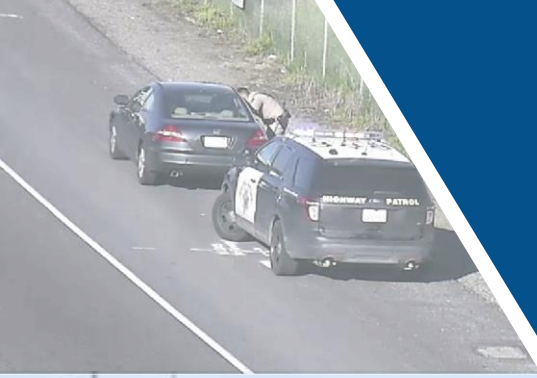


# SR 237 EXPRESS LANES

## Operational Report

## Fiscal Year 2019



This page intentionally left blank

## LIST OF FIGURES

Figure 1: SR 237 Express Lanes Traffic Volumes & Revenue by Quarter .....	5
Figure 2: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue by Month .....	5
Figure 3: FY 2019, SR 237 Express Lanes Average Toll rate (1-Year Trend) .....	6
Figure 4: SR 237 Express Lanes – FasTrak Flex Tags Usage by Switch Position.....	8
Figure 5: SR 237 Express Lanes Average Daily Tolloed Vehicles by Month .....	9
Figure 6: SR 237 Express Lanes Average Daily Tolloed Revenue by Month .....	10
Figure 7: FY 2019, SR 237 Express Lanes Citations Issued by CHP .....	11
Figure 8: FY 2019, SR 237 Express Lanes Average Speed by Location .....	13
Figure 9: FY 2019, SR 237 Westbound Express Lanes Average Corridor Speeds .....	15

## LIST OF TABLES

Table 1: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue Performance .....	3
Table 2: SR 237 Express Lanes Annual Traffic Volumes & Revenue by Year (Since Opening). 3	
Table 3: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue by Quarter .....	3
Table 4: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue by Month.....	4
Table 5: FY 2019, SR 237 Express Lanes Tolloed Vehicles by Direction.....	6
Table 6: FY 2019, SR 237 Express Lanes – Clean Air Vehicles (Westbound).....	7
Table 7: FY 2019, SR 237 Express Lanes – Clean Air Vehicles (Eastbound).....	7
Table 8: FY 2019, SR 237 Express Lanes HOV Only Operation by Weekday .....	7
Table 9: FY 2019, SR 237 Express Lanes CHP Issued Citations.....	12
Table 10:FY 2019, SR 237 Express Lanes Average Corridor Speeds .....	14

This page intentionally left blank

# SR 237 Express Lanes

## Fiscal Year 2019 (July 2018 – June 2019)

### Traffic Operations Summary

During the Fiscal Year (FY) 2019, the SR 237 Express Lane (EL) served a total of about 3,035,000 vehicles, including 435,000 Single Occupant Vehicles (SOV) /tolled and 2,600,000 High Occupancy Vehicles (HOV) /non-tolled. The total lane utilization for the FY 2019 compared to FY 2018 increased by about 5,500 vehicles (0.2 %), the total non-tolled vehicles increased by about 700 vehicles (0.01%), and the tolled vehicles increased by about 4,800 vehicles (1.1 %). The estimated toll revenue for the FY 2019 is approximately \$1.31 million compared to \$1.30 million for FY 2018, an increase of about \$7,800 (0.6%).

Overall, about 59% of the total tolled vehicles were in the westbound direction (from southbound I-880 to westbound SR 237), and 41% in the eastbound direction (from eastbound SR 237 to northbound I-880). Morning tolled vehicles were about 57% and the afternoon tolled vehicles were about 43%.

### Toll Rates

The average toll rate for FY 2019 was the same as FY 2018 at \$3.00. The minimum toll rate is \$0.30, and the maximum toll rate is \$8.00.

### Clean Air Vehicles

Clean Air Vehicle's (CAV) along the SR 237 EL have continued to increase over the past four years, since 2014. CAV counts observed in the EL during the FY 2019 shows about 36% vehicles in the westbound direction during the morning peak hour (8 a.m. - 9 a.m.); and about 25% in the eastbound direction during the afternoon peak hour (5 p.m. – 6 p.m.).

### HOV Only Operation

The HOV Only operation is activated when the EL corridor experiences low speeds due to downstream congestion beyond the EL project limits. During FY 2019, the EL was restricted to HOV Only operation for a total of about 30 hours and 20 minutes, HOV Only for the westbound direction was about 25 hours and 40 minutes while the eastbound direction was about 4 hours and 40 minutes. The total HOV Only operation equates to an average of about 7 minutes /day.

## **Enforcement (California Highway Patrol)**

During FY 2019 California Highway Patrol (CHP) issued a total of 1,387 citations, compared to 1,688 citations issued during FY 2018. CHP enforcement hours for FY 2019 totaled approximately 864 hours while FY 2018 were about 926 hours.

## **Incidents/Traffic Collisions**

During the FY 2019 there were approximately 60 reported traffic collisions along the SR 237 EL corridor between Dixon Landing Road on I-880 and Lawrence Expressway on SR 237, compared to 175 reported traffic collisions during FY 2018.

## **SR 237 Express Lanes Maintenance Activity Summary**

- August 3, 2018 – The SR 237 EL Closed-Circuit Television (CCTV) camera located along SR 237 near McCarthy Boulevard failed. EL maintenance staff replaced the camera on August 3, 2018.
- September 25-26, 2018 – TransCore (System Integrator) performed semi-annual maintenance on the electronic toll system (ETS). This semi-annual maintenance is a preventive maintenance activity performed over two nights along the SR 237 and I-880 roadside equipment. In addition, TransCore also performs weekly and monthly preventive maintenances.
- December 4<sup>th</sup>, 2018 – EL maintenance staff repaired vehicle detector station (VDS) along I-880 (Site 1) after it was reported malfunction on December 3, 2018. TransCore repaired the cable between the VDS device and the cabinet on December 11, 2018. During this period the eastbound toll rates were based on the historical toll rates (average of previous 12 weeks). Overall, there was no impact to the EL tolling operations.
- December 10, 2018 – EL maintenance staff replaced the failed North First Street CCTV camera.
- January 28, 2019 - During the morning tolling period the SR 237 westbound lost communication, as a result the tolls were not displayed on the overhead signs and the tolls were not charged for vehicles using the EL. The estimated revenue impact due to this communication loss was about \$3,500.
- March 12 -14, 2019 - TransCore performed semi-annual maintenance on the ETS equipment over two nights along the SR 237 and I-880. In addition, TransCore also replaced two vehicle detector sensors along westbound SR 237 near Zanker Road off-ramp after the existing sensors failed.

