



Memorandum

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DATE: June 18, 2020

TO: Alameda County Transportation Commission

FROM: Liz Rutman, Director of Express Lanes Implementation and Operations
Ashley Tam, Associate Transportation Engineer

SUBJECT: I-580 Express Lanes Operations Update

Recommendation

This item is to provide the Commission with an update on the operation of the I-580 Express Lanes for the third quarter of fiscal year 2019-2020. This item is for information only.

Summary

The purpose of this item is to provide the Commission with a Quarterly Operations Update of the existing I-580 Express Lanes for the third quarter of fiscal year 2019-2020 (January through March 2020). The express lanes continue to provide higher speeds and lower average lane densities than the general purpose lanes, as well as travel reliability along the corridor. See Attachment A for more detail. Due to the recent public health crisis, all Bay Area express lane operators suspended revenue operations effective March 20, 2020.

Background

The Alameda CTC is the project sponsor of the I-580 Express Lanes, located in the Tri-Valley corridor through the cities of Dublin, Pleasanton, and Livermore, which opened to traffic in February 2016. The I-580 Express Lanes, extend from Hacienda Drive to Greenville Road in the eastbound direction and from Greenville Road to the I-680 Interchange in the westbound direction. Motorists using the I-580 Express Lanes facility benefit from travel time savings and travel reliability as the express lanes optimize the corridor capacity by providing a choice to drivers. Single occupancy vehicles (SOVs) may choose to pay a toll and travel within the express lanes, while carpools, clean-air vehicles, motorcycles, and transit vehicles enjoy the benefits of toll-free travel in the express lanes.

An All Electronic Toll (AET) collection method has been employed to collect tolls. Toll rates are calculated based on real-time traffic conditions (speed and volume) in express and general purpose lanes and can change as frequently as every three minutes. California Highway Patrol (CHP) officers provide enforcement services, and the California

Department of Transportation (Caltrans) provides roadway maintenance services through reimbursable service agreements.

After Bay Area Counties and the State of California issued Shelter in Place (SIP) orders during the COVID-19 public health crisis, all Bay Area regional express lane operators reached a consensus to suspend revenue operations beginning March 20, 2020. This decision was primarily based on the fact that express lanes in the Bay Area, by design, encourage carpooling by offering carpools toll-free use of the express lanes. Perpetuating tolling fosters the notion that operators are still encouraging carpooling, contradicting social distancing guidelines.

FY 2019-2020 Q3 Operations Update:

Performance of the I-580 Express Lane for the third quarter (Q3) of fiscal year 2019-2020 are highlighted below. See Attachment A for more details.

- Motorists made nearly 1,736,000 express lane trips during operational hours in Q3. Daily express lane trips averaged 31,000.
- Paid trips totaled 843,000, or 15,100 trips a day, a 10% decrease from the prior quarter and a 4% decrease from the same quarter in the previous year.
- Toll-free trips make up 51% of all trips, which increased from 49% in the previous year.
- Westbound Peak hour (8 AM - 9 AM) express lane speeds averaged 61 miles per hour (mph) throughout the corridor. Eastbound peak hour (5 PM - 6 PM) express lane speeds averaged 57 mph. Generally, express lane users experienced better LOS than the general purpose lanes, particularly during peak commute hours.
- The average assessed toll for SOV motorists was \$3.57 and \$3.87 for westbound and eastbound, respectively.
- CHP performed 1,084 hours of enforcement services and made 1,165 enforcement contacts during Q3. CHP enforcement was suspended when tolling operations were suspended.
- The estimated gross revenue generated from the I-580 Express Lanes in Fiscal Year 2019-20 is \$9,680,000 through March 2020, and the forecasted operating budget is \$4,630,000.

After the SIP orders were issued in March, traffic volumes in the express lane decreased by approximately 60 percent. The immediate revenue impact of the public health crisis is an estimated loss of \$1.25 million per month while the express lanes are non-operational, offset by approximately \$150,000 in reduced operating costs associated with revenue collection and CHP enforcement services.

Fiscal Impact: There is no fiscal impact. This is an information item only.

Attachment:

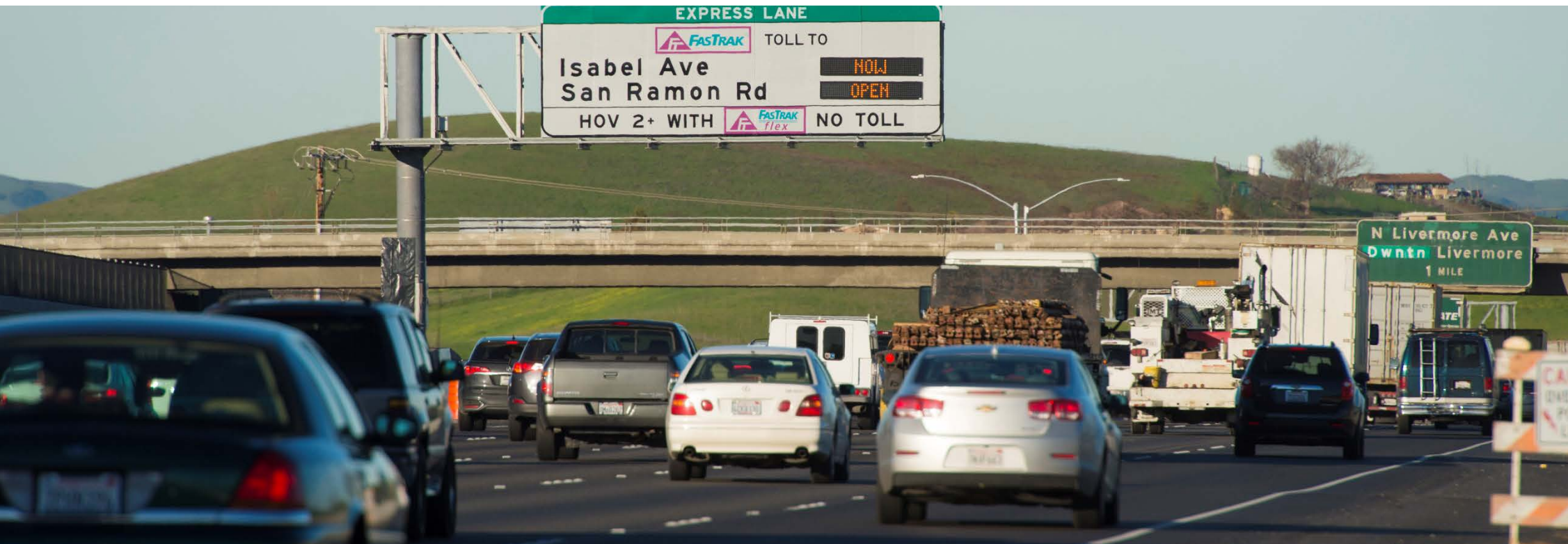
- A. I-580 Express Lane Operations Update (FY 2019-20 Q3)



