	0.00	0.18	0.51	0.00	0.18
Avail Cap(c_a), veh/h	258	797	825	222	1529	682	291	0	1142	411	0	1255
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.2	16.8	16.8	22.3	16.4	14.2	21.6	0.0	19.4	18.9	0.0	16.8
Incr Delay (d2), s/veh	2.2	1.8	1.8	3.1	0.7	0.1	1.5	0.0	0.4	1.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.6	2.7	0.6	2.3	0.3	0.5	0.0	0.3	1.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	18.6	18.6	25.4	17.2	14.3	23.1	0.0	19.9	20.3	0.0	17.1
LnGrp LOS	C	B	B	C	B	B	C	A	B	C	A	B
Approach Vol, veh/h		637			636			78				195
Approach Delay, s/veh		18.9			17.6			21.7				19.4
Approach LOS		B			B			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.4	17.4	9.1	15.1	7.3	17.5	12.4	11.8				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.3	9.4	3.2	3.4	3.0	8.7	5.6	2.9				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.3	0.0	2.7	0.2	0.1				

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	25	51	4	12	61
Future Vol, veh/h	7	25	51	4	12	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	29	60	5	14	72

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	163	63	0	0	65
Stage 1	63	-	-	-	-
Stage 2	100	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	828	1002	-	-	1537
Stage 1	960	-	-	-	-
Stage 2	924	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	821	1002	-	-	1537
Mov Cap-2 Maneuver	821	-	-	-	-
Stage 1	960	-	-	-	-
Stage 2	916	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	956	1537
HCM Lane V/C Ratio	-	-	0.039	0.009
HCM Control Delay (s)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

Existing AM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖↗	↖↗	↖	↕	↙	↕	↖
Traffic Volume (veh/h)	236	86	116	336	0	400	273
Future Volume (veh/h)	236	86	116	336	0	400	273
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	254	92	125	361		430	294
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	610	886	251	1924		1025	457
Arrive On Green	0.18	0.18	0.14	0.54		0.29	0.29
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	254	92	125	361		430	294
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	2.9	1.0	2.9	2.3		4.4	7.2
Cycle Q Clear(g_c), s	2.9	1.0	2.9	2.3		4.4	7.2
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	610	886	251	1924		1025	457
V/C Ratio(X)	0.42	0.10	0.50	0.19		0.42	0.64
Avail Cap(c_a), veh/h	1392	1517	399	3133		2736	1220
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	16.4	10.8	17.7	5.2		12.9	13.9
Incr Delay (d2), s/veh	0.5	0.1	1.5	0.0		0.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	1.0	1.1	0.5		1.3	2.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	16.8	10.8	19.2	5.3		13.1	15.4
LnGrp LOS	B	B	B	A		B	B
Approach Vol, veh/h	346			486		724	
Approach Delay, s/veh	15.2			8.9		14.1	
Approach LOS	B			A		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		30.3		14.4	11.3	19.0	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		4.3		4.9	4.9	9.2	
Green Ext Time (p_c), s		2.3		1.0	0.1	3.7	

Intersection Summary

HCM 6th Ctrl Delay	12.7
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	187	67	48	104	5
Future Vol, veh/h	0	187	67	48	104	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	225	81	58	125	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	139	0	-	0	335 110
Stage 1	-	-	-	-	110 -
Stage 2	-	-	-	-	225 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1445	-	-	-	660 943
Stage 1	-	-	-	-	915 -
Stage 2	-	-	-	-	812 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1445	-	-	-	660 943
Mov Cap-2 Maneuver	-	-	-	-	660 -
Stage 1	-	-	-	-	915 -
Stage 2	-	-	-	-	812 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1445	-	-	-	669
HCM Lane V/C Ratio	-	-	-	-	0.196
HCM Control Delay (s)	0	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

HCM 6th Signalized Intersection Summary  
8: N. Rancho Santa Fe Rd & Capalina Rd

Existing AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↔		↖	↑↔	
Traffic Volume (veh/h)	5	16	231	85	12	17	154	327	115	12	361	6
Future Volume (veh/h)	5	16	231	85	12	17	154	327	115	12	361	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	18	257	94	13	19	171	363	128	13	401	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	42	370	313	329	671	568	212	688	239	20	566	10
Arrive On Green	0.02	0.20	0.20	0.18	0.36	0.36	0.12	0.27	0.27	0.01	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	2587	899	1781	3574	62
Grp Volume(v), veh/h	6	18	257	94	13	19	171	248	243	13	199	209
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1709	1781	1777	1859
Q Serve(g_s), s	0.2	0.5	10.4	3.1	0.3	0.5	6.3	8.0	8.2	0.5	7.1	7.2
Cycle Q Clear(g_c), s	0.2	0.5	10.4	3.1	0.3	0.5	6.3	8.0	8.2	0.5	7.1	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		0.03
Lane Grp Cap(c), veh/h	42	370	313	329	671	568	212	473	455	20	281	294
V/C Ratio(X)	0.14	0.05	0.82	0.29	0.02	0.03	0.81	0.52	0.54	0.65	0.71	0.71
Avail Cap(c_a), veh/h	410	834	707	410	834	707	212	610	587	93	491	514
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	21.9	25.8	23.6	13.9	14.0	28.9	21.0	21.1	33.1	26.8	26.8
Incr Delay (d2), s/veh	1.5	0.1	5.3	0.5	0.0	0.0	20.1	0.9	1.0	30.3	3.3	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	4.2	1.3	0.1	0.2	3.7	3.1	3.1	0.4	3.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	21.9	31.1	24.1	13.9	14.0	49.0	21.9	22.1	63.5	30.1	30.0
LnGrp LOS	C	C	C	C	B	B	D	C	C	E	C	C
Approach Vol, veh/h		281			126			662			421	
Approach Delay, s/veh		30.6			21.5			29.0			31.1	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	24.3	16.4	19.8	14.0	17.1	5.6	30.6				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.5	10.2	5.1	12.4	8.3	9.2	2.2	2.5				
Green Ext Time (p_c), s	0.0	2.3	0.1	0.9	0.0	1.5	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	29.3
HCM 6th LOS	C

Intersection						
Int Delay, s/veh	34.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	103	225	143	525	641	156
Future Vol, veh/h	103	225	143	525	641	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	117	256	163	597	728	177

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1740	817	905	0	-	0
Stage 1	817	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 96	376	752	-	-	-
Stage 1	434	-	-	-	-	-
Stage 2	387	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 65	376	752	-	-	-
Mov Cap-2 Maneuver	~ 65	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	387	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	185.3	2.4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	752	-	65	376	-	-
HCM Lane V/C Ratio	0.216	-	1.801	0.68	-	-
HCM Control Delay (s)	11.1	0	518.6	32.7	-	-
HCM Lane LOS	B	A	F	D	-	-
HCM 95th %tile Q(veh)	0.8	-	10.6	4.8	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
2: S. Santa Fe Ave & Bosstick Blvd

Existing PM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↑	↔	↔	↔	↔
Traffic Volume (veh/h)	7	0	11	93	0	82	39	622	38	14	877	11
Future Volume (veh/h)	7	0	11	93	0	82	39	622	38	14	877	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	12	106	0	93	44	707	43	16	997	12
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	0	38	242	0	215	110	829	702	56	1484	18
Arrive On Green	0.04	0.00	0.04	0.14	0.00	0.14	0.06	0.44	0.44	0.03	0.41	0.41
Sat Flow, veh/h	663	0	995	1781	0	1585	1781	1870	1585	1781	3596	43
Grp Volume(v), veh/h	20	0	0	106	0	93	44	707	43	16	493	516
Grp Sat Flow(s),veh/h/ln	1658	0	0	1781	0	1585	1781	1870	1585	1781	1777	1863
Q Serve(g_s), s	0.7	0.0	0.0	3.1	0.0	3.0	1.3	19.1	0.9	0.5	12.7	12.7
Cycle Q Clear(g_c), s	0.7	0.0	0.0	3.1	0.0	3.0	1.3	19.1	0.9	0.5	12.7	12.7
Prop In Lane	0.40		0.60	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	63	0	0	242	0	215	110	829	702	56	733	769
V/C Ratio(X)	0.32	0.00	0.00	0.44	0.00	0.43	0.40	0.85	0.06	0.29	0.67	0.67
Avail Cap(c_a), veh/h	854	0	0	253	0	225	263	1159	982	263	1101	1154
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.4	0.0	0.0	22.4	0.0	22.3	25.4	14.0	9.0	26.7	13.4	13.4
Incr Delay (d2), s/veh	2.8	0.0	0.0	1.2	0.0	1.4	2.3	4.6	0.0	2.8	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.3	0.0	1.1	0.6	6.9	0.2	0.2	4.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	0.0	0.0	23.6	0.0	23.7	27.7	18.6	9.0	29.4	14.5	14.5
LnGrp LOS	C	A	A	C	A	C	C	B	A	C	B	B
Approach Vol, veh/h		20			199			794			1025	
Approach Delay, s/veh		29.2			23.7			18.6			14.7	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.0	30.3		7.6	7.7	28.6		12.3				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	2.5	21.1		2.7	3.3	14.7		5.1				
Green Ext Time (p_c), s	0.0	3.9		0.1	0.0	5.9		0.2				

Intersection Summary

HCM 6th Ctrl Delay	17.3
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1034	6	37	720	6	4
Future Vol, veh/h	1034	6	37	720	6	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1100	6	39	766	6	4

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	1106	0	1564
Stage 1	-	-	-	-	1103
Stage 2	-	-	-	-	461
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	627	-	102
Stage 1	-	-	-	-	279
Stage 2	-	-	-	-	601
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	627	-	96
Mov Cap-2 Maneuver	-	-	-	-	96
Stage 1	-	-	-	-	279
Stage 2	-	-	-	-	564

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	32.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	141	-	-	627	-
HCM Lane V/C Ratio	0.075	-	-	0.063	-
HCM Control Delay (s)	32.6	-	-	11.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

Existing PM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	54	878	71	35	591	79	40	1	20	53	2	34
Future Volume (veh/h)	54	878	71	35	591	79	40	1	20	53	2	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	60	976	79	39	657	88	44	1	22	59	2	38
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	137	1191	96	88	1179	526	128	8	173	174	10	189
Arrive On Green	0.08	0.36	0.36	0.05	0.33	0.33	0.07	0.11	0.11	0.10	0.12	0.12
Sat Flow, veh/h	1781	3329	269	1781	3554	1585	1781	69	1526	1781	80	1517
Grp Volume(v), veh/h	60	521	534	39	657	88	44	0	23	59	0	40
Grp Sat Flow(s),veh/h/ln	1781	1777	1822	1781	1777	1585	1781	0	1596	1781	0	1597
Q Serve(g_s), s	1.7	14.4	14.4	1.1	8.2	2.1	1.3	0.0	0.7	1.7	0.0	1.2
Cycle Q Clear(g_c), s	1.7	14.4	14.4	1.1	8.2	2.1	1.3	0.0	0.7	1.7	0.0	1.2
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.96	1.00		0.95
Lane Grp Cap(c), veh/h	137	636	652	88	1179	526	128	0	180	174	0	199
V/C Ratio(X)	0.44	0.82	0.82	0.44	0.56	0.17	0.34	0.00	0.13	0.34	0.00	0.20
Avail Cap(c_a), veh/h	235	725	744	202	1391	620	264	0	1036	373	0	1111
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.8	15.7	15.7	24.9	14.8	12.7	23.8	0.0	21.5	22.7	0.0	21.2
Incr Delay (d2), s/veh	2.2	6.6	6.5	3.5	0.4	0.1	1.6	0.0	0.3	1.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.6	5.7	0.5	2.7	0.7	0.6	0.0	0.3	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	22.4	22.2	28.4	15.2	12.9	25.4	0.0	21.8	23.8	0.0	21.7
LnGrp LOS	C	C	C	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1115			784			67				99
Approach Delay, s/veh		22.5			15.6			24.2				23.0
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	24.7	9.4	12.7	8.5	23.3	10.0	12.1				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.1	16.4	3.3	3.2	3.7	10.2	3.7	2.7				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.2	0.0	3.3	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	19.9
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	11	54	5	31	77
Future Vol, veh/h	3	11	54	5	31	77
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	13	64	6	36	91

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	230	67	0	0	70
Stage 1	67	-	-	-	-
Stage 2	163	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	758	997	-	-	1531
Stage 1	956	-	-	-	-
Stage 2	866	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	739	997	-	-	1531
Mov Cap-2 Maneuver	739	-	-	-	-
Stage 1	956	-	-	-	-
Stage 2	844	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	928	1531
HCM Lane V/C Ratio	-	-	0.018	0.024
HCM Control Delay (s)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

Existing PM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↶↶	↷↷	↶	↷↷	↶	↷↷	↷
Traffic Volume (veh/h)	344	333	154	376	0	717	206
Future Volume (veh/h)	344	333	154	376	0	717	206
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	370	358	166	404		771	222
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	626	898	251	2040		1194	533
Arrive On Green	0.18	0.18	0.14	0.57		0.34	0.34
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	370	358	166	404		771	222
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	5.1	5.1	4.5	2.8		9.5	5.6
Cycle Q Clear(g_c), s	5.1	5.1	4.5	2.8		9.5	5.6
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	626	898	251	2040		1194	533
V/C Ratio(X)	0.59	0.40	0.66	0.20		0.65	0.42
Avail Cap(c_a), veh/h	1209	1369	346	2720		2375	1059
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	19.3	13.6	20.9	5.3		14.5	13.2
Incr Delay (d2), s/veh	0.9	0.3	3.0	0.0		0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.3	1.8	0.6		3.0	1.6
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.2	13.9	23.9	5.3		15.1	13.7
LnGrp LOS	C	B	C	A		B	B
Approach Vol, veh/h	728			570		993	
Approach Delay, s/veh	17.1			10.7		14.8	
Approach LOS	B			B		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		35.6		15.8	12.3	23.4	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		4.8		7.1	6.5	11.5	
Green Ext Time (p_c), s		2.7		2.2	0.1	5.8	

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	100	153	80	33	3
Future Vol, veh/h	2	100	153	80	33	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	120	184	96	40	4

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	280	0	-	0	356 232
Stage 1	-	-	-	-	232 -
Stage 2	-	-	-	-	124 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1283	-	-	-	642 807
Stage 1	-	-	-	-	807 -
Stage 2	-	-	-	-	902 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1283	-	-	-	641 807
Mov Cap-2 Maneuver	-	-	-	-	641 -
Stage 1	-	-	-	-	805 -
Stage 2	-	-	-	-	902 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1283	-	-	-	652
HCM Lane V/C Ratio	0.002	-	-	-	0.067
HCM Control Delay (s)	7.8	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th Signalized Intersection Summary  
8: N. Rancho Santa Fe Rd & Capalina Rd

Existing PM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	22	109	84	33	21	195	624	101	13	344	21
Future Volume (veh/h)	7	22	109	84	33	21	195	624	101	13	344	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	24	121	93	37	23	217	693	112	14	382	23
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	209	177	353	521	441	240	898	145	22	582	35
Arrive On Green	0.03	0.11	0.11	0.20	0.28	0.28	0.13	0.29	0.29	0.01	0.17	0.17
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3063	495	1781	3406	204
Grp Volume(v), veh/h	8	24	121	93	37	23	217	402	403	14	199	206
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1781	1781	1777	1834
Q Serve(g_s), s	0.3	0.7	4.4	2.6	0.9	0.6	7.1	12.3	12.3	0.5	6.2	6.3
Cycle Q Clear(g_c), s	0.3	0.7	4.4	2.6	0.9	0.6	7.1	12.3	12.3	0.5	6.2	6.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		0.11
Lane Grp Cap(c), veh/h	56	209	177	353	521	441	240	521	522	22	304	313
V/C Ratio(X)	0.14	0.11	0.68	0.26	0.07	0.05	0.91	0.77	0.77	0.65	0.65	0.66
Avail Cap(c_a), veh/h	464	943	799	464	943	799	240	690	692	105	556	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.0	23.8	25.4	20.2	15.8	15.7	25.4	19.2	19.2	29.3	23.0	23.0
Incr Delay (d2), s/veh	1.2	0.2	4.6	0.4	0.1	0.0	34.1	3.9	3.9	28.0	2.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	1.8	1.1	0.4	0.2	5.0	4.9	4.9	0.4	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.2	24.0	30.0	20.6	15.9	15.8	59.5	23.1	23.1	57.2	25.4	25.4
LnGrp LOS	C	C	C	C	B	B	E	C	C	E	C	C
Approach Vol, veh/h		153			153			1022			419	
Approach Delay, s/veh		29.0			18.7			30.8			26.5	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.7	23.8	15.8	13.1	14.0	16.6	5.9	23.1				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.5	14.3	4.6	6.4	9.1	8.3	2.3	2.9				
Green Ext Time (p_c), s	0.0	3.1	0.1	0.5	0.0	1.6	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	28.6
HCM 6th LOS	C

**APPENDIX D**  
**K&D FACTORS DEFINITIONS**

## PEAK HOUR VOLUME DATA

Peak hour volume data consists of hourly volume relationships and data location. The hourly volumes are expressed as a percentage of the Annual Average Daily Traffic (AADT). The percentages are shown for both the AM and the PM peak periods.

