

# Resolution

## Exhibit 1

2003 Development Program Report (with 2009 Update)



2003 Development Program Report (with 2009 Update) for the  
Tri-Valley Transportation Development Fee Area of Benefit

ADOPTED BY BOARD OF SUPERVISORS  
ON \_\_\_\_\_

2003 DEVELOPMENT PROGRAM REPORT (WITH 2009 UPDATE)

FOR THE

TRI-VALLEY TRANSPORTATION DEVELOPMENT FEE AREA OF BENEFIT

PROVIDING FUNDING FOR CONSTRUCTION OF

REGIONAL TRANSPORTATION IMPROVEMENTS

IN THE TRI-VALLEY AREA

PREPARED PURSUANT TO SECTION 913

COUNTY ORDINANCE CODE

Prepared by:

CONTRA COSTA COUNTY

PUBLIC WORKS DEPARTMENT AND DEPARTMENT OF CONSERVATION AND  
DEVELOPMENT, COMMUNITY DEVELOPMENT DIVISION

October 2009



DEVELOPMENT PROGRAM REPORT FOR  
THE TRI-VALLEY TRANSPORTATION DEVELOPMENT FEE  
AREA OF BENEFIT PURSUANT TO THE BRIDGE CROSSING  
AND MAJOR THOROUGHFARES FEE AREA POLICY

**INTRODUCTION AND PURPOSE**

The Tri-Valley Transportation Development (“TVTD”) Fee is a uniform fee on development to fund transportation improvements in the Tri-Valley area, both in Contra Costa County and in Alameda County. The Tri-Valley area consists of the San Ramon Valley, Livermore Valley and Amador Valley. Within this area are portions of southern Contra Costa County and northern Alameda County and the cities of San Ramon, Livermore, Pleasanton and Dublin and the Town of Danville, which collectively comprise the Tri-Valley Development Area. The approximate boundary of the Tri-Valley Development Area is shown in Exhibit A.

This Development Program Report (“DPR”) is required by the Contra Costa County Board of Supervisors’ Policy on Bridge Crossings and Major Thoroughfare Fees (adopted July 17, 1979), which implements Division 913 of the County Ordinance Code and Section 66484 of the State Subdivision Map Act.

The April 22, 1998, “Joint Exercise of Powers Agreement Pertaining To Tri-Valley Transportation Development Fee for Traffic Mitigation” (“TVTD JEPA”) is an agreement among the County of Contra Costa (“County”), the Town of Danville, the City of San Ramon, the City of Pleasanton, the City of Dublin, the City of Livermore, and the County of Alameda. The TVTD JEPA established a framework for the enactment of the TVTD Fee by the participant jurisdictions within the Tri-Valley Development Area. This DPR details the basis for collection of the TVTD Fee in the County. The County’s ordinance will apply only to new development within the Tri-Valley Development Area and within the unincorporated areas of the County, an area known as the Tri-Valley Transportation Development Fee Area of Benefit (“TVTD Fee AOB”). The TVTD Fee AOB is generally shown in Exhibits B and C and specifically described in Exhibit D. Similar ordinances will be or already have been adopted by the other parties to the TVTD JEPA.

One of the objectives of the County General Plan and of the TVTD JEPA is to relate new development directly to the provision of facilities necessary to serve that new development. Accordingly, development cannot be allowed to occur unless a mechanism is in place to provide the funding for the infrastructure necessary to serve that development. The TVTD Fee serves to collect funds to construct regional road improvements to serve new residential, office, commercial/retail, industrial, and other developments. Requiring that all new developments pay a regional road improvement fee will ensure their participation in the



cost of improving the regional road system.

Each new development or expansion of an existing development will generate additional traffic. Where the existing regional road system is inadequate to meet future needs based on new development, improvements are needed to meet the new demand. The purpose of this development program is to determine improvements that will ultimately be needed to serve estimated future development throughout the Tri-Valley Development Area and to require developers to pay a fee to help fund these improvements. Because the TVTD Fee is based on the relative impact on the road system and the costs of the necessary improvements to mitigate this impact, the fee amount is roughly proportional to the development impact. This DPR discusses the basis of that fee amount.

## **BACKGROUND**

In 1991, the County entered into a Joint Powers Agreement (“JPA”) with the County of Alameda, the Town of Danville, and the cities of Dublin, Livermore, Pleasanton and San Ramon. This JPA created the Tri-Valley Transportation Council (“TVTC”). The purpose of the JPA was to provide for a transportation plan and provide a forum for the review and coordination of planning and implementation of transportation facilities in the Tri-Valley Development Area.

The Association of Bay Area Governments (“ABAG”) forecasts that by the year 2020, the Tri-Valley Development Area will contain an additional 157,000 new residents, 58,000 new households and 121,000 new jobs. The traffic impact from these new residential units and commercial uses, as well as additional development beyond the year 2020, will adversely affect the quality of life for the existing residents in the Tri-Valley Development Area unless those regional impacts are mitigated by off-site street improvements.

The TVTC adopted the Tri-Valley Transportation Plan/Action Plan (“Action Plan”) in April 1995. The Action Plan contains 11 specific regional transportation improvements to be given high priority for funding and implementation. These 11 projects are listed in Exhibit E of this DPR. A Tri-Valley Regional Transportation Improvement Fee Program Nexus Analysis (“Nexus Analysis”), attached hereto as Exhibit F and incorporated herein by this reference, was then prepared to calculate and provide the legal justification for the TVTD Fee, which would be used to help fund the 11 projects. In 1997, based on this analysis, the TVTC recommended the adoption of a uniform development fee.

In 1998, the JPA members entered into the TVTD JEPA to establish a framework for the enactment by each member jurisdiction of the TVTD Fee and to establish mechanisms for collecting, managing and disbursing the TVTD Fee. Simultaneously with its approval of the TVTD JEPA in August 1998 the County Board of Supervisors (“Board”) adopted a





Development Program Report pertaining to the TVTD Fee and adopted Ordinance No. 98-35 and Urgency Ordinance No. 98-36, the latter of which allowed for immediate collection of the TVTD Fee and was effective for 30 days. In September 1998 the Board passed Urgency Ordinance No. 98-41, which extended the initial urgency ordinance for 30 days. On October 10, 1998, Ordinance No. 98-35 became effective to provide a mechanism for collection of the TVTD Fee on developments in the TVTD Fee AOB.

State law allows the jurisdictions participating in the TVTD Fee Program to establish a fee on all new development within the Tri-Valley Development Area which could finance all or a portion of the proposed improvement projects. The Mitigation Fee Act (Gov. Code, § 66000 et seq.) requires that certain nexus findings be made by public agencies before such a fee may be established, increased, or imposed on development projects. (Gov. Code, § 66001.)

Recently, the TVTC voted to increase the current fees to meet recent unexpected increased costs to construct traffic mitigation improvements pending completion of a new nexus study. The above-referenced Nexus Analysis provides the technical basis for establishing the required nexus between the anticipated future development in the TVTD Fee AOB and the proposed transportation facilities. This DPR addresses the bridges/major thoroughfare projects described in the Nexus Analysis. A separate analysis of those projects is necessary pursuant to Government Code section 66484, Division 913 of the County Ordinance Code and the above-referenced Board Policy. Government Code section 66484 authorizes local agencies to adopt ordinances to require, as a condition of approval of a final map or as a condition of issuing a building permit, the payment of fees to defray the cost of constructing bridges and major thoroughfares.

## **AREA OF BENEFIT LOCATION**

Exhibit A shows the general boundary of the Tri-Valley Development Area. Exhibits B and C show the general boundary of the TVTD Fee AOB, which encompasses the unincorporated areas of Contra Costa County that are located within the Tri-Valley Development Area. A legal description of the TVTD Fee AOB is given in Exhibit D. The TVTD Fee imposed by the County will be collected only within the TVTD Fee AOB.

## **NEXUS FINDINGS (GOV. CODE, § 66001)**

### 1) PURPOSE OF THE FEE

The purpose of the TVTD Fee is to generate monies that, along with other funding sources, will help ensure the roadway network will serve current and future



transportation needs. Adoption of the TVTD Fee will help fund the improvements to keep pace with traffic generated by new developments.

## 2) USE OF THE FEES

The fees will be used to pay for the bridges/major thoroughfares type projects identified in Exhibits E and F. The fees will also be used to pay for the expenses incurred in the development and administration of this fee.

Amenities that do not have a direct effect on capacity and safety, such as general lighting, extensive longitudinal storm drain systems, and sidewalks are not included in the TVTD Fee program. These improvements are considered frontage improvements by the Board, and as such are the responsibilities of the owners of the adjacent properties. As the fronting properties develop, the frontage improvements may be provided by developers through conditions of approval, or by other future means such as additional fees or assessment districts.

The fees collected will be used for project development activities, including planning and design studies, preparation of environmental reports, and acquisition of right of way. The fees may be used to reimburse agencies that advance funds for the project from other funding sources. These fees will also pay for some administrative expenses incurred in developing and administering the fee program.

## 3) RELATIONSHIP BETWEEN USE OF FEES AND TYPE OF DEVELOPMENT PROJECT ON WHICH FEE IS IMPOSED

The TVTD Fee will be used to provide for improvements required by growth projection to maintain the current traffic level of service. The improvements are necessary for the improvement of the capacity and safety of the road network service in the Tri-Valley Development Area as determined by future growth allowed for in the General Plan for each jurisdiction. The County's road network is outlined in the Circulation Element of the County General Plan.

All new development in the Tri-Valley Development Area will contribute additional traffic to the road network within that area, generally and specifically to the locations of the improvements. The growth in the Tri-Valley Development Area will comprise different types of land uses, which may include single-family and multi-family residential, office, industrial, commercial/retail, and other uses. The amount of new traffic generated will be different for each type of development. Each type of development project will have a different level of impact on the location of the



improvements and the fee must be proportional to that impact.

The traffic generated by each type of development is determined based on a trip generation factor that has been designated for each of the various land uses outlined in the Nexus Analysis and this DPR. These factors for each type of land use were determined using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 5th Edition (Trip Generation Manual) and projections by ABAG of household and employment growth in the Tri-Valley Development Area between 1997 and 2010. The trip generation factors (i.e., X number of peak-hour vehicle trips per 1,000 square feet of commercial space) are then applied to the units or square footage of growth expected for each land use type to forecast the number of vehicle trips that will be generated by each land use type in the horizon year, which in this case is 2010. The cost of the planned transportation improvements is then apportioned among each land use type. This methodology allocates fees to the types of land use proportional to the amount of new traffic generated in the Tri-Valley Development Area by that land use. As a result, the proposed fees to be collected for the specified improvements are based on these factors and, therefore, are directly related to the traffic impacts of each particular land use category. This methodology ensures that the fees collected from new development in each of the land use categories are used to fund the improvements in proportion to the amount of new traffic that is generated based on the type of land use.

4) RELATIONSHIP BETWEEN NEED FOR ROAD IMPROVEMENTS AND TYPE OF DEVELOPMENT PROJECT ON WHICH FEE IS IMPOSED

As discussed in Section (3) above, a trip generation rate has been designated for each type of development outlined in the Nexus Analysis and this DPR. These factors are industry standards obtained from the ITE Trip Generation Manual. As a result, the proposed fees are directly related to traffic generated by each particular land use category.

