TRI-VALLEY TRANSPORTATION COUNCIL

Scott Perkins
TVTC Chair
Vice Mayor
San Ramon
(925) 973-2544

Jean Josey
TVTC Vice-Chair
Councilmember
Dublin
(925) 833-2530

Renee Morgan
Mayor
Town of Danville
(925) 918-3999

David Haubert
Supervisor District 1
Alameda County
(925) 551-6995

Candace Andersen
Supervisor District 2
Contra Costa
(925) 957-8860

Brittni Kiick
Councilmember
City of Livermore
(925) 960-4019

Karla Brown
Mayor
City of Pleasanton
(925) 931-5001

If you have any questions related to the Tri-Valley Transportation Council meeting agenda, please contact Lisa Bobadilla, TVTC Administrative staff at (925) 973-2651 or email at lbobadilla@sanramon.ca.gov

Monday, July 19, 2021
4:00 pm

Join Zoom Meeting
https://cityofsanramon.zoom.us/j/97389097184

Meeting ID: 973 8909 7184
One tap mobile
+16699006833,,97389097184# US (San Jose)
+12532158782,,97389097184# US (Tacoma)

Pursuant to the Governor's Executive Order N-29-20 (dated March 17, 2020), members of the Board may participate via teleconference. Teleconference locations are not open to the public pursuant to California Governor Executive Order N-29-20. For this meeting, there will be no physical location from which members of the public may observe/comment.

There will be no physical location for members of the public to participate in the meeting. We encourage members of the public to shelter in place and access the meeting online using the web-video communication application, Zoom.

Zoom participants will have the opportunity to speak during the Public Comment period (for topics not on the agenda), in addition to each of the items on the agenda.

If you are submitting a public comment via email, please do so by **12:00 p.m. on Monday, July 19, 2021** to lbobadilla@sanramon.ca.gov. Please include "Public Comment 07/19/2021" in the subject line. In the body of the email, please include your name and the item you wish to speak on. Public comments submitted will be read during Public Comment and will be subject to the regular three-minute time restriction.

Members of the Public may participate and provide public comments to teleconference meetings as follows:

Public testimony will be taken at the direction of the Chair and members of the public may only comment during times allotted for public comments. If you wish to request a disability-related modification or accommodation, please contact the Administrator by email at lbobadilla@sanramon.ca.gov.

TRI-VALLEY TRANSPORTATION COUNCIL

AGENDA

1. Call to Order
2. Roll Call and Self Introductions
3. Public Comment
4. Consent Calendar
    a. APPROVE Tri-Valley Transportation Council (TVTC) Board Meeting Minutes April 19, 2021*
    b. APPROVE Resolution No.2021-08 Contract Extension for Kimley Horn & Associates to August 31, 2021*
5. Old Business
    a. PARTICPATE in Study Session regarding the Tri-Valley Transportation Council Nexus Study
6. New Business
    a. APPROVE Resolution No. 2021-06 City of Livermore request to refund Tri-Valley Transportation Development Funds*
    b. APPROVE Resolution No. 2021-07 Amendment to TVTC ByLaws*
7. Informational Items
8. Adjournment

* *Attachment(s)*

Upcoming Meetings:

TVTC TAC: Wednesday, August 4, 2021 – City of San Ramon – Zoom Teleconference

TVTC: Monday, October 18, 2021 4:00 p.m. – City of San Ramon – Zoom Teleconference

Item 4.a

DRAFT - MEETING MINUTES

TRI-VALLEY TRANSPORTATION COUNCIL
Zoom Teleconference Call
Monday, April 19, 2021

1. CALL TO ORDER, ROLL CALL, AND SELF-INTRODUCTIONS

The Tri-Valley Transportation Council (TVTC) was called to order at 4:02 p.m. by Chair, Scott Perkins, City of San Ramon.

TVTC Members in Attendance:
Scott Perkins, Chair, Councilmember, San Ramon
Jean Josey, Vice Chair, Councilmember, Dublin
Renee Morgan, Mayor, Town of Danville
David Haubert, ABSENT
Candace Andersen, Supervisor District 2, Contra Costa County
Brittni Kiick, Councilmember, City of Livermore
Karla Brown, Mayor, City of Pleasanton

TVTC Staff in Attendance:
Lisa Bobadilla, San Ramon
PJ Dhoot, San Ramon
Cedric Novenario, Pleasanton
Sai Midididdi, Dublin
Pratyush Bhatia, Dublin
Andy Dillard, Danville
Joanna Liu, Livermore
Robert Sarmiento, Contra Costa County

Others in Attendance:
Steve Mattos, Meyers Nave, TVTC Legal Counsel
Frederic Venter, Kimley Horn & Associates
Elizabeth Chau, Kimley Horn & Associates
Michael Schmitt, Kimley Horn & Associates

3. PUBLIC COMMENT

None

4. CONSENT CALENDAR

A. APPROVE TVTC Board Meeting Minutes January 25, 2021

B. ADOPT the Tri-Valley Transportation Development Fee Construction Cost Index Annual Adjustment

C. APPROVE Resolution No. 2021-05 Contract Extension for Kimley Horn & Associates to July 31, 2021

Motion to Approve Consent Items A, B and C, by Mayor Karla Brown; Second by Mayor Renee Morgan.

Approved (Ayes 6; Noes 0; Abstain 0)

5. OLD BUSINESS

A. RECEIVE Status Update on TVTC Nexus Study.

Mr. Frederic Venter, Kimley Horn & Associates, provided TVTC members with a brief update on status of Nexus Study, providing details of local agency land use assumptions for inclusion into the travel demand model as well as the initial performance evaluation. Mr. Venter articulated the next steps including working with the Technical Advisory Committee (TAC) members to determine the non-fee funding forecast.

6. NEW BUSINESS

A. APPROVE Resolution No. 2021-01 – Contra Costa Transportation Authority Request to Amend TVTC Strategic Expenditure Plan (SEP) to fund TVTC Project B-10 (I-680 Southbound SB High Occupancy Vehicle (HOV) Lane Gap Closure Project.

Ms. Bobadilla, TVTC Administrator introduced the item. She stated on April 15, 2019, the Tri-Valley Transportation Council (TVTC) adopted Resolution No. 2019-02 authorizing an appropriation of $6.49M from the Tri-Valley Transportation Development Fund (TVTDF) account for the I-680 Southbound (SB) High Occupancy Vehicle (HOV) Lane Gap Closure Project (Project) for Fiscal Year (FY) 2023-24 and 2024-25 or sooner if funds are available. The Project is one of the "B List" Projects in the 2017 Strategic Expenditure Plan (Project B-10), adopted unanimously by the TVTC on January 23, 2017.

Ms. Bobadilla further stated that the TVTC Technical Advisory Committee (TAC) reviewed project schedules in the TVTC Strategic Expenditure Plan and determined that there is sufficient capacity to advance the reimbursement of the $6.49 million in FY 2020-21 and that several project sponsors reported schedule delays or completion using other fund sources freeing up at least $6.49 million in TVTDF this current fiscal year. The TVTC Finance Committee met March 2021 and expressed support for the Contra Costa Transportation Authority's request to advance TVTDF funds in the amount of $6.49M.

Motion to Approve by Mayor Renee Morgan; Second by Vice Chair Josey.

Approved (Ayes 6; Noes 0; Abstain 0)

B. APPROVE Resolution No. 2021-02 – City of Pleasanton request to refund Tri-Valley Transportation Development Funds to Northern California Carpenter's ATF LLC

Mr. Cedric Novenario introduced this item. The City of Pleasanton issued a building permit to the Northern California Carpenter's Union. The permit was for a new training center for carpenter apprentices. The total amount paid at permit issuance was $2,119,101.38. In addition to paying fees for City of Pleasanton, they were also required to a pay Tri-Valley Transportation Development Fee (TVTDF) of $659,096.16.

Mr. Novenario further stated that in this instance, Northern California Carpenter's ATF LLC demolished an existing building, and constructed a larger building to replace it. As the new building increased the square footage, the method for calculating the TVTC Fee assumed that new trips are generated by the additional square footage. Past practice has been to reimburse the developer for the 80% fees and recommend the local agency reimburse the 20% fees. TVTC and the City of Pleasanton will retain the portion of the TVTC Fee ($146,544.14) attributable to the increased square footage for the new building.

The TVTC Finance Committee met April 2021 and support the City of Pleasanton's request to Refund of Tri-Valley Transportation Development Fee to Northern California Carpenter's ATF LLC.

Motion to Approve by Mayor Renee Morgan; Second by Vice Chair Josey.

Approved (Ayes 6; Noes 0; Abstain 0)

C. APPROVE Resolution No. 2021-04 – TVTC Fiscal Year 2021-2022 Operating Budget.

Ms. Bobadilla introduced the item. The proposed the TVTC FY 2021/2022 Administrative Budget is $159,010 and includes expenses in the categories of TVTC Administrator, Accounting Services, Audit Service, Legal Services, Treasurer Oversight, Insurance, Basecamp, Banking/Service Charger, Website Hosting and Maintenance and board member stipends. Funding for a special study, such as Strategic Expenditure Plan, also approved for up to $100,000. All expenses will be reviewed and can be adjusted, if necessary, throughout the year.

Ms. Bobadilla further stated that the TVTC Finance Subcommittee convened and reviewed the proposed FY 2021/2022 Administrative Budget on March 12, 2021. The Finance Subcommittee recommended the TVTC Board approve the FY 2021-2022 Administrative Budget

Motion to Approve by Supervisor Candace Andersen; Second Mayor Karla Brown.

Approved (Ayes 5; Noes 0; Abstain 0) ***(Mayor Renee Morgan not available to cast vote).***

7. INFORMATIONAL ITEMS

N/A

8. ADJOURNMENT

The meeting was adjourned by Chair Perkins at 4:40 p.m.

Item 4.b

TRI-VALLEY TRANSPORTATION COUNCIL

To: Tri-Valley Transportation Council (TVTC)

From: TVTC Technical Advisory Committee (TAC)

Date: July 19, 2021

Subject: Professional Services Agreement Extension between Tri-Valley Transportation Council and Kimley-Horn and Associates

---

BACKGROUND

On April 20, 2020, the Tri-Valley Transportation Council (TVTC) approved Resolution 2020-03 authorizing $172,930 for Kimley-Horn and Associates (KHA), consulting services to implement the TVTC Nexus Study.

On April 19, 2021, the TVTC approved Resolution No. 2021-05 extending the Professional Services Agreement with KHA for the Tri-Valley Fee Nexus Study to July 31, 2021. However, as the TVTC Board will review the draft Nexus Study on July 19, 2021, a contract extension is required to allow KHA to address and incorporate any feedback that the TVTC Board may have before finalizing the Nexus Study for adoption by the Board in August.

DISCUSSION

Since inception, KHA has been instrumental in leading the TVTC Nexus Study, dividing the study into nine tasks. Of the nine tasks, to date, KHA has completed seven tasks, with two in progress and/or ongoing. The tasks are summarized as follows:

1. Kick-off Meeting and Finalize Scope – Complete
2. Refine Growth Forecast – Complete
3. Confirm Project List – Complete
4. Refine Project List – Complete
5. Refine Non-Fee Funding Forecast – Complete
6. Fee Revenue Estimation – Complete
7. Nexus and Burden Analysis – Complete
8. Finalize TVTC Nexus Update – In Progress
9. Project Management – Ongoing

The TVTC TAC concurs that the existing contract requires an amendment to extend the Professional Services Agreement through August 31, 2021 in order to prepare the Final Report and present the Final Nexus Study to TVTC Board.

RECOMMENDATION

TVTC TAC recommends TVTC Board approve Resolution No. 2021-08 extending the Kimley Horn & Associates Professional Services contract through August 31, 2021. The contract extension is for the sole purpose to complete the Nexus Study. The extension has no fiscal impact, as the contract amount will not be increased.

ATTACHMENT

1. Resolution 2021-08.

3821006.1

TRI-VALLEY TRANSPORTATION COUNCIL
RESOLUTION NO. 2021-08

A RESOLUTION OF THE TRI-VALLEY TRANSPORTATION COUNCIL APPROVING AN AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT BETWEEN THE TRI-VALLEY TRANSPORTATION COUNCIL AND KIMLEY-HORN AND ASSOCIATES FOR THE TRI-VALLEY FEE NEXUS STUDY

WHEREAS, on April 20, 2020 the Tri-Valley Transportation Council (TVTC) and Kimley-Horn and Associates (Consultant) entered into a Professional Services Agreement (Agreement), whereby Consultant agreed to provide professional services for the preparation of a new Tri-Valley Fee Nexus Study for TVTC; and

WHEREAS, on April 19, 2021, Tri-Valley Transportation Council (TVTC) and the Consultant amended the Professional Services Agreement (Agreement) to extend the term until July 31, 2021 (First Amendment); and

WHEREAS, to date, the Consultant has completed seven of the nine tasks under the Agreement:

1. Kick-off Meeting and Finalize Scope – Complete
2. Refine Growth Forecast – Complete
3. Confirm Project List – Complete
4. Refine Project List – Complete
5. Refine Non-Fee Funding Forecast – Complete
6. Fee Revenue Estimation – Complete
7. Nexus and Burden Analysis – Complete
8. Finalize TVTC Nexus Update – In Progress
9. Project Management – Ongoing

WHEREAS, an extension of the Agreement to August 31, 2021 will allow the Consultant to complete the remaining tasks; and

WHEREAS, extension of the Agreement through August 31, 2021 will have no financial implications as the extension will not increase the original Agreement amount of $172,930.

NOW THEREFORE BE IT RESOLVED THAT the Tri-Valley Transportation Council approves an amendment to Professional Services Agreement attached hereto as Attachment 1 (Second Amendment) and authorizes the TVTC Chair to execute the Second Amendment on behalf of the TVTC, subject to review and approval as to form by the General Counsel.

PASSED, APPROVED, AND ADOPTED at the meeting of July 19, 2021 by the following votes:

AYES:
NOES:
ABSENT:
ABSTAIN:

Scott Perkins, Chair
Tri-Valley Transportation Council

ATTEST:

Lisa Bobadilla, TVTC Administrative Staff

ATTACHMENT 1

SECOND AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT

3821307.1

SECOND AMENDMENT TO THE CONSULTANT SERVICES AGREEMENT BETWEEN THE TRI-VALLEY TRANSPORTATION COUNCIL AND KIMLEY-HORN

THIS SECOND AMENDMENT TO THE CONSULTANT SERVICES AGREEMENT ("Second Amendment") is made as of the 19th day of July 2021 by and between THE TRI-VALLEY TRANSPORTATION COUNCIL ("TVTC"), and KIMLEY HORN ("Consultant"), (sometimes referred together as the "Parties") who agree as follows:

RECITALS

WHEREAS, on April 20, 2020, TVTC and Consultant entered into a Consultant Services Agreement ("Agreement") whereby Consultant agreed to provide professional services to TVTC for the preparation of a new Tri-Valley Fee Nexus Study, as further described in the Scope of Work contained in Exhibit A to the Agreement; and

WHEREAS, the Parties entered into an amendment to the Agreement on April 19, 2021 extending the term of the Agreement until July 31, 2021 ("First Amendment"); and

WHEREAS, the Parties desire to further extend the Agreement in order to provide Consultant with additional time to complete the work; and

WHEREAS, the extension of the term does not include any additional compensation beyond the original not-to-exceed amount of $172,930; and

NOW, THEREFORE, for and in consideration of the promises and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, TVTC and Consultant hereby agree to amend the Agreement as follows:

1. All terms which are defined in the Agreement shall have the same meaning when used in this Second Amendment, unless specifically provided herein to the contrary.

2. Section 2 of the Agreement shall be revised to extend the term of the Agreement until August 31, 2021.

All other terms, conditions and provisions in the Agreement remain in full force and effect. If there is a conflict between the terms of this Second Amendment and the Agreement, the terms of the Agreement will control unless specifically modified by this Second Amendment.

[*SIGNATURES ON THE FOLLOWING PAGE*]

IN WITNESS WHEREOF the parties have executed this Agreement on the dates indicated below, the latest of which shall be deemed the effective date of this Agreement.

TRI-VALLEY TRANSPORTATION COUNCIL

DATED: _____

_____
By: Scott Perkins, TVTC Chair

DATED: _____

_____
By: Jean Josey, TVTC Vice-Chair

KIMLEY-HORN
CONSULTANT

DATED: _____

_____
Authorized representative of CONSULTANT

APPROVED AS TO FORM

DATED: _____

_____
By: Steven Mattas, Legal Counsel

3821933.1

Item 5.a

TRI-VALLEY TRANSPORTATION COUNCIL

To: Tri-Valley Transportation Council

From: Technical Advisory Committee (TAC)

Date: July 19, 2021

Subject: Study Session – Tri Valley Transportation Council Nexus Study

INTRODUCTION

This study session is being conducted to: (1) provide TVTC Board Members with an update on the current status of the development of the new TVTC Nexus Study; and (2) receive input and feedback from the TVTC Board Members on the draft Nexus Study.

After staff has received input and feedback from the TVTC Board on the draft Nexus Study, such input and feedback will be incorporated into a final version of the Nexus Study, which will be presented to the TVTC Board for adoption at a meeting in August of 2021. Staff is not requesting that the Board take any action on the draft Nexus Study at this time.

BACKGROUND

Nexus Study Requirements - The California Mitigation Fee Act law (Government Code §66001) requires jurisdictions to identify certain information and make certain statutory findings when establishing, increasing or imposing a development impact fee. Specifically, jurisdictions are required to:

1. Identify the purpose for collecting development impact fees;
2. Identify the use to which the fee is to be put, including identifying the facilities to be built;
3. Determine that there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed;
4. Determine that there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed; and
5. Determine that there is a reasonable relationship (proportionality) between the amount of the fee and the cost of public facilities or portion of the public facilities attributable to the development on which the fee is imposed.

In addition, Government Code §66001(d)(1) requires jurisdictions to make the following statutory findings every five years in relation to any unexpended funds collected pursuant to the fee:

1. Identify the purpose to which the fee is to be put;
2. Demonstrate a reasonable relationship between the fee and the purpose for which it is charged;
3. Identify all sources and amounts of funding anticipated to complete financing in incomplete improvements;
4. Designate the approximate dates on which the funding referred to in subsection (3) above is expected to be deposited into the appropriate account of fund.

Background and History - TVTC Nexus Study, Strategic Expenditure Plan (SEP)

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 costs to levy on new development. The nexus study for the fee program, completed in 1995, 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 amount the fee program would collect from the maximum funding needed (the "maximum allowable" fee). 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.

Completed and adopted in early 2008, the *TVTC Nexus Study: Fee Update* ("2008 Nexus Study") identified 22 projects that the TVTC approved to receive funding from the TVTDF. The first 11 projects ("List A" projects) were adopted into the original program in 1995. The second set of 11 ("List B" projects), were new projects that were included in the 2008 Nexus Study. The travel demand modeling documented in the 2008 Nexus Study projected that these projects would reduce the congestion created by new development within the Tri-Valley.

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 preparation of an 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.

With respect to the TVTC JEPA, in October 2013 TVTC entered into a new Joint Exercise of Powers Agreement (JEPA) comprised of seven member agencies: the County of Alameda, the County of Contra Costa, the City of Livermore, the City of Pleasanton, the City of San Ramon, the City of Dublin, and the Town of Danville. The purpose of the new JEPA agreement was to establish the TVTC as a **separate agency** 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.

Strategic Expenditure Plan (SEP)

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 the analysis establishing a reasonable relationship between the unexpended fees and the purpose for which those fees were collected remained valid. This review analyzed the 2008 Nexus Study Fee Update with current traffic conditions, forecasted growth, and project updates and found that the analysis establishing a reasonable relationship between the unexpended fees and the purpose of which those fees were collected was still valid. The review also identified a number of conditions that had changed since the completion of the 2008 Nexus Study. Growth projections were lower in the more recent forecasts than at the time of the 2008 Nexus Study. This translated to lower trip generation rate from new development. In addition, a number of the projects in the Nexus Study had been completed or had a change in project description or cost estimate. However, due to inflation and updated cost estimates, the total unfunded project cost had only decreased by 9 percent. The minor decrease in unfunded cost, paired with a decrease in expected new peak hour trips to which the fee would be applied, meant that the maximum fee identified in the 2008 Nexus Study would be higher in an updated calculation.

In January 2017, the TVTC approved the *2008 TVTC Nexus Study Validation Review* and adopted the 2017 *Strategic Expenditure Plan (SEP)* Update*. At that time, the TVTC elected to maintain the current fee rate (only annual CCI adjustment). The 2017 SEP update incorporated and built upon the updated project descriptions, funding programs, and progression of the TVTDF over the previous six years. Some of the transportation improvement projects on the original list were completed and schedules and funding for others had changed. The JEPA, adopted in 2013, required approval, for the SEP, by a supermajority of the TVTC – six members.

Tri-Valley Transportation Council - Nexus Study 2018 to Present

At the April 2018 TVTC Board Meeting, budget was allocated for Special Studies and administrative expenses. At that time, $100,000 was allocated to be used to begin work on a new Nexus Study and Strategic Expenditure Plan (the full cost for both studies was estimated at approximately $250,000 and would be allocated over multiple fiscal years). It was anticipated that the TVTC Nexus Study Update would take approximately two years to complete, followed by an update to the Strategic Expenditure Plan.

In October 2018, TAC provided TVTC with an update on the development and schedule of the Nexus Study. The TAC began preliminary work developing a Request for Proposal (RFP). An important element in preparing an RFP was to identify infrastructure projects that would be included for evaluation in the Nexus Study. It was acknowledged that any project included in the Nexus Study should be identified as a Intraregional Route as defined in the TVTP/AP for Routes of Regional Significance. TVTC member agencies provided input on proposed projects as part of an initial Needs Assessment as a key step in developing the Nexus Study RFP.

In July 2019, TVTC received an update on the Nexus Study Project List. A total of 17 new projects ("List C") were proposed for inclusion for the Nexus Study RFP. At that time, project sheets for Hacienda/580 Interchange Improvements, Fallon/El Charro Interchange Improvements, and Intelligent Transportation Systems were still in development. They have since been updated and are included in the new "List C". Additionally, the Alameda County Transportation Commission submitted a new project, the I-680 Express Bus Project, for consideration. Additionally, Iron Horse Trail ("IHT") projects were also added, including a new IHT Safety Improvement Project that spans both Alameda and Contra Costa County. With the additional projects added, the new project total for Nexus Study "List C" is 23.

SUMMARY OF DRAFT NEXUS STUDY

Since 2008, there have been changes in the funding, planning and traffic conditions under which the TVTDF was originally developed. In addition, many of the original 22 projects have been completed and the TVTC has identified 23 new projects (List C) to be considered. Based on these factors an updated nexus study has been prepared to support updates to the TVTDF.

Forecast Growth

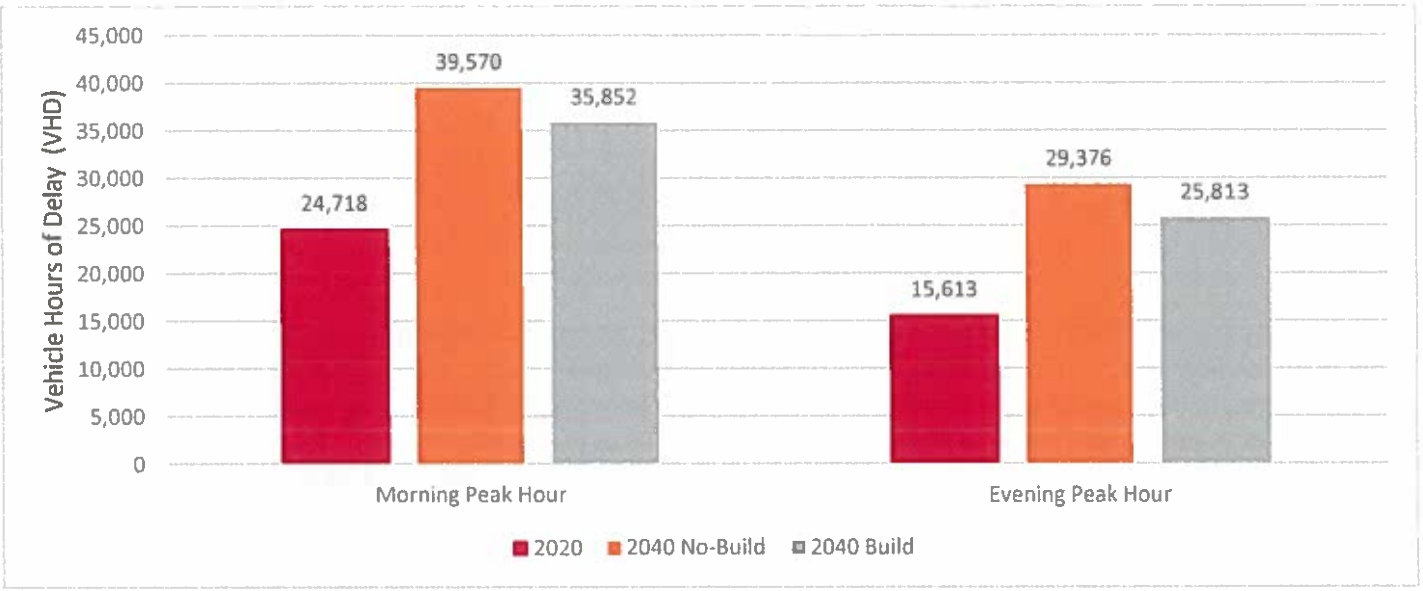
New development within the Tri-Valley is forecast to add 33,312 household and 63,947 jobs between 2018 and 2040. This growth will produce an increase of 57,596 average AM/PM peak hour trips.

