

Fresno Regional Transportation Mitigation Fee – 2014 Nexus Study Update

Draft Final Report

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November 5, 2014

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Executive Summary

The Fresno County Regional Transportation Mitigation Fee (RTMF) was created to fulfill the terms of the Measure 'C' Extension ballot measure, which was approved by Fresno County voters in 2006. The RTMF became effective on January 1, 2010 and so is due for an update to ensure that the project list, estimated project costs, land use forecasts, and other key inputs are kept up-to-date. This report describes the methodology used in the update, the resulted proposed revised fee structure, and the revised forecast for RTMF program revenues.

Since the original RTMF nexus study was prepared (2007-to-2008) the Great Recession caused a prolonged slump in the economy with the real estate sector being particularly hard hit. New forecasts for future development, done as part of the new Sustainable Communities Strategy (SCS), incorporate both a lower existing base of households and employment and lower future growth rates. Moreover, the SCS and its companion Regional Transportation Plan were specifically designed to reduce the growth in auto use. These factors have resulted in reduced forecasts for future traffic congestion and less need for roadway capacity improvements. At the same time, Fresno has been fortunate to receive much more state and local grant funding than was foreseen in the original nexus study.

This combination of factors reduces the amount that needs to be and can be collected through the RTMF to mitigate the future regional transportation impacts of new development. Exhibit ES-1 shows the recommended revised fee structure, which takes the factors described above into account.

Land Use Category	Current Fee	Recommended Revised Fee	% Change
Residential Development Categories			
Single-Family Dwellings (market rate)	\$1,727 /DU	\$1,637 /DU	-5%
Single-Family Dwellings (affordable)	\$863 /DU	\$819 /DU	-5%
Multi-Family Dwellings (market rate)	\$1,212 /DU	\$1,150 /DU	-5%
Multi-Family Dwellings (affordable)	\$606 /DU	\$575 /DU	-5%
Non-Residential Development Categories			
Commercial/Retail	\$1.96 Sq.Ft.	\$1.61 Sq.Ft.	-18%
Commercial/Office/Service	\$1.23 Sq.Ft.	\$0.89 Sq.Ft.	-27%
Government	Exempt	Exempt	
Education	Exempt	Exempt	
Light Industrial	\$0.49 Sq.Ft.	\$0.32 Sq.Ft.	-35%
Heavy Industrial	\$0.10 Sq.Ft.	\$0.07 Sq.Ft.	-30%
Other Non-Residential	\$0.42 Sq.Ft.	\$0.28 Sq.Ft.	-33%

Exhibit ES-1: Current and Recommended RTMF Fees

The recommendation to reduce the fees stems primarily from the greater-than-expected grant funding available for some RTMF projects. This funding was assigned to specific projects and a portion covered costs which might otherwise have been covered by the RTMF. State law does not permit fees to be collected for costs already paid for through grants, so the fee must be lowered. The reduction is greater for non-residential development due to reduced growth projections for these types of development.

If this fee schedule is adopted, Fresno County will continue to have one of the lowest county-wide traffic impact fees among Valley and foothills counties. Nevertheless, if the forecasts for future residential and non-residential development prove correct, then total revenues from the RTMF over the life of the program will be approximately \$188M. This would be within the \$102M-to-\$235M target range of revenue set for the RTMF in the ballot measure.

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1.0 INTRODUCTION

1.1 Measure 'C' and the RTMF

When the voters of Fresno County approved a 20-year extension for Measure 'C' in 2006, they added a new element to the program in the form of a county-wide transportation impact fee. The Regional Transportation Mitigation Fee (RTMF) is intended to ensure that future development contributes its fair share towards the costs of infrastructure to mitigate the cumulative indirect regional transportation impacts of new growth in a manner consistent with the provisions of the Mitigation Fee Act. The text of the Measure "C" Extension stated that the primary purpose of the RTMF was to augment funding for the projects identified in the Regional Transportation Program Tier 1 Project List, and that the fee should also address improvements identified in the Fresno-Madera County Freeway Deficiency Study (FIDS). Under certain circumstances projects in the Tier 2 Project List might also receive funding from the fee program.

In addition to identifying the lists of projects potentially eligible to receive RTMF funding, Measure "C" Extension also provided guidance on how the RTMF was to be implemented. For example, Measure 'C' Extension stipulated that regional traffic impacts be determined based on the Council of Governments' transportation model, and that the number of land use categories be limited to the extent possible to certain named categories, and that certain exemptions and discounts be offered. The fact that the RTMF must follow this guidance in addition to the provisions of the Mitigation Fee Act makes this a somewhat less flexible program than the impact fees adopted by individual jurisdictions based on their own needs.

Measure 'C' Extension stated that every city in Fresno County and the County of Fresno must adopt the RTMF or forfeit a portion of the Local Transportation Program Street Maintenance Allocation in an amount equal to the amount of RTMF that would otherwise have been paid for development projects within that jurisdiction. Every city and the County did adopt the fee, and chose to use the Joint Exercise of Powers Act to create the Fresno County Regional Transportation Mitigation Fee Joint Powers Agency (the Agency) to whom they delegated their power to enact, adopt, establish, implement, impose, collect, and administer the RTMF.

The Agency duly enacted policies for the implementation of the RTMF. The most important of these policies for the purposes of the current study was the decision to consider for RTMF funding only the projects in the Tier 1 Project List that are part of the state highway system, a portion of the Veterans Boulevard Project, and FIDS projects, while excluding local Tier 1 road projects and the entire Tier 2 Project List from inclusion in the program. The local Tier 1 projects and a portion of the Veterans Boulevard Project were excluded from the RTMF to avoid the possibility of double-charging development for projects covered by other fee programs (the City of Fresno City Wide Street Impact Fee, for example). The Tier 2 Project List was excluded due to doubts about the availability of funding for the non-RTMF portion of these projects. The Mitigation Fee Act does not allow fees to be collected for projects unless there is a realistic chance that the project will be implemented.

1.2 Experience from the First 4 Years of Operation

1.2.1 Applications Processed

As of May 2014, 6,665 applications have been processed to either pay the RTMF or to claim an exemption (see Exhibit 1 and Exhibit 2). Each application covers a single building, so in the case of single-family dwellings each house has its own application while for multi-family residences each application covers a multi-unit apartment building.

Application Type	Applications			Dwelling Units			Fee Collected
	Exempt	Non-Exempt	Total	Exempt	Non-Exempt	Total	
SFD	1,951	4,086	6,037	1,951	4,086	6,037	\$ 6,342,042
SFD (Affordable)	14	29	43	14	29	43	\$ 24,890
MFD	20	117	137	243	771	1,014	\$ 844,749
MFD (Affordable)	14	23	37	148	343	491	\$ 184,233
Total	1,999	4,255	6,254	2,356	5,229	7,585	\$ 7,395,914
% of Total	32%	68%		31%	69%		

Exhibit 1: Residential Applications Processed

Application Type	Applications			Square Feet of Building Space			Fee Collected
	Exempt	Non-Exempt	Total	Exempt	Non-Exempt	Total	
Education	5	0	5	20,650		20,650	\$ -
Government	5	0	5	85,125		85,125	\$ -
Retail	21	84	105	186,019	1,318,111	1,504,130	\$ 2,540,661
Office	15	89	104	101,778	718,463	820,241	\$ 801,492
Light Industrial	8	45	53	37,655	356,691	394,346	\$ 157,040
Heavy Industrial	3	96	99	9,751	2,183,372	2,193,123	\$ 207,766
Other	14	26	40	78,099	326,286	404,385	\$ 109,895
Total	71	340	411	227,283	3,584,812	3,812,095	\$ 3,816,853
% of Total	17%	83%		6%	94%		

Exhibit 2: Non-Residential Applications Processed

Of the residential units processed thus far, 7% have met the criteria for “affordable housing”, which is very close to the 8% originally forecast. Affordable housing is given a 50% reduction in fee, per the ballot measure.

