I-680 Sunol Smart Carpool Lane Joint Powers Authority

Monday, March 13, 2017, 9:30 a.m.

Location: 1111 Broadway, Suite 800
Oakland, CA 94607

Teleconference Location: San Jose City Hall, T-1854 (Tower Side)
200 East Santa Clara St., 18th Floor
San Jose, CA 95113

Mission Statement
The mission of the Alameda County Transportation Commission (Alameda CTC) is to plan, fund, and deliver transportation programs and projects that expand access and improve mobility to foster a vibrant and livable Alameda County.

Public Comments
Public comments are limited to 3 minutes. Items not on the agenda are covered during the Public Comment section of the meeting, and items specific to an agenda item are covered during that agenda item discussion. If you wish to make a comment, fill out a speaker card, hand it to the clerk of the Commission, and wait until the chair calls your name. When you are summoned, come to the microphone and give your name and comment.

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Reminder
Please turn off your cell phones during the meeting. Please do not wear scented products so individuals with environmental sensitivities may attend the meeting.

Glossary of Acronyms
A glossary that includes frequently used acronyms is available on the Alameda CTC website at www.AlamedaCTC.org/app_pages/view/8081.
Location Map

Alameda CTC
1111 Broadway, Suite 800
Oakland, CA 94607

Alameda CTC is accessible by multiple transportation modes. The office is conveniently located near the 12th Street/City Center BART station and many AC Transit bus lines. Bicycle parking is available on the street and in the BART station as well as in electronic lockers at 14th Street and Broadway near Frank Ogawa Plaza (requires purchase of key card from bikelink.org).

Garage parking is located beneath City Center, accessible via entrances on 14th Street between 1300 Clay Street and 505 14th Street buildings, or via 11th Street just past Clay Street.
To plan your trip to Alameda CTC visit www.511.org.

Accessibility
Public meetings at Alameda CTC are wheelchair accessible under the Americans with Disabilities Act. Guide and assistance dogs are welcome. Call 510-893-3347 (Voice) or 510-834-6754 (TTD) five days in advance to request a sign-language interpreter.

Meeting Schedule
The Alameda CTC meeting calendar lists all public meetings and is available at www.AlamedaCTC.org/events/upcoming/now.

Paperless Policy
On March 28, 2013, the Alameda CTC Commission approved the implementation of paperless meeting packet distribution. Hard copies are available by request only. Agendas and all accompanying staff reports are available electronically on the Alameda CTC website at www.AlamedaCTC.org/events/month/now.

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I-680 Sunol Smart Carpool Lane Joint Powers Authority Meeting Agenda Monday, March 13, 2017, 9:30 a.m.

1. Pledge of Allegiance

2. Roll Call

3. Public Comment

4. Consent Calendar

   4.1. Approve the February 13, 2017 I-680 Sunol Smart Carpool Lane Joint Powers Authority (JPA) meeting minutes. 1 A
   4.2. I-680 Southbound Sunol Express Lane FY2015-16 Annual Report. 5 I

5. Regular Matters

   5.1. Status update on the operation of the I-680 Southbound Express Lane. 7 I
   5.2. Monthly status update of the I-680 Northbound Express Lane Project. 15 I

6. Committee Member Reports

7. Staff Reports

8. Adjournment

Next Meeting: April 10, 2017

All items on the agenda are subject to action and/or change by the Committee.
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1. **Pledge of Allegiance**

2. **Roll Call**
   A roll call was conducted. All members were present with the exception of Commissioner Diep.

3. **Public Comment**
   There were no public comments.

4. **Election of Chair and Vice Chair**
   4.1. **Approve the election of the Commission Chair and Vice Chair of the Sunol Smart Carpool Lane Joint Powers Authority.**
   Art Dao stated that the I-680 Sunol Smart Carpool Lane Joint Powers Authority is independent of the Alameda CTC Commission and was created in 2004 by AB 2032. He noted that the Authority elects a Chair and Vice Chair annually.