The principle data described here are the K factor, the D factor and their product (KD). The K factor is the percentage of AADT during the peak hour for both directions of travel. The D factor is the percentage of the peak hour travel in the peak direction. KD multiplied with the AADT gives the one way peak period directional flow rate or the design hourly volume (DHV). The design hourly volume is used for either Operational Analysis or Design Analysis. Refer to the 2016 Highway Capacity Manual, 6th Edition A Guide for Multimodal Mobility Analysis for more details.

Following is a glossary of terms used in this listing of peak hour volume data:

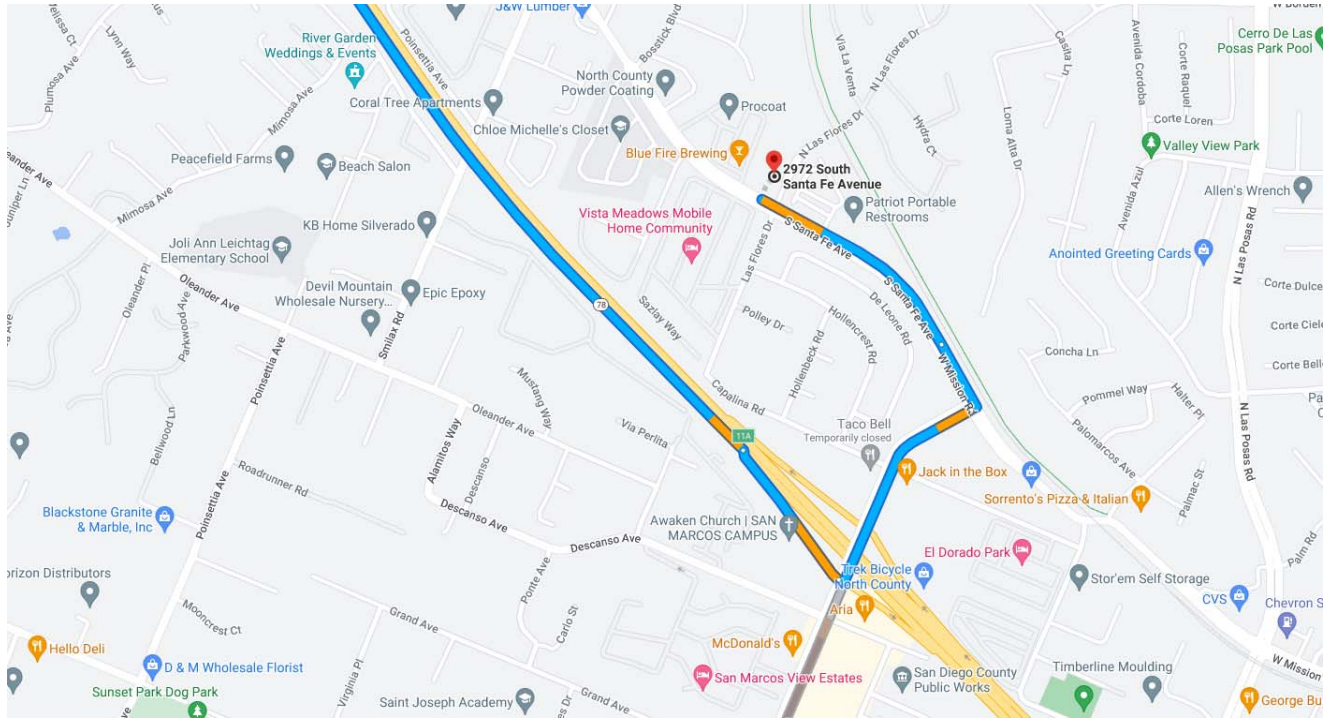
Dir	Indicates direction of travel for peak volume.
AADT	Annual Average Daily Traffic in vehicles per day (vpd).
AM Peak	Represents the morning peak period for traffic analysis.
CS	Control Station Number, Caltrans identification number for monitoring site.
CO	County abbreviation used by Caltrans.
D	D factor. The percentage of traffic in the peak direction during the peak hour. Values in this book are derived by dividing the measured PHV by the sum of both directions of travel during the peak hour.
DAY	Day of week for the peak volume.
DDHV	The directional design hour volume, in vehicles per hour (vph) $DDHV=AADT \times K \times D$ . See Equation (3-1) on Page 3-13 of the 2016 Highway Capacity Manual.
DI	Caltrans has twelve transportation districts statewide. This abbreviation identifies the district in which the count station is located.
HR	The ending time for the peak hour volume listed. The volume observed from 1 to 2 would be recorded as 2.

K	The percentage of the AADT in both directions during the peak hour. Values in this table are derived by dividing the measured 2-way PHV by the AADT.
KD	The product of K and D. The percentage of AADT in the peak direction during the peak hour. Values in this table are derived by dividing the measured 1-way PHV by the AADT.
LEG	For traffic counting purposes, a highway intersection or interchange is assigned two legs according to increasing postmiles (route direction) and with a postmile reference at the center of the intersection or interchange. The volume of traffic on each leg is denoted by an A, B or O. A = ahead leg, B = back leg, and O – traffic volume being same for both back and ahead legs.
MNTH	The month that the peak volume occurred.
PHV	Peak Hour Volume in the peak direction. A one way volume in vehicles per hour (vph) as used here. The PHV is analogous to the DDHV as used for design purposes.
PM	The Post Mile is the mileage measured from the county line, or from the beginning of a route. Each postmile along a route in a county is a unique location on the state highway system.
PM Peak	Represents the afternoon peak period for traffic analysis.
PRE	The postmile may have a prefix like R, T, L, M, etc. When a length of highway is changed due to construction or realignment, new postmile values are assigned. To distinguish the new values from the old, an alpha code is prefixed to the new postmile.
RTE	The state highway route number.
YR	The year when the count was made. Traffic counting is on a 3-year cycle.

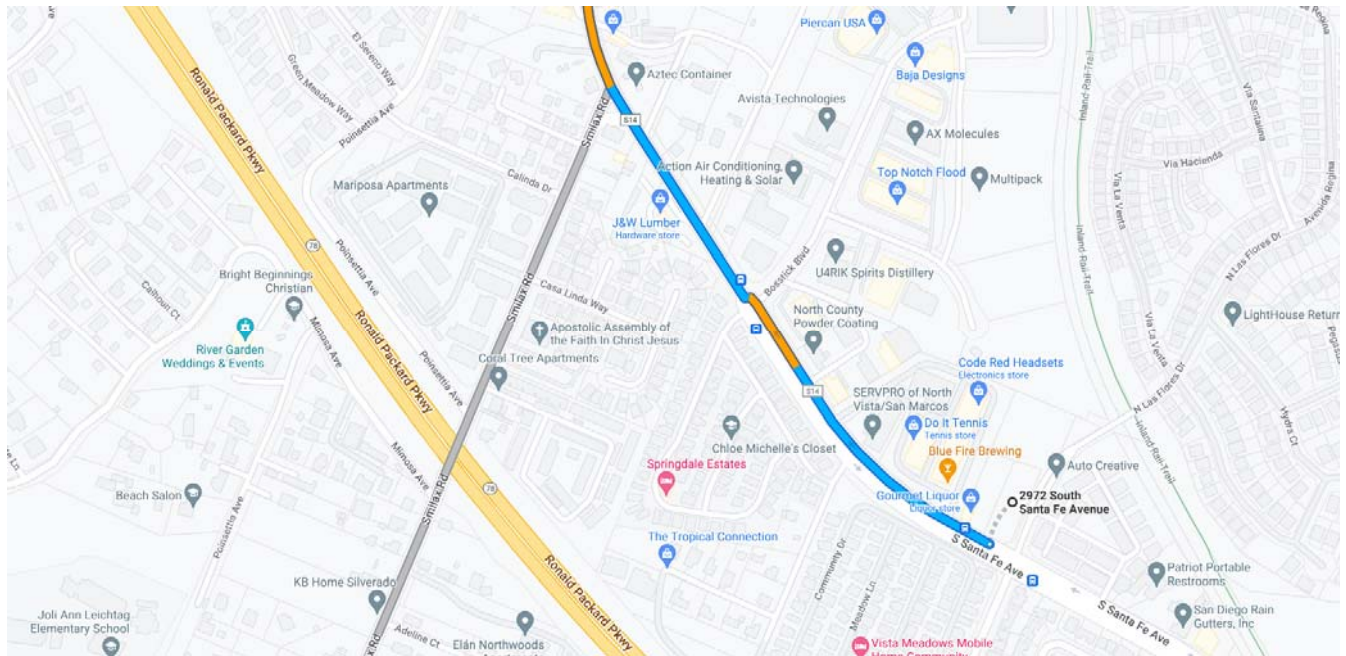
**APPENDIX E**  
**TRAVEL ROUTE MAPS**



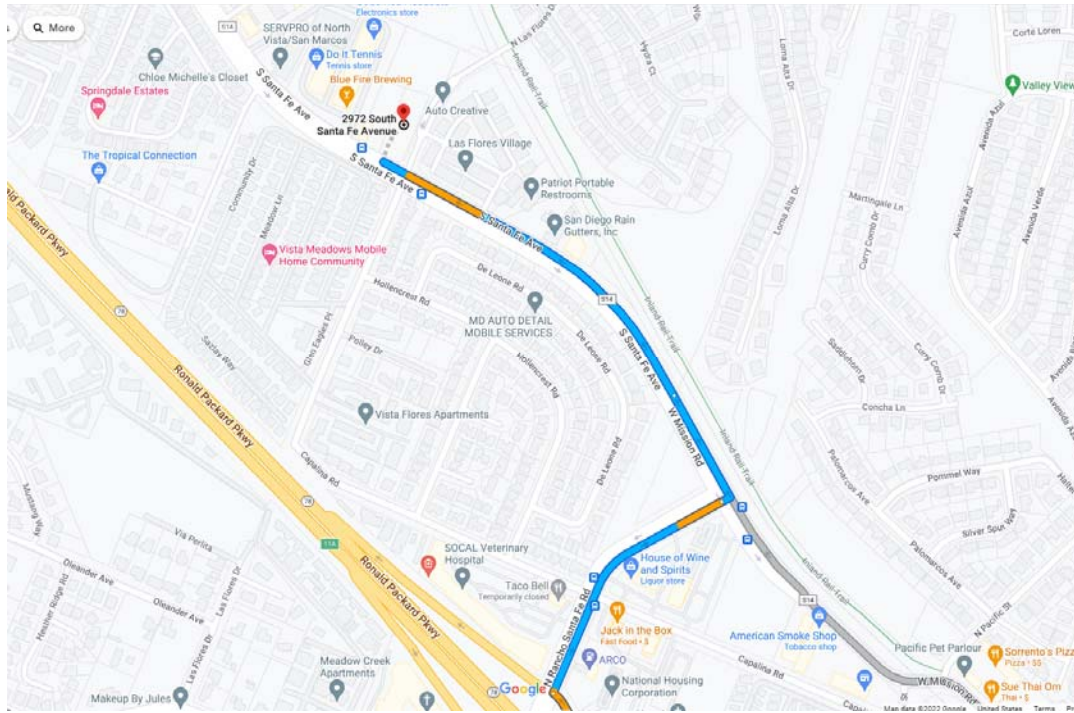
## From Oceanside



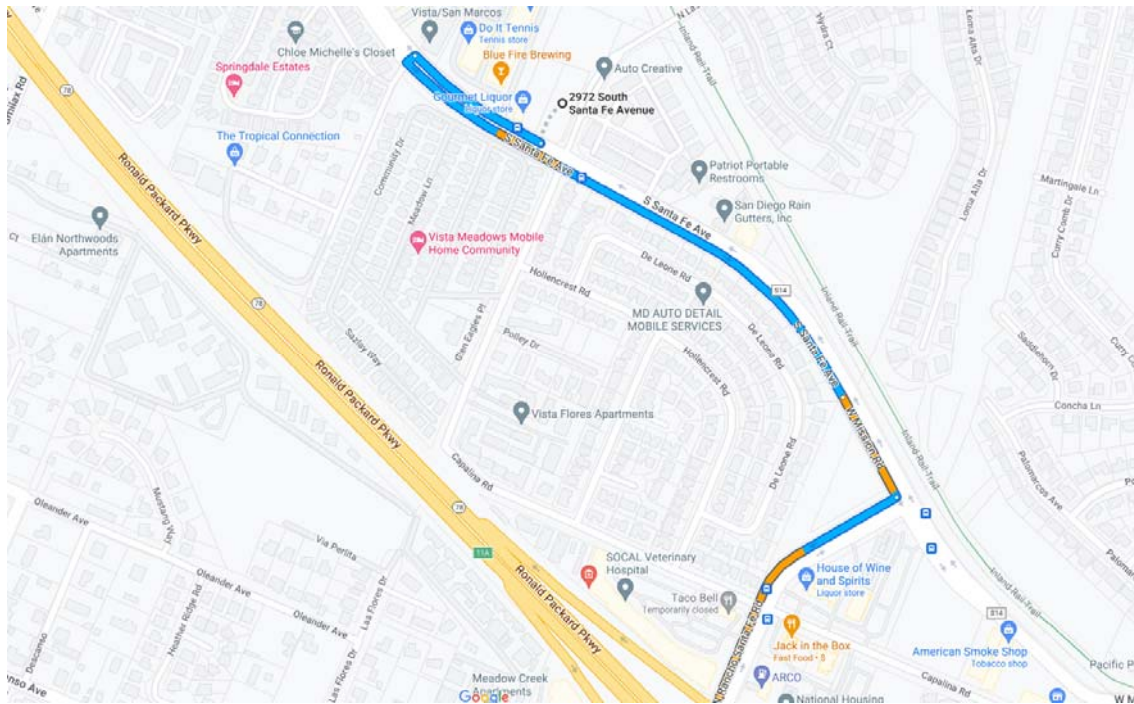
## To Oceanside



## From Escondido



## To Escondido







**APPENDIX F**  
**ANALYSIS WORKSHEETS – NEAR-TERM**

Intersection						
Int Delay, s/veh	25.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	96	155	252	298	420	228
Future Vol, veh/h	96	155	252	298	420	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	176	286	339	477	259