The TVTD Fee is based on distributing the cost of the improvements to new development in proportion to the number of peak hour trips generated by the particular type of new development. All new development that generates new traffic will create an impact to the road network. Additional traffic from the new development projects on which the fee will be imposed will contribute to the need for the improvements. The different categories of land use generate different amounts of peak hour trips and therefore have different levels of impact on these roads and create a different level of need for the road improvement projects. The fees are calculated to ensure that each type of land use category pays a fee that is in proportion to the new traffic that is generated by a specific type of development.



It is recognized that existing traffic and growth outside the Tri-Valley Development Area also contribute to the need for the road improvement projects. New development in the Tri-Valley Development Area will only be assessed for a portion of costs relative to their impact. This share was determined based on the rate of growth in the Tri-Valley Development Area. Therefore, the fees generated by this program will only fund the portion of the road improvement projects attributed to new growth within the Tri-Valley Development Area.

The analysis is performed on a regional level, using the entire Tri-Valley Development Area as the study area. Traffic analysis was not performed on a jurisdiction by jurisdiction basis, only on a region-wide basis, as this permits the establishment of a uniform regional fee. These uniform regional fees have been in place in Contra Costa County since the mid-1990's.

The traffic performance indicator used in the Nexus Analysis is vehicle miles of travel (VMT). VMT is defined as the movement of one privately operated vehicle for one mile, regardless of the number of people in the vehicle. This is a commonly used statistic to perform this type of traffic analysis. VMT is calculated by multiplying the average daily traffic by the roadway segment length. The Nexus Analysis indicates that, when constructed, the proposed projects will increase the capacity for VMT by nearly 21%, with traffic generated by new development within the Tri-Valley Development Area, including the TVTD Fee AOB, utilizing 99% of such increased capacity.

The improvements described in the Nexus Analysis will provide benefits to the unincorporated County areas within the Tri-Valley Development Area. For example, the peak hour travel time along I-680 between Stone Valley Road and Crow Canyon Road will decrease due largely to the planned I-680 Auxiliary Lanes Project – Segment 2, project 3, which adds an additional auxiliary lane in each direction between the Sycamore Valley Road interchange to the Crow Canyon Road interchange on I-680. This project is expected to begin construction in 2011 with completion expected in 2013.

The improvements included in the TVTD Fee program are also projected to improve evening peak hour travel through the intersection of Danville Boulevard and Livorna Road. Since the TVTD Fee program does not include an improvement project at this particular intersection, the forecasted improvement in traffic flow is attributable to the effects of other projects elsewhere on the road network, including those in the TVTD Fee program. Thus, the program improvements are needed to provide additional capacity for future growth in two ways: (1) direct relief of congestion on regional routes, and (2) subsequent relief in congestion on local collectors as





improved flow on the regional routes reduces overflow onto the local collectors.

Congestion on Vasco Road in the unincorporated County area due to accident-related backups will be reduced by the Vasco Road Safety Improvement Project, project 10. Among improvements included with this project, the installation of a median divider on an accident-prone segment of Vasco Road in Alameda County will eliminate cross-median collisions. This will reduce the resulting lengthy traffic backups in the wake of these collisions. This benefit will apply to Vasco Road motorists both in the Alameda County and Contra Costa County portions of the road since it is a continuous, uninterrupted road through both counties and the backups from serious accidents can extend across the County line.

Similarly, accident-related congestion on Crow Canyon Road in unincorporated County will be reduced due to the Crow Canyon Road Safety Improvement Project, project 9, for similar reasons as the Vasco Road situation noted above. Backups can extend across the County line and therefore, although these projects are located within Alameda County, they will provide benefits to County motorists.

Traffic analysis has shown that unincorporated County households generate vehicle trips that use I-680, I-580, Vasco Road, and Crow Canyon Road. Traffic conditions on all of these regional routes will benefit from the transportation improvements analyzed in the Nexus Study.

The concept of an area of benefit is the equitable distribution of road improvement costs to new development from which future traffic impacts will arise. Since traffic impacts from development are directly related to the total number of new vehicles on the road network, we are able to relate road development fees for the identified needed road improvements to the number of vehicle trips associated with a particular category of development. The categories for which a fee will be assessed in the Tri-Valley Development Area are single-family and multi-family residential, office, industrial, commercial/retail, and "other". The total estimated Tri-Valley Development Area share of the project costs is divided by the number of peak hour trips generated by each category.

5) RELATIONSHIP BETWEEN AMOUNT OF FEE AND COST OF THE ROAD PROJECTS ATTRIBUTABLE TO THE DEVELOPMENT PROJECTS ON WHICH THE FEE IS IMPOSED

The TVTD Fee applies to unincorporated areas of the County within the Tri-Valley Development Area. The traffic impacts to the entire Tri-Valley Development Area, including the unincorporated areas, were evaluated in the Nexus Analysis. Forecasts of future traffic volumes throughout the Tri-Valley Development Area, as



included in the VMT analysis, were made to provide the data needed to establish a reasonable relationship between new development's traffic impacts and the need for and costs of the improvements. Using the VMT forecasts and the estimated cost of the improvements, the portion of the estimated project costs that can reasonably be connected with the need generated by the projected new development was calculated. As discussed in Section (4) above, the costs of the improvements to correct existing deficiencies and the cost of the improvements associated with the impacts from growth in the greater regional traffic will not be funded by the TVTD Fee. Therefore, new development in the Tri-Valley Development Area, including the TVTD Fee AOB, will only be assessed fees for the portion of the cost of the improvements relative to the traffic impact attributable to the new development.

The Nexus Analysis shows that, if all of the improvements were completed by the year 2010, the Tri-Valley Development Area's capacity for VMT would increase by nearly 21 percent. New development within the Tri-Valley Development Area, including the TVTD Fee AOB, will account for nearly 90 percent of the increase in VMT, thus absorbing almost 99 percent of the new capacity provided for by the proposed improvements. This means that new development will not be charged impact fees to resolve congestion problems that already exist; it will only be charged fees to address congestion that will result from new development.

In addition, the TVTC has determined that a fee program designed to fund the full-share contribution from new development would result in an excessive financial burden on new development. Thus, the proposed funding structure provides for a reduction in the unfunded project cost that TVTC intends to cover with the impact fee. Recognizing the resulting limit in funding revenue, the TVTC technical advisory committee selected six projects on the program list to receive funding priority. The six projects selected provide a balance to all jurisdictions to assure that benefits are distributed in a balanced manner throughout the Tri-Valley Development Area, including the TVTD Fee AOB.

## **GENERAL PLAN RELATIONSHIP**

The basis for the TVTD Fee is consistent with the features of the County General Plan and its amendments and subscribes to the policies of the General Plan elements. The General Plan policies include, but are not limited to, improving the County roadway network to meet existing and future traffic demands. Establishing and charging new development the TVTD Fee will assist in funding the necessary improvements required for future growth that are generally shown in the General Plan.

The fees will not be used to help finance improvements to state highways including freeways, not just local surface streets. The Contra Costa County General Plan includes



freeways in its Transportation and Circulation Element as part of the General Plan Roadway on Transit Network. The Transportation and Circulation Element also states the County shall work with Caltrans to establish commuter lanes on new and expanded freeways and state highways and that the County shall work with cities to establish regional funding mechanisms to fund improvements to the Roadway and Transit Network in the General Plan. The funding mechanisms “may include sales taxes, gas taxes, or fees on new development” (Contra Costa County General Plan page 5-16 item 5-f).

The County General Plan and its various elements are available for review at the Department of Conservation and Development, Community Development Division, County Administration Building, 651 Pine Street, Martinez, during regular office hours.

## **IMPROVEMENTS**

The Nexus Analysis identifies the projects that will help provide the capacity and safety improvements needed to serve the estimated potential development and future traffic volumes on the arterial roads within the Tri-Valley Development Area.

The Nexus Analysis identifies a total of 11 projects. The improvements proposed for the Tri-Valley Development Area will be reviewed periodically to assess the impacts of changing travel patterns, the rate of development, the accuracy of the estimated project costs, and to evaluate project priority and the need to increase fees should project costs increase or exceed the rate of inflation.

## **ROAD NETWORK CAPACITY IMPROVEMENT PLAN**

The road network capacity improvement program was developed using the Association of Bay Area Government’s (ABAG) estimate of development potential in the Tri-Valley Development Area. Eleven projects were identified as necessary to accommodate the continued growth in the area. These projects are listed in Exhibit E. The road improvements will be funded and constructed in conjunction with the development of property within the Tri-Valley Development Area. The rate of revenue generated by the TVTD Fee and the timing of the construction of the listed projects are dependent on the rate of new development.

As previously noted, the proposed projects are only partially funded by the TVTD Fees. This is due in part to the fact that traffic generated outside of the Tri-Valley Development Area contributes to the need for these proposed improvements. Other sources of funding, such as State or Federal aid, or local sources such as sales tax or gas tax, will be pursued to fund the balance of the projects’ costs.



**DEVELOPMENT POTENTIAL WITHIN THE TRI-VALLEY DEVELOPMENT AREA**

The development potential in the Tri-Valley Development Area was estimated in the Nexus Analysis using ABAG socio-economic forecasts. A summary of the potential new residential dwelling units and commercial, office, and industrial development is shown in Table 1.

<b>Table 1</b>	
<b>Development Potential in the Tri-Valley Development Area (1997-2010 Growth)</b>	
<u>Category</u>	<u>Floor Area Or Units</u>
Single-Family Residential	34,597 Dwelling Units
Multi-Family Residential	6,105 Dwelling Units
Small Retail (less than 200,000 square feet)	8,848,040 Square Feet
Large Retail (more than 200,000 square feet)	2,949,347 Square Feet
Office	9,152,200 Square Feet
Industrial	5,396,500 Square Feet

**ESTIMATED COST OF IMPROVEMENTS**

The estimated cost of the improvements planned in the Tri-Valley Development Area is shown in Exhibit E. The TVTD Fee will only finance the proportional share of the improvements necessitated by the impact on the road system from new development, as shown on page 10 of the Nexus Analysis.

In addition to the fees listed in Table 2, the County will assess an administrative fee equal to 1% of the program revenue. This additional fee will be used to cover County staff time for fee collection, accounting, technical support to the community groups, traffic advisory





committees and other administrative tasks.

### **BASIS FOR FEE APPORTIONMENT**

The concept of an area of benefit is the equitable distribution of road improvement costs to new development from which future traffic impacts will arise. As traffic impacts are directly related to the total number of vehicles on the road network, we are able to relate development road fees to the number of vehicle trips associated with a particular category of development. To summarize, the six categories of land use for which a fee will be assessed in the TVTD Fee Area, are as follows: Single-Family Residential, and Multi-Family Residential, Commercial/Retail, Office, Industrial, and an "Other" category for developments that do not fit neatly into any of the five specified categories. Developments in the "Other" category will pay an amount based on the number of peak hour trips generated by the development. The total estimated TVTD Fee share of the project costs is divided by the total number of peak hour trips generated by all of these land use categories to determine a cost per peak hour trip.

