

Sunol Smart Carpool Lane Joint Powers Authority  
Alameda County Transportation Commission

# I-680 Sunol Southbound Express Lane



# Annual Report

FY2016-17



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<https://www.alamedactc.org/680Express>

## Message from the Chair



September 20, 2017 marked the seven-year anniversary of the first express lane opening in Northern California. Since opening, more than 4.7 million solo drivers have chosen to use the I-680 Sunol Express Lane, reaching their destinations at speeds generally 10-15 mph faster than the general purpose lanes. During fiscal year 2016-17, more than 965,000 vehicles that would have used the general purpose lanes paid a toll to use the express lane, reducing congestion within the corridor while maintaining reliability within the high-occupancy vehicle (HOV) lane.

**"The express lane functions with excellent service levels.**

**Carpoolers, toll-paying solo drivers and general purpose lane users all continue to benefit from the lane."**

— Arthur L. Dao, Executive Director, Alameda CTC



The next step in the evolution of the corridor is the implementation of the I-680 Sunol addition, a new northbound express lane parallel to the existing southbound express lane along the Sunol Grade and conversion of the existing I-680 Sunol southbound express lane to a continuous access system. Construction of these projects is slated to begin in early 2018.

— **Mayor Jerry Thorne,**  
*City of Pleasanton,  
Chair, Sunol Smart Carpool  
Lane Joint Powers Authority*



During the morning commute, motorists in the express lane travel 10-15 mph faster than those traveling in general purpose lanes.

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# The I-680 Sunol Southbound Express Lane

Since it opened in September 2010 as Northern California's first express lane facility, more than 4.7 million solo drivers have chosen to get to their destination faster by using the I-680 Sunol Express Lane. Located on a 14-mile stretch of southbound Interstate 680 from Highway 84 south of Pleasanton to Highway 237 in Milpitas, the express lane was designed to manage growing traffic congestion on I-680 and to provide people with a new commute choice between the East Bay and Silicon Valley. It is governed by the Sunol Smart Carpool Lane Joint Powers Authority (Sunol JPA).



set to 2 or 3+. The California Highway Patrol (CHP) provides toll enforcement to prevent access and toll violations. In fiscal year 2016-17, CHP issued more than 400 citations for HOV violations.

**Access to the carpool lane by toll-paying users is regulated to ensure reliable travel times. In FY2016-17, express lane drivers enjoyed average speeds 10-15 mph faster than speeds in general purpose lanes ...**



The I-680 Sunol Express Lane operates Monday through Friday from 5 a.m. to 8 p.m. The operation is fully electronic, with no tollbooths, so customers do not need to slow down or stop to pay. Solo drivers who want to use the lane need a FasTrak® toll tag (a standard tag or the Flex tag that became available in mid-2015). Each time drivers use the express lane, the toll amount is deducted from their FasTrak account balance. Carpools, motorcycles, transit vehicles and permitted zero- and low-emission vehicles with HOV-eligible stickers may use the express lane for free without a toll tag, with a standard FasTrak stored in its mylar bag or with a FasTrak Flex toll tag

Usage of the toll lane has increased steadily since opening. During FY2016-17, more than 965,000 toll-payers used the express lane, an 18 percent increase over the previous year. Toll rates were dynamically priced based on real-time traffic conditions in the corridor. Assessed tolls averaged \$2.21 per trip. An estimated 25 percent of all express lane users this year were toll-paying. Access to the lane by toll-paying users is regulated to ensure reliable travel times for carpool lane users; express lane drivers enjoyed average speeds 10-15 mph faster than speeds in general purpose lanes in the most congested segment of the corridor, during the morning commute.

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## Express Lane Performance

The express lane corridor has seen increased traffic in all lanes over the past several years. In FY2016-17, as compared to FY2015-16, the average daily volume increases for both the express and general purpose lanes were approximately 14 percent.