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1518	607	736	0	-	0
Stage 1	607	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	131	496	870	-	-	-
Stage 1	544	-	-	-	-	-
Stage 2	392	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 78	496	870	-	-	-
Mov Cap-2 Maneuver	~ 78	-	-	-	-	-
Stage 1	324	-	-	-	-	-
Stage 2	392	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	137.5	5.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	870	-	78	496	-	-
HCM Lane V/C Ratio	0.329	-	1.399	0.355	-	-
HCM Control Delay (s)	11.2	0\$	333.4	16.2	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	1.4	-	8.6	1.6	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2025 AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕	↕
Traffic Volume (veh/h)	10	0	23	77	0	39	22	508	96	87	480	6
Future Volume (veh/h)	10	0	23	77	0	39	22	508	96	87	480	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	26	88	0	44	25	577	109	99	545	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	0	71	214	0	191	71	697	590	194	1587	20
Arrive On Green	0.06	0.00	0.06	0.12	0.00	0.12	0.04	0.37	0.37	0.11	0.44	0.44
Sat Flow, veh/h	487	0	1152	1781	0	1585	1781	1870	1585	1781	3593	46
Grp Volume(v), veh/h	37	0	0	88	0	44	25	577	109	99	269	283
Grp Sat Flow(s),veh/h/ln	1639	0	0	1781	0	1585	1781	1870	1585	1781	1777	1862
Q Serve(g_s), s	1.3	0.0	0.0	2.7	0.0	1.5	0.8	16.5	2.7	3.1	5.9	5.9
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.7	0.0	1.5	0.8	16.5	2.7	3.1	5.9	5.9
Prop In Lane	0.30		0.70	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	101	0	0	214	0	191	71	697	590	194	785	822
V/C Ratio(X)	0.37	0.00	0.00	0.41	0.00	0.23	0.35	0.83	0.18	0.51	0.34	0.34
Avail Cap(c_a), veh/h	808	0	0	242	0	216	251	1109	940	251	1054	1105
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.5	0.0	0.0	24.0	0.0	23.4	27.5	16.8	12.4	24.7	10.8	10.8
Incr Delay (d2), s/veh	2.2	0.0	0.0	1.3	0.0	0.6	2.9	3.0	0.1	2.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.1	0.0	0.6	0.4	6.2	0.8	1.3	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	0.0	0.0	25.2	0.0	24.0	30.4	19.7	12.6	26.8	11.1	11.1
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		37			132			711			651	
Approach Delay, s/veh		28.7			24.8			19.0			13.5	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	27.3		9.1	6.5	31.4		11.8				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	5.1	18.5		3.3	2.8	7.9		4.7				
Green Ext Time (p_c), s	0.1	3.4		0.1	0.0	3.0		0.1				

Intersection Summary

HCM 6th Ctrl Delay	17.4
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	674	6	10	612	9	7
Future Vol, veh/h	674	6	10	612	9	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	717	6	11	651	10	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	723	0	1068
Stage 1	-	-	-	-	720
Stage 2	-	-	-	-	348
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	875	-	217
Stage 1	-	-	-	-	443
Stage 2	-	-	-	-	686
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	875	-	214
Mov Cap-2 Maneuver	-	-	-	-	214
Stage 1	-	-	-	-	443
Stage 2	-	-	-	-	677

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	301	-	-	875	-
HCM Lane V/C Ratio	0.057	-	-	0.012	-
HCM Control Delay (s)	17.7	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th Signalized Intersection Summary  
 4: Las Flores Dr & S. Santa Fe Ave

YEAR 2025 AM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	36	523	27	46	505	35	41	3	30	129	12	39
Future Volume (veh/h)	36	523	27	46	505	35	41	3	30	129	12	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	581	30	51	561	39	46	3	33	143	13	43
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	107	851	44	109	891	397	135	16	177	278	70	233
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.08	0.12	0.12	0.16	0.18	0.18
Sat Flow, veh/h	1781	3438	177	1781	3554	1585	1781	134	1472	1781	381	1262
Grp Volume(v), veh/h	40	300	311	51	561	39	46	0	36	143	0	56
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1585	1781	0	1605	1781	0	1643
Q Serve(g_s), s	1.1	7.6	7.6	1.4	7.0	0.9	1.2	0.0	1.0	3.7	0.0	1.4
Cycle Q Clear(g_c), s	1.1	7.6	7.6	1.4	7.0	0.9	1.2	0.0	1.0	3.7	0.0	1.4
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.92	1.00		0.77
Lane Grp Cap(c), veh/h	107	440	455	109	891	397	135	0	193	278	0	303
V/C Ratio(X)	0.38	0.68	0.68	0.47	0.63	0.10	0.34	0.00	0.19	0.51	0.00	0.18
Avail Cap(c_a), veh/h	255	788	815	219	1512	674	287	0	1133	406	0	1242
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.4	16.9	16.9	22.5	16.5	14.3	21.7	0.0	19.6	19.2	0.0	17.1
Incr Delay (d2), s/veh	2.2	1.9	1.8	3.1	0.7	0.1	1.5	0.0	0.5	1.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.7	2.8	0.6	2.3	0.3	0.5	0.0	0.4	1.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.6	18.8	18.7	25.6	17.3	14.4	23.2	0.0	20.1	20.7	0.0	17.4
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	B
Approach Vol, veh/h		651			651			82				199
Approach Delay, s/veh		19.1			17.8			21.9				19.7
Approach LOS		B			B			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	17.7	9.3	15.1	7.4	17.8	12.4	12.0				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.4	9.6	3.2	3.4	3.1	9.0	5.7	3.0				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.3	0.0	2.8	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Traffic Vol, veh/h	7	26	53	5	13	64
Future Vol, veh/h	7	26	53	5	13	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	31	62	6	15	75

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	170	65	0	0	68	0
Stage 1	65	-	-	-	-	-
Stage 2	105	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	820	999	-	-	1533	-
Stage 1	958	-	-	-	-	-
Stage 2	919	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	812	999	-	-	1533	-
Mov Cap-2 Maneuver	812	-	-	-	-	-
Stage 1	958	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	1.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	952	1533
HCM Lane V/C Ratio	-	-	0.041	0.01
HCM Control Delay (s)	-	-	8.9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2025 AM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖↗	↖↗	↖	↑↑	↙	↑↑	↖
Traffic Volume (veh/h)	244	91	122	349	0	416	282
Future Volume (veh/h)	244	91	122	349	0	416	282
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	262	98	131	375		447	303
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	603	885	254	1946		1047	467
Arrive On Green	0.17	0.17	0.14	0.55		0.29	0.29
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	262	98	131	375		447	303
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	3.1	1.1	3.1	2.4		4.6	7.6
Cycle Q Clear(g_c), s	3.1	1.1	3.1	2.4		4.6	7.6
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	603	885	254	1946		1047	467
V/C Ratio(X)	0.43	0.11	0.52	0.19		0.43	0.65
Avail Cap(c_a), veh/h	1372	1505	393	3089		2697	1203
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	16.7	11.0	18.0	5.2		12.9	13.9
Incr Delay (d2), s/veh	0.5	0.1	1.6	0.0		0.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.0	1.2	0.5		1.4	2.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.2	11.0	19.6	5.2		13.2	15.5
LnGrp LOS	B	B	B	A		B	B
Approach Vol, veh/h	360			506		750	
Approach Delay, s/veh	15.5			9.0		14.1	
Approach LOS	B			A		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		30.9		14.4	11.5	19.5	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		4.4		5.1	5.1	9.6	
Green Ext Time (p_c), s		2.4		1.0	0.1	3.8	

Intersection Summary

HCM 6th Ctrl Delay	12.8
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	3.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	0	188	67	48	105	6
Future Vol, veh/h	0	188	67	48	105	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	227	81	58	127	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	139	0	-	0	337
Stage 1	-	-	-	-	110
Stage 2	-	-	-	-	227
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1445	-	-	-	658
Stage 1	-	-	-	-	915
Stage 2	-	-	-	-	811
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1445	-	-	-	658
Mov Cap-2 Maneuver	-	-	-	-	658
Stage 1	-	-	-	-	915
Stage 2	-	-	-	-	811

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1445	-	-	-	669
HCM Lane V/C Ratio	-	-	-	-	0.2
HCM Control Delay (s)	0	-	-	-	11.7
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

HCM 6th Signalized Intersection Summary  
 8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2025 AM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↕		↖	↑↕	
Traffic Volume (veh/h)	6	16	233	86	13	18	156	340	117	13	376	6
Future Volume (veh/h)	6	16	233	86	13	18	156	340	117	13	376	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	18	259	96	14	20	173	378	130	14	418	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	372	315	329	666	564	209	699	237	21	582	10
Arrive On Green	0.03	0.20	0.20	0.18	0.36	0.36	0.12	0.27	0.27	0.01	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	2604	884	1781	3577	60
Grp Volume(v), veh/h	7	18	259	96	14	20	173	256	252	14	207	218
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1711	1781	1777	1860
Q Serve(g_s), s	0.3	0.5	10.7	3.2	0.3	0.6	6.5	8.4	8.6	0.5	7.5	7.5
Cycle Q Clear(g_c), s	0.3	0.5	10.7	3.2	0.3	0.6	6.5	8.4	8.6	0.5	7.5	7.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.03
Lane Grp Cap(c), veh/h	49	372	315	329	666	564	209	477	459	21	289	303
V/C Ratio(X)	0.14	0.05	0.82	0.29	0.02	0.04	0.83	0.54	0.55	0.66	0.72	0.72
Avail Cap(c_a), veh/h	406	825	699	406	825	699	209	603	581	92	486	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.3	22.1	26.1	23.9	14.2	14.3	29.3	21.3	21.4	33.5	27.0	27.0
Incr Delay (d2), s/veh	1.3	0.1	5.4	0.5	0.0	0.0	23.0	0.9	1.0	29.4	3.3	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	4.3	1.3	0.1	0.2	3.9	3.3	3.2	0.4	3.2	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.7	22.1	31.5	24.4	14.2	14.3	52.3	22.2	22.4	62.9	30.3	30.2
LnGrp LOS	C	C	C	C	B	B	D	C	C	E	C	C
Approach Vol, veh/h		284			130			681			439	
Approach Delay, s/veh		30.9			21.8			29.9			31.3	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	24.7	16.6	20.0	14.0	17.5	5.9	30.7				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.5	10.6	5.2	12.7	8.5	9.5	2.3	2.6				
Green Ext Time (p_c), s	0.0	2.3	0.1	0.9	0.0	1.5	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				29.8								
HCM 6th LOS				C								

Intersection						
Int Delay, s/veh	49.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↶	↷		↶	↷	
Traffic Vol, veh/h	109	237	150	553	675	166
Future Vol, veh/h	109	237	150	553	675	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	269	170	628	767	189

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1830	862	956	0	-	0
Stage 1	862	-	-	-	-	-
Stage 2	968	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 84	355	719	-	-	-
Stage 1	414	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 54	355	719	-	-	-
Mov Cap-2 Maneuver	~ 54	-	-	-	-	-
Stage 1	264	-	-	-	-	-
Stage 2	368	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	265.7	2.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	719	-	54	355	-	-
HCM Lane V/C Ratio	0.237	-	2.294	0.759	-	-
HCM Control Delay (s)	11.6	0\$	754.6	40.9	-	-
HCM Lane LOS	B	A	F	E	-	-
HCM 95th %tile Q(veh)	0.9	-	12.5	6	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2025 PM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕	↕
Traffic Volume (veh/h)	7	0	12	103	0	91	40	641	43	16	904	12
Future Volume (veh/h)	7	0	12	103	0	91	40	641	43	16	904	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	14	117	0	103	45	728	49	18	1027	14
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	0	43	238	0	212	111	843	714	62	1519	21
Arrive On Green	0.04	0.00	0.04	0.13	0.00	0.13	0.06	0.45	0.45	0.03	0.42	0.42
Sat Flow, veh/h	600	0	1051	1781	0	1585	1781	1870	1585	1781	3589	49
Grp Volume(v), veh/h	22	0	0	117	0	103	45	728	49	18	508	533
Grp Sat Flow(s),veh/h/ln	1651	0	0	1781	0	1585	1781	1870	1585	1781	1777	1862
Q Serve(g_s), s	0.8	0.0	0.0	3.5	0.0	3.5	1.4	20.4	1.0	0.6	13.5	13.5
Cycle Q Clear(g_c), s	0.8	0.0	0.0	3.5	0.0	3.5	1.4	20.4	1.0	0.6	13.5	13.5
Prop In Lane	0.36		0.64	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	68	0	0	238	0	212	111	843	714	62	752	788
V/C Ratio(X)	0.32	0.00	0.00	0.49	0.00	0.49	0.41	0.86	0.07	0.29	0.68	0.68
Avail Cap(c_a), veh/h	822	0	0	245	0	218	254	1121	950	254	1065	1116
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	0.0	23.4	0.0	23.4	26.3	14.4	9.1	27.4	13.6	13.6
Incr Delay (d2), s/veh	2.7	0.0	0.0	1.6	0.0	1.7	2.4	5.6	0.0	2.6	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.5	0.0	1.3	0.6	7.6	0.3	0.3	4.3	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	0.0	0.0	25.0	0.0	25.1	28.7	20.0	9.1	30.0	14.6	14.6
LnGrp LOS	C	A	A	C	A	C	C	B	A	C	B	B
Approach Vol, veh/h		22			220			822			1059	
Approach Delay, s/veh		29.8			25.0			19.8			14.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	31.6		7.9	7.8	30.0		12.5				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	2.6	22.4		2.8	3.4	15.5		5.5				
Green Ext Time (p_c), s	0.0	3.9		0.1	0.0	6.1		0.2				

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↗	
Traffic Vol, veh/h	1052	6	37	733	6	5
Future Vol, veh/h	1052	6	37	733	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1119	6	39	780	6	5

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1125	0	1590
Stage 1	-	-	-	-	1122
Stage 2	-	-	-	-	468
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	617	-	98
Stage 1	-	-	-	-	273
Stage 2	-	-	-	-	597
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	617	-	92
Mov Cap-2 Maneuver	-	-	-	-	92
Stage 1	-	-	-	-	273
Stage 2	-	-	-	-	559

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	32
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	145	-	-	617	-
HCM Lane V/C Ratio	0.081	-	-	0.064	-
HCM Control Delay (s)	32	-	-	11.2	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

