

# TRI-VALLEY TRANSPORTATION COUNCIL STRATEGIC EXPENDITURE PLAN 2022 UPDATE

## For the Tri-Valley Transportation Development Fee

### TVTC MEMBER AGENCIES



### IN ASSOCIATION WITH



FINAL REPORT | ADOPTED JUNE 6, 2022

AMENDED JANUARY 29, 2024

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## Contents

Acronym List.....	ii
Chapter 1: Introduction.....	1
Background and History.....	1
Recent Actions and Current SEP Update .....	2
Chapter 2: Project Descriptions.....	3
Chapter 3: Project Prioritization.....	5
Prioritization Criteria.....	5
Chapter 4 : Revenue Forecasting.....	6
Development Forecast.....	6
TVTDF Rate Adjustments .....	6
Estimation of Developer Fee Revenues.....	7
Chapter 5: Project Funding .....	9
Appendix.....	15

## Tables

Table 1: Project Prioritization .....	5
Table 2: FY 2022/2023 Rate Adjustment.....	7
Table 3: FY 2023/2024 Rate Adjustment.....	7
Table 4: Estimate of Development Fee Revenue .....	8
Table 5: List of A Projects in TVTC 2022 SEP.....	10
Table 6: List of B Projects in TVTC 2022 SEP.....	11
Table 7: List of C Projects in TVTC 2022 SEP .....	12
Table 8: 2022 TVTDF Funding Plan.....	14

## ACRONYM LIST

ACE	Altamont Corridor Express
Alameda CTC	Alameda County Transportation Commission
AMT	Arroyo Mocho Trail
BART	Bay Area Rapid Transit
BRT	Bus Rapid Transit
CCI	Construction Cost Index
CCTA	Contra Costa Transportation Authority
CHP	California Highway Patrol
CTP	Countywide Transportation Plan
EIR	Environmental Impact Report
HOV	High Occupancy Vehicle
I-580	Interstate 580
I-680	Interstate 680
IHT	Iron Horse Trail
JEPA	Joint Exercise of Powers Agreement
JPA	Joint Power Agreement
LAVTA	Livermore Amador Valley Transit Authority
PM	Post Mile
PA&ED	Project Approval and Environmental Documents
PS&E	Plans, Specifications, and Estimates
PSR	Project Study Report
PSR-PDS	Project Study Report-Project Development Support
ROW	Right of Way
RRS	Routes of Regional Significance
SAV	Shared Autonomous Vehicles
SEP	Strategic Expenditure Plan
SOV	Single Occupant Vehicles
SR 84	State Route 84
STIP	State Transportation Improvement Program
SWAT	Southwest Area Transportation
TAC	Technical Advisory Committee
TEP	Transportation Expenditure Plan
TIF	Transportation Improvement Fee
TRANSPAC	Transportation Partnership and Cooperation
TSP	Transit Signal Priority
TVTC	Tri-Valley Transportation Council
TVTDF	Tri-Valley Transportation Development Fee
TVTP/AP	Tri-Valley Transportation Plan/Action Plan

V2X	Vehicle to Everything
V2I	Vehicle to Infrastructure
VTA	Santa Clara Valley Transportation Authority

# CHAPTER 1: INTRODUCTION

## BACKGROUND AND HISTORY

In 1991, the seven jurisdictions of Alameda County, Contra Costa County, Dublin, Pleasanton, Livermore, Danville, and San Ramon signed a Joint Powers Agreement (JPA) that established the Tri-Valley Transportation Council (TVTC). The purpose of the JPA was for the joint preparation of a Tri-Valley Transportation Plan/Action Plan (TVTP/AP) for Routes of Regional Significance (RRS) and cost sharing of recommended improvements. The TVTP/AP was prepared and presented to all member jurisdictions in April 1995, and updated in 2000. The TVTP/AP created a common understanding and agreement on the Tri-Valley's transportation concerns regarding prioritizing projects for funding and implementation.

In addition to the project priorities, the TVTP/AP also recommended the development of a Tri-Valley Transportation Development Fee (Fee or TVTDF) to allocate a fair share of regional infrastructure cost to go towards new development. The first nexus study for the fee program was completed in 1995 and justified allocating the unfunded cost needed to complete all of the 11 projects identified in the TVTP/AP to new development. The TVTC, however, recommended scaling back by roughly two-thirds the total the maximum fee allowed under the nexus study. The TVTC and its member jurisdictions subsequently created and adopted the TVTDF in 1998 through a Joint Exercise of Powers Agreement (JEPA). The original Strategic Expenditure Plan (SEP) was adopted in 1999.

The JEPA called for a periodic update of the fee program to reflect any significant changes in population growth, project status, and other conditions that would require revisions to the fee program. The TVTP/AP was again updated in 2000 to reflect projects that were completed, project schedules and/or funding plans shifted, traffic patterns changed; and new regional transportation projects were identified through various traffic studies. The TVTC responded to these changes by directing the Technical Advisory Committee (TAC) to conduct a new fee nexus study to update the fee, and potentially the project list.

Completed and adopted in early 2008, the next TVTC nexus study, identified 22 new projects that the TVTC elected for eligibility to receive funding from the TVTDF. The first 11 projects were adopted into the original program in 1995. The second set of 11, were new projects that were included in the 2008 Nexus Study. A revised fee structure was released by TVTC for consideration by each member agency in late 2008. While each member agency communicated support for the revised fee structure, it was not approved by all member agencies pending preparation and approval of a corresponding SEP. A TVTC SEP Subcommittee was therefore formed to commence an update to the SEP.

To facilitate the progress of existing projects while an update to the SEP was underway, an Interim Funding Plan was approved by TVTC in April 2010. The Interim Funding Plan matched the programmed amounts and priorities established in the 2004 SEP Update. It also included a revised disbursement timeline to reflect the current Joint TVTDF account balance and projected fee collections over the next five years—which reaffirmed TVTC's commitment to high priority projects.

In 2011, an update to the SEP incorporated estimated TVTDF revenues over a 10-year horizon. The SEP 2011 Update recommended allocating funding to all of projects on List A and several projects on List B, at an approximate total of \$60 million between FY10/11 and FY 19/20. The TVTC SEP 2011 Update was adopted on February 10, 2011.

In October 2013, TVTC signed a Joint Exercise of Powers Agreement to establish the TVTC as a separate agency that is responsible for planning, coordinating, and receiving disbursement of traffic

impact fee revenues from member agencies to help implement transportation improvement projects within the Tri-Valley Area. One of the primary duties of the TVTC is the preparation of a TVTP/AP and cost sharing of recommended improvements. As previously noted, the TVTP/AP was originally prepared and presented to all member jurisdictions in April 1995. The TVTP/AP has been subsequently updated in 2004, 2009, 2013, and 2017.

In January 2015, the TVTC adopted Resolution No. 2015-01 – Adopting the updated Tri-Valley Transportation Development Fee Schedule as a two-year phase-in plan, with no change during the initial year (FY 14/15), an increase to 25% of the maximum allowable rate by the fee nexus study in the second year (FY 15/16) and a final increase to 35% of the maximum allowable rate by the third year (FY 16/17). The new fee was based on the Fee Nexus Study adopted in 2008.

In November 2015 a review of the 2008 Nexus Study was conducted to determine if a reasonable relationship between the unexpended fees and the purpose for which those fees were collected remain valid. This comparison analyzed the 2008 Nexus Study Fee Update in consideration of then current traffic conditions, forecasted growth, and project updates and found that the unexpended fees and the purpose of which those fees were collected remained valid<sup>1</sup>.

In January 2017, the TVTC approved the 2008 TVTC Nexus Study Validation Review and adopted the 2017 SEP Update. At that time the TVTC elected to maintain the current fee rate, with exception of the annual Construction Cost Index (CCI) adjustment. The 2017 SEP Update incorporated estimated TVTDF revenues over a 10-year horizon. The SEP 2017 Update recommended allocating funding to all of projects on List A and several projects on List B, at an approximate total of \$50 million between FY16/17 and FY 25/26. The TVTC SEP 2017 Update was adopted on January 23, 2017.

## RECENT ACTIONS AND CURRENT SEP UPDATE

With half of the current project list no longer being eligible for funding as a result of projects being completed or changes to the program, TVTC reviewed and selected additional projects to be considered for funding from the TVTDF. This selection process resulted in a new list of projects to mitigate the impacts of new development based on feasibility and stakeholder support. From this process, 16 projects (“List C”) were identified to be consider for receive funding from the TVTDF.

In 2020, the 2020 TVTC Nexus Fee Update Study evaluated the remaining projects from List A and List B, as well as the addition of 16 projects from List C. The analysis found that these projects would reduce the congestion created by new development. The 2020 Nexus Study also determined the new maximum fee needed to fund the improvement projects. The study was adopted on August 16, 2021.

This report constitutes the 2022 SEP Update and incorporates and builds upon the updated project descriptions, funding programs, and progression of the TVTDF over the last six years, as well as the project description of the new selected List C projects. As such, this report summarizes the status of the 38 projects listed in the 2022 Nexus Study, project prioritization, estimates revenues from the TVTDF over a 10-year horizon, and provides a funding plan for the priority projects. The proposed 10-year funding allocations and project disbursements were approved by the SEP Finance Subcommittee in April 4, 2022 prior to full review and adoption by the TVTC Board in April 18, 2022.

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<sup>1</sup> Kimley-Horn. *Validation Review of the 2008 Nexus Study*. Nov 2015.

## CHAPTER 2: PROJECT DESCRIPTIONS

This section includes project summaries for each of the 38 projects included in the 2022 Nexus Study. The summaries are based on information provided by member agencies who act as project sponsors and include a project description, phasing details, funding sources, schedule, and status. The 38 projects are presented in order based on their original list identifier, “A”, “B”, and “C”, representing the original 11 projects, the 11 projects included in the 2008 Nexus Study, and the 16 projects included in the 2020 Nexus Study, respectively. Detailed project descriptions are provided in **Appendix A**.

### LIST A

- A-1 Interstate 580 (I-580)/Interstate 680 (I-680) Interchange (southbound to eastbound)
  - Completed, therefore not considered for further funding
- A-2a State Route 84 (SR 84) Expressway (I-580 to I-680)
- A-2b SR 84/I-580 Interchange
- A-3 I-680 Auxiliary Lanes (Segment 2)
  - Completed, therefore not considered for further funding
- A-4 West Dublin/Pleasanton Bay Area Rapid Transit (BART) Station
  - Completed, therefore not considered for further funding
- A-5a I-580 Eastbound Auxiliary Lane
  - Completed, therefore not considered for further funding
- A-5b I-580 High Occupancy Vehicle (HOV) Lane Westbound
  - Completed, therefore not considered for further funding
- A-6 I-680 HOV Lanes, SR 84 to Top of Sunol Grade
  - Southbound completed, northbound not considered for funding
- A-7 I-580/Foothill Road/San Ramon Road Interchange Modifications
  - Completed, therefore not considered for further funding
- A-8 I-680/Alcosta Boulevard Interchange
  - Completed, therefore not considered for further funding
- A-9a Crow Canyon Road Improvements Phase 1
- A-9b Crow Canyon Road Improvements Phase 2
- A-10a Vasco Road Safety Improvements Phase 1
- A-10b Vasco Road Safety Improvements Phase 2
- A-11 Express Bus/Bus Rapid Transit (BRT) – Phase 2

### LIST B

- B-1 I-580/I-680 Interchange (westbound to southbound)
- B-2 Fifth Eastbound Lane on I-580 from Santa Rita Road to Vasco Road
  - Completed, therefore not considered for further funding
- B-3 I-580/First Street Interchange Modification
- B-4 I-580/Vasco Road Interchange Modification
- B-5 I-580/Greenville Road Interchange Modification
- B-6 Jack London Boulevard Extension
- B-7 El Charro Road Extension (Stoneridge Drive/Jack London Boulevard to Stanley Boulevard)
  - Project incorporated into Project C-5 El Charro Widening and removed from project list and no longer considered for funding

- B-8 Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive)
- B-9 Danville Boulevard/Stone Valley Road I-680 Interchange Improvements
  - Removed from project list and no longer considered for funding
- B-10 I-680 Southbound HOV Lane Gap Closure (North Main Street to Rudgear Road)
  - Completed, therefore not considered for further funding
- B-11a I-680 HOV Direct Access Ramps
  - Removed from project list and no longer considered for funding
- B-11b I-680 Transit Corridor Improvements
  - Project incorporated into Project C-10 Innovate 680 and removed from project list and no longer considered for funding

## LIST C

- C-1 Tesla Road Safety Improvements
- C-2 Norris Canyon Road Safety Improvement
- C-3 Dublin Boulevard – North Canyon Parkway Extension
- C-4 Vasco Road at Dalton Avenue Intersection Improvements
- C-5 El Charro Road Widening
- C-6 Sunol/680 Interchange Improvements
- C-7 I-680 Express Lanes - Hwy 84 to Alcosta
- C-8 Santa Rita/I-580 Interchange
- C-9 Stoneridge/I-680 Interchange
- C-10 Innovate 680
- C-11a Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road
- C-11b Iron Horse Trail Bicycle-Pedestrian Overcrossing – Crow Canyon Road
- C-11c Iron Horse Trail Crossing at Dublin Boulevard
- C-11d Iron Horse Trail – Livermore
- C-11e Iron Horse Trail to Shadow Cliffs Connection
- C-11f Iron Horse Trail Connection Improvements at Santa Rita Road
- C-11g Iron Horse Trail Bicycle-Pedestrian Overcrossing – Sycamore Valley Road
- C-11h Iron Horse Trail System-wide improvements
- C-12 Hacienda/I-580 Interchange Improvements
- C-13 Fallon/El Charro Interchange Improvements
- C-14 Valley Link Rail (Phase 1)
- C-15 Technology Enhancements
- C-16 I-680 Express Bus Service



## CHAPTER 3: PROJECT PRIORITIZATION

Historically, the TAC and TVTC have prioritized the use of TVTDF funding to leverage other federal or state funds in order to advance a project to its next stage, rather than to fully fund any single project in its entirety. For example, the funds could be used as the local match for other grant money. Or, the money could be used to fund the next project development phase, such as a PSR, which is typically assumed to cost 5% of the total project cost, or the PS&E, which is typically assumed to cost about 10% of the total project cost.

Forecasted revenue generated by the TVTDF for the 10-year SEP horizon period is not sufficient to providing funding for all eligible projects, therefore projects are ranked to determine funding priority based on the criteria presented in the following section.

### PRIORITIZATION CRITERIA

All projects (List A, List B, and List C) were prioritized using the following five criteria: 1) Project Urgency, 2) TVTDF Allocation, 3) Project Readiness, 4) Project Funding, and 5) Project Effectiveness. Each criterion was given a score between 0 and 3 points based on the scoring criteria presented in **Table 1**.

**Table 1: Project Prioritization**

Funding Criteria	Description	Scoring Criteria
Project Urgency	How urgent is the project? Is the project expected to move forward in the ten-year SEP horizon?	Low Urgency = 1 Medium Urgency = 2 High Urgency = 3
TVTDF Allocation	What is the % TVTDF allocation does the project currently have?	>30% = 0 >20%-30% = 1 >10%-20% = 2 ≤ 10% = 3
Project Readiness	How ready is a project is to expend capital funds? What stage the project is in?	Score 0.5 – 3 based on what current stage (e.g. PSR = 1, Construction = 3)
Project Funding	How much total funding is committed for the project?	Score = (Total Funding Committed / Total Cost) x3
Project Effectiveness	How well does the Project aligns with Lead Agency Policy/Goals	Well aligned with agency policy (e.g. In General Plan) = 3 Aligned with agency policy = 2 Not well aligned with agency policy = 1

The score for each funding criteria was the totaled and normalized to a 10-point scale to calculate the project's priority score. Projects eligible to receive funding were then ranked base on their resultant priority score. It should be noted that this priority ranking was provided to help the TVTC TAC and SEP Subcommittee make informed decision on how to prioritize project funding and are provided to facilitate the decision-making process. The ultimate prioritization is determined by the TVTC board.

The results of the project prioritization are included as **Appendix B**.

## CHAPTER 4 : REVENUE FORECASTING

The revenue forecast estimate for the next 10-year is calculated based on the development forecast and TVTDF rate schedule.

### DEVELOPMENT FORECAST

To best understand the available revenue to fund the 38 projects identified in the Nexus Study, fee estimates were developed based on 10-year land use projections as provided by TVTC member agencies. The development forecast which resulted from this process is provided in **Appendix C**.

### TVTDF RATE ADJUSTMENTS

The 2020 Nexus Study update determined the maximum fee to fund the improvement projects evaluated. Similar to prior efforts, it was recommended that only a percentage of the maximum fee be collected to provide a regional transportation funding source to offset development related impacts.

### RATE ADJUSTMENT SCENARIO ANALYSIS

To determine how the TVTDF rate should be adjusted as part of the update, several potential rate adjustment scenarios were considered by the SEP subcommittee. The resultant scenario analysis included the following considerations:

- Revenue should fund at least 10% of the total project costs (approximately \$106,000,000) for the projects ranked 1 through 15 (Top 15).
- In addition to funding the Top 15, the total revenue brought in must also account for 20% that is returned to local source, as well as a 0.8% Admin Fee.
- Scenarios considered various numbers of adjustments increases, and included a two-step increase scenario similar to the previous iteration, as well as having a one-step, four-step, and annual increase variations.
- Scenarios considered capping the rate between 15% and 20% of the maximum fee rate
- Some of the scenarios also assumed a reduction for retail
- Projects included in the prior SEP funding plan, that had yet to be funded, would be carried over to the funding plan.

Based on the SEP Subcommittees review of these draft scenarios, a recommended approach to rate adjustments and allocation was identified for consideration and subsequently adopted by the TVTC Board.

### RATE ADJUSTMENT

The adopted rate adjustments are presented in **Tables 2** and **3**. As shown in **Table 2**, only an initial rate adjustment for funding year FY 22/23 at approximately 15% of the maximum fee rate is planned for the duration of the SEP for all uses except retail and “other” land uses. Note that in subsequent years, the rates will still be adjusted to reflect changes in the CCI.

Similar to the prior SEP, it is recommended that retail continue to have a lower percentage of the maximum fee rate to help encourage retail growth, especially since local serving retail has been greatly impacted by the global pandemic. Retail is recommended to initially be established at 6% and then

increase to 7% of the maximum fee rate in funding year FY 23/34 with no additional increases, beyond the CCI, currently planned.

It is also proposed that a lower increase be made for “other” land use category. “Other” land uses consist of developments that do not fall into the other five land use categories such as theaters, motel/hotels, day care facilities, and gas stations. Given the unique nature of these uses, it was recommended that the rate be held at 12% of the maximum fee rate for the duration of the SEP.

As noted, it was also recommended that the TVTDF rate continue to increase on an annual basis based on the annual CCI adjustment to reflect changes in regional construction costs. Similarly, to how the SEP has been implemented in the past, the CCI adjustment will not be applied for years when there is a prescribed rate increase. Essentially this means that the CCI adjustment would not be applied for any use in funding year FY 22/23 and also not to retail in funding year FY 23/24.