Even with annual increases in usage, the express lane continues to function with excellent service levels. This is due, in part, to the dynamic pricing which helps keep congestion in the express lane at a manageable level. Moreover, general purpose lane users continue to benefit from having over 4 percent of traffic that would otherwise be in the general purpose lanes use the express lanes as toll-paying solo drivers. Overall, approximately 14 percent of the total volume in the corridor used the express lane.

Figures 1-4 that start on the next page help to answer key questions relating to the existing I-680 Sunol Southbound Express Lane:

- **What benefits does the express lane provide?**
- **Where are corridor users going?**
- **How much does it cost to use the express lane?**



**The I-680 Sunol Express Lane is part of the major commute route connecting the Tri-Valley Area (Dublin, Livermore and Pleasanton) with South Bay cities and Silicon Valley businesses.**

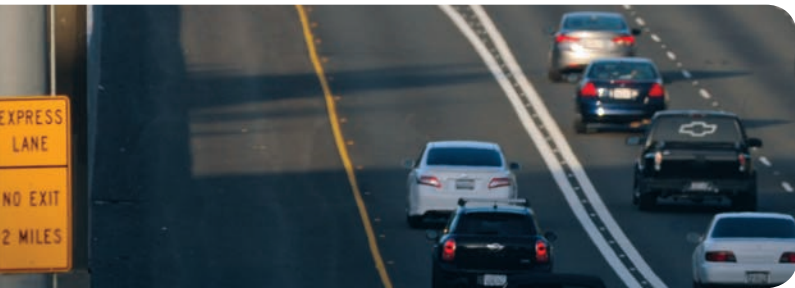


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**Figure 1**  
**Heat Maps - Monitoring the Corridor**

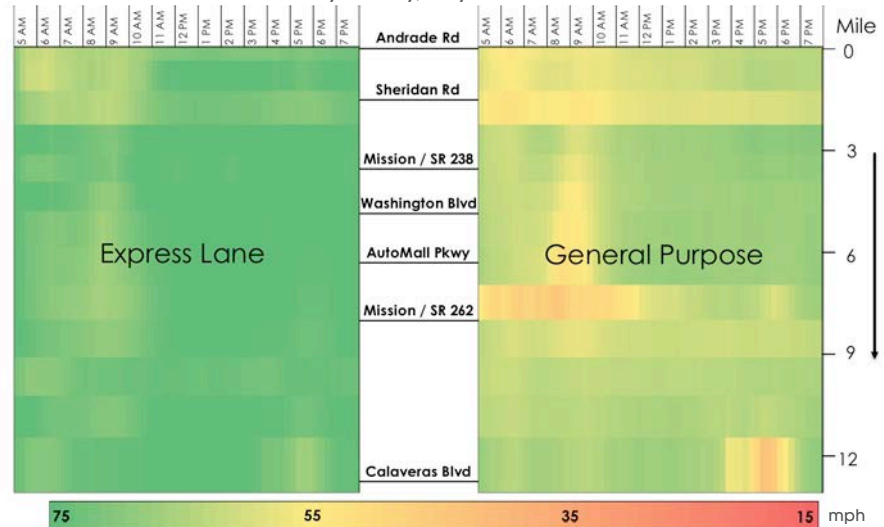
These heat maps are graphical representations of the overall condition of the corridor, showing the average speeds and level of service (LOS) along the express lane corridor and throughout the day for both the express and general purpose lanes. These maps show the benefits that express lane users experience. The scale bar at the bottom indicates the meaning of the color variations in the map. LOS is a measure of freeway performance based on vehicle maneuverability and driver comfort levels, graded on a scale of A (best) through F (worst).



Average speeds in the express lane ranged from 55 to 70 mph during the morning commute hours (5 a.m. to 11 a.m.) with lower speeds occurring in the vicinity of Sheridan Road and Auto Mall Parkway; average speeds throughout the rest of the day exceeded 70 mph. The express lane operated at LOS C or better at all times, with LOS C occurring in the peak hour in between Washington Boulevard and Auto Mall Parkway. By comparison, the general purpose lanes experienced average speeds as low as 40 mph and LOS D for much longer periods of time and throughout a greater portion of the corridor.