YEAR 2025 PM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	55	899	73	36	605	80	41	2	21	54	3	35
Future Volume (veh/h)	55	899	73	36	605	80	41	2	21	54	3	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	61	999	81	40	672	89	46	2	23	60	3	39
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	138	1200	97	89	1190	531	131	15	169	175	14	186
Arrive On Green	0.08	0.36	0.36	0.05	0.33	0.33	0.07	0.11	0.11	0.10	0.12	0.12
Sat Flow, veh/h	1781	3329	270	1781	3554	1585	1781	128	1476	1781	114	1488
Grp Volume(v), veh/h	61	533	547	40	672	89	46	0	25	60	0	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1822	1781	1777	1585	1781	0	1605	1781	0	1603
Q Serve(g_s), s	1.8	15.0	15.0	1.2	8.5	2.2	1.3	0.0	0.8	1.7	0.0	1.3
Cycle Q Clear(g_c), s	1.8	15.0	15.0	1.2	8.5	2.2	1.3	0.0	0.8	1.7	0.0	1.3
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.92	1.00		0.93
Lane Grp Cap(c), veh/h	138	640	657	89	1190	531	131	0	184	175	0	200
V/C Ratio(X)	0.44	0.83	0.83	0.45	0.56	0.17	0.35	0.00	0.14	0.34	0.00	0.21
Avail Cap(c_a), veh/h	231	714	733	199	1370	611	260	0	1026	368	0	1098
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.1	16.0	16.0	25.3	14.9	12.8	24.1	0.0	21.8	23.0	0.0	21.5
Incr Delay (d2), s/veh	2.2	7.6	7.5	3.5	0.4	0.1	1.6	0.0	0.3	1.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	6.0	6.2	0.5	2.8	0.7	0.6	0.0	0.3	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	23.6	23.5	28.8	15.3	13.0	25.7	0.0	22.1	24.2	0.0	22.0
LnGrp LOS	C	C	C	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1141			801			71				102
Approach Delay, s/veh		23.7			15.8			24.4				23.3
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	25.1	9.5	12.8	8.6	23.7	10.1	12.3				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.2	17.0	3.3	3.3	3.8	10.5	3.7	2.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.2	0.0	3.3	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	4	12	57	6	32	81
Future Vol, veh/h	4	12	57	6	32	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	14	67	7	38	95

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	242	71	0	0	74	0
Stage 1	71	-	-	-	-	-
Stage 2	171	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	746	991	-	-	1526	-
Stage 1	952	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	727	991	-	-	1526	-
Mov Cap-2 Maneuver	727	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	837	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	909	1526
HCM Lane V/C Ratio	-	-	0.021	0.025
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2025 PM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↔↔	↔↔	↔	↑↑	↔	↑↑	↔
Traffic Volume (veh/h)	356	350	162	391	0	746	213
Future Volume (veh/h)	356	350	162	391	0	746	213
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	383	376	174	420		802	229
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	640	906	248	2050		1220	544
Arrive On Green	0.19	0.19	0.14	0.58		0.34	0.34
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	383	376	174	420		802	229
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	5.4	5.6	4.9	3.0		10.1	5.9
Cycle Q Clear(g_c), s	5.4	5.6	4.9	3.0		10.1	5.9
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	640	906	248	2050		1220	544
V/C Ratio(X)	0.60	0.42	0.70	0.20		0.66	0.42
Avail Cap(c_a), veh/h	1174	1336	336	2642		2307	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	19.8	14.0	21.8	5.4		14.8	13.4
Incr Delay (d2), s/veh	0.9	0.3	4.0	0.0		0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	4.7	2.1	0.7		3.3	1.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.7	14.3	25.8	5.4		15.4	13.9
LnGrp LOS	C	B	C	A		B	B
Approach Vol, veh/h	759			594		1031	
Approach Delay, s/veh	17.5			11.4		15.0	
Approach LOS	B			B		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		36.7		16.3	12.4	24.3	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		5.0		7.6	6.9	12.1	
Green Ext Time (p_c), s		2.8		2.2	0.1	6.0	

Intersection Summary

HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	0	101	155	81	34	4
Future Vol, veh/h	0	101	155	81	34	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	122	187	98	41	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	285	0	-	0	358
Stage 1	-	-	-	-	236
Stage 2	-	-	-	-	122
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1277	-	-	-	640
Stage 1	-	-	-	-	803
Stage 2	-	-	-	-	903
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1277	-	-	-	640
Mov Cap-2 Maneuver	-	-	-	-	640
Stage 1	-	-	-	-	803
Stage 2	-	-	-	-	903

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1277	-	-	-	654
HCM Lane V/C Ratio	-	-	-	-	0.07
HCM Control Delay (s)	0	-	-	-	10.9
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th Signalized Intersection Summary  
 8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2025 PM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↕		↖	↑↕	
Traffic Volume (veh/h)	7	23	110	85	34	22	197	649	102	14	359	22
Future Volume (veh/h)	7	23	110	85	34	22	197	649	102	14	359	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	26	122	94	38	24	219	721	113	16	399	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	210	178	351	520	441	235	920	144	24	614	37
Arrive On Green	0.03	0.11	0.11	0.20	0.28	0.28	0.13	0.30	0.30	0.01	0.18	0.18
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3078	482	1781	3406	204
Grp Volume(v), veh/h	8	26	122	94	38	24	219	416	418	16	208	215
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1784	1781	1777	1834
Q Serve(g_s), s	0.3	0.8	4.5	2.7	0.9	0.7	7.4	13.0	13.0	0.5	6.6	6.6
Cycle Q Clear(g_c), s	0.3	0.8	4.5	2.7	0.9	0.7	7.4	13.0	13.0	0.5	6.6	6.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	56	210	178	351	520	441	235	531	533	24	320	330
V/C Ratio(X)	0.14	0.12	0.69	0.27	0.07	0.05	0.93	0.78	0.78	0.66	0.65	0.65
Avail Cap(c_a), veh/h	456	927	786	456	927	786	235	678	681	103	546	564
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.5	24.2	25.8	20.6	16.1	16.0	26.0	19.4	19.4	29.7	23.0	23.0
Incr Delay (d2), s/veh	1.2	0.3	4.6	0.4	0.1	0.1	39.9	4.6	4.6	26.4	2.2	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	1.8	1.1	0.4	0.2	5.4	5.3	5.3	0.4	2.6	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	24.4	30.4	21.0	16.2	16.1	65.9	24.0	24.1	56.1	25.2	25.2
LnGrp LOS	C	C	C	C	B	B	E	C	C	E	C	C
Approach Vol, veh/h		156			156			1053			439	
Approach Delay, s/veh		29.4			19.1			32.7			26.3	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	24.5	15.9	13.3	14.0	17.3	5.9	23.3				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.5	15.0	4.7	6.5	9.4	8.6	2.3	2.9				
Green Ext Time (p_c), s	0.0	3.1	0.1	0.5	0.0	1.6	0.0	0.2				

Intersection Summary												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								

**APPENDIX G**  
**ANALYSIS WORKSHEETS – NEAR-TERM + PROJECT**

Intersection						
Int Delay, s/veh	26.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	96	155	254	302	421	228
Future Vol, veh/h	96	155	254	302	421	228
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	176	289	343	478	259

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1529	608	737	0	-	0
Stage 1	608	-	-	-	-	-
Stage 2	921	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	129	496	869	-	-	-
Stage 1	543	-	-	-	-	-
Stage 2	388	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 76	496	869	-	-	-
Mov Cap-2 Maneuver	~ 76	-	-	-	-	-
Stage 1	320	-	-	-	-	-
Stage 2	388	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	144.2	5.1	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	869	-	76	496	-	-
HCM Lane V/C Ratio	0.332	-	1.435	0.355	-	-
HCM Control Delay (s)	11.2	0\$	350.8	16.2	-	-
HCM Lane LOS	B	A	F	C	-	-
HCM 95th %tile Q(veh)	1.5	-	8.8	1.6	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2025 + P AM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕	↕
Traffic Volume (veh/h)	10	0	23	77	0	39	22	514	96	87	481	6
Future Volume (veh/h)	10	0	23	77	0	39	22	514	96	87	481	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	26	88	0	44	25	584	109	99	547	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	30	0	71	213	0	190	71	703	596	193	1597	20
Arrive On Green	0.06	0.00	0.06	0.12	0.00	0.12	0.04	0.38	0.38	0.11	0.44	0.44
Sat Flow, veh/h	487	0	1152	1781	0	1585	1781	1870	1585	1781	3593	46
Grp Volume(v), veh/h	37	0	0	88	0	44	25	584	109	99	270	284
Grp Sat Flow(s),veh/h/ln	1639	0	0	1781	0	1585	1781	1870	1585	1781	1777	1862
Q Serve(g_s), s	1.3	0.0	0.0	2.7	0.0	1.5	0.8	16.8	2.7	3.1	5.9	5.9
Cycle Q Clear(g_c), s	1.3	0.0	0.0	2.7	0.0	1.5	0.8	16.8	2.7	3.1	5.9	5.9
Prop In Lane	0.30		0.70	1.00		1.00	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	101	0	0	213	0	190	71	703	596	193	790	828
V/C Ratio(X)	0.37	0.00	0.00	0.41	0.00	0.23	0.35	0.83	0.18	0.51	0.34	0.34
Avail Cap(c_a), veh/h	803	0	0	241	0	214	250	1102	934	250	1047	1097
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	0.0	24.1	0.0	23.6	27.7	16.8	12.4	24.9	10.8	10.8
Incr Delay (d2), s/veh	2.2	0.0	0.0	1.3	0.0	0.6	2.9	3.2	0.1	2.1	0.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.0	1.1	0.0	0.6	0.4	6.3	0.8	1.3	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.9	0.0	0.0	25.4	0.0	24.2	30.6	20.0	12.5	27.0	11.0	11.0
LnGrp LOS	C	A	A	C	A	C	C	B	B	C	B	B
Approach Vol, veh/h		37			132			718			653	
Approach Delay, s/veh		28.9			25.0			19.2			13.4	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.6	27.7		9.1	6.6	31.7		11.8				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	5.1	18.8		3.3	2.8	7.9		4.7				
Green Ext Time (p_c), s	0.1	3.5		0.1	0.0	3.1		0.1				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	675	6	23	618	9	7
Future Vol, veh/h	675	6	23	618	9	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	718	6	24	657	10	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	724	0	1098
Stage 1	-	-	-	-	721
Stage 2	-	-	-	-	377
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	874	-	207
Stage 1	-	-	-	-	443
Stage 2	-	-	-	-	663
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	874	-	201
Mov Cap-2 Maneuver	-	-	-	-	201
Stage 1	-	-	-	-	443
Stage 2	-	-	-	-	645

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	18.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	287	-	-	874	-
HCM Lane V/C Ratio	0.059	-	-	0.028	-
HCM Control Delay (s)	18.3	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-



HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

YEAR 2025 + P AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	37	533	30	46	508	35	43	3	30	129	12	39
Future Volume (veh/h)	37	533	30	46	508	35	43	3	30	129	12	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	592	33	51	564	39	48	3	33	143	13	43
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	108	860	48	109	901	402	139	16	177	277	69	229
Arrive On Green	0.06	0.25	0.25	0.06	0.25	0.25	0.08	0.12	0.12	0.16	0.18	0.18
Sat Flow, veh/h	1781	3422	191	1781	3554	1585	1781	134	1472	1781	381	1262
Grp Volume(v), veh/h	41	307	318	51	564	39	48	0	36	143	0	56
Grp Sat Flow(s),veh/h/ln	1781	1777	1836	1781	1777	1585	1781	0	1605	1781	0	1643
Q Serve(g_s), s	1.1	7.8	7.8	1.4	7.0	0.9	1.3	0.0	1.0	3.7	0.0	1.4
Cycle Q Clear(g_c), s	1.1	7.8	7.8	1.4	7.0	0.9	1.3	0.0	1.0	3.7	0.0	1.4
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.92	1.00		0.77
Lane Grp Cap(c), veh/h	108	446	461	109	901	402	139	0	193	277	0	298
V/C Ratio(X)	0.38	0.69	0.69	0.47	0.63	0.10	0.35	0.00	0.19	0.52	0.00	0.19
Avail Cap(c_a), veh/h	253	783	809	218	1501	669	285	0	1125	403	0	1234
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.6	16.9	16.9	22.7	16.5	14.3	21.8	0.0	19.8	19.4	0.0	17.3
Incr Delay (d2), s/veh	2.2	1.9	1.8	3.1	0.7	0.1	1.5	0.0	0.5	1.5	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.8	2.9	0.6	2.4	0.3	0.6	0.0	0.4	1.5	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.7	18.8	18.8	25.8	17.3	14.4	23.3	0.0	20.2	20.9	0.0	17.6
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	B
Approach Vol, veh/h		666			654			84				199
Approach Delay, s/veh		19.2			17.8			22.0				20.0
Approach LOS		B			B			C				B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.5	18.0	9.4	15.1	7.4	18.1	12.5	12.0				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.4	9.8	3.3	3.4	3.1	9.0	5.7	3.0				
Green Ext Time (p_c), s	0.0	2.7	0.0	0.3	0.0	2.8	0.2	0.2				

Intersection Summary

HCM 6th Ctrl Delay	18.8
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	27	54	5	14	66
Future Vol, veh/h	7	27	54	5	14	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	32	64	6	16	78

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	177	67	0	0	70
Stage 1	67	-	-	-	-
Stage 2	110	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	813	997	-	-	1531
Stage 1	956	-	-	-	-
Stage 2	915	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	804	997	-	-	1531
Mov Cap-2 Maneuver	804	-	-	-	-
Stage 1	956	-	-	-	-
Stage 2	905	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	950	1531
HCM Lane V/C Ratio	-	-	0.042	0.011
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2025 + P AM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↔↔	↔↔	↔	↑↑	↔	↑↑	↔
Traffic Volume (veh/h)	246	91	122	349	0	420	288
Future Volume (veh/h)	246	91	122	349	0	420	288
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	265	98	131	375		452	310
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	600	880	253	1956		1062	474
Arrive On Green	0.17	0.17	0.14	0.55		0.30	0.30
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	265	98	131	375		452	310
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	3.1	1.1	3.1	2.4		4.7	7.8
Cycle Q Clear(g_c), s	3.1	1.1	3.1	2.4		4.7	7.8
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	600	880	253	1956		1062	474
V/C Ratio(X)	0.44	0.11	0.52	0.19		0.43	0.65
Avail Cap(c_a), veh/h	1363	1496	390	3068		2679	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	16.9	11.1	18.1	5.2		12.9	13.9
Incr Delay (d2), s/veh	0.5	0.1	1.6	0.0		0.3	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.2	0.5		1.4	2.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.4	11.1	19.8	5.2		13.1	15.5
LnGrp LOS	B	B	B	A		B	B
Approach Vol, veh/h	363			506		762	
Approach Delay, s/veh	15.7			9.0		14.1	
Approach LOS	B			A		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		31.2		14.4	11.5	19.7	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		4.4		5.1	5.1	9.8	
Green Ext Time (p_c), s		2.4		1.0	0.1	3.9	

Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	190	68	49	106	6
Future Vol, veh/h	0	190	68	49	106	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	229	82	59	128	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	141	0	-	0	341 112
Stage 1	-	-	-	-	112 -
Stage 2	-	-	-	-	229 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1442	-	-	-	655 941
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	809 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1442	-	-	-	655 941
Mov Cap-2 Maneuver	-	-	-	-	655 -
Stage 1	-	-	-	-	913 -
Stage 2	-	-	-	-	809 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1442	-	-	-	666
HCM Lane V/C Ratio	-	-	-	-	0.203
HCM Control Delay (s)	0	-	-	-	11.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

HCM 6th Signalized Intersection Summary  
 8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2025 + P AM