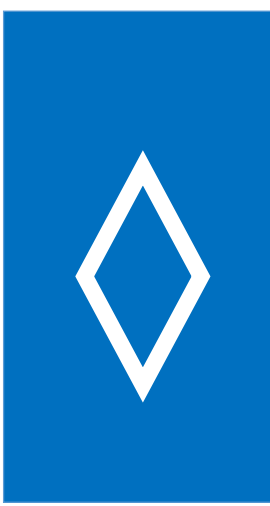
ALAMEDA COUNTY TRANSPORTATION COMMISSION

I-580 Express Lanes

Quarterly Operations Update

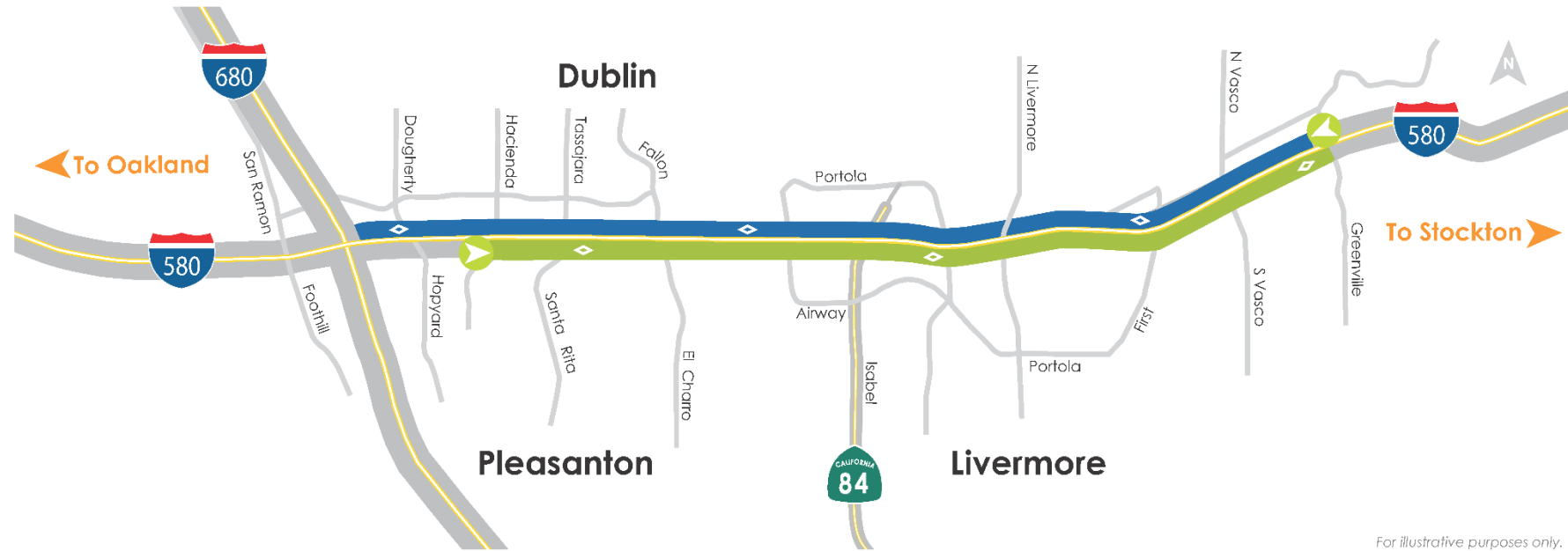


TOLL-PAYING VEHICLES



TRANSIT

I-580 Express Lane Overview



For illustrative purposes only.

Rules of the Road

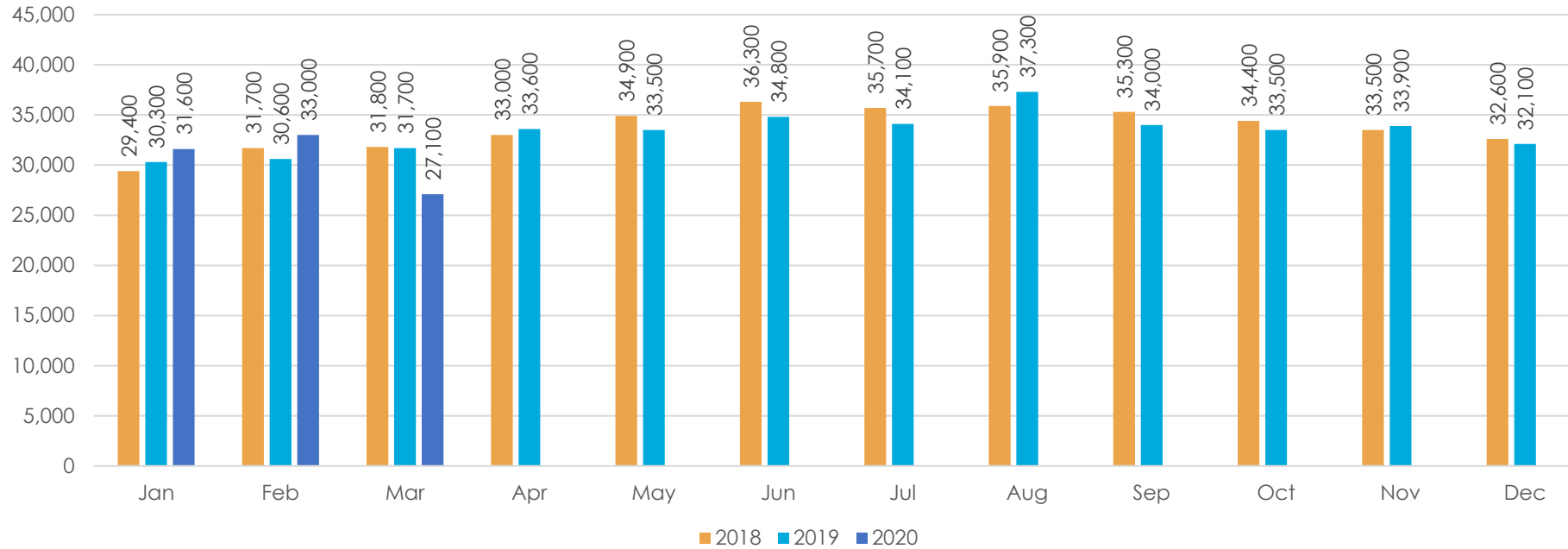
- Hours are 5 AM – 8 PM, Monday through Friday,
- FasTrak® is required
- Carpools (2+), eligible clean-air vehicles, motorcycles, and transit buses travel toll-free

