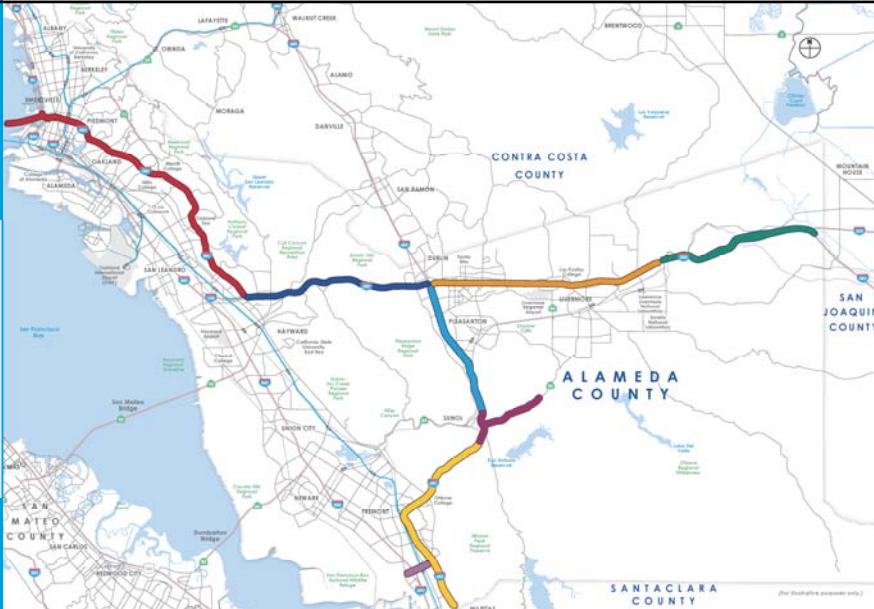


ALAMEDA COUNTY TRANSPORTATION COMMISSION

Work Program for the I-580 and I-680 Corridors



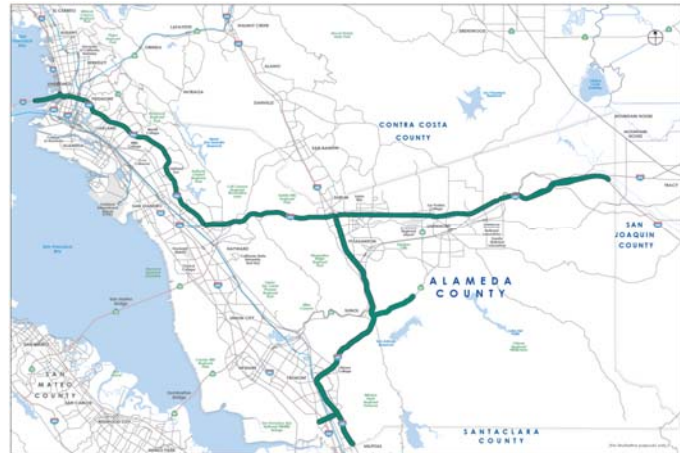
Planning, Policy, and Legislation Committee
September 10, 2018

Overview

- Background
- Corridor Work Program
- Next Steps
- Recommendations

Importance of I-580 and I-680 Corridors

- Major interregional commute and freight corridors
- Express lane corridors
- Increasing corridor demand



Growing Demand on I-580 and I-680

- San Francisco and Silicon Valley employment growth
 - Employment increased by 25 percent between 2010 and 2017 (with peak increase between 2011 and 2015)
- Tri-Valley growth
 - Since 2006, Tri-Valley population and jobs have been growing at a rate faster than the rest of the Bay Area
 - 23 percent of workers commute to San Francisco or the Silicon Valley
- San Joaquin Valley commuter statistics
 - 27.4 percent growth in commuters from San Joaquin Valley since 2013
 - 82,723 commuted from San Joaquin Valley in 2016

Source: Bay Area Council Economic Institute: Tri-Valley Rising 2018 Report



Summary of Current I-580 and I-680 Projects and Studies

- I-580
 - I-580 Design Alternative Assessment
 - I-580 Express Lanes After Study Evaluation
 - I-580 Express Lane System Upgrade
- I-680
 - I-680 Express Lanes from SR-84 to Alcosta Boulevard Project
 - SR-84 Widening and SR-84/ I-680 Interchange Improvements
 - I-680 Sunol Express Lanes