**Table 2: FY 2022/2023 Rate Adjustment**

Land Use	Current 2021 Rate	% of Maximum	FY 2022/23 Rates	Change from 2021 Rates	% Change
Single Family (DU)	\$5,057	15%	\$6,596.40	\$1,539.40	30.4%
Multi-Family (DU)	\$3,484	15%	\$3,889.20	\$405.20	11.6%
Retail (SF)	\$3.74	6%	\$5.07	\$1.33	35.6%
Office (SF)	\$8.59	15%	\$8.81	\$0.22	2.5%
Industrial (SF)	\$5.00	15%	\$4.97	-\$0.03	-0.6%
Other (avg AM/PM trips)	\$5,620	12%	\$6,100.68	\$480.68	8.6%

DU = Dwelling Units; SF = Square Feet

**Table 3: FY 2023/2024 Rate Adjustment**

Land Use	Current 2021 Rate	% of Maximum	FY 2023/24 Rates	Change from 2021 Rates	% Change
Single Family (DU)	\$5,057	15%	\$6,596.40*	\$1,539.40	30.4%
Multi-Family (DU)	\$3,484	15%	\$3,889.20*	\$405.20	11.6%
Retail (SF)	\$3.74	7%	\$5.92	\$2.18	58.2%
Office (SF)	\$8.59	15%	\$8.81*	\$0.22	2.5%
Industrial (SF)	\$5.00	15%	\$4.97*	-\$0.03	-0.6%
Other (avg AM/PM trips)	\$5,620	12%	\$6,100.68*	\$480.68	8.6%

DU = Dwelling Units; SF = Square Feet

\*CCI adjustment will be applied

## ESTIMATION OF DEVELOPER FEE REVENUES

The potential developer fee revenue was estimated based on development forecast and the rates shown in **Table 2** and **Table 3**. **Table 4** summarizes the estimated developer fee revenues between FY 22/23 and FY 31/32. Between FY 22/23 and FY 31/32, it is forecasted that there will be \$128.88 million available to fund projects. As of June 30, 2016, there was a SEP fund balance of \$17.00 million, resulting in a maximum estimate of \$145.88 million being available for allocation to projects.

**Table 4: Estimate of Development Fee Revenue**

Fiscal Year	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	Total
Sub-Total of Revenue	\$14.58	\$16.33	\$14.58	\$13.86	\$14.13	\$12.95	\$15.60	\$12.95	\$33.77	\$13.98	\$162.73
Return to Source (20%)	\$2.92	\$3.27	\$2.92	\$2.77	\$2.83	\$2.59	\$3.12	\$2.59	\$6.75	\$2.80	\$32.55
Administrative Costs (0.8%)	\$0.12	\$0.13	\$0.12	\$0.11	\$0.11	\$0.10	\$0.12	\$0.10	\$0.27	\$0.11	\$1.30
Revenue for TVTDF Allocation	\$11.55	\$12.93	\$11.55	\$10.98	\$11.19	\$10.25	\$12.35	\$10.26	\$26.75	\$11.07	\$128.88

All revenue calculations shown in Millions of dollars and rounded to the nearest hundredth decimal point. Rounding may result in some values not calculating accurately in Table 4.

## CHAPTER 5: PROJECT FUNDING

For this funding plan, the funds over the next 10-years are planned to be distributed towards 21 projects.

Out of the \$145.88 million available to program to projects, \$21.67 million was identified as committed to project in the 2017 SEP, but not yet disbursed. These projects include:

- A-2b: SR 84/I-580 Interchange
- A-9a: Crow Canyon Road Improvements Phase 1
- A-9b: Crow Canyon Road Improvements Phase 2
- A-10a: Vasco Road Safety Improvements Phase 1
- A-10b: Vasco Road Safety Improvements Phase 2
- B1: I-580/I-680 Interchange (Westbound to Southbound)
- B-8a: Camino Tassajara/Tassajara Road Widening Project (Contra Costa Segment)

Approximately \$101.62 million is programed for the top priority projects. The projects with priority rank 1 through 15 (Top 15) were selected for funding within this 10-year horizon and programed to receive approximately 10% of their total project cost except for Project B-8 and Project C-11c. Following are the Top 15 projects:

- B-4: I-580/Vasco Road Interchange Modification
- B-5: I-580/Greenville Road Interchange Modification
- B-8a: Camino Tassajara/Tassajara Road Widening Project (Contra Costa Segment)
- B-8b: Camino Tassajara/Tassajara Road Widening Project (Dublin Segment)
- C-2: Norris Canyon Road Safety Improvement
- C-3: Dublin Boulevard – North Canyons Parkway Extensions
- C-6: Sunol/680 Interchange Improvements
- C-7b: I-680 Express Lanes – Hwy 84 to Alcosta (Northbound)
- C-8: Santa Rita/I-580 Interchange
- C-10: Innovate 680
- C-11a: Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road
- C-11c: Iron Horse Trail – Dublin
- C-11d: Iron Horse Trail – Livermore
- C-11e: Iron Horse Trail to Shadow Cliffs

Additionally, the SEP subcommittee recommended that \$800,000 be allocated to Project A-11 Express Bus/Bus Rapid Transit (BRT) - Phase 2 in conjecture with Project C-3 Dublin Boulevard – North Canyons Parkway Extensions.

The remaining \$22.60 million forecasted over the 10-year horizon was set aside for reserves.

A more detailed description of the funding allocation by project are shown in **Table 5** through **7**. Note that these tables only include those projects that have TVTDF funds programmed in the 2022 SEP Update's 10-year horizon (FY 22/23 – FY 31/32).

**Table 8** provides a summary of estimated TVTDF revenues throughout the 10-year SEP horizon, project funding allocations, and the overall ongoing fund balance.

**Table 5: List of A Projects in TVTC 2022 SEP**

	<b>Project Recommended Funding</b>	<b>Funding Strategy</b>
A-2b	SR 84/I-580 Interchange  \$2.00 Million in FY 29/30 \$1.50 Million in FY 30/31 \$1.65 Million in FY 31/32	Funding is programmed for project development activities including environmental assessment and design.
A-9a	Crow Canyon Road Improvements Phase 1  \$1.55 Million in FY 24/25	Funding is programmed for the estimated cost to prepare the PSR and implement short-term improvements.
A-9b	Crow Canyon Road Improvements Phase 2  \$1.69 Million in FY 25/26	Funding is programmed for the estimated cost to prepare the PSR.
A-10a	Vasco Road Safety Improvements Phase 1  \$0.50 Million in FY 23/24 \$2.82 Million in FY 24/25	Funding is programmed for the construction phase.
A-10b	Vasco Road Safety Improvements Phase 2  \$2.58 Million in FY 25/26	Funding is programmed for the estimated costs to prepare the PS&E.
A-11	Express Bus/Bus Rapid Transit (BRT) - Phase 2  \$0.80 Million in FY 26/27	Funding is programmed for transit improvements in conjuncture Project C-3 Dublin Boulevard – North Canyon Parkway Extension.

Table 5 only includes projects that have TVTDF funds programmed in the 2022 SEP Update 10-year horizon (FY 22/23 – FY 31/32)

**Table 6: List of B Projects in TVTC 2022 SEP**

	<b>Project Recommended Funding</b>	<b>Funding Strategy</b>
B-1	I-580/I-680 Interchange (Westbound to Southbound)  \$0.50 Million in FY 27/28 \$0.50 Million in FY 28/29	Funding is programmed to begin project development/scoping
B-4	I-580/Vasco Road Interchange Modification  \$5.14 Million in FY 24/25 \$3.43 Million in FY 25/26	Funding is programmed for project development activities including environmental assessment and design.
B-8	Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive) (Contra Costa Segment)  \$4.38 Million in FY 24/25 \$2.00 Million in FY 25/26	Funding is programmed for the estimated costs for the PS&E and Construction.
B-8	Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive) (Dublin Segment)  \$1.45 Million in FY 23/24	Funding is programmed for the estimated costs for the PS&E and Construction.

Table 6 only includes projects that have TVTDF funds programmed in the 2022 SEP Update 10-year horizon (FY 22/23 – FY 31/32)

**Table 7: List of C Projects in TVTC 2022 SEP**

	<b>Project Recommended Funding</b>	<b>Funding Strategy</b>
C-2	Norris Canyon Road Safety Improvement  \$0.54 Million in FY 22/23	Funding is programmed for project development activities including environmental assessment and design.
C-3	Dublin Boulevard – North Canyon Parkway Extension  \$16.04 Million in FY 23/24	Funding is programmed for PS&E and ROW certification.
C-6	Sunol/680 Widening  \$2.65 Million in FY 23/24	Funding is programmed for project development activities including environmental assessment and design.
C-7	I-680 Express Lanes – Hwy 84 to Alcosta  \$3.30 Million in FY 24/25 \$5.30 Million in FY 25/26 \$5.30 Million in FY 26/27 \$7.30 Million in FY 27/28	Funding is programmed for project development activities including environmental assessment and design for Phase 2.
C-8	Santa Rita/I-580 Interchange  \$1.03 Million in FY 28/29	Funding is programmed for project development activities including environmental assessment and design.
C-10	Innovate 680  \$3.43 Million in FY 23/24 \$2.29 Million in FY 24/25	Funding is programmed for project development activities associated with Advanced Technologies portion.
C-11a	Iron Horse Trail Bicycle Pedestrian Overcrossing – Bollinger Canyon Road  \$2.29 Million in FY 22/23	Funding is programmed for the estimated costs for the PS&E and Construction.
C-11c	Iron Horse Trail Crossing at Dublin Boulevard  \$0.60 Million in FY 22/23	Funding is programmed for the estimated costs for the PS&E and Construction.
C-11d	Iron Horse Trail – Livermore  \$2.70 Million in FY 29/30	Funding is programmed for the estimated costs for the PS&E and Construction.
C-11e	Iron Horse Trail to Shadow Cliffs  \$0.16 Million in FY 31/32	Funding is programmed for project development activities including environmental assessment and design.
C-13	Fallon/El Charro Interchange  \$2.07 Million in FY 26/27 \$1.38 Million in FY 27/28	Funding is programmed for project development activities including environmental assessment and design.



	Project Recommended Funding	Funding Strategy
C-14	Valley Link Rail (Phase 1) \$5.17 Million in FY 27/28 \$5.17 Million in FY 28/29 \$5.17 Million in FY 29/30 \$5.17 Million in FY 30/31	Funding is programmed towards construction cost and access improvement for three stations in Tri-Valley Area.

Table 7 only includes projects that have TVTDF funds programmed in the 2022 SEP Update 10-year horizon (FY 22/23 – FY 31/32)

Table 8: 2022 TVTDF Funding Plan

ID	Project	July 1st FY Balance (\$)										Total
		\$17,000,000	\$22,469,002	\$13,981,855	\$6,057,276	\$2,042,094	\$5,064,310	\$973,440	\$6,628,993	\$7,024,183	\$21,944,751	
		Revenue Forecast (\$)										
		\$14,577,263	\$16,331,555	\$14,584,716	\$13,862,627	\$14,130,377	\$12,945,760	\$15,598,510	\$12,953,043	\$33,769,769	\$13,979,792	\$162,733,410
		Return to Local Source - 20% (\$)										
		\$2,915,453	\$3,266,311	\$2,916,943	\$2,772,525	\$2,826,075	\$2,589,152	\$3,119,702	\$2,590,609	\$6,753,954	\$2,795,958	\$32,546,682
		Admin Fee -0.8% (\$)										
		\$116,618	\$130,652	\$116,678	\$110,901	\$113,043	\$103,566	\$124,788	\$103,624	\$270,158	\$111,838	\$1,301,867
		Revenue for TVTDF Allocation (\$)										
		\$28,545,192	\$35,403,594	\$25,532,950	\$17,036,476	\$13,233,353	\$15,317,352	\$13,327,460	\$16,887,802	\$33,769,840	\$33,016,746	\$128,884,861
Projected Disbursement - 2022 SEP Update												
	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32	22-32 Total	
Disbursed	\$6,076,190	\$21,421,738	\$19,475,674	\$14,994,382	\$8,169,043	\$14,343,912	\$6,698,467	\$9,863,619	\$11,825,089	\$10,419,955	\$123,288,069	
Remainder	\$22,469,002	\$13,981,855	\$6,057,276	\$2,042,094	\$5,064,310	\$973,440	\$6,628,993	\$7,024,183	\$21,944,751	\$22,596,791	\$22,596,791	
A-2b	SR 84 / I-580 Interchange - Phase 2							\$2,000,000	\$1,500,000	\$1,650,000	\$5,150,000	
A-9a	Crow Canyon Improvements Phase 1		\$1,550,000								\$1,550,000	
A-9b	Crow Canyon Improvements Phase 2			\$1,690,000							\$1,690,000	
A-10a	Vasco Road Safety Improvements Phase 1		\$500,000	\$2,820,000							\$3,320,000	
A-10b	Vasco Road Safety Improvements Phase 2			\$2,580,000							\$2,580,000	
A-11	Express Bus/Bus Rapid Transit (BRT) - Phase 2				\$800,000						\$800,000	
B-1	I-580/I-680 Interchange (Westbound to Southbound)				\$500,000	\$500,000					\$1,000,000	
B-4	I-580/Vasco Road Interchange Modification		\$5,139,000	\$3,426,000							\$8,565,000	
B-5	I-580/Greenville Rd Interchange Modification							\$5,160,000	\$3,440,000		\$8,600,000	
B-8a	Camino Tassajara/Tassajara Rd Widening Project (Contra Costa County Segment)		\$4,380,000	\$2,000,000							\$6,380,000	
B-8b	Camino Tassajara/Tassajara Rd Widening Project (Dublin Segment)		\$1,450,000								\$1,450,000	
C-2	Nomis Canyon Road Safety Improvement - Segment 1	\$538,561									\$538,561	
C-3	Dublin Boulevard - North Canyons Parkway Extension		\$16,039,300								\$16,039,300	
C-6	Sunol/680 Widening	\$2,650,000									\$2,650,000	
C-7b	I-680 Express Lanes - Hwy 84 to Alcosta (Northbound)			\$3,298,382	\$5,298,382	\$5,298,382	\$7,298,382				\$21,193,529	
C-8	Santa Rita/I-580 Interchange						\$1,033,378				\$1,033,378	
C-10	Innovate 680		\$3,432,438	\$2,288,292							\$5,720,730	
C-11a	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road	\$2,287,629									\$2,287,629	
C-11c	Iron Horse Trail – Dublin	\$600,000									\$600,000	
C-11d	Iron Horse Trail – Livemore							\$2,698,530			\$2,698,530	
C-11e	Iron Horse Trail to Shadow Cliffs									\$164,866	\$164,866	
C-13	Fallon/EI Charro Interchange				\$2,070,661	\$1,380,440					\$3,451,101	
C-14	Valley Link Rail (Phase 1)					\$5,165,089	\$5,165,089	\$5,165,089	\$5,165,089	\$5,165,089	\$25,825,445	

Note: Only Projects reciving funding within SEP 10-year horizon are shown.

# APPENDIX

# Appendix A – Project Description



## A-1. I-580/I-680 INTERCHANGE (SOUTHBOUND TO EASTBOUND)

### TVTC PROJECT SPONSOR

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Alameda County

### LEAD AGENCY

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Caltrans

### PROJECT DESCRIPTION

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Project A-1 was located at the I-580 and I-680 interchange. The project constructed the southbound to eastbound flyover, northbound to eastbound direct connector, southbound on- and off- loop ramps, and a northbound on-ramp.

The project was needed to improve safety and reduce congestion on southbound and northbound I-680 near I-580, and mitigate the impacts of local and regional growth in housing and employment. This project was approved by the voters of Alameda County, as a portion of the Measure B sales tax program.

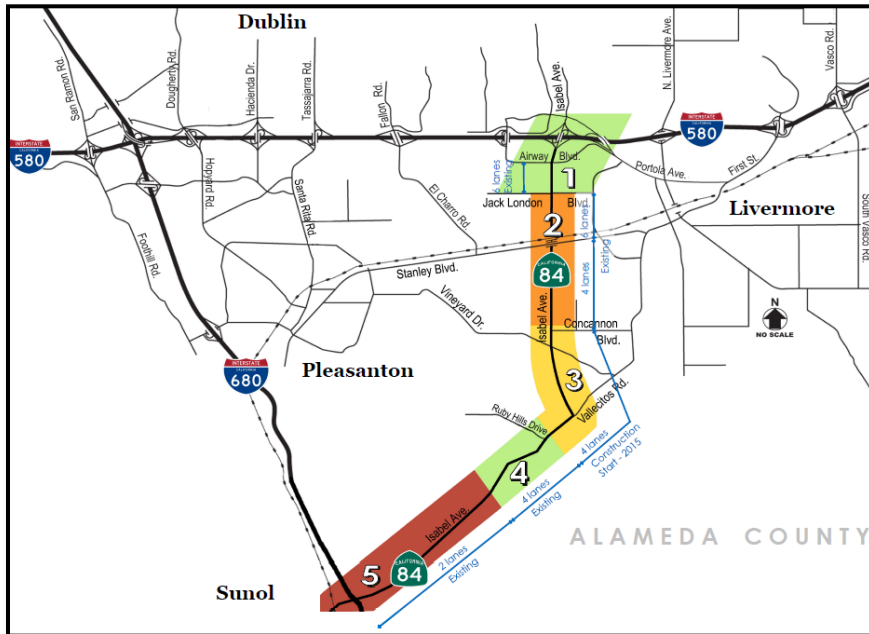
### STATUS

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This project has been completed.



## A-2A. SR 84 EXPRESSWAY (I-580 TO I-680)



### TVTC PROJECT SPONSOR

City of Livermore, City of Pleasanton

### LEAD AGENCY

Alameda County Transportation Commission (Alameda CTC)

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project A-2a is located along SR 84 between I-580 and I-680 in Livermore and Pleasanton. The project will widen and reconstruct SR 84 to expressway standards. The ultimate configuration is expected to consist of six lanes from I-580 to Stanley Boulevard and four lanes from Stanley Boulevard to I-680.

The project has been segmented into five primary sections:

- Segment 1 (I-580 to Jack London Boulevard) – widening and Phase I of the I-580/SR 84 Interchange project (Project A-2b).
- Segment 2 (Jack London Boulevard to a point roughly halfway between Concannon Boulevard and Stanley Boulevard) – widening existing configuration from two lanes to four lanes and from four lanes to six lanes.
- Segment 3 (Halfway between Concannon Boulevard and Stanley Boulevard to Ruby Hill Drive) – widening from two lanes to four lanes.
- Segment 4 (Ruby Hill Drive to Pigeon Pass) – straightening the roadway alignments and adding truck climbing lanes.
- Segment 5 (Pigeon Pass to I-680) – widening the roadway from two lanes to four lanes and improvements at the SR 84/I-680 interchange.

## STATUS

---

Project A-2a will be constructed in five segments. Segments 1, 2, 3, and 4 are completed and open to the public. For Segment 5, final design and right-of-way acquisition was completed in September 2020 and construction began in May 2021. It is anticipated that completion of construction in Spring 2024.

## PHASING AND SCHEDULE

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Project A-2a will be constructed in five segments. Below is the schedule for each segment.

- Segment 1 – Completed and opened to traffic in March 2012
- Segment 2 – Completed and opened to traffic in June 2014.
- Segment 3 – Completed and open to traffic 2017.
- Segment 4 – Completed and opened to traffic in October 2008.
- Segment 5 – Final design and right-of-way acquisition was completed in September 2020. Construction began in May 2021 and anticipated to be completed in Spring 2024.