The costs are then distributed based on a peak hour trip rate. For the residential categories, the cost is distributed among all dwelling units. In the non-residential categories, the cost is distributed per square foot of gross floor area. For the "Other" category, the fee would be based on the number of peak hour trips generated by the particular type of development. A traffic study prepared by a licensed engineer, reviewed and approved by the Public Works Department, or an analysis completed in accordance with the latest revision of the Institute of Traffic Engineers Trip Generation Manual, may be required to analyze the project's impact during the peak traffic hours. The project would then be charged the peak hour trip rate for the TVTD Fee multiplied by the number of peak hour trips identified by one of the methods above.

### **CALCULATION AND DISTRIBUTION OF FEES**

The costs of the road improvement program have been distributed to the respective land use categories in proportion to the number of peak hour trips generated by that category. The fee amount was calculated in the Nexus Analysis in three ways: by a.m. peak-hour trips, by p.m. peak-hour trips, and by an average of the two. The Nexus Analysis found that 50,246 a.m. peak-hour trips and 71,108 p.m. peak-hour trips would be generated by new development in the Tri-Valley Development Area. Based on the average between the a.m. and p.m. peak-hour trips generated, in order to collect the entire \$161.6 million, the TVTD jurisdictions would have to adopt the fee schedule shown in Column B of Table 2 below. The actual current fee schedule, which reflects a reduced fee amount in every category, is in Column C of Table 2.



For a more detailed discussion of the calculation of the fee amount shown in Column B of Table 2, please refer to pages 12-13 of the Nexus Analysis (Exhibit F) and the Technical Memo attached hereto as Exhibit G.

Since the adoption of the current TVTD Fee in 1998, the regional economy, particularly the real estate sector has seen dramatic changes. While the economy was growing between 1998 and 2000, development expectations were high and real estate values in the Tri-Valley Development Area exploded. Since 2000, the regional economy has slowed, but real estate values continue to be high. In addition, the construction costs of many of the improvement projects have increased at a greater rate than the overall construction cost index. While the construction cost index has risen 14% in the San Francisco Bay Area since 1998, the estimated total construction cost for the remaining ten TVTD Fee projects has increased by approximately 80%.

As a result, while revenues from the TVTD Fee program have been near expected levels since 1998, the gap has grown between the fee revenues and the costs to deliver the Tri-Valley Transportation Improvements. This has left some projects unable to be fully or partially funded by the TVTD Fee, and will likely result in the delayed delivery of these regional improvements.

This situation has prompted the TVTC to consider an increase in the TVTD Fee, pending the completion of an updated fee nexus study as part of a more extensive update to the Strategic Expenditure Plan (SEP). However, the TVTC has approved an interim fee adjustment (Table 2 Column D) to capture any potential lost revenue while an updated fee nexus study and SEP update are completed by the TVTC. The proposed fee adjustments are still less than the original fee nexus study recommendations.



**Table 2**  
**TVTD Fee for Each Land Use**  
**(Based on Average of a.m. and p.m. Peak Hour Trips)**

<b>A. Land Use Type</b>	<b>B. Calculated Fee Amount *</b>	<b>C. Current Fee Amount</b>	<b>D. Proposed Fee Amount</b>
<b>Single-Family Residential</b>	\$2,910 per dwelling unit	\$1,740 per dwelling unit	\$1,740 per dwelling unit
<b>Multi-Family Residential</b>	\$1,752 per dwelling unit	\$1,217 per dwelling unit	\$ 1,097 per dwelling unit
<b>Office</b>	\$ 4.30 per SF of gross floor area	\$ 1.18 per SF of gross floor area	\$ 3.10 per SF of gross floor area
<b>Commercial /Retail</b>	\$ 1.30 per SF of gross floor area	\$ 1.17 per SF of gross floor area	\$ 1.17 per SF of gross floor area
<b>Industrial</b>	\$ 3.13 per SF of gross floor area	\$ 0.87 per SF of gross floor area	\$ 2.10 per SF of gross floor area
<b>Other</b>	\$ 2,894 per peak hour trip**	\$ 702 per peak hour trip	\$ 702 per peak hour trip

\*Fee calculated by Nexus Study adjusted for 2003 Construction Cost Index from 1998 level (14%)

\*\* This number was calculated using the average of the a.m. peak-hour rate and the p.m. peak-hour rate presented in the Technical Memo, Exhibit F.

**RECOMMENDED FEES**

Land Use

Recommended Fee

Single-Family Residential:	<b>\$ 1,740</b> per dwelling unit
Multi-Family Residential:	<b>\$ 1,097</b> per dwelling unit
Office:	<b>\$ 3.10</b> per SF of gross floor area
Commercial/Retail:	<b>\$ 1.17</b> per SF of gross floor area
Industrial:	<b>\$ 2.10</b> per SF of gross floor area
Other:	<b>\$ 702</b> per peak hour trip



## **OTHER FUNDING SOURCES**

The planned improvements are only partially funded by the TVTD Fee. The rate of revenue generated in the Tri-Valley Development Area is dependent on the rate of new development within this area. This rate of revenue affects the timing of the construction of the improvements as it is dependent on the total amount of fees collected less expenditures.

Other funding sources may be available to help fund the proposed transportation projects. These other funding sources include but are not limited to Regional Measure C Funds, Regional Measure J Funds, State Transportation Improvement Program (STIP) Funds, and Federal Program Funds, or local sources such as sales tax, gas tax, etc.

## **REVIEW OF FEES**

Project cost estimates will be reviewed periodically while the TVTD Fee is in effect. On March 1 of each year, the amount of the fees will be increased or decreased based on the percentage change in the Engineering News-Record Construction Cost Index for the San Francisco Bay Area for the 12-month period ending December 31 of the previous calendar year, without further action of the Board.

## **COLLECTION OF FEES**

Fees will be collected when the building permit is issued in accordance with Section 913-4.204 of Title 9 (Subdivisions) of the County Ordinance Code. Fees collected will be deposited into interest-bearing trust accounts established pursuant to Section 913-8.002 of the County Ordinance Code.

## **INTEREST ON FEES**

The interest accrued on the fees collected shall continue to accumulate in the trust account and shall be expended for administration, design and construction of the fee area improvements, or to reimburse the County for the cost of constructing the improvements, pursuant to Section 913-8.006 of the County Ordinance Code.





## **IN-LIEU DEDICATION**

A development may be required to construct, or dedicate right-of-way for, a portion of the improvements as a condition of approval. In such an event, the developer may be eligible to receive credit for the TVTD Fee or reimbursement. The eligible credit and/or reimbursement will be determined in accordance with the County's "Traffic Fee Credit and Reimbursement Policy".

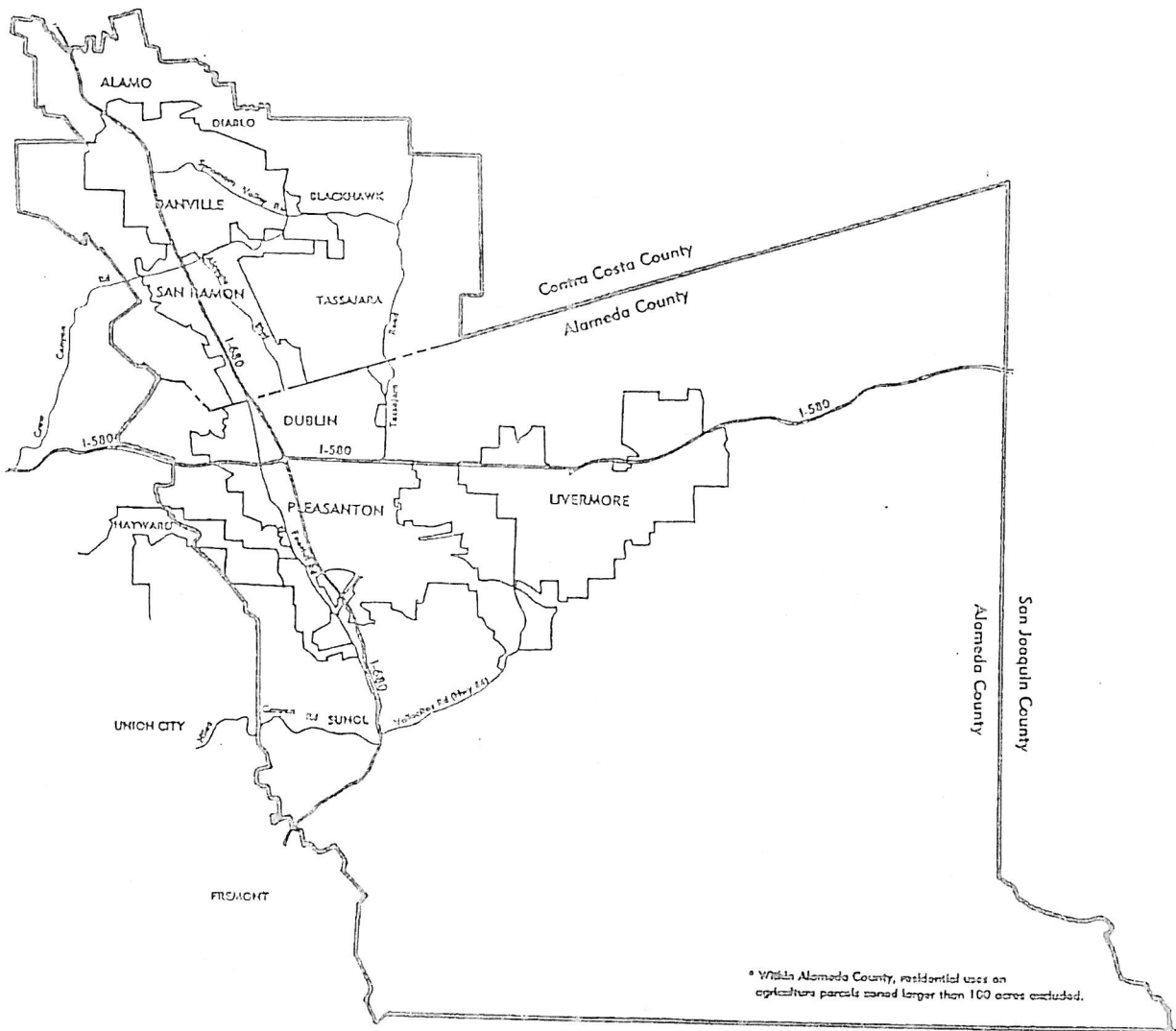
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Attachments