Project Benefits

Based on forecast projection, the vehicle hour of delay is expected to increase by 60 percent during the AM and 88 percent during the PM peak. With the 38 improvement projects, this delay is expected to decrease by 15 percent during the AM peak and 23 percent during the PM peak when compared to the 2040 No-Build Scenario.

In addition, these projects will result in other benefits to the Tri-Valley Area including improving roadway safety, improving roadway operations, and increasing bicycle ridership.

Figure E-1: Future Build vs No Build Scenario Vehicle Hours of Delay (VHD)



Note: Hours of delay are based on trips with origin or destination in the TVTC region.

Updated Fee

The total investment for projects eligible to receive TVTDF funding is estimated to be $4.573 billion, where $3.702 billion is unfunded. An additional reduction was applied to account for external "cut-though" trips on roadway congestion projects. Future development within the Tri-Valley area is not responsible to pay for these cut-through trips since these trips are caused by growth outside of the Tri-Valley area. This reduces the total unfunded cost to be covered by the maximum TVTDF to $2.698 billion. Note that this did not change the overall project costs.

The $2.698 billion unfunded cost was allocated across future development land use type based on the proportion of forecast peak-hour trips to determine the Total Fee per Land Use. Then, the maximum fee schedule was determined by dividing Total Fee per Land Use by the 2020-2040 Growth as shown in **Table E-1**.

Table E-1: Maximum Fee by Land Use Category

Land Use Type	Growth	Maximum Fee
Single-Family Residential	15,857 DU	$40,250 per DU
Multi-Family Residential	17,456 DU	$23,890 per DU
Retail	5,117,500 SF	$77.88 per SF
Office	6,796,800 SF	$54.10 per SF
Industrial	9,289,800 SF	$31.15 per SF
Other	12,441 trips*	$46,844 per trip*

* Average AM/PM trip

The maximum fee schedule shown in in **Table E-1** would generate sufficient revenues to fund the total unfunded cost of all selected projects, ***however, TVTC is not obligated to apply this fee schedule.*** For instance, past practice of TVTC has been to set rates at approximate one-third of the maximum fee calculated in the 1995 and 2008 Nexus studies to help foster growth within the Tri-Valley area, while providing a regional funding source that could be used to match and help compete for Federal and State transportation grants and funding programs.

Methodology and Approach

Travel demand forecasting was conducted using the current version of Contra Costa Transportation Authority Travel Demand Model (CCTA TDM). The use of the CCTA TDM is consistent with the previous 2008 Nexus Study. Based on the outcome of initial discussions with the TAC, the following steps were taken regarding the development of travel demand forecasts:

- Travel demand forecasting was reaffirmed to be based on the latest version of CCTA TDM. In 2019, the CCTA TDM was updated to incorporate assumptions consistent with the current (as of 2017) Metropolitan Transportation Commission (MTC) Regional Transportation Plan (RTP). A 2018 base year validation was also completed as part of that update. The growth projections were based on a base year of 2020 and a horizon year of 2040. Note that the CCTA TDM base year was updated to reflect 2020 conditions and that the 2040 horizon year was also modified to address the specific needs of this study.
- Land use assumptions for households and employment were broken down for the 2020 base and 2040 horizon years by jurisdiction and were distributed to member agencies for review. Detailed data submitted to each jurisdiction included household and employment data at the traffic analysis zone (TAZ) level. In addition, supplemental data from the Alameda County Transportation Commission (ACTC) travel demand model was also provided to member agencies within Alameda County. Kimley Horn worked closely with the individual agencies to appropriately finalize growth forecasts prior to their use in the final modeling for this study.

Summary of the major milestones to date, is as follows:

October 2019 - TVTC approved the Nexus Study Project List (List C).

April 2020 - TVTC adopted Resolution 2020-03 and awarded a Professional Services Agreement to Kimley-Horn ("consultant") for the TVTC Nexus Study in the amount of $172,930.

October 2020 - TVTC received an update on the Nexus Study which included completion of the Nexus Study Scope of Work and Schedule, and completion of Growth Forecast refinements for employment and population to calculate the increase in traffic demand attributable to forecasted growth within the Tri-Valley. The consultant also advised that the total growth forecast would be converted into land use types to ease the administration of the impact fee at the local level.

January 2021 - TVTC received a verbal update from the consultant detailing the land use assumptions submitted by the member agencies. The consultant shared the next steps, including running the Travel Demand Model, to determine performance measures of the roadway network.

April 2021 - TVTC received a verbal updated from the consultant detailing the tasks completed, including the land use assumptions, travel demand model, and the performance evaluation.

July 2021 - TVTC to receive update on all completed tasks associated with the Nexus Study:

1. Confirm Growth Forecast and Travel Demand Model - Completed
2. Methodology and Approach – Completed
3. Household Growth – Confirmed
4. Employment Growth – Confirmed
5. Improvement Project and Nexus Analysis Methodology – Confirmed
6. Non-Fee Funding Source – Completed
7. Fee Estimation and Nexus Burden Analysis – Completed
8. Draft Nexus Study – Completed.
9. Adopt Nexus Study – July/August 2021

Next Steps

1. TVTC Board adopts the final Nexus Study in August of 2021.
2. Form a TVTC Strategic Expenditure Plan (SEP) Subcommittee – the Subcommittee will be responsible to work with the Technical Advisory Committee and the SEP Consultant to create the draft SEP for review and approval by TVTC.

3. The SEP subcommittee will meet regularly to ensure the draft SEP is created and presented to TVTC by November of 2021, to allow time for local agencies to consider and adopt the SEP by July 1, 2022. Section 8(a) of the JEPA requires the TVTC to adopt or update the SEP every five years. Therefore, the Board should consider adopting the SEP in November 2021 (special meeting).

4. TVTC Board adopts an updated Fee Program in January 2022 (regularly scheduled meeting).

RECOMMENDATION

Staff recommends that the TVTC Board receive the update regarding the draft Nexus Study and provide staff with feedback and input regarding the draft Nexus Study for incorporation into the final Nexus Study.

ATTACHMENTS

Draft Nexus Study

Draft Nexus Study Power Point Presentation

3835817.1

Tri-Valley Transportation Council

2020 Nexus Fee Update Study

TVTC MEMBER AGENCIES

IN ASSOCIATION WITH

JULY 2021 | DRAFT

Prepared By:

Kimley»Horn

CONTENTS

TABLES

FIGURES

ACRONYM LIST

ACTC	Alameda County Transportation Commission
ATP	Active Transportation Program
BART	Bay Area Rapid Transit
BRT	Bus Rapid Transit
CCTA	Contra Costa Transportation Authority
CHP	California Highway Patrol
CMF	Crash Modification Factors
CPM	County Program Manager
EIR	Environmental Impact Report
FHWA	Federal Highway Authority
HOV	High Occupancy Vehicle
HSIP	Highway Safety Improvement Program
I-580	Interstate 580
I-680	Interstate 680
ITE	Institute of Transportation Engineers
JEPA	Joint Exercise of Powers Agreement
JPA	Joint Power Agreement
LAVTA	Livermore Amador Valley Transit Authority
LRSM	Local Roadway Safety Manual
MTC	Metropolitan Transportation Commission
OBAG	One Bay Area Grant Program
OTS	Office of Traffic Safety
PM	Post Mile
PSR	Project Study Report
PSR-PDS	Project Study Report-Project Development Support
RRS	Routes of Regional Significance
RTP	Regional Transportation Plan
SAV	Shared Autonomous Vehicle
SB 1	Senate Bill 1
SEP	Strategic Expenditure Plan
SR 84	State Route 84
STIP	State Transportation Improvement Program
SWAT	Southwest Area Transportation
TAC	Technical Advisory Committee
TAZ	Traffic Analysis Zone
TBD	To Be Determined

TDM	Travel Demand Model
TEP	Transportation Expenditure Plan
TFCA	Transportation Fund for Clean Air
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
VHD	Vehicle Hours of Delay

EXECUTIVE SUMMARY

Completed and adopted in early 2008, the Tri-Valley Transportation Council (TVTC) Nexus Study: Fee Update ("2008 Nexus Study") identified 22 projects that the TVTC elected for eligibility to receive funding from the Tri-Valley Transportation Development Fee (TVTDF). The first 11 projects (List A) were adopted into the original program in 1995. The second set of 11 (List B), were new projects that were included in the 2008 Nexus Study. The travel demand modeling documented in the 2008 Nexus Study projected that these projects would reduce the congestion created by new development within the Tri-Valley.

Since 2008, there have been changes in the funding, planning and traffic conditions under which the TVTDF was originally developed. In addition, many projects of the 22 projects have been completed and the TVTC has identified 16 new projects (List C) to be considered. Based on these factors an updated nexus study is needed to support updates to the TVTDF.

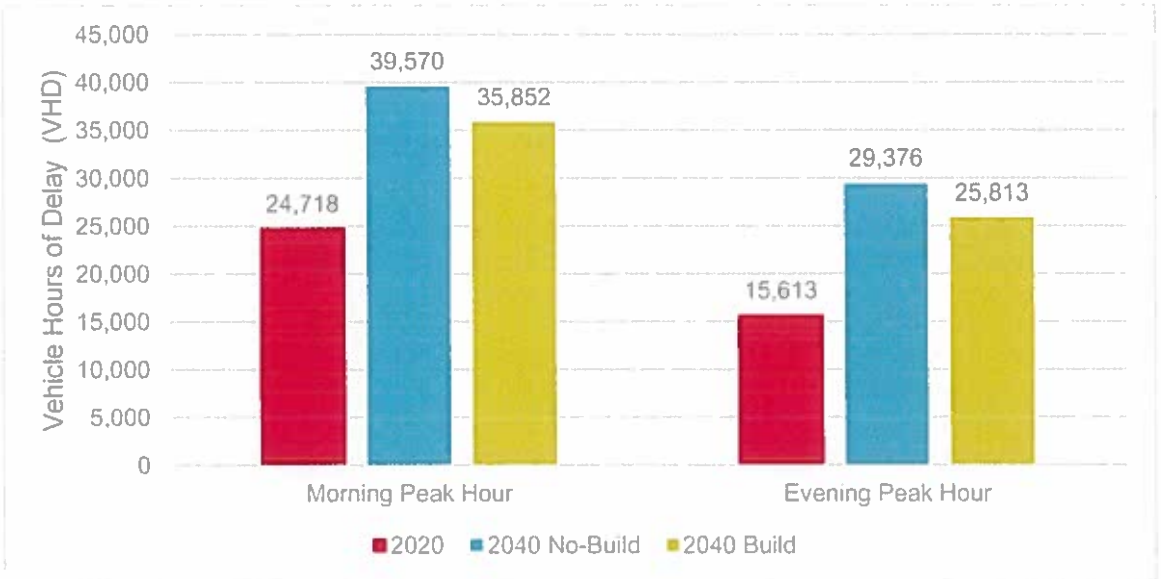
FORECAST GROWTH

New development within the Tri-Valley is forecast to add 33,312 household and 63,947 jobs between 2018 and 2040. This growth will produce an increase of 57,596 average AM/PM peak hour trips.

PROJECT BENEFITS

Based on forecast projection, the vehicle hour of delay is expected to increase by 60 percent during the AM and 88 percent during the PM peak. With the 38 improvement projects, this delay is expected to decrease by 15 percent during the AM peak and 23 percent during the PM peak when compared to the 2040 No-Build Scenario. In addition, these projects will result in other benefits to the Tri-Valley Area including improving roadway safety, improving roadway operations, and increasing bicycle ridership.

Figure E-1: Future Build vs No Build Scenario Vehicle Hours of Delay (VHD)



Note: Hours of delay are based on trips with origin or destination in the TVTC region.

UPDATED FEE

The total investment for projects eligible to receive TVTDF funding is estimated to be $4.573 billion, where $3.702 billion is unfunded. An additional reduction was applied to account for external "cut-though" trips on roadway congestion projects. Future development within the Tri-Valley area is not responsible to pay for these trips since these trips are caused by growth outside of the Tri-Valley area. This reduces the total unfunded cost to be covered by the maximum TVTDF to $2.698 billion. Note that this not change the overall project costs.

The $2.698 billion unfunded cost was allocated across future development land use type based on the proportion of forecast peak-hour trips to determine the Total Fee per Land Use. Then the maximum fee schedule was determined by dividing Total Fee per Land Use by the 2020-2040 Growth as shown in **Table E-1**.

Table E-1: Maximum Fee by Land Use Category

Land Use Type	Growth	Maximum Fee
Single-Family Residential	15,857 DU	$40,250 per DU
Multi-Family Residential	17,456 DU	$23,890 per DU
Retail	5,117,500 SF	$77.88 per SF
Office	6,796,800 SF	$54.10 per SF
Industrial	9,289,800 SF	$31.15 per SF
Other	12,441 trips*	$46,844 per trip*

* Average AM/PM trip

The maximum fee schedule shown in in **Table E-1** would generate sufficient revenues to fund the total unfunded cost of all selected projects, however TVTC jurisdictions are not obligated to apply this fee schedule. For instance, the TVTC jurisdiction set rates at approximate one-third of the maximum fee calculated in the 1995 and 2008 Nexus studies to help foster growth within the Tri-Valley area, while providing a regional funding source that could be used to match and help compete for Federal and State transportation grants and funding programs.

1 INTRODUCTION AND BACKGROUND

1.1 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 nexus study for the fee program, completed in 1995, 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 amount the fee program would collect from the maximum funding needed. 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. Since 1995, there has been substantial changes in the funding, planning, and traffic setting in which the TVTDF was originally developed. New funding sources were established; the TVTP/AP was updated in 2000; projects 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 its first update to the fee nexus study to update the fee and project list.

Completed and adopted in early 2008, the first update to the TVTC Nexus Study: Fee Update ("2008 Nexus Study") identified 22 projects that the TVTC elected for eligibility to receive funding from the TVTDF. The first 11 projects (Lista A) were adopted into the original program in 1995. The second set of 11 (List B), were new projects that were included in the 2008 Nexus Study. The travel demand modeling documented in the 2008 Nexus Study projected that these projects would further reduce congestion created by new development within the Tri-Valley. 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 preparation of an SEP.

Since 2008, there have been changes in the funding, planning and traffic conditions under which the TVTDF was originally developed. In addition, many of the 22 projects have been completed and the TVTC has identified 16 new projects (List C) to be considered. Based on these factors this updated nexus study was undertaken.

1.2 REPORT ORGANIZATION

The remainder of the report is divided into the following chapters:

- Chapter 2 - Forecast of New Development and Travel Demand: Describes the methodology, assumption, and results used to determine future development forecast
- Chapter 3 - Improvement Projects and Cost Estimates: Presents list of improvement projects the TVTC elected to receive funding from the TVTDF. Detailed project descriptions are provided in Appendix A and Appendix B.
- Chapter 4 - Nexus Findings: Describes relevant findings for the imposition of development impact fees,
- Chapter 5 - Next Steps: Identifies next steps for adopting the updated fee schedule.

2 FORECAST OF NEW DEVELOPMENT AND TRAVEL DEMAND

This chapter describes the methodology, assumption, and results for travel demand forecasting.

2.1 METHODOLOGY AND APPROACH

Travel demand forecasting was conducted using the current version of Contra Costa Transportation Authority Travel Demand Model (CCTA TDM). The use of the CCTA TDM is consistent with the previous 2008 Nexus Study. Based on the outcome of initial discussions with the TAC, the following steps were taken regarding the development of travel demand forecasts:

- Travel demand forecasting was reaffirmed to be based on the latest version of CCTA TDM. In 2019, the CCTA TDM was updated to incorporate assumptions consistent with the current (as of 2017) Metropolitan Transportation Commission (MTC) Regional Transportation Plan (RTP). A 2018 base year validation was also completed as part of that update. The growth projections were based on a base year of 2020 and a horizon year of 2040. Note that the CCTA TDM base year was updated to reflect 2020 conditions and that the 2040 horizon year was also modified to address the specific needs of this study.
- Land use assumptions for households and employment were broken down for the 2020 base and 2040 horizon years by jurisdiction and were distributed to member agencies for review. Detailed data submitted to each jurisdiction included household and employment data at the traffic analysis zone (TAZ) level. In addition, supplemental data from the Alameda County Transportation Commission (ACTC) travel demand model was also provided to member agencies within Alameda County. Kimley Horn worked closely with the individual agencies to appropriately finalize growth forecasts prior to their use in the final modeling for this study.

Given that a recent land use forecast for the Tri-Valley region already exists as incorporated into the 2019 update of the CCTA Model, it is important to provide a context for the basis of this forecast. Specifically, the focus of this effort, unlike the more recent application of the CCTA model which was in support of a Region-Wide RTP, is confined to a limited area that primarily includes City of Dublin, Pleasanton, Livermore, Danville, and San Ramon and parts of unincorporated Contra Costa and Alameda counties. As this constitutes sub-area analysis (although the entirety of the model will be used during analysis), the typical best practice includes carefully assessing land use within the study area to make sure that it is prepared in a manner consistent with the specific goals of the study for which the TDM will be applied. It is important to note that TDMs used in support of RTPs are prepared in accordance with strict control totals and, as such, their land use forecasts do not necessarily reflect certainty as to whether a given development will occur, rather they are more akin to a process of prioritization (the forecaster determines the magnitude and location of development that is most likely to occur rather than determining whether something will NOT occur). Not surprisingly, local jurisdictions sometimes have more detailed perspectives on whether certain concentrations of development within their communities will occur before the RTP planning horizon. A land use assessment, such as that carried out as part of a typical sub-area analysis, is often an opportunity to reconsider jurisdictional land use input without the necessary limitations that an RTP puts on land use forecasting.

Based on these considerations and information shared by the TAC members, as well as input from staff from the member agencies at several individual agency meetings, it was determined that the 2040 land use forecast for the study area as included in the 2019 version of the CCTA TDM had unlikely development patterns in several locations within the study area as compared to the collective perspectives of member

agencies. Accordingly, it was agreed that a process to refine the existing CCTA forecast in a manner that could be reasonably justified based on readily available information and data would be undertaken. Specifically, this forecast is intended to reflect both realistic and achievable 2040 growth within the study area, and not necessarily circumstances that would be reflective of the full potential of the study area or an overly conservative approach such as a "worst-case" scenario.

2.2 TRAVEL DEMAND FORECAST

This section presents the growth forecast based on feedback from member agencies.

2.2.1 HOUSEHOLD GROWTH

Table 1 and **Figure 1** summaries the estimated household growth between 2020 and 2040 the resulted from the process described in the prior section. Between 2020 and 2040 there is an expected total growth of 33,312 households within the Tri-Valley Area. This equates to a 24 percent change or an annual growth rate of 1.09%.

Table 1: Total Household Forecasts by Agency

Agency	2020	2040	2020-2040 Growth	Percent Change	Annual Growth Rate
Danville	15,564	16,557	993	6%	0.31%
Dublin	21,708	29,105	7,397	34%	1.48%
Livermore	30,685	39,759	9,074	30%	1.30%
Pleasanton	27,783	34,099	6,316	23%	1.03%
San Ramon	27,624	36,638	9,014	33%	1.42%
Alameda Unincorporated	2,108	2,362	254	12%	0.57%
Contra Costa Unincorporated	11,921	12,185	264	2%	0.11%
Total Tri-Valley	**137,393**	**170,705**	**33,312**	**24%**	**1.09%**

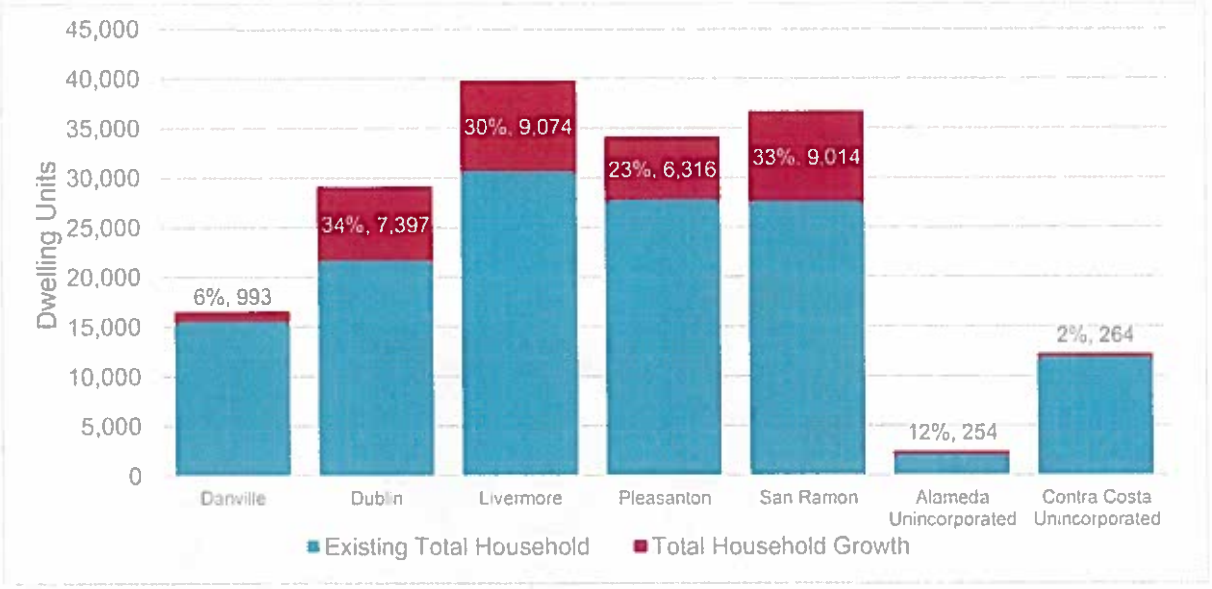


Figure 1:Total Household Forecasts by Agency

Table 2 presents the overall change based on dwelling type. As shown, it is expected that single family units will grow by 15,856 units at an annual growth rate of 0.69%. It is expected that multi-family units will go by 17,456 units at an annual growth rate of 2.35%. **Table 3** and **Figure 2** summarizes growth for single family household by agency. **Table 4** and **Figure 3** summarizes the growth for multifamily households by agency.

Table 2: Projected Dwelling Unit Growth, 2020-2040

Dwelling Type	2020	2040	2020-2040 Growth	Percent Change	Annual Growth Rate
Single Family	107,944	123,800	15,856	15%	0.69%
Multifamily	29,449	46,905	17,456	59%	2.35%
Total	**137,393**	**170,705**	**33,312**	**24%**	**1.09%**

Table 3: Single Family Household Forecasts by Agency

Agency	2020	2040	2020-2040 Growth	Percent Change	Annual Growth Rate
Danville	14,346	14,882	536	4%	0.18%
Dublin	14,579	17,506	2,927	20%	0.92%
Livermore	23,631	29,091	5,460	23%	1.04%
Pleasanton	20,689	24,202	3,513	17%	0.79%
San Ramon	21,704	24,821	3,117	14%	0.67%
Alameda Unincorporated	1,767	1,953	186	11%	0.50%
Contra Costa Unincorporated	11,228	11,345	117	1%	0.05%
Total Tri-Valley	**107,944**	**123,800**	**15,856**	**15%**	**0.69%**

Figure 2: Single Family Household Forecasts by Agency

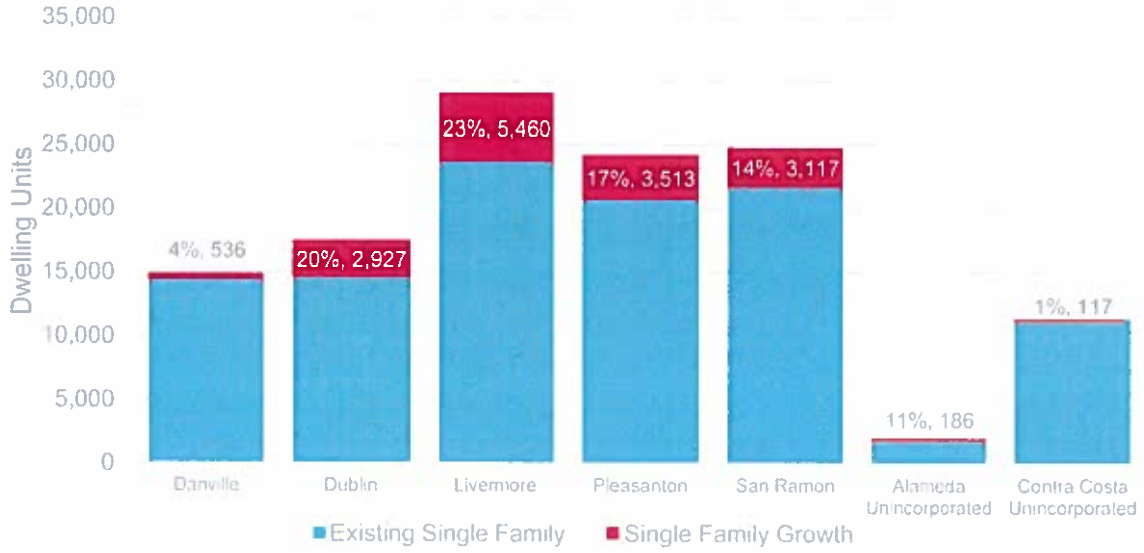
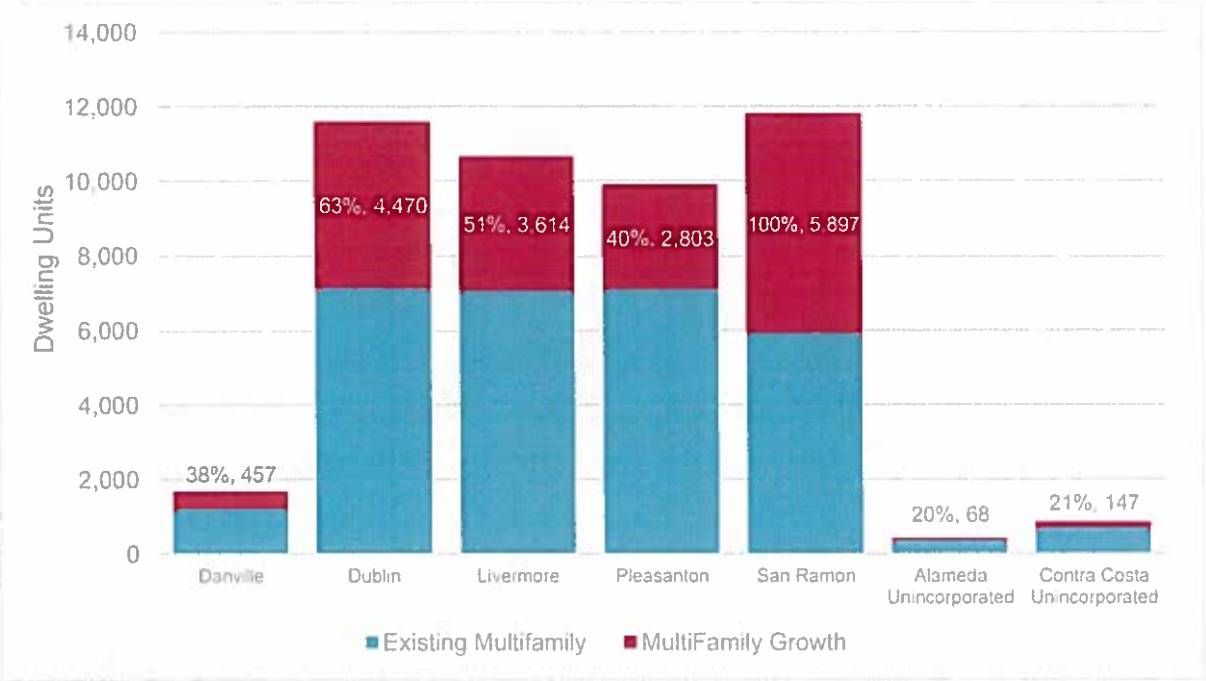


Table 4: Multifamily Household Forecasts by Agency

Agency	2020	2040	2020-2040 Growth	Percent Change	Annual Growth Rate
Danville	1,218	1,675	457	38%	1.61%
Dublin	7,129	11,599	4,470	63%	2.46%
Livermore	7,054	10,668	3,614	51%	2.09%
Pleasanton	7,094	9,897	2,803	40%	1.68%
San Ramon	5,920	11,817	5,897	100%	3.52%
Alameda Unincorporated	341	409	68	20%	0.91%
Contra Costa Unincorporated	693	840	147	21%	0.97%
Total Tri-Valley	**29,449**	**46,905**	**17,456**	**59%**	**2.35%**

Figure 3: Multifamily Household Forecasts by Agency



2.2.2 EMPLOYMENT GROWTH

Table 5 and **Figure 4** summaries the estimated employment growth between 2020 and 2040. Between 2020 and 2040 there is an expected total growth of 63,947 jobs within the Tri-Valley Area. This equates to an approximate 30% change or an annual growth rate of 1.34%. Detail information for specific TAZs are included in **Attachment B** and **C**.