**Table 1: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue Performance**

Reporting Period	Express Lanes Traffic Volumes				Estimated Revenue
	Total Vehicles	Non-Tolled Vehicles	Tolled Vehicles	% Tolled Vehicles	
FY 2019	3,034,676	2,599,416	435,260	14.34%	\$ 1,312,423
FY 2018	3,029,180	2,598,716	430,464	14.21%	\$ 1,304,595
<b>Net Difference</b>	<b>↑ 5,496 (0.2 %)</b>	<b>↑ 700 (0.01 %)</b>	<b>↑ 4,796 (1.1 %)</b>	<b>↑ (0.13 %)</b>	<b>↑ \$7,827 (0.6 %)</b>

**Table 2: SR 237 Express Lanes Annual Traffic Volumes & Revenue by Year (Since Opening)**

Reporting Period	Express Lanes Traffic Volumes				Estimated Revenue
	Total Vehicles	Non-Tolled Vehicles	Tolled Vehicles	% Tolled Vehicles	
*FY 2012	700,316	559,490	140,826	20.1%	\$ 219,175
FY 2013	2,766,320	2,141,038	625,282	22.6%	\$ 1,049,897
FY 2014	2,999,905	2,391,159	608,746	20.3%	\$ 1,225,320
FY 2015	3,056,354	2,531,175	525,179	17.2%	\$ 1,196,099
FY 2016	3,091,906	2,616,386	475,520	15.4%	\$ 1,249,885
FY 2017	3,031,424	2,564,040	467,384	15.4%	\$ 1,268,298
FY 2018	3,029,180	2,598,716	430,464	14.2%	\$ 1,304,595
FY 2019	3,034,676	2,599,416	435,260	14.3%	\$ 1,312,423
<b>TOTAL</b>	<b>21,710,081</b>	<b>18,001,420</b>	<b>3,708,661</b>	<b>17.1%</b>	<b>\$ 8,825,692</b>

\*FY 2012 includes only one quarter.

**Table 3: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue by Quarter**

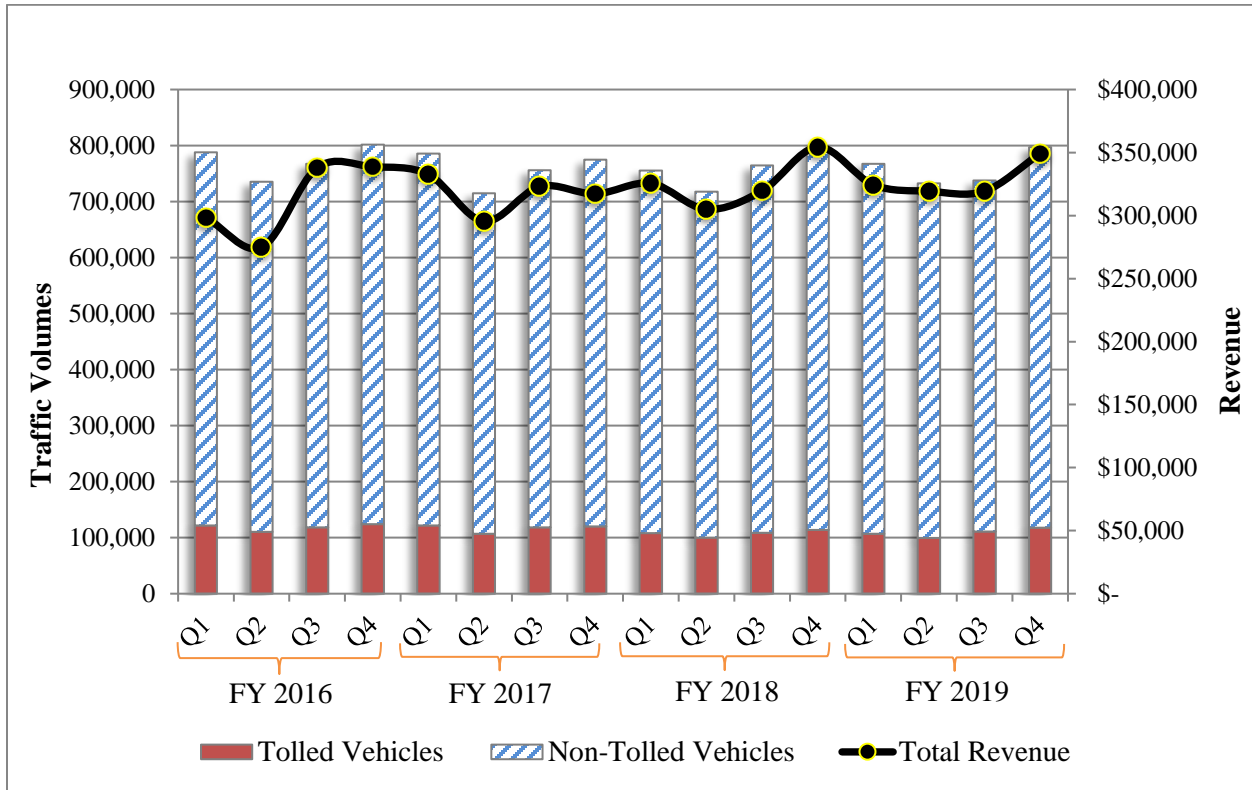
Reporting Period	Express Lanes Traffic Volumes				Estimated Revenue
	Total Vehicles	Non-Tolled Vehicles	Tolled Vehicles	% Tolled Vehicles	
Q1	767,185	660,465	106,720	13.9%	\$ 324,420
Q2	732,523	632,724	99,799	13.6%	\$ 319,319
Q3	737,681	626,711	110,970	15.0%	\$ 319,411
Q4	797,287	679,516	117,771	14.8%	\$ 349,273
<b>TOTAL</b>	<b>3,034,676</b>	<b>2,599,416</b>	<b>435,260</b>	<b>14.3%</b>	<b>\$ 1,312,423</b>