   Commissioner Haggerty moved to nominate Mayor Jerry Thorne as Chair and Mayor Lily Mei as Vice Chair. Commissioner Haubert seconded the motion. The motion passed with the following votes:

   Yes: Thorne, Haggerty, Haubert, Mei
   No: None
   Abstain: None
   Absent: Diep

5. **Consent Calendar**
   5.1. **Approve the January 9, 2017 I-680 Sunol Smart Carpool Lane Joint Powers meeting minutes.**
   Commissioner Haggerty moved to approve the Consent Calendar. Commissioner Haubert seconded the motion. The motion passed with the following votes:

   Yes: Thorne, Haggerty, Haubert, Mei
   No: None
   Abstain: None
   Absent: Diep

6. **Regular Matters**
   6.1. **Approve the Sunol Smart Carpool Lane Statement of Revenues and Expenses as of December 31, 2016**
   Patricia Reavey recommended that the Authority approve the Statement of Revenues and Expenses through December 31, 2016. She stated that the Authority is in a positive position compared to budget after the second quarter of the fiscal year and remains sustainable. Patricia stated that the net toll revenue was $1,059,503 or
0.9 percent higher than the projected. Expenses totaled $882,842 or 15.9 percent less than budget resulting in an increase to the net position of $180,784. Patricia stated that as of December 31, 2016, the Sunol Smart Carpool Lane had cash and investments totaling $3,246,280. The approved budget for the year was $2.1 million and was the same for expenditures, resulting in no change projected to the net position.

Commissioner Haggerty asked what the Sunol Smart Carpool Lane costs were each quarter. Patricia responded that the costs are approximately $450,000 per quarter, which is half of the year-to-date expenses and covers operations and toll equipment maintenance. Art Dao stated that longer and intermediate term capital replacement and pavement enhancements are not included in the $450,000.

Commissioner Haggerty moved to approve this item. Commissioner Mei seconded the motion. The motion passed with the following votes:

Yes: Thorne, Haggerty, Haubert, Mei
No: None
Abstain: None
Absent: Diep

Elizabeth Rutman provided an update on the operation of the I-680 Southbound Express Lane as of December 2016. She covered the number of toll trips, roadway segment speeds and corridor performance information such as the average lane density, travel speeds, toll rates during operational hours, corridor heat maps and estimated versus forecasted revenue for FY2016-17.

Supervisor Haggerty wanted more information on the early ramp activation times in Fremont. Commissioner Mei stated that city staff is monitoring the ramp activation and is in touch with Caltrans to make adjustments.

This item was for information only.

Trinity Nguyen presented a monthly status update on the I-680 Northbound Express Lane project. She covered project implementation and reviewed key achievements as well as anticipated activities over the next three months.

Commissioner Haggerty asked if Alameda CTC has given any thought to providing a bonus for a contractor to complete construction early. Trinity responded that there are provisions that could be used to provide incentives, as well as disincentives. Liquidated damages are currently being used in the System Integrator contract as a means to keep the contractor on schedule. Staff will bring back information on the possibility of incentives for the Civil Construction contract.

Commissioner Thorne asked if there are any new developments for the I-680 to SR 84 North. Art Dao stated that generally there have been no new developments. There is some funding in the expenditure plan for the segment on I-680 from SR 84 to Alcosta...
Blvd.; however, not enough to ensure the construction of the project. Art stated that the project that is going forward is SR 84 between Pigeon Pass and I-680 along with the SR 84/I-680 interchange. The project is currently in the environmental phase and in about 18 months would be in a position to start design. The estimated cost is $240 million, of which we have identified $160 million. The remaining $80 million we will be looking at the regional/state/federal level to close the funding gap.

This item was for information only.