Table 5: Total Employment Forecasts by Agency

Agency	2020	2040	2020-2040 Growth	Percent Change	Annual Growth Rate
Danville	19,330	19,519	189	1%	0.05%
Dublin	23,402	32,716	9,314	40%	1.69%
Livermore	46,038	66,795	20,757	45%	1.88%
Pleasanton	62,196	86,489	24,293	39%	1.66%
San Ramon	50,539	59,027	8,488	17%	0.78%
Alameda Unincorporated	4,358	4,913	555	13%	0.60%
Contra Costa Unincorporated	4,460	4,811	351	8%	0.38%
Total Tri-Valley	**210,323**	**274,270**	**63,947**	**30%**	**1.34%**

Figure 4: Total Employment Forecasts by Agency

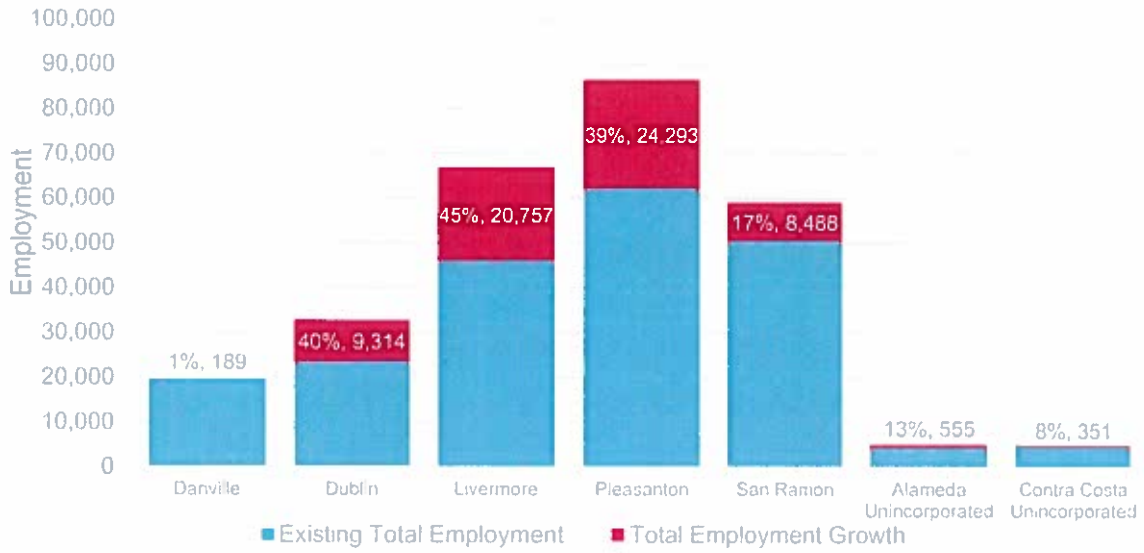


Table 6 presents the estimate growth between the base year of 2020 and the 2040 horizon year by employment type. Manufacturing, Service, and Other-type employment are forecasted to have the highest growth with a 60%, 33%, and 31% change, respectively. Retail and Trade/Wholesale-type employment are forecasted to have the smaller growth with a 20% and 19% change respectively. Agricultural-type employee is expected to have very little change. **Figure 5** through **Figure 10** summarizes the growth for each employment type by agency.

Table 6: Total Employment Forecasts by Employment Type

Employment Type	2020	2040	2020-2040 Growth	Percent Change	Annual Growth Rate
Retail	50,168	60,403	10,235	20%	0.93%
Service	69,029	91,685	22,656	33%	1.43%
Other	67,621	88,356	20,735	31%	1.35%
Agricultural	1,225	1,224	-1	0%	0.00%
Manufacturing	14,942	23,842	8,900	60%	2.36%
Trade/Wholesale	7,338	8,760	1,422	19%	0.89%
Total Employment	**210,323**	**274,270**	**63,947**	**30%**	**1.34%**

Note:
Service employment includes professional services/offices, public administration, health services, educational services, hotel, etc.
Other employment includes car washes, repair-maintenance services, personal care services, civic and social organization etc.

Figure 5: Retail Employment Forecasts by Agency

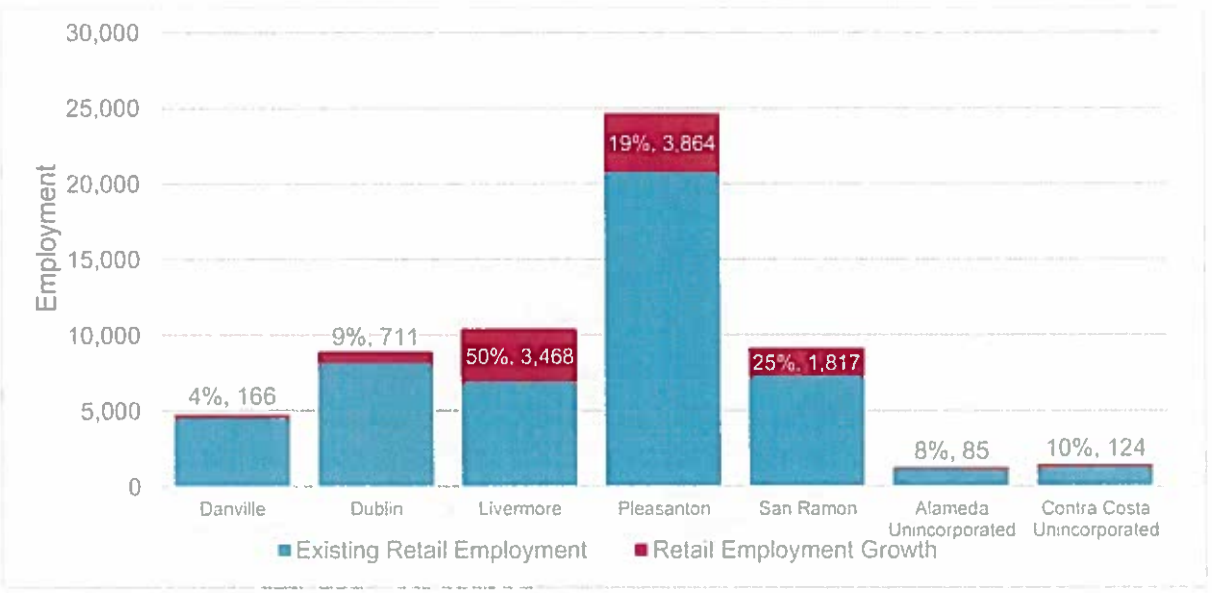


Figure 6: Service Employment Forecasts by Agency

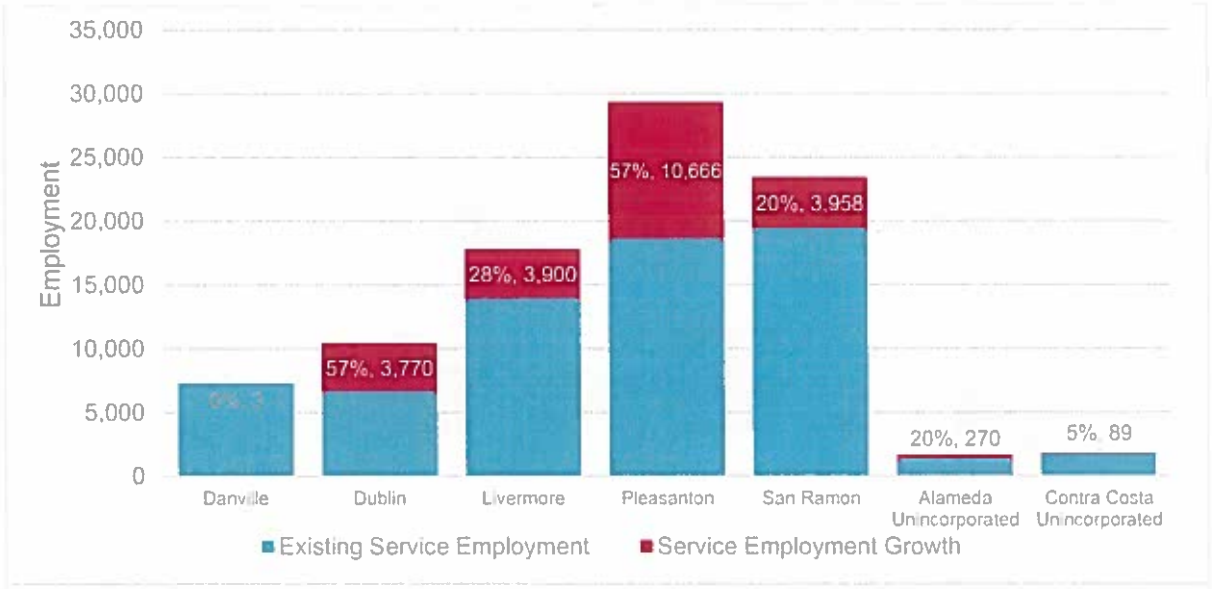
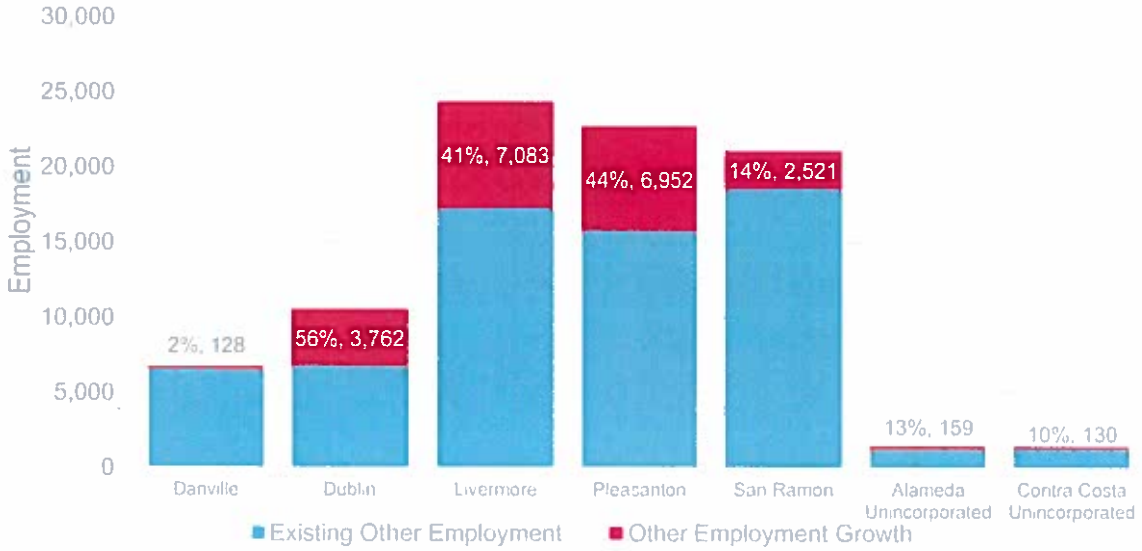


Figure 7: Other Employment Forecasts by Agency



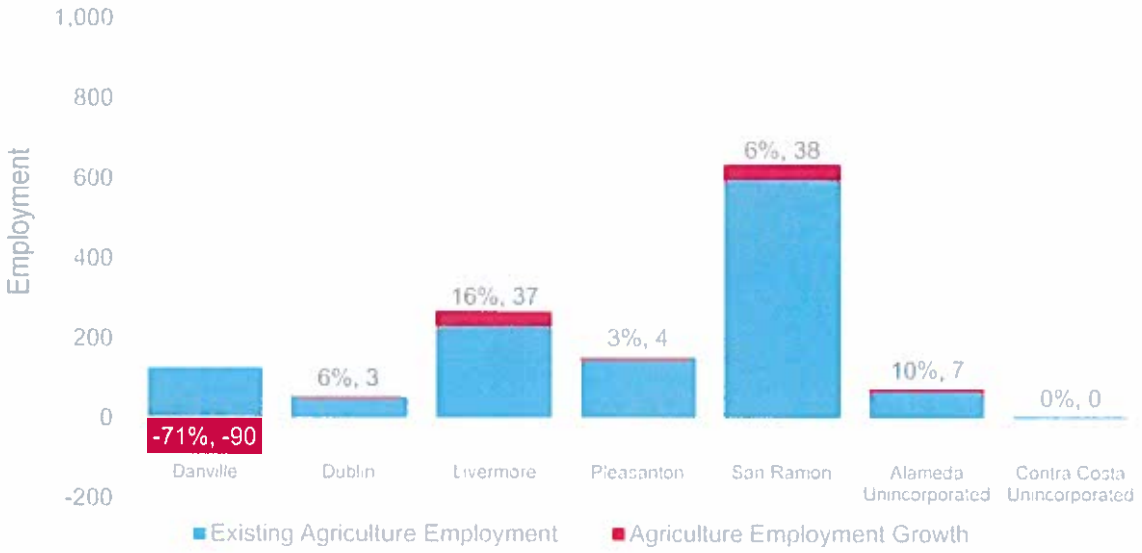


Figure 8: Manufacturing Employment Forecasts by Agency

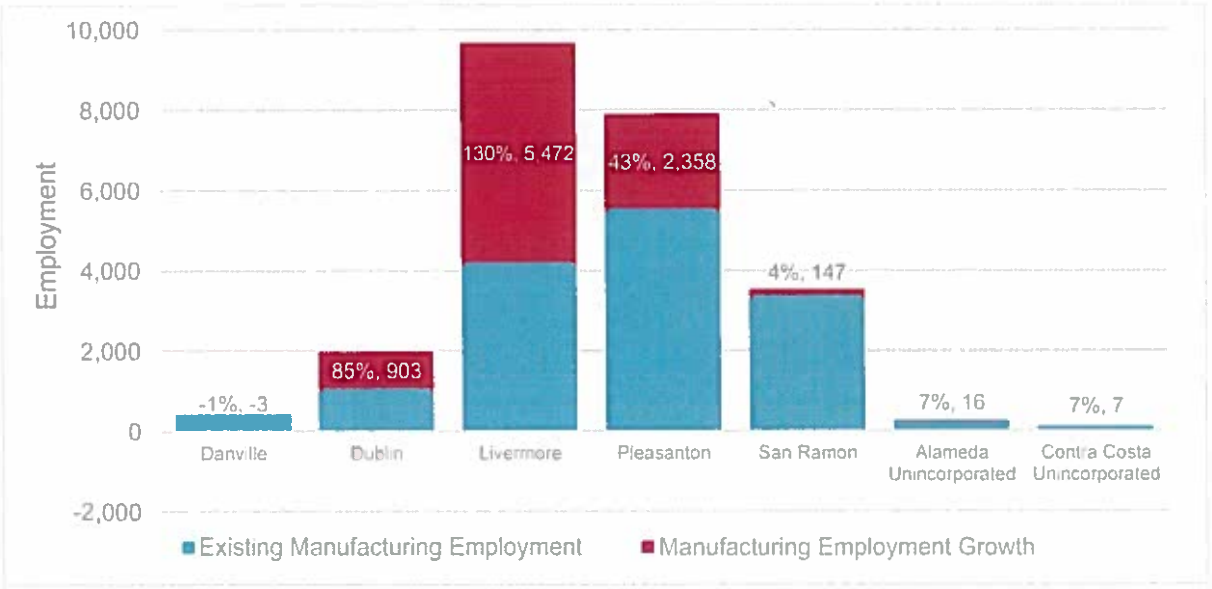


Figure 9: Trade/Wholesale Employment Forecasts

Employment growth was converted to square feet of commercial building space based on employee density assumed from the 2008 Nexus Study. These conversions are shown in **Table 7** below.

Table 7: Employment Growth Converted to Square Commercial Building Space

Land Use Type	Employee Growth 2020-2040	Employee Density (SF/Employee)	In Building Square Footage 2020-2040
Retail	10,235	500	5,117,572
Office/Service	22,656	300	6,796,911
Industrial[1]	10,321	900	9,289,204
Other	20,735	600	12,440,969
Total	**63,947**	-	**33,644,656**

[1] Industrial includes agriculture, manufacturing, and trading employment-types.

2.2.3 COMPARISON WITH 2008 NEXUS STUDY

A comparison of the total growth (base year to horizon year) and the annual growth rates between the 2008 Nexus Study and the 2020 Nexus Study forecast is presented in **Table 8**. The household growth estimated in the current 2020 Nexus Study is approximately half as much as estimated in the 2008 Nexus study. The employment growth is estimated to be slightly lower than the 2008 Nexus study. A slower build-out results in smaller amount of development being available to pay towards improvement projects.

Table 8: Overall Growth Comparison

	Total Growth		Annual Growth	
	Household	Employment	Household	Employment
2008 Nexus Study (2007 to 2030 Growth)	51%	42%	1.81%	1.54%
2020 Nexus Study (2020 to 2040 Growth)	24%	30%	1.09%	1.34%

Detailed comparison household and employment are discussed in the following sections.

2.2.3.1 Household

Table 9, Table 10 and **Figure 11** presents a comparison of the household growth between 2008 Nexus Study and the 2020 refined growth forecast. Single family experienced 4% less growth than anticipated in the 2008 Nexus Study. Multifamily experienced 10% less growth than anticipated in the 2008 Nexus Study. The multifamily growth trend is similar between the 2008 and 2020 Nexus Study.

Figure 10: 2008 Nexus and 2020 Refined Dwelling Unit Forecast

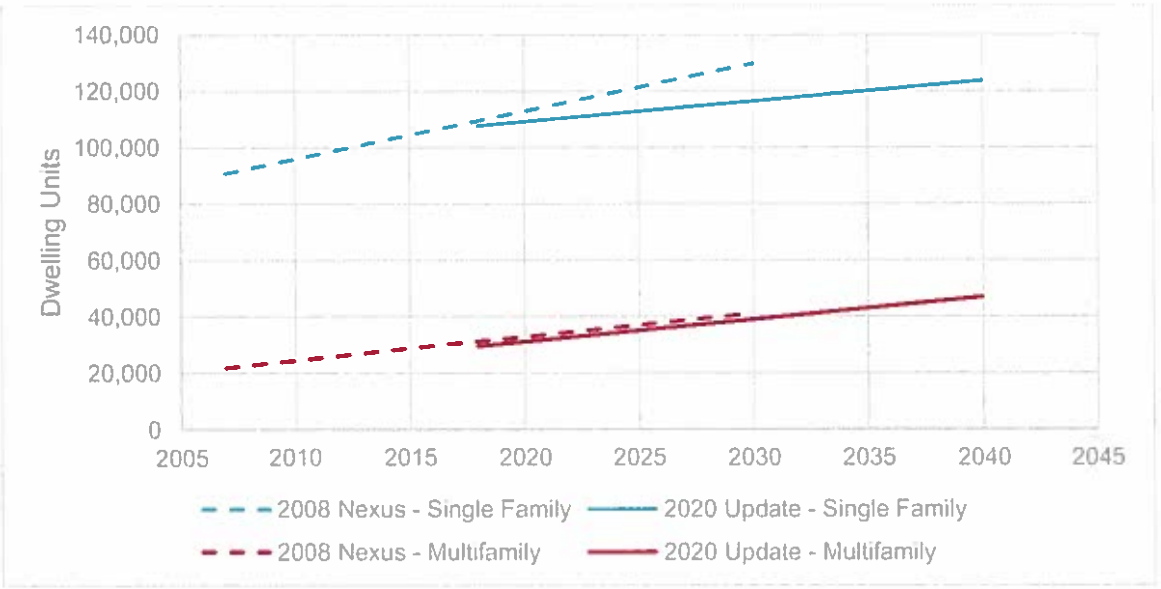


Table 9: Household Growth Comparison

Dwelling Type	2008 Nexus Study					2020 Nexus Study				
	2007	2030	2007-2030 Growth	Percent Change	Annual Growth	2018	2040	2020-2040 Growth	Percent Change	Annual Growth
Single Family	91,136	129,818	38,682	42%	1.55%	107,944	123,800	15,856	15%	0.69%
Multifamily	21,959	41,042	19,083	87%	2.76%	29,449	46,905	17,456	59%	2.35%
Total	**113,095**	**170,860**	**57,765**	**51%**	**1.81%**	**137,393**	**170,705**	**33,312**	**24%**	**1.09%**

Table 10: Actual Versus Projected 2020 Household Values

Dwelling Type	2020 Projected	2020 Actual	Difference	Percent Difference
Single Family	113,000	107,944	-5,056	-4%
Multifamily	32,745	29,449	-3,296	-10%
Total	**145,745**	**137,393**	**-8,352**	**-6%**

Note: 2020 Projected assumes linear growth based on 2007-2030 growth assumed in 2008 Nexus Study

2.2.3.2 Employment

Table 11, Table 12, Figure 12, and **Figure 13** presents a comparison of the employment growth between 2008 Nexus study and the 2020 Nexus study. All employment types except for Other are forecast to experience less growth than anticipated in the 2008 Nexus Study. Retail and Other employment experience higher growth at 15% and 8% more than 2020 estimate. For Agriculture employment, there was a -7% difference. Service, manufacturing, and trading employment experienced the greatest difference, ranging from -37% to -43% compared to employment numbers anticipated for 2020 in 2008 Nexus Study. While the actual numbers differ from the anticipated growth assumed in 2008 Nexus Study, the 2020 Nexus study is anticipating similar growth trends as the previous study for all employment types.