**Table 4: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue by Month**

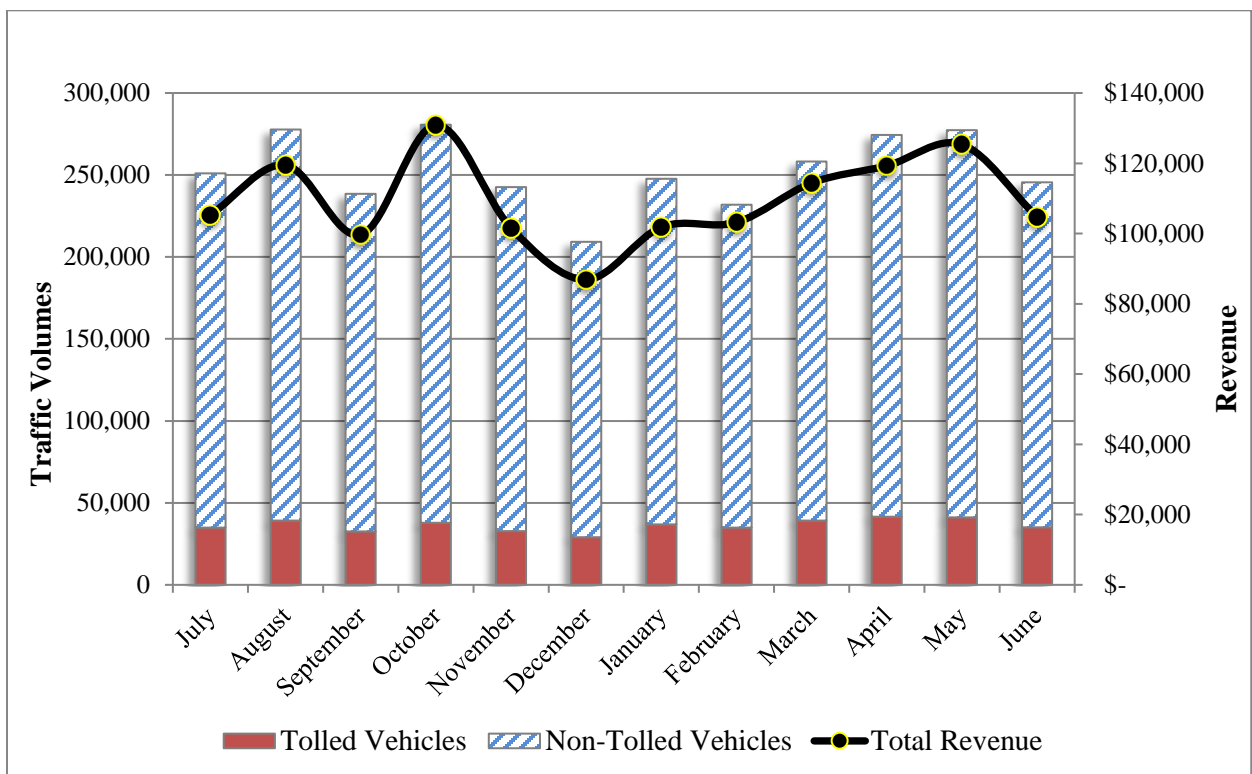
Reporting Period	Express Lanes Traffic Volumes				Estimated Revenue
	Total Vehicles	Non-Tolled Vehicles	Tolled Vehicles	% Tolled Vehicles	
July	250,943	215,995	34,948	13.9%	\$ 105,314
August	277,689	238,468	39,221	14.1%	\$ 119,477
September	238,553	206,002	32,551	13.6%	\$ 99,629
October	280,701	242,769	37,932	13.5%	\$ 130,858
November	242,578	209,779	32,799	13.5%	\$ 101,578
December	209,244	180,176	29,068	13.9%	\$ 86,883
January	247,621	210,797	36,824	14.9%	\$ 101,834
February	231,794	196,936	34,858	15.0%	\$ 103,174
March	258,266	218,978	39,288	15.2%	\$ 114,403
April	274,466	232,837	41,629	15.2%	\$ 119,287
May	277,257	236,136	41,121	14.8%	\$ 125,340
June	245,564	210,543	35,021	14.3%	\$ 104,646
<b>TOTAL</b>	<b>3,034,676</b>	<b>2,599,416</b>	<b>435,260</b>	<b>14.3%</b>	<b>\$ 1,312,423</b>



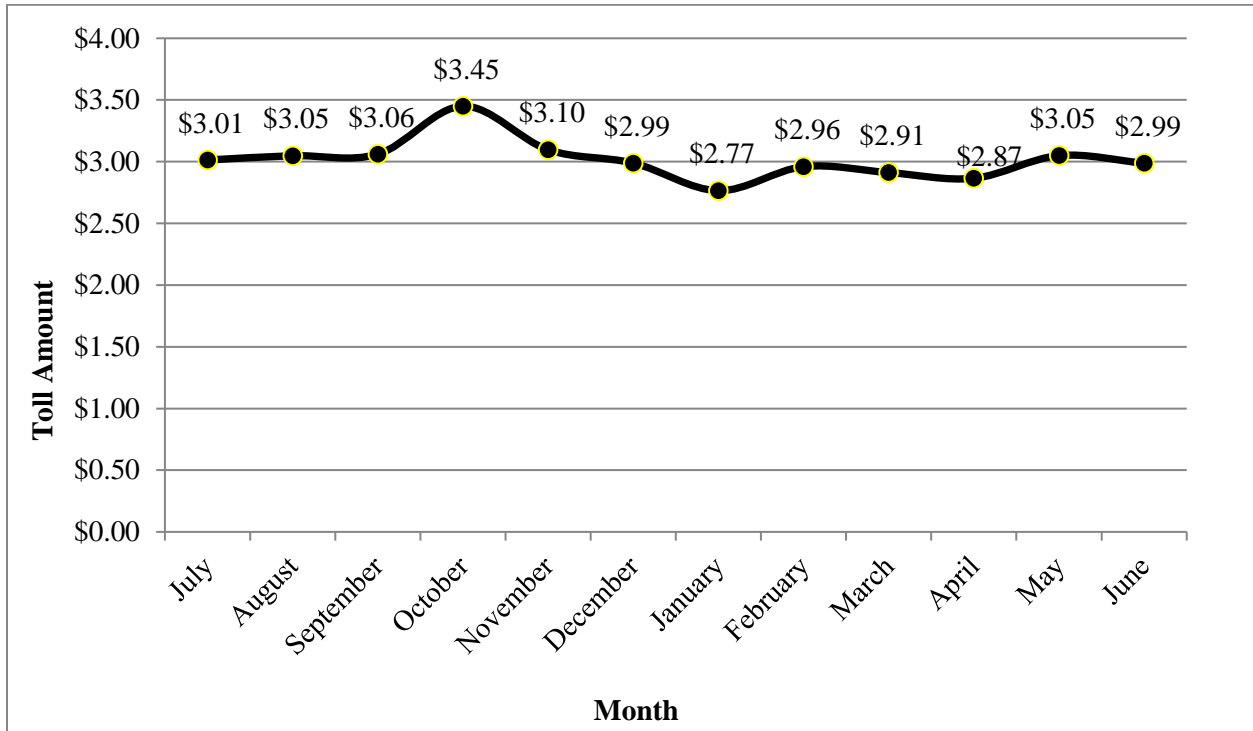
**Figure 1: SR 237 Express Lanes Traffic Volumes & Revenue by Quarter**