FY 19/20 Q3 Performance Highlights

- Motorists made nearly 1,736,000 express lane trips during operational hours in Q3. Daily express lane trips averaged 31,000.
- Paid trips totaled 843,000, or 15,100 trips a day, a 10% decrease from the prior quarter and a 4% decrease from the same quarter in the previous year.
- Toll-free trips make up 51% of all trips, which increased from 49% in the previous year.
- Westbound Peak hour (8 AM - 9 AM) express lane speeds averaged 61 miles per hour (mph) throughout the corridor. Eastbound peak hour (5 PM - 6 PM) express lane speeds averaged 57 mph. Generally, express lane users experienced better LOS than the general purpose lanes, particularly during peak commute hours.
- The average assessed toll for SOV motorists was \$3.57 and \$3.87 for westbound and eastbound, respectively.
- CHP performed 1,084 hours of enforcement services and made 1,165 enforcement contacts during Q3. CHP enforcement was suspended when tolling operations were suspended.
- The estimated gross revenue generated from the I-580 Express Lanes in Fiscal Year 2019-20 is \$9,680,000 through March 2020, and the forecasted operating budget is \$4,630,000.

Average Daily Express Lane Trips

FY 2019-2020 Q3



Q3 of FY 2019-2020

843,000
Trips

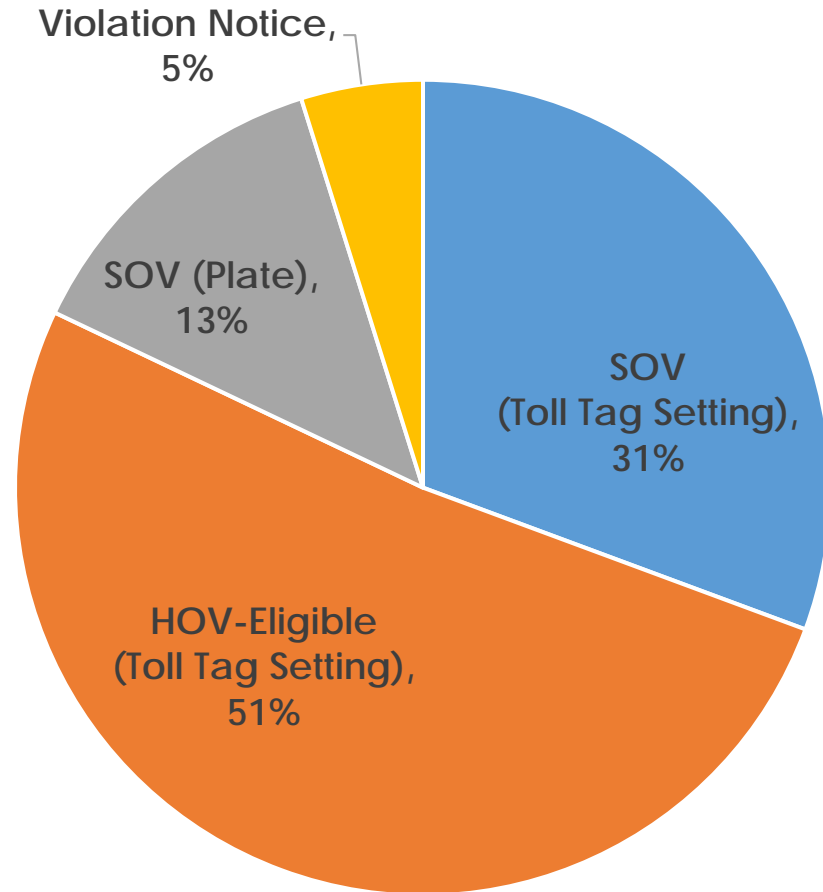
Daily Trip comparison to
Q3 of FY 2018-2019

+0.4%

Over 33 million trips have been taken since the I-580 Express Lane opened in February 2016. There were a total of 1,736,000 trips in Q3 of FY 2019-2020, or 31,000 average daily trips, which is similar to the number of trips compared to Q3 of the prior FY despite decrease in March trips as a result of Shelter In Place orders. Express Lanes encourage carpooling, so to comply with current social distancing protocols, all Bay Area Express Lane operators suspended tolling operations beginning 3/20/20. The data presented is representative of trips up to 3/20/2020.