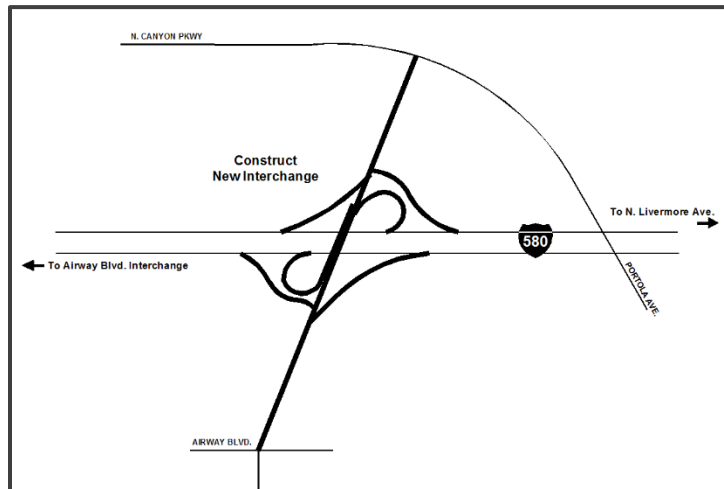
## COST ESTIMATE AND FUNDING SOURCES

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### Segment 5:

<b>Cost (Millions)</b>	<b>\$244.10</b>
Funding (Millions)	
Measure B	\$1.05
Measure BB	\$123.40
State (SB 1 LPP)	\$8.60
Regional Improvement Program (RIP)	\$11.11
Regional Measure 3 (RM 3)	\$85.00
TVTDF	\$14.94
<b>Total Funding (Millions)</b>	<b>\$244.10</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$0.00</b>

## A-2B. SR 84/I-580 INTERCHANGE



### TVTC PROJECT SPONSOR

City of Livermore

### LEAD AGENCY

Caltrans, City of Livermore

### PROJECT DESCRIPTION (UPDATED SUMMARY 2021)

Project A-2b is located in Livermore, at the intersection of I-580 and Isabel Avenue including Portal Avenue.

The project consists of two phases:

- **Phase 1** – The Isabel Avenue Interchange project which included replacing the I-580/Portola Avenue interchange with the I-580/Isabel Avenue-SR 84 interchange. Phase I also included realignment of Isabel Avenue and the realignment and extension of Portola Avenue from East Airway Boulevard to Isabel Avenue.
- **Phase 2** – The ultimate improvements at the I-580/Isabel Avenue-SR 84 Interchange are to provide six lanes over I-580 at the Isabel Avenue-SR 84 Interchange and four lanes over I-580 at the Portola Avenue overcrossing.

### STATUS

A programmatic environmental assessment and right-of-way acquisition is complete.

#### Phase 1

Construction of Phase I of the project was completed in March 2012.

#### Phase 2

Conceptual design is approved. Project development activities are anticipated to begin in 2023.

### PHASING AND SCHEDULE

The project is expected to be constructed in the following stages:

- Phase 1 – Completed and opened to traffic in March 2012.
- Phase 2 – Project development to begin in 2023.



COST ESTIMATE AND FUNDING SOURCES

---

**Phase 2:**

<b>Cost (Millions)</b>	<b>\$22.00</b>
Funding (Millions)	
Livermore Traffic Impact Fee (TIF)	\$16.28
TVTDF	\$5.15
<b>Total Funding (Millions)</b>	<b>\$21.43</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$0.57</b>



## A-3. I-680 AUXILIARY LANES (SEGMENT 2)

### TVTC PROJECT SPONSOR

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Town of Danville

### LEAD AGENCY

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Contra Costa Transportation Authority (CCTA)

### PROJECT DESCRIPTION

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Project A-3 was located along I-680 in Danville and constructed auxiliary lanes in both directions between Crow Canyon Road in San Ramon and Sycamore Valley Road in Danville. The project was the last segment of auxiliary lanes in both directions of I-680 between Bollinger Canyon Road in San Ramon and Diablo Road in Danville.

### STATUS

---

This project has been completed.

COMPLETED



## A-4. WEST DUBLIN/PLEASANTON BART STATION

### TVTC PROJECT SPONSOR

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City of Dublin, City of Pleasanton

### LEAD AGENCY

---

BART

### PROJECT DESCRIPTION

---

Project A-4 was located in Dublin and Pleasanton and constructed the West Dublin/Pleasanton BART station and related transit improvements. The project was a joint public and private venture to build a station on the active BART line in the median of I-580. The related transit improvements were located on both the north (Dublin) and south (Pleasanton) sides of the freeway on property owned by BART and included patron parking garages, passenger pick-up and drop-offs, and bus drop-offs.

### STATUS

---

This project has been completed.

## A-5A. I-580 EASTBOUND AUXILIARY LANE

### TVTC PROJECT SPONSOR

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City of Pleasanton

### LEAD AGENCY

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Alameda CTC

### PROJECT DESCRIPTION

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Project A-5a was located along eastbound I-580 from Hacienda Drive in Pleasanton and Greenville Road in Livermore. The project constructed eastbound auxiliary lanes between Isabel Avenue and North Livermore Avenue and between North Livermore Avenue and First Street in Livermore. In addition, the project included widening two eastbound bridges at Arroyo-Los Positas Road and adding final asphalt concrete pavement across all lanes in the eastbound direction from Hacienda Drive to Greenville Road.

### STATUS

---

This project has been completed.

## A-5B. I-580 HOV LANE WESTBOUND

### TVTC PROJECT SPONSOR

---

City of Pleasanton

### LEAD AGENCY

---

Alameda CTC

### PROJECT DESCRIPTION

---

Project A-5b was located along westbound I-580 from Greenville Road in Livermore to Foothill Road overcrossing in Dublin and Pleasanton. The project constructed westbound HOV lanes and rehabilitated existing pavement.

The project increased capacity, safety, and efficiency for commuters and freight along the primary trade corridor connecting the Bay Area with the Central Valley.

The project was completed in two segments:

- East Segment – Greenville Road overcrossing to Isabel Avenue in Livermore
- West Segment – Isabel Avenue to Foothill Road overcrossing

### STATUS

---

This project has been completed.

## A-6. I-680 HOV LANES, SR 84 TO TOP OF SUNOL GRADE

### TVTC PROJECT SPONSOR

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City of Pleasanton

### LEAD AGENCY

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Caltrans and Alameda CTC

### PROJECT DESCRIPTION

---

Project A-6 was located along southbound I-680 between SR-84 and the top of the Sunol Grade. The project constructed HOV lanes along approximately a 3.5-mile segment of I-680.

### STATUS

---

This project has been completed.

COMPLETED



## A-7. I-580/FOOTHILL ROAD/SAN RAMON ROAD INTERCHANGE MODIFICATIONS

### TVTC PROJECT SPONSOR

---

City of Pleasanton

### LEAD AGENCY

---

Caltrans

### PROJECT DESCRIPTION

---

Project A-7 was located at the intersection of the I-580 ramps and Foothill Road in Pleasanton. The project constructed improvements to improve intersection operations and safety. The project modified the intersection to remove the direct eastbound to southbound connection and eastbound to northbound loop connection so that it terminates into a “T” style signalized intersection at Foothill Road just south of the Foothill Road Bridge.

### STATUS

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This project has been completed.

## A-8. I-680/ALCOSTA BOULEVARD INTERCHANGE

### TVTC PROJECT SPONSOR

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City of San Ramon

### LEAD AGENCY

---

Caltrans

### PROJECT DESCRIPTION

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Project A-8 was located at the I-680/Alcosta Boulevard interchange in San Ramon. The project reconstructed the southbound off-ramp and added a new on-ramp to improve operations at the interchange. This project closed the southbound off-ramp and built new on- and off-ramps north of Alcosta Boulevard.

### STATUS

---

This project has been completed.

COMPLETED





## A-9A. CROW CANYON ROAD IMPROVEMENTS PHASE 1



### TVTC PROJECT SPONSOR

Alameda County

### LEAD AGENCY

Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMARY 2021)

Project A-9a is located along Crow Canyon Road between E. Castro Valley Boulevard and the Alameda/Contra Costa County line.

Project A-9a is Phase 1 of a two-phase safety improvement project along Crow Canyon Road. Please refer to Project A-9b for details on Phase 2.

Phase 1 safety improvements include speed feedback signs, shoulder widening, California Highway Patrol (CHP) enforcement areas, and guard rail modifications.

Overall, the short-term safety improvements will facilitate traffic safety and operations, while reducing congestion for residents traveling between Alameda and Contra Costa Counties.

### STATUS

The project is currently in the Preliminary Engineering/Environmental Studies stage.

### PHASING AND SCHEDULE

Construction of Phase 1 is to be determined.

### COST ESTIMATE AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$18.87</b>
Funding (Millions)	
CMA TIP	\$0.45
Local Alameda County	\$0.45
TVTDF	\$1.55
<b>Total Funding (Millions)</b>	<b>\$2.45</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$8.42</b>

## A-9B. CROW CANYON ROAD IMPROVEMENTS PHASE 2



### TVTC PROJECT SPONSOR

Alameda County

### LEAD AGENCY

Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project A-9b is located along Crow Canyon Road between E. Castro Valley Boulevard and the Alameda/Contra Costa County Line.

Project A-9b is Phase 2 of the two-phase safety improvement project along Crow Canyon Road. Please refer to Project A-9a for details on Phase 1.

Phase 2 safety improvements include roadway realignment, shoulder widening, roundabouts, two-way left turn lanes (as needed), and tunnels at post mile (PM) 2.15.

This project will increase safety for motorists traveling along this major arterial roadway between Castro Valley in Alameda County and San Ramon in Contra Costa County. The realignment of various curves, shoulder widening, and tunnels at PM 2.15 will facilitate improved traffic operations and reduce congestion for residents traveling between Alameda and Contra Costa Counties.

### STATUS

This project is in the scoping stage. Construction is expected to begin after completion of Phase 1 (Project A-9a).

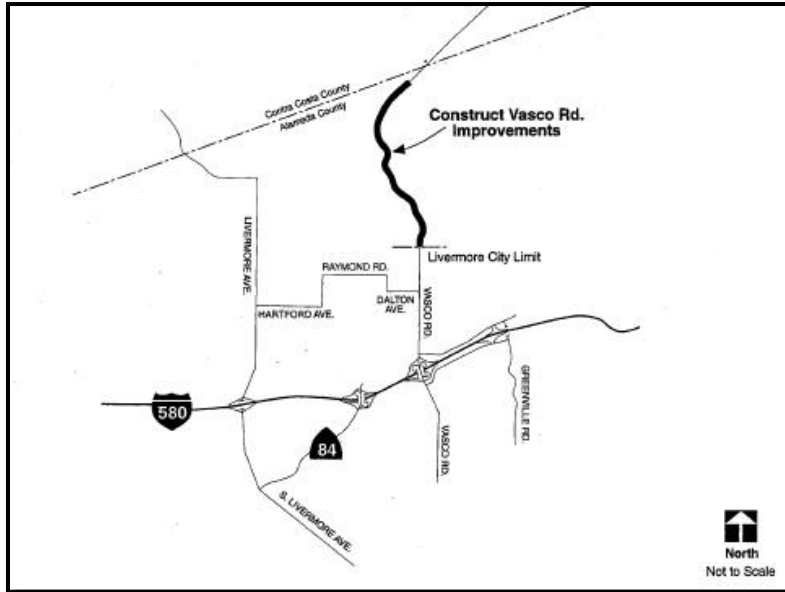
### PHASING AND SCHEDULE

Phasing and schedule have not yet been determined.

### COST ESTIMATE AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$58.77</b>
Funding (Millions)	
TVTDF	\$1.69
Total Funding (Millions)	\$1.69
<b>Total Funding Shortfall (Millions)</b>	<b>\$57.08</b>

## A-10A. VASCO ROAD SAFETY IMPROVEMENTS PHASE 1



### TVTC PROJECT SPONSOR

Alameda County

### LEAD AGENCY

Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project A-10a is located along Vasco Road in Alameda County.

Project A-10a is Phase 1 of the Vasco Road Safety Improvements, a two-phase safety improvement project along Vasco Road. The project includes roadway realignment, shoulder widening, and installation of

median barriers along Vasco Road. Please refer to Project A-10b for details on Phase 2.

Roadway realignments have been completed and consisted of straightening the alignment of Vasco Road at about 1.8-miles north of the Livermore city limits to the Alameda/Contra Costa county line. A median barrier has been installed between the Contra Costa County line and about 1.8-miles north of the Livermore city limits. The installation of median barriers eliminates crossover-type collisions that resulted in fatalities in the past. The realignment of tight curves facilitates Tri Delta bus services between Alameda and Contra Costa Counties.

The remaining components of Phase 1 includes sub-standard shoulder modifications.

### STATUS

The utility relocation phase of this project has been completed. Construction of the realignment project was completed in November 2009. Installation of the median barriers was also completed.

### PHASING AND SCHEDULE

The Vasco Road Safety Improvement Project is scheduled to be constructed in two stages. Shoulder improvements for Phase 1 are expected to be completed by 2020.

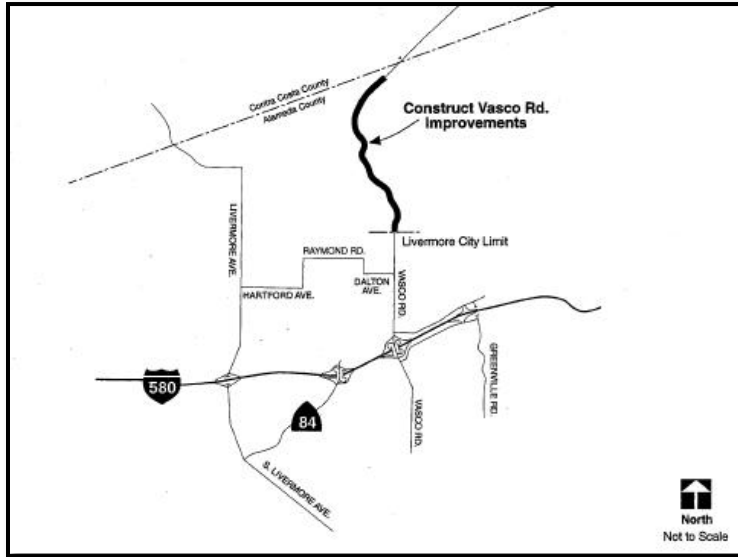
## COST ESTIMATE AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$40.57</b>
Funding (Millions)	
Measure B	\$1.50
STIP	\$4.60
TCRP	\$6.50
Local Alameda County	\$2.81
STP/CMAQ	\$3.90
Prop 1-B	\$6.00
Fed demo	\$0.80
TVTDF	\$3.32
<b>Total Funding (Millions)</b>	<b>\$29.43</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$11.14</b>



## A-10B. VASCO ROAD SAFETY IMPROVEMENTS PHASE 2



### TVTC PROJECT SPONSOR

Alameda County

### LEAD AGENCY

Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project A-10b is located along Vasco Road in Alameda County.

Project A-10b is Phase 2 of the Vasco Road Safety Improvements, a two-phase safety improvement project along Vasco Road. Please refer to Project A-10a for details on Phase 1.

Phase 2 includes roadway realignment, shoulder widening, and installation of median barriers. This phase of the project will install median barriers along Vasco Road within Alameda County on portions of the roadway not covered by Phase 1. In addition, this phase will include shoulder widening and curve modifications, as needed. Phase 2 of Vasco Road will provide continuous median barrier protection between Contra Costa County and the City of Livermore. The installation of median barriers will eliminate crossover-type collisions that resulted in fatalities in the past.

### STATUS

The Phase 2 project is in the scoping stage.

### PHASING AND SCHEDULE

The Phase 2 project is expected to begin Project Study Report (PSR) in 2016. Alameda County is in progress to retain consultant services.

### COST ESTIMATE AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$31.20</b>
Funding (Millions)	
TVTDF	\$2.58
<b>Total Funding (Millions)</b>	<b>\$2.58</b>
<b>Total Funding Shortfall (Millions, 2015)</b>	<b>\$28.62</b>

## A-11. EXPRESS BUS/BUS RAPID TRANSIT (BRT) – PHASE 2



### TVTC PROJECT SPONSOR

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City of Dublin

### LEAD AGENCY

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Livermore Amador Valley Transit Authority (LAVTA)

### OTHER INVOLVED PARTIES

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City of Livermore, City of Pleasanton

### PROJECT DESCRIPTION *(UPDATED SUMMARY 2021)*

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Project A-11 is Phase 2 of the Express Bus/BRT, which consists of two phases. The express bus route associated with Phase 1 of the project has been operating since January 2011.

Phase 2 includes upgrades to and expansion of the initial Rapid Project, as well as some project refinements, updates, and maintenance/replacement of original project elements and equipment based on evaluation of the existing components and conditions at the time of funding. The transit system priorities include the following elements:

- A technologically advanced transit system
- A multi-modal transportation system that supports the local economy
- Prioritized regional transfers and connections
- Reliability and efficiency that maximizes value to taxpayers and the community

Phase 2 will consist of five key potential elements (based upon conditions at time of funding):

1. **Advanced Technology** – Design and installation of advanced technologies and road features allowing rapid transit to operate quickly and efficiently, and help to mitigate delay in dwell times, boardings, and travel times. Some of the advanced technologies and road features that LAVTA is considering for Phase 2 are: transit signal priority, enhanced stations, queue jumps, environmentally friendly coaches and advanced onboard technology, advanced fare collection systems, level boarding, dedicated travel lanes, and better integrated park and ride facilities and transit centers. Element 1 is currently budgeted at \$2 Million.
2. **North/South Express Bus/Rapid Service** – In keeping with the Alameda Countywide Transit Plan, and in order to provide a strong foundation for LAVTA’s System, I-680 service expansion, North/South Express Bus/BRT service, and other Express/Rapid service options, will be explored and considered. Element 2 is currently budgeted at \$6.5 Million.

3. **Dublin Extension** – Continued study and planning will be done on how best to integrate the planned extension of Dublin Boulevard and the planned Livermore BART Extension into LAVTA’s Express Bus/BRT service. Element 3 is currently budgeted at \$6.5 Million.
4. **Pleasanton Alignment** – Complete “Rapidization,” of the Livermore to Pleasanton alignment will be evaluated, with advanced technology and improved service elements planned for the south side of I-580, and possible connection to the existing Rapid service. Element 4 is currently budgeted at \$1.5 Million.
5. **Park and Ride Lots** – In working with local cities and Alameda County, LAVTA will consider improved park and ride elements to support bus, biking, and walking access in the Tri-Valley, and to improve the accessibility of transportation alternatives that would ease congestion on I-580. These options might include: construction of new lots, smart signage, improved bicycle storage, increased pedestrian accessibility and safety, enhanced multi-modal elements on coaches, and increased or revised bus service to rail stations and regional transit connections. Element 5 is currently budgeted at \$2 Million.

## STATUS

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Phase 1 is fully completed and operational, as of January 2011.

Phase 2 is in the research, design, and planning stage. In August 2016, LAVTA realigned the Express Bus/BRT Route (Route 30R) to serve Las Positas College, and transformed existing Route 10 into an Express Bus/BRT (Route 10R) operating through Pleasanton to BART. The transformation of Route 10 into Route 10R was the first step in implementation of the Phase 2 Pleasanton Alignment. LAVTA intends to implement additional items from Phase 2 (Advanced Technology) to both Routes 10R and 30R in 2017, which includes upgrading the traffic signal priority onboard the buses and at key intersections along both Rapid routes.

## PHASING AND SCHEDULE

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Costs for Phase 2 have been updated to reflect current pricing for the project elements listed above. Phase 2 Scope of work, schedule, and full funding parameters are not known at this time.