Purpose of the I-580 and I-680 Corridor Work Program

- Support advancement of existing project development efforts
- Reflect regional and megaregional strategies by:
 - Expanding the managed lane network
 - Exploring feasibility of transportation demand management and transit strategies on I-680
- Identify and address gaps within the corridors
- Support corridor planning in line with regional and state planning efforts to ensure funding eligibility



I-580 Corridor

2018 Level of Service:
A.M. Peak Period



2018 Level of Service:
P.M. Peak Period



I-580 Between the Bay Bridge and I-238

Design Alternatives Assessment (DAA)



2018 Level of Service:
A.M. Peak Period



2018 Level of Service:
P.M. Peak Period



Joint DAA Effort

- Metropolitan Transportation Commission (MTC)-developed process
- Identification of opportunities within limited right-of-way
- Project screening and alternative development
- 12-month process



Jump start for Caltrans project processes



WORK PROGRAM FOR THE I-580 AND I-680 CORRIDORS

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I-580 DAA

Concepts under consideration

Geometric

- New capacity within right-of-way
 - Bus on shoulder
 - Reversible contraflow
- New park-and-ride opportunities

Operations

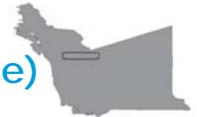
- Transbay and express bus to Oakland
- Adaptive ramp metering
- Incident management strategies
- Transit signal priority



WORK PROGRAM FOR THE I-580 AND I-680 CORRIDORS

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I-580 Between I-238 and I-680 (Dublin Grade)

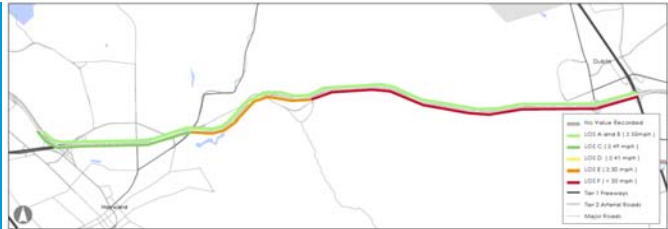


- Continued growth in Tri-Valley and Central Valley
- Growth in megaregional commuters from San Joaquin County
- A.M. and P.M. congestion in eastbound direction

2018 Level of Service:
A.M. Peak Period



2018 Level of Service:
P.M. Peak Period



WORK PROGRAM FOR THE I-580 AND I-680 CORRIDORS

Average Peak Period Speeds

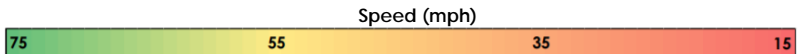
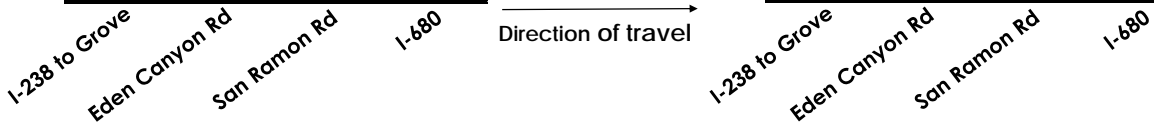


A.M. Peak Period (Eastbound)

2018	34	45	59	65
2016	37	46	58	63
2014	56	51	59	64
2012	55	67	60	64
2010	56	65	62	69
2008	58	69	61	63

P.M. Peak Period (Eastbound)

2018	54	40	24	15
2016	44	41	35	23
2014	50	50	50	35
2012	51	54	48	33
2010	56	73	38	14
2008	52	57	50	18

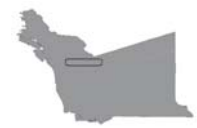


Source: 2008-2018 LOS Monitoring Reports, Alameda CTC

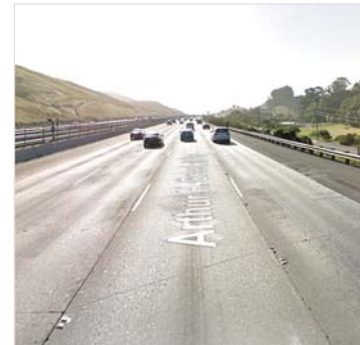


WORK PROGRAM FOR THE I-580 AND I-680 CORRIDORS

Dublin Grade Considerations



- Geometric conditions limit freeway widening
 - I-680 Interchange
 - BART in median
 - Hills to the north; Dublin Canyon Road to the south
- Consider innovative congestion management alternatives