Nearly a third (31%) of residential applications qualified for exemption with all exemptions being based on vesting. In contrast, only 6% of non-residential development qualified for an exemption, including some projects that were exempt because they were for governmental or educational entities.

Of the \$12,139,491 in fees collected as of October 1st, 66% have come from residential development and 34% from commercial development. The original forecast assumed that 76% of revenues would come from residential development. So the original forecast was reasonably close in terms of the mix of development expected.

1.2.2 Receipts by Month and Year

Exhibit 3 shows the RTMF receipts by month and year in tabular form; Exhibit 4 shows the same data as a graph.

Month	Year				
	2010	2011	2012	2013	2014
Jan	\$ 16,800	\$ 8,495	\$ 97,775	\$ 524,604	\$ 508,466
Feb	\$ 37,700	\$ 74,857	\$ 93,098	\$ 437,457	\$ 122,086
Mar	\$ 20,555	\$ 35,361	\$ 61,963	\$ 265,002	\$ 677,124
Apr	\$ 30,540	\$ 81,902	\$ 108,733	\$ 199,912	\$ 290,889
May	\$ 45,452	\$ 62,182	\$ 217,804	\$ 303,486	\$ 200,067
Jun	\$ 117,775	\$ 102,017	\$ 243,577	\$ 241,955	\$ 491,107
Jul	\$ 55,200	\$ 77,422	\$ 123,447	\$ 348,216	\$ 183,888
Aug	\$ 128,419	\$ 67,715	\$ 226,556	\$ 673,168	\$ 301,979
Sep	\$ 131,684	\$ 65,670	\$ 173,756	\$ 238,669	\$ 440,858
Oct	\$ 261,036	\$ 110,572	\$ 334,543	\$ 312,180	
Nov	\$ 119,037	\$ 75,373	\$ 133,403	\$ 324,234	
Dec	\$ 555,814	\$ 541,923	\$ 154,354	\$ 261,636	
Total	\$ 1,520,012	\$ 1,303,488	\$ 1,969,010	\$ 4,130,518	\$ 3,216,464

Receipts are generally increasing on a year-on-year

Exhibit 3: RTMF Receipts by Month (Table)

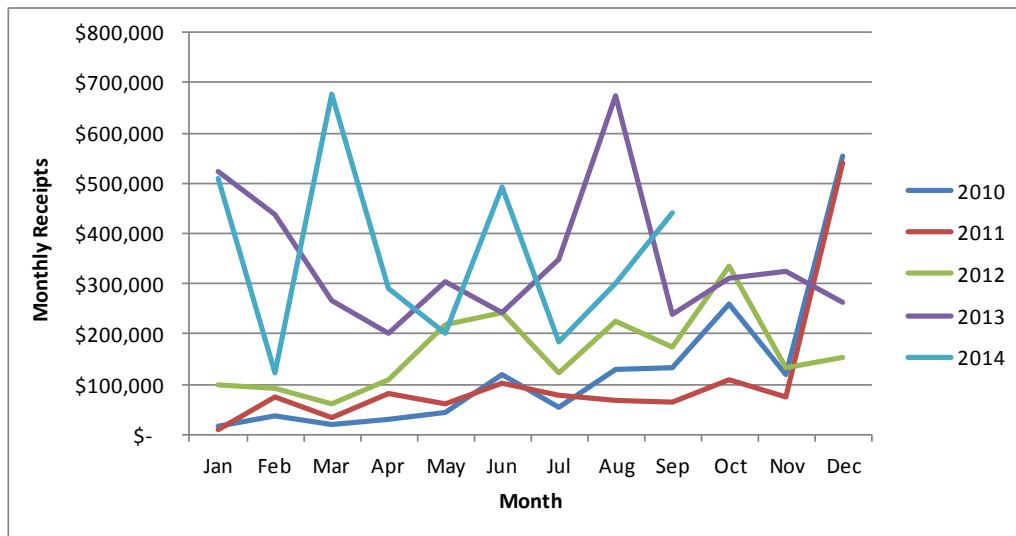


Exhibit 4: RTMF Receipts by Month (Graph)

This data shows several things:

- This is an erratic revenue source, with wide swings in receipts from one month to the next
- There is no strong pattern in terms of which months have the most activity. December 2010 and December 2011 were both unusually high, but this was due to applicants filing their paperwork

before new regulations went into effect on January 1st, including increases in the RTMF¹. When there are no important new regulations then December is not a particularly active month (2012 and 2013).

- There is a clear upward trend in receipts as the economy recovers. This trend should also accelerate as the stock of vested units depletes over time and the percentage of units paying the fee rises.

1.2.3 Comparison of Actual to Forecast Revenues

The original nexus study made forecast for revenues over the entire 20-year life of the program (\$221M) but did not make predictions for revenues in any given year. Distributed pro-rata, and taking into account the reduced fees for the first two years due to the phase-in of the fee, approximately \$40M might have been expected to be collected in the first four years of the program compared to approximately \$9M in actual receipts (22%).

It is very common for impact fee programs to have low receipts in the first few years because a high proportion of the construction activity is for projects that have vested exemptions from before the fee came into effect. Perhaps more important for the RTMF was unfortunate timing, in that the program came into effect in the midst of the worst real estate slump in generations. The slump has seriously reduced the amount collected from similar transportation mitigation fees in other parts of California, as can be seen in Exhibit 5 and Exhibit 6.

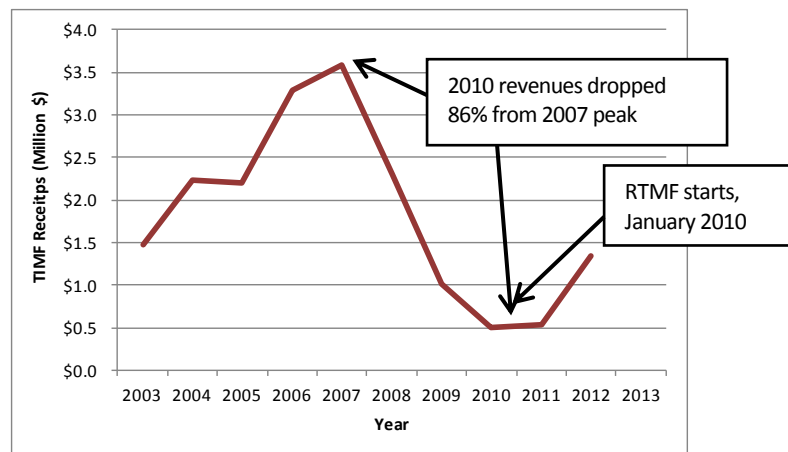


Exhibit 5: Revenues for the San Joaquin County Traffic Impact Mitigation Fee

¹ The RTMF was phased in over a three-year period, with increases effective on January 1st.