7. Committee Member Report
   There were no committee member reports.

8. Staff Reports
   There were no staff reports.

8. Adjournment/ Next Meeting
   The next meeting is:

   Date/Time:   Monday, March 13, 2017 at 9:30a.m.
   Location:   Alameda CTC Offices, 1111 Broadway, Suite 800, Oakland, CA  94607

Attested by:

Vanessá Lee,
Clerk of the Commission
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DATE: March 6, 2017

SUBJECT: The I-680 Southbound Sunol Express Lane FY2015-16 Annual Report


Summary

Staff provides the Sunol Smart Carpool Lane Joint Powers Authority (JPA) Board the attached I-680 Southbound Sunol Express Lane FY2015-16 Annual Report, which includes key project and lane information and milestones, corridor usage and toll rates data and financial information.

Background

This sixth annual report is responsive to the JPA Administrative Code requirement that the managing agency shall prepare or oversee the preparation of an annual report to the governing board and the member agencies.

Fiscal Impact: There is no fiscal impact.

Attachments

A. I-680 Southbound Sunol Express Lane FY2015-16 Annual Report (hyperlinked to web)

Staff Contact

Liz Rutman, Operations Manager
DATE: March 6, 2017

SUBJECT: I-680 Southbound Express Lane (PN 1408.000): Monthly Operations Update

RECOMMENDATION: Receive a status update on the operation of the I-680 Southbound Express Lane

Summary

The purpose of this item is to provide the I-680 Sunol Smart Carpool Lane Joint Powers Authority (“Sunol JPA”) with a Monthly Operation Update of the existing I-680 Southbound Express Lane facility for January 2017. See Attachment A for express lane operation limits.

The January 2017 operations report indicates that the express lane facility continues to provide travel time savings and travel reliability along the corridor. Express lane users experienced average speeds up to 14 mph higher than the average for general purposes lanes, as well as lesser average lane densities than the general purpose lanes during the morning commute hours in the most congested segment of the corridor.

Background

The I-680 Sunol Southbound Express Lane spans approximately 14 miles from SR 84 near Pleasanton to SR 237 in the City of Milpitas. See Attachment A for express lane operation limits. Motorists using the express lane benefit from travel time savings and travel reliability as the express lane optimizes the corridor capacity by providing a new choice to drivers. Single occupancy vehicles (SOVs) have the option to pay a toll and travel within the express lane, while carpool, clean-air vehicles, motorcycles, and transit vehicles enjoy the benefits of toll-free travel in the express lane. The Alameda CTC, acting as the managing agency for the Sunol JPA, has been operating the express lane facility since it opened to traffic in September 2010.

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 purposes lanes. California Highway Patrol (CHP) officers provide enforcement services and the California Department of Transportation (Caltrans) provides roadway maintenance services through reimbursable service agreements.
January 2017 Operations Update: Over 75,000 express lane toll trips with FasTrak® toll tags were recorded during operational hours in January. Along with the HOV-eligible users, these express lane users generally experience higher speeds and lesser lane densities than the general purpose lanes. Lane density is measured by the number of vehicles per mile per lane and reported as Level of Service (LOS). 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).

Table 1 summarizes the speed differentials and LOS at three segments during the morning commute hours in January.

<table>
<thead>
<tr>
<th>Express Lane Segment</th>
<th>Speed Differential Range (mph)</th>
<th>Average Speed Differential (mph)</th>
<th>Average Express Lane LOS</th>
<th>Average General Purpose Lane LOS</th>
</tr>
</thead>
<tbody>
<tr>
<td>North (Andrade Rd to Washington Blvd)</td>
<td>8 – 13</td>
<td>11</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>Central (Washington Blvd to SR 262)</td>
<td>9 – 14</td>
<td>11</td>
<td>B</td>
<td>C</td>
</tr>
<tr>
<td>South (SR 262 to Calaveras Rd)</td>
<td>8 – 10</td>
<td>10</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