03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	6	16	236	86	13	18	157	342	117	13	382	6
Future Volume (veh/h)	6	16	236	86	13	18	157	342	117	13	382	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	18	262	96	14	20	174	380	130	14	424	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	49	375	318	328	668	566	208	702	237	21	587	10
Arrive On Green	0.03	0.20	0.20	0.18	0.36	0.36	0.12	0.27	0.27	0.01	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	2608	881	1781	3578	59
Grp Volume(v), veh/h	7	18	262	96	14	20	174	257	253	14	210	221
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1712	1781	1777	1860
Q Serve(g_s), s	0.3	0.5	10.8	3.2	0.3	0.6	6.5	8.5	8.7	0.5	7.7	7.7
Cycle Q Clear(g_c), s	0.3	0.5	10.8	3.2	0.3	0.6	6.5	8.5	8.7	0.5	7.7	7.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.51	1.00		0.03
Lane Grp Cap(c), veh/h	49	375	318	328	668	566	208	478	461	21	292	305
V/C Ratio(X)	0.14	0.05	0.82	0.29	0.02	0.04	0.84	0.54	0.55	0.66	0.72	0.72
Avail Cap(c_a), veh/h	404	820	695	404	820	695	208	600	578	91	483	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	22.1	26.2	24.1	14.3	14.3	29.6	21.4	21.4	33.7	27.1	27.1
Incr Delay (d2), s/veh	1.3	0.1	5.4	0.5	0.0	0.0	24.5	0.9	1.0	29.5	3.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.2	4.4	1.3	0.1	0.2	4.0	3.3	3.3	0.4	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	22.1	31.6	24.6	14.3	14.4	54.0	22.3	22.5	63.1	30.5	30.4
LnGrp LOS	C	C	C	C	B	B	D	C	C	E	C	C
Approach Vol, veh/h		287			130			684			445	
Approach Delay, s/veh		31.1			21.9			30.4			31.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	24.8	16.6	20.2	14.0	17.6	5.9	30.9				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.5	10.7	5.2	12.8	8.5	9.7	2.3	2.6				
Green Ext Time (p_c), s	0.0	2.3	0.1	0.9	0.0	1.5	0.0	0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			30.1									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	52.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	109	239	151	554	679	166
Future Vol, veh/h	109	239	151	554	679	166
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	124	272	172	630	772	189

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1841	867	961	0	-	0
Stage 1	867	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 83	352	716	-	-	-
Stage 1	411	-	-	-	-	-
Stage 2	366	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 52	352	716	-	-	-
Mov Cap-2 Maneuver	~ 52	-	-	-	-	-
Stage 1	259	-	-	-	-	-
Stage 2	366	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	279.3	2.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	716	-	52	352	-	-
HCM Lane V/C Ratio	0.24	-	2.382	0.772	-	-
HCM Control Delay (s)	11.6	0\$	798.6	42.5	-	-
HCM Lane LOS	B	A	F	E	-	-
HCM 95th %tile Q(veh)	0.9	-	12.7	6.2	-	-

Notes			
-:	Volume exceeds capacity	\$:	Delay exceeds 300s
+	Computation Not Defined	*	All major volume in platoon

HCM 6th Signalized Intersection Summary  
 2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2025 + P PM

03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕↔	
Traffic Volume (veh/h)	7	0	12	103	0	91	40	643	43	16	910	12
Future Volume (veh/h)	7	0	12	103	0	91	40	643	43	16	910	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	0	14	117	0	103	45	731	49	18	1034	14
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	25	0	43	237	0	211	111	845	716	62	1524	21
Arrive On Green	0.04	0.00	0.04	0.13	0.00	0.13	0.06	0.45	0.45	0.03	0.42	0.42
Sat Flow, veh/h	600	0	1051	1781	0	1585	1781	1870	1585	1781	3590	49
Grp Volume(v), veh/h	22	0	0	117	0	103	45	731	49	18	512	536
Grp Sat Flow(s),veh/h/ln	1651	0	0	1781	0	1585	1781	1870	1585	1781	1777	1862
Q Serve(g_s), s	0.8	0.0	0.0	3.6	0.0	3.5	1.4	20.5	1.0	0.6	13.6	13.6
Cycle Q Clear(g_c), s	0.8	0.0	0.0	3.6	0.0	3.5	1.4	20.5	1.0	0.6	13.6	13.6
Prop In Lane	0.36		0.64	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	68	0	0	237	0	211	111	845	716	62	754	790
V/C Ratio(X)	0.32	0.00	0.00	0.49	0.00	0.49	0.41	0.86	0.07	0.29	0.68	0.68
Avail Cap(c_a), veh/h	820	0	0	244	0	217	253	1118	948	253	1062	1113
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.2	0.0	0.0	23.5	0.0	23.5	26.3	14.4	9.0	27.5	13.6	13.6
Incr Delay (d2), s/veh	2.7	0.0	0.0	1.6	0.0	1.7	2.4	5.7	0.0	2.6	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.5	0.0	1.3	0.6	7.7	0.3	0.3	4.4	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.9	0.0	0.0	25.1	0.0	25.2	28.7	20.1	9.1	30.0	14.7	14.6
LnGrp LOS	C	A	A	C	A	C	C	C	A	C	B	B
Approach Vol, veh/h		22			220			825			1066	
Approach Delay, s/veh		29.9			25.1			19.9			14.9	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.2	31.8		7.9	7.8	30.2		12.5				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	2.6	22.5		2.8	3.4	15.6		5.6				
Green Ext Time (p_c), s	0.0	3.8		0.1	0.0	6.1		0.2				

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1058	6	43	735	6	5
Future Vol, veh/h	1058	6	43	735	6	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1126	6	46	782	6	5

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1132	0	1612
Stage 1	-	-	-	-	1129
Stage 2	-	-	-	-	483
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	613	-	95
Stage 1	-	-	-	-	271
Stage 2	-	-	-	-	586
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	613	-	88
Mov Cap-2 Maneuver	-	-	-	-	88
Stage 1	-	-	-	-	271
Stage 2	-	-	-	-	542

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	33.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	139	-	-	613	-
HCM Lane V/C Ratio	0.084	-	-	0.075	-
HCM Control Delay (s)	33.3	-	-	11.3	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-



HCM 6th Signalized Intersection Summary  
 4: Las Flores Dr & S. Santa Fe Ave

YEAR 2025 + P PM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	61	903	75	36	615	80	45	2	21	54	3	35
Future Volume (veh/h)	61	903	75	36	615	80	45	2	21	54	3	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	68	1003	83	40	683	89	50	2	23	60	3	39
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	1197	99	89	1172	523	138	15	175	175	14	185
Arrive On Green	0.08	0.36	0.36	0.05	0.33	0.33	0.08	0.12	0.12	0.10	0.12	0.12
Sat Flow, veh/h	1781	3323	275	1781	3554	1585	1781	128	1476	1781	114	1488
Grp Volume(v), veh/h	68	536	550	40	683	89	50	0	25	60	0	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1821	1781	1777	1585	1781	0	1605	1781	0	1603
Q Serve(g_s), s	2.0	15.3	15.3	1.2	8.8	2.2	1.5	0.0	0.8	1.7	0.0	1.3
Cycle Q Clear(g_c), s	2.0	15.3	15.3	1.2	8.8	2.2	1.5	0.0	0.8	1.7	0.0	1.3
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.92	1.00		0.93
Lane Grp Cap(c), veh/h	146	640	656	89	1172	523	138	0	190	175	0	199
V/C Ratio(X)	0.46	0.84	0.84	0.45	0.58	0.17	0.36	0.00	0.13	0.34	0.00	0.21
Avail Cap(c_a), veh/h	229	709	726	197	1359	606	258	0	1018	365	0	1089
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.2	16.2	16.2	25.5	15.3	13.1	24.1	0.0	21.8	23.2	0.0	21.7
Incr Delay (d2), s/veh	2.3	8.1	7.9	3.5	0.5	0.2	1.6	0.0	0.3	1.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	6.2	6.3	0.5	2.9	0.7	0.6	0.0	0.3	0.7	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	24.3	24.1	29.0	15.8	13.3	25.7	0.0	22.1	24.4	0.0	22.2
LnGrp LOS	C	C	C	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1154			812			75				102
Approach Delay, s/veh		24.3			16.2			24.5				23.5
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	25.3	9.8	12.9	8.9	23.6	10.1	12.5				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.2	17.3	3.5	3.3	4.0	10.8	3.7	2.8				
Green Ext Time (p_c), s	0.0	2.6	0.0	0.2	0.0	3.3	0.1	0.1				

Intersection Summary

HCM 6th Ctrl Delay	21.2
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	4	14	59	6	33	82
Future Vol, veh/h	4	14	59	6	33	82
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	16	69	7	39	96

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	247	73	0	0	76	0
Stage 1	73	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	741	989	-	-	1523	-
Stage 1	950	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	721	989	-	-	1523	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	950	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	914	1523
HCM Lane V/C Ratio	-	-	0.023	0.025
HCM Control Delay (s)	-	-	9	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2025 + P PM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	361	350	162	395	0	748	215
Future Volume (veh/h)	361	350	162	395	0	748	215
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	388	376	174	425		804	231
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	641	906	248	2051		1222	545
Arrive On Green	0.19	0.19	0.14	0.58		0.34	0.34
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	388	376	174	425		804	231
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	5.5	5.6	4.9	3.0		10.2	5.9
Cycle Q Clear(g_c), s	5.5	5.6	4.9	3.0		10.2	5.9
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	641	906	248	2051		1222	545
V/C Ratio(X)	0.61	0.42	0.70	0.21		0.66	0.42
Avail Cap(c_a), veh/h	1172	1334	336	2638		2303	1027
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	19.8	14.0	21.8	5.4		14.8	13.4
Incr Delay (d2), s/veh	0.9	0.3	4.1	0.0		0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	4.7	2.1	0.7		3.3	1.7
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	20.8	14.3	25.9	5.4		15.4	13.9
LnGrp LOS	C	B	C	A		B	B
Approach Vol, veh/h	764			599		1035	
Approach Delay, s/veh	17.6			11.4		15.0	
Approach LOS	B			B		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		36.7		16.3	12.4	24.4	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		5.0		7.6	6.9	12.2	
Green Ext Time (p_c), s		2.8		2.3	0.1	6.1	

Intersection Summary

HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔	↔		↔	
Traffic Vol, veh/h	0	102	157	83	35	4
Future Vol, veh/h	0	102	157	83	35	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	123	189	100	42	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	289	0	-	0	362 239
Stage 1	-	-	-	-	239 -
Stage 2	-	-	-	-	123 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1273	-	-	-	637 800
Stage 1	-	-	-	-	801 -
Stage 2	-	-	-	-	902 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1273	-	-	-	637 800
Mov Cap-2 Maneuver	-	-	-	-	637 -
Stage 1	-	-	-	-	801 -
Stage 2	-	-	-	-	902 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1273	-	-	-	651
HCM Lane V/C Ratio	-	-	-	-	0.072
HCM Control Delay (s)	0	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 6th Signalized Intersection Summary  
 8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2025 + P PM

03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↕		↖	↑↕	
Traffic Volume (veh/h)	7	23	112	85	34	22	201	654	102	14	361	22
Future Volume (veh/h)	7	23	112	85	34	22	201	654	102	14	361	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	26	124	94	38	24	223	727	113	16	401	24
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	56	212	180	350	521	442	234	924	144	24	619	37
Arrive On Green	0.03	0.11	0.11	0.20	0.28	0.28	0.13	0.30	0.30	0.01	0.18	0.18
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3082	479	1781	3407	203
Grp Volume(v), veh/h	8	26	124	94	38	24	223	419	421	16	208	217
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1784	1781	1777	1834
Q Serve(g_s), s	0.3	0.8	4.6	2.7	0.9	0.7	7.6	13.1	13.1	0.5	6.6	6.7
Cycle Q Clear(g_c), s	0.3	0.8	4.6	2.7	0.9	0.7	7.6	13.1	13.1	0.5	6.6	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.27	1.00		0.11
Lane Grp Cap(c), veh/h	56	212	180	350	521	442	234	533	535	24	323	333
V/C Ratio(X)	0.14	0.12	0.69	0.27	0.07	0.05	0.95	0.79	0.79	0.66	0.65	0.65
Avail Cap(c_a), veh/h	454	923	782	454	923	782	234	675	678	103	544	561
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	24.2	25.9	20.7	16.1	16.1	26.2	19.5	19.5	29.8	23.1	23.1
Incr Delay (d2), s/veh	1.2	0.3	4.6	0.4	0.1	0.1	45.2	4.8	4.8	26.4	2.2	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.3	1.9	1.1	0.4	0.2	5.8	5.4	5.4	0.4	2.7	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.8	24.5	30.5	21.1	16.2	16.1	71.4	24.3	24.3	56.2	25.2	25.2
LnGrp LOS	C	C	C	C	B	B	E	C	C	E	C	C
Approach Vol, veh/h		158			156			1063			441	
Approach Delay, s/veh		29.5			19.2			34.2			26.3	
Approach LOS		C			B			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.8	24.6	15.9	13.4	14.0	17.5	5.9	23.4				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.5	15.1	4.7	6.6	9.6	8.7	2.3	2.9				
Green Ext Time (p_c), s	0.0	3.1	0.1	0.5	0.0	1.6	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	30.6
HCM 6th LOS	C

# APPENDIX H

## ANALYSIS WORKSHEETS – LONG-TERM

Intersection						
Int Delay, s/veh	640.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↵	↵		↵	↵	
Traffic Vol, veh/h	140	220	360	420	600	340
Future Vol, veh/h	140	220	360	420	600	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	159	250	409	477	682	386

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2170	875	1068	0	-	0
Stage 1	875	-	-	-	-	-
Stage 2	1295	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 51	349	653	-	-	-
Stage 1	408	-	-	-	-	-
Stage 2	257	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 8	349	653	-	-	-
Mov Cap-2 Maneuver	~ 8	-	-	-	-	-
Stage 1	~ 60	-	-	-	-	-
Stage 2	257	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s \$	3680	8.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	653	-	8	349	-	-
HCM Lane V/C Ratio	0.626	-	19.886	0.716	-	-
HCM Control Delay (s)	19.3	\$	9403.9	37.5	-	-
HCM Lane LOS	C	A	F	E	-	-
HCM 95th %tile Q(veh)	4.4	-	21.6	5.3	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2050 AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↑	↔	↔	↔	↔
Traffic Volume (veh/h)	10	0	30	140	0	70	30	630	180	160	600	10
Future Volume (veh/h)	10	0	30	140	0	70	30	630	180	160	600	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	34	159	0	80	34	716	205	182	682	11
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	26	0	81	200	0	178	86	799	677	208	1773	29
Arrive On Green	0.07	0.00	0.07	0.11	0.00	0.11	0.05	0.43	0.43	0.12	0.50	0.50
Sat Flow, veh/h	398	0	1231	1781	0	1585	1781	1870	1585	1781	3579	58
Grp Volume(v), veh/h	45	0	0	159	0	80	34	716	205	182	339	354
Grp Sat Flow(s),veh/h/ln	1629	0	0	1781	0	1585	1781	1870	1585	1781	1777	1860
Q Serve(g_s), s	1.9	0.0	0.0	6.2	0.0	3.4	1.3	25.3	6.1	7.2	8.5	8.5
Cycle Q Clear(g_c), s	1.9	0.0	0.0	6.2	0.0	3.4	1.3	25.3	6.1	7.2	8.5	8.5
Prop In Lane	0.24		0.76	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	108	0	0	200	0	178	86	799	677	208	880	922
V/C Ratio(X)	0.42	0.00	0.00	0.79	0.00	0.45	0.40	0.90	0.30	0.88	0.38	0.38
Avail Cap(c_a), veh/h	663	0	0	200	0	178	208	916	776	208	880	922
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.9	0.0	0.0	30.8	0.0	29.6	32.9	18.9	13.4	31.0	11.2	11.2
Incr Delay (d2), s/veh	2.6	0.0	0.0	19.5	0.0	1.8	3.0	10.5	0.2	31.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	3.6	0.0	1.3	0.6	11.4	1.9	4.7	2.7	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	0.0	0.0	50.4	0.0	31.3	35.9	29.4	13.7	62.7	11.5	11.5
LnGrp LOS	C	A	A	D	A	C	D	C	B	E	B	B
Approach Vol, veh/h		45			239			955			875	
Approach Delay, s/veh		34.5			44.0			26.3			22.1	
Approach LOS		C			D			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	35.8		10.2	7.6	40.7		12.7				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	9.2	27.3		3.9	3.3	10.5		8.2				
Green Ext Time (p_c), s	0.0	3.1		0.2	0.0	3.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	26.7
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Vol, veh/h	770	10	10	700	10	10
Future Vol, veh/h	770	10	10	700	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	819	11	11	745	11	11