**I-680 Sunol Average Speed Heat Map**

Monday-Friday, July 2016-June 2017



**I-680 Sunol Average Density Heat Map**

Monday-Friday, July 2016-June 2017

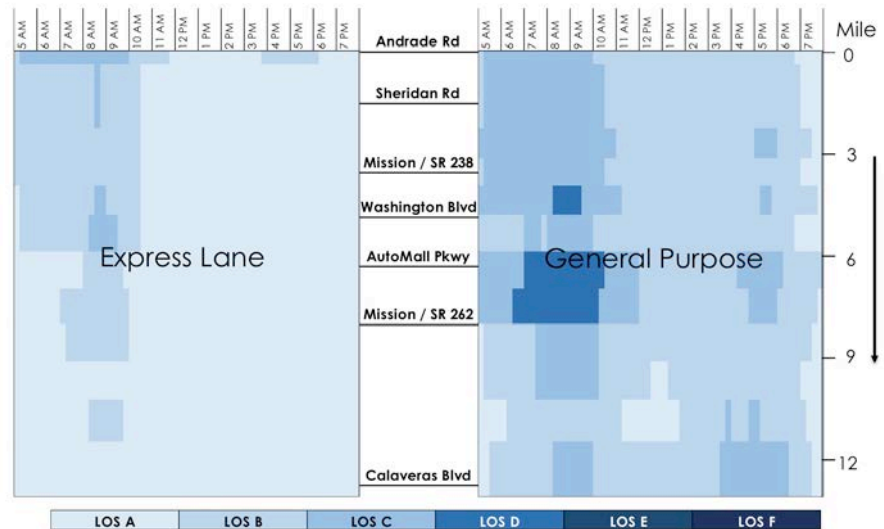


Figure 2

### Speed Differentials – Express Lane Benefits

During the morning commute period (5-11 a.m.), motorists in the express lane traveled 10-15 mph faster than those traveling in general purpose lanes. The average morning peak speed differential was the greatest in the central segment, which is typically the most congested portion of the corridor.

Segment	Avg Speed Differential (mph)
North	9
Central	14
South	10

### I-680 Sunol Corridor

Monday–Friday, FY2016-17  
5 a.m. to 11 a.m.



Figure 3

### Destination Chart – Evaluating Express Lane Usage

Approximately 41 percent of toll users within the corridor travel the entire length from Andrade Road to Calaveras Boulevard, and 68 percent originate at the first entrance, Andrade Road. Almost 93 percent travel the segment between Washington Boulevard and Mission Boulevard, and generally most congested, segment within the corridor.

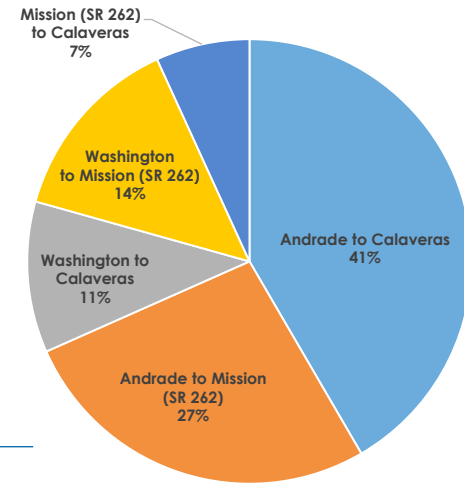
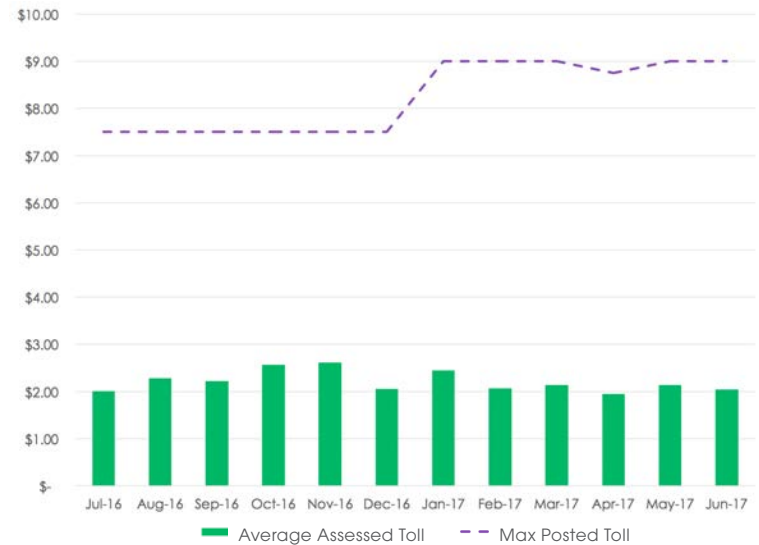