Typical Express Lane Trip User Breakdown

FY 2019-2020 Q3

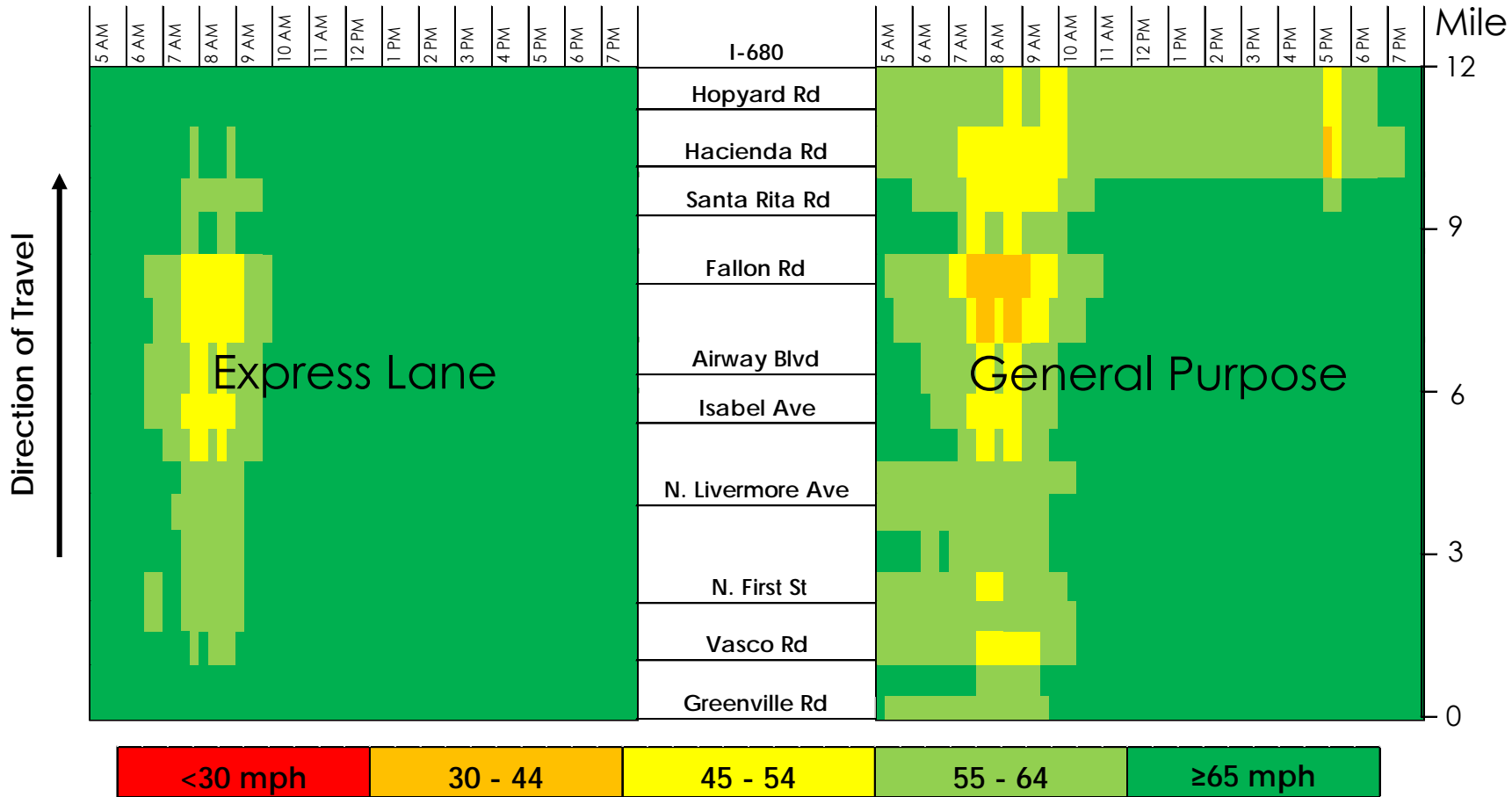


The share of toll-free trips has remained consistent in 2019. However in 2020, the share of toll-free trips has surpassed the share of toll-paying trips. Toll-free trips make up 51% of all trips, which increased from 49% in the previous year.

Approximately 74 percent of all trips by users without a toll tag are assessed tolls via FasTrak account.

Westbound I-580 Corridor Speed Heat Maps

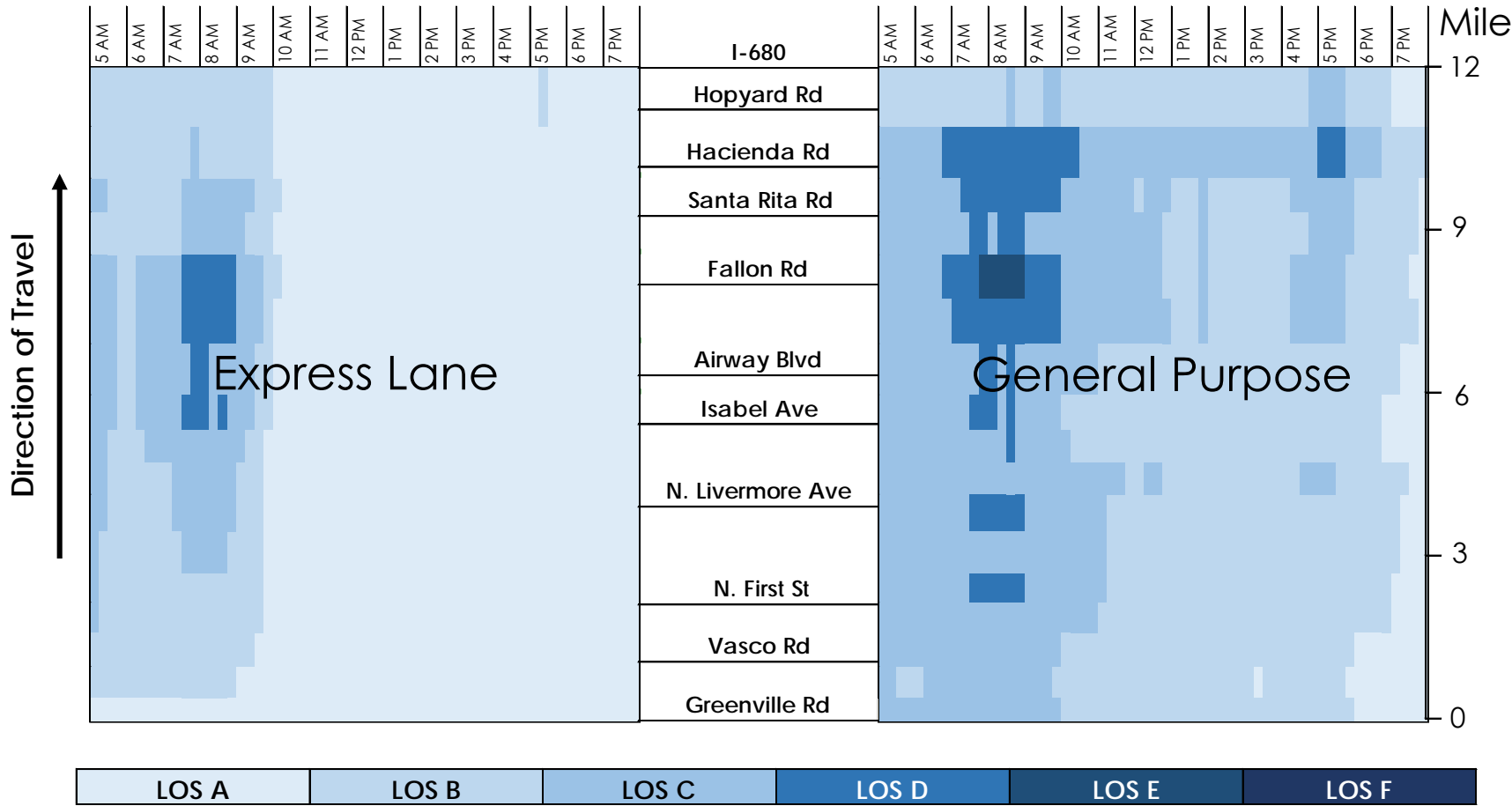
October 2019 – March 6, 2020



Express Lane speeds are generally above 50 mph at all times throughout the corridor, which is comparatively better than general purpose lanes speeds, which average 40 mph during the morning peak near Fallon Road. Average corridor speed differential range from 4-8 mph depending on time of day.