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	830	0	1220
Stage 1	-	-	-	-	825
Stage 2	-	-	-	-	395
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	798	-	172
Stage 1	-	-	-	-	391
Stage 2	-	-	-	-	650
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	798	-	170
Mov Cap-2 Maneuver	-	-	-	-	170
Stage 1	-	-	-	-	391
Stage 2	-	-	-	-	641

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	19.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	264	-	-	798	-
HCM Lane V/C Ratio	0.081	-	-	0.013	-
HCM Control Delay (s)	19.8	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th Signalized Intersection Summary  
 4: Las Flores Dr & S. Santa Fe Ave

YEAR 2050 AM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	40	620	30	60	600	40	50	10	40	150	20	50
Future Volume (veh/h)	40	620	30	60	600	40	50	10	40	150	20	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	44	689	33	67	667	44	56	11	44	167	22	56
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	112	941	45	126	1003	447	150	40	160	273	82	209
Arrive On Green	0.06	0.27	0.27	0.07	0.28	0.28	0.08	0.12	0.12	0.15	0.18	0.18
Sat Flow, veh/h	1781	3452	165	1781	3554	1585	1781	327	1308	1781	467	1189
Grp Volume(v), veh/h	44	354	368	67	667	44	56	0	55	167	0	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1841	1781	1777	1585	1781	0	1635	1781	0	1656
Q Serve(g_s), s	1.3	9.8	9.8	2.0	8.9	1.1	1.6	0.0	1.6	4.7	0.0	2.2
Cycle Q Clear(g_c), s	1.3	9.8	9.8	2.0	8.9	1.1	1.6	0.0	1.6	4.7	0.0	2.2
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.80	1.00		0.72
Lane Grp Cap(c), veh/h	112	484	502	126	1003	447	150	0	200	273	0	292
V/C Ratio(X)	0.39	0.73	0.73	0.53	0.66	0.10	0.37	0.00	0.28	0.61	0.00	0.27
Avail Cap(c_a), veh/h	234	724	750	201	1389	620	264	0	1060	373	0	1151
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.3	17.8	17.8	24.2	17.1	14.3	23.4	0.0	21.5	21.4	0.0	19.2
Incr Delay (d2), s/veh	2.3	2.2	2.1	3.5	0.8	0.1	1.5	0.0	0.7	2.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.5	3.7	0.8	3.1	0.4	0.7	0.0	0.6	2.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	20.0	19.9	27.7	17.9	14.4	24.9	0.0	22.3	23.6	0.0	19.7
LnGrp LOS	C	B	B	C	B	B	C	A	C	C	A	B
Approach Vol, veh/h		766			778			111				245
Approach Delay, s/veh		20.3			18.5			23.6				22.3
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	20.1	10.0	15.5	7.8	20.6	13.0	12.6				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	4.0	11.8	3.6	4.2	3.3	10.9	6.7	3.6				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.5	0.0	3.1	0.2	0.3				

Intersection Summary

HCM 6th Ctrl Delay	20.0
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	10	30	70	10	20	90
Future Vol, veh/h	10	30	70	10	20	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	35	82	12	24	106

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	242	88	0	0	94	0
Stage 1	88	-	-	-	-	-
Stage 2	154	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	746	970	-	-	1500	-
Stage 1	935	-	-	-	-	-
Stage 2	874	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	733	970	-	-	1500	-
Mov Cap-2 Maneuver	733	-	-	-	-	-
Stage 1	935	-	-	-	-	-
Stage 2	859	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	897	1500
HCM Lane V/C Ratio	-	-	0.052	0.016
HCM Control Delay (s)	-	-	9.2	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2050 AM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↖↗	↖↗	↖	↕	↙	↕	↖
Traffic Volume (veh/h)	310	130	170	460	0	550	360
Future Volume (veh/h)	310	130	170	460	0	550	360
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	333	140	183	495		591	387
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	544	846	260	2111		1242	554
Arrive On Green	0.16	0.16	0.15	0.59		0.35	0.35
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	333	140	183	495		591	387
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	4.6	1.9	5.0	3.3		6.6	10.7
Cycle Q Clear(g_c), s	4.6	1.9	5.0	3.3		6.6	10.7
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	544	846	260	2111		1242	554
V/C Ratio(X)	0.61	0.17	0.70	0.23		0.48	0.70
Avail Cap(c_a), veh/h	1227	1397	351	2761		2411	1075
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	19.9	13.0	20.6	4.9		12.9	14.2
Incr Delay (d2), s/veh	1.1	0.1	4.0	0.1		0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	2.1	0.7		2.0	3.1
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.0	13.0	24.6	4.9		13.1	15.8
LnGrp LOS	C	B	C	A		B	B
Approach Vol, veh/h	473			678		978	
Approach Delay, s/veh	18.7			10.2		14.2	
Approach LOS	B			B		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		36.2		14.5	12.4	23.8	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		5.3		6.6	7.0	12.7	
Green Ext Time (p_c), s		3.3		1.3	0.1	5.1	

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	200	70	50	110	10
Future Vol, veh/h	0	200	70	50	110	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	241	84	60	133	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	144	0	-	0	355 114
Stage 1	-	-	-	-	114 -
Stage 2	-	-	-	-	241 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1438	-	-	-	643 939
Stage 1	-	-	-	-	911 -
Stage 2	-	-	-	-	799 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1438	-	-	-	643 939
Mov Cap-2 Maneuver	-	-	-	-	643 -
Stage 1	-	-	-	-	911 -
Stage 2	-	-	-	-	799 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1438	-	-	-	660
HCM Lane V/C Ratio	-	-	-	-	0.219
HCM Control Delay (s)	0	-	-	-	12
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

HCM 6th Signalized Intersection Summary  
8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2050 AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	20	250	90	20	30	170	450	130	20	500	10
Future Volume (veh/h)	10	20	250	90	20	30	170	450	130	20	500	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	22	278	100	22	33	189	500	144	22	556	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	390	330	315	644	546	193	784	225	31	701	14
Arrive On Green	0.04	0.21	0.21	0.18	0.34	0.34	0.11	0.29	0.29	0.02	0.20	0.20
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	2726	781	1781	3564	70
Grp Volume(v), veh/h	11	22	278	100	22	33	189	325	319	22	277	290
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1730	1781	1777	1858
Q Serve(g_s), s	0.4	0.7	12.4	3.6	0.6	1.0	7.8	11.8	11.9	0.9	11.0	11.0
Cycle Q Clear(g_c), s	0.4	0.7	12.4	3.6	0.6	1.0	7.8	11.8	11.9	0.9	11.0	11.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		0.04
Lane Grp Cap(c), veh/h	73	390	330	315	644	546	193	511	498	31	349	365
V/C Ratio(X)	0.15	0.06	0.84	0.32	0.03	0.06	0.98	0.64	0.64	0.72	0.79	0.79
Avail Cap(c_a), veh/h	374	759	644	374	759	644	193	555	541	84	447	468
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.2	23.4	28.1	26.5	16.1	16.2	32.9	22.9	23.0	36.1	28.3	28.3
Incr Delay (d2), s/veh	0.9	0.1	5.8	0.6	0.0	0.0	58.8	2.1	2.3	26.6	7.4	7.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	5.1	1.6	0.2	0.4	6.3	4.8	4.7	0.6	5.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.1	23.5	33.9	27.1	16.1	16.3	91.7	25.1	25.3	62.8	35.6	35.4
LnGrp LOS	D	C	C	C	B	B	F	C	C	E	D	D
Approach Vol, veh/h		311			155			833			589	
Approach Delay, s/veh		33.2			23.2			40.3			36.5	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	27.7	17.1	21.9	14.0	20.9	7.0	31.9				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.9	13.9	5.6	14.4	9.8	13.0	2.4	3.0				
Green Ext Time (p_c), s	0.0	2.5	0.1	1.0	0.0	1.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	36.5
HCM 6th LOS	D

**Intersection**

Int Delay, s/veh 5274.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗		↖	↗	
Traffic Vol, veh/h	160	340	210	790	960	250
Future Vol, veh/h	160	340	210	790	960	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	386	239	898	1091	284

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2609	1233	1375	0	-	0
Stage 1	1233	-	-	-	-	-
Stage 2	1376	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 27	~ 216	499	-	-	-
Stage 1	275	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 1	~ 216	499	-	-	-
Mov Cap-2 Maneuver	~ 1	-	-	-	-	-
Stage 1	~ 12	-	-	-	-	-
Stage 2	234	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay	\$ 28581.9	3.9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	499	-	1	216	-	-
HCM Lane V/C Ratio	0.478	181.818	1.789	-	-	-
HCM Control Delay (s)	18.6	\$ 88445	\$ 411	-	-	-
HCM Lane LOS	C	A	F	F	-	-
HCM 95th %tile Q(veh)	2.5	-	25.3	26.7	-	-

**Notes**

-: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

HCM 6th Signalized Intersection Summary  
 2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2050 PM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕↔	
Traffic Volume (veh/h)	10	0	20	190	0	170	50	800	80	30	1130	20
Future Volume (veh/h)	10	0	20	190	0	170	50	800	80	30	1130	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	23	216	0	193	57	909	91	34	1284	23
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	0	61	202	0	180	119	926	785	98	1727	31
Arrive On Green	0.06	0.00	0.06	0.11	0.00	0.11	0.07	0.50	0.50	0.06	0.48	0.48
Sat Flow, veh/h	532	0	1112	1781	0	1585	1781	1870	1585	1781	3572	64
Grp Volume(v), veh/h	34	0	0	216	0	193	57	909	91	34	639	668
Grp Sat Flow(s),veh/h/ln	1644	0	0	1781	0	1585	1781	1870	1585	1781	1777	1859
Q Serve(g_s), s	1.4	0.0	0.0	8.0	0.0	8.0	2.2	33.6	2.2	1.3	20.4	20.4
Cycle Q Clear(g_c), s	1.4	0.0	0.0	8.0	0.0	8.0	2.2	33.6	2.2	1.3	20.4	20.4
Prop In Lane	0.32		0.68	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	91	0	0	202	0	180	119	926	785	98	859	899
V/C Ratio(X)	0.37	0.00	0.00	1.07	0.00	1.07	0.48	0.98	0.12	0.35	0.74	0.74
Avail Cap(c_a), veh/h	676	0	0	202	0	180	210	926	785	210	880	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	31.2	0.0	31.2	31.7	17.5	9.5	32.1	14.7	14.7
Incr Delay (d2), s/veh	2.5	0.0	0.0	82.6	0.0	87.7	3.0	25.0	0.1	2.1	3.4	3.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	7.9	0.0	7.3	1.0	17.6	0.6	0.6	7.3	7.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	0.0	0.0	113.8	0.0	119.0	34.7	42.5	9.6	34.1	18.0	17.9
LnGrp LOS	C	A	A	F	A	F	C	D	A	C	B	B
Approach Vol, veh/h		34			409			1057			1341	
Approach Delay, s/veh		34.7			116.2			39.2			18.4	
Approach LOS		C			F			D			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	40.3		9.4	8.9	39.5		12.7				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	3.3	35.6		3.4	4.2	22.4		10.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	6.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.4
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↵	↑↑	↵	
Traffic Vol, veh/h	1200	10	40	840	10	10
Future Vol, veh/h	1200	10	40	840	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1277	11	43	894	11	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1288	0	1816
Stage 1	-	-	-	-	1283
Stage 2	-	-	-	-	533
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	534	-	69
Stage 1	-	-	-	-	224
Stage 2	-	-	-	-	553
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	534	-	63
Mov Cap-2 Maneuver	-	-	-	-	63
Stage 1	-	-	-	-	224
Stage 2	-	-	-	-	508

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	45.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	109	-	-	534	-
HCM Lane V/C Ratio	0.195	-	-	0.08	-
HCM Control Delay (s)	45.9	-	-	12.3	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

YEAR 2050 PM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	60	1070	90	40	720	90	50	10	30	60	10	40
Future Volume (veh/h)	60	1070	90	40	720	90	50	10	30	60	10	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	1189	100	44	800	100	56	11	33	67	11	44
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	141	1243	104	93	1242	554	145	50	149	181	42	166
Arrive On Green	0.08	0.37	0.37	0.05	0.35	0.35	0.08	0.12	0.12	0.10	0.13	0.13
Sat Flow, veh/h	1781	3318	279	1781	3554	1585	1781	412	1236	1781	327	1308
Grp Volume(v), veh/h	67	636	653	44	800	100	56	0	44	67	0	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1820	1781	1777	1585	1781	0	1648	1781	0	1635
Q Serve(g_s), s	2.1	20.5	20.6	1.4	11.1	2.6	1.8	0.0	1.4	2.1	0.0	1.8
Cycle Q Clear(g_c), s	2.1	20.5	20.6	1.4	11.1	2.6	1.8	0.0	1.4	2.1	0.0	1.8
Prop In Lane	1.00		0.15	1.00		1.00	1.00		0.75	1.00		0.80
Lane Grp Cap(c), veh/h	141	666	682	93	1242	554	145	0	199	181	0	208
V/C Ratio(X)	0.47	0.96	0.96	0.47	0.64	0.18	0.39	0.00	0.22	0.37	0.00	0.26
Avail Cap(c_a), veh/h	215	666	682	185	1277	569	243	0	982	343	0	1044
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	17.9	17.9	27.0	16.0	13.3	25.6	0.0	23.3	24.6	0.0	23.2
Incr Delay (d2), s/veh	2.5	24.3	24.5	3.7	1.1	0.2	1.7	0.0	0.6	1.2	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	11.1	11.4	0.6	3.8	0.9	0.8	0.0	0.6	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.3	42.2	42.4	30.7	17.1	13.4	27.2	0.0	23.9	25.9	0.0	23.8
LnGrp LOS	C	D	D	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1356			944			100				122
Approach Delay, s/veh		41.6			17.4			25.8				24.9
Approach LOS		D			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	27.4	10.3	13.5	9.1	25.9	10.7	13.1				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.4	22.6	3.8	3.8	4.1	13.1	4.1	3.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	3.3	0.1	0.2				

Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	20	80	10	40	110
Future Vol, veh/h	10	20	80	10	40	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	24	94	12	47	129