Figure 4

### Toll Rates – Keeping Express Lanes Flowing

In 2016, toll rates ranged from \$0.30 minimum to a set maximum value of \$7.50. In January 2017, the minimum and maximum tolls increased for the first time since opening in 2010, to range from \$0.50 to \$9.00. During FY2016-17, the average peak-period (5-11 a.m.) posted toll rate to travel the entire corridor was \$3.24, and to travel just the central segment from Washington Boulevard to Mission Boulevard (SR 262) was \$1.41.

The average assessed toll for all tolled trips in FY2016-17 ranged from \$1.94 to \$2.61, depending on the month.



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## Financial Information, FY 2016-17

When the Sunol JPA was formed in 2010, it agreed to reinvest the net revenues derived from the express lanes directly back into the project corridor. Toll revenues are used to first pay for operating and maintaining the I-680 Express Lane, and then to fund additional transit and transportation projects in the corridor, such as the new express lane project on northbound I-680 that will break ground in early 2018.

- Total net position increased by \$0.15 million or 3.4 percent from \$4.54 million to \$4.70 million as of June 30, 2017, as compared to June 30, 2016. This increase is mostly due to a decrease in liabilities related to an accrual for project management services. Capital assets, net of accumulated depreciation, comprised \$1.59 million or 33.7 percent of the total net position at June 30, 2017.
- For the year ended June 30, 2017, cash and cash equivalents increased by \$0.03 million or 1.0 percent from \$3.40 million to \$3.43 million. This increase is mostly related to toll revenue collections which were slightly more than operating expenses paid during the fiscal year.
- Operating revenue was \$2.08 million during fiscal year 2017, a negligible decrease of \$0.08 million or 3.7 percent from fiscal year 2016.

- The Sunol JPA's total operating expenses including depreciation were \$1.94 million during fiscal year 2017, an increase of \$0.07 million or 3.5 percent from fiscal year 2016. This is a nominal increase in operating expenses over the prior fiscal year. Operating expenses of \$1.72 million for fiscal year 2017 were primarily comprised of program operations and maintenance costs.

**Toll revenues are used to first pay for operating and maintaining the I-680 Express Lane, and then to fund additional transit and transportation projects in the corridor, such as the new express lane project on northbound I-680 that will break ground in early 2018.**



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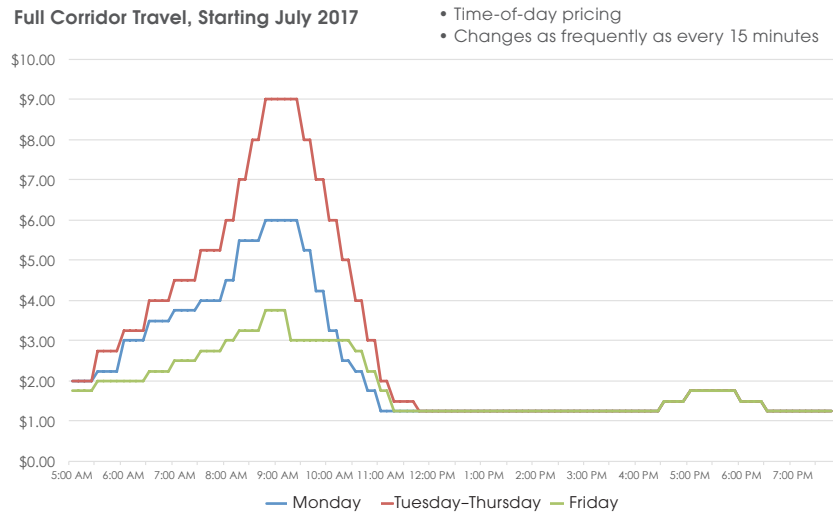
# Coming Soon: I-680 Sunol Northbound Express Lane