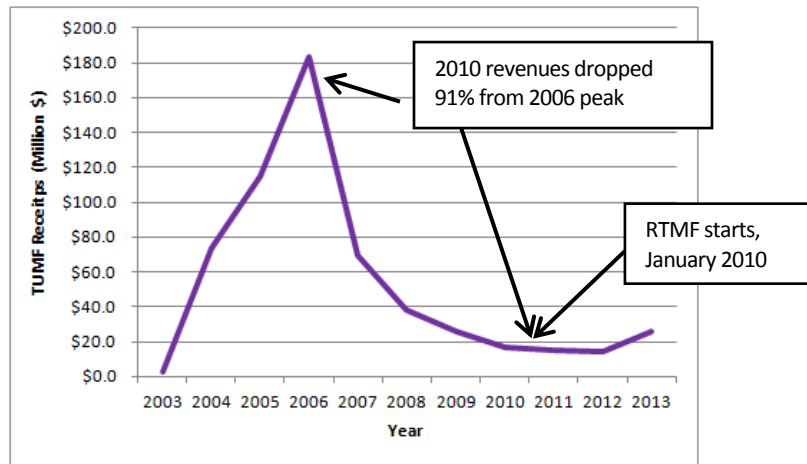


Exhibit 6: Revenues for the Western Riverside Transportation Uniform Mitigation Fee

While 2010 and 2011 were years of low revenue for the RTMF and its peer programs in other counties, revenues were up sharply in 2012 and 2013 (see Exhibit 7) as the real estate market began to recover. This is consistent with the Sustainable Community Strategy since, if the SCS target of about 118,400 new dwelling units being built between 2007 and 2027 is to happen, then development will need to accelerate from the approximately 1,300 DUs/year being produced now to an average of about 4,800 DUs/year for the remaining 13 years of the RTMF program.

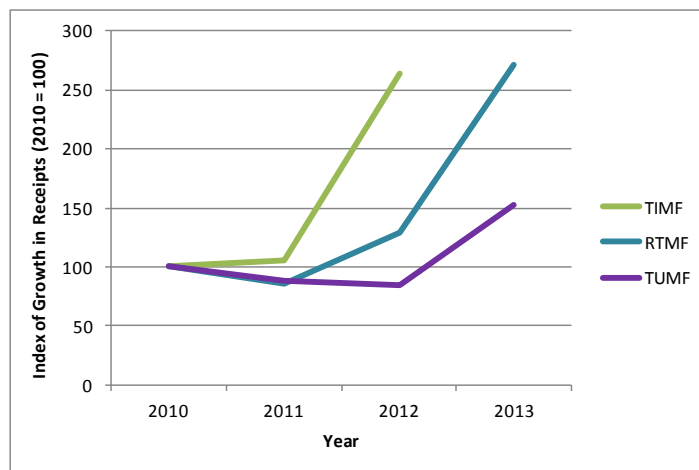


Exhibit 7: Revenues for Various Traffic Impact Fees, 2010 to 2013

1.3 Need for an Update

The purpose of conducting regular updates to the RTMF is to ensure that the nexus between the fees being collected and the impacts of development is maintained, by checking that the project list, project cost

estimates, assumed funding from other sources, etc. are revised as the situation evolves over time. The RTMF became effective on January 1, 2010, and the current study is intended to provide the necessary update.

2.0 UPDATES OF KEY INPUTS

2.1 Growth Forecasts

The growth forecasts used in the original development of the RTMF were based on forecasts prepared for the 2000-2025 period by the Central California Future Institute (CCFI) and later extrapolated to 2030 by FCOG staff². Since that time, the Great Recession has reduced employment, the 2010 U.S. census has provided new information on the size and geographic distribution of the existing population, and a new Sustainable Communities Strategy has been developed and adopted. As a result of these developments the population and employment forecasts for 2030 have changed substantially from the original forecasts.

2.1.1 Forecasts of Households

Exhibit 8 shows the number of distribution of households in the 2007 base year of the previous version of the FCOG traffic model (i.e. the model that was used in the original development of the RTMF program), alongside the distribution in the current FCOG model. The latter is based on data from the 2010 U.S. Census. As can be seen in the exhibit, the original assumptions about the number of households in the cities of Fresno and Clovis were confirmed by the census data. However, the census found 75,000 households (24% of all households) living in the rural parts of the county compared to the original assumption of approximately 43,000 (15%).

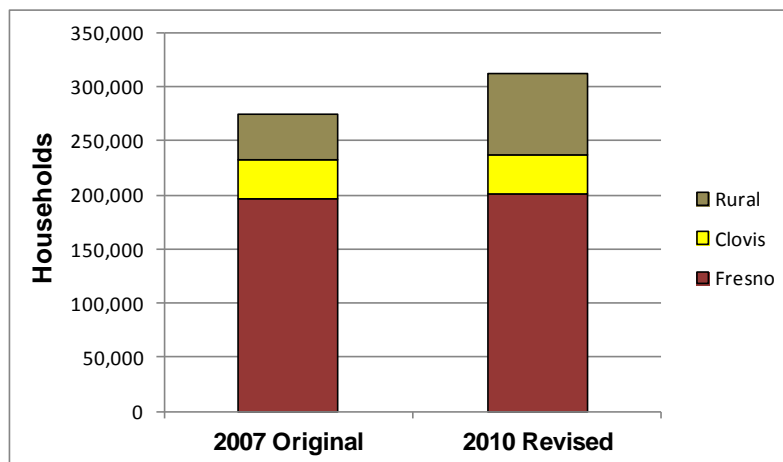


Exhibit 8: Estimates of 2007 and 2010 Households

Exhibit 9 shows the original and the revised forecasts for households by area in 2030. The revised forecast is based on the Sustainable Communities Strategy Scenario B, which was adopted on November 21, 2013 by the Fresno COG Policy Board as their preferred scenario. The revised 2030 forecast assumes 4% fewer households in 2030 than the original forecast, along with a distribution very close to that found in the 2010 U.S. Census.

² See 2006 Fresno COG Conformity Analysis Model Documentation

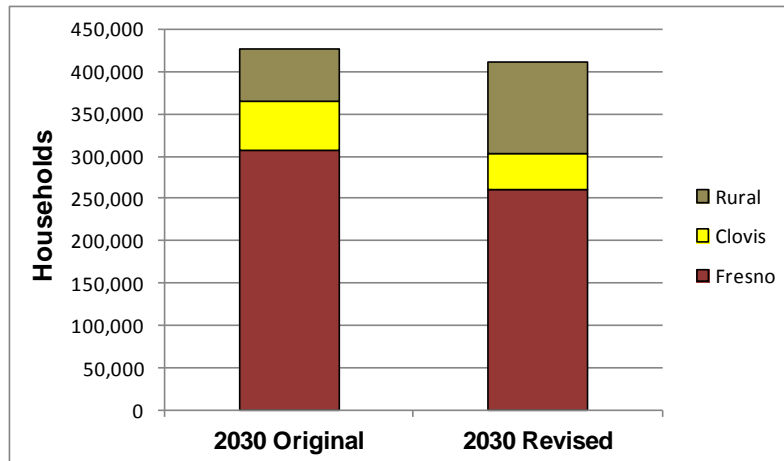


Exhibit 9: Forecasts of Households in 2030

The reduction in future population and the fact that more is located in the rural areas results in 17% fewer households living in the Fresno-Clovis area in 2030 than was assumed in the previous forecast. This has several effects on the RTMF, most notably:

- Fewer new households means less traffic impacts and therefore less need for roadway improvements as mitigation. Some projects may no longer be needed, or a smaller portion of the need may be attributable to new development.
- Fewer household means fewer new dwelling units paying the fee.