Attachment B presents the speed and density heat maps for the I-680 corridor during operational hours for the six-month period from August – January 2017. These heat maps are a graphical representation of the overall condition of the corridor, showing the average speeds and densities along the express lane corridor and throughout the day for both the express and general purpose lanes. From August through January, the average speeds in the express lane ranged from 60 to 70 mph during the morning commute hours (5 am to 11 am) 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 during the morning commute hours between Andrade Road and Sheridan Road, and for a short period of time between SR 238 and AutoMall Parkway. By comparison, the general purpose lanes experienced average speeds as low as 40 mph and LOS D for much longer periods of time throughout a greater portion of the corridor.

Table 2 presents the maximum posted toll rates to travel the entire southbound express lane corridor and the average toll assessed to non-HOV users. Toll rates are dynamically adjusted based on congestion in the corridor; higher toll rates are typically observed during mid-week commute hours; lower rates are typically observed on Fridays.
Table 2. Toll Rate Data for January 2017

<table>
<thead>
<tr>
<th>Month</th>
<th>Maximum Posted Toll (Travel Entire Corridor)</th>
<th>Average Assessed Toll (All Trips)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>$9.00</td>
<td>$2.45</td>
</tr>
</tbody>
</table>

The forecasted revenue is approximately 10 percent higher than the average of the three prior years of operations. The estimated gross revenue generated from the I-680 express lanes in fiscal year 2016/17 is $1.29 million, which is 10 percent higher than was forecasted.

**Fiscal Impact:** There is no fiscal impact.

**Attachments**

A. I-680 Southbound Express Lane Location Map

**Staff Contact**

Liz Rutman, Express Lanes Operations and Maintenance Manager
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Average Speed Heat Map
Monday-Friday, August 2016 – January 2017

Express Lane

General Purpose

Andrade Rd
Sheridan Rd
Mission / SR 238
Washington Blvd
AutoMall Pkwy
Mission / SR 262
Calaveras Blvd

5 AM 6 AM 7 AM 8 AM 9 AM 10 AM 11 AM 12 PM 1 PM 2 PM 3 PM 4 PM 5 PM 6 PM 7 PM

Mile

0 3 6 9 12

Average Speed Heat Map

I-680 Sunol SMART Carpool Lane Joint Powers Authority | March 2017 Status Update
Average Density Heat Map
Monday-Friday, August 2016 – January 2017

I-680 Sunol SMART Carpool Lane Joint Powers Authority | March 2017 Status Update
DATE: March 6, 2017

SUBJECT: I-680 Northbound Express Lane (PN 1369.000): Monthly Status Update

RECOMMENDATION: Monthly status update of the I-680 Northbound Express Lane project.

Summary
The I-680 Northbound Express Lane project will widen I-680 from SR 237 in Santa Clara County to SR 84 in Alameda County and construct a 14-mile long northbound High Occupancy Vehicle (HOV)/Express Lane in the corridor. The project will be implemented with a phased approach focused on providing immediate operational benefits within current projected funding availability. The I-680 Northbound Express Lane - Phase 1 (Phase 1) project, will provide an initial 9-mile HOV/Express Lane segment on northbound I-680 between south of Auto Mall Parkway and SR 84. The purpose of this item is to provide the Commission with a monthly status update on the project development and implementation activities which are either completed or planned for the Phase 1 project.

Background
The I-680 Northbound Express Lane project will widen I-680 from SR 237 in Santa Clara County to SR 84 in Alameda County to construct a 14-mile long northbound HOV/Express Lane in the corridor. The project will provide a number of benefits including: 1) enhanced mobility by reducing traffic congestion; 2) reduced travel time and improved travel reliability; and 3) reduced congestion related accidents, thereby enhancing safety. The Express Lane facility will maximize available HOV lane capacity by offering solo drivers the choice to pay an electronic toll to access the lane, while regular carpool/carpool eligible users continue to use the lane at no cost.