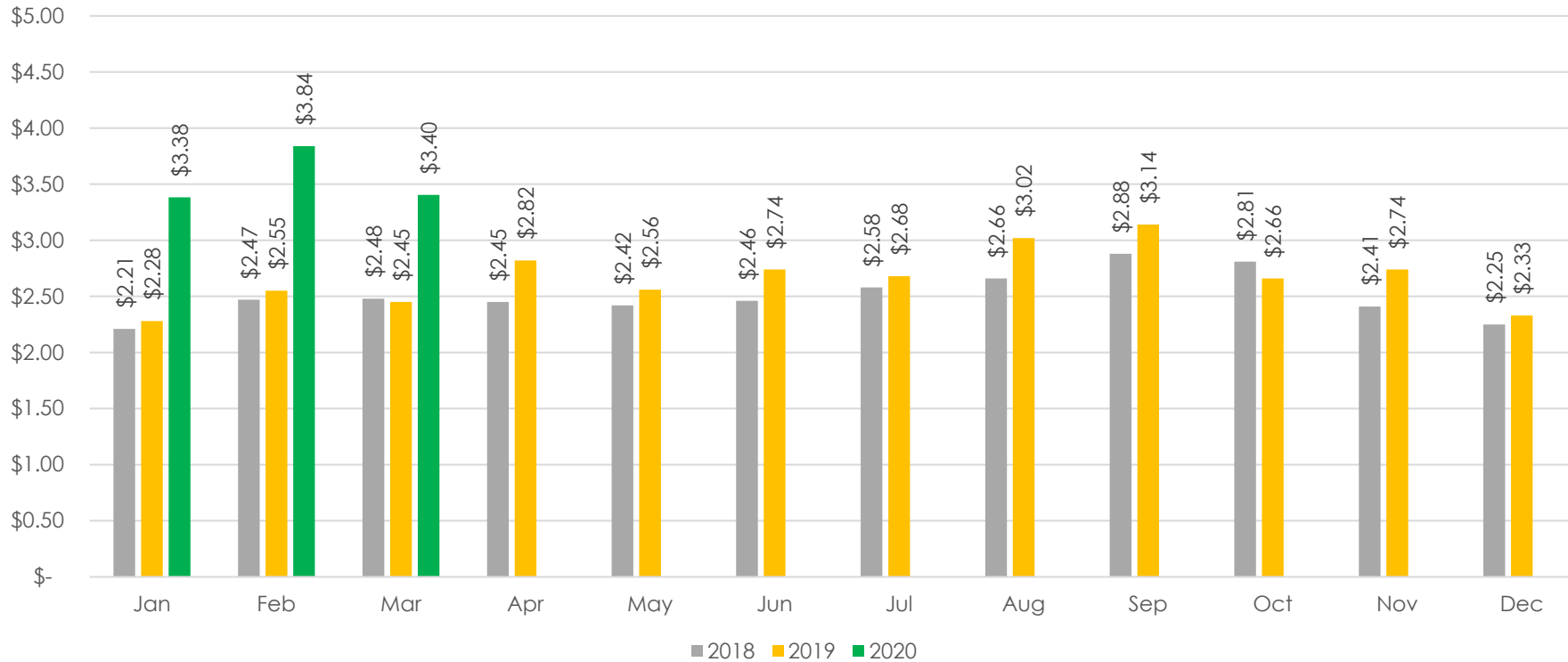
Westbound I-580 Corridor LOS Heat Maps

October 2019 – March 6, 2020



The express lane generally performs at LOS C or better except in the morning peak from Fallon Road to Isabel Ave. Comparatively, the general purpose lanes perform at LOS D for large segments, with some LOS E near Fallon Road.

I-580 Westbound Assessed Toll



Average tolls paid increased between Q3 2019 and Q3 2020, in large part due to biannual dynamic pricing adjustments implemented to maintain express lane traffic flow. While the maximum toll posted during peak times is \$14, only 0.22% of toll payers in Q3 chose to pay that amount. The remaining users paid a lesser toll, and the average assessed toll for all toll-paying users was \$3.57.

FY 19-20 Q3:

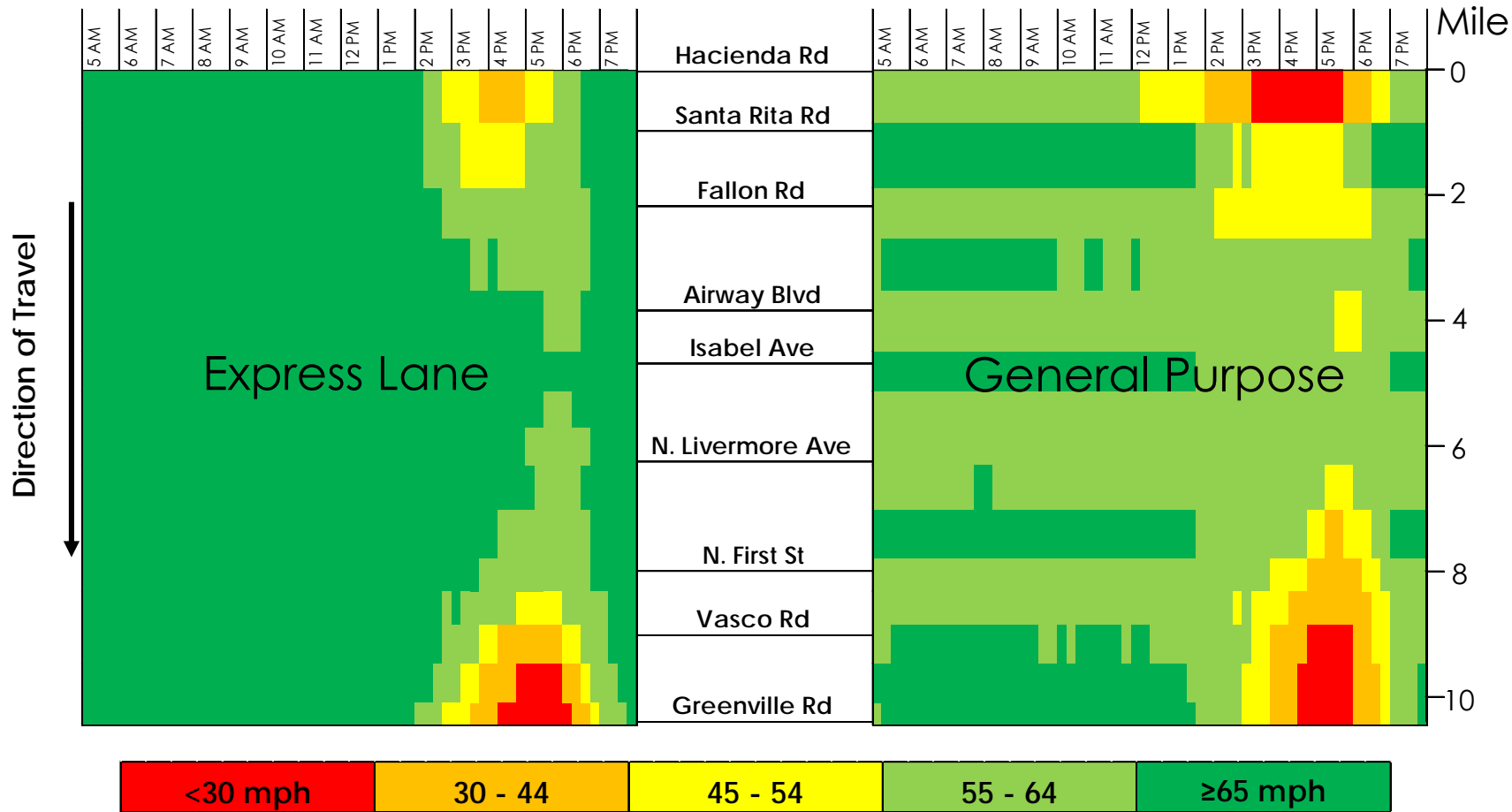
Maximum Posted Toll Rate:
\$14.00
 (10 of 56 days)

Percent paying \$14:
0.22%

Average Assessed Toll:
\$3.57

Eastbound I-580 Corridor Speed Heat Maps

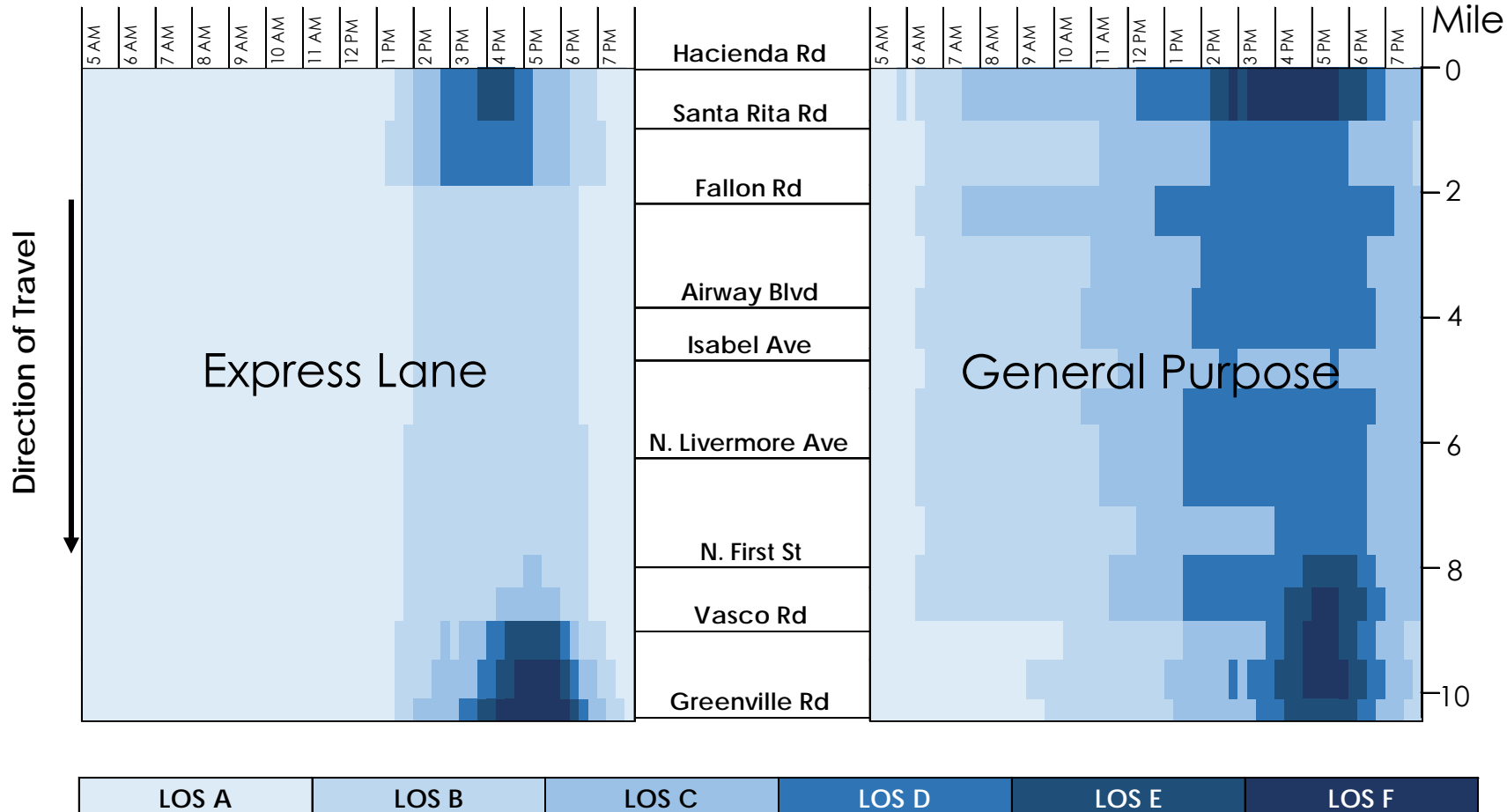
October 2019 – March 6, 2020



Express lanes average 5 – 10 mph faster depending on the time of day. During the evening commute period, general purpose lane speeds are as low as 25 mph at the beginning and end of the corridor. Comparatively, low speeds in the express lanes are experienced for shorter periods of time across smaller segments of the corridor. Low speeds at Greenville Road result from congestion over the Altamont Pass beyond the end of the express lane.