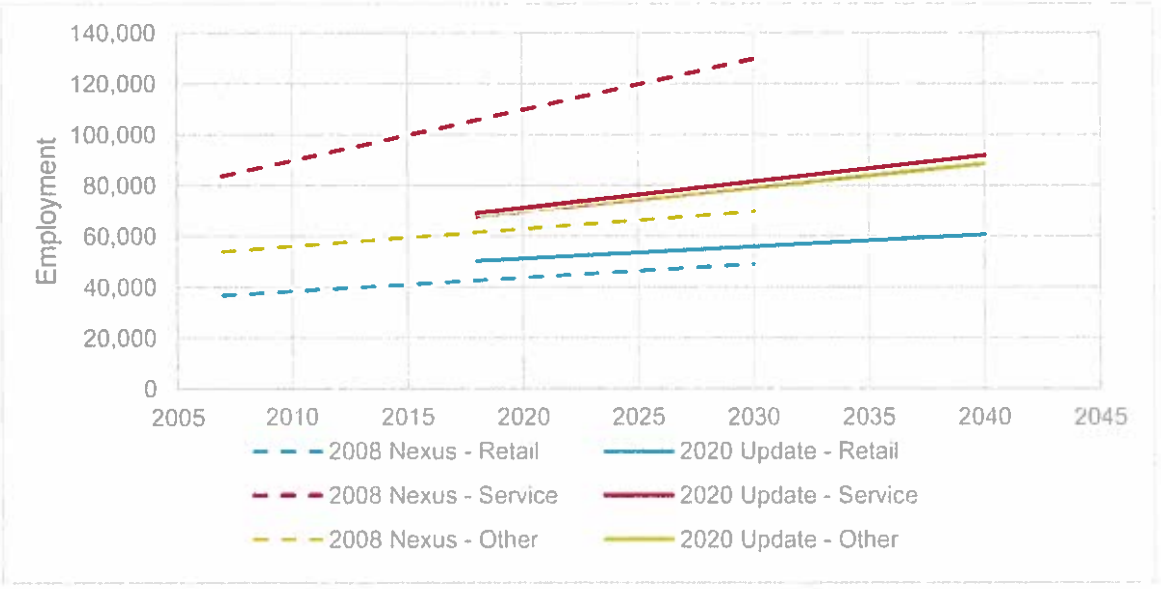


Figure 11: 2008 Nexus Study and 2020 Nexus Study Employment Forecast (Retail, Service, Other)

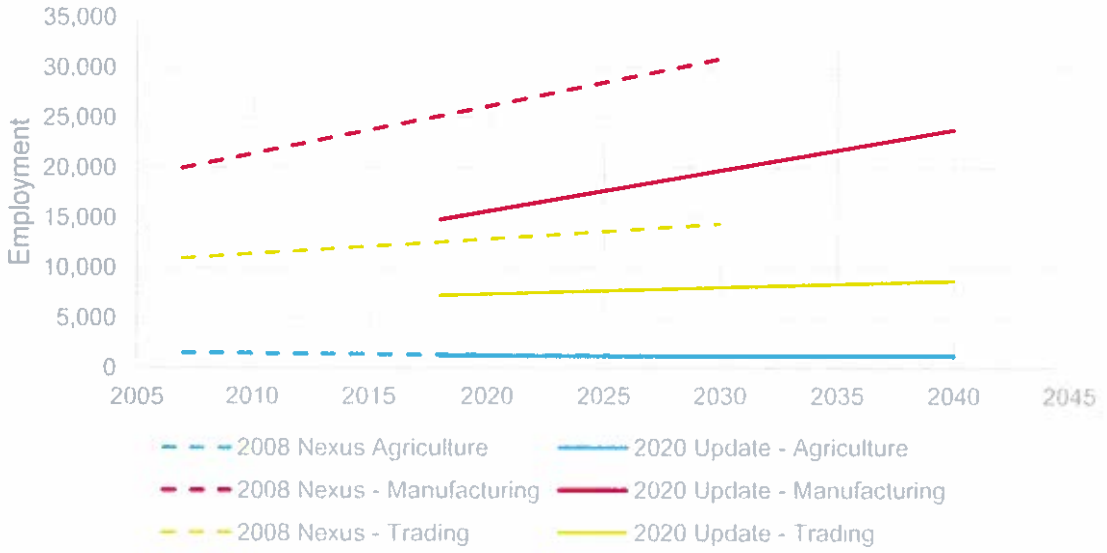


Figure 12: 2008 Nexus Study and 2020 Nexus Study Employment Forecast (Agriculture, Manufacturing, Trading)

Table 11: Employment Growth Comparison

Employment Type	2008 Nexus Study					2020 Nexus Study				
	2007	2030	2007-2030 Growth	Percent Change	Annual Growth	2020	2040	2020-2040 Growth	Percent Change	Annual Growth
Retail	36,806	48,927	12,121	33%	1.25%	50,168	60,403	10,235	20%	0.93%
Service	83,608	129,427	45,819	55%	1.92%	69,029	91,685	22,656	33%	1.43%
Other	54,076	69,459	15,383	28%	1.09%	67,621	88,356	20,735	31%	1.35%
Agriculture	1,483	1,182	-301	-20%	-0.98%	1,225	1,224	-1	0%	0.00%
Manufacturing	20,048	30,895	10,847	54%	1.90%	14,942	23,842	8,900	60%	2.36%
Trading	10,986	14,371	3,385	31%	1.17%	7,338	8,760	1,422	19%	0.89%
Total	**207,007**	**294,261**	**87,254**	**42%**	**1.54%**	**210,323**	**274,270**	**63,947**	**30%**	**1.34%**

Table 12: Actual Versus Projected 2020 Employment Values

Employment Type	2020 Projected	2020 Actual	Difference	Percent Difference
Retail	42,603	42,603	7,565	15%
Service	105,521	105,521	-36,492	-37%
Other	61,433	61,433	6,188	8%
Agriculture	1,339	1,339	-114	-7%
Manufacturing	25,236	25,236	-10,294	-43%
Trading	12,605	12,605	-5,267	-43%
Total	**248,737**	**248,737**	**-38,414**	**-18%**

Note: 2020 Projected assumes linear growth based on 2007-2030 growth assumed in 2008 Nexus Study

3 IMPROVEMENT PROJECTS AND COST ESTIMATES

This chapter presents the 38 improvement projects included as part of the 2020 Nexus Updates.

3.1 IMPROVEMENT PROJECTS

There are 38 improvement projects that the TVTC has included in the Tri-Valley Transportation Development Fee (TVTDF). Of those projects, 22 projects exist in the current TVTDF and 16 are new projects that are to be considered as part of this nexus update study.

3.1.1 CURRENT PROJECT LIST

Current projects are divided into two lists. The first list, List A, includes 11 projects that were included in the original program adopted in 1995. The second list, List B, includes 11 projects that were included in the 2008 Nexus Study.

Out of the 22 existing projects, 9 projects have been completed and are no longer considered for further funding. In addition, two projects (B-9 Danville Boulevard/Stone Valley Road I-680 Intersection and B-11a I-680 HOV Direct Access Ramps) have been removed from the project list and are no longer being considered for funding. The remaining projects have not been fully completed. **Table 13** summaries the projects in List A and B along with their total project costs and their remaining unfunded cost. Detailed description of projects in Lists A and B are provided in **Appendix A**.

3.1.2 NEW SELECTED PROJECT LIST

With half of the current project list no longer receiving funding, TVTC reviewed and selected additional projects to be considered for receiving funding from the TVTDF. This selection process involved a comprehensive planning process to develop a project list that mitigates the impacts of new development based on feasibility and stakeholder support. From this process, 16 projects (List C) were identified to receive funding from the TVTDF. List C projects, along with their total project costs and their remaining unfunded costs are listed in **Table 14**. Detailed descriptions of projects in List C are provided in **Appendix B**.

3.2 UNFUNDED COST

Tables 13 and **14** presents total project cost and their remaining unfunded cost. The total investment for projects eligible to receive TVTDF funding is estimated to be $4.573 billion, where $3.702 billion is unfunded. An additional reduction was applied to account for external "cut-though" trips on roadway congestion projects. Future development within the Tri-Valley area is not responsible to pay for these trips since these trips are caused by growth outside of the Tri-Valley area. This reduces the total unfunded cost to be covered by the maximum TVTDF to $2.698 billion. Note that this not change the overall project costs.

The funded amount includes the current TVTDF amount currently allocated toward projects as well as additional federal, state, regional, or local funding sources. Based on input received from member

jurisdictions, it is anticipated that approximately $870.99 million of funding has been identified. **Appendices A** and **B** include a cost estimate and a portfolio of likely funding sources.

Table 13: Existing Projects – List A& B

	Project	Total Cost (2021 $Millions)	Unfunded Cost (2021 $Millions)
A-1	Interstate 580 (I-580)/Interstate 680 (I-680) Interchange (southbound to eastbound)	-	-
A-2a	State Route 84 (SR 84) Expressway (I-580 to I-680)	$325.4	-
A-2b	SR 84/I-580 Interchange	$22.7	$6.42
A-3	I-680 Auxiliary Lanes (Segment 2)	-	-
A-4	West Dublin/Pleasanton Bay Area Rapid Transit (BART) Station	-	-
A-5a	I-580 Eastbound Auxiliary Lane	-	-
A-5b	I-580 High Occupancy Vehicle (HOV) Lane Westbound	-	-
A-6	I-680 HOV Lanes, SR 84 to Top of Sunol Grade	-	-
A-7	I-580/Foothill Road/San Ramon Road Interchange Modifications	-	-
A-8	I-680/Alcosta Boulevard Interchange	-	-
A-9a	Crow Canyon Road Improvements Phase 1	$10.87	$8.42
A-9b	Crow Canyon Road Improvements Phase 2	$58.77	$57.08
A-10a	Vasco Road Safety Improvements Phase 1	$40.57	$11.14
A-10b	Vasco Road Safety Improvements Phase 2	$31.20	$28.62
A-11	Express Bus/Bus Rapid Transit (BRT) – Phase 2	$22.35	$21.21
B-1	I-580/I-680 Interchange (westbound to southbound)	$1,785.65	$1,746.65
B-2	Fifth Eastbound Lane on I-580 from Santa Rita Road to Vasco Road	-	-
B-3	I-580/First Street Interchange Modification	$61.00	$7.93
B-4	I-580/Vasco Road Interchange Modification	$85.65	$16.61
B-5	I-580/Greenville Road Interchange Modification	$86.00	$18.92
B-6	Jack London Boulevard Extension	$28.16	$10.08
B-7	El Charro Road Extension (Stoneridge Drive/Jack London Boulevard to Stanley Boulevard)	$72.48	$72.48
B-8	Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive)	$94.59	$66.74
B-9	Danville Boulevard/Stone Valley Road I-680 Interchange Improvements	-	-
B-10	I-680 Southbound HOV Lane Gap Closure (North Main Street to Rudgear Road)	$98.70	$17.01
B-11a	I-680 HOV Direct Access Ramps	-	-
B-11b	I-680 Transit Corridor Improvements	$277.85	$274.85

Note: Completed or removed projects that are no longer considered for further funding are shaded.

Table 14: New Selected Projects – List C

	Project	Total Cost (Millions)	Unfunded Cost (Millions)
C-1	Tesla Road Safety Improvements	$13.19	$13.19
C-2	Norris Canyon Road Safety Improvement	$21.87	$20.13
C-3	Dublin Boulevard – North Canyons Parkway Extensions	$160.39	$134.91
C-4	Vasco Road at Dalton Avenue Intersection Improvements	$3.39	$3.39
C-5	El Charro Road Widening	$68.09	$38.09
C-6	Sunol/680 Interchange Improvements	$16.60	$7.60
C-7	I-680 Express Lanes – Hwy 84 to Alcosta	$527.57	$507.57
C-8	Santa Rita/I-580 Interchange	$10.33	$2.63
C-9	Stoneridge/I-680 Interchange	$11.98	$4.08
C-10	Innovate 680	$57.21	$54.66
C-11a	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road	$22.88	$8.58
C-11b	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Crow Canyon Road	$19.69	$19.69
C-11c	Iron Horse Trail – Dublin	$11.60	-
C-11d	Iron Horse Trail – Livermore	$26.99	$26.99
C-11e	Iron Horse Trail to Shadow Cliffs	$1.65	$0.30
C-11f	Iron House Trail Connection Improvements at Santa Rita Road	$0.87	$0.48
C-11g	Iron Horse Trail Bicycle/Pedestrian Overcrossing – Sycamore Valley Road	$19.78	$19.78
C-11h	Iron Horse Trail Safety Improvements	$85.60	$85.60
C-12	Hacienda/I-580 Interchange Improvements	$39.13	$34.50
C-13	Fallon/El Charro Interchange Improvements	$34.51	$19.96
C-14	Valley Link Rail (Phase 1)	$258.25	$258.25
C-15	Technology Enhancements	$0.33	$0.33
C-16	I-680 Express Bus Service	$59.35	$59.35

4 NEXUS FINDINGS

This chapter presents the relationship of between the increase travel demand from new development, the cost of improvements needed to accommodate that growth, and impact fee to fund those investments.

4.1 OVERALL METHODOLOGY

Impact fees may be calculated using a purely technical method that would fund the cost of facilities required to accommodate growth. The four steps followed in any development impact fee study include the following:

1. Prepare growth projections;
2. Identify facility standards;
3. Determine the amount and cost of facilities required to accommodate new development based on facility standards and growth projections; and
4. Calculate the public facilities fee by allocating the total cost of facilities per unit of development.

This nexus study results in a calculation of the maximum fee based on the list of projects identified in Chapter 3 (and described in Appendices A and B) to the greatest extent technically defensible under the Mitigation Fee Act. Consistent with the TVTC's directions, the full cost of funding these improvements is used to calculate the maximum fee rates the TVTC could apply to all new residential and non-residential development in the Tri-Valley between 2020 and 2040.

4.2 MITIGATION FEE ACT FINDINGS

Development impact fees are one-time fees typically paid when a building permit is issued and imposed on development projects by local agencies responsible for regulating land use (cities and counties). To guide the widespread imposition of public facilities fees, the State Legislature adopted the Mitigation Fee Act (Act) with Assembly Bill 1600 in 1987 and subsequent amendments. The Act, contained in California Government Code Sections 66000 through 66025, establishes requirements on local agencies for the imposition and administration of fee programs. The Act requires local agencies to document five findings when adopting a fee.

The five statutory findings required for adoption of the TVTC impact updated fee have already been adopted when the first TVTC fee was adopted in 1995. They are presented here and supported by the Nexus Analysis section (Chapter 2) of this report. All statutory references below are to the Act. This sample framework for the Mitigation Fee Act findings is only to provide local agencies with guidance and is not a substitute for legal advice. Local agencies should customize the findings for their jurisdiction and consult with their legal counsel prior to adoption of the updated TVTDF.

4.2.1 PURPOSE OF FEE

For the first finding, the local agency must identify the purpose of the fee (Section 66001(a)(1)). The TVTC policy, as expressed through the TVTC Action Plan, is that new development shall contribute for mitigation of their impacts on the Routes of Regional Significance, and that the cost sharing of recommended improvements will be implemented through the TVTDF regional impact fee program. This is administered by the seven jurisdictions of Alameda County, Contra Costa County, Dublin, Pleasanton, Livermore, Danville, and San Ramon, which all signed a joint powers authority (JPA). The fee advances a legitimate

public interest by enabling the TVTC to fund improvements to transportation infrastructure required to accommodate new development.

4.2.2 USE OF FEE REVENUES

For the second finding, the local agency must identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified. That identification may, but need not, be made by reference to a capital improvement plan, as specified in Section 65403 or 66002, may be made in applicable general or specific plan requirements, or may be made in other public documents that identify the public facilities for which the fee is charged (Section 66001(a)(2)). The TVTDF will fund expanded facilities on the Routes of Regional Significance to serve new development. These facilities include the following:

- Roadway widening;
- Roadway extension;
- Traffic signal coordination and other traffic improvements;
- Freeway interchanges and related freeway improvements;
- Active transportation (pedestrian/bicycle) improvements;
- Safety improvements needed to mitigate the higher volume of traffic generated by new development on a major arterial or other regional facility; and
- Improvements required for regional express bus and rail transit.

4.3 BENEFIT RELATIONSHIP

The nexus must show a benefit relationship on how the improvements projects will mitigation the impacts of new development. This section describes the methodology and results for establishing the benefit relationship.

4.3.1 METHODOLOGY

The previous 2008 Nexus Study used a model-based delay methodology to determine how List A and List B would mitigate the impacts of new development by comparing vehicle hours of delay (VHD) from the 2005 base year with the Future 2030 No-build and Future 2030 Build scenarios. Given that some of the new recommended projects cannot be effectively analyzed using this same methodology, additional methodologies are being introduced as part of this update to appropriately assess the benefits of some select projects.

To facilitate this analysis approach, projects were aggregated into different improvement categories. These categories include roadway capacity, transit, safety, pedestrian/bicycle, intersection, and technology. If the project's benefit could not be sufficiently analyzed based on model-delay, either because the project could not be reflected in the model or that the model is insensitive to the benefits associated with a specific project, the project was categorized as a safety, pedestrian/bicycle, intersection, or technology improvement and accordingly analyzed using off-model techniques. Since these improvement categories improve different aspects of the transportation system, differing methodologies and measures of effectiveness (MOEs) are necessary to appropriately evaluate their anticipated benefit to the transportation system. It should be noted some projects could be categorized into multiple improvement types; however, projects were limited to the category which best reflects their primary benefit for the purposes of supporting this Nexus Study. **Table**

15 summarizes the different methodology and MOEs that are proposed for this evaluation. A full list of how each project was categorized is included in **Appendix C**.

Table 15: Methodology and Improvements

Improvement Type	Methodology	MOE/Benefit
Roadway Capacity	Model-based Delay	• AM and PM Peak Hour Delay (combined with Transit and Pedestrian/Bicycle Improvement Categories)
Transit	Model-based Delay	• AM and PM Peak Hour Delay (combined with Capacity and Pedestrian/Bicycle Improvement Categories)
Safety	Crash Reduction Factors	• Crash Reduction Estimates • Qualitative Assessment of Resultant Delay Reduction
Pedestrian/ Bicycle	Planning-level Assessment Based on NCHRP 552	• Delay Based on the Conversion of Estimated Commuter Usage of Proposed Facilities (combined with Capacity • and Transit Improvement Categories) • Crash Reduction Estimates
Intersection	Planning-level Assessment	• Qualitative Assessment of Resultant Delay Reduction
Technology	Planning-level Assessment	• Qualitative Assessment of Resultant Delay Reduction

4.3.2 ROADWAY CAPACITY AND TRANSIT IMPROVEMENTS

Roadway capacity projects include improvements that involve increasing capacity such as widening a roadway to add additional through lanes or extending existing roadways. Transit projects include improvements that upgrade or expand existing transit service or assist with the implementation of new transit routes and services. Both roadway capacity and transit improvement projects were evaluated based on region wide delay derived using the CCTA travel demand model. Morning and evening region wide peak hours of delay from the two future scenarios, 2040 No-Build (without improvement projects) and 2040 Build (with improvement projects), were compared to the 2020 base year conditions.

The 2040 No-Build scenario is based on a year 2040 transportation network that will carry all of the locally produced or attracted new trips, but that only includes improvements that are expected to be funded under the financially-constrained RTP without the proposed Tri-Valley Transportation Development Fee projects (List A, B, and C). The 2040 Build scenario is based on a year 2040 transportation network that includes all the additional improvements that are expected to be funded with the updated Tri-Valley Transportation Development Fee. Both the 2040 No-Build and 2040 Build project scenarios include all of the travel associated with new development within the Tri-Valley. Under both scenarios, travel associated with through trips was excluded from the resultant delay summary (i.e., trips that have origins and destinations outside the Tri-Valley). Excluding through trips is common practice for this analysis given that the impact of this travel is not generated by land uses within the Tri-Valley area and therefor assessing a fee is impractical.

The improvement projects were evaluated using the aggregate regional peak-hour average weekday VHD delay on all the significant roadways (includes freeways, expressways arterials, and major collectors) in the

Tri-Valley on the 2020 Base Year networks and the 2040 No-Build and Build networks. The aggregate VHD provide a reasonable systemwide measure of the impact of new development on congestion and mobility.

According to the CCTA travel demand model, between 2020 and 2040, if no projects are undertaken, the number of AM peak hours of delay is expected to increase 60 percent from 24,718 to 39,570 hours, while the number of PM peak hours of delay is expected to escalate 88 percent from 15,613 to 29,376 hours. If the projects are undertaken, the number of AM peak hours of delay would decrease 15 percent compared to the 2040 No-Build scenario, whereas, the number of PM peak hour of delay would decrease 23 percent. This modest improvement demonstrates that the proposed improvement projects only partially mitigates future congestion by new development. **Table 16** and **Figure 14** show the comparison between the Future 2040 Build and Future 2040 No-Build scenarios.

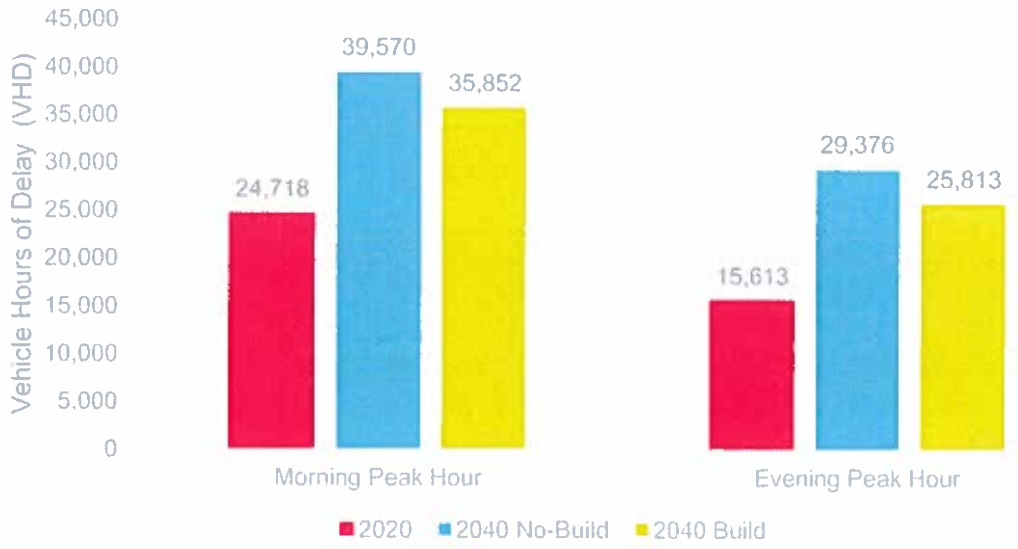
In the aggregate, the comparison between the three scenarios showed that: 1) the 2020 Base Year conditions are better than the Future 2040 No-Build conditions; 2) the Future 2040 Build conditions are better than the Future 2040 No-Build; and 3) the Future 2040 Build conditions are not better than the 2020 Base Year conditions. These comparisons demonstrated that, in the aggregate, new development does not fund infrastructure needed to address existing deficiency caused by existing development.

Table 16: Future Build vs No Build Scenario Vehicle Hours of Delay (VHD)

Peak Period	2020 Base Year	Future 2040		Difference	
		No-Build	Build	No-Build	Build
AM Peak Hour	24,718	39,570	35,852	60%	45%
PM Peak Hour	15,613	29,376	25,813	88%	65%

Note: Hours of delay are based on trips with origin or destination in the TVTC region.

Figure 13: Future Build vs No Build Scenario Vehicle Hours of Delay (VHD)



Note: Hours of delay are based on trips with origin or destination in the TVTC region.

In addition to reducing VHD, many roadway capacity and transit projects include additional secondary benefits to the transportation system. Many of these projects will result in safety benefits, as congestion can often exacerbate unsafe motoring conditions. Additionally, specific project attributes such as modifying interchanges or widening roadways to provide additional lanes so vehicles can safely maneuver along the roadway or provide space for slower moving vehicles during peak times can also improve safety. Other common project benefits may include pedestrian and bicycle improvements either directly or indirectly. For example, interchange can often be barriers for bicycles and pedestrian, however several of the interchange projects (e.g. C-12: Hacienda/I-580 Interchange Improvements and C-13: Fallon/El Charro Interchange Improvements) include bicycle and pedestrian improvements which close existing gaps and encourage more pedestrian and bicycle activity.

Based on this analysis it is determined that the planned projects identified in this report will expand the capacity of the Routes of Regional Significance to accommodate the increased trips generated by new development.

4.3.3 SAFETY IMPROVEMENTS

Safety projects involves safety-related improvements such as shoulder widening, installing guardrail, installing median barriers, or realigning roadway. For these projects, a crash reduction factor was calculated based on each safety improvements being implemented. The crash reductions were subsequently applied to crash forecasts for the purpose of identifying future benefits. The safety improvements considered in the evaluation are listed below:

- California Highway Patrol (CHP) Enforcement Area
- Guard Rail Update
- Guardrails
- High Friction Pavement
- Additional Turn Lanes
- Intersection Improvement
- Roadway Median Barrier
- Roadway Realignment
- Retaining Walls
- Shoulder Widening
- Signal Timing Optimization
- Speed Feedback Signs
- Increased Superelevation

Each of the safety elements for the proposed improvements were converted to a total number of annual crash savings in the region based on the Caltrans' Local Roadway Safety Manual (LRSM) and Federal Highway Authority's (FHWA) Crash Modification Factors (CMF) Clearing House guide. CMFs are based on before and after research of safety improvement implementations. They indicate the proportion of future crashes that may be prevented by implementing a given countermeasure, reducing the crash frequency for an intersection or roadway segment. In other words, a CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site.

The CMF was applied to a crash forecast which was based on 5-years of historical crash data which resulted in fatality or injury. The reduction in crashes was then then converted to annual crash saving based on Highway Safety Improvement Program (HSIP) crash saving dollar amounts shown in **Table 17**.

Table 17: HSIP Crash Saving Dollar Amounts

Severity	Crash Savings (per crash)
Fatal	$2,190,000
Serious	$2,190,000
Moderate	$142,300
Minor	$80,900

Table 18 shows the overall annual crashes saving from traffic injuries that were potentially eliminated. Note that this analysis excludes property costs and as such should be conservative. Also note that the forecast only considers the effect of new traffic impacts and excludes the effect of existing conditions for the purposes of establishing Nexus.

Table 18: Future Safety Benefits with Project Improvements

Safety Benefits	Total	Fatal	Serious	Moderate	Minor
5-Years Reduction in Crashes	153.0	2.5	14.1	45.3	91.0
1-Year Reduction in Crashes	30.6	0.5	2.8	9.1	18.2
Value per Annum (2019 Dollars)	$10,048,590	$1,092,810	$6,192,599	$1,290,003	$1,473,178

As shown in **Table 19**, there is a direct cost benefit to the investments made for roadway safety improvements in the region. While it is difficult to estimate an absolute percentage in reduced peak hour delays, the expected reductions in crashes will also enhance system reliability and resilience.