## EXHIBIT A

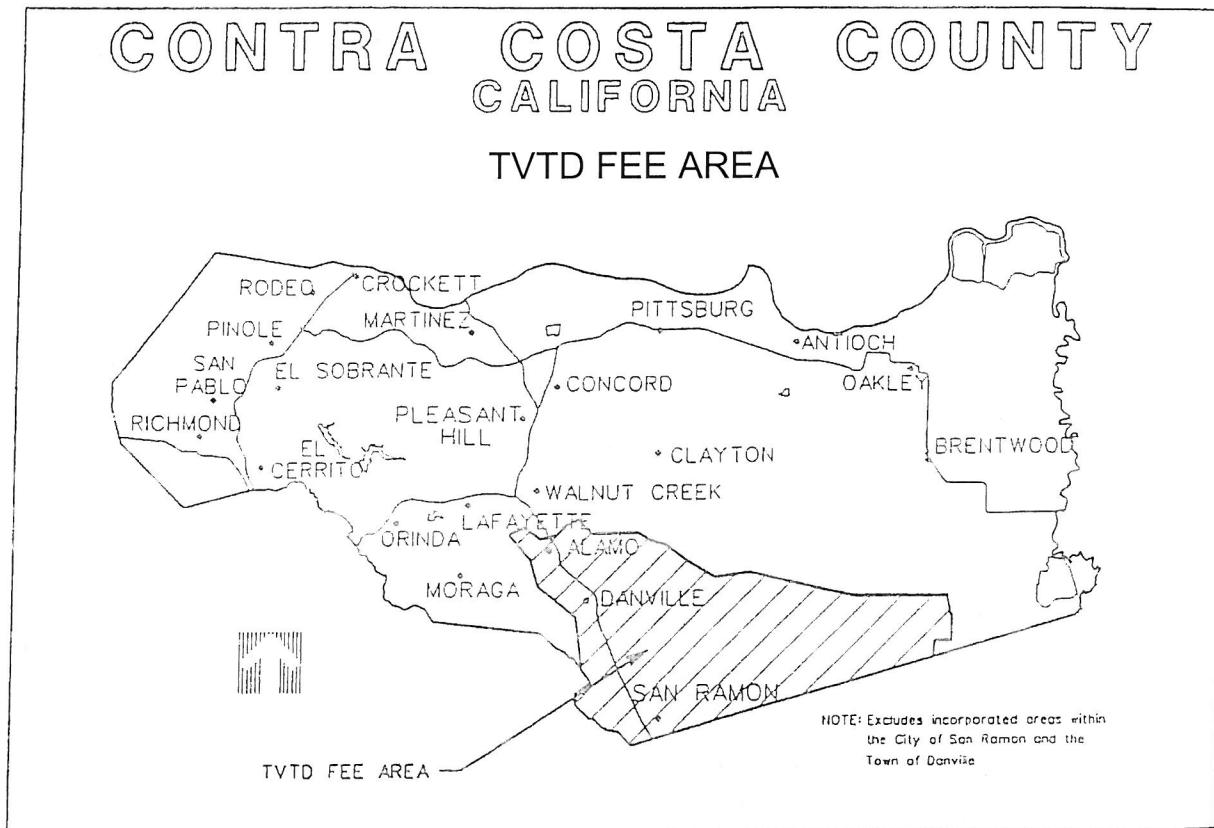
### Tri-Valley Development Area Boundary





**EXHIBIT B**

**Tri-Valley Transportation Development Fee Area of Benefit**

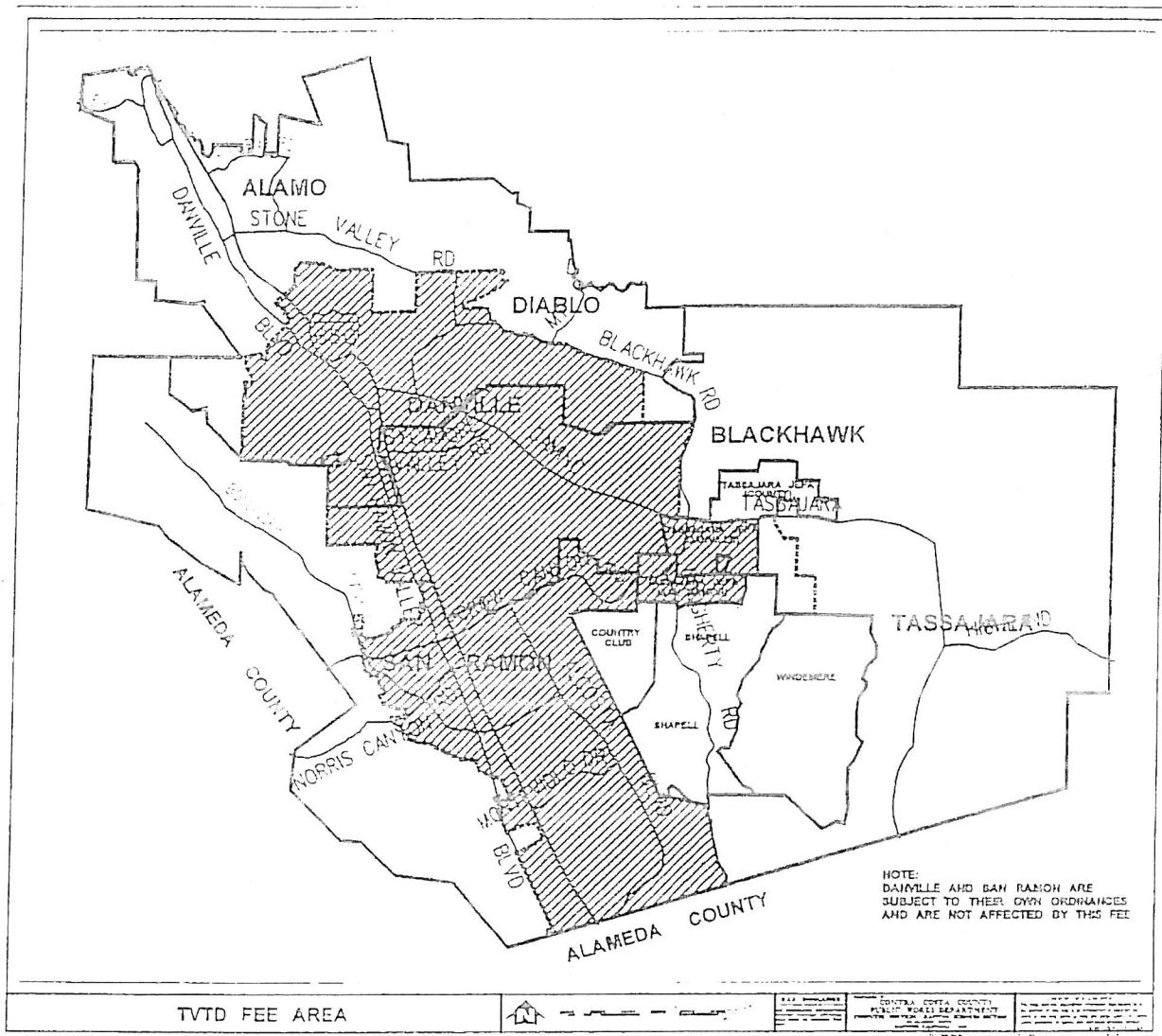


LOCATION MAP



**EXHIBIT C**

**Tri-Valley Transportation Development Fee Area of Benefit  
(showing adjacent communities and cities)**







## **EXHIBIT D**

### **Legal Description**

#### **Tri-Valley Transportation Development Fee Area of Benefit**

Real property in Southern Contra Costa County, California, bounded on the south by Alameda County, bounded on the north by the "South Walnut Creek Area of Benefit" adopted December 6, 1994, by Contra Costa County Board of Supervisors' Resolution 94/604, and bounded on the north and west by the "Central County Area of Benefit" adopted June 13, 1995, by Contra Costa County Board of Supervisors' Resolution 95/273 described as follows:

Beginning at the intersection of the west line of Section 23, Township 2 South, Range 1 East, Mount Diablo Meridian with the boundary common to Contra Costa and Alameda Counties; thence from the Point of Beginning, along said County boundary in a general westerly direction 101,550 feet, more or less, to Rancho corner P.C. No. 31 on the boundary of Rancho Laguna de los Palos Colorados; thence along said Rancho boundary, north 19°28'45" east 3,547.16 feet to Rancho Corner P.C. No. 32 and north 1°13'26" east 929.81 feet to the boundary of the Record of Survey filed June 20, 1980, in Book 67 of Licensed Surveyors' Maps at page 9; thence along the boundary of said Record of Survey as follows: 1) north 88°52'39" east 513.17 feet, 2) north 0°15'16" west 1,303.04 feet, 3) north 88°43'10" east 1,290.34 feet, and 4) north 0°27'37" west 1,306.53 feet to the northwest corner of Section 28, Township 1 South, Range 2 West, Mount Diablo Meridian; thence along the north lines of Sections 28, 27 and 26 (T1S, R2W), easterly 15,840 feet, more or less, to the west line of Section 25 (T1S, R2W); thence along said west line, southerly 2,640 feet, more or less, to the west quarter corner of said Section 25; thence south 88°43'05" east 1,063.84 feet to the northwest corner of Subdivision MS 28-82 filed November 21, 1983, in Book 108 of Parcel Maps at page 11; thence along the north line of Subdivision MS 28-82, south 88°47'23" east 1,062.06 feet to the northwest corner of Subdivision MS 53-81 filed March 28, 1985, in Book 115 of Parcel Maps at page 14; thence along the north line of Subdivision MS 53-81, south 88°43'43" east 3,035.66 feet to the east line of said Section 25 (T1S, R2W); thence along said east line, northerly 2,640 feet, more or less, to the northeast corner of Section 25, said point lying on the southerly boundary of the parcel of land described as PARCEL FIVE in the deed to East Bay Regional Park District recorded April 4, 1974, in Book 7189 of Official Records at page 183; thence along said boundary, in a general northerly direction 2,325.7 feet to the east line of the Parcel of land described as PARCEL ONE in the deed to the United States of America recorded July 29, 1980, in Book 9930 of Official Records at page 913; thence along said east line, in a general northwesterly direction 192.27 feet to an angle point on the boundary of said East Bay Regional Park District PARCEL FIVE (7189 O.R. 183); thence along said boundary, in a general northwesterly direction 1207.59 feet to the northeast corner thereof, said point being the southeast corner of the parcel of land described as PARCEL TWO in said deed to the East Bay Regional Park District (7189 O.R. 183); thence along the northeast line of PARCEL TWO (7189 O.R. 183), said line also being the boundary of Rancho San Ramon, northwesterly 4,840 feet, more or less, to the most easterly corner of Subdivision MS 150-75 filed June 14, 1976, in Book 45 of Parcel Maps at page 41; thence along the boundary of said Subdivision MS 150-75 as follows: 1) south 63°16' west 193.73 feet, 2) south 76°18'50" west 481.39 feet, 3) north 84°17' west 2,622.91 feet, and 4) north 0°39'40" west 1,233.72 feet to the northwest corner of said Subdivision MS 150-75, said point lying on the south line of Subdivision 6419 filed July 28, 1988, in Book 323 of Maps at page 39; thence along said south line, north 84°47'44" west 1,353.46 feet to the southwest corner of said Subdivision 6419, said point lying on the centerline of Section 14, Township 1 South, Range 2 West, Mount Diablo Meridian; thence along said centerline of Section 14 and the centerline of Section 11 (T1S, R2W), northerly 6,663.66 feet to the southwest corner of the parcel of land described in the deed to David L. Gates, et ux, recorded April 9, 1981, in Book 10275 of Official Records at page 438; thence along the south line of said Gates parcel (10275 O.R. 438) easterly 300 feet to the most southeast corner thereof, said point lying on the boundary of Subdivision MS 58-75 recorded October 26,