2.1.2 Forecasts of Employment

The forecasts for employment growth used in the original development of the RTMF predated the Great Recession and appears in retrospect to have been optimistic. The revised forecast based on the Sustainable Communities Strategy has both a lower base (in 2010) and a lower growth rate. The result is 27% less employment in 2030.

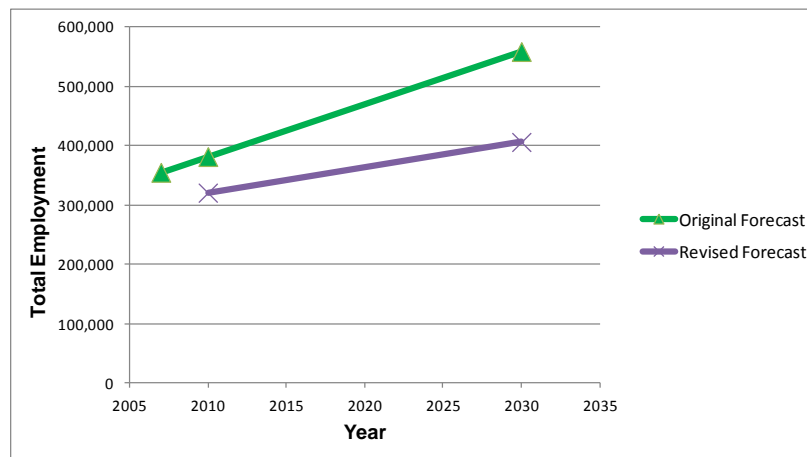


Exhibit 10: Forecasts of Employment in 2030

Exhibit 11 shows that the revised employment forecasts for 2030 are substantially lower than the previous forecasts across-the-board, with service jobs and retail showing the greatest reductions.

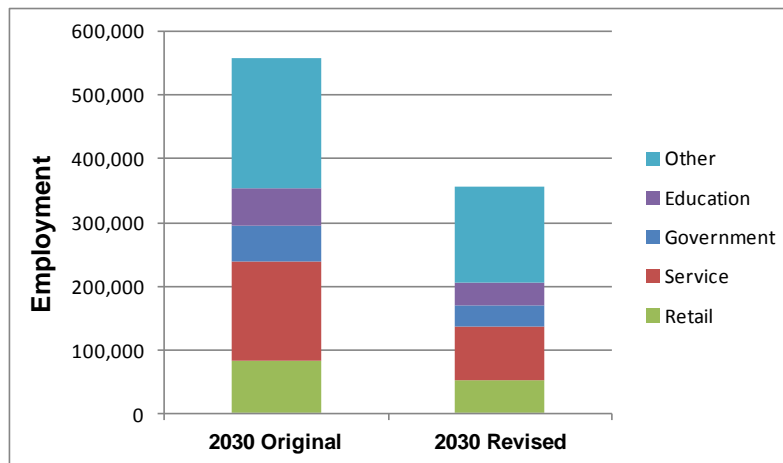


Exhibit 11: Forecast Composition of Employment in 2030

As with the forecasts for households, the reduced forecasts for employment growth mean that there will be less impacts from new development than previously forecast, and that there will be fewer new non-residential developments paying the RTMF.

2.2 Funding from Other Sources

When computing the amount of an impact fee, the amount of funding available from other sources must be deducted from the project cost estimates to ensure new development is not paying more than its fair share. State and federal funds for transportation improvements are channeled through the STIP, which is administered by the California Transportation Commission (CTC). For the purposes of this study there are two key features of the STIP; namely that the CTC allocates a share of statewide funding to Fresno County which FCOG then allocates among individual projects, subject to later review by the CTC, and that STIP funding is difficult to predict and varies widely from year to year depending on the budget situation on the state level.

In the case of the RTMF, the amount of funding available from other sources has changed dramatically from the assumptions made when the fee was first developed. At the time of the original nexus study (mid-2008) the outlook for state and federal funding at the time of the nexus study was bleak. The only funding known to be secured for Measure 'C' Tier 1 projects was \$33.4M for the SR-180 East Segment II Project. The study anticipated that there might very well be a shortfall in total funds for the Tier 1 projects, with perhaps no funding at all available for the Tier 2 and FIDS projects.

Since that time the Fresno region has been very successful in securing state and federal funding for Tier 1 projects. As can be seen in Exhibit 12 \$226.6M, approximately eight times the original estimate, has been secured for these projects. In some cases the funding covers more than the portion of the project need that is attributable to existing deficiencies. In such cases the surplus funding is deducted from the portion of project need that is attributable to new development and so results in a reduction in the RTMF. This is explained in more detail in the next chapter.

	Project ID	Project Name	Updated Project Cost Estimate	Funding from Other Sources (STIP, SHOPP, etc.)			
				Original Nexus Study	Current Neuxs Update		
URBAN TIER 1	A	SR-180 East Seg II	\$33,478,000	\$33,479,701	\$33,478,000		
	B	SR-180 West Seg II	\$7,519,000		\$2,213,000		
	C	SR-41/SR-168/SR-180	\$67,700,000		\$55,000,000		
	D	Willow Avenue	\$27,788,000		\$8,708,000		
	E	Temperance Avenue	\$6,124,000		\$2,481,000		
	F	Ventura Boulevard	\$3,427,000		\$0		
	G	SR-99 Monterey Bridge Retrofit	\$1,602,000		\$0		
	H	California Ave Widening	\$11,284,000		\$0		
	I	Peach Ave Widening	\$22,281,000		\$9,204,000		
	J	SR-41 Auxiliary Lane	\$25,996,000		\$0		
	K	Herndon Ave Widening	\$131,618,000		\$16,787,000		
	L	Shaw Ave Upgrades	\$12,696,000		\$116,000		
	M	SR-99 North & Cedar Interchanges	\$110,059,000		\$0		
	N	Veteran's Boulevard	\$144,211,000		\$500,000		
RURAL TIER 1	A	SR-180 West	\$12,077,000		\$0		
	B	SR-180 East Seg III	\$68,443,000		\$47,882,000		
	C	SR-180 East Seg IV	\$40,100,000		\$17,309,000		
	D	SR-180 East Seg V	\$96,448,000		\$57,757,000		
	E	Friant Road Widening	\$4,120,000		\$0		
	F	Golden State Boulevard	\$48,195,000		\$0		
	G	SR-269 Bridge Improvement	\$30,250,000		\$15,250,000		
	H	SR-180 West I5 Extension	\$305,110,000		\$0		
	I	Mountain View Ave Widening	\$24,848,000		\$0		
	J	Mendocino Ave Widening	\$3,536,000		\$0		
	K	SR-99 American Ave Interchange	\$56,853,000		\$0		
	L	I-5/SR-198 Interchange Improvement	\$18,236,000		\$0		
	Total for Tier 1				\$1,313,999,000	\$33,479,701	\$266,685,000
	As a percent of total updated cost estimate					3%	20%

Exhibit 12: Funding Available from Other Sources

2.3 Project Costs

The cost of road construction has varied significantly over the course of the last decade, so it is important that this be factored into the fee structure for the RTMF.

Exhibit 13 shows Caltrans' construction price index for highway projects for the period from 1900 to 2014. As can be seen in the exhibit, there was a slow and stable rise in prices throughout the 1990's and early years of the 2000's. However, in 2004 a combination of a construction boom, rising land and fuel costs, and the effect of a weakening U.S. dollar on the cost of imported construction materials, caused construction prices to rise more in a single year than they had in the previous 15 years combined; the highest single-year increase since Caltrans started the index. This was followed in 2005 by the second-highest single-year increase. This sudden rise in prices meant that the project costs used to development the ballot measure became under-estimates. Thus when the RTMF was developed it was necessary to update the project cost estimates to 2006 prices (the most current available at the time).