**Figure 2: FY 2019, SR 237 Express Lanes Traffic Volumes & Revenue by Month**



**Figure 3:** FY 2019, SR 237 Express Lanes Average Toll rate (1-Year Trend)



**Table 5:** FY 2019, SR 237 Express Lanes Tolloed Vehicles by Direction

Direction	Morning	Afternoon	Total	Percentage
Eastbound	37,104	139,531	176,638	41%
Westbound	210,343	48,282	258,625	59%
<b>TOTAL</b>	247,447	187,813	435,260	
Percentage	57%	43%		

Clean Air Vehicle (CAV) counts for the FY 2019 are based on scheduled monthly counts during the peak hour. The counts were conducted in the express lanes near Zanker Road interchange.

**Table 6:** FY 2019, SR 237 Express Lanes – Clean Air Vehicles (Westbound)

8:00-9:00 AM	Q1	Q2	Q3	Q4	Average	Percent
Tolled Vehicles	191	157	177	173	175	12%
Clean Air Vehicles	560	620	388	547	529	36%
Carpool	888	666	794	743	773	52%
<b>Total</b>	1639	1443	1359	1462	1476	100%

**Table 7:** FY 2019, SR 237 Express Lanes – Clean Air Vehicles (Eastbound)

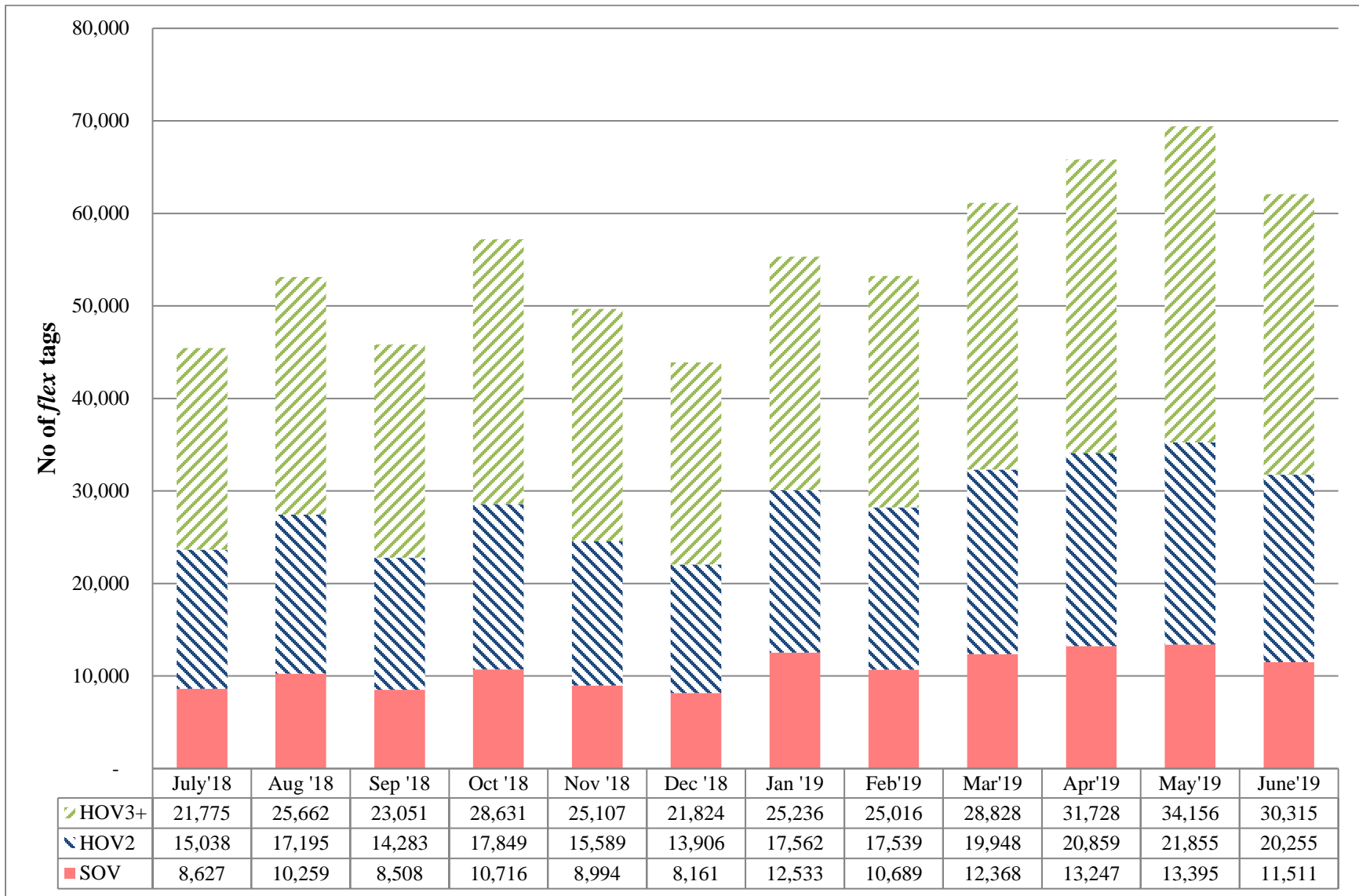
5:00-6:00 PM	Q1	Q2	Q3	Q4	Average	Percent
Tolled Vehicles	118	146	158	163	146	11%
Clean Air Vehicles	408	330	263	350	338	25%
Carpool	782	936	936	892	886	65%
<b>Total</b>	1308	1411	1357	1405	1370	100%