I-580 Eastbound Streetview, Google Maps, 2017

Proposed Next Steps

Conduct a DAA for the Dublin Grade segment
 Anticipated completion: Fall 2020



I-580 Between I-680 and Greenville Road



- Existing express lanes in both directions
 - Express Lane System Upgrade spring 2020
- Increased congestion beyond express lanes limits effectiveness

2018 Level of Service:
 A.M. Peak Period



2018 Level of Service:
 P.M. Peak Period



I-580 Express Lanes After Study

Key Findings

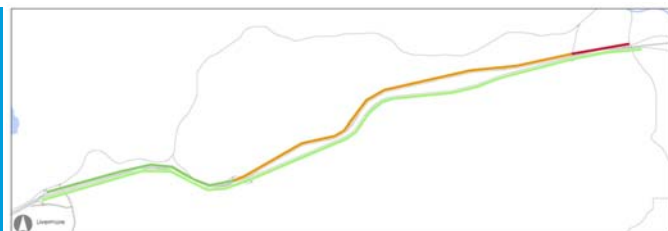
- Travel times are shorter and bottlenecks improved across all lanes
- Faster and more reliable travel times compared to general purpose lanes
- Enabled higher number of vehicles and people to travel through the corridor (project added road capacity)
- Growing congestion on adjacent segments affects express lane corridor performance



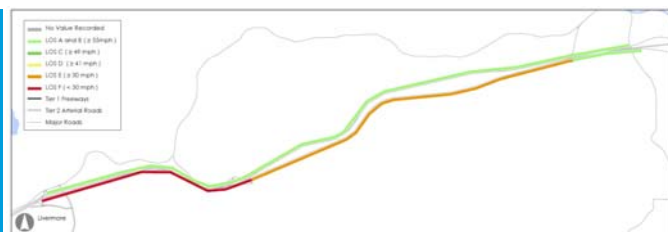
I-580 Between Greenville Road and East County Line (Altamont Pass)



2018 Level of Service:
A.M. Peak Period



2018 Level of Service:
P.M. Peak Period



Average Peak Period Speeds in Altamont Pass



A.M. Peak Period (Westbound)

2018	54	34	19
2016	54	35	27
2014	35	40	49
2012	37	46	37
2010	57	56	36
2008	55	56	32

Greenville Rd
N Flynn Rd
I-205 to Grant Line

← Direction of travel

P.M. Peak Period (Eastbound)

2018	21	34	59
2016	28	47	56
2014	37	59	58
2012	25	40	38
2010	35	47	46
2008	31	44	41

Greenville to N Flynn
Grant Line Rd
I-205

→ Direction of travel

Speed (mph)



Source: 2008-2018 LOS Monitoring Reports, Alameda CTC



WORK PROGRAM FOR THE I-580 AND I-680 CORRIDORS

Altamont Pass Congestion Factors



- Growing commute population from the Central Valley
- Poor pavement quality
- On-going maintenance and slope stabilization work
- Heavy truck traffic
- Safety challenges



WORK PROGRAM FOR THE I-580 AND I-680 CORRIDORS

Altamont Pass Considerations



- Increasing Central Valley population and I-580 congestion
- Topography limits widening options
- Adjacent projects and studies
- Complementary of Valley Link proposal



Innovative congestion management alternatives

Proposed Next Steps

Conduct a DAA for the Altamont Pass segment
Anticipated completion: Fall 2020



I-580/I-680 Interchange



- Bottleneck
 - I-580 is heavy freight corridor
 - Ramp geometry causes backup
- Project Study Report (PSR) in 2009
- Growing right of way constraints limit options

Proposed Next Steps

Continue to monitor this location and develop a refined PSR after the completion of related I-580, I-680 and regional projects.



I-580/I-680 Interchange, Google Maps, 2018



I-680 Corridor

- Limited transit options
 - Altamont Corridor Express
 - No express bus option available
 - Private shuttles available for some commuters

Proposed Next Steps

Evaluate transit enhancement options in the I-680 corridor.