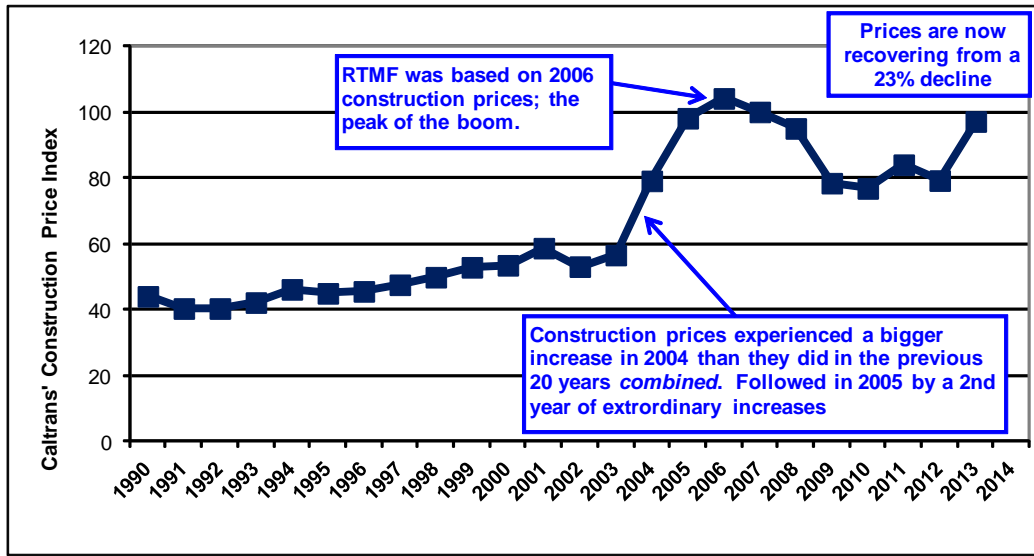


Exhibit 13: Caltrans' Construction Price Index, 1990-2014

Since the fee was originally calculated prices went into a four-year, 23% decline, followed in 2013 by another sharp rise in prices.

The Caltrans cost index is based on actual bid prices for projects done in the previous year. There is a second cost index, prepared by the Engineering News Record (ENR) that is computed based on the market prices for various major inputs to road projects (concrete, steel, aggregate, etc.). This index is less volatile than the Caltrans index because it does not include the effect of contractors' changing profit expectations in response to strong or weak market conditions. The two indices are compared in Exhibit 14.

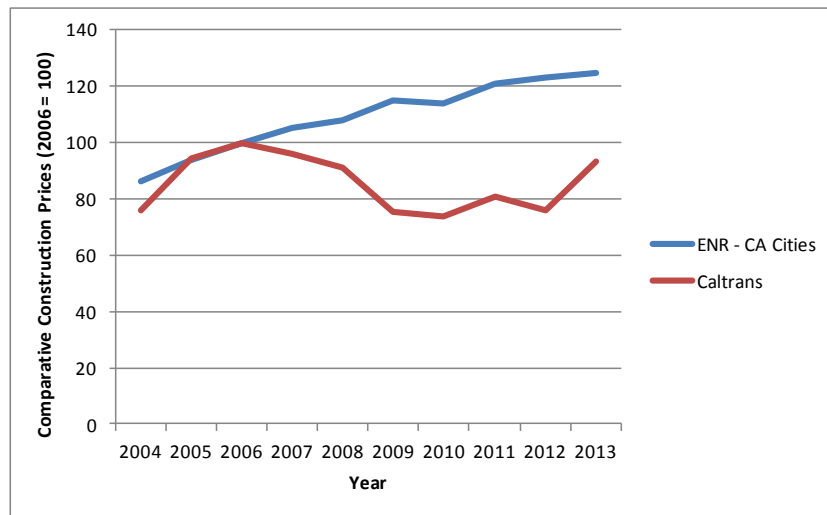


Exhibit 14: Caltrans and ENR Price Indices

As can be seen in Exhibit 14, the ENR index suggests that prices of key components are now 25% higher than the 2006 prices used in the original nexus study, while the Caltrans index suggests that contractors might be still be willing to accept 7% lower prices than they accepted in 2006; a lingering effect from the downturn in the construction market. Note, though, the sharp uptick in the Caltrans index since 2012, which suggests that low prices may not continue and that the two indexes may converge in the near future.

The text of Measure 'C' specifies that the ENR index for California Cities is to be used as the basis for cost adjustments for the RTMF. This decision was based in part on the relative stability of the ENR index, which makes the fee program more predictable for developers compared to the highly volatile Caltrans index. Therefore, for projects where no recent cost estimates are available, the project cost estimates were increased 25% from those used in the original fee calculation.

3.0 UPDATED FEE CALCULATION

An overview of the methodology used to compute the RTMF is provided in the section below, followed by sections providing more in-depth discussion of the key components. These are followed by section describing the resulting fees and the revenues that would be raised by the RTMF under the different sets of policy options.

3.1 Overview of the Fee Computation Methodology

The methodology used in the fee computation is outlined in Exhibit 15 below.