1978, in Book 71 of Parcel Maps at page 23; thence along the boundary of said Subdivision MS 58-75 (71 PM 23) as follows: 1) north 87°05'11" east 274.17 feet, 2) in a general northerly direction 3,354.5 feet to the northeast corner thereof, 3) north 89°12'12" west 176.01 feet, and 4) south 0°36' west 41.92 feet to the southeast corner of Subdivision MS 133-72 filed September 7, 1972, in Book 24 of Parcel Maps at page 9; thence along the south line of Subdivision MS 133-72, south 89°12'36" west 259.78 feet to the Centerline of Castle Hill Ranch Road (a private road); thence along said centerline in a general northerly direction, 907 feet, more or less to the northeast corner of Lot "B" as shown on the Record of Survey filed May 13, 1984, in Book 74 of Licensed Surveyors' Maps at page 12, said point being the most southern corner of the said "South Walnut Creek Area of Benefit" (Res. 94/604); thence along the boundary of said "South Walnut Creek Area of Benefit", in a general northerly and easterly direction, 6,275 feet, more or less, to the most eastern corner thereof, said point being the intersection of the centerline of Crest Avenue with the extended west right of way line of South Main Street; thence along said extension and west right of way line in a general southerly direction 565 feet, more or less, to the southeast corner of Subdivision MS 114-75 filed October 20, 1976 in Book 49 of Parcel Maps at page 19; thence along the arc of a non-tangent curve concave to the northwest having a radius of 1,096 feet on the northwest line of the Southern Pacific Railroad right of way, northeasterly 52 feet, more or less, to the most western corner of Assessor Parcel Number (hereinafter referred to as APN) 183-093-031 described as PARCEL THIRTY-ONE in the deed to Contra Costa County recorded December 9, 1985 in Book 12652 of Official Records at page 570; thence non-tangent along the southwest line thereof, crossing Engineer's Station 603+65, southeasterly 110 feet, more or less, to the southeast line of said County parcel, being a non-tangent curve concave to the northwest having a radius of 1,196 feet and being concentric with said northwest line; thence along the arc of said curve, northeasterly 52 feet, more or less, to the southwest line of APN 183-093-023 described in the deed to East Bay Municipal Utility District (hereinafter referred to as EBMUD) recorded January 5, 1968 in Book 5530 of Official Records at page 93; thence along said southwest line, south 22°53'01" east 33.76 feet; thence crossing Rudgear Road, southeasterly 245 feet, more or less, to the northwest corner of APN 187-040-007 described as PARCEL 11 in the deed to Contra Costa County Flood Control and Water Conservation District recorded December 20, 1967 in Book 5520 of Official Records at page 451; thence along the boundary of PARCEL 11, in a general southeasterly direction 1,036.02 feet and north 64°16'18" east 239.65 feet, to the most eastern corner thereof on the west right of way line of Interstate Freeway 680; thence along said west line in a general southeasterly direction 836 feet, more or less, to the boundary of APN 187-050-011 and 012 described as Parcel 1 in the deed to Edward Johannessen and Juliet Johannessen 1987 Revocable Living Trust recorded March 22, 1988 in Book 14228 of Official Records at page 211; thence along said boundary as follows: 1) south 63°37'38" west 44.33 feet, 2) south 23°15'36" east 359.22 feet, 3) north 64°03'39" east 14.72 feet, 4) south 23°15'36" east 144.57 feet, 5) south 45°21'24" west 36.15 feet, 6) south 55°15'24" west 108.21 feet, 7) south 32°31'24" west 152.34 feet, 8) south 12°04'24" west 20.34 feet, 9) south 33°09'41" east 465.15 feet, 10) north 35°52'50" east 129.8 feet, 11) south 29°21'32" east 64.96 feet, and 12) south 69°09'52" east 54.67 feet, to the most southeastern corner thereof on the west right of way line of Interstate Freeway 680; thence along said west line in a general southeasterly direction 1,209.59 feet; thence crossing said freeway, north 53°47'20" east 290 feet, more or less, to the east right of way line thereof; thence along said east line in a general southeasterly direction 2,259.08 feet to the west line of Subdivision 6468 recorded January 8, 1982 in Book 286 of Maps at page 41; thence along said west line in a general northerly direction 828.77 feet to the south line of APN 187-160-013 described as Parcel Three in the deed to the City of Walnut Creek recorded July 5, 1984 in Book 11867 of Official Records at page 965; thence along said south line and the south line of Subdivision 4810 filed September 23, 1976 in Book 189 of Maps at page 48, south 89°43'18" east 944.73 feet, to the southwest corner of Subdivision 3037 recorded June 25, 1964 in Book 99 of Maps at page 30; thence along lot lines of Subdivision 3037, south 89°43'18" east 933.43 feet, south 6°19'31" east 712.51 feet and along the north right of way line of Livorna Road, north 72°23'20" east 145.74 feet; thence crossing Trotter Way, north 72°23'20" east 100 feet, more or less, to the south line of Lot 131 (99 M 30); thence continuing along lot lines of Subdivision 3037 as follows: 1) along the north right of way line of Livorna Road, north 72°23'20" east 272.09 feet, 2) north 1°36'23" east 275.72 feet, 3) south 88°23'37" east 149.23 feet 4) south 1°36'23" west 223.71 feet, and 5) along the north right of way line of Livorna Road in a general easterly direction 79.27 feet, to the



east boundary of Subdivision 3037; thence along said boundary in a general northerly direction 1,532.28 feet to the northeast corner thereof, also being the southeast corner of Subdivision 3827 recorded June 11, 1969 in Book 126 of Maps at page 38; thence along the east line of Subdivision 3827, north 1°31'55" east 942.5 feet, to the southwest corner of Subdivision 5366 recorded March 25, 1980 in Book 236 of Maps at page 7; thence along the boundary of Subdivision 5366 in a general easterly direction 400.83 feet to the southeast corner thereof on the boundary of Subdivision 5931 recorded June 29, 1983 in Book 271 of Maps at page 21; thence along the boundary of Subdivision 5931, in a general southeasterly direction 105.63 feet along Livorna Heights Road right of way line and south 55°22'55" east 537 feet, to the southeast corner of Subdivision 5931 on the west line of Subdivision 4402 recorded December 27, 1974 in Book 175 of Maps at page 25; thence along said west line, south 1°32'10" west 1063.35 feet to the northwest corner of Subdivision 3973 recorded August 18, 1972 in Book 149 of Maps at page 20; thence along the west line of Subdivision 3973 and its southern prolongation, south 1°32'10" west 967.1 feet, to the centerline of Livorna Road; thence along said centerline in a general easterly direction 890.41 feet to the southern prolongation of the east line of Subdivision 3973; thence along said prolongation and east line, north 1°44'25" east 1,057.06 feet, to the southeast corner of Subdivision 4402 (175 M 25); thence continuing north 1°44'25" east 1,527.78 feet to the northeast corner of Subdivision 4402 on the boundary of Subdivision 4924 recorded May 18, 1977 in Book 196 of Maps at page 28; thence along said boundary in a general southeasterly direction 2,879.25 feet to the southeast corner thereof on the boundary of Subdivision 6743 filed June 9, 1987 in Book 313 of Maps at page 28; thence along said boundary, north 21°53'15" west 3,423.26 feet, north 73°16'01" east 4,566.44 feet, and south 13°51'48" east 5,687.22 feet, to the most southern corner thereof on the south line of Rancho San Miguel and the Record of Survey filed August 27, 1970 in Book 53 of Licensed Surveyors' Maps at page 13; thence along said south line, south 76°53'13" east 1,445.41 feet, to the most southern corner of said Record of Survey (53 LSM 13) on the boundary of that 787.58 acre parcel shown on the Record of Survey filed June 22, 1960, in Book 18 of Licensed Surveyors' Maps at page 39; thence along the boundary of said parcel (18 LSM 39), south 6°08'40" east 2,389.28 feet and north 87°52'06" east 9,881.20 feet to the southeast corner thereof on the northwest line of Lot D, Rancho San Miguel Robert Allen Tract; thence along said northwest line, northeasterly 3,100 feet, more or less, to the centerline of Mount Diablo Scenic Boulevard (North Gate Road); thence along said centerline in a general easterly direction 12,400 feet, more or less, to the centerline intersection of Summit Road; thence along the centerline of Mount Diablo Scenic Boulevard (South Gate Road) in a general southerly direction 6,700 feet, more or less, to the south line of Section 12 Township 1 South, Range 1 West, Mount Diablo Meridian; thence along said south line, easterly 4,400 feet, to the northwest corner of Section 18, Township 1 South, Range 1 East, Mount Diablo Meridian; thence along the west line of said Section 18 (T1S, R1E) southerly 5,280 feet, more or less, to the southwest corner thereof; thence along the south line of Sections 18, 17 and 16, Township 1 South, Range 1 East, Mount Diablo Meridian, easterly 15,840 feet, more or less, to the northwest corner of Section 22, Township 1 South, Range 1 East, Mount Diablo Meridian, thence along the west line of said Section 22 (T1S, R1E), southerly 5,280 feet, more or less, to the southwest corner thereof; thence along the south line of Sections 22 and 23 (T1S, R1E), easterly 10,560 feet, more or less, to the northeast corner of Section 26 (T1S, R1E); thence, along the east line of Sections 26 and 35 (T1S, R1E), southerly 10,560 feet, more or less to the northeast corner of Section 2, Township 2 South, Range 1 East, Mount Diablo Meridian; thence along the east line of Sections 2 and 11 (T2S, R1E), southerly 10,560 feet, more or less, to the northeast corner of Section 14, Township 2 South, Range 1 East, Mount Diablo Meridian; thence along the north line of said Section 14, (T2S, R1E), westerly 2,640 feet, more or less, to the northeast corner of Parcel "D" of Subdivision MS 80-85 filed May 14, 1987, in Book 127 of Parcel Maps at page 32; thence along the east line of said Parcel "D" and its southerly prolongation, southerly 6,250 feet, more or less, to a point on the said boundary common to Contra Costa and Alameda Counties; thence along said County boundary in a general westerly direction 2,800 feet, more or less, to the Point of Beginning.

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**EXHIBIT E**

**TVTD Fee Project List**

	<b>Project Name</b>	<b>Project Description</b>	<b>Total Project Cost*</b>
<b>1</b>	I-580/I-680 Interchange Improvements**	Reconstruct interchange. Majority of work is building a new two-lane flyover ramp from southbound I-680 to eastbound I-580 to replace existing loop ramp.	\$ 121,000,000
<b>2</b>	Improvements to SR 84 between I-580 and I-680	Improve SR 84 to six lanes between I-580 and Vineyard Avenue and to four lanes from Vineyard Avenue to I-680.	\$ 213,000,000
<b>3</b>	I-680 Auxiliary Lanes between Bollinger Canyon road and Diablo Road	Construct one auxiliary lane in each direction on I-680 from Diablo Road to Bollinger Canyon Road.	\$ 40,000,000
<b>4</b>	West Dublin/Pleasanton BART Station***	Completion of West Dublin BART Station, including access, parking, Laurel Way traffic signal, Dublin Blvd. Widening, and a new parallel connector to Dublin Blvd.	\$ 43,000,000
<b>5</b>	I-580 HOV Lanes between Santa Rita Road and Greenville Road	Construct HOV lanes on I-580 between Santa Rita Road and Greenville Road.	\$ 40,000,000
<b>6</b>	I-680 HOV Lanes between SR 84 and Sunol Grade	Construct HOV lanes between SR 84 and the top of Sunol Grade at Mission Pass.	\$ 14,400,000
<b>7</b>	I-580/Foothill road Interchange Improvements	Replace the westbound and eastbound off-loops with diagonal ramps.	\$ 2,000,000
<b>8</b>	I-680/Alcosta Boulevard Interchange Improvements	Construct new southbound on/off ramp to the north of Alcosta Boulevard, and widen San Ramon Valley Drive from two to four lanes in the vicinity of the interchange.	\$ 9,600,000





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9	Crow Canyon Road Safety Improvements west of Bollinger Canyon Road	Realign roadway for a 50 mph design speed and widen shoulders. Add climbing lanes on the two-lane segments, and two-way left-turn lanes to provide adequate access to residential properties.	\$ 18,000,000
10	Vasco road Safety Improvements north of I-580	Straighten alignment, add shoulders.	\$ 25,000,000
11	Express Bus Service in the Tri-Valley***	Provide capital equipment to provide new Express bus service for the nine express bus routes as proposed in the 1995 Tri-Valley Transportation Action Plan.	\$ 8,000,000

\* TVTD Fee will not provide for the Total Cost of all the projects. Supplementary sources of funding, such as federal or state grants, will be used to augment the TVTD funds.