2018 Level of Service: A.M. Peak Period



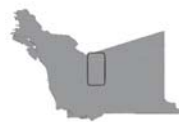
2018 Level of Service: P.M. Peak Period



Source: 2017 Tri-Valley Integrated Transit and Park-and-Ride Study



I-680 Between North County Line and SR-84



- Heavy commute traffic from Central Valley and Tri-Valley to Silicon Valley
- Current "gap" in the I-680 express lane system
- Limited long-distance transit options

2018 Level of Service: A.M. Peak Period



2018 Level of Service: P.M. Peak Period



I-680 Express Lanes from SR-84 to Alcosta Boulevard Project

- Currently in environmental stage
- Begin design summer 2020
- Implementation may be phased

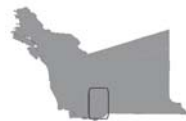
Proposed Next Steps

Pursue grant funding for design, right-of-way, and construction of this project.

Project completion: Fall 2026



I-680 Between SR-84 and South County Line



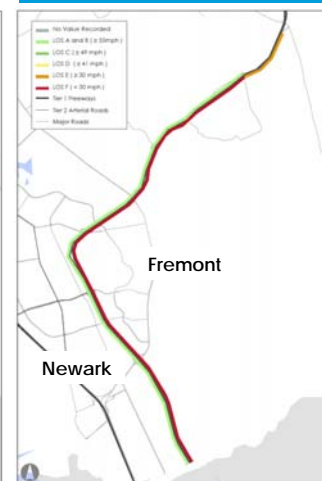
- Existing southbound express lane
- Northbound direction ranked the fourth most-congested freeway location in the Bay Area

Source: 2017 Tri-Valley Integrated Transit and Park-and-Ride Study

2018 Level of Service:
A.M. Peak Period



2018 Level of Service:
P.M. Peak Period



I-680 Sunol Express Lanes

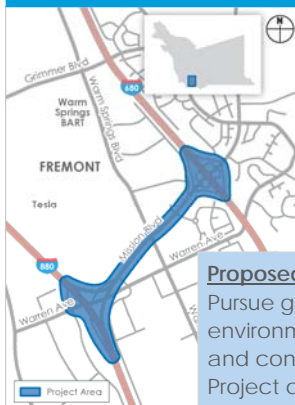
- Phase 1
 - Currently in construction
 - Add northbound express lane from SR-262 to SR-84
 - Modify southbound express lane to continuous access
 - Add new enforcement technology in both directions
- Anticipated opening fall 2020



Other I-680 Projects

SR-262 Cross Connector

- Scoping phase
- Environmental completion in 2022



Proposed Next Steps
Pursue grant funding for environmental, design, right-of-way, and construction of this project.
Project completion: Spring 2028

SR-84 Widening and SR-84/I-680 Interchange Improvements

- Design phase
- Begin construction in 2021



Proposed Next Steps
Work with MTC to prioritize funding for this project through Regional Measure 3.
Project completion: Fall 2023



Next Steps

Pursue funding to advance existing projects

- External funding needed to complete subsequent phases of the following projects:
 - I-680 Express Lanes from SR-84 to Alcosta Boulevard (\$460 million)
 - SR-84 Widening and SR-84/I-680 Interchange Improvements (\$85 million)
 - SR-262 Cross Connector (\$237.5 million)
- Prioritize projects in corridor planning to ensure funding eligibility



Next Steps

Conduct comprehensive corridor planning

- Ensure I-580 and I-680 projects are included in Caltrans and regional efforts
- Conduct DAAs for the Dublin Grade and Altamont Pass
 - Pursue funding with partner agencies, including MTC and SJCOG
- Coordinate with transit operators and major businesses on transportation demand management strategies to maximize throughput



Next Steps

Ensure regional consistency in managed lanes

- Consistent policies
 - Clean air vehicle tolling
 - Occupancy policies
 - Hours of operation
- Consistent facilities
 - Continuous versus limited access
 - Uniform signage
- Enforcement procedures and equipment



Existing I-680 Express Lanes – Limited Access



I-580 Express Lanes – Continuous Access



Summary

Alameda CTC's Work Program for the I-580 and I-680 Corridors supports project development and project delivery for these corridors.