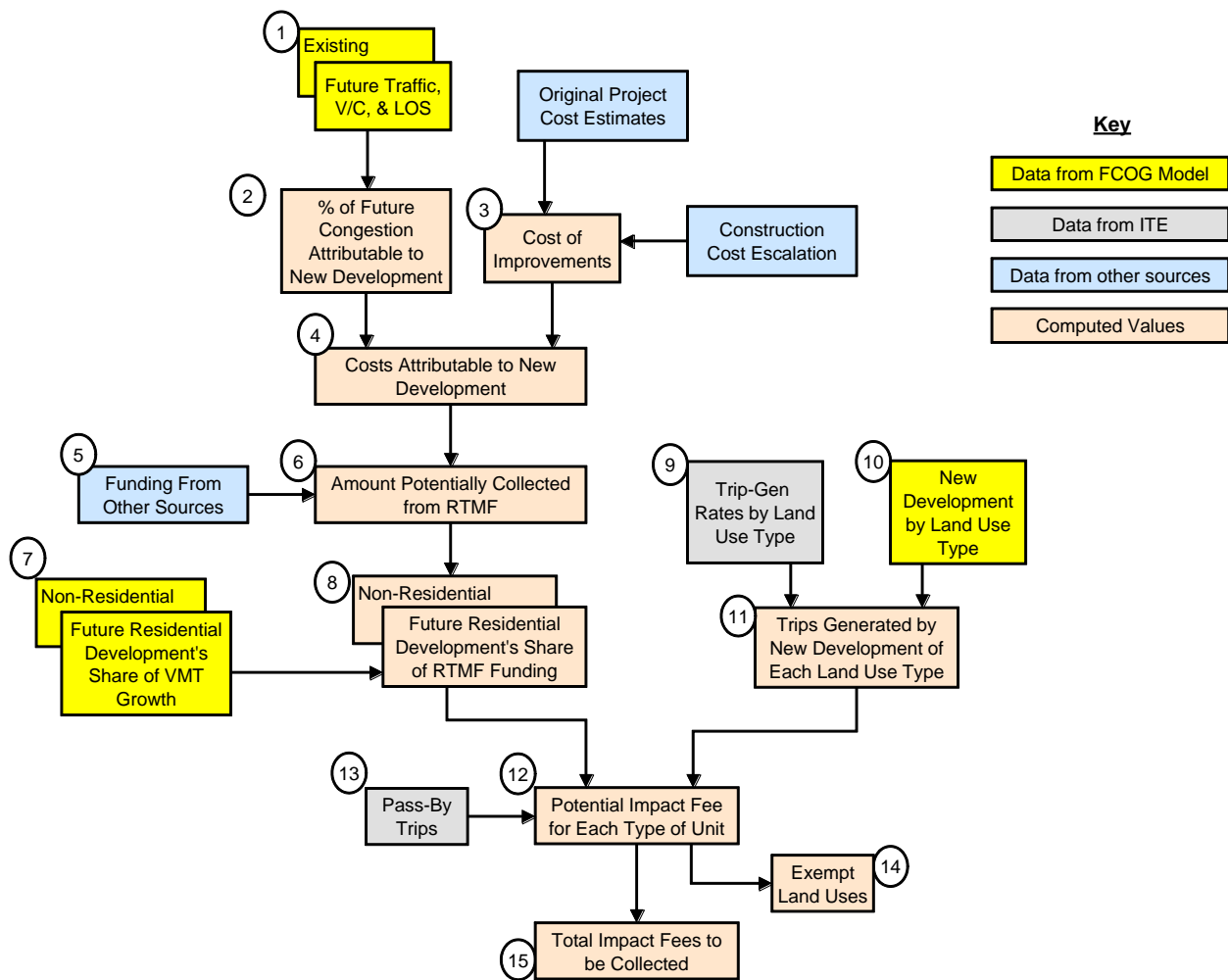


Exhibit 15: Steps in the Fee Computation

The major steps include:

- 1) The starting point was the set of outputs from the FCOG traffic model that were used to determine the volume-to-capacity (V/C) ratio for each project under 2008 and 2027 conditions.
- 2) The V/C ratios were then used to determine the percentage of the need for each project that is attributable to new development.
- 3) Revised cost estimates were prepared for each project as described in Chapter 2.
- 4) The outputs from steps 2 and 3 were used to determine the share of project costs attributable to new development. These estimates exclude certain project components such as beautification work that are not capacity-enhancing and so are ineligible by law to receive impact fee revenue.
- 5) Next, funding from other sources that is expected to be available for the listed projects was deducted from the amount needed from the RTMF.
- 6) The product of the previous two steps was the interim maximum amount of funding allowable by law that could potentially be collected using the RTMF.
- 7) The FCOG traffic model was also used to determine the growth in vehicle-miles traveled (VMT) that will be associated with residential and non-residential development.
- 8) The results of Steps 6 and 7 were then combined to determine the portion of each project's budget that could be attributed to new residential and non-residential development.
- 9) Next, the trip generation rate was determined for each land use type. For residential land uses the unit of measurement was VMT per day per dwelling unit, while for non-residential uses, trip-generation was measured in terms of VMT per day per job.
- 10) The number of new units of each land use type was taken from the FCOG traffic model.
- 11) The number of new units for each development type was then multiplied by the trip generation rate to produce the total number of new trips associated with each type of land use development.
- 12) The project funding attributable to residential and non-residential developments (from Step 8) was then divided by the expected number of new trips (from Step 11) to produce the maximum potential impact fee for each type of unit.
- 13) A percentage of trips were deducted from the certain land use types to account for pass-by trips.
- 14) The Agency established a policy, based on language in Measure "C" Extension, that certain types of land uses would be exempt from the RTMF. The fees from these land uses types were therefore deducted from the expected RTMF revenues.
- 15) The total amount of RTMF revenues to be collected were then computed by multiplying the expected number of new units of each type of non-exempt development by the fee charged to each unit.

The next sections describe several key steps in the process in more detail.

3.2 Determining the Percent of Project Need Attributable to Now Development

The procedure for determining the percentage of the need to improve a roadway facility that is attributable to new development is illustrated in Exhibit 16.

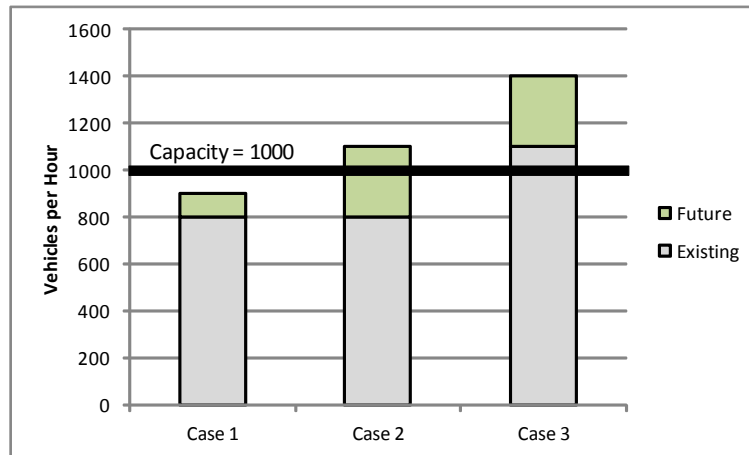


Exhibit 16: Examples of How the Percent Attributable to New Development is Determined

There are three possible cases, namely:

- In Case 1, the roadway facility is operating at below its capacity under existing conditions and is forecast to continue to do so under future (2030) conditions. In such cases there is no deficiency and so no impact fees can be collected for the project³.
- In Case 2 the facility operates below its maximum capacity under existing conditions but the capacity is insufficient to accommodate the expected future growth in traffic. In such cases the need to provide additional capacity is entirely attributable to new development.
- In Case 3 the traffic using the facility already exceeds its rated capacity and the expected growth in traffic will exacerbate the situation. In such cases the percentage attributable to new development is the portion of the volume beyond the rated capacity that comes from new development.

In each case the capacity is the maximum volume that can be accommodated at level-of-service 'D', which is the target vehicular LOS mandated by Fresno COG.

Exhibit 17 shows how this methodology was applied to the project on the Measure 'C' Tier 1 Project List and the FIDS projects, based on the latest version of the FCOG travel demand model. The exhibit also compares the updated results with those from the original nexus study.

³ This is not to say that the project is not justified; only that the justification is unrelated to the need to provide additional capacity to accommodate future development. The seismic retrofit of a bridge would be an example of a project where the need is not based on insufficient capacity.