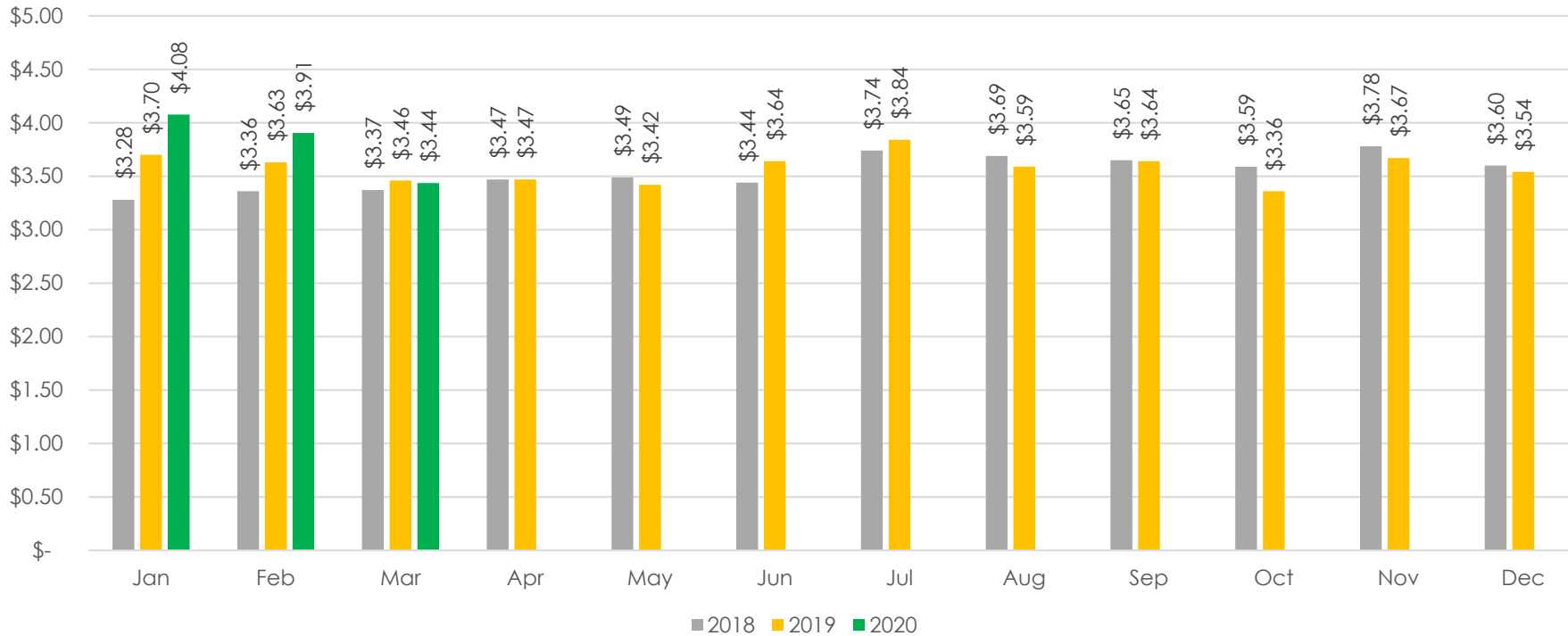
Eastbound I-580 Corridor LOS Heat Maps

October 2019 – March 6, 2020



During the evening commute period, general purpose lanes perform at LOS F at the start and end of the corridor. Comparatively, express lane degradation does not last as long or extend as far as the general purpose lanes.

I-580 Eastbound Assessed Toll



FY 19-20 Q3:

Maximum Posted Toll Rate:

\$13.00
(6 of 56 days)

Percent paying \$13:

0.36%

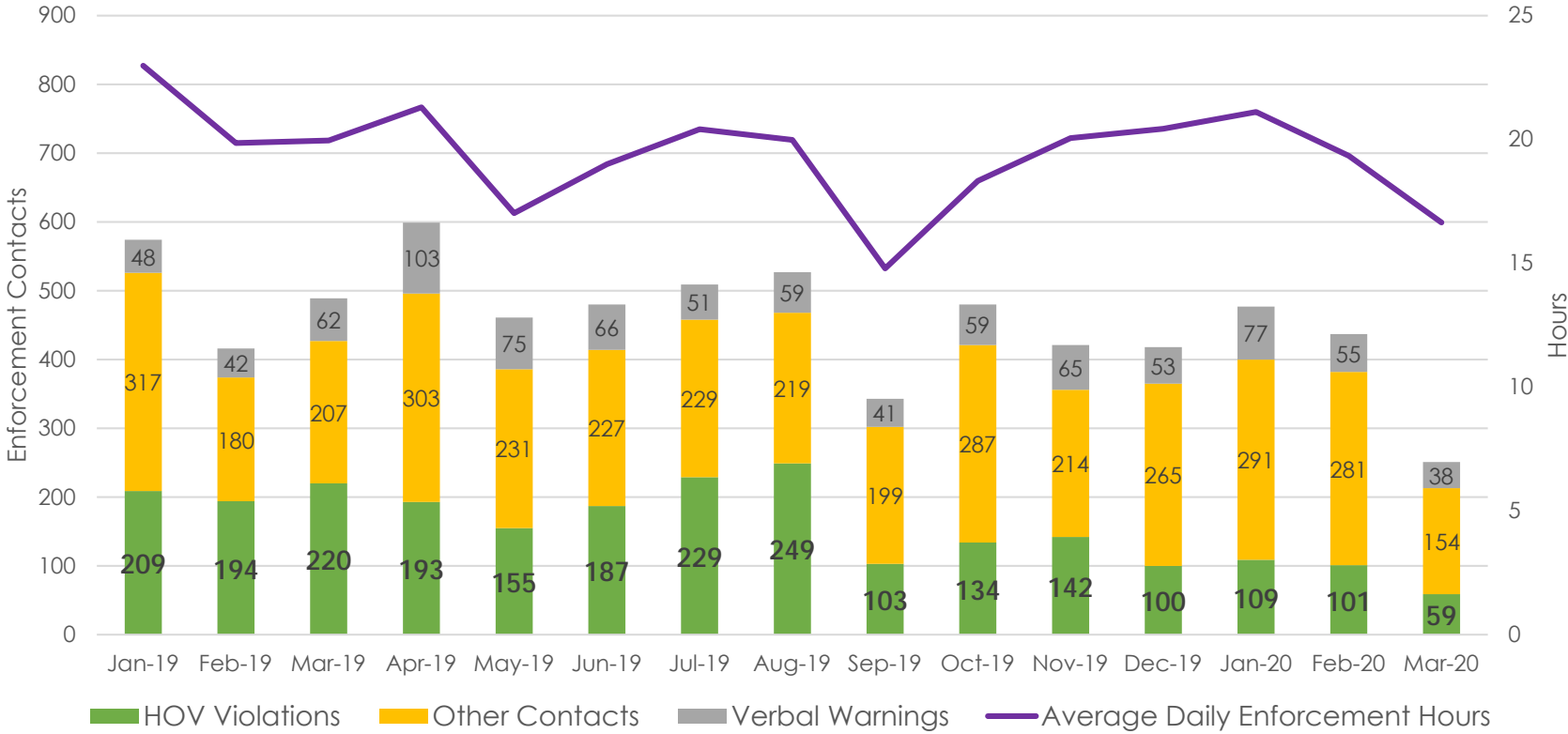
Average Assessed Toll:

\$3.87

Average tolls paid increased between Q3 2019 and Q3 2020, in large part due to biannual dynamic pricing adjustments implemented to maintain express lane traffic flow. While the maximum toll posted during peak times is \$13, only 0.36% of toll payers in Q3 chose to pay that amount. The remaining users paid a lesser toll, and the average assessed toll for all toll-paying users was \$3.87.

I-580 CHP Enforcement

January 2019 – March 2020

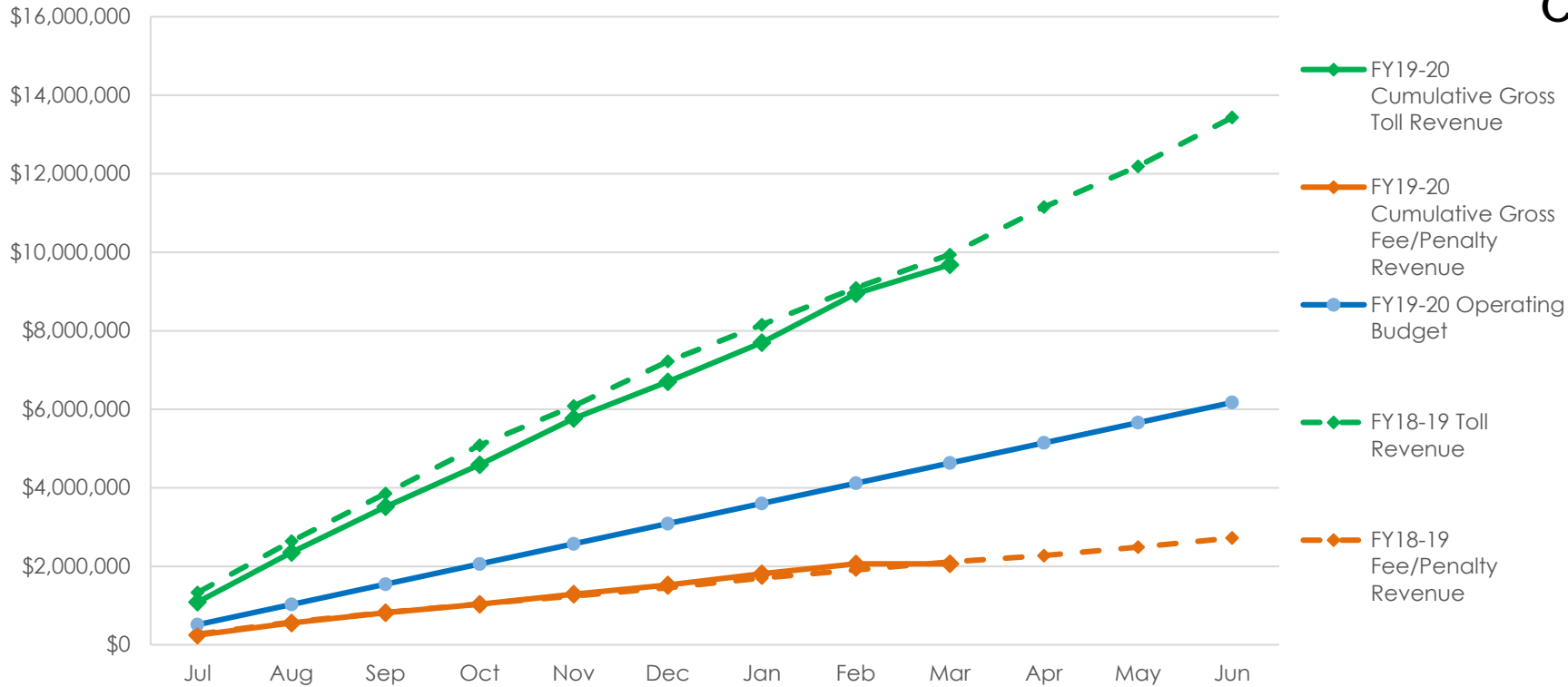


Average monthly cost for CHP in 2019: **\$47,700**

Average cost for a CHP contact in 2019: **\$100**

The California Highway Patrol provides enforcement of the I-580 Sunol Express Lanes. CHP recorded approximately 1,200 enforcement contacts in FY 19-20 Q3, 23 percent of which resulted in toll evasion violations. Enforcement activities were put on hold when tolling operations were suspended due to COVID-19.

I-580 Express Lanes: Financials



Cumulative Revenue in FY2019-20 (July 2019 – March 2020)

Estimated Gross Revenue*

\$9,680,000

*Gross toll revenues do not include revenues from violation fees/penalties.

Forecast Operating Budget

\$4,630,000

The estimated gross revenue generated from the I-580 Express Lanes in Fiscal Year 2019-20 is \$9,680,000 through March 2020, and the forecasted operating budget is \$4,630,000. Reduced revenues received are expected to continue as tolling has been suspended as of 3/20/20.

For more information, visit
www.AlamedaCTC.org/expresslanes