**Table 8:** FY 2019, SR 237 Express Lanes HOV Only Operation by Weekday

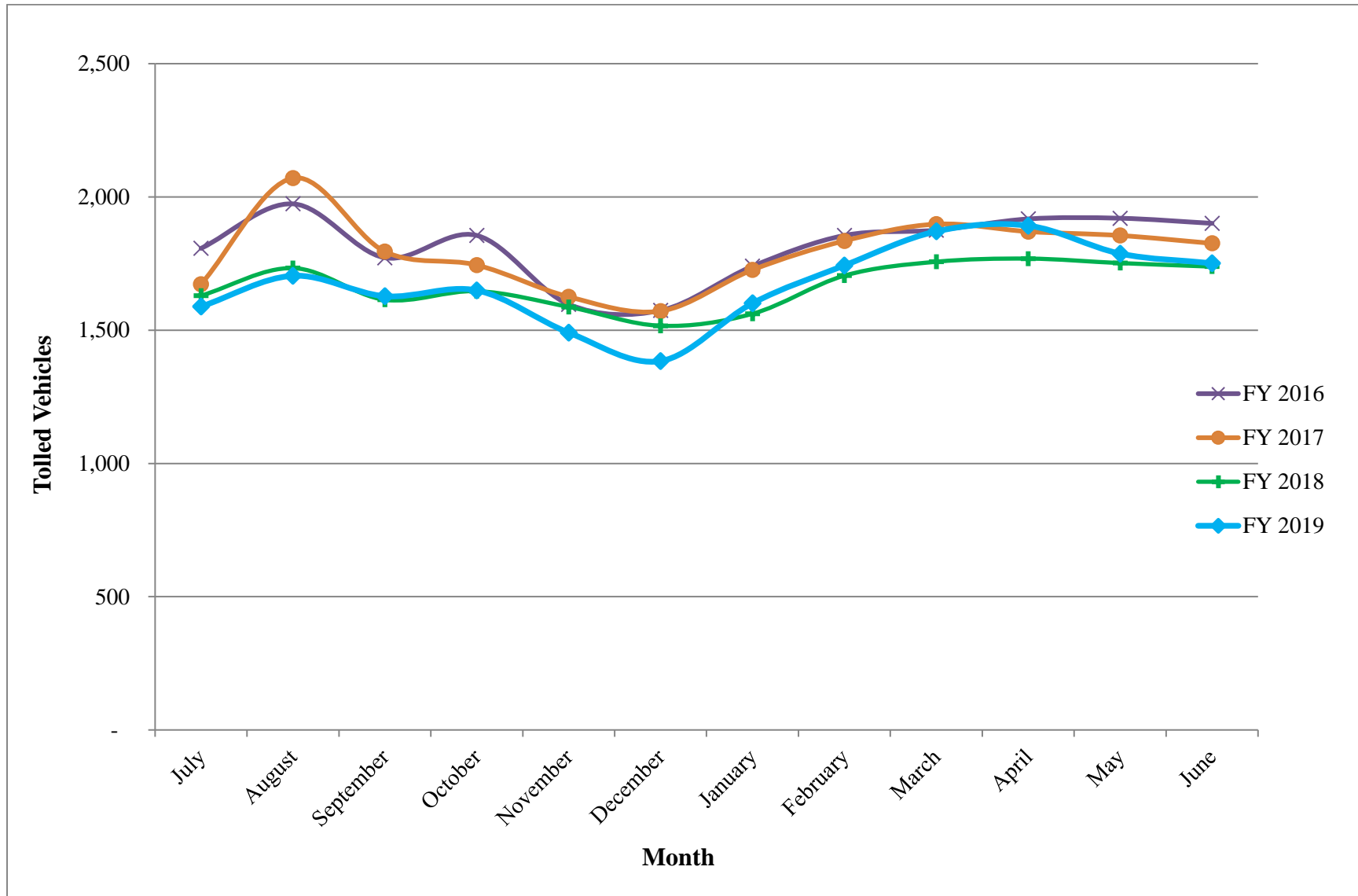
	Net Time (HH:MM)	% of Tolling Hours <sup>1</sup>	Average /Day (HH:MM)
Monday	03:40	0.1 %	0:04
Tuesday	09:10	0.2%	0:10
Wednesday	09:50	0.2 %	0:10
Thursday	07:25	0.2 %	0:08
Friday	00:35	0.0%	0:00
<b>Total</b>	30:20	0.7%	7 min./day
Westbound	25:40	0.58 %	
Eastbound	04:40	0.11 %	

<sup>1</sup>Percentage based on total daily operating hours (17 hours) for Express Lanes