Project ID	Project Name	Existing (Pre-RTMF) Conditions				Future (2027) Conditions				Original Nexus Study	Nexus Update	Changes Resulting from the Updated Traffic Forecasts (if any)
		Original Nexus Study		Nexus Update		Original Nexus Study		Nexus Update		% of Deficiency	% of Deficiency	
		V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	V/C Ratio	LOS	Attributable to New	Attributable to New	
URBAN TIER 1	A SR-180 East Seg II *	1.79	F	1.79	F	2.62	F	2.29	F	51%	39%	% attributable to new development decreases
	B SR-180 West Seg II *	1.59	F	1.59	F	2.11	F	1.91	F	46%	35%	% attributable to new development decreases
	C SR-41/SR-168/SR-180	0.90	D	0.90	D	1.42	F	1.07	E	100%	100%	No change
	D Willow Avenue	0.77	D	0.77	D	1.80	F	1.32	F	100%	100%	No change
	E Temperance Avenue	0.79	D	0.79	D	1.54	F	1.12	F	100%	100%	No change
	F Ventura Boulevard	0.67	C or better	0.67	C or better	1.03	E	0.81	D	100%	No Deficiency	Future deficiency eliminated
	G SR-99 Monterey Bridge Retrofit	0.61	C or better	0.61	C or better	1.01	E	0.69	C or better	100%	No Deficiency	Future deficiency eliminated
	H California Ave Widening	0.54	D	0.54	D	1.28	F	0.93	D	100%	No Deficiency	Future deficiency eliminated
	I Peach Ave Widening	1.40	F	1.40	F	1.76	F	1.59	F	47%	33%	% attributable to new development decreases
	J SR-41 Auxiliary Lane	0.51	C or better	0.65	C or better	0.70	C or better	0.71	C or better	No Deficiency	No Deficiency	No change
	K Hemdon Ave Widening	0.66	D	0.66	D	1.09	E	0.79	D	100%	No Deficiency	Future deficiency eliminated
	L Shaw Ave Upgrades	1.28	F	1.28	F	2.29	F	2.45	F	78%	80%	% attributable to new development increases
	M SR-99 North & Cedar Interchanges	0.17	C or better	0.17	C or better	0.65	C or better	0.22	C or better	No Deficiency	No Deficiency	No change
	N Veteran's Boulevard *	1.91	F	0.84	D	3.17	F	1.04	E	58%	100%	% attributable to new development increases
RURAL TIER 1	A SR-180 West	0.62	D	0.62	D	0.99	D	0.85	D	No Deficiency	No Deficiency	No change
	B SR-180 East Seg III	0.95	D	0.95	D	2.62	F	1.50	E	100%	100%	No change
	C SR-180 East Seg IV	1.00	E	1.00	E	1.34	E	1.28	E	100%	99%	% attributable to new development decreases
	D SR-180 East Seg V	0.96	D	0.96	D	1.31	E	1.24	E	100%	100%	No change
	E Friant Road Widening	0.24	C or better	0.24	C or better	0.39	C or better	0.28	C or better	No Deficiency	No Deficiency	No change
	F Golden State Boulevard	0.18	C or better	0.18	C or better	0.47	C or better	0.68	C or better	No Deficiency	No Deficiency	No change
	G SR-269 Bridge Improvement	0.57	C or better	0.57	C or better	0.90	D	0.97	D	No Deficiency	No Deficiency	No change
	H SR-180 West I5 Widening	0.35	C or better	0.35	C or better	0.57	C or better	0.52	C or better	No Deficiency	No Deficiency	No change
	I Mountain View Ave Widening	0.68	D	0.68	D	1.26	E	0.69	D	100%	No Deficiency	Future deficiency eliminated
	J Mendocino Ave Widening	0.22	C or better	0.22	C or better	0.30	C or better	0.38	C or better	No Deficiency	No Deficiency	No change
	K SR-99 American Ave Interchange	0.15	C or better	0.15	C or better	0.50	C or better	0.20	C or better	No Deficiency	No Deficiency	No change
	L I5/SR-198 Interchange Improvement	0.17	C or better	0.17	C or better	0.28	C or better	0.21	C or better	No Deficiency	No Deficiency	No change
FREWAY INTERCHANGE DEFICIENCY STUDY	1 SR-99/Mountain View	0.34	C or better	0.34	C or better	0.47	C or better	0.33	C or better	No Deficiency	No Deficiency	No change
	2 SR-99/Floral	0.23	C or better	0.23	C or better	0.24	C or better	0.16	C or better	No Deficiency	No Deficiency	No change
	3 SR-99/Manning	0.27	C or better	0.27	C or better	0.49	C or better	0.18	C or better	No Deficiency	No Deficiency	No change
	4 SR-99/Central	0.43	C or better	0.43	C or better	0.32	C or better	0.49	C or better	No Deficiency	No Deficiency	No change
	5 SR99/Ventura	0.44	C or better	0.44	C or better	0.86	C or better	0.46	C or better	No Deficiency	No Deficiency	No change
	6 SR99/Fresno	0.56	C or better	0.56	C or better	0.91	D	0.66	C or better	No Deficiency	No Deficiency	No change
	7 SR99/Stanislaus	0.21	C or better	0.21	C or better	0.71	C or better	0.19	C or better	No Deficiency	No Deficiency	No change
	8 SR99/Belmont	0.72	C or better	0.72	C or better	1.14	F	1.12	F	100%	100%	No change
	9 SR99/Olive	0.12	C or better	0.12	C or better	0.78	C or better	0.05	C or better	No Deficiency	No Deficiency	No change
	10 SR99/Clinton	0.59	C or better	0.59	C or better	0.88	C or better	0.45	C or better	No Deficiency	No Deficiency	No change
	11 SR99/Ashlan	0.81	C or better	0.81	C or better	0.91	D	0.76	C or better	No Deficiency	No Deficiency	No change
	12 SR99/Shaw	0.44	C or better	0.44	C or better	0.71	C or better	0.35	C or better	No Deficiency	No Deficiency	No change
	13 SR99/Hemdon	0.26	C or better	0.26	C or better	0.57	C or better	0.29	C or better	No Deficiency	No Deficiency	No change
	14 SR41/Van Ness	0.36	C or better	0.36	C or better	0.67	C or better	0.57	C or better	No Deficiency	No Deficiency	No change
	15 SR41/Tulare&Divisadero	0.77	C or better	1.38	C or better	1.16	F	1.52	C or better	100%	27%	% attributable to new development decreases
	16 SR41/McKinley	0.65	C or better	0.65	C or better	0.77	C or better	0.67	C or better	No Deficiency	No Deficiency	No change
	17 SR41/Shields	0.59	C or better	0.59	C or better	0.84	C or better	0.58	C or better	No Deficiency	No Deficiency	No change
	18 SR41/Ashlan	0.65	C or better	0.99	C or better	1.06	E	1.02	C or better	100%	100%	No change
	19 SR41/Shaw	0.57	C or better	0.57	C or better	1.00	D	0.47	C or better	No Deficiency	No Deficiency	No change
	20 SR41/Bullard	0.64	C or better	0.64	C or better	1.19	F	0.55	C or better	100%	No Deficiency	Future deficiency eliminated
	21 SR41/Friant	1.04	E	1.04	E	1.27	F	1.07	E	84%	36%	% attributable to new development decreases
	22 SR180/N. Fulton & Van Ness	0.68	C or better	0.68	C or better	1.04	E	0.78	C or better	100%	No Deficiency	Future deficiency eliminated
	23 SR168/Bullard	0.19	C or better	0.19	C or better	0.78	C or better	0.27	C or better	No Deficiency	No Deficiency	No change
	24 SR168/Shaw	0.53	C or better	0.53	C or better	1.02	E	0.69	C or better	100%	No Deficiency	Future deficiency eliminated

Notes: * V/C Ratio of existing facilities that currently serve this function
 Shaded cells in LOS columns indicate that the facility does not meet FCOG's LOS standard of "D" or better
 Red font indicates a change that reduces the fee
 Green font indicates a change that increases the fee

Exhibit 17: Determination of Percent of Project Need Attributable to New Development

As can be seen from Exhibit 17, there are 14 cases where the updated traffic forecasts, based on the assumptions for less development and reduced auto use, result in either the elimination of the expected deficiency or the reduction in the percent attributable to new development. There were only two cases where the percent of project need attributable to new development increased and for only one of those was the increase significant, namely Veterans Boulevard.