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	323	100	0	0	106	0
Stage 1	100	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	671	956	-	-	1485	-
Stage 1	924	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	648	956	-	-	1485	-
Mov Cap-2 Maneuver	648	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	786	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	825	1485
HCM Lane V/C Ratio	-	-	0.043	0.032
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2050 PM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	460	490	230	520	0	990	270
Future Volume (veh/h)	460	490	230	520	0	990	270
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	495	527	247	559		1065	290
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	727	991	258	2157		1384	617
Arrive On Green	0.21	0.21	0.14	0.61		0.39	0.39
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	495	527	247	559		1065	290
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	9.1	10.4	9.5	5.1		18.0	9.4
Cycle Q Clear(g_c), s	9.1	10.4	9.5	5.1		18.0	9.4
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	727	991	258	2157		1384	617
V/C Ratio(X)	0.68	0.53	0.96	0.26		0.77	0.47
Avail Cap(c_a), veh/h	902	1132	258	2157		1772	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	25.1	17.7	29.3	6.3		18.4	15.7
Incr Delay (d2), s/veh	1.5	0.4	44.0	0.1		1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.4	6.9	1.4		6.5	3.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.6	18.1	73.3	6.4		20.0	16.3
LnGrp LOS	C	B	E	A		B	B
Approach Vol, veh/h	1022			806		1355	
Approach Delay, s/veh	22.2			26.9		19.2	
Approach LOS	C			C		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		48.0		21.0	15.0	33.0	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		7.1		12.4	11.5	20.0	
Green Ext Time (p_c), s		3.8		2.2	0.0	6.9	

Intersection Summary

HCM 6th Ctrl Delay	22.1
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	110	170	90	40	10
Future Vol, veh/h	0	110	170	90	40	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	133	205	108	48	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	313	0	-	0	392 259
Stage 1	-	-	-	-	259 -
Stage 2	-	-	-	-	133 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1247	-	-	-	612 780
Stage 1	-	-	-	-	784 -
Stage 2	-	-	-	-	893 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1247	-	-	-	612 780
Mov Cap-2 Maneuver	-	-	-	-	612 -
Stage 1	-	-	-	-	784 -
Stage 2	-	-	-	-	893 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1247	-	-	-	640
HCM Lane V/C Ratio	-	-	-	-	0.094
HCM Control Delay (s)	0	-	-	-	11.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 6th Signalized Intersection Summary  
 8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2050 PM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑↕		↖	↑↕	
Traffic Volume (veh/h)	10	30	120	90	40	30	210	860	110	20	480	30
Future Volume (veh/h)	10	30	120	90	40	30	210	860	110	20	480	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	33	133	100	44	33	233	956	122	22	533	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	221	187	336	497	421	212	1060	135	31	791	49
Arrive On Green	0.04	0.12	0.12	0.19	0.27	0.27	0.12	0.33	0.33	0.02	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3170	404	1781	3399	210
Grp Volume(v), veh/h	11	33	133	100	44	33	233	536	542	22	278	288
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1798	1781	1777	1833
Q Serve(g_s), s	0.4	1.1	5.4	3.2	1.2	1.0	8.0	19.3	19.3	0.8	9.6	9.6
Cycle Q Clear(g_c), s	0.4	1.1	5.4	3.2	1.2	1.0	8.0	19.3	19.3	0.8	9.6	9.6
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.11
Lane Grp Cap(c), veh/h	74	221	187	336	497	421	212	594	601	31	413	426
V/C Ratio(X)	0.15	0.15	0.71	0.30	0.09	0.08	1.10	0.90	0.90	0.70	0.67	0.68
Avail Cap(c_a), veh/h	411	836	709	411	836	709	212	612	619	93	493	508
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.0	26.6	28.5	23.4	18.5	18.5	29.5	21.3	21.3	32.8	23.4	23.4
Incr Delay (d2), s/veh	0.9	0.3	4.9	0.5	0.1	0.1	90.1	16.4	16.3	24.9	2.8	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	2.3	1.4	0.5	0.4	8.5	9.7	9.8	0.5	3.9	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.9	26.9	33.4	23.9	18.6	18.6	119.7	37.7	37.6	57.7	26.2	26.2
LnGrp LOS	C	C	C	C	B	B	F	D	D	E	C	C
Approach Vol, veh/h		177			177			1311			588	
Approach Delay, s/veh		32.1			21.6			52.2			27.4	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	28.8	16.7	14.4	14.0	22.0	6.8	24.3				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.8	21.3	5.2	7.4	10.0	11.6	2.4	3.2				
Green Ext Time (p_c), s	0.0	1.1	0.2	0.6	0.0	1.8	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay	41.8
HCM 6th LOS	D

**APPENDIX I**  
**ANALYSIS WORKSHEETS – LONG-TERM + PROJECT**

Intersection						
Int Delay, s/veh	732.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖	↗		↖	↗	
Traffic Vol, veh/h	140	220	362	424	601	340
Future Vol, veh/h	140	220	362	424	601	340
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	159	250	411	482	683	386

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2180	876	1069	0	-	0
Stage 1	876	-	-	-	-	-
Stage 2	1304	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 51	348	652	-	-	-
Stage 1	407	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 7	348	652	-	-	-
Mov Cap-2 Maneuver	~ 7	-	-	-	-	-
Stage 1	~ 57	-	-	-	-	-
Stage 2	254	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	4226.1	9	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	652	-	7	348	-	-
HCM Lane V/C Ratio	0.631	-	22.727	0.718	-	-
HCM Control Delay (s)	19.5	\$	10807.8	37.8	-	-
HCM Lane LOS	C	A	F	E	-	-
HCM 95th %tile Q(veh)	4.5	-	21.8	5.3	-	-

Notes  
 -: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 6th Signalized Intersection Summary  
2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2050 + P AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↑	↕	↕	↕	↕
Traffic Volume (veh/h)	10	0	30	140	0	70	30	636	180	160	601	10
Future Volume (veh/h)	10	0	30	140	0	70	30	636	180	160	601	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	34	159	0	80	34	723	205	182	683	11
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	26	0	81	199	0	177	86	804	681	207	1781	29
Arrive On Green	0.07	0.00	0.07	0.11	0.00	0.11	0.05	0.43	0.43	0.12	0.50	0.50
Sat Flow, veh/h	398	0	1231	1781	0	1585	1781	1870	1585	1781	3579	58
Grp Volume(v), veh/h	45	0	0	159	0	80	34	723	205	182	339	355
Grp Sat Flow(s),veh/h/ln	1629	0	0	1781	0	1585	1781	1870	1585	1781	1777	1860
Q Serve(g_s), s	1.9	0.0	0.0	6.2	0.0	3.4	1.3	25.7	6.1	7.2	8.5	8.5
Cycle Q Clear(g_c), s	1.9	0.0	0.0	6.2	0.0	3.4	1.3	25.7	6.1	7.2	8.5	8.5
Prop In Lane	0.24		0.76	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	108	0	0	199	0	177	86	804	681	207	884	925
V/C Ratio(X)	0.42	0.00	0.00	0.80	0.00	0.45	0.40	0.90	0.30	0.88	0.38	0.38
Avail Cap(c_a), veh/h	660	0	0	199	0	177	207	912	773	207	884	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	31.0	0.0	29.7	33.1	19.0	13.4	31.2	11.2	11.2
Incr Delay (d2), s/veh	2.6	0.0	0.0	20.1	0.0	1.8	3.0	10.9	0.2	32.7	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	0.0	3.7	0.0	1.3	0.6	11.6	1.9	4.7	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	0.0	0.0	51.1	0.0	31.5	36.0	29.9	13.6	63.8	11.4	11.4
LnGrp LOS	C	A	A	D	A	C	D	C	B	E	B	B
Approach Vol, veh/h		45			239			962				876
Approach Delay, s/veh		34.7			44.6			26.7				22.3
Approach LOS		C			D			C				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	36.2		10.2	7.6	41.0		12.7				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	9.2	27.7		3.9	3.3	10.5		8.2				
Green Ext Time (p_c), s	0.0	3.0		0.2	0.0	3.9		0.0				

Intersection Summary

HCM 6th Ctrl Delay	27.1
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	771	10	23	706	10	10
Future Vol, veh/h	771	10	23	706	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	820	11	24	751	11	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	831	0	1250
Stage 1	-	-	-	-	826
Stage 2	-	-	-	-	424
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	797	-	165
Stage 1	-	-	-	-	390
Stage 2	-	-	-	-	628
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	797	-	160
Mov Cap-2 Maneuver	-	-	-	-	160
Stage 1	-	-	-	-	390
Stage 2	-	-	-	-	609

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	20.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	251	-	-	797	-
HCM Lane V/C Ratio	0.085	-	-	0.031	-
HCM Control Delay (s)	20.7	-	-	9.7	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

YEAR 2050 + P AM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	41	630	33	60	603	40	52	10	40	150	20	50
Future Volume (veh/h)	41	630	33	60	603	40	52	10	40	150	20	50
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	46	700	37	67	670	44	58	11	44	167	22	56
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	115	949	50	125	1009	450	153	40	159	271	81	206
Arrive On Green	0.06	0.28	0.28	0.07	0.28	0.28	0.09	0.12	0.12	0.15	0.17	0.17
Sat Flow, veh/h	1781	3433	181	1781	3554	1585	1781	327	1308	1781	467	1189
Grp Volume(v), veh/h	46	362	375	67	670	44	58	0	55	167	0	78
Grp Sat Flow(s),veh/h/ln	1781	1777	1838	1781	1777	1585	1781	0	1635	1781	0	1656
Q Serve(g_s), s	1.3	10.1	10.1	2.0	9.0	1.1	1.7	0.0	1.7	4.8	0.0	2.2
Cycle Q Clear(g_c), s	1.3	10.1	10.1	2.0	9.0	1.1	1.7	0.0	1.7	4.8	0.0	2.2
Prop In Lane	1.00		0.10	1.00		1.00	1.00		0.80	1.00		0.72
Lane Grp Cap(c), veh/h	115	491	508	125	1009	450	153	0	199	271	0	287
V/C Ratio(X)	0.40	0.74	0.74	0.54	0.66	0.10	0.38	0.00	0.28	0.62	0.00	0.27
Avail Cap(c_a), veh/h	233	720	744	200	1381	616	262	0	1054	371	0	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	24.4	17.9	17.9	24.4	17.2	14.3	23.5	0.0	21.7	21.5	0.0	19.5
Incr Delay (d2), s/veh	2.2	2.2	2.2	3.5	0.8	0.1	1.5	0.0	0.7	2.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.6	3.8	0.8	3.1	0.4	0.7	0.0	0.6	2.0	0.0	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.6	20.1	20.0	27.9	17.9	14.4	25.0	0.0	22.4	23.8	0.0	20.0
LnGrp LOS	C	C	C	C	B	B	C	A	C	C	A	B
Approach Vol, veh/h		783			781			113				245
Approach Delay, s/veh		20.4			18.6			23.7				22.6
Approach LOS		C			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	20.4	10.2	15.4	7.9	20.8	13.0	12.6				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	4.0	12.1	3.7	4.2	3.3	11.0	6.8	3.7				
Green Ext Time (p_c), s	0.0	2.9	0.0	0.5	0.0	3.1	0.2	0.3				

Intersection Summary

HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	31	71	10	21	92
Future Vol, veh/h	10	31	71	10	21	92
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	36	84	12	25	108

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	248	90	0	0	96
Stage 1	90	-	-	-	-
Stage 2	158	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	740	968	-	-	1498
Stage 1	934	-	-	-	-
Stage 2	871	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	727	968	-	-	1498
Mov Cap-2 Maneuver	727	-	-	-	-
Stage 1	934	-	-	-	-
Stage 2	855	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	896	1498
HCM Lane V/C Ratio	-	-	0.054	0.016
HCM Control Delay (s)	-	-	9.2	7.4
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2050 + P AM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations							
Traffic Volume (veh/h)	312	130	170	460	0	554	366
Future Volume (veh/h)	312	130	170	460	0	554	366
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	335	140	183	495		596	394
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	541	841	258	2120		1256	560
Arrive On Green	0.16	0.16	0.15	0.60		0.35	0.35
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	335	140	183	495		596	394
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	4.6	1.9	5.0	3.3		6.6	10.9
Cycle Q Clear(g_c), s	4.6	1.9	5.0	3.3		6.6	10.9
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	541	841	258	2120		1256	560
V/C Ratio(X)	0.62	0.17	0.71	0.23		0.47	0.70
Avail Cap(c_a), veh/h	1219	1389	349	2743		2395	1068
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	20.1	13.1	20.8	4.8		12.8	14.2
Incr Delay (d2), s/veh	1.2	0.1	4.2	0.1		0.3	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	2.1	0.7		2.0	3.2
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.3	13.2	25.0	4.9		13.1	15.8
LnGrp LOS	C	B	C	A		B	B
Approach Vol, veh/h	475			678		990	
Approach Delay, s/veh	18.9			10.3		14.2	
Approach LOS	B			B		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		36.5		14.5	12.4	24.1	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		5.3		6.6	7.0	12.9	
Green Ext Time (p_c), s		3.3		1.4	0.1	5.1	

Intersection Summary

HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	202	71	51	111	10
Future Vol, veh/h	0	202	71	51	111	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	243	86	61	134	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	147	0	-	0	360 117
Stage 1	-	-	-	-	117 -
Stage 2	-	-	-	-	243 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1435	-	-	-	639 935
Stage 1	-	-	-	-	908 -
Stage 2	-	-	-	-	797 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1435	-	-	-	639 935
Mov Cap-2 Maneuver	-	-	-	-	639 -
Stage 1	-	-	-	-	908 -
Stage 2	-	-	-	-	797 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1435	-	-	-	656
HCM Lane V/C Ratio	-	-	-	-	0.222
HCM Control Delay (s)	0	-	-	-	12
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.8

HCM 6th Signalized Intersection Summary  
8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2050 + P AM

03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	20	253	90	20	30	171	452	130	20	506	10
Future Volume (veh/h)	10	20	253	90	20	30	171	452	130	20	506	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	22	281	100	22	33	190	502	144	22	562	11
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	73	393	333	314	646	547	192	787	224	31	705	14
Arrive On Green	0.04	0.21	0.21	0.18	0.35	0.35	0.11	0.29	0.29	0.02	0.20	0.20
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	2729	778	1781	3565	70
Grp Volume(v), veh/h	11	22	281	100	22	33	190	326	320	22	280	293
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1730	1781	1777	1858
Q Serve(g_s), s	0.4	0.7	12.6	3.6	0.6	1.0	7.9	11.9	12.0	0.9	11.1	11.2
Cycle Q Clear(g_c), s	0.4	0.7	12.6	3.6	0.6	1.0	7.9	11.9	12.0	0.9	11.1	11.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.45	1.00		0.04
Lane Grp Cap(c), veh/h	73	393	333	314	646	547	192	512	499	31	351	367
V/C Ratio(X)	0.15	0.06	0.84	0.32	0.03	0.06	0.99	0.64	0.64	0.72	0.80	0.80
Avail Cap(c_a), veh/h	372	755	640	372	755	640	192	553	538	84	445	465
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.4	23.5	28.2	26.7	16.1	16.3	33.1	23.0	23.1	36.3	28.4	28.4
Incr Delay (d2), s/veh	0.9	0.1	5.8	0.6	0.0	0.0	62.1	2.2	2.3	26.7	7.8	7.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	5.2	1.6	0.2	0.4	6.5	4.8	4.8	0.6	5.1	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	23.5	34.0	27.3	16.1	16.3	95.2	25.2	25.4	63.1	36.1	35.9
LnGrp LOS	D	C	C	C	B	B	F	C	C	E	D	D
Approach Vol, veh/h		314			155			836			595	
Approach Delay, s/veh		33.3			23.4			41.2			37.0	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.3	27.8	17.1	22.1	14.0	21.1	7.0	32.1				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.9	14.0	5.6	14.6	9.9	13.2	2.4	3.0				
Green Ext Time (p_c), s	0.0	2.5	0.1	1.0	0.0	1.5	0.0	0.2				