The I-680 Sunol Express Lane is part of the growing San Francisco Bay Area Express Lanes Network. On completion in 2035, the Bay Area will have 550 miles of express lanes operated by the Metropolitan Transportation Commission, Santa Clara Valley Transportation Authority (VTA) and Alameda CTC. These agencies, as well as the Contra Costa Transportation Authority and the Solano Transportation Authority, are working together to convert existing carpool lanes into express lanes and to close gaps in the carpool network.



Construction of the Sunol JPA's northbound I-680 Sunol Express Lane from Mission Boulevard (SR 262) to Vallecitos Road (SR 84) began in early 2018. The existing southbound lane will concurrently be converted from a restricted access to a continuous access facility, allowing for more users to take advantage of express lane benefits. The new northbound and converted southbound express lanes will open to traffic in 2020. While the I-680 Northbound Express Lane is under construction, the existing I-680 Southbound lane is expected to remain in operation, but some lane shifts will be required. In anticipation of upcoming construction impacts, the existing southbound express lane deployed static time-of-day pricing in July 2017 and will do so until the new express lane goes live. The scheduled toll rates to travel the entire length of the express lane are shown in Figure 5 below.

Figure 5: I-680 Sunol Express Lane Static Toll Rate



## Sunol Smart Carpool Lane Joint Powers Authority

The Sunol Smart Carpool Lane Joint Powers Authority is an independent joint powers authority created to operate the I-680 Express Lane. Its board of directors consists of five elected officials, four voting members from Alameda County and one voting member from Santa Clara County. Voting rights were determined based on each county's share of road miles within the corridor (approximately one-fifth of corridor miles are within Santa Clara County).

The Sunol JPA meets monthly, and meetings are open to the public. Meeting agendas and minutes are posted on the Alameda CTC website at <http://www.alamedactc.org/events/upcoming/>

### Partnerships

The Alameda County Transportation Commission, the California Department of Transportation and the California Highway Patrol provide services to the Sunol JPA contractually. For toll collection, the Sunol JPA has an agreement with the Bay Area Toll Authority to use its FasTrak® electronic toll-collection system.

### More Information

For more information about the I-680 Express Lane and future express lane projects, visit <http://www.alamedactc.org/ExpressLanes>.

Visit [www.bayareaexpresslanes.org](http://www.bayareaexpresslanes.org) for more information about the envisioned regionwide express lane network.

## Sunol JPA Members

**Chair:** Jerry Thorne, City of Pleasanton Mayor,  
Alameda CTC Commissioner

**Vice Chair:** Lily Mei, City of Fremont Mayor,  
Alameda CTC Commissioner

**Members:** Lan Diep, San Jose City Councilmember,  
VTA Board Member

Scott Haggerty, Alameda County Supervisor, District 1,  
Alameda CTC Commissioner

David Haubert, City of Dublin Mayor,  
Alameda CTC Commissioner

**Staff Liaison:** Arthur L. Dao, Alameda CTC Executive Director  
Liz Rutman, Alameda CTC Director of Express Lanes  
Implementation and Operations

**Website:** [www.alamedactc.org/680Express](http://www.alamedactc.org/680Express)

**Facebook:** [www.facebook.com/AlamedaCountyExpressLanes](http://www.facebook.com/AlamedaCountyExpressLanes)

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