4.3.4 PEDESTRIAN/BICYCLE IMPROVEMENTS

While projects may include pedestrian and/or bicycle improvements, out of the 38 projects, project C-11 Iron Horse Trail Improvements is the only project that predominantly focuses on pedestrian and bicycle improvements. Project C-11 consists of various improvements to the Iron Horse Trail within the TVTC boundaries including overcrossing construction, closing existing gaps, and adding safety improvements through the trail system. Pedestrian and bicycle improvement were evaluated based on *NCHRP 552 Guidelines for Analysis of Investments in Bicycle Facilities*. This approach relies on spatial analysis techniques to determine the likely number of new active transportation users who may result from the introduction of a new pedestrian/bicycle improvement. **Table 19** shows the comparison between the Future 2040 Build and Future 2040 No-Build scenarios.

Table 19: Future Project Induced Daily Bicycle Demand

Total Induced Demand	2020 Base Year	Future 2040 No- Build	Future 2040 Build
Adult Bicyclists	1,275	1,778	3,338
Child Bicyclists	731	1,038	2,077
Total Facility Users	**2,006**	**2,817**	**5,415**

As shown in **Table 19**, Project C-11 could add over 2,500 bicycle trips per day on the Iron Horse Trail by 2040 which will provide an alternatives to congested vehicular travel as well as significant health and recreational value. Closing existing gaps in the trail will also encourage bicycle trips for other trip purposes beyond just commute trips, including school, commercial and recreational trips.

Project C-11 improvements will result in additional secondary operational and safety benefits. Currently many at-grade crossings are located at intersections with high vehicular, pedestrian, and bicycle volumes which are regularly disrupted by conflicting at-grade operations given required traffic signal phasing. These improvements will help improve vehicular traffic operations by relocating pedestrian and bicycle traffic away from vehicular traffic helping to offset the transportation impacts associated with future development. These improvements will also provide safety benefits by reducing the potential for vehicle-bicycle and vehicle-pedestrian conflicts. Using the same methodology described in the previous section, a separate safety analysis was conducted to quantify the safety benefits of all the C-11 project. **Table 20** summarizes the safety benefit for Project C-11.

Table 20: Safety Benefits with Project C-11

Safety Benefits	Total	Fatal	Serious	Moderate	Minor
Annual Reduction in Crashes	7	2	1	4	0
Value per Annum (2019 Dollars)	$7,166,200	$4,380,000	$2,190,000	$596,200	-

4.3.5 INTERSECTION IMPROVEMENTS

There are two projects in List C with intersection improvements. Project C-4: Vasco Road & Dalton Avenue intersection Improvements, includes the addition of a traffic lane, signal optimization, and other improvements such as shoulder widening and roadway alignment to improve safety. Vasco Road is a major commute corridor connecting the City of Livermore and City of Brentwood. The intersection at Dalton Avenue provides access to the communities in the San Ramon Valley. With the planned and anticipated residential and industrial development along the corridor, this intersection is expected to have significant delays during the peak hours of commute.

Project C-8: Santa Rita and I-580 Interchange, will construct a second southbound left turn lane from Santa Rita onto Pimilico Drive. The City of Pleasanton General Plan has identified this intersection to have a reduced Level of Service under build out conditions.

4.3.6 TECHNOLOGY IMPROVEMENTS

There are two technology projects in List C. While Project C-10: Innovate 680 consist of multiple components including transit infrastructure and service improvements, roadway improvements, and technology enhancement, this project has been categorized as a technology improvement because TVTDF funding is being requested only for the Advance Technology component of the project. Other project components are expected to be funded through alternative sources. The Advance Technology component consist of implementing three technology-related strategies to improve operation along the I-680 corridor. Strategies include providing an enhanced 511 mobile app and implementing a shared autonomous vehicles (SAV) program to shift travel away from single occupant vehicles by providing travelers with better information about mode choice opportunities, resultant travel time, cost per trip, and the availability of

transit. Other technology strategies include integrating adaptive ramp metering and/or corridor/incident management systems which can help improve the efficiency and safety of the transportation system.

Project C-15: Technology Enhancements proposes to provide connectivity for transit and vehicles between local arterials and regional facilities. The project is expected to be completed in three phases - Feasibility, Design, and Construction. The TVTDF will help fund the feasibility study phase of the study, since the details of the design and construction phase are unknown at this time. The feasibility study will focus on the first and last mile connectivity opportunities at key transit hubs and along major transit routes in the Tri-Valley area. Leveraging existing and emerging technology, such as connected and autonomous vehicles, may help increase safety and mobility for all modes. These technologies may also help with increasing transit ridership or expanding transit service to less-served areas, especially for communities that currently lack service. Given that the resultant projects are intended to offset the impacts of future development, the feasibility study is appropriate to include in the TVTC project list.

4.4 BURDEN RELATIONSHIP

The need for the TVTDF is based on the forecasted increase in congestion on routes of reginal significance as well as other transportation impacts resulting from new development. Consistent with the methodology from the 2008, the contribution by each land use was based on the proportion of average AM/PM trips generated by each land use.

4.4.1 TRIP RATE

The 2008 Nexus Study used the 7th Edition of Institute of Transportation Engineers (ITE)'s Trip Generation Handbook to develop the trip rates for each land use category. Since then, three additional editions of the Trip Generation Handbook have been published for use, ending with the most recent 10th Edition. It was determined that for all categories except the 'Other' category, the trip rates would be developed using the 10th Edition rather than the 7th Edition for this update. In addition, consistent with the 2008 Nexus Study, the trip rates were developed based on adjacent street traffic rather than peak-hour of generator. A 30-percent reduction was also taken for retail trips to account for pass-by trips, consistent with the 2008 Nexus Study. **Table 21** below summarizes the comparison in average AM and PM peak-hour trip rates by land use type. As shown in **Table 21**, every land use category results in a lower trip rate using the 10th Edition when compared to the 7th Edition.

Table 21: AM/PM Peak-Hour Average Trip Rate Comparison Between 7th Edition and 10th Edition

Land Use Type	7th Edition Average Trip Rate	10th Edition Average Trip Rate	Difference
Single-Family Residential	0.90	0.87	-0.03
Multi-Family Residential	0.62	0.51	-0.11
Retail	1.67	1.66	-0.01
Office	1.53	1.16	-0.37
Industrial	0.89	0.67	-0.22
Other	1.00	1.00	0.00

4.4.2 TOTAL TRIPS BY LAND USE

The total number of trips generated by the growth in either dwelling units or square-feet for each land use category are shown in **Table 22**. As shown in **Table 22**, a total of 57,596 trip ends are generated by the land use growth between 2020 and 2040. The growth attributable to single-family residential units generates the largest number of trips, 13,716, or almost 25-percent of the total trips. The growth attributable to industrial employment or industrial buildings generates the fewest number of trips, 6,178, or just over 10-percent of the total trips.

Table 22: Total Trip Ends by Land Use Category

Land Use Type	Growth (HH or Sq Ft)	Trip Rate	Forecast Trips
Single-Family Residential	15,857	0.87	13,716
Multi-Family Residential	17,456	0.51	8,903
Retail	5,117,500	1.66	8,508
Office	6,796,800	1.16	7,850
Industrial	9,289,800	0.67	6,178
Other	12,441,000	1.00	12,441

4.5 FEE ESTIMATION

The following steps were taken to determine the fee for each land use type:

1. Determine total unfunded cost.
2. Determine average AM/PM forecast peak-hour trips generated
3. Determine Fee per Land Use Category
4. Determine Maximum Fee

4.5.1 TOTAL UNFUNDED COST

The total investment for projects eligible to receive TVTDF funding is estimated to be $4.573 billion, where $3.702 billion is unfunded. An additional reduction was applied to account for external "cut-though" trips on roadway congestion projects. Future development within the Tri-Valley area is not responsible to pay for these trips since these trips are caused by growth outside of the Tri-Valley area. This reduces the total unfunded cost to be covered by the maximum TVTDF to $2.698 billion. Note that this not change the overall project costs.

4.5.2 PEAK-HOUR TRIP FORECAST

Section 4.4.2. describes how the peak hour forecast was determined. Based on **Table 22**, an average of 57,596 AM/PM peak hour trips are generated by the land use growth between 2020 and 2040.

4.5.3 FEE PER LAND USE CATEGORY

To determine the total project cost by category, each land use category's share of the total trips generated by land use growth was multiplied by the total cost. An example calculation is shown below:

$$Single\ Family\ Residential = \$XXX\ Million \times \frac{13{,}716\ Single\ Family\ Residentail\ Trips}{57{,}596\ Total\ Averate\ Trips} = \$XXX\ Million$$

The total cost by land use category is shown in **Table 23**. As shown in **Table 23**, the total cost ranges from $397.14 million for industrial uses to $881.67 million for single-family residential uses.

Table 23: Total Fee by Land Use Category

Land Use Type	Forecast Trips*	Total Fee by Land Use (Millions)
Single-Family Residential	13,716	$881.67
Multi-Family Residential	8,903	$572.24
Retail	8,508	$546.86
Office	7,850	$504.59
Industrial	6,178	$397.14
Other	12,441	$799.70

* Average AM/PM trip

4.5.4 MAXIMUM FEE

To determine the maximum fee per dwelling unit, square-foot, or trip depending on the land use category, the total cost per category was divided by the total number of units, square-feet, or trips that occur between 2020 and 2040. An example calculation is shown below

$$Single\ Family\ Residential = \frac{\$XXX\ Million}{15{,}857\ Dwelling\ Unit} = \$XXX\ per\ dwelling\ unit$$

The maximum fees are summarized in **Table 24**. As shown in **Table 24**, the maximum fee for a single-family residential unit is $40,250 while the maximum fee for one square-foot of retail use is $77.88.

Historically the TVTC has not applied the maximum fee schedule. For both the 1995 and 2008 nexus studies, the TVTC jurisdiction set rates at approximate one-third of the maximum fee calculated in the 1995 and 2008 Nexus studies to help foster growth within the Tri-Valley area, while providing a regional funding source that could be used to match and help compete for Federal and State transportation grants and funding programs.

Table 24: Total Cost and Maximum Fee by Land Use Category

Land Use Type	Growth	Maximum Fee
Single-Family Residential	15,857 DU	$40,520 per DU
Multi-Family Residential	17,456 DU	$23,890 per DU
Retail	5,117,500 SF	$77.88 per SF
Office	6,796,800 SF	$54.10 per SF
Industrial	9,289,800 SF	$31.15 per SF
Other	12,441 trips*	$46,844 per trip*

Note: Reduction cost is only provided for comparison purposes and should not be seen as the preferred fees.

* Average AM/PM trip

5 NEXT STEPS

This report documents the findings needed to adopt a fee schedule to fund the improvements projects elected to receive funding from the TVTDF. Below are next steps needed for the TVTC to adopt a fee schedule that is most appreciate for their needs.

5.1 ADJUSTMENT TO MAXIMUM FEE CALCULATION

As previously discussed, the maximum fee would generate sufficient revenues to fund the total unfunded cost of all selected projects. However, if the TVTC adopts fee schedule below the maximum, this would result in revenue shortfall and TVTC would need to take one or both of the following actions:

- Increase funding from other sources
- Fund selected projects or project phases

5.1.1 INCREASE FUNDING FROM OTHER SOURCES

TVTC could reduce the funding shortfall for specific projects by increasing funding form other federal, state, regional, and local fund sources. Some potential funding sources as listed below:

- Federal
  - One Bay Area Grant Program (OBAG)
- State
  - State Transportation Improvement Program (STIP)
  - Senate Bill 1 (SB 1)
  - Office of Traffic Safety (OTS) Grant
  - Active Transportation Program (ATP)
- Regional
  - Transportation Fund for Clean Air (TFCA) County Program Manager (CPM) Fund Local
  - Measure B & Measure BB
  - Measure J
- Local
  - Traffic Impact/Mitigation Fees
  - Development Fees
  - General Purpose Funds

5.1.2 FUND SELECTED PROJECTS OR PROJECT PHASES

TVTC could determine to fund the full amount for selected projects or fund certain phases of the project such as the planning or design phase of a project.

5.2 UPDATE STRATEGIC EXPENDITURE PLAN (SEP)

Once the final fee schedule has been adopted TVTC should update the SEP to set priority for which projects should be funded first.

APPENDIX

A – Existing TVTC Projects

B – Additional TVTC Projects

C – Project Improvement Category

APPENDIX A – EXISTING TVTC PROJECTS

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

TVTC Project Sponsor: Alameda County

Lead Agency: Caltrans

Project Description: 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: 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 (ACTC)

Project Description: 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. Below is the status 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 – Construction activities are in progress and expected to be completed in 2017.
- Segment 4 – Completed and opened to traffic in October 2008.

- Segment 5 – Construction award in February 2021.

Cost Estimate and Funding Sources

Segment 3:

Cost (Millions)	**$105.40**
Funding (Millions)	
Measure B	$34.87
Measure BB	$10.00
State	$47.03
Local (CMA-TIP)	$2.00
Local (City)	$1.50
TVTDF	$10.00
Total Funding (Millions)	**$105.40**
Total Funding Shortfall (Millions)	**$0.00**

Segment 5:

Cost (Millions)	**$244.10**
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
Total Funding (Millions)	**$244.10**
Total Funding Shortfall (Millions)	**$0.00**

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

TVTC Project Sponsor: City of Livermore

Lead Agency: Caltrans and City of Livermore

Project Description: 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.

Cost Estimate and Funding Sources

Phase 2:

Cost (Millions)	**$22.00**
Funding (Millions)	
Livermore Traffic Impact Fee (TIF)	$16.28
TVTDF	$5.15
Total Funding (Millions)	**$21.43**
Total Funding Shortfall (Millions)	**$0.57**

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

TVTC Project Sponsor: Town of Danville

Lead Agency: Contra Costa Transportation Authority (CCTA)

Project Description: 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.

A-4. WEST DUBLIN/PLEASANTON BART STATION

TVTC Project Sponsor: 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: City of Pleasanton

Lead Agency: Alameda CTC

Project Description: 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: City of Pleasanton

Lead Agency: 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.

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: This project has been completed.

A-8. I-680/ALCOSTA BOULEVARD INTERCHANGE

TVTC Project Sponsor: City of San Ramon

Lead Agency: Caltrans

Project Description: 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.

A-9A. CROW CANYON ROAD IMPROVEMENTS PHASE 1

TVTC Project Sponsor: Alameda County

Lead Agency: Alameda County

Project Description: 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. Construction of Phase 1 is expected to begin by 2019.

Cost and Funding Source

Cost (Millions)	$18.87
Funding (Millions)	
CMA TIP	$0.45
Local Alameda County	$0.45
TVTDF	$1.55
Total Funding (Millions)	$2.45
Total Funding Shortfall (Millions)	$8.42

A-9B. CROW CANYON ROAD IMPROVEMENTS PHASE 2

TVTC Project Sponsor: Alameda County

Lead Agency: Alameda County

Project Description: 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 have not yet been determined.

Cost and Funding Source

Cost (Millions)	$58.77
Funding (Millions)	
TVTDF	$1.69
Total Funding (Millions)	$1.69
Total Funding Shortfall (Millions, 2015)	$57.08

A-10A. VASCO ROAD SAFETY IMPROVEMENTS PHASE 1

TVTC Project Sponsor: Alameda County

Lead Agency: Alameda County

Project Description: 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 installment 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. 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 and Funding Sources

Cost (Millions)	**$40.57**
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
Total Funding (Millions)	**$29.43**
Total Funding Shortfall (Millions, 2015)	**$11.14**

A-10B. VASCO ROAD SAFETY IMPROVEMENTS PHASE 2

TVTC Project Sponsor: Alameda County

Lead Agency: Alameda County

Project Description: 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. The Phase 2 project is expected to begin PSR in 2016. Alameda County is in progress to retain consultant services.

Cost and Funding Sources

Cost (Millions)	**$31.20**
Funding (Millions)	
TVTDF	$2.58
Total Funding (Millions)	**$2.58**
Total Funding Shortfall (Millions, 2015)	**$28.62**

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

TVTC Project Sponsor: City of Dublin

Lead Agency: Livermore Amador Valley Transit Authority (LAVTA)

Project Description: 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 (TSP), 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: 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. 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 and Funding Sources

Phase 2:

Cost (Millions)	**$22.35**
Funding (Millions)	
TVTDF	$1.14
Total Funding (Millions)	**$1.14**
Total Funding Shortfall (Millions)	**$21.21**

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

TVTC Project Sponsor: City of Dublin

Lead Agency: Alameda CTC

Project Description: 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.

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 priory project list, while Phase 2 is listed under 30-Year project list.

Cost and Funding Sources

Cost (Millions, 2015)	**$1,785.65**
Funding (Millions, 2015)	
Measure BB	$20.00
TVTDF	$1.00
Total Funding (Millions, 2015)	**$21.00**
Total Funding Shortfall (Millions, 2015)	**$1,764.65**

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

TVTC Project Sponsor: City of Pleasanton, City of Livermore

Lead Agency: Alameda CTC

Project Description: 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: This project has been completed.

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

TVTC Project Sponsor: City of Livermore

Lead Agency: Caltrans

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

Cost and Funding Sources

Cost (Millions)	**$61.00**
Funding (Millions)	
Livermore TIF	$53.07
Total Funding (Millions)	**$53.07**
Total Funding Shortfall (Millions)	**$7.93**

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

TVTC Project Sponsor: City of Livermore

Lead Agency: Caltrans

Project Description: 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. Environmental assessment, project development activities, and design are anticipated to begin in 2018.

Cost and Funding Sources

Cost (Millions)	**$85.65**
Funding (Millions)	
Livermore TIF	$67.66
Measure BB	$1.38
TVTDF	$6.80
Total Funding (Millions)	**$75.84**
Total Funding Shortfall (Millions)	**$9.81**

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

TVTC Project Sponsor: City of Livermore

Lead Agency: Caltrans

Project Description: 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 EIR for right-of-way protection has been completed. Right-of-way acquisition is underway. The project phasing and schedule is unavailable.

Cost and Funding Sources

Cost (Millions)	**$86.00**
Funding (Millions)	
Livermore TIF	$67.08
Total Funding (Millions)	**$67.08**
Total Funding Shortfall (Millions)	**$18.92**

B-6. JACK LONDON BOULEVARD EXTENSION

TVTC Project Sponsor: City of Livermore

Lead Agency: City of Livermore

Project Description: 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.

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 and Funding Sources

Phase 2:

Cost (Millions)	**$28.16**
Funding (Millions)	
Livermore TIF	$18.08
Total Funding (Millions)	**$18.08**
Total Funding Shortfall (Millions)	**$10.08**

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

TVTC Project Sponsor: City of Pleasanton

Lead Agency: City of Pleasanton

Project Description: 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: Phase 1 was completed and open for public use in 2012 with the construction of the Livermore Outlets. Phase 2 is dependent on the status/development of the East Pleasanton Specific Plan. This plan will identify the land use and circulation along the future El Charro Road and will identify a timeline for opening of this roadway for public use. It is anticipated that the project will be constructed with the first stages of the East Side Specific Plan development. The City of Pleasanton began the East Pleasanton Specific Plan in 2013 and the Pleasanton City Council, in 2015, determined that the completion of the Plan would occur at a later date and the Plan adoption was placed on hold.

The project is expected to be constructed in several stages.

- Phase 1 – Completed and opened to traffic in 2012.
- Phase 2 – Schedule is undetermined at this time.

Cost and Funding Sources

Cost (Millions)	**$72.48**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$72.48**

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: 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

- 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 – Windemere Parkway to County Line (Contra Costa County) and Quarry Lane School/Wallis Ranch Drive to North Dublin Ranch Drive (City of Dublin)

- The roadway widening project consist of two segments:
  - Segment A – Windemere Parkway to County line
    - 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 – Quarry Lane School/ Wallis Ranch Drive to North Dublin Ranch Drive
    - 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.

The segment of Tassajara Road from the County line to North Dublin Ranch Drive in the City of Dublin is a RRS and was modeled in the 2008 Nexus Study. However, the segment was not included in previous TVTDF funding plans to receive funding. By identifying this segment of the project in the project description, this will enable the City of Dublin to utilize various revenue sources, including the 20% TVTDF return-to-source funds on this segment. This will not impact the projected revenue allocation or resulting benefit of the 2008 Nexus Study.

Status:

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. 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: 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. 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 and Funding Sources

Safety Improvement Project
Contra Costa County:

Cost (Millions)	**$20.54**
Funding (Millions)	
Contra Costa Traffic Mitigation Fees	$4.25
TVTDF	$3.70*
Total Funding (Millions)	**$7.95**
Total Funding Shortfall (Millions)	**$12.59**

City of Dublin:

Cost (Millions)	**$34.55**
Funding (Millions, 2015)	
Dublin EDTIF	$2.49
Dublin Dougherty Valley Contributions	$0.50
TVTD (City of Dublin 20% Local Funding)	$1.00
TVTDF	$0.00*
Total Funding (Millions)	**$3.99**
Total Funding Shortfall (Millions)	**$30.56**

*The City of Dublin and Contra Costa to share $2.0 Million from the 2017 SEP Update for project segment between Windermere Parkway and Moller Ranch (Palisades Drive). Remaining $1.70 Million to be used in Contra Costa County.

Roadway Widening Project
Segment A:

Cost (Millions)	**$24.16**
Funding (Millions)	
Contra Costa Traffic Mitigation Fees	$8.80
TVTDF	$2.68**
Total Funding (Millions)	**$11.48**
Total Funding Shortfall (Millions, 2015)	**$15.64**

Segment B:

Cost (Millions)	**$15.34**
Funding (Millions)	
Dublin Transportation Improvement Fee (TIF) Program	$1.00
Dublin Dougherty Valley Contributions	$1.63
TVTD (City of Dublin 20% Local Funding)	$1.80
Total Funding (Millions)	**$4.43**
Total Funding Shortfall (Millions)	**$10.91**

**$2.68 Million to be used in Contra Costa County.

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

TVTC Project Sponsor: City of San Ramon

Lead Agency: CCTA

Lead Agency: 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: Environmental clearance for the southbound HOV Lane Completion was completed on August 12, 2014. Design work on the I-680 southbound HOV Lane Completion started in March 2015. Construction is expected to start in 2018 and completed in 2020.

Cost and Funding Sources

Cost (Millions)	**$98.70**
Funding (Millions)	
RM2	$14.1
Measure J	$30.4
STIP/RP	$15.6
BAIFA	$15.1
TVTDF	$6.49
Total Funding (Millions)	**$81.69**
Total Funding Shortfall (Millions)	**$17.01**

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

TVTC Project Sponsor: City of San Ramon

Lead Agency: CCTA

Project Description: 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. 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: City of San Ramon

Lead Agency: CCTA

Other Involved Parties: Caltrans, Southwest Area Transportation (SWAT) Committee, Transportation Partnership and Cooperation (TRANSPAC)

Project Description: 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: 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. Phasing and schedule are unavailable at this time.

Cost Estimate and Funding Sources:

Cost (Millions)	**$277.85**
Funding (Millions)	
Measure J	$1.00
TVTDF	$2.00
Total Funding (Millions)	**$3.00**
Total Funding Shortfall (Millions)	**$274.85**

APPENDIX B – ADDITIONAL TVTC PROJECTS

C-1 TESLA ROAD SAFETY IMPROVEMENT

TVTC Project Sponsor: Alameda County

Project Description: This project 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: This project is in the scoping phase and is expected to be completed by 2024.

Cost and Funding Sources:

Cost (Millions)	**$13.19**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$13.19**

C- 2 NORRIS CANYON ROAD SAFETY IMPROVEMENT PROJECT

TVTC Project Sponsors: Contra Costa County, Department of Public Works & Alameda County, Department of Public Works

Project Description: The proposed project for Norris Canyon Road includes countermeasures that will increase safety on 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 runoff the road collisions and is slated for countermeasures such as increasing the superelevation at the two outside curves for the eastbound direction and installation of High Friction pavement.
- 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 runoff the road collisions. Countermeasures include shoulder widening and installation of a retaining wall and guardrail where the edge of road pavement currently coincides with the top of bank for San Cataino Creek. For approximately 250' of the project length, safety guardrail installation will require construction of a battered retaining wall to support the railing, as well as pavement widening to provide standard lanes and road shoulders.
- 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.

The phases of this project will include preparation of a Project Study Report (PSR) to establish a project scope and cost estimate, environmental documentation, preparation of plans, specifications, and estimates (PS&E), Right of Way Acquisition, Construction and Construction Inspection.

Status: The Project design and environmental phase is currently 35% complete for segment 2. The project is currently awaiting additional funds in order to continue planning studies and further design efforts.

Cost and Funding Sources:

Contra Costa County (Segment 1 & 2):

Cost (Millions)	**$5.39**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$13.19**

Alameda County (Segment 3):

Cost (Millions)	**$16.49**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$16.49**

C- 3 DUBLIN BOULEVARD – NORTH CANYONS PARKWAY EXTENSION

TVTC Project Sponsor: Dublin and Livermore

Project Description: This project will construct the street extension to connect Dublin Blvd at Fallon Road in Dublin with North Canyons Pkwy. 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: The project is currently in Preliminary Engineering phase and an EIR and an EA is currently underway. It is anticipated that PS&E and ROW certification would begin in June 2021 and construction start in January 2023.

Cost and Funding Sources

Cost (Millions)	**$160.39**
Funding (Millions)	

Measure BB	$7.75
Federal	$0.54
Local	$17.20
Total Funding (Millions)	**$25.49**
Total Funding Shortfall (Millions)	**$134.91**

C-4 VASCO ROAD AT DALTON AVENUE INTERSECTION IMPROVEMENTS

TVTC Project Sponsor: Alameda County/City of Livermore

Project Description: 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: This project is in the scoping phase and is expected to be completed by 2023.

Cost and Funding Sources:

Cost (Millions)	**$3.39**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$3.39**

C-5 EL CHARRO ROAD WIDENING

TVTC Project Sponsor: Pleasanton

Project Description: Construct 1.7 miles 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.