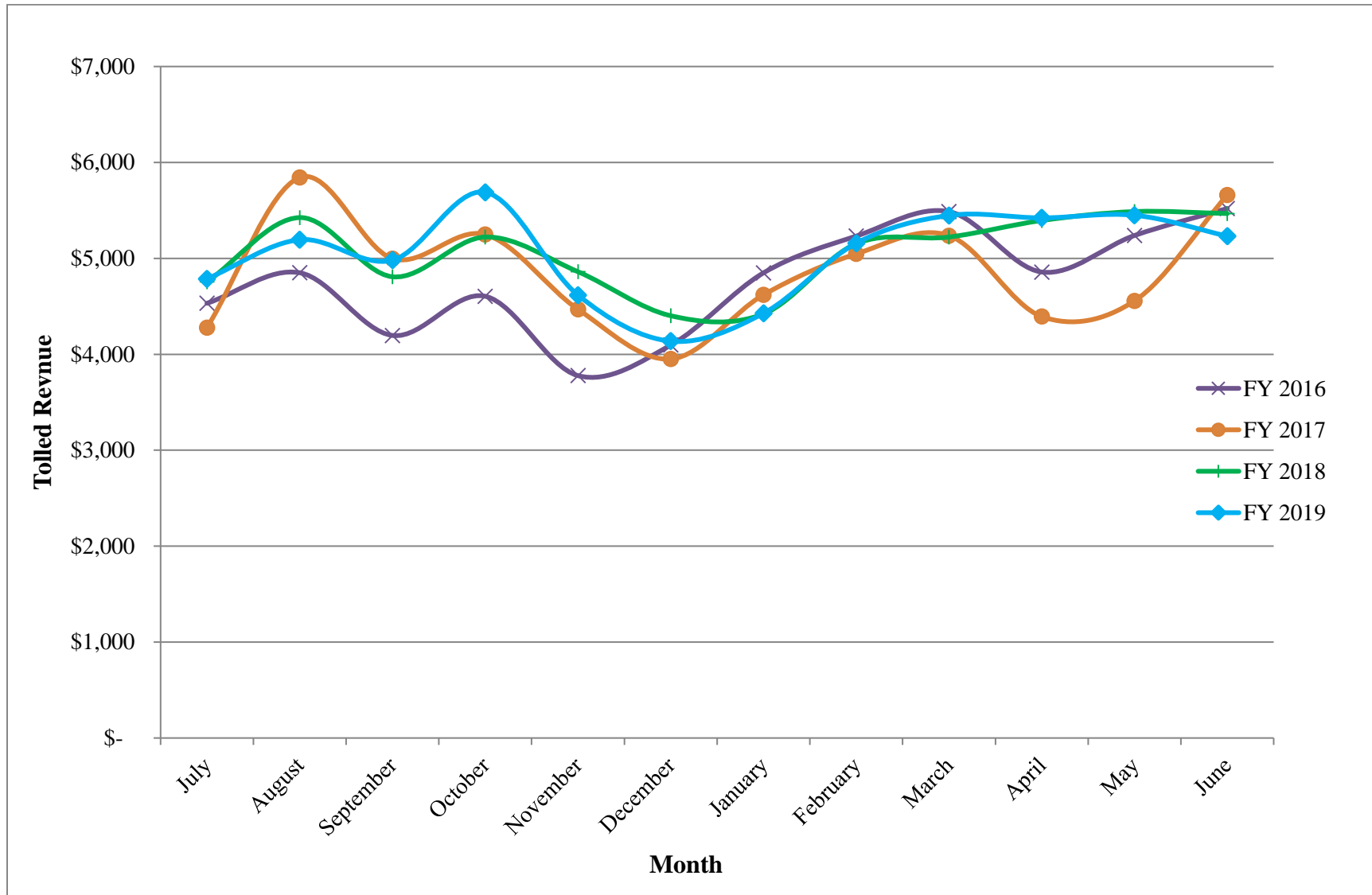
**Figure 4: SR 237 Express Lanes – FasTrak Flex Tags Usage by Switch Position**



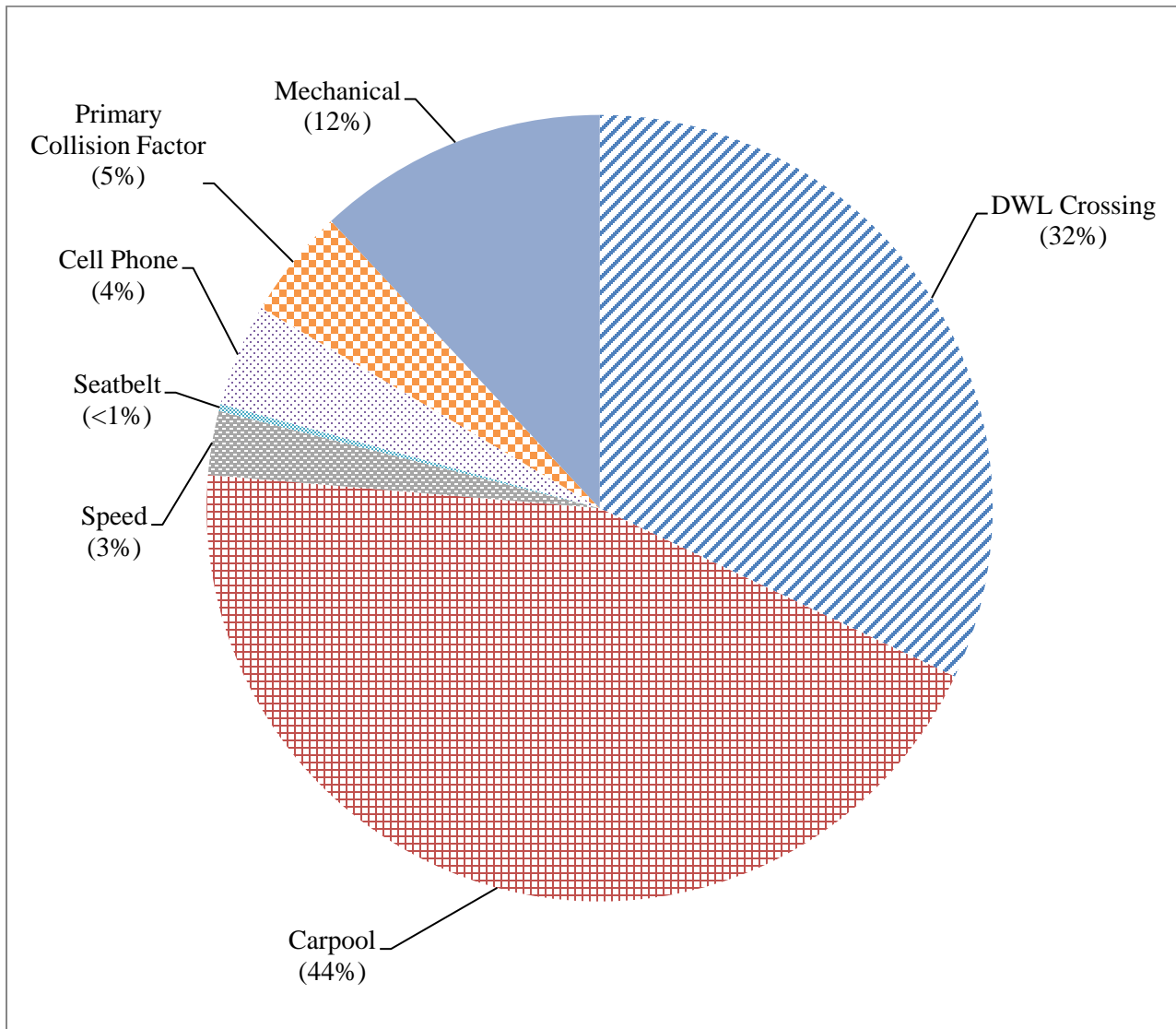
**Figure 5: SR 237 Express Lanes Average Daily Tolled Vehicles by Month**