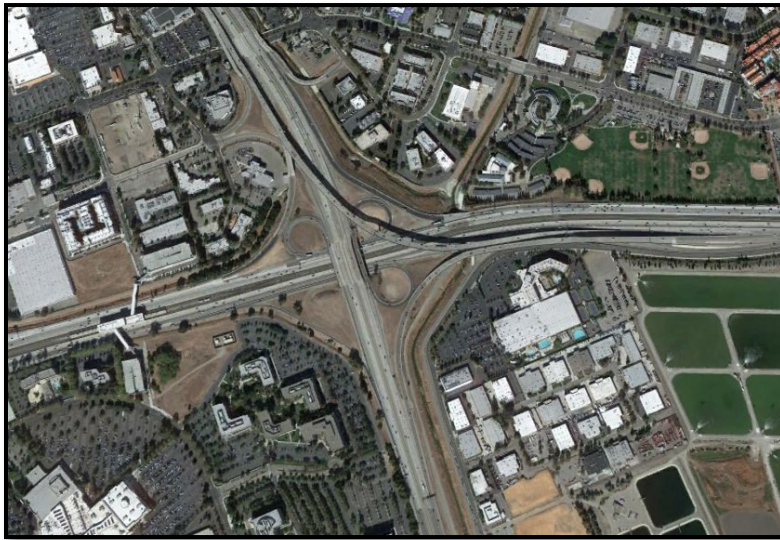
## COST ESTIMATE AND FUNDING SOURCES

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### Phase 2:

<b>Cost (Millions)</b>	<b>\$22.35</b>
Funding (Millions)	
TVTDF	\$1.94
<b>Total Funding (Millions)</b>	<b>\$1.94</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$20.41</b>

## B-1. I-580/I-680 INTERCHANGE (WESTBOUND TO SOUTHBOUND)



### TVTC PROJECT SPONSOR

City of Dublin

### LEAD AGENCY

Alameda CTC

### OTHER INVOLVED PARTIES

Caltrans and City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project B-1 is located at the I-580/I-680 Interchange in Alameda County. The proposed

project limits are from 1,700 feet east of the Hacienda Drive Overcrossing to 2,000 feet west of the San Ramon Road Overcrossing along I-580, and from the Amador Valley Boulevard Undercrossing to 3,400 feet south of the Stoneridge Drive Overcrossing along I-680.

### STATUS

A Project Study Report-Project Development Support (PSR-PDS) was completed and approved by Caltrans in 2009.

The next steps in project development will be to:

- Review the existing PSR-PDS to validate the information
- Identify the need for updates/revisions to identify financially feasible improvements to address the latest safety, operational, and congestion issues

The Alameda CTC's 2014 Transportation Expenditure Plan (TEP), approved as part of Measure BB, includes \$20 Million in funding for I-580/I-680 Interchange improvements. Further project development is being explored. Alameda CTC is working with local, regional, and state agencies in identifying funding.

### PHASING AND SCHEDULE

The Alameda CTC's 2020 Countywide Transportation Plan (CTP) split this project into two phases. Phase 1 is part of the County's 10-year priority project list, while Phase 2 is listed under 30-Year project list.



COST ESTIMATE AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$1,785.65</b>
Funding (Millions)	
Measure BB	\$20.00
TVTDF	\$1.00
<b>Total Funding (Millions)</b>	<b>\$21.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$1,764.65</b>



## B-2. FIFTH EASTBOUND LANE ON I-580 (SANTA RITA ROAD TO VASCO ROAD)

### TVTC PROJECT SPONSOR

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City of Pleasanton, City of Livermore

### LEAD AGENCY

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Alameda CTC

### PROJECT DESCRIPTION

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Project B-2 is located along eastbound I-580 between Santa Rita Road and Vasco Road. The project would construct a fifth eastbound mixed flow lane and would eliminate the lane drop at Santa Rita Road.

### STATUS

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This project has been completed



## B-3. I-580/FIRST STREET INTERCHANGE MODIFICATION



### TVTC PROJECT SPONSOR

City of Livermore

### LEAD AGENCY

Caltrans

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project B-3 is located at the I-580/First Street interchange in Livermore. The project would modify the interchange by widening the overcrossing to six lanes and reconstructing the ramps to achieve a partial cloverleaf interchange design.

### STATUS

A PSR has been completed.

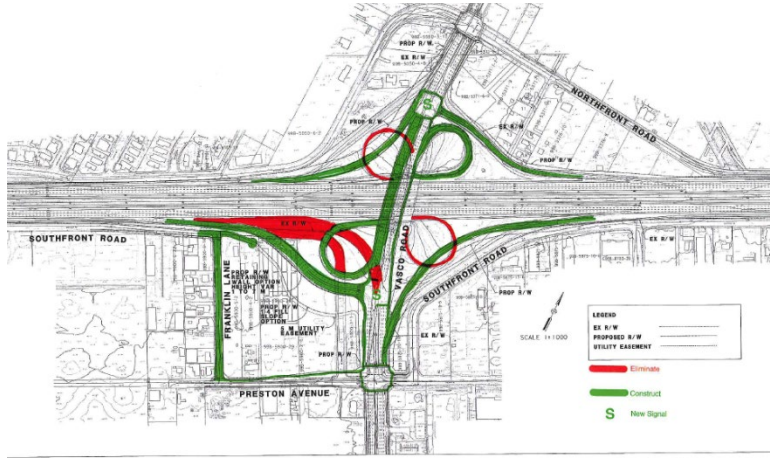
### PHASING AND SCHEDULE

The project schedule and phasing are not available at this time.

### COST ESTIMATE AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$61.00</b>
Funding (Millions)	
Livermore TIF	\$53.07
<b>Total Funding (Millions)</b>	<b>\$53.07</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$7.93</b>

## B-4. I-580/VASCO ROAD INTERCHANGE MODIFICATION



### TVTC PROJECT SPONSOR

City of Livermore

### LEAD AGENCY

Caltrans

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project B-4 is located at the I-580/Vasco Road interchange in Livermore. The project would modify the interchange by widening the

overcrossing to eight lanes and reconstructing the ramps to achieve a modified partial cloverleaf interchange design.

### STATUS:

A PSR and programmatic environmental impact report (EIR) for right-of-way protection has been completed. Right-of-way acquisition is underway.

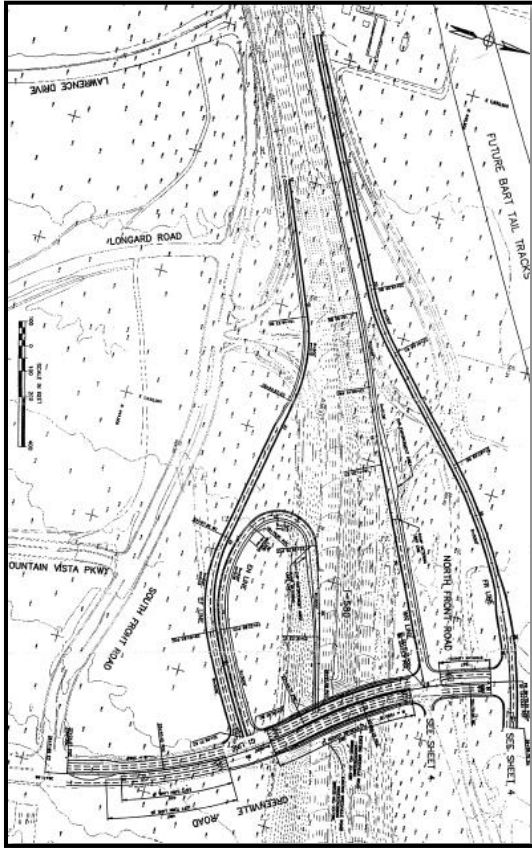
### PHASING AND SCHEDULE:

A PSR and programmatic environmental impact report (EIR) for right-of-way protection has been completed. Right-of-way acquisition is underway.

### COST ESTIMATE AND FUNDING SOURCES:

<b>Cost (Millions)</b>	<b>\$85.65</b>
Funding (Millions)	
Livermore TIF	\$67.66
Measure BB	\$1.38
TVTDF	\$8.57
<b>Total Funding (Millions)</b>	<b>\$77.61</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$8.07</b>

## B-5. I-580/GREENVILLE ROAD INTERCHANGE MODIFICATION



### TVTC PROJECT SPONSOR

City of Livermore

### LEAD AGENCY

Caltrans

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project B-5 is located at the I-580/Greenville Road interchange in Livermore. The project would modify the interchange by widening the undercrossing to six lanes and reconstructing the ramps to achieve a modified partial cloverleaf interchange design. The project would also construct segments of auxiliary lanes in the vicinity of the interchange.

### STATUS

A PSR and programmatic Environmental Impact Report (EIR) for right-of-way protection has been completed. Right-of-way acquisition is underway.

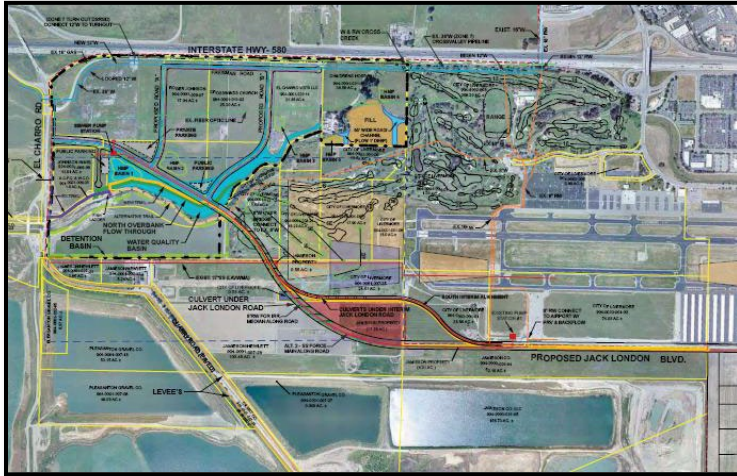
### PHASING AND SCHEDULE

The project phasing and schedule is unavailable.

### COST ESTIMATE AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$86.00</b>
Funding (Millions)	
Livermore TIF	\$67.08
<b>Total Funding (Millions)</b>	<b>\$67.08</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$18.92</b>

## B-6. JACK LONDON BOULEVARD EXTENSION



### TVTC PROJECT SPONSOR

City of Livermore

### LEAD AGENCY

City of Livermore

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project B-6 is located along Jack London Boulevard in Livermore. The project would widen Jack London Boulevard to El Charro Road as a four-lane arterial roadway.

The project will be constructed in two phases.

- Phase 1 - two lane extension
- Phase 2 – relocate a portion of the roadway south of the Livermore Airport to its ultimate alignment

### STATUS

An EIR, design, right-of-way acquisition, and construction of the two-lane extension (Phase 1) has been completed.

### PHASING AND SCHEDULE

The project is expected to be constructed in two phases.

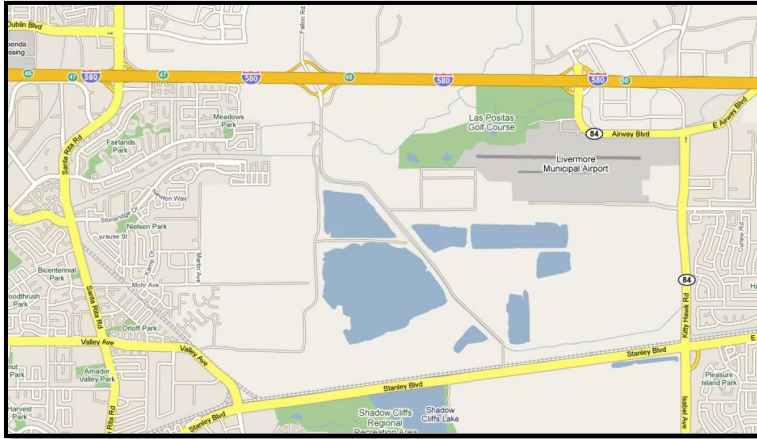
- Phase 1 – Completed 2009.
- Phase 2 - Will not commence until after the quarries have completed mining operations.

### COST ESTIMATE AND FUNDING SOURCES

#### Phase 2:

<b>Cost (Millions)</b>	<b>\$28.16</b>
Funding (Millions)	
Livermore TIF	\$18.08
<b>Total Funding (Millions)</b>	<b>\$18.08</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$10.08</b>

## B-7. EL CHARRO ROAD EXTENSION (STONERIDGE DRIVE/JACK LONDON BOULEVARD TO STANLEY BOULEVARD)



### TVTC PROJECT SPONSOR

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City of Pleasanton

### LEAD AGENCY

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City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

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Project B-7 is located along El Charro Road in Pleasanton. The project would extend El Charro Road south from its current terminus at Stoneridge Drive/Jack London Boulevard to connect with Stanley Boulevard. Currently, this section of El Charro Road is a private roadway, but the El Charro extension will be open for public use.

The El Charro Road Extension project consists of two phases.

- Phase 1 – between I-580 and Stoneridge Drive-Jack London Boulevard
- Phase 2 – between Stoneridge Drive-Jack London Boulevard and Stanley Boulevard, approximately 1.7 miles

### STATUS

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Phase 1 was completed and open for public use in 2012 with the construction of the Livermore Outlets.

Phase 2 has been incorporated into Project C-5 EL Charro Widening, therefore Project B-7 has been removed from the project list and is no longer considered for funding.

### PHASING AND SCHEDULE

---

The project has been removed from the project list and is no longer considered for funding.

## B-8. CAMINO TASSAJARA/TASSAJARA ROAD WIDENING PROJECT (EAST OF BLACKHAWK DRIVE TO NORTH DUBLIN RANCH DRIVE)



### TVTC PROJECT SPONSOR

Contra Costa County, City of Dublin

### LEAD AGENCY

Contra Costa County, City of Dublin

### PROJECT DESCRIPTION

(UPDATED SUMMER 2021)

Project B-8 is located along Camino Tassajara-Tassajara Road. This project consists of two project phases:

- Safety Improvement Project – Blackhawk Drive in Contra Costa County to Moller Ranch (Palisades Drive) in the City of Dublin
- Roadway Widening Project – Windemere Parkway to County Line (Contra Costa County) and Quarry Lane School/Wallis Ranch Drive to North Dublin Ranch Drive (City of Dublin)

### Safety Improvement Project

The safety improvement project will widen Camino Tassajara from two to four lanes from East of Blackhawk Drive to Moller Ranch (Palisades Drive) in the City of Dublin. The project may also include realignment of various horizontal curves along the roadway. Interim improvements may include roadway widening to meet two-lane rural road standards with sufficient lane width and shoulder width to improve safety and allow for future bike lanes. The project will improve safety for motorists and create bicycle facilities consistent with the Contra Costa Countywide Bicycle and Pedestrian Plan and the City of Dublin Bicycle and Pedestrian Master Plan. The ultimate improvements will increase capacity along Camino Tassajara to help mitigate the impacts of local and regional growth in housing and employment within the Tri-Valley.

### Roadway Widening Project

The roadway widening project consist of two segments:

- Segment A – Windemere Parkway to County line
- Segment B – Quarry Lane School/ Wallis Ranch Drive to North Dublin Ranch Drive

Segment A will widen and realign Camino Tassajara from two to four lanes. The horizontal curves at the Contra Costa/Alameda County Line will be realigned to increase safety along the roadway. Roadway shoulders will be widened to create bicycle facilities consistent with the Contra Costa Countywide Bicycle and Pedestrian Plan. The ultimate improvements will increase capacity along Camino



Tassajara/Tassajara Road to help mitigate the impacts of local and regional growth in housing and employment within the Tri-Valley.

Segment B will widen Tassajara Road from two to four lanes and will improve safety for motorists, bicyclists, and pedestrians, by providing sidewalks, bike lanes, and widening from two to four lanes. Roadway improvements will be consistent with the City of Dublin Bicycle and Pedestrian Master Plan. The ultimate improvements will increase capacity along Tassajara Road to help mitigate the impacts of local and regional growth in housing and employment within the Tri-Valley.

## STATUS

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### Safety Improvement Project

The PSR for the project has been completed. The City of Dublin and Contra Costa County are coordinating on various aspects of the Camino Tassajara/Tassajara Road safety improvements near the Contra Costa/Alameda County line.

### Roadway Widening Project

The PSR for the project has been completed. The City of Dublin and Contra Costa County are coordinating on various aspects of the Camino Tassajara/Tassajara Road widening phase.

## PHASING AND SCHEDULE

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### Safety Improvement Project

Contra Costa County and the City of Dublin are beginning design of Phase 1 improvements of the safety project limits from Windermere Parkway to Moller Ranch (Palisades Drive).

### Roadway Widening Project

Contra Costa County and the City of Dublin are conducting initial preliminary engineering for the Segment A and B roadway widening project within their respective jurisdictions.

## COST ESTIMATE AND FUNDING SOURCES

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### Contra Costa County:

<b>Cost (Millions)</b>	<b>\$38.19</b>
Funding (Millions)	
Contra Costa Traffic Mitigation Fees	\$18.73
TVTDF	\$6.38
<b>Total Funding (Millions)</b>	<b>\$25.11</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$13.08</b>

**City of Dublin:**

<b>Cost (Millions)</b>	<b>\$49.89</b>
Funding (Millions, 2015)	
Dublin EDTIF	\$2.49
Dublin Transportation Improvement Fee (TIF) Program	\$1.00
Dublin Dougherty Valley Contributions	\$2.13
TVTD (City of Dublin 20% Local Funding)	\$2.80
TVTDF	\$1.45
<b>Total Funding (Millions)</b>	<b>\$9.87</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$40.02</b>



## B-10. I-680 SOUTHBOUND HOV LANE GAP CLOSURE (NORTH MAIN STREET TO RUDGEAR ROAD)

### TVTC PROJECT SPONSOR

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City of San Ramon

### LEAD AGENCY

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CCTA

### OTHER INVOLVED PARTIES

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Caltrans

### PROJECT DESCRIPTION

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Project B-10 is located along southbound I-680 between North Main Street and Rudgear Road. The project would close the HOV lane gap along this segment of I-680 and provide a continuous HOV lane from the Benicia-Martinez Bridge to the Contra Costa/Alameda County line.

The project is necessary to encourage carpooling, vanpooling, and transit; while providing the necessary infrastructure for express buses in the corridor. When completed, the HOV lane is planned to be converted to an Express Lane as part of the I-680 Express Lanes Project.

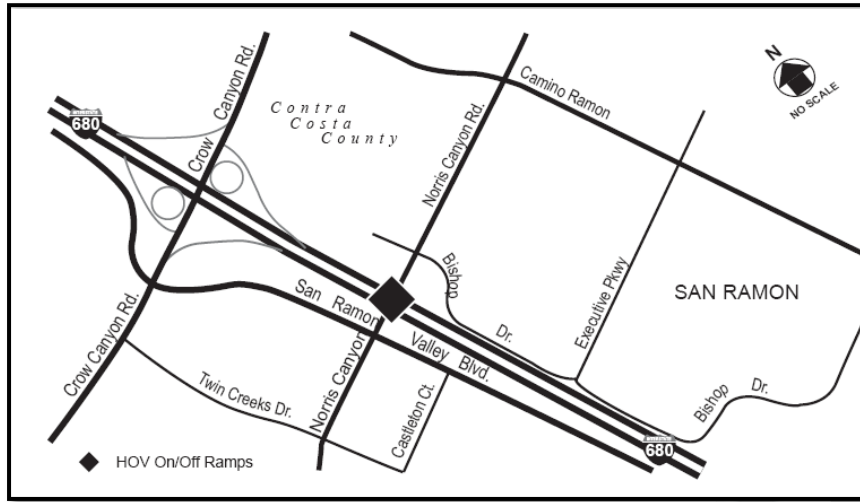
### STATUS

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This project has been completed.