Cost and Funding Sources:

Cost (Millions)	**$68.09**
Funding (Millions)	
Pleasanton TIF	$30.00
Total Funding (Millions)	**$30.00**
Total Funding Shortfall (Millions)	**$38.09**

C-6 SUNOL/680 INTERCHANGE IMPROVEMENTS

TVTC Project Sponsor: Pleasanton

Project Description: This project will fund the design of the I-680 at Sunol Boulevard interchange improvement. This will include a Project Study Report (PSR) to establish a project scope and cost estimate, environmental documentation, and the preparation of plans, specifications, and estimates (PS&E).

Status: Currently in PSR-PDS, PA&ED Phase anticipated Spring/Summer 2019

Cost and Funding Sources

Cost (Millions)	**$16.60**
Funding (Millions)	
Pleasanton TIF	$2.00
Total Funding (Millions)	**$2.00**
Total Funding Shortfall (Millions)	**$14.60**

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

TVTC Project Sponsor: Pleasanton/ACTC

Project Description: This project will close the gap between existing and in-progress high-occupancy vehicle (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.

Status: Currently in PA&ED Phase

Cost and Funding Sources

Cost (Millions)	**$527.57**
Funding (Millions)	
Measures BB	$20.00
Total Funding (Millions)	**$20.00**
Total Funding Shortfall (Millions)	**$507.57**

C-8 SANTA RITA/I-580 INTERCHANGE

TVTC Project Sponsor: Pleasanton

Project Description: This project will construct a 2nd 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: This project has not been started.

Cost and Funding Sources

Cost (Millions)	$10.33
Funding (Millions)	
Pleasanton TIF	$7.70
Total Funding (Millions)	$7.70
Total Funding Shortfall (Millions)	$2.63

C-9 STONERIDGE/I-680 INTERCHANGE

TVTC Project Sponsor: Pleasanton

Project Description: This project 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

Cost and Funding Sources

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

C-10 INNOVATE 680

TVTC Project Sponsor: CCTA/Danville/San Ramon/CCC

Project Description: : 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: Currently in Planning, PA&ED

Cost and Funding Sources:

Advance Technologies:

Cost (Millions)	**$57.21**
Funding (Millions)	
Measure J	$0.55
STMP	$2.00
Total Funding (Millions)	**$2.55**
Total Funding Shortfall (Millions)	**$54.66**

C-11A IRON HORSE TRAIL BICYCLE PEDESTRIAN OVERCROSSING – CITY OF SAN RAMON

TVTC Project Sponsor: CCTA/San Ramon/CCC

Project Description: 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. For the scope of this project, the proposed overcrossing location is 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: Currently in PA&ED, CEQA Completed

Cost and Funding Sources

Cost (Millions)	$22.88
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
Total Funding (Millions)	$14.30
Total Funding Shortfall (Millions)	$8.58

C-11B IRON HORSE TRAIL BICYCLE PEDESTRIAN OVERCROSSING – CITY OF SAN RAMON

TVTC Project Sponsor: CCTA/San Ramon/CCC

Project Description: 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. For the scope of this project, the proposed overcrossing location is 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: Currently in PA&ED, CEQA Completed

Cost and Funding Sources

Cost (Millions)	$19.69
Funding (Millions)	$0.00
Total Funding (Millions)	$0.00
Total Funding Shortfall (Millions)	$19.69

C-11C IRON HORSE TRAIL CROSSING AT DUBLIN BOULEVARD

TVTC Project Sponsor: Dublin

Project Description: This project 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.

Cost and Funding Sources

Cost (Millions)	**$11.60**
Funding (Millions)	
2014 MBB	$6.05
TFCA	$0.86
Local	$0.23
Private	$1.00
Total Funding (Millions)	**$11.60**
Total Funding Shortfall (Millions)	**-**

C-11D IRON HORSE TRAIL

TVTC Project Sponsor: Livermore

Project Description: This project will extend existing trail and provide gap closures.

Status: Feasibility Study/Environmental Complete

Cost and Funding Sources

Cost (Millions)	**$26.99**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$26.99**

C-11E IRON HORSE TRAIL TO SHADOW CLIFFS CONNECTION

TVTC Project Sponsor: Pleasanton, Alameda County

Project Description: Currently, the Iron Horse Trail (IHT) 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 spaced under the railroad bridge that could accommodate the trail.

This project 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. TBD

Cost and Funding Sources

Cost (Millions)	**$1.65**
Funding (Millions)	
Pleasanton TIF	$0.60
Direct Developer Fee	$0.75
Total Funding (Millions)	**$1.35**
Total Funding Shortfall (Millions)	**$0.30**

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

TVTC Project Sponsor: Pleasanton

Project Description: 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. TBD

Cost and Funding Sources

Cost (Millions)	**$0.87**
Funding (Millions)	
Pleasanton TIF	$0.40
Total Funding (Millions)	**$0.40**
Total Funding Shortfall (Millions)	**$0.48**

C-11G IRON HORSE TRAIL BICYCLE/PEDESTRIAN OVERCROSSING – TOWN OF DANVILLE

TVTC Project Sponsor: Danville/CCC/CCTA

Project Description: 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. For the scope of this project, the

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

Cost and Funding Sources

Cost (Millions)	**$19.78**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$19.78**

C-11H IRON HORSE TRAIL SYSTEM-WIDE IMPROVEMENTS

TVTC Project Sponsor: Contra Costa County, Town of Danville, City of San Ramon Alameda County, City of Dublin, City of Livermore, and City of Pleasanton

Project Description: 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: A phasing plan has not yet been developed.

Cost and Funding Sources:

Cost (Millions)	**$85.60**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**

Total Funding Shortfall (Millions)	**$85.60**

C-12 I-680 INTERCHANGE IMPROVEMENTS AT HACIENDA DRIVE

TVTC Project Sponsor: Dublin and Pleasanton

Project Description: 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.

Cost and Funding Sources

Cost (Millions)	**$39.13**
Funding (Millions)	
Dublin TIF	$4.95
Pleasanton TIF	$0.04
Total Funding (Millions)	**$4.63**
Total Funding Shortfall (Millions)	**$34.50**

C-13 FALLON/EL CHARRO INTERCHANGE

TVTC Project Sponsor: Pleasanton, Dublin, Livermore

Project Description: 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 tum lanes; widening of the eastbound on-ramp; widening of the westbound off-ramp to provide two left tum and two right tum lanes; and widening of the westbound on-ramp.

Status: The project is currently not yet started.

Cost and Funding Sources

Cost (Millions)	**$34.51**
Funding (Millions)	
Dublin TIF	$4.05
Pleasanton TIF	$4.10
Livermore TIF	$6.40
Total Funding (Millions)	**$14.55**
Total Funding Shortfall (Millions)	**$19.96**

C-14 VALLEY LINK RAIL (PHASE 1)

TVTC Project Sponsor: Pleasanton, Dublin, Livermore, Alameda County

Project Description: This project will connect Northern San Joaquin County communities to the Tri-Valley and Bay Area Rapid Transit (BART) through 41 miles of rail and 7 stations. The project will extend from the planned 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 Greenville).

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

Cost and Funding Sources:

Cost (Millions)	**$258.25**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$258.25**

C-15 TECHNOLOGY ENHANCEMENTS

TVTC Project Sponsor: Pleasanton, Dublin, Livermore

Project Description: 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 alone 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 continues 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 Shared Autonomous Vehicles (SAVs) to improve transit connectivity to shift travelers from Single Occupancy Vehicles (SOVs) to transit.
E. Prepare intersections around transit center and ABRT 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 compete the construction/implementation and operation of the proposed project.

Status: The project is currently not yet started.

Cost and Funding Sources

Cost (Millions)	**$0.33**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$0.33**

C-16 680 EXPRESS BUS SERVICE

TVTC Project Sponsor: Alameda CTC, in partnership with CCTA

Project Description: 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 reliably, 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 Contra Costa Transportation Authority (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: A project schedule has not yet been developed.

Cost and Funding Sources:

Cost (Millions)	**$59.35**
Funding (Millions)	$0.00
Total Funding (Millions)	**$0.00**
Total Funding Shortfall (Millions)	**$59.35**

APPENDIX C – PROJECT IMPROVEMENT CATEGORIES

	Project	Improvement Category*
A-2a	State Route 84 (SR 84) Expressway (I-580 to I-680)	Roadway Capacity
A-2b	SR 84/I-580 Interchange	Roadway Capacity
A-9a	Crow Canyon Road Improvements Phase 1	Safety
A-9b	Crow Canyon Road Improvements Phase 2	Safety
A-10a	Vasco Road Safety Improvements Phase 1	Safety
A-10b	Vasco Road Safety Improvements Phase 2	Safety
A-11	Express Bus/Bus Rapid Transit (BRT) – Phase 2	Safety
B-1	I-580/I-680 Interchange (westbound to southbound)	Roadway Capacity
B-3	I-580/First Street Interchange Modification	Roadway Capacity
B-4	I-580/Vasco Road Interchange Modification	Roadway Capacity
B-5	I-580/Greenville Road Interchange Modification	Roadway Capacity
B-6	Jack London Boulevard Extension	Roadway Capacity
B-7	El Charro Road Extension (Stoneridge Drive/Jack London Boulevard to Stanley Boulevard)	Roadway Capacity
B-8	Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive)	Roadway Capacity Safety
B-10	I-680 Southbound HOV Lane Gap Closure (North Main Street to Rudgear Road)	Roadway Capacity
B-11b	I-680 Transit Corridor Improvements	Transit
C-1	Tesla Road Safety Improvements	Safety
C-2	Norris Canyon Road Safety Improvement	Safety
C-3	Dublin Boulevard – North Canyons Parkway Extensions	Roadway Capacity
C-4	Vasco Road at Dalton Avenue Intersection Improvements	Intersection
C-5	El Charro Road Widening	Roadway Capacity
C-6	Sunol/680 Interchange Improvements	Roadway Capacity
C-7	I-680 Express Lanes – Hwy 84 to Alcosta	Roadway Capacity
C-8	Santa Rita/I-580 Interchange	Intersection
C-9	Stoneridge/I-680 Interchange	Roadway Capacity
C-10	Innovate 680	Technology
C-11a	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road	Pedestrian/Bicycle
C-11b	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Crow Canyon Road	Pedestrian/Bicycle
C-11c	Iron Horse Trail – Dublin	Pedestrian/Bicycle
C-11d	Iron Horse Trail – Livermore	Pedestrian/Bicycle
C-11e	Iron Horse Trail to Shadow Cliffs	Pedestrian/Bicycle
C-11f	Iron House Trail Connection Improvements at Santa Rita Road	Pedestrian/Bicycle
C-11g	Iron Horse Trail Bicycle/Pedestrian Overcrossing – Sycamore Valley Road	Pedestrian/Bicycle
C-11h	Iron Horse Trail Safety Improvements	Pedestrian/Bicycle

	Project	Improvement Category*
C-12	Hacienda/I-580 Interchange Improvements	Roadway Capacity
C-13	Fallon/El Charro Interchange Improvements	Roadway Capacity
C-14	Valley Link Rail (Phase 1)	Transit
C-15	Technology Enhancements	Technology
C-16	I-680 Express Bus Service	Transit

Note: Table only includes projects that have not been fully completed.

* Improvement category used to determine project benefit for Nexus. Projects may also project additional benefits to the system.

2020 Tri-Valley Transportation Council (TVTC) Nexus Study

TVTC Board Meeting July 19, 2021

Kimley»Horn

Purpose Today

This study session is being conducted to:

1. Provide TVTC Board Members with an update on the current status of the development of the new TVTC Nexus Study; and
2. Receive input and feedback from the TVTC Board Members on the draft Nexus Study.

After staff has received input and feedback from the TVTC Board on the draft Nexus Study, such input and feedback will be incorporated into a final version of the Nexus Study; which will be presented to the TVTC Board for adoption at a meeting in August of 2021.

Staff is not requesting that the Board take any action on the draft Nexus Study at this time.

Background

- Completed and adopted in early 2008, the *TVTC Nexus Study: Fee Update* ("2008 Nexus Study") identified 22 projects that the TVTC approved to receive funding from the TVTDF. The first 11 projects ("List A" projects) were adopted into the original program in 1995. The second set of 11 ("List B" projects), 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 preparation of an SEP.

Background

- 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.
- On a parallel path, with respect to the TVTC JEPA, in October 2013 TVTC entered into a new Joint Exercise of Powers Agreement (JEPA). The purpose of the new JEPA agreement was to establish the TVTC as a **separate agency** 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.

Background

- Following approval of the a newly created TVTC Agency;

  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.*

Background

- In January 2017, the TVTC approved the *2008 TVTC Nexus Study Validation Review* and adopted the 2017 *Strategic Expenditure Plan (SEP) Update*.

  (at that time, the TVTC elected to maintain the current fee rate (only annual CCI adjustment).

  The 2017 SEP update incorporated and built upon the updated project descriptions, funding programs, and progression of the TVTDF over the previous six years. The JEPA adopted in 2013 required approval, for the SEP, by a supermajority of the TVTC – six members vs. seven members.

New Nexus Study Development

- April 2018 - TVTC Board Meeting, budget was approved, including funding for Special Studies and administrative expenses.
- October 2018 - TAC provided TVTC with an update on the development and schedule of the Nexus Study.
- July 2019 - TVTC received an update on the Nexus Study Project List. A total of 17 new projects ("List C") were proposed for inclusion for the Nexus Study RFP. *At that time, project sheets for Hacienda/580 Interchange Improvements, Tassajara/El Charro Interchange Improvements, and Intelligent Transportation Systems were still in development. They have since been updated and are included in the new "List C". Additionally, the Alameda County Transportation Commission submitted a new project, the I-680 Express Bus Project, for consideration. Additionally, Iron Horse Trail ("IHT") projects were also added, including a new IHT Safety Improvement Project that spans both Alameda and Contra Costa County. With the additional projects added, the new project total for Nexus Study "List C" is 23.*

New Nexus Study Development

- October 2019 - TVTC approved the Nexus Study Project List (List C).
- April 2020 - TVTC adopted Resolution 2020-03 and awarded a Professional Services Agreement to Kimley-Horn ("consultant") for the TVTC Nexus Study in the amount of $172,930.
- October 2020 - TVTC received an update on the Nexus Study which included completion of the Nexus Study Scope of Work and Schedule, and completion of Growth Forecast, Refinements for Employment and Population to calculate the increase in traffic demand attributable to forecasted growth within the Tri-Valley. The consultant also advised that the total growth forecast would be converted into land use types to ease the administration of the impact fee at the local level.

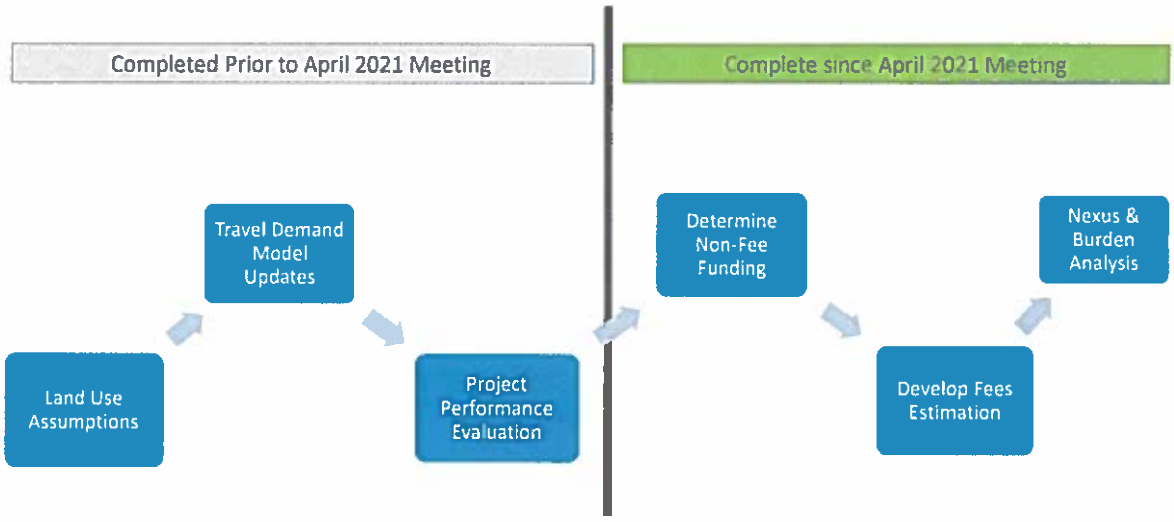
New Nexus Study Development

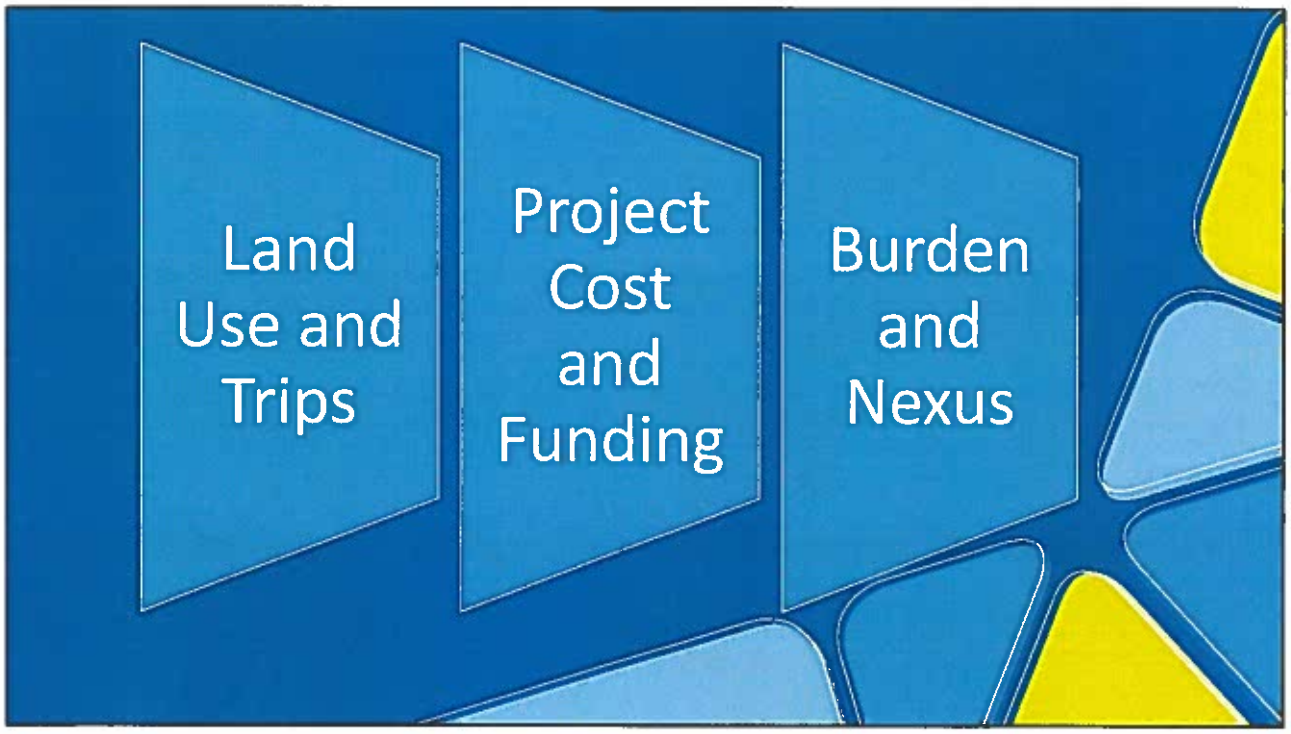
- January 2021 - TVTC received a verbal update from the consultant detailing the land use assumptions submitted by the member agencies.
- April 2021 - TVTC received a verbal update from the consultant detailing the tasks completed, including the land use assumptions, travel demand model, and the performance evaluation.

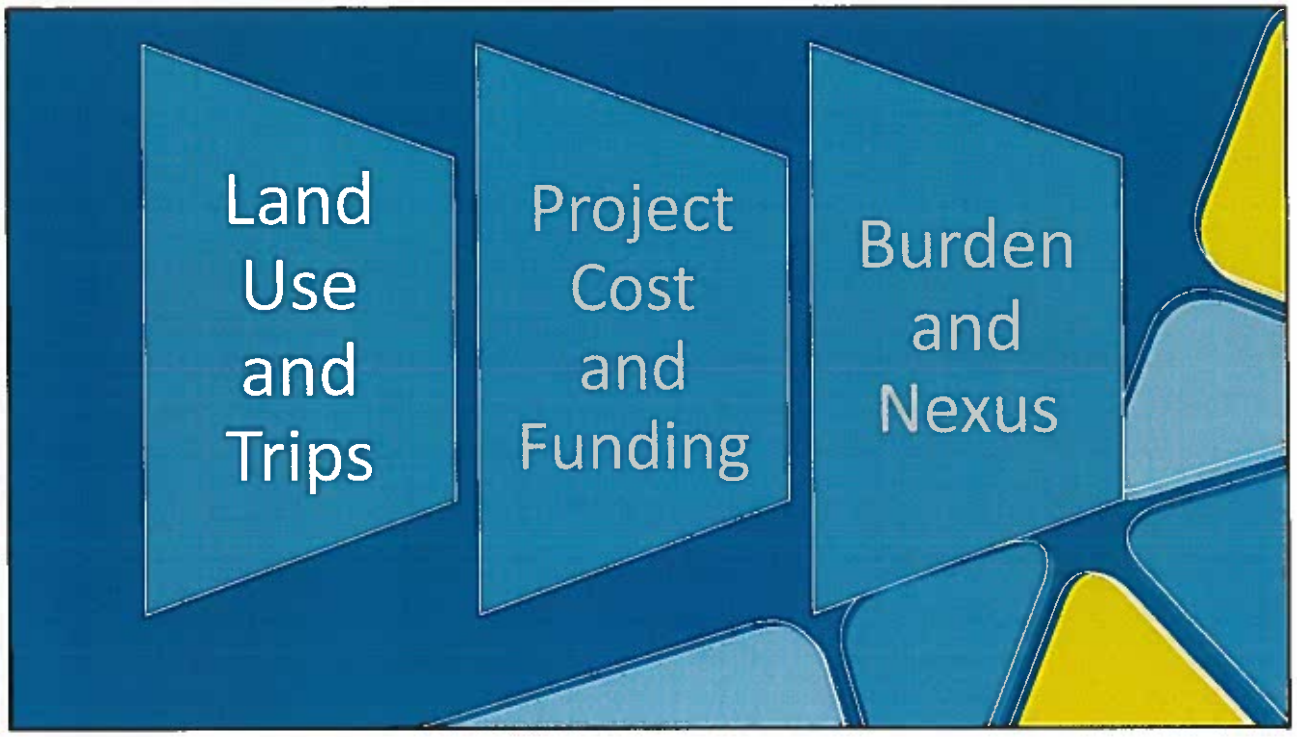
Today – July 19, 2021

- July 2021 - TVTC to receive update on all completed tasks associated with the Nexus Study:
  - Confirm Growth Forecast and Travel Demand Model - Completed
    Methodology and Approach – Completed
  - Household Growth – Confirmed
  - Employment Growth – Confirmed
  - Improvement Project and Nexus Analysis Methodology – Confirmed
  - Non-Fee Funding Source – Completed
  - Fee Estimation and Nexus Burden Analysis – Completed
  - Draft Nexus Study – Completed.
  - Adopt Nexus Study – July/August 2021

TVTC Nexus Study







Convert Employee Growth to Building Square Feet

- Utilized employee density (SF per employee) ratio from 2008 Nexus

Land Use	Employee Growth (2018 – 2040)	Employee Density (SF per employee)	Building Square Feet
Retail (1,000 SF)	10,235	500	5.2 Million
Office (1,000 SF)	22,656	300	6.8 Million
Industrial (1,000 SF)	10,322	900	9.3 Million
Other (1,000 SF)	20,735	600	12.4 Million