Currently, there is heavy afternoon congestion on I-680 Northbound from Scotts Creek Boulevard to Andrade Road. Traffic studies have confirmed that it is caused by two bottleneck locations affecting northbound I-680 between SR 237 and SR 84 during weekday evening commutes between 2pm and 7pm. The bottlenecks occur near Washington Boulevard and at the lane drop at the truck scales (located between Sheridan Road and Andrade Road). The Phase 1 project will provide an initial 9-mile segment of new HOV/Express Lane from south of Auto Mall Parkway to SR 84 to eliminate the bottlenecks and alleviate much of the daily traffic congestion.
The Project Approval and Environmental Document (PA&ED) for the overall project was completed in July 2015. In December 2015, WMH Corporation was selected to prepare the civil design. In June 2016, Kapsch TrafficCom Transportation NA, Inc. was selected to provide Toll System Integration Services. The following is a detailed discussion of work in progress and/or upcoming major tasks.

**Project Implementation Approach**

Alameda CTC, in partnership with Caltrans, is the implementing agency for preliminary engineering, environmental studies, design, right-of-way acquisition, and utility relocation. For the construction phase, Alameda CTC is the project sponsor and Caltrans is the implementing agency that will administer the construction of the Phase 1 project.

The approved Environmental Document and Project Report (PA&ED documents) included studies and analysis for construction of both the full project limits (SR 237 to SR 84) and an initial segment (south of Auto Mall Parkway to SR 84). The initial segment (Phase 1 project) is focused on providing immediate operational benefits within currently available funding. During development of the Phase 1 project, staff identified and implemented several geometric refinements to reduce costs and minimize environmental impacts.

To provide consistency in the tolling access configuration between I-680 northbound (NB) and southbound (SB) express lanes, the existing SB controlled access tolling configuration is being converted to an open access configuration. The I-680 SB tolling access conversion work is being incorporated into the Phase 1 project. In the interest of expediting important improvements for the public, Alameda CTC and Caltrans have agreed to incorporate a pavement rehabilitation project into the Phase 1 project.

**Project activities anticipated over the next three months:**

- Continue to finalize configuration of tolling facility (on-going)
- Continue preliminary toll system design and coordinate with civil design for construction staging/sequencing (on-going)
- Continue negotiations with the property owners for right of way acquisition needed for the project (on-going)
- Continue environmental permit approval process (on-going)
- Continue to coordinate with PG&E, AT&T and Comcast regarding power and communication service connection needs (on-going)
- Continue to seek an off-site planting site for riparian trees (on-going)
- Prepare and submit 100% Plans, Specification & Estimate (PS&E) package to Caltrans (March 2017)
- Conduct Caltrans reviews of 100% PS&E submittals (March 2017)
- Complete the species mitigation agreement with the Ohlone West Conservation Bank (March 2017)
- Contractor’s Outreach (March/April 2017)
- Execute cooperative agreement with Caltrans for construction phase (April 2017)
- Work with the Consultant design team and Caltrans to achieve Ready to List (RTL) milestone (April 2017)
• Initiate advanced tree removal contract (May 2017)
• Complete final design (May 2017)

The Phase 1 schedule is as follows:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Final Design (PS&amp;E)</td>
<td>May 2017</td>
</tr>
<tr>
<td>Construction contract advertisement</td>
<td>June 2017</td>
</tr>
<tr>
<td>Construction</td>
<td>late 2017 - late 2019</td>
</tr>
<tr>
<td>Toll System Installation</td>
<td>mid 2019 - late 2019</td>
</tr>
<tr>
<td>Testing</td>
<td>late 2019/early 2020</td>
</tr>
<tr>
<td>Lane opening</td>
<td>late 2019/early 2020</td>
</tr>
</tbody>
</table>

**Fiscal Impact:** There is no fiscal impact.

**Staff Contact**

Trinity Nguyen, Director of Project Delivery
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