\*\* This project will receive first priority. The remainder of the projects will be prioritized based on project readiness and leveraging opportunities.

\*\*\* Contra Costa County fee revenues will not be used to fund improvements to the Dublin BART Station or to fund the Express Bus Service in the Tri-Valley.



**EXHIBIT F**

Tri-Valley Regional Transportation  
Improvement Fee Program

Nexus Analysis

# Tri-Valley Regional Transportation Improvement Fee Program

## Nexus Analysis

### ■ Introduction

In July 1995, the Tri-Valley Transportation Council (TVTC) adopted the *Tri-Valley Action Plan* as its blueprint for transportation planning through the year 2010. The Plan acknowledges that financial constraints played a critical role in selecting an optimal level of service and identifying only the most critical improvement to regional roadways and transit facilities. As an integral component of the Plan's financial strategy, TVTC will leverage over \$162 million in federal, state, and local (i.e., Measure C and Measure B sales tax funding) provided it can raise matching funds from other local sources.

The TVTC selected 11 improvements that will require over \$534 million, leaving \$368 million of the plan currently unfunded. In order to fund this gap, the TVTC has undertaken a study of a Regional Transportation Improvement Fee (RTIF). The RTIF would charge a fee on new development to augment other funding for projects on routes of regional significance. The purpose of this report is to document the technical analysis necessary for the implementation of the RTIF traffic fee.

### ■ Methodology

An area-wide fee program must conform to the requirements of Government Code 66000 *et seq.* and subsequent opinions issued by the U.S. Supreme Court, California Supreme Court, and lower courts. While the statutes and court decisions provide general guidelines, the design and implementation of multi-jurisdictional impact fees is not as tightly circumscribed as other local revenue measures (e.g., assessment districts, local sales tax measures, subdivision map/developer exactions). Nevertheless, the statutory requirements and judicial guidance behooves the TVTC to follow a basic five step process to design its regional fee:

1. **Convert New Development Into A Net Increment of New Trips.** ABAG's *Projections 94* provides the forecast of new residents and employees moving into the Tri-Valley area over the next 20 years. This projection of residential and employment growth in each jurisdiction must be converted to a 13 year increment of new trip generation (1997 to 2010). This increment must then be reduced by the number of trips associated with *exempt* development. Exempt development has already received a vesting tentative map or has a development agreement excluding assessment of additional fees.

2. **Specify the Transportation Improvements Needed to Growth.** The law allows the TVTC to require new development to mitigate its full impact on the Tri-Valley routes of regional significance (i.e., maintain current levels of service (LOS)). The TVTC, however, has limited the maximum cost to new development to the unfunded portion of the Action Plan's eleven projects, approximately \$368 million. This is substantially below the threshold of new development's full responsibility.
3. **Evaluate the Relationship Between the Improvements, the Share of Funding from New Development, and the Impact of New Trip Generation.** The improvements must provide benefits that are in reasonable proportion to the amount of the impacts fees paid by new development. Thus, if TVTC imposes a uniform fee, it must reach a consensus that new development in all parts of the Tri-Valley area will receive roughly proportional benefits from the improvements.
4. **Allocate Costs Across Land Use Types.** Fee amounts should be fairly distributed among residential, retail, office, and industrial) development. This distribution is based on the trip generation characteristics of each land use type. Nevertheless, the TVTC may reduce the fees for some types of land use if the foregone revenue is replaced with some other funding source (e.g., federal and state) and the RTIF-funded projects are eventually built.
5. **Prepare Fee Schedules and Implementation Ordinances.** Each local jurisdiction, through their exercise of their police power, must adopt an ordinance imposing the fee on development within their jurisdiction. The TVTC may adjust a uniform fee schedule for specific land use conditions or circumstances, including the effects of household income on trip generation, the land use's proximity to transit stations, and the effects of jobs-housing balance on travel behavior.

The remainder of this report explains the calculations and presents the results of each of the five steps described above. Supporting documentation regarding transportation analysis and computer modeling is available from TVTC.

## ■ New Development and Incremental Trip Generation

From 1997 through 2010, new development in the Tri-Valley area will generate 56,907 additional a.m. peak hour trips on the area's routes of regional significance, a 40 percent increase over the next 14 years. The following sections explain the origins of this increase.

### Population, Employment, and Land Use Growth

The fee is based on the projected growth in Tri-Valley households and employment forecast by ABAG (*Projections 94*). The figures for 1997 are estimated by straight line interpolation between the years 1990 and 2000. Households, which are occupied dwelling units, are used as a proxy for dwelling units and adjusted for an area-wide vacancy rate. Table 1 presents the population and employment projections.

Table 1. ABAG Forecast of Tri-Valley Households

Jurisdiction	1997	2010	Increment	Shares	Growth
Alamo/Blackhawk	7,148	7,906	758	1.7%	10.6%
Danville	12,943	14,790	1,847	4.0%	14.3%
Dougherty	2,224	10,356	8,132	17.8%	365.6%
Tassajara	168	280	112	0.2%	67.1%
San Ramon	15,077	18,411	3,334	7.3%	22.1%
Other Contra Costa Co.	697	845	148	0.3%	21.3%
<b>Total Contra Costa Co.</b>	<b>38,256</b>	<b>52,588</b>	<b>14,332</b>	<b>31.3%</b>	<b>37.5%</b>
Livermore	24,291	34,997	10,706	23.4%	44.1%
Pleasanton	21,277	30,151	8,874	19.4%	41.7%
Dublin	9,372	20,880	11,508	25.2%	122.8%
Other Alameda Co.	240	549	309	0.7%	129.1%
<b>Total Alameda Co.</b>	<b>55,180</b>	<b>86,577</b>	<b>31,397</b>	<b>68.7%</b>	<b>56.9%</b>
<b>Total Tri-Valley</b>	<b>93,436</b>	<b>139,165</b>	<b>45,729</b>	<b>100.0%</b>	<b>48.9%</b>

As shown in Table 1, residential development in Alameda County will accommodate over two-thirds of the area's residential development. Dougherty Valley, the area's fastest growing community, will account for almost 18 percent of the area's new residents. Dublin and the unincorporated area of Alameda County are the new two most rapidly developing jurisdictions and will account for 26 percent of the growth.

Table 2 shows that the three jurisdictions in Alameda County will accommodate more than three-quarters of the Tri-Valley's employment growth. Total employment for the region is expected to increase by over 57 percent, with total jobs in the Contra Costa County increasing by more than 42 percent and in Alameda County by 64 percent.

Table 2. ABAG Forecast of Tri-Valley Employment Growth from 1997 to 2010

Jurisdiction	1997	2010	Increment	Shares	Growth
Alamo/Blackhawk	2,072	2,272	200	0.3%	9.7%
Danville	6,960	7,226	266	0.3%	3.8%
Dougherty	765	5,365	4,600	6.0%	601.3%
Tassajara	51	32	1	0.0%	3.2%
San Ramon	32,997	45,204	12,807	16.7%	39.5%
Other Contra Costa Co.	91	92	1	0.0%	1.1%
<b>Total Contra Costa Co.</b>	<b>42,915</b>	<b>60,191</b>	<b>17,876</b>	<b>23.4%</b>	<b>42.2%</b>
Livermore	33,811	51,815	18,004	23.5%	53.2%
Pleasanton	40,137	61,476	21,339	27.9%	53.2%
Dublin	16,836	36,000	19,164	25.0%	113.8%
Other Alameda Co.	791	949	152	0.2%	19.2%
<b>Total Alameda Co.</b>	<b>91,576</b>	<b>150,234</b>	<b>58,658</b>	<b>76.6%</b>	<b>64.1%</b>
<b>Total Tri-Valley</b>	<b>133,891</b>	<b>210,425</b>	<b>76,534</b>	<b>100.0%</b>	<b>57.2%</b>

Population and employment growth will generate and attract new trips on the area's regional roadways. The socio-economic projections shown in Tables 1 and 2 are used in a transportation demand forecasting model developed specifically for the Tri-Valley area to forecast the increase in travel. The results of the modeling are shown in Table 3.

### Trip Generation

Table 3 presents the a.m. peak hour traffic volumes for the years 1997, 2010, and the growth within the 14 year increment. The projections assume all 11 Action Plan projects are built.

**Table 3. Growth in AM Peak Hour Trip Ends From 1997 to 2010**

	1997	2010	Increment	Share	Growth
Alamo/Blackhawk	6,857	7,609	753	1.3%	11.0%
Danville	15,518	16,471	953	1.7%	6.1%
Dougherty	3,572	11,683	8,111	14.3%	227.1%
Tassajara	160	233	73	0.1%	45.4%
San Ramon	23,336	25,179	1,843	3.2%	7.9%
Other Contra Costa County	519	695	176	0.3%	34.0%
<b>Total Contra Costa County</b>	<b>49,962</b>	<b>61,870</b>	<b>11,908</b>	<b>20.9%</b>	<b>23.8%</b>
Livermore	37,874	52,917	15,043	26.4%	39.7%
Pleasanton	36,369	49,684	13,315	23.4%	36.6%
Dublin	18,822	35,145	16,323	28.7%	86.7%
Other Alameda County	575	898	323	0.6%	55.3%
<b>Total Alameda County</b>	<b>93,640</b>	<b>138,639</b>	<b>44,999</b>	<b>79.1%</b>	<b>48.1%</b>
<b>Total Tri-Valley</b>	<b>143,602</b>	<b>200,509</b>	<b>56,907</b>	<b>100.0%</b>	<b>39.6%</b>

The total increment of 56,907 new trips encompass all trips that either originate or terminate in the Tri-Valley area. In addition, the area will accommodate roughly 5,530 new through trip ends (external - external), or roughly 10 percent of the total increase.

### Exempt Development

The total increment of new trip generation (from 1997 to 2010) includes trips from new development that will be exempt from paying a fee. Their exemption is due to either one of two legal criteria applying to a development project that has (1) been issued a vested tentative map or (2) completed a development agreement that explicitly excludes assessment of any additional fees.<sup>1</sup> If either of these criteria apply to a development project as of the official date that the jurisdiction's council or board adopts the RTIF, the developer may pull the proscribed number of building permits without paying a fee.

<sup>1</sup> If for any reason the vesting tentative map or development agreement of an exempt development expires or must be re-negotiated, the jurisdiction may impose the fee.

While the transportation impacts of exempt development will be as real as the impacts from non-exempt development, the TVTC cannot impose a fee and therefore cannot collect fee revenues for the proposed projects. Thus, we must subtract the number of new trips generated by exempt development from the total increment of new trips. The result is the net amount of new trips over which we can allocate the unfunded cost of the selected improvements.