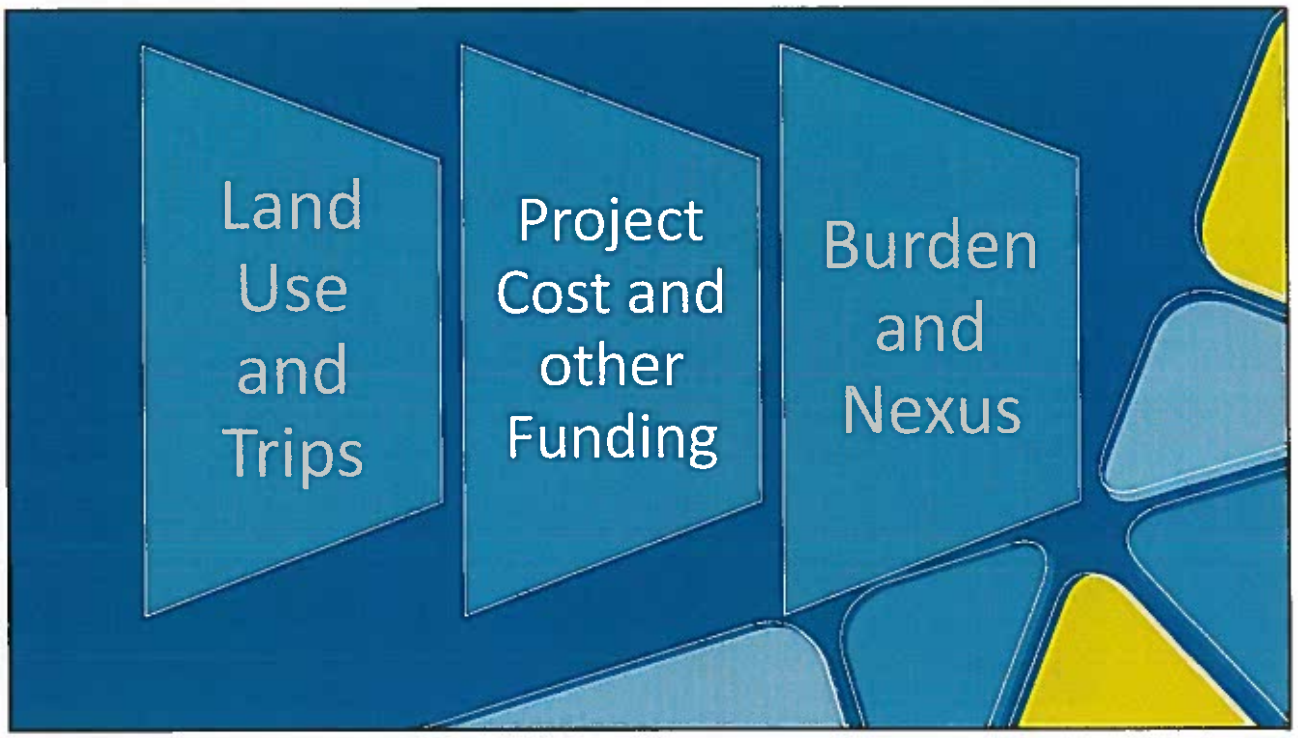
Trip Generation Rates

- Average rates for AM and PM peak hour
- Retail 30% pass-by trip rate reduction

Land Use	2008 Nexus (ITE 7th Edition)	ITE 10th Edition (Peak of Adjacent Street)	Difference
Single Family (DU)	0.90	0.87	-0.03 (-4%)
Multi-Family (DU)	0.62	0.51	-0.11 (-18%)
Retail (1,000 SF)	1.67	1.66	-0.01 (0%)
Office (1,000 SF)	1.53	1.16	-0.37 (-25%)
Industrial (1,000 SF)	0.89	0.67	-0.22 (-25%)
Other (1,000 SF)	1.00	1.00	0.00 (0%)

Average AM/PM Peak Hour Trip Forecast

Land Use	2020-2040 Growth	Trip Rates (ITE 10th Edition, AM/PM Peak of Adjacent Street)	Average AM/PM Trips
Single Family	15,857 DU	0.87 per DU	13,716
Multi-Family	17,456 DU	0.51 per DU	8,903
Retail	5,117,500 SF	1.66 per 1,000 SF	8,508
Office	6,796,800 SF	1.16 per 1,000 SF	7,850
Industrial	9,289,800 SF	0.67 per 1,000 SF	6,178
Other	12,441,000 SF	1.00 per 1,000 SF	12,441
		TOTAL	57,596



Project List

	Project	Improvement Category*
A-2a	State Route 84 (SR 84) Expressway (I-580 to I-680)	Roadway Capacity
A-2b	SR 84/I-580 Interchange	Roadway Capacity
A-9a	Crow Canyon Road Improvements Phase 1	Safety
A-9b	Crow Canyon Road Improvements Phase 2	Safety
A-10a	Vasco Road Safety Improvements Phase 1	Safety
A-10b	Vasco Road Safety Improvements Phase 2	Safety
A-11	Express Bus/Bus Rapid Transit (BRT) – Phase 2	Safety
B-1	I-580/I-680 Interchange (westbound to southbound)	Roadway Capacity
B-3	I-580/First Street Interchange Modification	Roadway Capacity
B-4	I-580/Vasco Road Interchange Modification	Roadway Capacity
B-5	I-580/Greenville Road Interchange Modification	Roadway Capacity
B-6	Jack London Boulevard Extension	Roadway Capacity
B-7	El Charro Road Extension (Stoneridge Drive/Jack London Boulevard to Stanley Boulevard)	Roadway Capacity
B-8	Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive)	Roadway Capacity Safety
B-10	I-680 Southbound HOV Lane Gap Closure (North Main Street to Rudgear Road)	Roadway Capacity
B-11b	[illegible] only includes projects that have not been fully completed.	Transit

	Project	Improvement Category*
C-1	Tassa Road Safety Improvements	Safety
C-2	Norris Canyon Road Safety Improvement	Safety
C-3	Dublin Boulevard – North Canyons Parkway Extensions	Roadway Capacity
C-4	Vasco Road at Dalton Avenue Intersection Improvements	Intersection
C-5	El Charro Road Widening	Roadway Capacity
C-6	Sunol/680 Interchange Improvements	Roadway Capacity
C-7	I-680 Express Lanes – Hwy 84 to Alcosta	Roadway Capacity
C-8	Santa Rita/I-580 Interchange	Intersection
C-9	Stoneridge/I-680 Interchange	Roadway Capacity
C-10	Innovate 680	Technology
C-11a	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road	Pedestrian/Bicycle
C-11b	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Crow Canyon Road	Pedestrian/Bicycle
C-11c	Iron Horse Trail – Dublin	Pedestrian/Bicycle
C-11d	Iron Horse Trail – Livermore	Pedestrian/Bicycle
C-11e	Iron Horse Trail to Shadow Cliffs	Pedestrian/Bicycle
C-11f	Iron House Trail Connection Improvements at Santa Rita Road	Pedestrian/Bicycle
C-11g	Iron Horse Trail Bicycle/Pedestrian Overcrossing – Sycamore Valley Road	Pedestrian/Bicycle
C-11h	Iron Horse Trail Safety Improvements	Pedestrian/Bicycle
C-12	Hacienda/I-580 Interchange Improvements	Roadway Capacity
C-13	Fallon/El Charro Interchange Improvements	Roadway Capacity
C-14	Valley Link Rail (Phase 1)	Transit

* Improvement category used to determine project benefit for Nexus. Projects may also project additional benefits to the system.

Project List

	Project	Project Cost*
A-2a	State Route 84 (SR 84) Expressway (I-580 to I-680)	$325.4
A-2b	SR 84/I-580 Interchange	$22.7
A-9a	Crow Canyon Road Improvements Phase 1	$10.87
A-9b	Crow Canyon Road Improvements Phase 2	$58.77
A-10a	Vasco Road Safety Improvements Phase 1	$40.57
A-10b	Vasco Road Safety Improvements Phase 2	$31.20
A-11	Express Bus/Bus Rapid Transit (BRT) – Phase 2	$22.35
B-1	I-580/I-680 Interchange (westbound to southbound)	$1,785.65
B-3	I-580/First Street Interchange Modification	$61
B-4	I-580/Vasco Road Interchange Modification	$85.65
B-5	I-580/Greenville Road Interchange Modification	$86
B-6	Jack London Boulevard Extension	$28.16
B-7	El Charro Road Extension (Stoneridge Drive/Jack London Boulevard to Stanley Boulevard)	$72.48
B-8	Camino Tassajara/Tassajara Road Widening Project (East of Blackhawk Drive to North Dublin Ranch Drive)	$94.59
B-10	I-680 Southbound HOV Lane Gap Closure (North Main Street to Rudgear Road)	$98.70
B-11b	I-680 Transit Corridor Improvements	$277.85

Project List

		2021 Cost (Millions)
C-1	Tesla Road Safety Improvements	$13.19
C-2	Norris Canyon Road Safety Improvement (Seg 1 and Seg 3)	$21.87
C-3	Dublin Boulevard – North Canyons Parkway Extensions	$160.39
C-4	Vasco Road at Dalton Avenue Intersection Improvements	$3.39
C-5	El Charro Road Widening	$68.09
C-6	Sunol/680 Interchange Improvements	$16.60
C-7	I-680 Express Lanes – Hwy 84 to Alcosta	$527.57
C-8	Santa Rita/I-580 Interchange	$10.33
C-9	Stoneridge/I-680 Interchange	$11.98
C-10	Innovate 680	$57.21
C-11a	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Bollinger Canyon Road	$22.88
C-11b	Iron Horse Trail Bicycle-Pedestrian Overcrossing – Crow Canyon Road	$19.69
C-11c	Iron Horse Trail – Dublin	$11.60
C-11d	Iron Horse Trail – Livermore	$26.99
C-11e	Iron Horse Trail to Shadow Cliffs	$1.65
C-11f	Iron House Trail Connection Improvements at Santa Rita Road	$0.87
C-11g	Iron Horse Trail Bicycle/Pedestrian Overcrossing – Sycamore Valley Road	$19.78
C-11h	Iron Horse Trail Safety Improvements	$85.60
C-12	Hacienda/I-580 Interchange Improvements	$39.13
C-13	Fallon/El Charro Interchange Improvements	$34.51
C-14	Valley Link Rail (Phase 1)	$258.25
C-15	Technology Enhancements	$0.33
C-16	I-680 Express Bus Service	$59.35

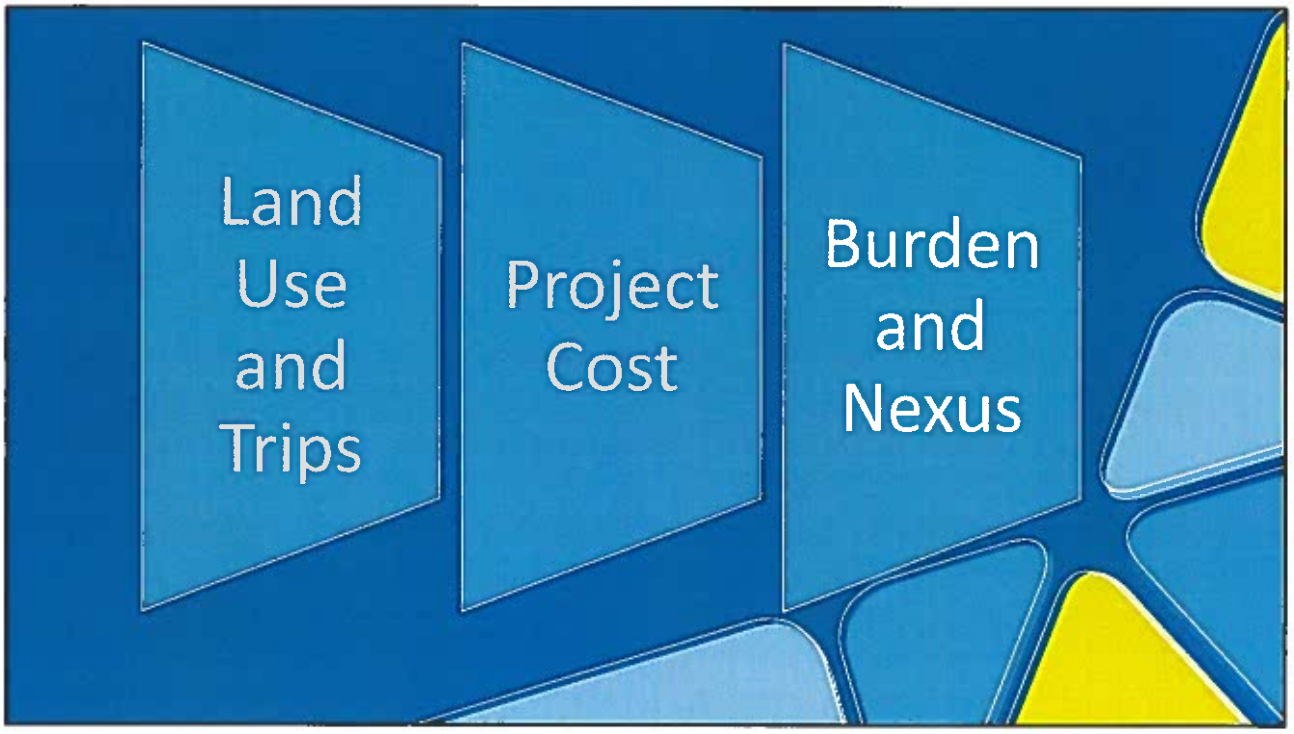
Other Funding Sources (non-Fee)

- Estimating funds from non-TVTDF funding sources (grants)
  - Federal, State, Regional, Local
- Met with ACTC/CCTA staff of initial feedback (4/6 & 4/14)
- Based on ACTC/CCTA feedback, sent to TVTC TAC for review
- E-E non funded cost

Normalized Project Cost

- List A & B: 2015 dollars
- List C: 2018 dollars
- Normalized all project cost to 2021 dollars based on December 2020 ENR CCI rate of 3.2%
- External – External reduction

	Previous Project Cost (Millions)	Current Cost (Millions)
List A & B	$ 2,667.77	$ 3,102
List C	$ 1,356.85	$ 1,471
Total Cost (2021 $)		$ 4,573
Total Grants/External Funding (2021 $)		$871
Total Unfunded Cost (2021 $)		$3,702
Total Unfunded Cost with E-E Reduction(2021 $)		$2,698



Fee Burden

- Maximum Fee Burden calculated by dividing unfunded project cost by total trips

Land Use	2008 Maximum	2021 Maximum
Single Family (DU)	$12,238	$40,250
Multi-Family (DU)	$8,430	$23,890
Retail (SF)	$22.71	$77.88
Office (SF)	$20.80	$54.10
Industrial (SF)	$12.10	$31.15
Other (average AM/PM trips)	$13,598	$46,844

Note

- E-E trips removed
- The TVTC would need to adopt maximum fee in order to fund total unfunded project costs of $2 698 billion, previously $1 3 billion
- Adopting fees less than the maximum would result in a funding short fall, however, historically TVTC has set rates at approximately 1/3 of the maximum to foster economic growth

Next Steps

Conclusion of Nexus Study

- Land Use Growth
- Project List and Costs
- Burden Analysis

Next Steps

- Adopt Nexus Study – August
- Form Strategic Expenditure Plan (SEP) subcommittee
- Update SEP
  - Determine Individual Project Timing
  - Project Prioritization
  - Determine the Fee
  - Adopt the Fee
  - Notify member agencies of new Fee for implementation July 1, 2022

Discussion

Item 6.a

TRI-VALLEY TRANSPORTATION COUNCIL

To: Tri-Valley Transportation Council

From: TVTC TAC
By: City of Livermore staff

Date: July 19, 2021

Subject: City of Livermore Request to Refund of Tri-Valley Transportation Development Fee to Property Owner of 809 El Rancho Drive, Livermore

---

BACKGROUND

The City of Livermore issued a building permit to Mark Ives, the property owner of 809 El Rancho Drive on June 11, 2018. The permit was for a 375 square feet of a new detached secondary dwelling unit on his property. The total amount paid at permit was $7,340.72. In addition to paying fees to the City of Livermore, Mark Ives was required to pay a Tri-Valley Transportation Development Fee (TVTDF) of $1,783.25.

The original agreement between the City and Mark Ives required the applicant to pay all the fees upfront to construct the new secondary dwelling unit. During the construction, Mark Ives was notified by PG&E that the new secondary dwelling unit was built on a PG&E easement and would need to be removed. In order to fiscally prepare for demolishing the secondary dwelling unit, which was not completely constructed, Mark has requested a refund of $1,783.25 from TVTC.

DISCUSSION

The Joint Executive Powers Agreement ("JEPA") does not address the refund of the TVTC Fee. Section 6 of the JEPA discusses the application of the fee, but not reimbursement. However, the JEPA acknowledges, consistent with the requirements of the Mitigation Fee Act, that the TVTC Fee is intended to mitigate the effects of new development.

In this instance, Mark Ives was required to demolish the new secondary dwelling unit he never completed construction for on his property. The original building permit is now voided. Consequently, Mark Ives will no longer have the added secondary dwelling unit on his property completed, but instead, demolish the incomplete building. Therefore, as this secondary dwelling unit will not generate any additional trips, there is no need to impose the TVTC Fee.

Therefore, Mr. Ives Mark is not obligated to pay any TVTC Fee for this secondary dwelling unit. Past practice has been to reimburse the developer for the 80% fees and recommend the local agency reimburse the 20% fees. In this instance, TVTC will reimburse the 80% of the TVTC Fee ($1,426.60) and the City of Livermore will reimburse the 20% portion ($356.65).

RECOMMENDATION

City of Livermore recommends TVTC Adopt Resolution No. 2021-06 Refunding the City of Livermore $1,426.60 collected as the 80% fee and recommending that the City of Livermore refund the remaining $356.65 from their local TVTC Fee account.

ATTACHMENTS

A. TVTC Resolution 2021-06
B. Fee breakdown for the New Secondary Dwelling Unit
C. PG&E Encroachment Abatement Letter

3820885.1

TRI-VALLEY TRANSPORTATION COUNCIL
RESOLUTION NO. 2021-06

A RESOLUTION OF THE TRI-VALLEY TRANSPORTATION COUNCIL APPROVING REQUEST BY CITY OF LIVERMORE TO REFUND TRI-VALLEY TRANSPORTATION DEVELOPMENT FUNDS IN THE AMOUNT OF $1,426.60 TO MARK IVES

WHEREAS, the Tri-Valley jurisdictions have joined together to form the Tri-Valley Transportation Council (TVTC) and entered into a Joint Exercise Powers of Agreement ("JEPA") in 2013; and

WHEREAS, the TVTC adopted the Tri-Valley Transportation Development Fee (TVTDF) to fund all or part of the necessary transportation improvements identified in the Strategic Expenditure Plan; and

WHEREAS, the JEPA requires each local agency to levy the TVTDF on all development projects; and

WHEREAS, the City of Livermore collected the TVTDF from Mark Ives on a development project on his property in the amount of $1,783.25; and

WHEREAS, Mark Ives was required by PG&E to demolish the incomplete project due to easement encroachment and has requested a refund of the TVTDF.

NOW THEREFORE BE IT RESOLVED THAT:

1. The Tri-Valley Transportation Council authorizes a refund to Mark Ives in the amount of $1,783.25. These funds are held in two separate accounts, $1,426.60 held by the TVTC Treasurer and $356.65 held by City of Livermore in the local TVTDF account.

2. The Tri-Valley Transportation Council authorizes the TVTC Treasurer to transfer $1,426.60 in TVTDF funds to the City of Livermore.

3. The City of Livermore will refund the full amount of $1,783.25 to Mark Ives, using the $1,426.60 from the TVTC Treasurer and the $356.65 held by City of Livermore in the local TVTDF account.

PASSED, APPROVED AND ADOPTED at the meeting of July 19, 2021 by the following votes:

AYES:

NOES:

ABSENT:

ABSTAIN:

Scott Perkins, Chair
Tri-Valley Transportation Council

ATTEST:

Lisa Bobadilla, TVTC Administrative Staff

LIVERMORE
CALIFORNIA

Receipt Date: 06/11/2018

RECEIPT For Fees Paid

Information: (925) 960-4410
Building Inspections: (925) 960-4430
Public Infrastructure Inspections: (925) 960-4500
Fire Inspections: (925) 454-2307

Payor:	mark ives
Owner:	IVES MARK
Permit #:	D180047 Type: Dwelling Permit
Site Address:	809 EL RANCHO DR, LIVERMORE 94551
Parcel:	098 035610301
Valuation:	$30,000.00
Work Description:	New detached secondary dwelling unit (375 SF), new mini-split system and tankless heat pump water heater.

Payment Itemization:

Description	Account Code	Current Pmts
Bldg Permit Fee-2012	001-31140	694.40
BSASRF-1080	910-24723	1.80
BSASRF-1081	001-36860	0.20
City Storm-2048	308-36400	579.92
County Storm Drainage - 1702	910-24763	1,318.00
HHS Facility Fee-2043	333-35690	996.00
LVJUSD School Fee-1733	910-24709	1,421.25
Mechanical Permit-2010	001-31170	271.00
Plumbing Permit-2014	001-31150	271.00
SMIP R - 2036	910-25200	3.90
Tri-Val Trans-2060	915-24710	1,426.60
Tri-Val Trans-2070	321-35560	356.65

TOTAL: **$7,340.72**

Receipt issued by: CMMILLS

Receipt Number:127290

Entered Date & Time: 6/11/2018 3:59 PM

BSASRF - Building Standards Administration Special Reimbursement Fund
SMIP - Strong Motion Implementation Program

LIVERMORE
CALIFORNIA

Copy Reprinted on 02-12-2021 at 17:31:27

City Hall Permit Center	Community and Economic Development Department 1052 South Livermore Avenue Livermore, CA 94550	phone: fax: TDD:	925-960-4410 925-960-4419 925-960-4104	www.cityoflivermore.net

Pacific Gas and Electric Company

January 5, 2021

MARK IVES
809 EL RANCHO DR
LIVERMORE CA. 94551

Re: Easement Encroachment located at 809 EL RANCHO DR, A.P.N. 098-0356-103-01

Dear MARK IVES:

During an inspection of our operating facilities it was discovered that a building has been constructed or placed within our building restricted easement on your property.

PG&E acquired its easement by virtue of the deed from John Luders to PG&E, dated March 15th 1912, and recorded in Book 2020 at Page 441 of Official Records, County of Alameda (Copy attached). The grant of easement (PG&E's Document No. L.D. 2203-02-0465) specifically prohibits the placement of buildings or structures within the easement.

"the party of the first part will not erect or construct or permit to be erected or constructed beneath said line of poles and wires any building, structure or improvement"

PG&E requests the building, shed, etc. be removed completely from within the easement on or before June16th 2021. Should the encroachment not be removed or relocated by this date, PG&E will need to take further action to abate the encroachment.

For your safety and the protection of PG&E's operating facilities, please contact me at 925-216-9042 or Collin.Giddings@pge.com to discuss the method of removal or relocation of the encroachment prior to performing any work.

Thank you for speaking with me. If you have any further questions or concerns, please contact me directly using the information noted above.

Sincerely,

Collin Giddings
Land Agent
PG&E

Item 6.b

TRI-VALLEY TRANSPORTATION COUNCIL

To: Tri-Valley Transportation Council (TVTC)

From: TVTC Technical Advisory Committee (TAC)

Date: July 19, 2021

Subject: Amendments to Tri-Valley Transportation Council (TVTC) Bylaws

BACKGROUND

The County of Alameda, the County of Contra Costa, the Town of Danville, the City of Dublin, the City of Livermore, the City of Pleasanton and the City of San Ramon entered into a Joint Exercise of Powers Agreement (JEPA) on October 17, 2013 pursuant to Chapter 5, Division 7 of Title 1 of the Government Code to form the Tri-Valley Transportation Council (TVTC). The JEPA authorizes the member entities to jointly exercise any of the powers common to each of them. Section 2(a) of the JEPA states that the purpose of the JEPA is to establish a separate agency that is responsible for coordinating transportation planning efforts within the Tri-Valley area by facilitating the implementation of Transportation Improvement Projects identified in its Strategic Expenditure Plan. Further, the JEPA establishes a mechanism for collecting, managing, and disbursing the TVTD Fee and facilitating the implementation of Projects to be constructed with the TVTD Fee revenues.

DISCUSSION

The TVTC JEPA Section 3 – Governing Council outlines how the TVTC shall be governed, including the adoption of Bylaws. Specifically, Section 3.e – Bylaws stated that "The TVTC shall create and adopt, and from time to time amend, Bylaws as are necessary or convenient to achieve or facilitate the conduct of the Governing Council's meetings and procedures." The TVTC Bylaws may be amended from time to time in order to address organizational issues as they arise. Pursuant to Section 3(d)(ii), a supermajority vote of five (5) Members of the TVTC Board is required to amend the TVTC Bylaws.

The TVTC Technical Advisory Committee, with input from TVTC legal counsel, have prepared an amendment to the TVTC bylaws, including:

1. Making minor clarifications and corrections;
2. Adding Role and Responsibility of the TVTC Technical Advisory Committee; and
3. Adding Role and Responsibility of the TVTC Finance Committee.

A redline showing the proposed amendments is attached to Resolution 2021-7 with additions in double-underline and deletions in ~~strikethrough~~.

RECOMMENDATION

TVTC TAC recommends TVTC approve and adopt, by a supermajority of five Members, the proposed Amendments to the TVTC Bylaws.

ATTACHMENT

1. Resolution 2021-07.
2. TVTC Bylaws Amendments

3821840.1

TRI-VALLEY TRANSPORTATION COUNCIL

RESOLUTION NO. 2021-07
A RESOLUTION OF THE TRI-VALLEY TRANSPORTATION COUNCIL ADOPTING AMENDMENTS TO THE BYLAWS

WHEREAS, on October 17, 2013 the Tri-Valley Transportation Council (TVTC), consisting of the County of Alameda, the County of Contra Costa, the Town of Danville, the City of Dublin, the City of Livermore, the City of Pleasanton, and the City of San Ramon, entered into a Joint Exercise of Powers Agreement (JEPA) establishing TVTC as a separate public entity duly organized and existing under the Constitution and other laws of the State of California; and

WHEREAS, the JEPA authorizes TVTC to establish bylaws and such other rules and regulations as may be necessary for its operation and the conduct of the TVTC's business; and

WHEREAS, the JEPA under section 3(e) states: *"The TVTC shall create and adopt, and from time to time amend, Bylaws as are necessary or convenient to achieve or facilitate the conduct of the Governing Council's meeting and procedures*"; and

WHEREAS, the proposed amendments to the TVTC Bylaws include minor clarifications and corrections, as well as the addition of the roles and responsibilities for two TVTC committees: 1) Finance Committee; and 2) Technical Advisory Committee all as shown in Attachment 1 attached hereto and incorporated herein with additions shown in double-underline and deletions in ~~strikethrough~~; and

WHEREAS, pursuant to Section 3(d)(ii), a supermajority vote of five (5) Members of the TVTC Board is required to amend the TVTC Bylaws.