**Figure 6: SR 237 Express Lanes Average Daily Tolled Revenue by Month**



**Figure 7:** FY 2019, SR 237 Express Lanes Citations Issued by CHP



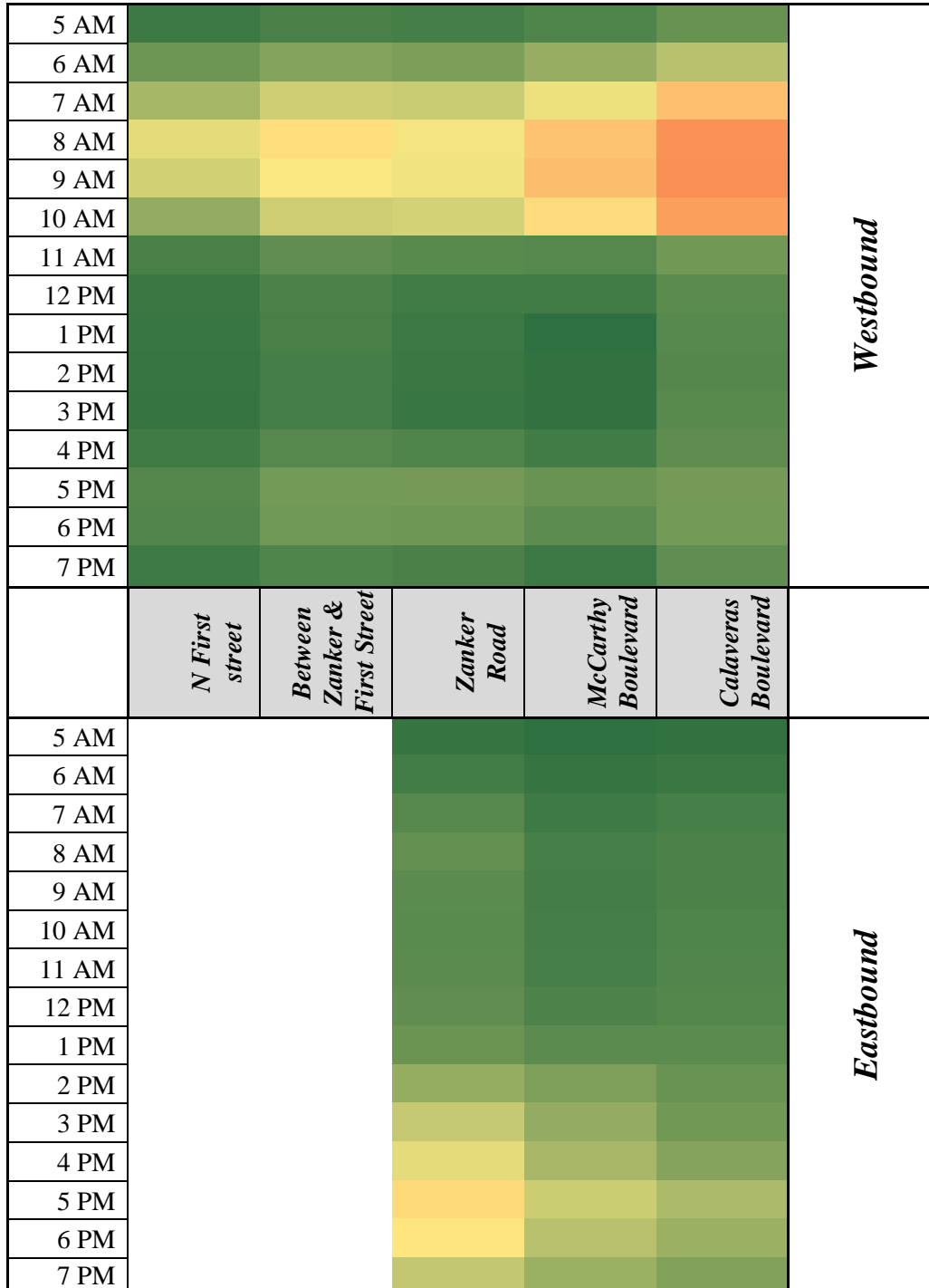
**Table 9: FY 2019, SR 237 Express Lanes CHP Issued Citations**

Month	Total Citations	Verbal Warnings <sup>1</sup>	DWL Crossing	Carpool	Speed	Seatbelt	Cell Phone	Primary Collision Factor	Mechanical	Hours
July	142	2	47	85	4	0	0	1	6	76
August	89	0	35	31	0	1	5	0	13	56
September	64	5	33	26	0	0	0	1	2	42.5
October	180	7	92	53	0	0	7	6	23	97
November	5	0	2	3	0	0	0	0	0	4.5
December	129	0	56	45	8	0	2	11	7	85.5
January	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0
March	81	6	6	54	1	1	3	4	4	52.5
April	316	16	66	139	12	2	19	15	58	195.5
May	381	29	102	171	11	0	22	24	51	254.5
June	0	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>1,387</b>	<b>65</b>	<b>439</b>	<b>607</b>	<b>36</b>	<b>4</b>	<b>58</b>	<b>62</b>	<b>164</b>	<b>864</b>

<sup>1</sup> Verbal warnings are not included in the total citations.