Table 4 shows the exempt development in the Tri-Valley area.

Table 4. Exempt Development By Jurisdiction

Jurisdiction	Residential Dwelling Units	Retail Square Feet	Office Square Feet	Industrial Square Feet
Alamo/Blackhawk	-	-	-	-
Danville	-	-	-	-
Dougherty	-	-	-	-
TVPOA	-	-	2,123,600	-
San Ramon	650	-	-	-
Other Tri-Valley CC County	-	-	2,123,600	-
<b>Total Contra Costa Co.</b>	<b>650</b>			
Livermore	1,414	-	-	4,961,000
Pleasanton	2,790	-	-	-
Dublin	172	-	-	-
Other Tri-Valley Alameda County	-	-	-	4,961,000
<b>Total Alameda Co.</b>	<b>4,376</b>			
<b>Total Tri-Valley</b>	<b>5,026</b>		<b>2,123,600</b>	<b>4,961,000</b>

The exempt development shown in Table 4 is subtracted from the total 1997 to 2010 increment of new development in Tri-Valley. The projection of new development for Tri-Valley is a rough estimate based on the ABAG socio-economic forecasts. Average vacancy rates are used to convert households to dwelling units. Average density factors are used to convert employees to square feet of retail, office and industrial space. The results are shown in Table 5.



Table 5. Estimates of New Development for Tri-Valley (1997 - 2010)

Land Use Categories	1997 - 2010 Increment
Single Family Dwelling Units	34,597
Multi Family Dwelling Units	6,105
Small Retail Square Feet (<200,000 sq. ft.)	8,848,040
Large Retail Square Feet (>200,000 sq. ft.)	2,949,347
Office Square Feet	9,152,200
Industrial Square Feet	5,396,500

For each category of land use exempt development was converted into trips and the amount deducted from the total number of trips for that land use. For example, a vested project with twenty dwelling units of single family residential would generate 0.74 a.m. peak hour trips per unit or a total of 14.8 a.m. peak hour trips. The results of this adjustment process are presented in Table 6.

Table 6. Total, Exempt, and Net AM Peak Hour Trip Ends From 1997 to 2010

	Total Trip Ends	Exempt Trip Ends	Net Trip Ends
Alamo/Blackhawk	753	0	753
Darville	953	0	953
Dougherty	8,111	0	8,111
Tassajara	73	0	73
San Ramon	1,843	689	1,154
Other Contra Costa Co.	176	0	176
Livermore & North Livermore	15,043	3,757	11,286
Pleasanton	13,315	2,093	11,222
Dublin & East Dublin	16,323	122	16,201
Other Alameda Co.	318	0	318
Total	56,907	6,661	50,246

The appropriate trip generation rates are applied to the exempt development in order to estimate the number of new trips that must be deducted from the total increment.<sup>2</sup> The total number of trips from exempt residential development equals roughly 3,500 a.m. peak trips, or about 56 percent of the total 6,661 exempt trips. Non-residential development will generate the remaining 44 percent. These estimates are deducted from the total

<sup>2</sup> The trip generation rates are determined from the *Trip Generators, 5th Edition*, Institute of Traffic Engineers (ITE) and modified according to special Tri-Valley conditions as determined from the updated traffic model. These rates are shown in Table 11.

increment of 56,907 new trips, producing roughly 50,246 net trips that may be assigned a share of the cost of improvements.

## ■ Transportation Improvements

In July of 1995, TVTC adopted the *Tri-Valley Transportation Plan/Action Plan for Routes of Regional Significance* (Action Plan). The Action Plan identifies 11 projects that will achieve the best level of service within the Tri-Valley given financial constraints, physical limitations within corridors, and development patterns. The Plan integrates enhancements to roadway capacity, increased transit service, control of demand (growth management and TDM), and acceptance of congestion in locations where it cannot be avoided (see *The Action Plan*, pages 117 to 123).

Table 7 identifies the 11 major projects on routes of regional significance within the Tri-Valley. The TVTC selected this set of actions - as well as other programs and measures described in the Plan - to mitigate congestion and achieve a specific set of Traffic Service Objectives. These results assume that future traffic will be constrained by the limited capacities of highway facilities serving the Tri-Valley Gateways (see *The Action Plan*, Chapter 5, "Gateway Constraints").

Table 7. Action Plan Projects and Available Funding

Project	Total Cost	Funding Available	Unfunded Amount
I-580/I-680 Interchange	\$121.2	\$111.1	\$10.1
Route 84 (includes interchanges at I-580 and Stanley)	\$213.0	\$36.1	\$176.9
I-680 Auxiliary Lanes (Diablo Road to Bollinger Canyon)	\$40.0	\$16.4	\$23.6
BART Extension: West Dublin station	\$43.0	\$0.0	\$43.0
I-580 Tassajara to N. Livermore: HOV Lanes	\$40.0	\$0.0	\$40.0
I-680 Rte 84 to Sunol: HOV Lanes	\$14.4	\$0.0	\$14.4
I-580/Foothill Interchange modifications for W. Dublin BART	\$2.0	\$0.0	\$2.0
I-680/Alcosta Interchange modifications	\$9.6	\$2.3	\$7.3
Crow Canyon Rd Safety Improvement	\$18.0	\$0.2	\$17.8
Vasco Road Realignment	\$25.0	\$0.0	\$25.0
Express Bus Service	\$8.0	\$0.0	\$8.0
<b>Total Action Plan</b>	<b>\$534.2</b>	<b>\$166.1</b>	<b>\$368.1</b>

The unfunded cost of all 11 Action Plan projects equals roughly \$368 million in 1997 dollars, or about 70 percent of the total cost.

After considerable technical analysis and careful consideration, the TVTC has determined that a fee program designed to fund the full \$368 million shortfall would place an excessive financial burden on new development. This burden would be most severe on low-income housing and commercial development. For example, heavy fees on

commercial development would have the probable - and counterproductive - consequence of driving some job-creating development outside the Tri-Valley, thus exacerbating the region's jobs/housing imbalance.

Given these objectives, the TVTC ranked the 11 projects according to their affect of congestion and the amount of state and federal funding that could be leveraged using fee revenues as a local match. In order to facilitate this ranking, Route 84 was divided into six separate projects. Each was then evaluated on its own merits and compared to the other 10 Action Plan projects. Table 8 presents the six highest-ranked projects.

Table 8. Selected Action Plan Projects and Available Funding

Project	Total Cost	Funding Available	Unfunded Amount
I-580/I-680 Interchange	\$121.2	\$111.1	\$10.1
Rte 84: I-580/Isabel Ext. new I/C; Isabel at 4 lanes	\$40.0	\$0.0	\$40.0
Rte 84/Isabel Ext.: J. London to Concannon & I-580/Airway	\$32.0	\$28.1	\$3.9
Rte 84: I-580 to Vineyard: widen to 4 lanes	\$25.0	\$0.0	\$25.0
I-680 Auxiliary Lanes (Diablo Road to Bollinger Canyon)	\$40.0	\$16.4	\$23.6
BART Extension: West Dublin station	\$43.0	\$0.0	\$43.0
<b>Total For All Six Projects</b>	<b>\$309.2</b>	<b>\$163.6</b>	<b>\$144.6</b>

As shown in Table 8, this short list of the highest ranked projects totals \$309 million in cost of which roughly \$145.6 million - or about half - is unfunded. Thus, this short list represents a 65 percent reduction in the unfunded cost TVTC intends to cover with the impact fee.

### Existing Local Impact Fees for Action Plan

Some Tri-Valley jurisdictions require new development to mitigate their impacts on the same sections of regional routes that will be improved by one of the Action Plan projects. Developers either pay local impact fees, dedicate right-of-way, or construct transportation facilities. Some jurisdiction's include funding for one or more of the six projects in their local fee programs. In these cases, the TVTC will work with local jurisdictions to reduce the local fee by the amount of the regional component and new development will pay the full regional fee. Thus, the total amount being funded by the RTIF fee must be increased by the amount of funding from local fees.

Table 9 presents an initial inventory of each jurisdiction's locally funded (or required) improvements to the six highest-ranked projects.

Table 9. Local Funding for Selected Projects

Jurisdiction		Millions of 1997 Dollar
Alamo/Blackhawk		-
Danville	(estimate)	\$ 0.7
Dougherty	(estimate)	\$ 6.2
Tassajara		-
San Ramon	(estimate)	\$ 1.4
Other TV Contra Costa County	(estimate)	\$ 0.1
Total Contra Costa Co.		\$ 8.5
Livermore		\$ 7.5
Pleasanton		-
Dublin		-
Other TV Alameda County		-
Total Alameda Co.		\$ 7.5
Total Tri-Valley		\$ 16.0

The amounts shown in Table 9 for the four jurisdictions in Contra Costa County are estimates of the Southern Contra Costa Fee for Traffic Mitigation. The estimates assume roughly proportional to the trip generation estimated from each jurisdiction. As noted above, the \$16 million total in local fee revenue must be added to the \$145.6 million in unfunded cost. The total amount to be funded with the RTIF, therefore, equals \$161.6 million.

## ■ Nexus Analysis

The impact of new Tri-Valley development on regional transportation facilities is based on an update of the Tri-Valley Model completed by Dowling Associates (*Tri-Valley Re-Validation Report*, June 1997). This computer model simulates current and future traffic flows on the roadway network under a wide range of user-specified conditions. The model is extremely useful for determining the impact of new development on roadway levels-of-service. In particular, the model estimates new development's fair share of the Action Plan improvements by isolating the effects of new development from those of existing development through (external-external) trips, and existing deficiencies.

This analysis indicated that this development will cause levels-of-service to decline despite all of the improvements proposed in MTC's short and long range improvement plan. Nor will the improvements to be funded as part of the Action Plan prevent degradation's in levels-of-service.

As part of its Action Plan, the TVTC has evaluated the impact of new development on its subregional system and identified numerous improvements. These improvements - if all were completed by the year 2010 - will increase the area's capacity for vehicle miles of

travel (VMT) by almost 21 percent. New development will increase the number of VMT using this capacity by 48 percent, thus absorbing almost 99 percent of the new capacity. VMT from through trips (i.e., trips travel through the area but not stopping) will increase 16 percent. Of the total 254,281 increase in VMT, new development will account for 90 percent of the increase. Table 10 presents the results of the VMT analysis in more detail.

Table 10. VMT Analysis from 1997 to 2010

	1997	2010	Increment	Change
VMT for All Tri-Valley	632,756	887,037	254,281	40.2%
VMT for Through Trips	151,987	176,167	24,180	15.9%
VMT for Internal Tri-Valley	480,769	710,870	230,101	47.9%
VMT Capacity	1,117,059	1,350,559	233,500	20.9%

The results shown in Table 10 would justify the TVTC allocating 90 percent of the Action Plan's total cost - roughly \$535 million - to new development in the Tri-Valley area. Fortunately, TVTC has secured \$166 million (or 30 percent of the total) from other sources, leaving \$368 million still unfunded. While the TVTC could require new development to fund the entire unfunded balance, it has selected six projects it believes are most needed. These projects, however, will not prevent some degradation in the regional network's level of service.