## B-11A. I-680 HOV DIRECT ACCESS RAMPS



TVTC PROJECT  
SPONSOR

City of San Ramon

LEAD AGENCY

CCTA

### PROJECT DESCRIPTION (UPDATED SUMMER 2016)

Project B-11a is located along I-680 in San Ramon. The project would construct dedicated HOV on- and off-ramps in the median of I-680, in both the northbound and southbound directions at Norris Canyon Road or at Executive Parkway in San Ramon. The project received a high level of community interest, with a number of local residents voicing strong oppositions about the direct HOV ramps at Norris Canyon. An alternative location for the direct ramps is also being evaluated at Executive Parkway.

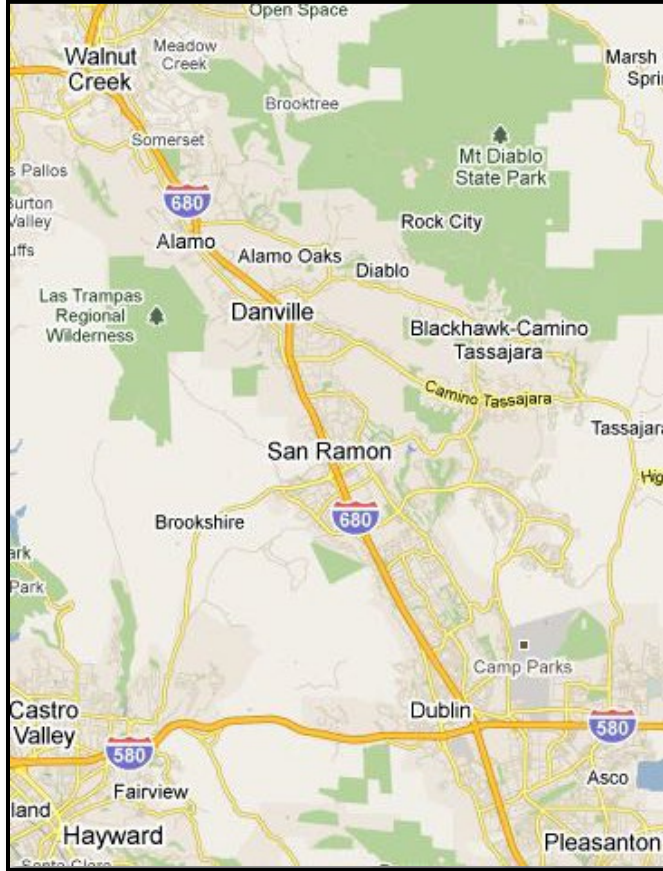
### STATUS

March 2016, a letter from the City of San Ramon to CCTA was submitted and stated that the City of San Ramon withdrew support for the project. Subsequently, the CCTA has suspended work on the project.

### PHASING AND SCHEDULE

The project has been removed from the project list and is no longer considered for funding.

## B-11B. I-680 TRANSIT CORRIDOR IMPROVEMENTS



### TVTC PROJECT SPONSOR

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City of San Ramon

### LEAD AGENCY

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CCTA

### OTHER INVOLVED PARTIES

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Caltrans, Southwest Area Transportation (SWAT) Committee, Transportation Partnership and Cooperation (TRANSPAC)

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

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Project 11-B is located along I-680 in San Ramon. The project would fund a corridor express lane and operational improvements to facilitate carpools and increase transit use in the corridors as an alternative to single occupant vehicle travel. Funding may also be used to implement high capacity transit improvements along I-680. These improvements may include an express lane, relevant transit projects, advanced traffic

management programs, and/or autonomous or connected vehicles.

### STATUS

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A Project Study "I-680 Transit Investment Congestion Relief Study" was completed in 2015 with Measure J funds. Specific details for this project will be further developed when additional funding is identified.

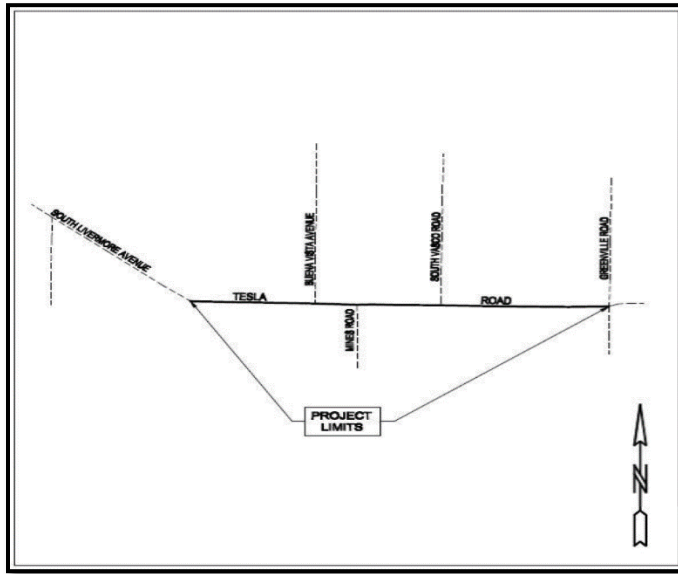
Project 11b has been incorporated into Project C-10 Innovate 680 and therefore has been removed from the project list and is no longer considered for funding.

### PHASING AND SCHEDULE

---

The project has been removed from the project list and is no longer considered for funding.

## C-1. TESLA ROAD SAFETY IMPROVEMENT



### TVTC PROJECT SPONSOR

Alameda County

### LEAD AGENCY

Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-1 is along Tesla Road from Greenville Road to South Livermore Avenue in rural Unincorporated Alameda County includes shoulder widening, turn lanes to access wineries and residences, pavement rehabilitation, and utilities undergrounding. This safety improvements project will address rear end type collisions, improve

access to wineries, and improve goods movements as well as commute traffic issues. Proposed improvements will reduce queues along this congested rural roadway connecting Unincorporated areas of Alameda County to City of Livermore.

### STATUS

The project is currently in the scoping phase.

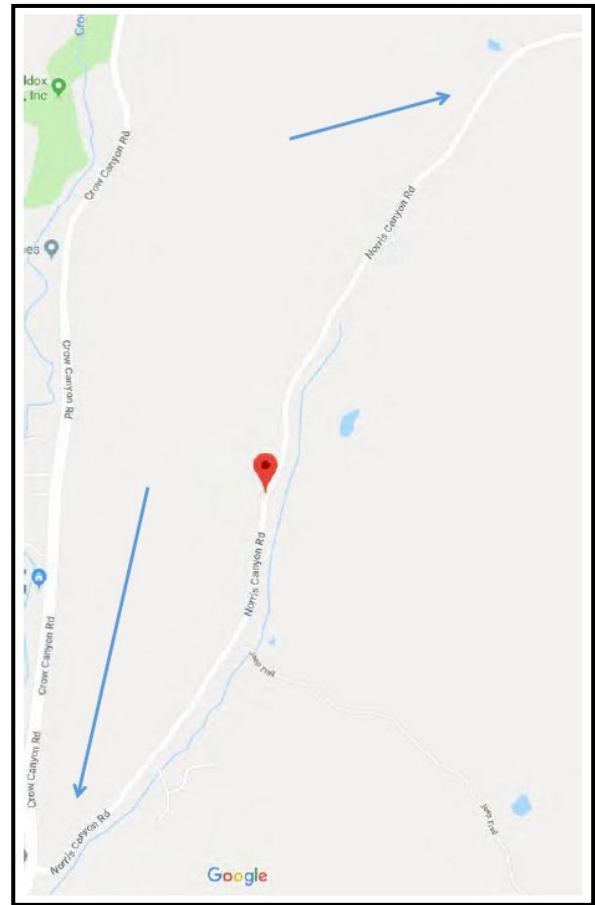
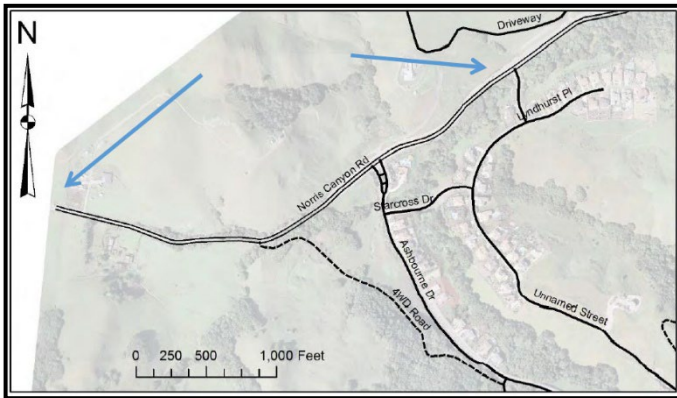
### PHASING AND SCHEDULE

The scoping phase is expected to be completed by 2024.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$13.19</b>
Funding (Millions)	\$0.00
<b>Total Funding (Millions)</b>	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$13.19</b>

## C-2. NORRIS CANYON ROAD SAFETY IMPROVEMENT



### TVTC PROJECT SPONSORS

Contra Costa County, Alameda County

### LEAD AGENCY

Contra Costa County, Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-2 includes countermeasures that will increase safety on a Norris Canyon Road, a regional route that connects San Ramon to Alameda County. The proposed project includes the following road segments:

- Segment 1 (Norris Canyon Road from San Ramon City Limits to 300 feet west of Ashbourne Drive) – this segment has experienced an increase in run off the road collisions and is slated for countermeasures such as guardrails and other safety countermeasures.
- Segment 2 (Norris Canyon Road from 300 feet west of Ashbourne Drive to Alameda County limits) – this segment currently has a 20' pavement width and no road shoulders. This segment has also experienced an increase in run off the road collisions. Countermeasures include shoulder widening, installation of a retaining wall, and installation of a guardrail.
- Segment 3 (Norris Canyon Road from the Alameda County limit line to Crow Canyon Road) – the narrow rural road continues west into Alameda County where the road pavement continues to be narrow with approximately 20' existing pavement width and no road shoulders. The proposed project would include shoulder widening and guardrail installation to reduce serious injury collisions.

### STATUS

The Project is in the preliminary engineering phase for Segments 1 and 2 as other funding is sought in order to continue planning studies and further design efforts.

## PHASING AND SCHEDULE

---

For each phase of this project, there will be a project scope and cost estimate, environmental documentation, preparation of plans, specifications, and estimates (PS&E), Right of Way (ROW) Acquisition, Construction, and Construction Inspection.

## COST AND FUNDING SOURCES

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### Contra Costa County (Segment 1 & 2):

<b>Cost (Millions)</b>	<b>\$8.00*</b>
Funding (Millions)	
TVTDF	\$0.00**
Total Funding (Millions)	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$8.00</b>

\*Segment 1: \$2 million, Segment 2: \$6 million

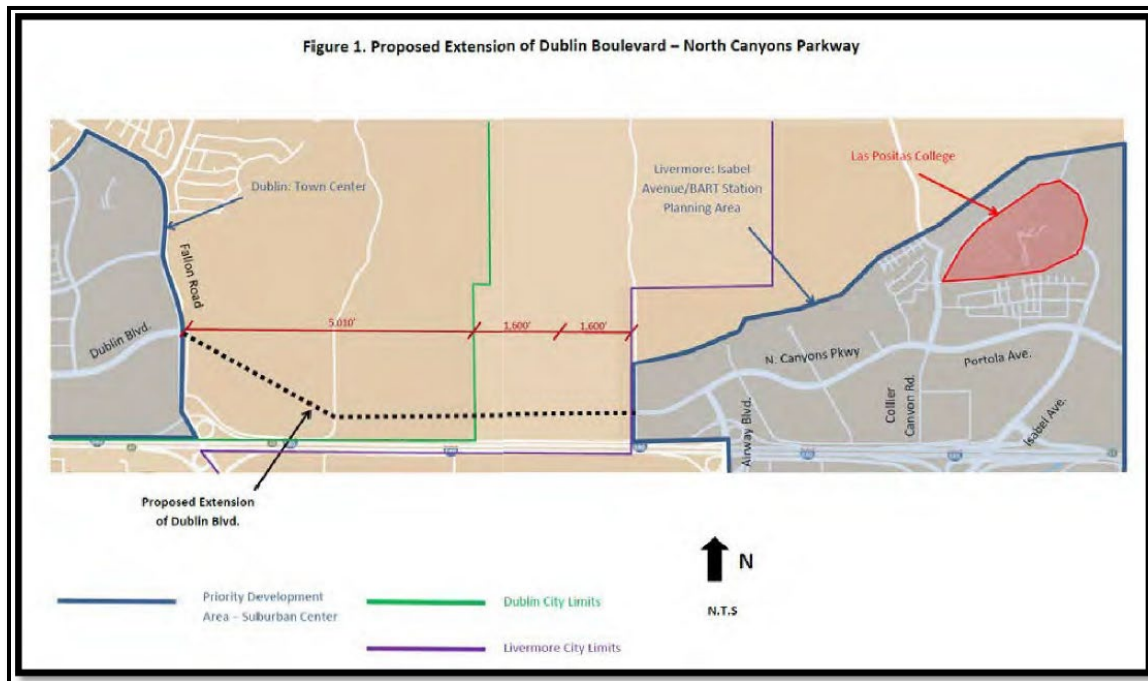
### Alameda County (Segment 3):

<b>Cost (Millions)</b>	<b>\$16.49</b>
Funding (Millions)	
TVTDF	\$0.00**
Total Funding (Millions)	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$16.49</b>

\*\*2022 SEP programed \$0.54 Million for Project C-2, but the share between Contra Costa and Alameda County is to be determined.



## C-3. DUBLIN BOULEVARD – NORTH CANYONS PARKWAY EXTENSION



### TVTC PROJECT SPONSORS

City of Dublin, City of Livermore

### LEAD AGENCY

City of Dublin, City of Livermore, LAVTA

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-3 will construct the street extension to connect Dublin Boulevard at Fallon Road in Dublin with North Canyons Parkway in Livermore at Doolan Road. The preliminary phase (currently underway) of this planned project will update the project by incorporating multimodal travel, and the current State, regional, and local priorities.

Dublin Boulevard - North Canyons Parkway Extension project would extend Dublin Boulevard in Dublin at its current terminus at Fallon Road to North Canyons Parkway in Livermore. The new extended street is planned to have 4 to 6 travel lanes, bike lanes, sidewalks, curb and gutter, traffic signals/roundabouts, a raised median, bus stops, and all street utilities. This project will consider the provision of dedicated transit lanes in addition to the mixed flow travel lanes for higher level of transit service with 10 to 20-minute headways during appropriate peak demand periods. This project will also require enhanced multimodal connectivity to various land uses along its stretch and at its terminus, including connectivity to 5 PDAs. While addressing Sustainable Communities Strategies, circulation inside and outside the PDAs will be incorporated as part of the design. This project is currently in Preliminary Design Phase (funded by local monies) including the environmental analysis for the project. It will require design and construction funding.

## STATUS

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This project is currently in Preliminary Design Phase including the environmental analysis for the project.

## PHASING AND SCHEDULE

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The environmental approval was completed in December 2019. Currently the PS&E and ROW certification is in progress and is anticipated to be completed in 2023. Construction is anticipated to begin in 2023.

## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$160.39</b>
Funding (Millions)	
Measure BB	\$7.75
Federal	\$0.54
Local	\$17.20
<b>Total Funding (Millions)</b>	<b>\$25.49</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$134.91</b>

## C-4. VASCO ROAD AT DALTON AVENUE INTERSECTION IMPROVEMENTS



### TVTC PROJECT SPONSORS

Alameda County, City of Livermore

### LEAD AGENCY

Alameda County, City of Livermore

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

The project along Vasco Road at Dalton Avenue includes the addition of a traffic lane, traffic signal modification, shoulder widening, and utility adjustments as needed.

This project is a continuation of the safety improvements project along Vasco Road that included a roadway realignment and other safety improvements north of the Livermore city limits to the Alameda/Contra Costa county line.

### STATUS

The project is in the scoping phase.

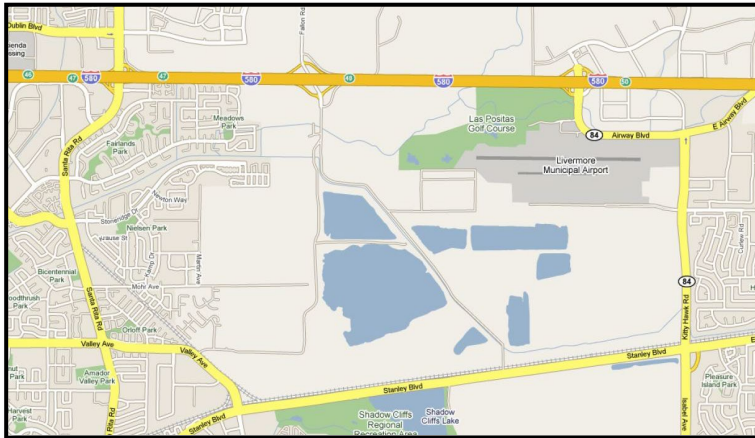
### PHASING AND SCHEDULE

The scoping phase is expected to be completed by 2023.

### Cost and Funding Sources:

<b>Cost (Millions)</b>	<b>\$3.39</b>
Funding (Millions)	\$0.00
Total Funding (Millions)	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$3.39</b>

## C-5. EL CHARRO ROAD WIDENING



### TVTC PROJECT SPONSOR

City of Pleasanton

### LEAD AGENCY

City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-5 will construct El Charro 1.7 miles south of its current terminus at Stoneridge Drive/ Jack London

Boulevard. This segment will consist of 4-lane divided road with Class I and Class IV bike facilities, including a bridge over the Arroyo Mocho and a grade separation.

### STATUS

This project has not been started.

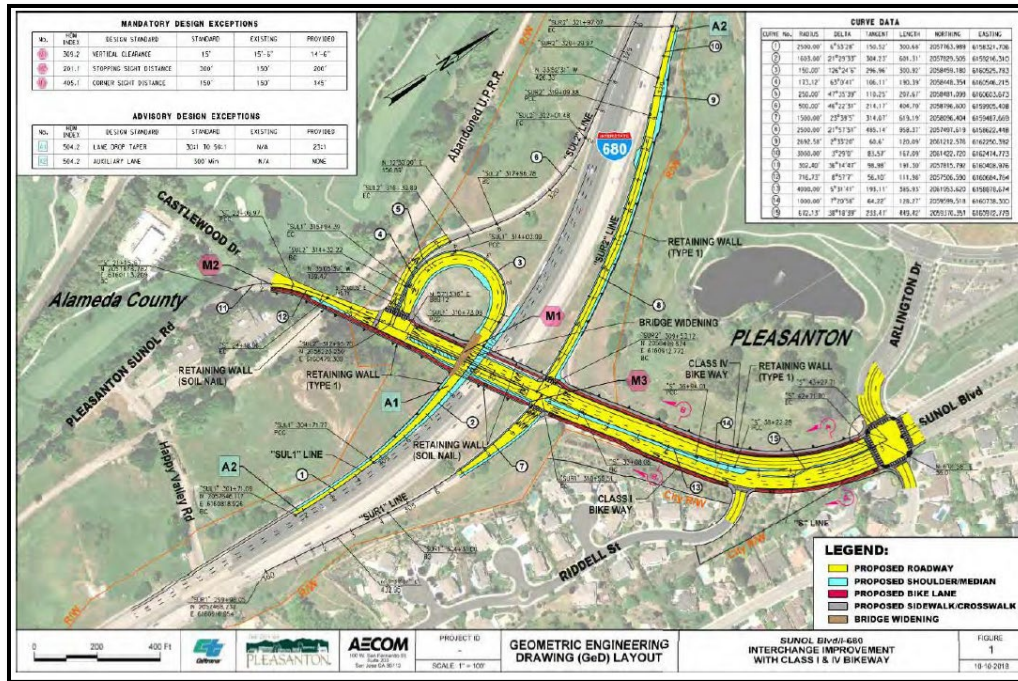
### PHASING AND SCHEDULE

Phasing and schedule are unavailable at this time.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$68.09</b>
Funding (Millions)	
Pleasanton TIF	\$30.00
<b>Total Funding (Millions)</b>	<b>\$30.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$38.09</b>

## C-6. SUNOL/680 INTERCHANGE IMPROVEMENTS



### TVTC PROJECT SPONSOR

City of Pleasanton

### LEAD AGENCY

City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-6 will fund the design of the I-680 at Sunol Boulevard interchange improvement. This will include a PSR to establish a project scope and cost estimate, environmental documentation, and the preparation of PS&E.