**Figure 8:** FY 2019, SR 237 Express Lanes Average Speed by Location




Speed Scale



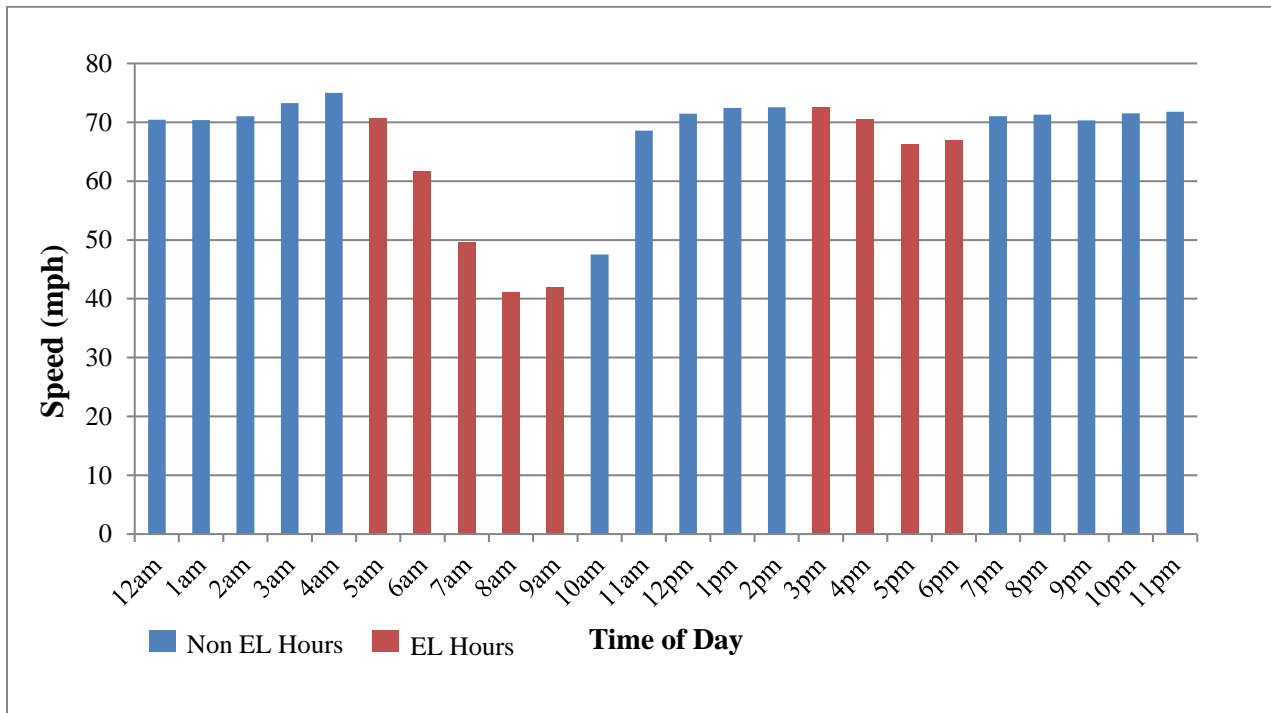
- FY 2019 average speeds are calculated using EL vehicle data for random weekdays (3 days /month).

**Table 10:** FY 2019, SR 237 Express Lanes Average Corridor Speeds

Time	Westbound (miles per hour)	Eastbound (miles per hour)
12:00 a.m.	70	71
1:00 a.m.	70	70
2:00 a.m.	71	71
3:00 a.m.	73	71
4:00 a.m.	75	73
5:00 a.m.	71	75
6:00 a.m.	62	73
7:00 a.m.	50	71
8:00 a.m.	41	70
9:00 a.m.	42	70
10:00 a.m.	48	70
11:00 a.m.	69	70
12:00 p.m.	71	69
1:00 p.m.	72	68
2:00 p.m.	73	64
3:00 p.m.	73	60
4:00 p.m.	70	56
5:00 p.m.	66	50
6:00 p.m.	67	53
7:00 p.m.	71	59
8:00 p.m.	71	65
9:00 p.m.	70	67
10:00 p.m.	72	68
11:00 p.m.	72	69
 EL hours of operation		

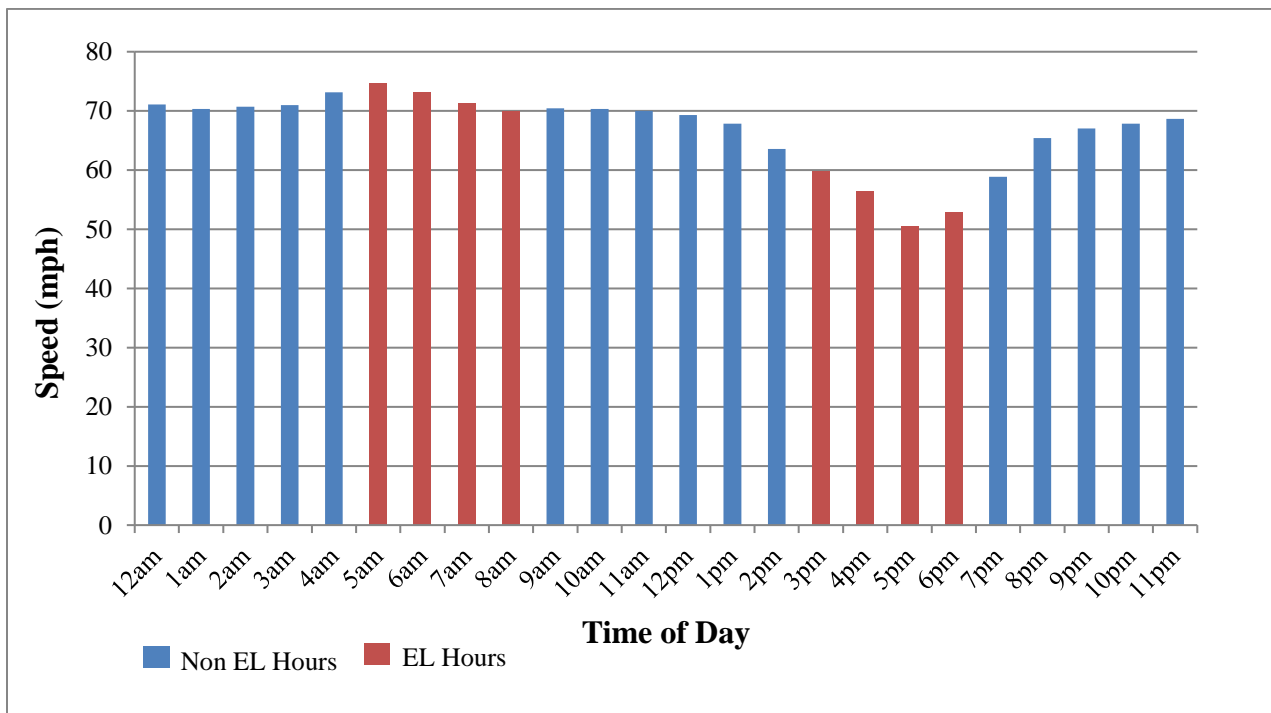
- Average speeds for the FY 2019 SR 237 westbound is based on an average of five VDS between I-880 and North First Street, and a total of 36 random weekdays during the fiscal year.
- Average speeds for the FY 2019 SR 237 eastbound is based on an average of three VDS between Zanker Road and I-880, and a total of 36 random weekdays.
- The data was collected during a typical weekday (Tuesday – Thursday).

**Figure 9:** FY 2019, SR 237 Westbound Express Lanes Average Corridor Speeds



EL hours of operations for the westbound SR 237 are 5 a.m. – 10 a.m. and 3 p.m. – 7 p.m.

**Figure 10:** FY 2019, SR 237 Eastbound Express Lanes Average Corridor Speeds



EL hours of operations for the eastbound SR 237 are 5 a.m. – 9 a.m. and 3 p.m. – 7 p.m.