## ■ Fee Calculations

Fee calculations involve four steps:

- **Step 1 - Allocation of Costs:** Determine if the total share of unfunded costs should be allocated uniformly to all new development in the Tri-Valley area, regardless of jurisdiction, or if the fees must be determined on a jurisdiction-by-jurisdiction basis.
- **Step 2 - Cost per Peak hour a Trip End:** Calculate three per trip amounts and three fee schedules based generating sufficient revenues to fund the \$368 million unfunded balance for all 11 Action Plan Projects and the \$161.6 million for the selected projects.
- **Step 3 - Preliminary Fee Schedules:** Apply the three costs per peak hour trip end to the trip generation characteristics of different types of land use to create three preliminary fee schedules.
- **Step 4 - Final Fee Schedule:** As an alternative to the three fee schedules in Step 3, create a discounted fee schedule which reduces the financial burden placed on new development by collecting less than the full, unfunded amount.

### Allocation of Costs

The fee revenue generated by each jurisdiction should be rough proportion to the benefits each jurisdiction receives from the Action Plan improvements. This balance, however, is difficult to quantify given the complexity of travel patterns in the Tri-Valley. As an alternative to a quantitative analysis, the TVTC's Technical Advisory Committee has recommended six projects it believes represent a reasonable balance of benefits to all jurisdictions. Given the extensive experience of the TAC's membership, this qualitative approach is a satisfactory alternative to a quantitative analysis using the transportation model (i.e., select-link analysis of all proposed projects<sup>3</sup>). Thus, TVTC has decided to apply a uniform cost per peak hour trip end across all TVTC jurisdictions.

### Costs Per Peak Hour Trip End

A uniform cost per peak hour trip end is calculated by dividing the net increase of 50,246 new a.m. peak hour trip ends by the three revenue targets: \$368 million for all 11 Action Plan Projects and \$161.6 million for six selected projects. Table 11 presents the two costs per peak hour trip end.

Table 11. Alternative Funding Amounts and Corresponding Costs Per Peak Hour Trip End.

	Revenue Targets (\$1,000,000's)	Per Peak Hour Trip End	Share of Action Plan
Full Action Plan (11 Projects)	\$368.1	\$7,362	
Selected Projects	\$161.6	\$3,216	44%

### Preliminary Fee Schedules

The fee amounts are determined by multiplying the cost per a.m. peak hour trip end by the number of trips generated by a particular land use. For purposes of efficiency and consistency, TVTC has limited its fee schedule to two types of residential development (i.e., single and multi-family dwelling units) and four types of commercial space (large and small retail, office, and industrial). Table 12 shows the Institute of Traffic Engineers trip generation rates for each of these land use. In addition, it shows the adjustments for average trip length, trip diversion, and the final adjusted trip length.

<sup>3</sup> For each segment of regional roadway that will be improved using fee revenues, select link analysis shows the origins and destinations of future trips. Thus, the results help allocate the benefit of the improved roadway according to the amount of new development in each jurisdiction.

Table 12 A.M. Peak Hour Trip Generation Rates and Adjustments

Land Use Categories	Base Rates	Trip Diversion Adjustment Factor	Trip Length Adjustment Factor	Adjusted A.M. Peak Hour Trip Rate
Single Family Residential	0.74	1.00	1.00	0.74
Multi Family Residential	0.47	1.00	1.00	0.47
Retail per sq. ft. (<200 ksf)	1.60	0.20	0.50	0.16
Retail per sq. ft. (>200 ksf)	0.80	0.45	0.50	0.18
Office per sq. ft.	1.33	1.00	1.00	1.33
Industrial per sq. ft.	0.90	1.00	1.00	0.90

Trip diversion factors indicate the percentage of trips for each land use category that are part of a longer trip but divert less than two miles out of the way to stop at the land use. Trip length adjusts for trip shorter than the home-based work trips. The rates shown in Table 13 are multiplied by the cost per peak hour trip end produce the two preliminary fee schedules shown below. The bottom row shows the estimated amount of revenue each fee schedule should collect over the next 13 years.

Table 13. Preliminary Fee Schedules (1997 - 2010)

Land Use Categories	Full Action Plan (11-Projects)	Selected Projects
Single Family Residential	\$5,421	\$2,380
Multi Family Residential	\$3,443	\$1,512
Retail per square foot (<200 ksf)	\$1.17	\$0.51
Retail per square foot (>220 ksf)	\$1.32	\$0.58
Office per square foot	\$9.74	\$4.28
Industrial per square foot	\$6.59	\$2.89
Total Revenues (\$1,000,000)	\$368.1	\$161.6

### Economic Burden Analysis

While TVTC may be legally entitled to levy any of the preliminary fees shown in Table 13, there are several compelling reasons for levying a lower fee on commercial development. Tri-Valley currently has a surplus of workers and a shortage of jobs (a jobs/housing imbalance) and intends to encourage more commercial growth to improve the balance. Measure C states that jobs/housing balance should be considered in the establishment of the regional fee. In addition, Tri-Valley jurisdictions are struggling to attract jobs, retail services, and sales tax revenue.

In order to reduce the financial burden placed on commercial development, the TVTC may adopt an alternative fee schedule which has lower fees than those shown in Table 13.

The appropriate alternative fee schedule should be determined through a political process that relies on the participation of stakeholders. Any reliance on a quantitative analysis of economic burden would encounter the following shortcomings.

- **Who Actually Pays the Fee?** - Opponents of impact fees point out that fees directly increase housing prices and costs of business. Proponents argue that these impacts on the end user are short-term effects and that in the mid to long-term fees are absorbed in the developer's profit and/or passed back to land owners. In reality, sorting out who actually pays impact fees is extremely complex and highly dependent on local market conditions.
- **How Much Is the Total Fee Burden?** - Some jurisdictions use the Subdivision Map Act, CEQA, and/or development agreements to fund some or all transportation improvements. As a consequence, their impact fee programs (under Government Code 66000 *et seq.*), appear modest compared to jurisdictions using a different mix of local funding methods.
- **Are Impact Fee Burdens Measured in Relative or Absolute Terms?** - Even if accurate total amounts could be determined for each jurisdiction, the true burden is relative to the strength of the local real estate market and not simply a comparison of absolute fee amounts. Thus, each jurisdiction's real estate market, redevelopment program, fiscal condition, municipal service levels, and supply of land are critical variables that should be considered in weighting the dollar amount of the fee.
- **To What Degree Are Fees Providing Benefits to Property Owners?** - TVTC fees will go directly to maintaining traffic conditions on major routes. In many locations, specific development projects will receive direct benefits, thus maintaining (or improving) property values. The fee's burden even within the same jurisdiction may vary significantly depending on the transportation conditions faced by individual property owners.

Given these shortcomings, TVTC must work with its various stakeholders to determine how much it can afford to charge developers and how much it can accept in future congestion.



**EXHIBIT G**

Technical Memo

# TECHNICAL MEMO

## The Use of Alternative Peak Hour Rates for Allocating Responsibility for TVTC Regional Impact Fee

At their 1/29/97 meeting the Tri-Valley Council asked that they be presented with three options for allocating the TVTC Regional Traffic Impact Fee to land use types. This memo presents fee calculations for AM Peak Hour, PM Peak Hour, and the average of the two.

### AM Peak Hour

The Nexus Analysis Report (dated 1/29/97) allocated the estimated \$161.6 million funding shortfall<sup>1</sup> for the top 4 projects in the Action Plan across 50,246 net AM peak hour trips<sup>2</sup>. The result was a TVTC regional fee of \$3,216<sup>3</sup> per peak hour vehicle trip.

The following table of trip rates, derived from the ITE Trip Generation Guide, Fifth Edition, was then used to compute the TVTC fee per dwelling unit and per 1000 square feet.

Table 12. AM Peak Hour Trip Generation Rates and Adjustments

Land Use Category	ITE Rate (AM)	Trip Division Adjustment Factor	Trip Length Adjustment Factor	Adjusted AM Peak Hour Trip Rate
Single Family Residential	0.74	1.00	1.00	0.74
Multi-Family Residential	0.47	1.00	1.00	0.47
Retail (<200 ksf) (per 1000 SF)	1.60	0.20	0.50	0.16
Retail (>200 ksf) (per 1000 SF)	0.80	0.45	0.50	0.18
Office (per 1000 SF)	1.33	1.00	1.00	1.33
Industrial (per 1000 SF)	0.90	1.00	1.00	0.90

The resulting fee schedule for funding the unfunded portions of the Top 4 projects is shown in Table 13 of the Nexus Report (reprinted below).

Table 13. Preliminary Fee Schedules (1997 - 2010) (AM Peak Rates)

Land Use Categories	Full Action Plan (11 Projects)	Selected Projects
Single Family Residential	\$3,421	\$2,380
Multi-Family Residential	\$3,443	\$1,512
Retail (<200ksf)	\$1.17	\$0.51
Retail (>200ksf)	\$1.32	\$0.58
Office (per 1000 SF)	\$9.74	\$4.28
Industrial (per 1000 SF)	\$6.59	\$2.89

<sup>1</sup> Following Table 9, page 9, Nexus Report.

<sup>2</sup> Top of page 7, Nexus Report.

<sup>3</sup> Table 11, page 11, Nexus Report.

### PM Peak Hour

If PM peak hour ITE rates were to be used instead of the AM rates, the impact fee calculation would change as follows. The unfunded costs for the Top 4 projects of \$161.6 million would be divided by 71,108 net new PM peak hour trips (between 1997 and 2010) to obtain a new TVTC regional fee rate of \$2,756 per peak hour vehicle trip. Table 12 of the Nexus Report would need to be replaced with the following PM Peak Hour trip table derived from the Fifth Edition of the ITE Trip Generation Guide.

Revised Table 12. PM Peak Hour Trip Generation Rates and Adjustments

Land Use Category	ITE Rate (PM)	Trip Direction Adjustment Factor	Trip Length Adjustment Factor	Adjusted PM Peak Hour Trip Rate
Single Family Residential	1.01	1.00	1.00	1.01
Multi-Family Residential	0.58	1.00	1.00	0.58
Retail (<200 ksf)	6.50	0.20	0.50	0.65
Retail (>200 ksf)	3.50	0.45	0.50	0.79
Office (per 1000 SF)	1.22	1.00	1.00	1.22
Industrial (per 1000 SF)	0.97	1.00	1.00	0.97

The revised fee schedule is shown in the following revised Table 13.

Revised Table 13. Preliminary Fee Schedules (1997 - 2010) (PM Peak Rates)

Land Use Categories	Full Action Plan (11 Projects)	Selected Projects
Single Family Residential	\$6,342	\$2,784
Multi-Family Residential	\$3,642	\$1,591
Retail (<200ksf)	\$4.08	\$1.79
Retail (>200ksf)	\$4.96	\$2.18
Office (per 1000 SF)	\$7.65	\$3.36
Industrial (per 1000 SF)	\$5.09	\$2.67

### Average of AM and PM Peak Hour

If we average the AM and PM peak hour fees, we get the table of rates below:

Land Use Categories	Full Action Plan (11 Projects)	Selected Projects
Single Family Residential	\$5,682	\$2,582
Multi-Family Residential	\$3,543	\$1,555
Retail (<200ksf)	\$2.63	\$1.15
Retail (>200ksf)	\$3.14	\$1.39
Office (per 1000 SF)	\$8.70	\$3.82
Industrial (per 1000 SF)	\$6.34	\$2.78