NOW THEREFORE, BE IT RESOLVED THAT the Tri-Valley Transportation Council takes the following actions:

TVTC hereby approves and adopts the amendments to the TVTC Bylaws as shown in Attachment 1 attached hereto and incorporated herein

PASSED, APPROVED AND ADOPTED at the meeting of July 19, 2021, by the following votes:

AYES:
NOES:
ABSENT:
ABSTAIN:

_____
Scott Perkins, Chair
Tri-Valley Transportation Council

ATTEST:

_____

Lisa Bobadilla, TVTC Administrative Staff

ATTACHMENT 1

AMENDMENTS TO TVTC BYLAWS

3827715.1

TRI-VALLEY TRANSPORTATION COUNCIL

BYLAWS

TABLE OF CONTENTS

TRI-VALLEY TRANSPORTATION COUNCIL

BYLAWS

A. COMPOSITION

The Tri-Valley Transportation Council ("TVTC") is a joint powers authority formed pursuant to the Joint Exercise of Powers Agreement establishing the Tri-Valley Transportation Council, dated October 17, 2013 (the "JEPA"), among the County of Alameda, the County of Contra Costa, the City of Livermore, the City of Pleasanton, the City of San Ramon, the City of Dublin, and the Town of Danville. There shall be seven voting members of the TVTC. Voting members must be elected officials, one each from the respective Boards of Supervisors, and one each from the respective city/town councils. Alternates may be selected by the respective Boards of Supervisors and city/town councils to serve as a voting member in the absence of the appointed member.

B. TVTC MEMBERS

1. Rotation of Officers

A Chair and a Vice Chair shall be rotated biennially starting on July 1st of every other Fiscal Year. The Chair and Vice Chair shall be rotated among the TVTC pursuant to Section 4 of the JEPA in the following order, continuing the rotation begun under prior joint powers agreements, and starting with the name of the TVTC's first Chair: County of Alameda (7/1/12-6/30/14), County of Contra Costa, City of Livermore, City of Pleasanton, City of San Ramon, City of Dublin, and Town of Danville. The first Vice Chair is the County of Contra Costa (7/1/12-6/30/14), and shall rotate into the position of Chair at the end of the term as Vice Chair. Subsequent Vice Chairs shall rotate into the position consistent with the rotation for Chair.

2. Duties of Officers

The Chair, or in his/her absence the Vice Chair, shall be the presiding officer of the TVTC and shall assume his/her place and duties as such immediately following his/her election. If the Chair is absent or unable to act, the Vice Chair shall serve until the Chair returns or is able to act. During such periods, the Vice Chair has all of the powers and duties of the Chair. In the event the Vice Chair is absent, the Chair shall have the right to name any member of the TVTC to perform the duties of the Chair, but such substitution shall not extend beyond adjournment.

The Chair shall preserve strict order and decorum at all meetings of the TVTC and announce its decisions on all subjects, and decide all questions of order. The Chair shall sign all resolutions adopted and contracts approved by the TVTC at meetings at which he/she is in attendance. In the event of his/her absence, the Vice Chair shall sign such documents as have been adopted during the meeting at which he/she presided.

The Chair shall serve as the liaison between the TVTC's Administrative staff and the TVTC. The Chair shall also serve as the spokesperson of the TVTC relative to all external communications regarding TVTC business.

3. Stipends

Each TVTC Member shall be compensated per meeting for attending TVTC Board and subcommittee meetings. An alternate member shall be compensated for attendance at meetings only if the regular member does not attend said meetings. The amount of compensation payable to TVTC Members may be modified by resolution of the TVTC Board.

C. TVTC ADMINISTRATION

The Governing Council shall have the power by resolution to appoint and employ such employees, consultants and independent contractors as may be necessary for the functions and purposes of this Agreement.

Any officer, employee, or agent of the Governing Council may also be an officer, employee, or agent of any of the Parties. All of the privileges and immunities from liability, exemption from laws, ordinances and rules, all pension, relief, disability, workers' compensation and other benefits that apply to the activities of officers, agents, or employees of a public agency when performing its functions shall apply to the officers, agents or employees of the TVTC to the same degree and extent while engaged in the performance of any of the functions and other duties of such officers, agents or employees under this Agreement. None of the officers, agents, or employees directly employed by the Governing Council shall be deemed, by reason of their employment by the Governing Council, to be employed by the Counties or the Cities or, by reason of their employment by the Governing Council, to be subject to any of the requirements of the Counties or the Cities.

1. Administrator

   a. Designation.

      The TVTC may employ or appoint an Administrator to implement the objectives of the TVTC. The Administrator employed or appointed by the TVTC shall serve at the pleasure of the TVTC and

shall be responsible to the TVTC for the proper administration of all affairs of the TVTC. The Administrator shall prepare the annual budget for review and approval by the Council. The Administrator may, consistent with the TVTC's annual budget and subject to TVTC approval, employ or appoint other staff members as necessary to accomplish the functions and purposes of the TVTC. The Administrator may be an employee of one of the parties to the JEPA, a contractor, consulting firm or an individual employed by the TVTC. If the Administrator is not an employee of a member agency, the Administrator shall designate who on its staff shall be the primary point of contact, subject to TVTC approval.

b. Duties

The Administrator is responsible for the organization, preparation, distribution, and posting of TVTC meeting agendas; the organization of TVTC meetings; preparation and distribution of meeting minutes; preparation and distribution of staff reports; records filing and organization of all documents related to the TVTC; facilitation and management of Treasurer Sservices; and facilitation and management of consultants as retained by the TVTC.

c. Payment for Services

The Administrator may be compensated for the services provided to the TVTC as defined by terms of employment, agreement or contract, and as authorized in the TVTC's annual budget.

2. General Counsel

a. Designation

The TVTC shall designate a General Counsel, which may consist of appropriate staff member of a TVTC Member jurisdiction, or a consultant retained by the TVTC.

b. Duties

The General Counsel is responsible for legal services to the TVTC. The General Counsel shall report to the TVTC Administrator. With approval, the General Counsel is authorized to verify pleadings and to sign affidavits and other documents in connection with legal proceedings in which the Board and its interests are involved. The General Counsel duties shall consist of all legal services related to the TVTC. Duties shall consist of:

- Provide advice and counsel to TVTC;
- Provide input on TVTC policies and procedures;
- Provide legal guidance in responding and resolving legal issues.

c. Payment for Services

The General Counsel may be compensated for the services provided to the TVTC as defined by terms of employment, agreement or contract, and as authorized in the TVTC's annual budget.

3. Treasurer

a. Designation

The TVTC shall designate a Treasurer, which may consist of the treasurer of a TVTC Member jurisdiction, or a certified public accountant retained by the TVTC.

b. Duties

The Treasurer duties shall consist of all accounting related to the TVTC, and as described in Section 4.c of the JEPA. With the approval of the TVTC, the Treasurer may contract out accounting and auditing services through a competitive proposal process. Duties shall consist of:

- Receive and receipt for all money of the TVTC and place it in the treasury of the treasurer so designated to the credit of the TVTC.
- Be responsible, upon his or her official bond, for the safekeeping and disbursement of all TVTC money so held by him or her.
- Pay, when due, out of money held for the TVTC, all sums payable on outstanding bonds and coupons of the TVTC.
- Pay any other sums due from the TVTC, or any portion thereof, only upon warrants of the public officer performing the functions of auditor or controller who has been designated by the agreement.
- Verify and report in writing on the first day of July, October, January, and April of each year to the TVTC and to the TVTC Member jurisdictions the amount of money held for the TVTC, the amount of receipts since

the last report, and the amount paid out since his or her last report.
- Maintain monthly bookkeeping;
- Prepare monthly Profit & Loss Statements and Balance Sheets;
- Prepare the annual Financial Report; and
- Receive invoices from contractors and disburse payments, with appropriate signature authority.

c. Payment for Services

If the TVTC appoints the Treasurer of a public entity to serve as the TVTC Treasurer, the governing body of the same public entity as the Treasurer selected by the TVTC pursuant to section C.1.c.i above shall determine charges to be made against the TVTC for the services of the treasurer. If the TVTC hires a certified public accountant to serve as the Treasurer, the Treasurer shall be compensated for the services provided to the TVTC as defined by terms of employment, agreement or contract, and as authorized in the TVTC's annual budget

4. Auditor

a. Designation

The TVTC shall designate, or select, an Auditor pursuant to Government Section 6505.5.

b. Duties

As provided for in Sections 6505 and 6505.5, the Auditor shall make arrangements with a certified public accountant or firm of certified public accountants for the annual audit of accounts and records of the TVTC. The Auditor shall draw warrants to pay demands against the TVTC when the demands have been approved by any person authorized to do so approve in the JEPA.

c. Payment for Services

The governing body of the same public entity as the auditor specified pursuant to this section shall determine charges to be made against the TVTC for the services of the auditor.

5. Secretary

The Secretary shall perform the duties described in section 4(b) of the JEPA.

6. TVTC Technical Advisory Committee (TAC)

   a. Designation

   The TVTC board shall establish a Technical Advisory Committee ("TAC"). The TAC shall include one representative from each of the Member Agencies and may include an ex-officio member from the Contra Costa Transportation Authority and the Alameda County Transportation Commission. The TVTC TAC shall meet monthly or more frequently as needed.

   b. Duties

   The TAC will provide oversight over the operation of the Agency by providing input and feedback on Regional Transportation Planning/Policy Documents, such as Tri-Valley Transportation Council Action Plan, Contra Costa and Alameda County Regional Transportation Plans, and similar Documents. The TAC shall make recommendations to the TVTC Board and provide staff support to the TVTC Administrator for preparation of the annual TVTC operating budget, SEP updates, Planning Studies, and RFPs.

   Each Member shall have one vote on the TAC. The TAC shall meet on a monthly basis as agreed upon by TAC members. The TAC shall confer with the TVTC Administrator for Board meeting agendas.

7. TVTC Finance Committee

   a. Designation

   The TVTC shall designate a Finance Committee. The Finance Committee is a sub-committee of the TVTC Board and will consist of three Members of the Board. The Committee will meet as needed.

   b. Duties

   The Finance Committee will provide oversight and guidance through policy level direction and input on financial items, such as the operating budget, review of financial reporting documents, investments, contracts, long term financing and/or other items requiring fiscal policy direction and input.

Recommendations made by the Finance Committee may be bought forward to the full Board for approval, if so directed by the Committee.

D. MEETINGS

1. Regular Meetings

The TVTC shall hold meetings every third month on the third Monday of the month, which shall begin at 4:300 p.m. The TVTC may adopt an alternate meeting schedule or reschedule a meeting that falls on a legal holiday, or as needed.

2. Special Meetings

Special meetings may be called at any time by the Chair or a majority of the TVTC members by doing all of the following: (1) delivering personally, by e-mail or by mail, written notice to each TVTC member, and (2) by posting the written notice personally or by mail to each local newspaper of general circulation, radio station and television station which has made written request for such notice. Such notice must be delivered and posted at least twenty-four (24) hours before the time of such meeting as specified in the notice. The notice shall specify the time and place of the special meeting and the business to be transacted. No other business shall be considered at such meetings. Such written notice may be dispensed with, as to any TVTC member who, at or prior to the time the meeting convenes, files with the Administrative staff a written waiver of notice.

3. Location of TVTC Meetings

All regular and special meetings of the TVTC shall be held at the administrative offices of the Chair's jurisdiction or at such other location within the jurisdiction of the TVTC as the Chair or TVTC shall designate.

4. Meetings to Be Public

All regular, adjourned, and special meetings of the TVTC shall be open and public, provided, however, the TVTC may hold closed sessions from which the public may be excluded for the consideration of those matters permitted by state law pursuant to the Ralph M. Brown Public Meeting Act (the "Brown Act") (Government Code section 54950 et seq.).

No member of the TVTC, TVTC staff, or any other person present during a closed session of the TVTC shall disclose to any person the content or substance of any discussion that took place during said closed session without prior authorization by a majority vote of the TVTC. A TVTC member who is found by the TVTC to have made disclosure in violation of the foregoing provisions shall be subject to either or both (i) motion of censure,

or (ii) removal from any one or more of the offices which he or she holds by reason of election or appointment by the TVTC, such as Chair, Vice Chair, representative of the TVTC on an outside TVTC or commission, or membership on a TVTC committee.

5. Quorum; Special Quorum Requirements

A quorum means the presence of the TVTC members representing five or more of the Members. Actions of the TVTC require a quorum present and, except as provided below, a majority vote of the members present. Where there is no quorum, the TVTC may proceed to hear informational items, following which the Chair, Vice Chair, or any TVTC member shall adjourn such meeting, or, if no TVTC member is present, the TVTC Administrator shall adjourn the meeting.

For certain actions specified in the JEPA, the TVTC will use a simple majority, supermajority of five, or supermajority of six voting procedure as described in Section 3.d of the JEPA.

6. Agenda

An agenda shall be prepared for each regular meeting that lists the specific items of business to be transacted and the order thereof. Items of business may be placed on the agenda by any TVTC member, Administrative staff, or the General Counsel. All reports, ordinances, resolutions, contract documents, and other matters to be submitted to the TVTC at a regular meeting shall be delivered to the Administrator no later than 5:00 p.m., five (5) business days prior to the meeting. The Administrator shall prepare the agenda of all such matters according to the order of business, numbering each item consecutively. A complete copy of the agenda shall be sent to each TVTC member in time to reach the recipient not later than 5:00 p.m. three (3) business days prior to each regular TVTC meeting. The Administrator shall exclude from public dissemination any reports or information related to closed session matters.

7. Additions to Agenda

No matters shall be finally acted upon by the TVTC unless they are included on the posted agenda; provided, however, items of business not appearing on the posted agenda may be considered pursuant to applicable Brown Act provisions.

8. Order of Business

The business of the TVTC at each regular meeting shall be taken up for consideration and disposition in the following order:

1. Call to Order
2. Roll Call
3. Public Comment
4. Approval of Meeting Minutes
5. Oral Communication
6. Old Business
7. New Business
8. Other Business/Announcements
9. Adjournment

The Chair, in the absence of any objection by the TVTC members, or a majority vote of the TVTC, may change the order of business at any time during the meeting; furthermore, the TVTC may set hearings for a specific time and such hearing shall begin at the stated time, or as soon thereafter as possible.

9. Official Action of the TVTC

The TVTC shall take official action by ordinance, resolution or minute order.

E. ADDRESSING THE TVTC

1. Right to Address TVTC

Any person has the right to address the TVTC during consideration of any item on the TVTC's agenda or during the time for public comment if the subject matter is not on the agenda but pertains to that within the jurisdiction of the TVTC.

2. Time Limitation

The Chair or a majority of the TVTC may limit the time speakers may have to make oral presentations or offer public comment to the TVTC. In the event that more than one person makes such a request on any one item of business, the Chair may forthwith designate a reasonable time limit for it. When any group of persons wishes to address the TVTC on the same subject matter, it shall be proper for the Chair or TVTC to inquire whether or not the group has a spokesperson, and if so, to direct that the spokesperson be heard first, with the subsequent speakers in the group limited to information not already presented by the spokesperson.

F. RULES OF PARLIAMENTARY PROCEDURE AND DEBATE

1. Call to Order

The Chair, or in his/her absence, the Vice Chair, shall take the chair at the appointed hour for the meeting, and shall call the TVTC to order. In the absence of the Chair and the Vice Chair, and the failure of the Chair to appoint a temporary Chair, the Administrator shall call the TVTC to order, whereupon a temporary Chair will be elected by the members present. If the Chair or Vice Chair should arrive after the meeting is called to order, the temporary Chair shall serve until the disposal of the item then under consideration after which the Chair or Vice Chair shall assume the chair. In no event shall the temporary Chair serve beyond adjournment.

2. Roll Call

Before proceeding with the business of the TVTC, the Administrator shall call the roll of the TVTC members, and the names of those present, absent or excused shall be entered in the minutes.

3. Reading of the Minutes

Unless the reading of the minutes of a TVTC meeting is requested by a majority of the TVTC, such minutes may be approved without reading as part of the consent calendar if the Administrator has previously furnished each TVTC member with a copy.

4. Chair May Debate and Vote

The Chair may move, second and debate from the Chair, subject only to such limitations of debate as are, by these rules, imposed on all TVTC members and shall not be deprived of any of the rights or privileges of TVTC members by reason of his/her acting as Chair.

5. Obtaining the Floor

Any TVTC member desiring to speak shall address the Chair, and upon recognition by the Chair, shall confine him/herself to the question under debate.

6. Decorum

While the TVTC is in session, the TVTC members and members of the public must preserve and observe order and decorum, and no person shall, by conversation or otherwise, delay or interrupt the proceedings or the orderly conduct of the meeting, nor disturb any TVTC member while speaking, or refuse to obey the orders of the TVTC or of the Chair, except as otherwise herein provided. When necessary to enforce decorum, the

Chair or the TVTC itself may order a person removed from the public meeting, or the public meeting may be recessed or closed pursuant to state law.

7. Interruptions

A TVTC member, once recognized, shall not be interrupted when speaking unless (a) called to order by the Chair, (b) a point of order or personal privilege is raised by another TVTC member, or (c) the speaker chooses to yield to a question by another TVTC member. If a TVTC member, while speaking, is called to order, he/she shall cease speaking until the question of order is determined and, if determined to be in order, he/she may proceed.

8. Points of Order

Only a TVTC member, the Administrator or the legal counsel may raise a point of order. Points of order shall be limited to cases where the discussion or debate on the floor does not pertain to the item of business before the TVTC at the time or is in violation of any of the provisions of these rules of parliamentary procedure and debate.

9. Personal Privilege

The right of a TVTC member to address the TVTC on a question of personal privilege shall be limited to cases in which his/her integrity, character or motives are questioned or where the comfort or welfare of the TVTC, staff and audience are concerned. A TVTC member raising a point of personal privilege may interrupt another TVTC member who has the floor, subject only to the power of the Chair to call him/her out of order.

10. Call for the Question

A call for the question is a motion to halt debate on a motion before the TVTC. A TVTC member calling for the question must receive a second to his/her motion. A properly moved and seconded call for the question must be voted on immediately and is not debatable. If the motion calling for the question passes by a two-thirds vote, then the motion before the TVTC on which the question was called must be voted on immediately without further debate.

11. Recognition of the TVTC Staff and Technical Advisory Committee

Members of the TVTC staff and TAC, after recognition by the Chair, shall hold the floor until completion of their remarks or until recognition is withdrawn by the Chair.

12. Failure to Vote

A TVTC member who fails to vote without stating his/her abstention or without being disqualified shall be deemed to have cast a "yes" vote.

13. Change of Vote

A TVTC member may change his/her vote only if he/she makes a timely request during the TVTC meeting at which the vote was taken and provided said change does not affect the outcome of the vote.

14. Reconsideration of Prior Action

A motion to reconsider a vote on an action shall be in order at the same meeting or the next following meeting from which said action was taken. Any final action taken on a quasi-judicial or administrative matter shall not be subject to a motion for reconsideration. Such motion may be made only by a TVTC member who has previously voted with the majority on the matter. Tie votes shall be lost motions and the underlying matter may be reconsidered.

15. Failure to Observe Rules of Order

Rules adopted to expedite the transaction of the business of the TVTC in an orderly fashion are deemed to be procedural only, and the failure to strictly observe such rules shall not affect the jurisdiction of the TVTC or invalidate any action taken at a meeting that is otherwise held in conformity with law.

16. Robert's Rules of Order

As to the determination of a procedural issue not specifically addressed by these Rules, the TVTC will be guided by Robert's Rules of Order.

G. MINUTES

1. Preparation of Minutes

The minutes of the TVTC meetings shall be prepared by the Secretary. The Secretary shall be required to make a record only of such business as was actually passed upon a vote of the TVTC, and shall not be required to make a verbatim transcript of the proceedings. The minutes shall include a record of the names and cities of residence of the persons addressing the TVTC,

the subject matter to which their remarks related, and, if relevant, whether they spoke in support of or in opposition to such matter.

2. Remarks of TVTC Members

A TVTC member may request, through the Chair, the privilege of having an abstract of his/her statement of any subject under consideration by the TVTC entered into the minutes. If the TVTC consents thereto, such statement shall be included in the minutes.

3. Protest Against TVTC Action

Any TVTC member shall have the right to have the reasons of his/her dissent from or his/her protest against any action of the TVTC entered in the minutes.

4. Synopsis of Debate

The Secretary may be directed by the Chair, with the consent of the TVTC, to enter in the minutes a synopsis of the discussion on any question coming regularly before the TVTC.

5. Delivery of Minutes

As soon as possible after each TVTC meeting, but no later than 72 hours before the next TVTC meeting, barring any emergency situation, the Secretary shall cause a copy of the minutes thereof to be forwarded to the TVTC members, the legal counsel, and such other staff members, agencies or persons as may be designated by the TVTC or that may have specifically requested such in writing.

6. Electronic Recordings

The Secretary may electronically record all TVTC meetings, when possible, except closed sessions, to assist the Secretary in preparation of the minutes, and will retain the recordings for at least two (2) years. Said recording files shall not be an official TVTC record, but shall be available to the public upon request.

7. Public Access to Minutes and Recordings

At least one copy of the minutes of each TVTC meeting and, if one exists, at least one copy of the electronic recording of each TVTC meeting shall be maintained by the Secretary for said two-year period, in such a manner as to be readily available for inspection by the residents of the jurisdiction of the TVTC or their authorized representatives, subject only to whatever

reasonable conditions the Secretary may require to avoid excessive interferences with the TVTC business or misuse and destruction of TVTC property.

8. Storage of the Minutes

The official copy of the TVTC minutes and electronic recording shall be stored in the administrative offices of the TVTC, or such other depository as may be designated by the TVTC.

H. MISCELLANEOUS PROVISIONS

1. Annual Administrative Budget

The TVTC shall adopt a budget for administrative costs annually prior to July 1 of each year. The TVTC may revise the budget from time to time within a fiscal year. The TVTC may not approve a deficit spending administrative budget in any fiscal year nor may the TVTC make any unbudgeted expenditures. The adoption of an annual administrative budget, or any revisions, shall require a vote of a supermajority of five.

2. Project Expenditures

The TVTC may approve the expenditure of funds for projects in the Strategic Expenditure Plan ("SEP") at any time during the year. Only projects that are in the current approved SEP may receive funds. Approval of funds for projects on the current SEP shall require a majority vote.

3. Agency Expenditures

All expenditures of funds shall be set forth through the adoption of an annual TVTC Administrative Budget. Expenditures consistent with the annual administrative budget will require the following signature authority:

a. Up to $10,000 may be authorized by the Administrator;
b. From $10,001 and up to $25,000 may be authorized by the joint signature of the TVTC Chair and Vice Chair;
c. Over $25,000 must be approved by Resolution of the TVTC.

Prior to expending funds, or entering into contracts, in excess of $5,000, the TVTC shall utilize a Request for Qualification and/or Proposal solicitation process.

4. Treasurer as Depository

The Treasurer is the custodian of the TVTC's funds.

5. Administrator as Custodian

The TVTC Administrator is designated as property custodian of the TVTC.

6. Audit

At the close of each fiscal year, an audit of the accounts and records of the TVTC shall be made in accordance with Section 6505 of the Act. Any costs of the audit, including contracts with, or employment of, certified public accountants, shall be borne by the TVTC and shall be a charge against any unencumbered funds of the TVTC.

7. Conflict of Interest Code

The TVTC shall adopt a Conflict of Interest Code in compliance with the Political Reform Act (Cal. Government Code Section 81000 et seq.).

8. Insurance

The TVTC shall procure and maintain, for the duration of the agency, insurance against claims for injuries to persons or damage to property which may arise from, or in connection with the Council's operations or performance under the terms of the JEPA. The cost of such insurance shall be borne by the TVTC. The TVTC shall adopt an insurance policy and update it annually.

a. Minimum Scope of Insurance: Coverage shall be at least as broad as:

    i. Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001).

    ii. Insurance Services Office form number CA 0001 covering Automobile Liability, code 1 (any auto).

iii. Workers' Compensation insurance as required by the State of California and Employer's Liability Insurance.

iv. Directors and Officers Liability Insurance

b. Minimum Limits of Insurance: TVTC shall maintain limits no less than:

i. General Liability, including operations, products and completed operations, as applicable:

$1,000,000 per occurrence for bodily injury, personal injury and property damage. If Commercial General Liability Insurance or other form with a general aggregate limit is used, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

ii. Automobile Liability:

$1,000,000 per accident for bodily injury and property damage.

iii. Employer's Liability:

$1,000,000 per accident for bodily injury or disease.

iv. Directors and Officers Liability:

$1,000,000 per claim.

c. Acceptability of Insurers: Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A: VII, unless otherwise acceptable to the TVTC.

d. Other Insurance Provisions: The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

i. The Tri-Valley Transportation Council, each member agency and their respective boards of supervisors, city councils, officers, officials, employees and designated volunteers are to be covered as insureds as respects: liability arising out of activities performed by or on behalf of the TVTC; or automobiles owned, leased, hired or borrowed by the TVTC. The coverage shall contain no special limitations on the scope of protection afforded to the Tri-Valley Transportation Council, including each member agency and their respective officers, officials, employees and designated volunteers

ii. For any claims related to the TVTC. The TVTC insurance coverage shall be primary insurance with respect to the TVTC, including each member agency and their respective officers, officials, employees and designated volunteers. Any insurance or self-insurance maintained by any of the member agencies and their respective officers, officials, employees and designated volunteers shall be excess of the TVTC's insurance and shall not contribute with it.

iii. Any failure to comply with reporting or other provisions of the policy including breaches of warranties shall not affect coverage provided to the Tri-Valley Transportation Council, including each member agency and their respective officers, officials, employees and designated volunteers.

iv. The TVTC's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

v. Each insurance policy required by this clause shall be endorsed to state that coverage shall not be canceled by either party, except after 30 days' prior written notice by certified mail, return receipt requested, has been given to the TVTC.

e. Verification of Coverage: TVTC shall furnish to each member agency certificates of insurance and endorsement(s) effecting coverage to TVTC. The endorsements shall be on forms acceptable to the TVTC. The TVTC shall provide complete, certified copies of all insurance policies required by this section to each member agency upon request.