Intersection Summary

HCM 6th Ctrl Delay	37.1
HCM 6th LOS	D

**Intersection**

Int Delay, s/veh 5260.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	160	342	211	791	964	250
Future Vol, veh/h	160	342	211	791	964	250
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Stop	-	None	-	None
Storage Length	0	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	182	389	240	899	1095	284

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	2616	1237	1379	0	-	0
Stage 1	1237	-	-	-	-	-
Stage 2	1379	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 27	~ 215	497	-	-	-
Stage 1	274	-	-	-	-	-
Stage 2	234	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 1	~ 215	497	-	-	-
Mov Cap-2 Maneuver	~ 1	-	-	-	-	-
Stage 1	~ 10	-	-	-	-	-
Stage 2	234	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay	\$ 28475.4	4	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	497	-	1	215	-	-
HCM Lane V/C Ratio	0.482	181.818	1.808		-	-
HCM Control Delay (s)	18.8	\$ 88445	\$ 419.4		-	-
HCM Lane LOS	C	A	F	F	-	-
HCM 95th %tile Q(veh)	2.6	-	25.3	27.1	-	-

**Notes**

~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon



HCM 6th Signalized Intersection Summary  
 2: S. Santa Fe Ave & Bosstick Blvd

YEAR 2050 + P PM  
 03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↑	↔	↔	↔	↔
Traffic Volume (veh/h)	10	0	20	190	0	170	50	802	80	30	1136	20
Future Volume (veh/h)	10	0	20	190	0	170	50	802	80	30	1136	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	0	23	216	0	193	57	911	91	34	1291	23
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	29	0	61	202	0	180	119	926	785	98	1727	31
Arrive On Green	0.06	0.00	0.06	0.11	0.00	0.11	0.07	0.50	0.50	0.06	0.48	0.48
Sat Flow, veh/h	532	0	1112	1781	0	1585	1781	1870	1585	1781	3572	64
Grp Volume(v), veh/h	34	0	0	216	0	193	57	911	91	34	642	672
Grp Sat Flow(s),veh/h/ln	1644	0	0	1781	0	1585	1781	1870	1585	1781	1777	1859
Q Serve(g_s), s	1.4	0.0	0.0	8.0	0.0	8.0	2.2	33.8	2.2	1.3	20.6	20.6
Cycle Q Clear(g_c), s	1.4	0.0	0.0	8.0	0.0	8.0	2.2	33.8	2.2	1.3	20.6	20.6
Prop In Lane	0.32		0.68	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	91	0	0	202	0	180	119	926	785	98	859	899
V/C Ratio(X)	0.37	0.00	0.00	1.07	0.00	1.07	0.48	0.98	0.12	0.35	0.75	0.75
Avail Cap(c_a), veh/h	676	0	0	202	0	180	210	926	785	210	880	921
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	31.2	0.0	31.2	31.7	17.5	9.5	32.1	14.7	14.7
Incr Delay (d2), s/veh	2.5	0.0	0.0	82.6	0.0	87.7	3.0	25.5	0.1	2.1	3.5	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.0	7.9	0.0	7.3	1.0	17.8	0.6	0.6	7.4	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	0.0	0.0	113.8	0.0	119.0	34.7	43.0	9.6	34.1	18.2	18.0
LnGrp LOS	C	A	A	F	A	F	C	D	A	C	B	B
Approach Vol, veh/h		34			409			1059			1348	
Approach Delay, s/veh		34.7			116.2			39.7			18.5	
Approach LOS		C			F			D			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	40.3		9.4	8.9	39.5		12.7				
Change Period (Y+Rc), s	* 4.2	5.4		5.5	* 4.2	5.4		4.7				
Max Green Setting (Gmax), s	* 8.3	34.9		29.0	* 8.3	34.9		8.0				
Max Q Clear Time (g_c+I1), s	3.3	35.8		3.4	4.2	22.6		10.0				
Green Ext Time (p_c), s	0.0	0.0		0.1	0.0	6.3		0.0				

Intersection Summary

HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↖	↑↑	↘	
Traffic Vol, veh/h	1206	10	46	842	10	10
Future Vol, veh/h	1206	10	46	842	10	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1283	11	49	896	11	11

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	1294	0	1835
Stage 1	-	-	-	-	1289
Stage 2	-	-	-	-	546
Critical Hdwy	-	-	4.14	-	6.84
Critical Hdwy Stg 1	-	-	-	-	5.84
Critical Hdwy Stg 2	-	-	-	-	5.84
Follow-up Hdwy	-	-	2.22	-	3.52
Pot Cap-1 Maneuver	-	-	531	-	67
Stage 1	-	-	-	-	222
Stage 2	-	-	-	-	544
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	531	-	61
Mov Cap-2 Maneuver	-	-	-	-	61
Stage 1	-	-	-	-	222
Stage 2	-	-	-	-	494

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	47.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	106	-	-	531	-
HCM Lane V/C Ratio	0.201	-	-	0.092	-
HCM Control Delay (s)	47.3	-	-	12.5	-
HCM Lane LOS	E	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0.3	-

HCM 6th Signalized Intersection Summary  
4: Las Flores Dr & S. Santa Fe Ave

YEAR 2050 + P PM  
03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	66	1074	92	40	730	90	54	10	30	60	10	40
Future Volume (veh/h)	66	1074	92	40	730	90	54	10	30	60	10	40
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	1193	102	44	811	100	60	11	33	67	11	44
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	1236	106	93	1223	546	151	51	153	181	41	166
Arrive On Green	0.08	0.37	0.37	0.05	0.34	0.34	0.08	0.12	0.12	0.10	0.13	0.13
Sat Flow, veh/h	1781	3313	283	1781	3554	1585	1781	412	1236	1781	327	1308
Grp Volume(v), veh/h	73	639	656	44	811	100	60	0	44	67	0	55
Grp Sat Flow(s),veh/h/ln	1781	1777	1819	1781	1777	1585	1781	0	1648	1781	0	1635
Q Serve(g_s), s	2.3	20.7	20.8	1.4	11.4	2.6	1.9	0.0	1.4	2.1	0.0	1.8
Cycle Q Clear(g_c), s	2.3	20.7	20.8	1.4	11.4	2.6	1.9	0.0	1.4	2.1	0.0	1.8
Prop In Lane	1.00		0.16	1.00		1.00	1.00		0.75	1.00		0.80
Lane Grp Cap(c), veh/h	148	663	679	93	1223	546	151	0	204	181	0	207
V/C Ratio(X)	0.49	0.96	0.97	0.47	0.66	0.18	0.40	0.00	0.22	0.37	0.00	0.27
Avail Cap(c_a), veh/h	215	663	679	184	1272	567	242	0	978	341	0	1040
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.9	18.1	18.1	27.1	16.4	13.5	25.5	0.0	23.3	24.7	0.0	23.3
Incr Delay (d2), s/veh	2.6	26.1	26.4	3.7	1.2	0.2	1.7	0.0	0.5	1.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	11.5	11.8	0.6	4.0	0.9	0.8	0.0	0.6	0.9	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	44.2	44.5	30.8	17.7	13.7	27.2	0.0	23.8	26.0	0.0	23.9
LnGrp LOS	C	D	D	C	B	B	C	A	C	C	A	C
Approach Vol, veh/h		1368			955			104				122
Approach Delay, s/veh		43.5			17.9			25.8				25.1
Approach LOS		D			B			C				C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.6	27.4	10.5	13.5	9.3	25.7	10.7	13.3				
Change Period (Y+Rc), s	4.5	5.4	5.5	6.0	4.4	5.4	* 4.7	6.0				
Max Green Setting (Gmax), s	6.1	22.0	8.0	37.5	7.1	21.1	* 11	35.0				
Max Q Clear Time (g_c+I1), s	3.4	22.8	3.9	3.8	4.3	13.4	4.1	3.4				
Green Ext Time (p_c), s	0.0	0.0	0.0	0.3	0.0	3.2	0.1	0.2				

Intersection Summary

HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

\* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	2.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	22	82	10	41	111
Future Vol, veh/h	10	22	82	10	41	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	26	96	12	48	131

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	329	102	0	0	108	0
Stage 1	102	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	665	953	-	-	1483	-
Stage 1	922	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	642	953	-	-	1483	-
Mov Cap-2 Maneuver	642	-	-	-	-	-
Stage 1	922	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.6	0	2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	828	1483
HCM Lane V/C Ratio	-	-	0.045	0.033
HCM Control Delay (s)	-	-	9.6	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

HCM 6th Signalized Intersection Summary  
 6: W. Mission Rd/S. Santa Fe Ave & N. Rancho Santa Fe Rd

YEAR 2050 + P PM  
 03/30/2022



Movement	EBL	EBR	NBL	NBT	SBU	SBT	SBR
Lane Configurations	↶↶	↷↷	↶	↷↷	↶	↷↷	↷
Traffic Volume (veh/h)	465	490	230	524	0	992	272
Future Volume (veh/h)	465	490	230	524	0	992	272
Initial Q (Qb), veh	0	0	0	0		0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00				1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00		1.00	1.00
Work Zone On Approach	No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870		1870	1870
Adj Flow Rate, veh/h	500	527	247	563		1067	292
Peak Hour Factor	0.93	0.93	0.93	0.93		0.93	0.93
Percent Heavy Veh, %	2	2	2	2		2	2
Cap, veh/h	727	991	258	2158		1386	618
Arrive On Green	0.21	0.21	0.14	0.61		0.39	0.39
Sat Flow, veh/h	3456	2790	1781	3647		3647	1585
Grp Volume(v), veh/h	500	527	247	563		1067	292
Grp Sat Flow(s),veh/h/ln	1728	1395	1781	1777		1777	1585
Q Serve(g_s), s	9.2	10.4	9.5	5.1		18.1	9.5
Cycle Q Clear(g_c), s	9.2	10.4	9.5	5.1		18.1	9.5
Prop In Lane	1.00	1.00	1.00				1.00
Lane Grp Cap(c), veh/h	727	991	258	2158		1386	618
V/C Ratio(X)	0.69	0.53	0.96	0.26		0.77	0.47
Avail Cap(c_a), veh/h	901	1131	258	2158		1770	790
HCM Platoon Ratio	1.00	1.00	1.00	1.00		1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00		1.00	1.00
Uniform Delay (d), s/veh	25.2	17.7	29.3	6.3		18.4	15.8
Incr Delay (d2), s/veh	1.6	0.4	44.3	0.1		1.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0		0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	8.4	6.9	1.4		6.5	3.0
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.8	18.1	73.6	6.4		20.0	16.3
LnGrp LOS	C	B	E	A		B	B
Approach Vol, veh/h	1027			810		1359	
Approach Delay, s/veh	22.4			26.9		19.2	
Approach LOS	C			C		B	
Timer - Assigned Phs		2		4	5	6	
Phs Duration (G+Y+Rc), s		48.0		21.0	15.0	33.0	
Change Period (Y+Rc), s		* 6.1		6.5	5.0	* 6.1	
Max Green Setting (Gmax), s		* 39		18.0	10.0	* 34	
Max Q Clear Time (g_c+I1), s		7.1		12.4	11.5	20.1	
Green Ext Time (p_c), s		3.8		2.2	0.0	6.9	

Intersection Summary

HCM 6th Ctrl Delay	22.2
HCM 6th LOS	C

Notes

User approved ignoring U-Turning movement.  
 \* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	111	172	92	41	10
Future Vol, veh/h	0	111	172	92	41	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	134	207	111	49	12

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	318	0	-	0	397 263
Stage 1	-	-	-	-	263 -
Stage 2	-	-	-	-	134 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1242	-	-	-	608 776
Stage 1	-	-	-	-	781 -
Stage 2	-	-	-	-	892 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1242	-	-	-	608 776
Mov Cap-2 Maneuver	-	-	-	-	608 -
Stage 1	-	-	-	-	781 -
Stage 2	-	-	-	-	892 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1242	-	-	-	635
HCM Lane V/C Ratio	-	-	-	-	0.097
HCM Control Delay (s)	0	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 6th Signalized Intersection Summary  
 8: N. Rancho Santa Fe Rd & Capalina Rd

YEAR 2050 + P PM

03/30/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	30	122	90	40	30	214	865	110	20	482	30
Future Volume (veh/h)	10	30	122	90	40	30	214	865	110	20	482	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	33	136	100	44	33	238	961	122	22	536	33
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	74	224	190	336	499	423	212	1060	135	31	792	49
Arrive On Green	0.04	0.12	0.12	0.19	0.27	0.27	0.12	0.33	0.33	0.02	0.23	0.23
Sat Flow, veh/h	1781	1870	1585	1781	1870	1585	1781	3172	403	1781	3401	209
Grp Volume(v), veh/h	11	33	136	100	44	33	238	538	545	22	280	289
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1870	1585	1781	1777	1798	1781	1777	1833
Q Serve(g_s), s	0.4	1.1	5.6	3.3	1.2	1.1	8.0	19.5	19.5	0.8	9.6	9.7
Cycle Q Clear(g_c), s	0.4	1.1	5.6	3.3	1.2	1.1	8.0	19.5	19.5	0.8	9.6	9.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.22	1.00		0.11
Lane Grp Cap(c), veh/h	74	224	190	336	499	423	212	594	601	31	414	427
V/C Ratio(X)	0.15	0.15	0.72	0.30	0.09	0.08	1.13	0.91	0.91	0.70	0.68	0.68
Avail Cap(c_a), veh/h	410	833	706	410	833	706	212	609	617	93	491	506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.1	26.6	28.5	23.5	18.5	18.5	29.7	21.4	21.4	32.9	23.5	23.5
Incr Delay (d2), s/veh	0.9	0.3	5.0	0.5	0.1	0.1	99.6	17.0	17.0	25.0	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.5	2.3	1.4	0.5	0.4	9.0	9.8	10.0	0.6	4.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	26.9	33.5	24.0	18.6	18.6	129.2	38.5	38.4	57.9	26.4	26.4
LnGrp LOS	C	C	C	C	B	B	F	D	D	E	C	C
Approach Vol, veh/h		180			177			1321			591	
Approach Delay, s/veh		32.2			21.6			54.8			27.6	
Approach LOS		C			C			D			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	7.2	28.9	16.7	14.6	14.0	22.1	6.8	24.5				
Change Period (Y+Rc), s	6.0	6.4	4.0	6.5	6.0	6.4	4.0	6.5				
Max Green Setting (Gmax), s	3.5	23.1	15.5	30.0	8.0	18.6	15.5	30.0				
Max Q Clear Time (g_c+I1), s	2.8	21.5	5.3	7.6	10.0	11.7	2.4	3.2				
Green Ext Time (p_c), s	0.0	1.0	0.2	0.6	0.0	1.8	0.0	0.3				

Intersection Summary

HCM 6th Ctrl Delay	43.3
HCM 6th LOS	D

**APPENDIX J**  
**SIGHT DISTANCE EXHIBIT**





# SIGHT DISTANCE EXHIBIT

2972 S. SANTA FE APARTMENTS

PLSA JOB NO. 3527  
07-26-2022

SHEET 1 OF 1

**NOTES**

\* DISTANCES FOLLOW THE CALTRANS HIGHWAY DESIGN MANUAL, CHAPTER 200, INDEX 201.1, ASSUMING A 45MPH SPEED LIMIT ON S SANTA FE AVENUE

**PASCO LARET SUITER**  
& ASSOCIATES

San Diego | Encinitas | Orange County  
Phone 858.259.8212 | [www.plsaengineering.com](http://www.plsaengineering.com)