### STATUS

Currently in PSR-PDS phase.

### PHASING AND SCHEDULE

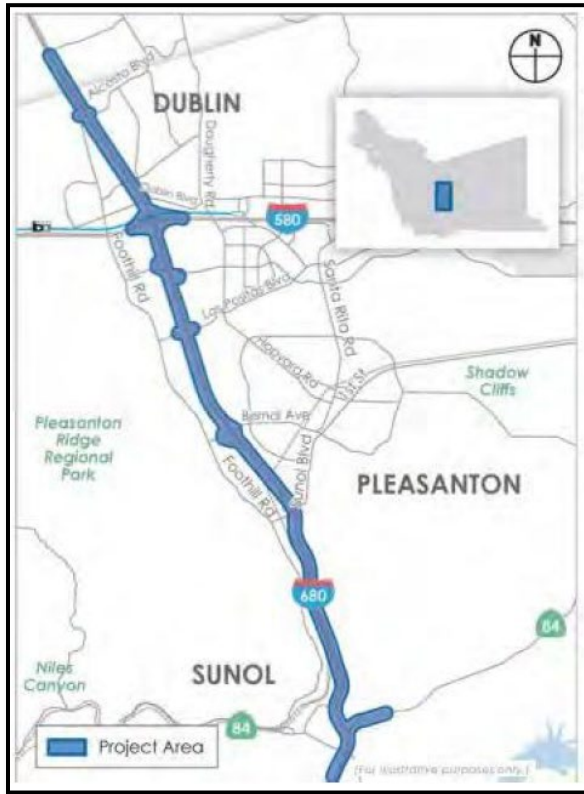
Currently the project is in the PSR-PDS. Scheduling for future phases is to be determined.

## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$16.60</b>
Funding (Millions)	
Pleasanton TIF	\$2.00
TVTDF	\$2.65
<b>Total Funding (Millions)</b>	<b>\$4.65</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$11.95</b>

## C-7. I-680 EXPRESS LANES – HWY 84 TO ALCOSTA



### TVTC PROJECT SPONSOR

City of Pleasanton

### LEAD AGENCY

Alameda CTC, City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-7 will close the gap between existing and in-progress HOV/express lane projects to the north and south. The project extends for approximately nine miles on northbound I-680 through Sunol, Pleasanton, Dublin, and San Ramon.

Design and construction of this project is being rolled out in two phases: southbound (Phase 1) and northbound (Phase 2).

### STATUS

Environmental and preliminary engineering studies are complete. Phase 1 final design work was

initiated in February 2020 and construction for Phase 1 is anticipated to start in 2022.

### PHASING AND SCHEDULE

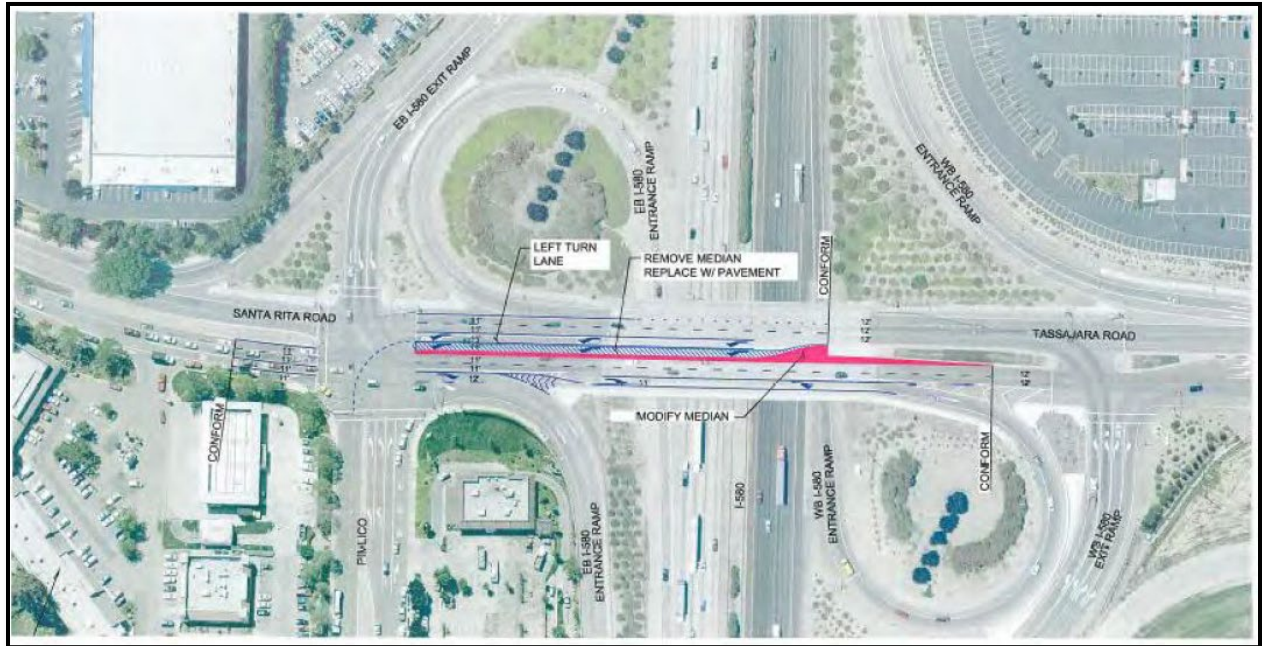
The project is expected to be constructed in several stages.

- Phase 1 (Southbound) – Environmental and preliminary engineering studies are complete. Phase 1 final design work was initiated in February 2020 and construction for Phase 1 is anticipated to start in 2022.
- Phase 2 (Northbound) - Schedule is undetermined at this time.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$527.57</b>
Funding (Millions)	
Measures BB	\$20.00
TVTDF	\$21.20
<b>Total Funding (Millions)</b>	<b>\$41.20</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$486.37</b>

## C-8. SANTA RITA/I-580 INTERCHANGE



### TVTC PROJECT SPONSOR

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City of Pleasanton

### LEAD AGENCY

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City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

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Project C-9 will construct a second southbound left turn lane from Santa Rita onto Pimilico Drive. The left turn vehicle queue length exceeds the length of the left turn pocket and blocks the #1 southbound lane, thus reducing the Level of Service.

### STATUS

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This project has not been started.

### PHASING AND SCHEDULE

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Phasing and schedule have not yet been determined.



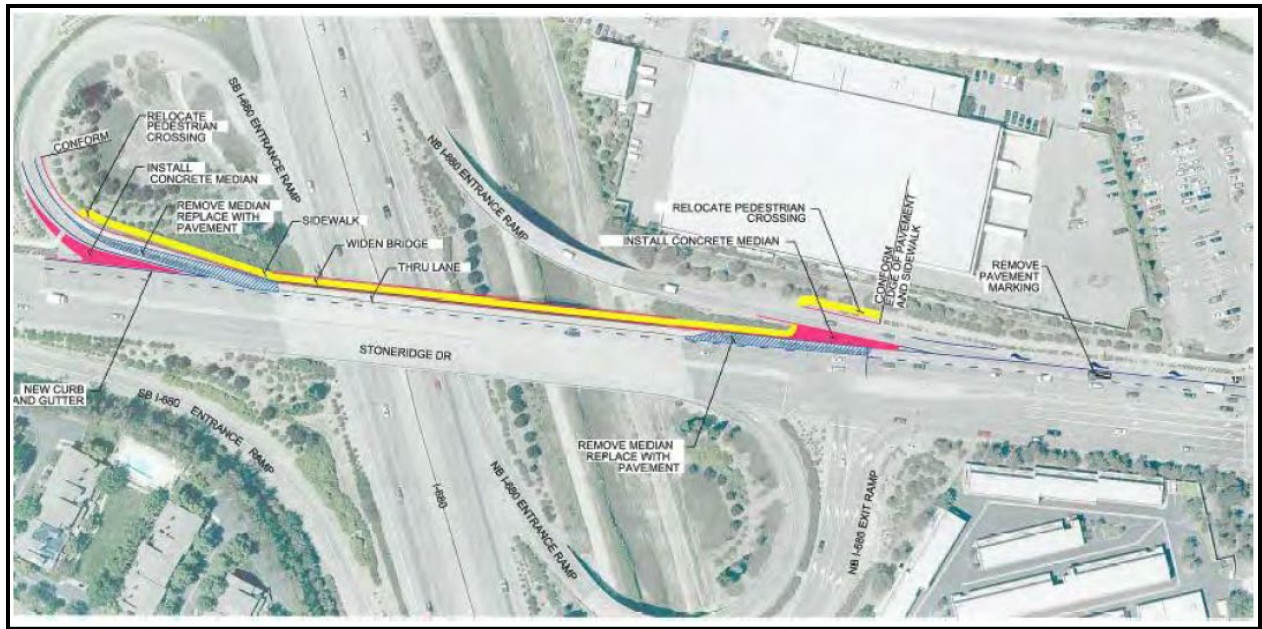
## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$10.33</b>
Funding (Millions)	
Pleasanton TIF	\$7.70
TVTDF	\$1.03
<b>Total Funding (Millions)</b>	<b>\$8.73</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$1.60</b>



## C-9. STONERIDGE/I-680 INTERCHANGE



### TVTC PROJECT SPONSOR

City of Pleasanton

### LEAD AGENCY

City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-9 will make modifications to the Stoneridge Drive Interchange to allow four westbound through lanes. This project will modify the northbound I-680 on ramp by one lane to provide two northbound ramp lanes. The widening will include the widening of the bridge structure as well as widening on Stoneridge Drive and safety improvements on the pedestrian and bicycle crossing.

### STATUS

PS&E is currently in progress.

### PHASING AND SCHEDULE

Phasing and schedule have not yet been determined.

## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$11.98</b>
Funding (Millions)	
2014 MBB (TEPO – 26) from Alameda CTC	\$5.20
Developer	\$2.70
<b>Total Funding (Millions)</b>	<b>\$7.70</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$2.63</b>



## C-10. INNOVATE 680



### TVTC PROJECT SPONSORS

Town of Danville, City of San Ramon,  
Contra Costa County

### LEAD AGENCY

CCTA, Town of Danville, City of San  
Ramon, Contra Costa County, CCTA

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Innovate 680 will implement the following strategies in the I-680 corridor:

**Strategy No. 1: Complete HOV/Express Lanes**

Eliminate the gap in existing carpool lanes in the NB direction and convert to an express lane to increase efficiency.

**Strategy No. 2: Cool Corridor “Hot Spots”**

Improve congestion “hot spots” caused by high-volume weaving areas around N. Main Street, Lawrence Way, Treat Blvd, and other locations south of SR 24 (Livorna Road, etc.). This strategy will be completed with Strategy 1 since they are interdependent.

**Strategy No. 3: Increase Efficiency of Bus Service**

Increase bus service efficiency by improving express bus service, implementing bus operations on shoulder (BOS), and increasing technology-based intermodal transit centers/managed park and ride lots.

**Strategy No. 4: Enhance TDM Strategies**

Provide enhanced 511 mobile app providing options to make informed decisions about mode choice, travel time, and cost per trip.

**Strategy No. 5: Provide First Mile/Last Mile Connections**

Implement Shared Autonomous Vehicles (SAVs) to improve transit connectivity and to shift travelers from Single Occupant Vehicles (SOVs).

**Strategy No. 6: Innovative Operational Strategies**

Deploy a suite of technology-based solutions to maximize the efficiency of the roadway system integrating adaptive ramp metering, integrated corridor management, incident management, and decision support systems.

**Strategy No. 7: Prepare Corridor for the Future**

Prepare corridor to accommodate the evolution of CV applications and AV technologies for improved traffic flow by building new and upgraded vehicle-to-infrastructure and vehicle-to-vehicle communications.

TVTDF would go towards Advance Technology portions of the project.

## STATUS

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Currently in planning and project approval & environmental documents (PA&ED) phase.

## PHASING AND SCHEDULE

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It is anticipated that by 2024, Advance technology portion of the project will finalize and adopt a concept of operations document and begin implementation, conduct environmental studies, and begin the design phase.

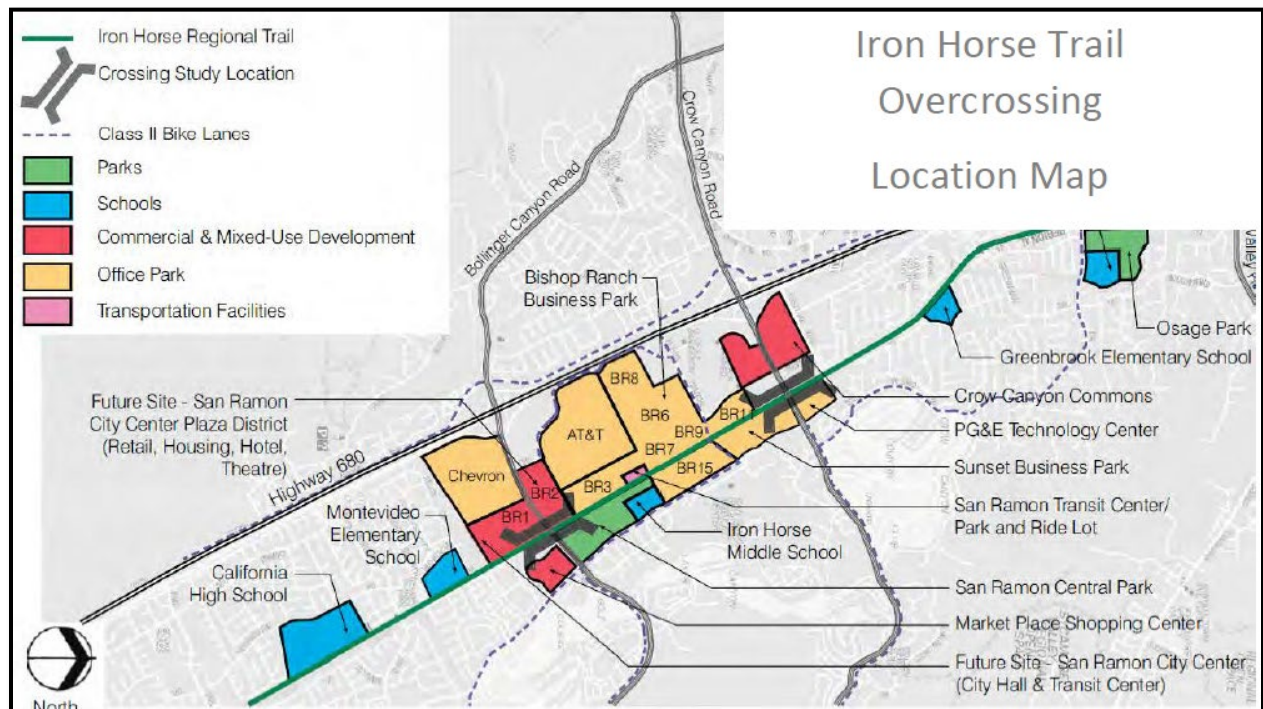
## COST AND FUNDING SOURCES

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### Advance Technologies:

<b>Cost (Millions)</b>	<b>\$57.21</b>
Funding (Millions)	
Measure J	\$0.55
STMP	\$2.00
TVTDF	\$5.72
<b>Total Funding (Millions)</b>	<b>\$8.27</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$48.94</b>

## C-11A. IRON HORSE TRAIL BICYCLE PEDESTRIAN OVERCROSSING – BOLLINGER CANYON ROAD



### TVTC PROJECT SPONSORS

City of San Ramon, Contra Costa County

### LEAD AGENCY

CCTA, City of San Ramon, Contra Costa County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

The Iron Horse Trail (IHT) is an 18-mile regional non-motorized trail that runs north/south through the San Ramon Valley providing critical access to adjacent land uses. The construction of overcrossings at key locations will develop attractive travel alternatives for congestion relief for commute trips as well as better facilities for school, shopping, and recreations trips. Project C-11a will construct an overcrossing at Bollinger Canyon Road. At this location, the overcrossing will provide substantial benefits including:

1. Improve safety by eliminating conflicts between pedestrians, bicyclists and motorists;
2. Improve motor vehicle circulation by removing the at-grade crossings;
3. Reduce and eliminate unsafe crossing maneuvers by pedestrians and bicyclists;
4. Enhance safety by providing an environment that encourages walking and bicycling along the Iron Horse Regional Trail; and
5. Increase trail usage by improving the connectivity at the Bollinger Canyon Road and Crow Canyon Road crossings.

## STATUS

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Currently in PA&ED phase.

## PHASING AND SCHEDULE

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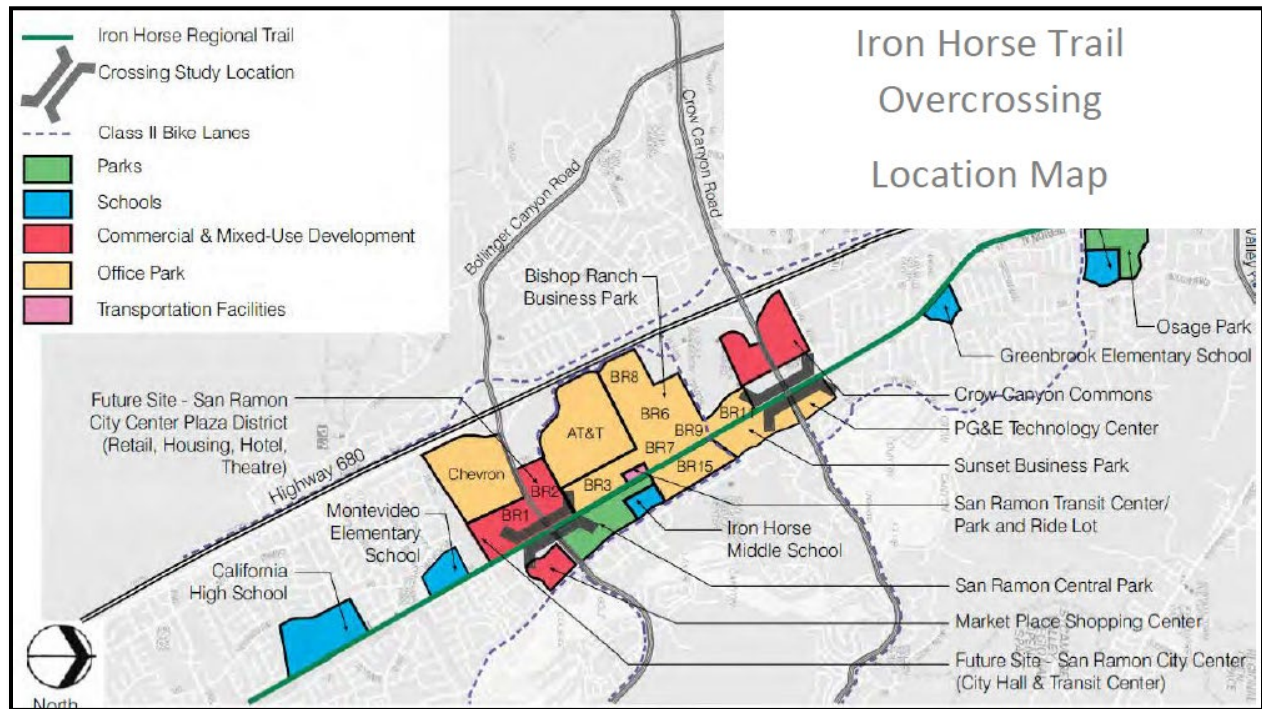
The CEQA phase has been completed and the PA &ED has begun.

## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$22.88</b>
Funding (Millions)	
OBAG2	\$4.80
Measure J (Transportation for Livable Communities)	\$2.51
Measure J (TLC future year pre-commitment)	\$4.98
San Ramon General Fund	\$2.00
TVTDF	\$2.29
<b>Total Funding (Millions)</b>	<b>\$16.58</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$6.30</b>

## C-11B. IRON HORSE TRAIL BICYCLE PEDESTRIAN OVERCROSSING – CROW CANYON ROAD



### TVTC PROJECT SPONSORS

City of San Ramon, Contra Costa County

### LEAD AGENCY

CCTA, City of San Ramon, Contra Costa County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

The IHT is an 18-mile regional non-motorized trail that runs north/south through the San Ramon Valley providing critical access to adjacent land uses. The construction of overcrossings at key locations will develop attractive travel alternatives for congestion relief for commute trips as well as better facilities for school, shopping, and recreations trips. Project C-11a will construct an overcrossing at Crow Canyon Road. At this location, the overcrossing will provide substantial benefits including:

Improve safety by eliminating conflicts between pedestrians, bicyclists, and motorists;

1. Improve motor vehicle circulation by removing the at-grade crossings;
2. Reduce and eliminate unsafe crossing maneuvers by pedestrians and bicyclists;
3. Enhance safety by providing an environment that encourages walking and bicycling along the Iron Horse Regional Trail; and
4. Increase trail usage by improving the connectivity at the Bollinger Canyon Road and Crow Canyon Road crossings.



## STATUS

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Currently in PA&ED phase.

## PHASING AND SCHEDULE

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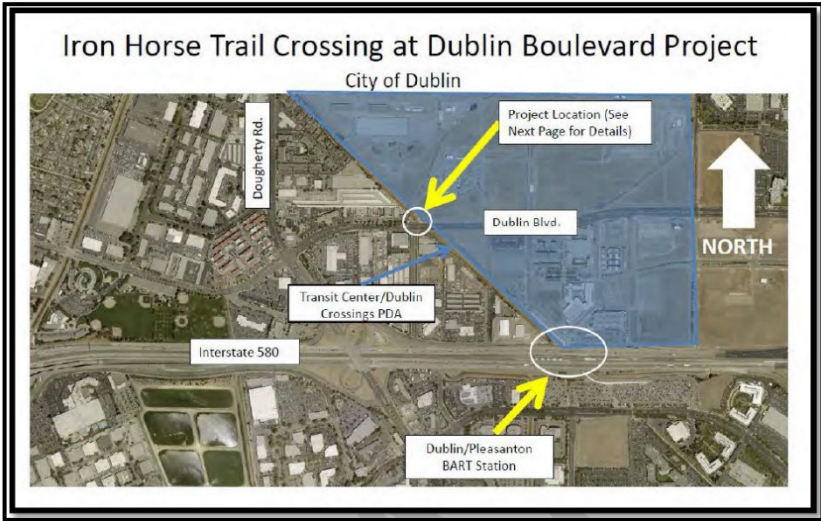
The CEQA phase has been completed and the PA &ED has begun.

## COST AND FUNDING SOURCES

---

<b>Cost (Millions)</b>	<b>\$19.69</b>
Funding (Millions)	\$0.00
<b>Total Funding (Millions)</b>	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$19.69</b>

## C-11C. IRON HORSE TRAIL CROSSING AT DUBLIN BOULEVARD



### TVTC PROJECT SPONSOR

City of Dublin

### LEAD AGENCY

City of Dublin

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Project C-11c will build a bicycle and pedestrian bridge over Dublin Boulevard in order to connect two segments of the Iron Horse Trail. This bridge will

create a total separation between vehicles and bicyclists/pedestrians. This will eliminate the possibility of motorized vehicles and pedestrians having a collision, making this segment of the road safer for all users. Along with this, congestion will be reduced as cars will no longer have to wait for pedestrians. This reduction of congestion will also allow for the transit to operate more efficiently. Pedestrians and bicyclists will also not have to wait for a walk signal since they will be able to continue their walk or ride without stopping.

The bridge will follow ADA requirements so that disabled people will be able to use it as well. This bridge will also be aesthetically pleasing in order to attract users and improve the user's experience. The bridge will also connect BART to Dublin in a safe manner, encouraging recreational user of the Iron Horse Trail and the opening of local businesses. This safe and fast route of crossing the Iron Horse Trail will promote walking and bicycling for both recreational and commuting purposes in Dublin, this encouraging the shift from motorized vehicles to alternative forms of transportation.

### STATUS

The project is currently in the final design phase. Additionally, environmental analysis of the project is currently in-progress.

### PHASING AND SCHEDULE

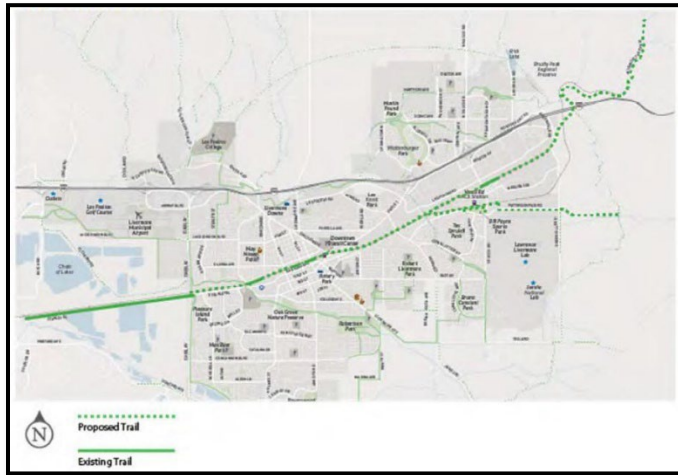
Environmental approval was complete in December 2019. PS&E began in June 2018.

## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$11.60</b>
Funding (Millions)	
2014 MBB	\$6.05
TFCA	\$0.86
Local	\$1.59
Private	\$1.00
Safe Route to BART Grant	\$1.50
TVTDF	\$0.60
<b>Total Funding (Millions)</b>	<b>\$11.60</b>
<b>Total Funding Shortfall (Millions)</b>	<b>-</b>

## C-11D. IRON HORSE TRAIL - LIVERMORE



### TVTC PROJECT SPONSOR

City of Livermore

### LEAD AGENCY

City of Livermore

### PROJECT DESCRIPTION *(UPDATED SUMMER 2021)*

This project will extend existing trail and provide gap closures.

### STATUS

Feasibility Study/Environmental has been completed.

### PHASING AND SCHEDULE

Feasibility Study/Environmental has been completed. Schedule for design has yet to be determined.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$26.99</b>
Funding (Millions)	
TVTDF	\$2.70
<b>Total Funding (Millions)</b>	<b>\$2.70</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$24.29</b>

## C-11E. IRON HORSE TRAIL TO SHADOW CLIFFS CONNECTION



### TVTC PROJECT SPONSORS

City of Pleasanton

### LEAD AGENCY

City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Currently, the Iron Horse Trail ends as a narrow-paved path to the overcrossing bridge of the regional railway on the east side of Valley Avenue, where there is a flat, paved space under the railroad bridge that could accommodate the trail.

Project C-11e would construct a continuous Class I trail, at least 10 feet wide, and would include protected intersection improvements and additional crossing improvements of Valley/Bernal and Stanley to improve pedestrian and bicyclist safety.

### STATUS

This project has not started.

### PHASING AND SCHEDULE

The phasing and schedule for this project have not been defined.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$1.65</b>
Funding (Millions)	
Pleasanton TIF	\$0.60
Direct Developer Fee	\$0.75
TVTDF	\$0.16
<b>Total Funding (Millions)</b>	<b>\$1.51</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$0.14</b>

## C-11F. IRON HORSE TRAIL CONNECTION IMPROVEMENTS AT SANTA RITA ROAD



### TVTC PROJECT SPONSOR

City of Pleasanton

### LEAD AGENCY

City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

The Iron Horse Trail (IHT) is a major north-south regional route for bicyclists and cyclists. The Arroyo Mocho Trail (AMT) is an important east-west route for bicyclists

and pedestrians extending to Livermore that bypasses many busy streets.

This project would improve connections from the IHT on Santa Rita Road to the AMT. The AMT would receive an improved Class I Pathway. A new pedestrian bridge would be constructed over the Arroyo Mocho to connect the southern Arroyo Mocho Class I pathway to the IHT to the north. The IHT then connects to the north and provides access to the Dublin/Pleasanton BART station.

### STATUS

This project has not started.

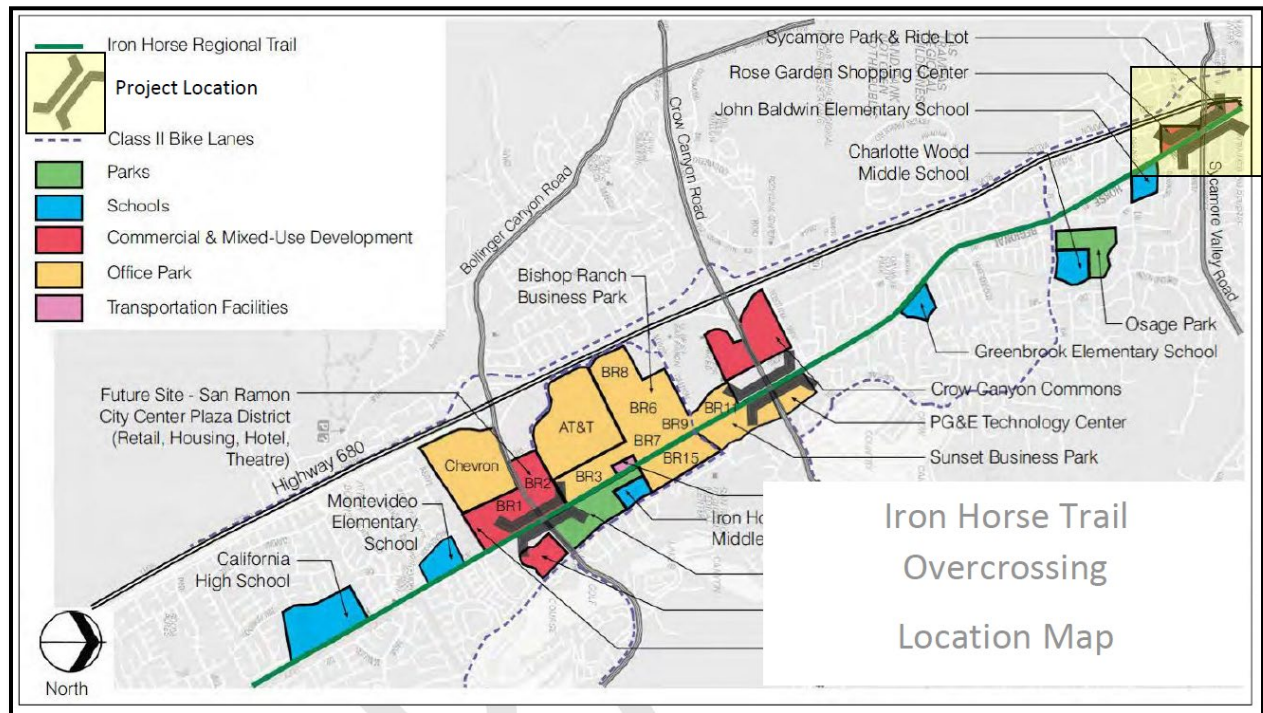
### PHASING AND SCHEDULE

The phasing and schedule for this project have not been defined.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$0.87</b>
Funding (Millions)	
Pleasanton TIF	\$0.40
<b>Total Funding (Millions)</b>	<b>\$0.40</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$0.48</b>

## C-11G. IRON HORSE TRAIL BICYCLE/PEDESTRIAN OVERCROSSING – SYCAMORE VALLEY ROAD



### TVTC PROJECT SPONSOR

Town of Danville, Contra Costa County

### LEAD AGENCY

Town of Danville, Contra Costa County, CCTA

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

The Iron Horse Trail is an 18-mile regional non-motorized trail that runs north/south through the San Ramon Valley providing critical access to adjacent land uses. The construction of overcrossings at key locations will develop attractive travel alternatives for congestion relief for commute trips as well as better facilities for school, shopping, and recreations trips. Project C-11g will construct an overcrossing at Sycamore Valley Road. At this location, the overcrossing will provide substantial benefits including:

1. Improve safety by eliminating conflicts between pedestrians, bicyclists, and motorists;
2. Improve motor vehicle circulation by removing the at-grade crossings;
3. Reduce and eliminate unsafe crossing maneuvers by pedestrians and bicyclists;
4. Enhance safety by providing an environment that encourages walking and bicycling along the Iron Horse Regional Trail; and
5. Increase trail usage by improving the connectivity at the Bollinger Canyon Road and Crow Canyon Road crossings.

## STATUS

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PSR (Feasibility Study) is completed. Project will require coordination, permitting, and agreements with Contra Costa County. East Bay Regional Parks Direct and various utilities.

## PHASING AND SCHEDULE

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PSR (Feasibility Study) is completed.

## COST AND FUNDING SOURCES

---

<b>Cost (Millions)</b>	<b>\$19.78</b>
Funding (Millions)	\$0.00
Total Funding (Millions)	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$19.78</b>



## C-11H. IRON HORSE TRAIL SYSTEM-WIDE IMPROVEMENTS

### TVTC PROJECT SPONSOR

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Contra Costa County, Town of Danville, City of San Ramon Alameda County, City of Dublin, City of Livermore, and City of Pleasanton

### LEAD AGENCY

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Contra Costa County, Town of Danville, City of San Ramon Alameda County, City of Dublin, City of Livermore, and City of Pleasanton

### PROJECT DESCRIPTION *(UPDATED SUMMER 2021)*

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As the primary regional multi-modal corridor between Contra Costa and Alameda County, the Iron Horse Trail is the spine for active modes of travel in the East Bay. The proposed project for the Iron Horse Trail includes safety, operational, and capacity improvements within the TVTC boundary from Alamo to Livermore. The proposed project and associated cost estimate includes safety improvements at roadway crossings, a proposed parallel path to separate users according to speed, and a buffer between users traveling at high or low speed. The improvements would include features such as passive detection at road crossings, actuated flashers or warning signals at roadway crossings, high visibility markings, minor grading, construction of a new 10 foot wide parallel asphalt path with shoulders, and a buffer between high and low speed corridors which may include vegetation or fencing to maintain safe separation. Other safety improvements may be necessary to fit site conditions and as determined through additional study.

Separated grade crossings or bridges that have already been identified as critical for improved vehicle traffic flow at current at grade crossings and to improve safety for trail users are listed as separate projects within the TVTC program. The cost and context for each bridge site warrants a specific project identification rather than to be included within the system-wide improvements under this project.

### STATUS

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A phasing plan has not yet been developed.

### PHASING AND SCHEDULE

---

The phasing and schedule for this project have not been defined.

### COST AND FUNDING SOURCES

---

<b>Cost (Millions)</b>	<b>\$85.60</b>
Funding (Millions)	\$0.00
<b>Total Funding (Millions)</b>	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$85.60</b>

## C-12. HACIENDA/I-580 INTERCHANGE IMPROVEMENTS



### TVTC PROJECT SPONSOR

City of Dublin, City of Pleasanton

### LEAD AGENCY

City of Dublin, City of Pleasanton

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

Implement I-580 Hacienda Drive Interchange Improvements, which includes reconstructing the overcrossing to add lanes.

I-580/Hacienda Drive interchange Improvements will include; reconstruction of overcrossing to provide additional northbound lane; widening of the eastbound off-ramp to include an additional lane to be used as a combined left and right turn lane; modifying signal and striping, modifying the westbound loop on-ramp; and widening of the westbound off-ramp to include a third left-turn lane.

### STATUS

The project is currently in preliminary engineering phase and an EIR is currently underway.

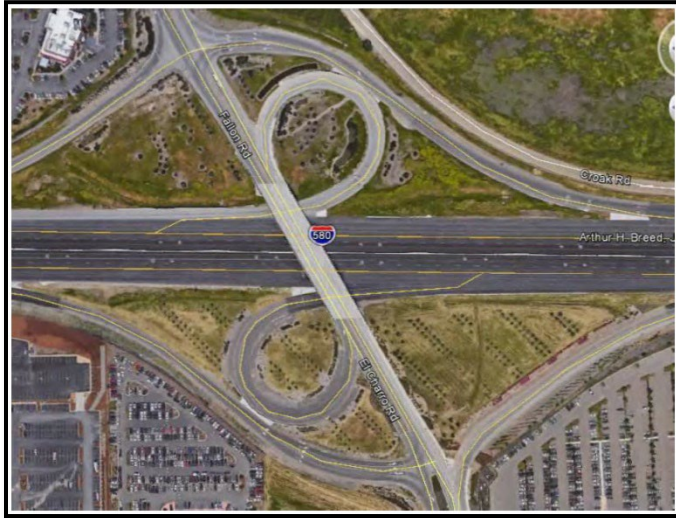
### PHASING AND SCHEDULE

It is anticipated that environmental approval will be completed in late 2022 and PS&E begin in early 2023.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$39.13</b>
Funding (Millions)	
Dublin TIF	\$4.95
Pleasanton TIF	\$0.04
<b>Total Funding (Millions)</b>	<b>\$4.63</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$34.50</b>

## C-13. FALLON/EL CHARRO INTERCHANGE IMPROVEMENTS



### TVTC PROJECT SPONSOR

City of Pleasanton, City of Dublin, City of Livermore

### LEAD AGENCY

City of Pleasanton, City of Dublin, City of Livermore

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

I-580/El Charro Road Interchange Improvements (Phase 2): reconstruction of overcrossing to provide four-lanes in each direction with bike lanes; reconstruction of

the southbound to eastbound loop on-ramp; widening of the eastbound off-ramp to provide two exit lanes with two left turn and two right turn lanes; widening of the eastbound on-ramp; widening of the westbound off-ramp to provide two left turn and two right turn lanes; and widening of the westbound on-ramp.

### STATUS

The project is currently not yet started.

### PHASING AND SCHEDULE

The phasing and schedule for this project have not been defined.

### COST AND FUNDING SOURCES

<b>Cost (Millions)</b>	<b>\$34.51</b>
Funding (Millions)	
Dublin TIF	\$4.05
Pleasanton TIF	\$4.10
Livermore TIF	\$6.40
TVTDF	\$3.45
<b>Total Funding (Millions)</b>	<b>\$18.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$16.51</b>

## C-14. VALLEY LINK RAIL (PHASE 1)



### TVTC PROJECT SPONSOR

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City of Pleasanton, City of Dublin, City of Livermore, Alameda County

### LEAD AGENCY

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City of Pleasanton, City of Dublin, City of Livermore, Alameda County

### PROJECT DESCRIPTION (UPDATED SUMMER 2021)

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Valley Link Rail project will connect Northern San Joaquin County communities to the Tri-Valley and BART through 41 miles of rail and 7 stations. The project will extend from the planned Altamont Corridor Express (ACE) N Lathrop Station in the San Joaquin Valley through the Altamont Pass, then readily connect with the Dublin/Pleasanton BART terminus.

The TVTDF would go towards construction cost and access improvement for three stations in Tri-Valley Area (Dublin/Pleasanton, Isabel, and Southfront).

### STATUS

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The EIR was completed in 2021.

### PHASING AND SCHEDULE

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The project will be completed in multiple phases:

- 2018-2020 Design/Environmental
- 2019-2023 Procurement
- 2020-2026 Design/Construction.

## COST AND FUNDING SOURCES

---

<b>Cost (Millions)</b>	<b>\$258.25</b>
Funding (Millions)	
TVTDF	\$20.68
<b>Total Funding (Millions)</b>	<b>\$20.68</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$237.57</b>



## C-15. TECHNOLOGY ENHANCEMENTS

### TVTC PROJECT SPONSOR

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City of Pleasanton, City of Dublin, City of Livermore

### LEAD AGENCY

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City of Pleasanton, City of Dublin, City of Livermore, LAVTA

### PROJECT DESCRIPTION *(UPDATED SUMMER 2021)*

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Provide connectivity for transit and vehicles between local arterials and regional facilities. This project will also focus on the first and last mile connectivity at key transit hubs and along major transit routes.

- A. Support expansion and facilitate interoperability among partner agencies of existing and future intelligent transportation system deployments, including connected/autonomous vehicles, integrated corridor management, transit vehicle operations, and emergency vehicle operations, among other uses.
- B. Plan and implement connected and autonomous vehicle access in a seamless manner across Tri-Valley jurisdictions' boundaries including arterial access to freeways. This requires a continued emphasis on sharing communication infrastructure, field equipment at jurisdictional boundaries, and data.
- C. Update the existing communication links and enhance the existing connectivity of all Tri-Valley Traffic Operations Centers for on-going data and communication sharing.
- D. Prepare corridors around transit centers and BART stations to implement SAVs to improve transit connectivity to shift travelers from SOVs to transit.
- E. Prepare intersections around transit center and BART stations to accommodate the evolution of Connected Vehicle applications and Autonomous Vehicle technologies for improved traffic flow by building new and upgraded vehicle-to-infrastructure and vehicle-to-vehicle communications.
- F. Test and develop standard/protocol at the intersections, through existing and new Vehicle-to-Everything (V2X) and Vehicle-to-Infrastructure (V2I) technologies as a regional standard to be adopted by the local agencies among the Tri-Valley Jurisdictions. These technologies will allow a vehicle to communicate in real time with its surroundings.
- G. Work with regional agencies in incorporating signal and vehicle communications in day-to-day operations. This would include sharing of equipment and data for seamless integration of connected and autonomous vehicle access across Tri-Valley Jurisdictions and freeway infrastructure including express lanes.

The project will be implemented in phases. Phase 1 of the proposed project will comprise of a feasibility study to identify potential locations, improvements, and develop cost estimates at key transit hubs, along major transit routes, and at freeway access locations in tri-valley area. Phase 2 of the project will further the development of the project with completion of design and Phase 3 will complete the construction/implementation and operation of the proposed project.

### STATUS

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The project is currently not yet started.

## PHASING AND SCHEDULE

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The phasing and schedule for this project have not been defined.

## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$0.33</b>
Funding (Millions)	\$0.00
Total Funding (Millions)	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$0.33</b>

## C-16. I-680 EXPRESS BUS SERVICE

### TVTC PROJECT SPONSORS

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Alameda CTC, CCTA

### LEAD AGENCY

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Alameda CTC, CCTA

### PROJECT DESCRIPTION *(UPDATED SUMMER 2021)*

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This project proposes to construct capital improvements and purchase buses in order to establish an express bus service on I-680. This project requires the construction of the I-680 Express Lane Gap Closure project, closing the gap in the express lanes between Alcosta Blvd and State Route 84, in order to utilize the express lanes to avoid congestion, reduce travel time, and improve reliability, as part of an express bus service between the Tri-Valley communities and Silicon Valley. This express bus service would likely be combined with and become part of similar efforts by CCTA and their Innovate 680 program, with the intent to serve the entire I-680 corridor extending from Martinez to San Jose, utilizing buses to provide access to additional commute options, including BART, Amtrak, Caltrain, VTA light rail, local bus service, and Greyhound, for those living along the corridor.

The service would operate weekdays only, with proposed 20-minute headways during peak periods and one-hour headways during off-peak hours. The service would be bi-directional to avoid substantial deadhead time and to maintain a high level of service. New electric buses would be purchased as part of this project.

The project proposes to place express bus stops in the Tri-Valley area at the West Dublin/Pleasanton BART Station and at a future park and ride to be constructed at the Bernal Avenue interchange in Pleasanton. Understanding that the express buses must merge across all lanes of traffic to access the express lane, these stop locations are spaced to efficiently serve the Tri-Valley area while also maximizing the express lane distance the bus is able to utilize in-between bus stops.

The estimated costs below assume that at each bus stop location there would be construction of roadway and bus stop improvements, including installation of transit amenities such as shelters, bike lockers, lighting, and real time information signs.

### STATUS

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A project schedule has not yet been developed.

### PHASING AND SCHEDULE

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The phasing and schedule for this project have not been defined.



## COST AND FUNDING SOURCES

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<b>Cost (Millions)</b>	<b>\$59.35</b>
Funding (Millions)	\$0.00
Total Funding (Millions)	<b>\$0.00</b>
<b>Total Funding Shortfall (Millions)</b>	<b>\$59.35</b>



# Appendix B – Project Prioritization



ID	Project	Prioritization							Score Total Sum of Columns A, C, E, F & G; Maximum of 15	PriorityScore Score total on 10-pt scale	PriorityScore Rank Rank 1 through 37
		A	B	C	D	E	F	G			
		Project Urgency <sup>1</sup>	TVTDF Allocation <sup>2</sup>	Project Readiness <sup>3</sup>	Project Funding <sup>4</sup>	Project Effectiveness <sup>5</sup>	Urgency Score	% TVTDF Allocation			
A-2a	SR 84 Expressway (I-580 to I-680) - Segment 3	Phase Fully Funded									
A-2a	SR 84 Expressway (I-580 to I-680) - Segment 5	Phase Fully Funded									
A-2b	SR 84 / I-580 Interchange - Phase 1	Project Completed									
A-2b	SR 84 / I-580 Interchange - Phase 2	1	23%	1	PRE-PID	0.5	2.92	1	6.42	4.28	35
A-9a	Crow Canyon Improvements Phase 1	1	14%	2	PRE-PID	0.5	0.68	2	6.18	4.12	36
A-9b	Crow Canyon Improvements Phase 2	1	3%	3	PRE-PID	0.5	0.09	2	6.59	4.39	34
A-10a	Vasco Road Safety Improvements Phase 1	1	8%	3	PRE-PID	0.5	2.18	2	8.68	5.78	24
A-10b	Vasco Road Safety Improvements Phase 2	1	8%	3	PRE-PID	0.5	0.25	2	6.75	4.50	32
A-11	Express Bus/Bus Rapid Transit (BRT) - Phase 2	1	5%	3	PRE-PID	0.5	0.15	2	6.65	4.44	33
B-1	I-580/I-680 Interchange (Westbound to Southbound)	2	0%	3	PSR	1.0	0.04	3	9.04	6.02	23
B-3	I-580/First Street Interchange Modification	1	0%	3	PRE-PID	0.5	2.61	1	8.11	5.41	28
B-4	I-580/Vasco Road Interchange Modification	2	8%	3	PSR	1.0	2.66	2	10.66	7.10	13
B-5	I-580/Greenville Rd Interchange Modification	2	0%	3	PRE-PID	0.5	2.34	3	10.84	7.23	10
B-6	Jack London Blvd. Extension	1	0%	3	PRE-PID	0.5	1.93	1	7.43	4.95	31
B-7	El Charro Rd Extension (Stoneridge Dr/Jack London Blvd to Stanley Boulevard)	Project Removed - Incorporated into Project C-5									
B-8a	Camino Tassajara/Tassajara Rd Widening Project (Contra Costa County Segment)	3	14%	2	PA/ED	1.5	1.30	3	10.80	7.20	11
B-8b	Camino Tassajara/Tassajara Rd Widening Project (Dublin Segment)	2	0%	3	PS&E	2.0	1.37	3	11.37	7.58	6
B-10	I-680 Southbound HOV Lane Gap Closure (North Main St to Rudgear Rd)	Project Completed									
B-11b	I-680 Transit Corridor Improvements	Project Removed - Incorporated into Project C-10									
C-1	Tesla Road Safety Improvements	3	0%	3	PSR	1.0	0.00	3	10.00	6.67	18
C-2	Norris Canyon Road Safety Improvement - Segment 1	3	0%	3	PA/ED	1.5	0.97	3	11.47	7.65	5
C-2	Norris Canyon Road Safety Improvement - Segment 3	1	0%	3	PRE-PID	0.5	0.00	1	5.50	3.67	37
C-3	Dublin Boulevard - North Canyons Parkway Extension	3	0%	3	PS&E	2.0	0.48	3	11.48	7.65	4
C-4	Vasco Road at Dalton Avenue Intersection Improvements	2	0%	3	PRE-PID	0.5	0.00	2	7.50	5.00	29
C-5	El Charro Widening	2	0%	3	PRE-PID	0.5	1.32	3	9.82	6.55	20
C-6	Sunol/680 Widening	3	0%	3	PA/ED	1.5	1.02	3	11.52	7.68	3
C-7a	I-680 Express Lanes - Hwy 84 to Alcosta (Southbound)	Phase Fully Funded									
C-7b	I-680 Express Lanes - Hwy 84 to Alcosta (Northbound)	3	0%	3	PS&E	2.0	0.28	3	11.28	7.52	7
C-8	Santa Rita/I-580 Interchange	2	0%	3	PRE-PID	0.5	2.24	3	10.74	7.16	12
C-9	Stoneridge/I-680 Interchange	2	0%	3	PRE-PID	0.5	1.98	3	10.48	6.99	17
C-10	Innovate 680	3	0%	3	PA/ED	1.5	0.13	3	10.63	7.09	14
C-11a	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road	3	0%	3	PS&E	2.0	1.88	3	12.88	8.58	1
C-11b	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Crow Canyon Road	2	0%	3	PA/ED	1.5	0.00	3	9.50	6.33	21
C-11c	Iron Horse Trail – Dublin	2	0%	3	PS&E	2.0	2.84	3	12.84	8.56	2
C-11d	Iron Horse Trail – Livermore	3	0%	3	PA/ED	1.5	0.00	3	10.50	7.00	15
C-11e	Iron Horse Trail to Shadow Cliffs	2	0%	3	PRE-PID	0.5	2.46	3	10.96	7.30	9
C-11f	Iron House Trail Connection Improvements at Santa Rita Road	2	0%	3	PRE-PID	0.5	1.36	3	9.86	6.58	19
C-11g	Iron Horse Trail Bicycle/Pedestrian Overcrossing – Sycamore Valley Road	1	0%	3	PA/ED	1.5	0.00	2	7.50	5.00	29
C-11h	Iron Horse Trail Safety Improvements	2	0%	3	PRE-PID	0.5	0.00	3	8.50	5.67	25

ID	Project	Prioritization							Score Total Sum of Columns A, C, E, F & G; Maximum of 15	PriorityScore Score total on 10-pt scale	PriorityScore Rank Rank 1 through 37
		A	B	C	D	E	F	G			
		Project Urgency <sup>1</sup>	TVTDF Allocation <sup>2</sup>		Project Readiness <sup>3</sup>		Project Funding <sup>4</sup>	Project Effectiveness <sup>5</sup>			
Urgency Score	% TVTDF Allocation	TVTDF Allocation Score	Current Project Stage	Readiness Score	Funding Score	Effectiveness Score					
C-12	I-580 Interchange Improvements at Hacienda Drive	2	0%	3	PSR	1.0	0.35	2	8.35	5.57	27
C-13	Fallon/El Charro Interchange	3	0%	3	PSR	1.0	1.26	3	11.26	7.51	8
C-14	ValleyLink Rail (Phase 1)	3	0%	3	PA/ED	1.5	0.00	3	10.50	7.00	15
C-15	Feasibility Study of Technology Enhancements to Connect Transit with Arterials and Arterials with Freeways for Connected and Autonomous Vehicles and Vehicle-to-Infrastructure Technologies	2	0%	3	PRE-PID	0.5	0.00	3	8.50	5.67	25
C-16	680 Express Bus Service	3	0%	3	PRE-PID	0.5	0.00	3	9.50	6.33	21

Note

- Project Urgency scored based on: 1 - Low, 2 - Medium, or 3- High Urgency
- TVTDF Allocation is based on percentage of identified TVTDF funding that is allocated toward the Project Total Cost  

$$\% \text{ TVTDF Allocation} = \frac{\text{TVTDF Funding}}{\text{Total Cost}}$$
 TVTDF Allocation Score:  
 ≤ 10% =3,  
 10%-20% = 2  
 20%-30% = 1  
 30%> 0
- Project Readiness is based on current stage of the project  
 PRE-PID (Score: 0.5) - Activities preceding formal PID (scoping, feasibility, and similar)  
 PSR (Score: 1.0) - Project Study Report  
 PA/ED (Score: 1.5) - Project Approval/Environmental Document  
 PS&E (Score:2.0) - Plans, Specifications, and Estimates  
 R/W (Score:2.5) - Right-of-Way Acquisitions Complete or Not Required  
 CON (Score: 3.0) - Construction
- Project Funding considers all funding for the Project  

$$\text{Project Funding Score} = \frac{\text{Total Funding Committed}}{\text{Total Cost}} \times 3$$
- Project Effectiveness reflects how well the project aligns with Lead Agency Policy/Goals: 1 - Low, 2 - Medium, or 3- High

# Appendix C – Land Use Projections



		Fiscal Years										2022-2032 Total	20 Yr Growth	Percent of 20 Yr Growth	
		22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32				
Alameda County	<b>Dublin</b>														
	<b>Single Family (DU)</b>	146	146	146	146	146	146	146	146	146	146	1,464	2,928	<b>50%</b>	
	<b>Multi-Family (DU)</b>	223	223	223	223	223	223	223	223	223	223	2,235	4,469	<b>50%</b>	
	<b>Retail (KSF)</b>	130	130	130	130	130	130	130	130	130	130	1,300	356	<b>366%</b>	
	<b>Office (KSF)</b>	280	280	280	280	280	280	280	280	280	280	2,800	1,131	<b>248%</b>	
	<b>Industrial (KSF)</b>	25	25	25	25	25	25	25	25	25	25	250	961	<b>26%</b>	
	<b>Other (KSF)</b>	113	113	113	113	113	113	113	113	113	113	1,129	2,257	<b>50%</b>	
	<b>Pleasanton</b>														
	<b>Single Family (DU)</b>		25		30					1,159		1,214	3,513	<b>35%</b>	
	<b>Multi-Family (DU)</b>	305	486							2,115		2,906	2,804	<b>104%</b>	
	<b>Retail (KSF)</b>		11							845		855	1,932	<b>44%</b>	
	<b>Office (KSF)</b>	100						281				381	3,200	<b>12%</b>	
	<b>Industrial (KSF)</b>											0	2,527	<b>0%</b>	
	<b>Other (KSF)</b>											0	4,171	<b>0%</b>	
	<b>Livermore</b>														
	<b>Single Family (DU)</b>	341	341	341	341	341	341	341	341	341	341	3,410	5,460	<b>62%</b>	
	<b>Multi-Family (DU)</b>	228	228	228	228	228	228	228	228	228	228	2,280	3,614	<b>63%</b>	
	<b>Retail (KSF)</b>	131	131	131	131	131	131	131	131	131	131	1,310	1,734	<b>76%</b>	
	<b>Office (KSF)</b>	22	22	22	22	22	22	22	22	22	22	220	1,170	<b>19%</b>	
	<b>Industrial (KSF)</b>	362	362	362	362	362	362	362	362	362	362	3,620	5,642	<b>64%</b>	
	<b>Other (KSF)</b>											0	4,250	<b>0%</b>	
	<b>Unincorporated</b>														
	<b>Single Family (DU)</b>	8	8	8	8	8	8	8	8	8	8	80	186	<b>43%</b>	
	<b>Multi-Family (DU)</b>											0	68	<b>0%</b>	
<b>Retail (KSF)</b>											0	43	<b>0%</b>		
<b>Office (KSF)</b>											0	81	<b>0%</b>		
<b>Industrial (KSF)</b>											0	31	<b>0%</b>		
<b>Other (KSF)</b>											0	95	<b>0%</b>		

		Fiscal Years										2022-2032 Total	20 Yr Growth	Percent of 20 Yr Growth
		22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	30/31	31/32			
Contra Costa	Danville													
	Single Family (DU)	25	25	25	25	25	25	25	25	25	25	250	536	47%
	Multi-Family (DU)	48	48	48	48	48	48	48	48	48	48	480	457	105%
	Retail (KSF)	3	3	3	3	3	3	3	3	3	3	30	83	36%
	Office (KSF)	0	0	0	0	0	0	0	0	0	0	0	1	0%
	Industrial (KSF)	0	0	0	0	0	0	0	0	0	0	0	0	0%
	Other (KSF)											0	77	0%
	San Ramon													
	Single Family (DU)	32	60	103	80	77						352	3,117	11%
	Multi-Family (DU)	103	460	498	213	184	250	282	261	248	525	3,024	5,897	51%
	Retail (KSF)		6		61		6	15				88	909	10%
	Office (KSF)					110						110	1,187	9%
	Industrial (KSF)	8										8	139	6%
	Other (KSF)	118	45	25	8							196	1,513	13%
	Unincorporated													
	Single Family (DU)	34	34	34	34	34	34	34	34	34	34	340	117	291%
	Multi-Family (DU)	14	14	14	14	14	14	14	14	14	14	140	147	95%
	Retail (KSF)											0	62	0%
Office (KSF)											0	27	0%	
Industrial (KSF)											0	7	0%	
Other (KSF)											0	78	0%	
Total	Total													
	Single Family (DU)	586	639	657	664	631	554	554	554	1,713	554	7,110	15,857	45%
	Multi-Family (DU)	921	1,459	1,011	726	697	763	795	774	2,876	1,038	11,065	17,456	63%
	Retail (KSF)	264	281	264	325	264	270	279	264	1,109	264	3,583	5,118	70%
	Office (KSF)	402	302	302	302	412	302	583	302	302	302	3,511	6,797	52%
	Industrial (KSF)	395	387	387	387	387	387	387	387	387	387	3,878	9,306	42%
	Other (KSF)	231	158	138	121	113	113	113	113	113	113	1,325	12,441	11%