Unlike most of the Measure 'C' projects Veterans Blvd will be an entirely new facility. That means that there were no existing (i.e. pre-RTMF) traffic volumes that could be used directly to determine whether there was an existing deficiency. The original nexus study used the portion of Herndon Blvd just east of Golden State Blvd (highlighted in pink in Exhibit 18) as the proxy for Veterans Blvd. That segment showed an existing deficiency in 2008, which meant that only a portion of the need for Veterans Blvd. was attributable to new development. Upon reconsideration and in consultation with Caltrans' staff, for the updated study it was determined that a combination of Herndon and Shaw Avenues would be a better proxy for Veterans Blvd. than Herndon Ave. alone, and that the segments west of Golden State Blvd. would more closely simulate the function of Veterans Blvd. than the segments east of Golden State Blvd. (see the two segments highlighted in blue in Exhibit 18). Under these revised assumptions there was no deficiency in 2008, so 100% of the need for Veterans Blvd. was attributed to new development.

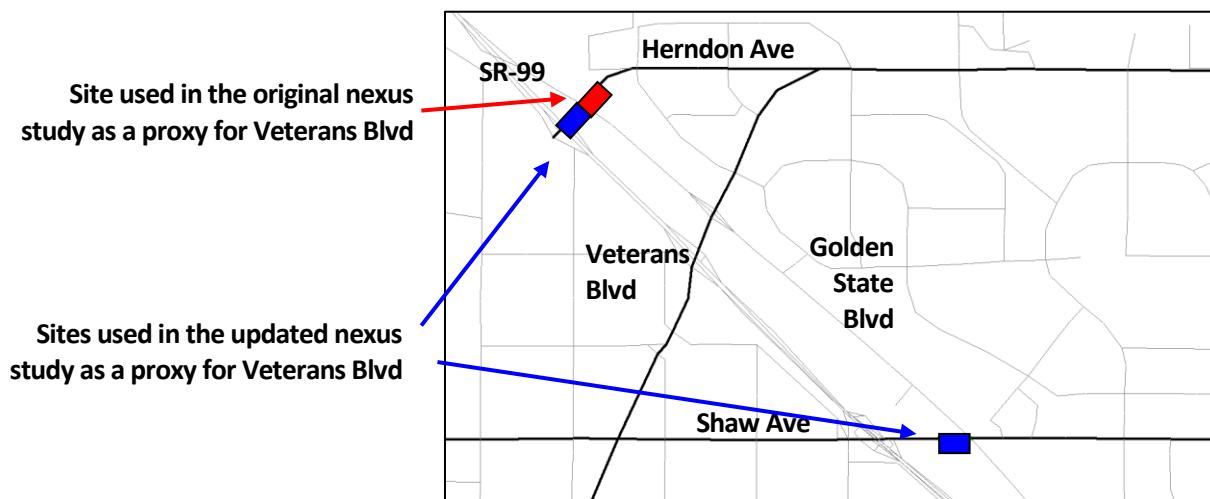


Exhibit 18: Road Segments Used to Analyze Veterans Blvd.

As can be seen from Exhibit 17, with the new forecasts for a less congested future there are only fifteen projects where the need for capacity improvements that can be attributed to new development. According to the Mitigation Fee Act, these are the only projects for which the Agency can collect the fee⁴.

⁴ Again, this is not to imply that the other projects are not needed, only that the need for them cannot legally be attributed to capacity deficiencies caused by new development. The Measure 'C' project list was approved by the voters of Fresno County and reflects the projects that they are willing to pay for, which does not necessarily correspond with traffic engineering methodologies.

3.3 Determining the Amount Potentially Collectable Through the RTMF

The amount potentially collectable through the RTMF program was calculated using the updated project costs, the percentage of project need attributable to new development shown in Exhibit 17, and the funding available from other sources shown in Exhibit 12. This calculation is shown in Exhibit 19.

Column H in Exhibit 19 shows funding available that is in excess of the funding needed to correct existing deficiencies (Column D). The funds shown in Column H show how future development in Fresno County has benefitted from state and federal grant funding, since if funds had not come from those other sources then these amounts would have been collectable from new development through impact fees.

	Project ID	Project Name	Updated Cost Estimate	% of Need Attributable to New Development	Costs Attributable to New Development	Costs Attributable to Existing Deficiencies (not New Development)	First 5 Years of RTMF Funding	Funding from Other Sources (STIP, SHOPP, etc.)	Total Funding Available from Other Sources	Funds from other sources beyond what is needed for existing deficiencies	Amount Potentially Collectable from Next 13 Years of RTMF
			(A)	(B)	(C) = (A)*(B)	(D) = (A) - (B)	(E)	(F)	(G) = (E) + (F)	If (G)>(D), (H)=(G)-(D) Otherwise (H) = 0	(I)=(C)-(H)
URBAN TIER 1	A	SR-180 East Seg II	\$33,478,000	39%	\$13,011,662	\$20,466,338	\$0	\$33,478,000	\$33,478,000	\$13,011,662	\$0
	B	SR-180 West Seg II	\$7,519,000	35%	\$2,623,116	\$4,895,884	\$752,000	\$2,213,000	\$2,965,000	\$0	\$2,623,116
	C	SR-41/SR-168/SR-180	\$67,700,000	100%	\$67,700,000	\$0	\$9,663,000	\$55,000,000	\$64,663,000	\$64,663,000	\$3,037,000
	G	SR-99 Monterey Bridge R	\$1,602,000	0%	\$0	\$1,602,000	\$0	\$0	\$0	\$0	\$0
	J	SR-41 Auxiliary Lane	\$25,996,000	0%	\$0	\$25,996,000	\$0	\$0	\$0	\$0	\$0
	M	SR-99 North & Cedar Inte	\$110,059,000	0%	\$0	\$110,059,000	\$0	\$0	\$0	\$0	\$0
	N	Veteran's Boulevard*	\$105,619,000	100%	\$105,619,000	\$0	\$3,552,000	\$500,000	\$4,052,000	\$4,052,000	\$101,567,000
RURAL TIER 1	A	SR-180 West	\$12,077,000	0%	\$0	\$12,077,000	\$0	\$0	\$0	\$0	\$0
	B	SR-180 East Seg III	\$68,443,000	100%	\$68,443,000	\$0	\$0	\$47,882,000	\$47,882,000	\$47,882,000	\$20,561,000
	C	SR-180 East Seg IV	\$40,100,000	99%	\$39,882,696	\$217,304	\$0	\$17,309,000	\$17,309,000	\$17,091,696	\$22,791,000
	D	SR-180 East Seg V	\$96,448,000	100%	\$96,448,000	\$0	\$0	\$57,757,000	\$57,757,000	\$57,757,000	\$38,691,000
	G	SR-269 Bridge Improve	\$30,250,000	0%	\$0	\$30,250,000	\$0	\$15,250,000	\$15,250,000	\$0	\$0
	H	SR-180 West I5 Extensio	\$305,110,000	0%	\$0	\$305,110,000	\$0	\$0	\$0	\$0	\$0
	K	SR-99 American Ave Inte	\$56,853,000	0%	\$0	\$56,853,000	\$0	\$0	\$0	\$0	\$0
L	I-5/SR-198 Interchange In	\$18,236,000	0%	\$0	\$18,236,000	\$0	\$0	\$0	\$0	\$0	
FREEWAY INTERCHANGE DEFICIENCY STUDY	1	SR-99/Mountain View	\$5,835,177	0%	\$0	\$5,835,177	\$0	\$0	\$0	\$0	\$0
	2	SR-99/Floral	\$6,951,844	0%	\$0	\$6,951,844	\$0	\$0	\$0	\$0	\$0
	3	SR-99/Manning	\$14,489,592	0%	\$0	\$14,489,592	\$0	\$0	\$0	\$0	\$0
	4	SR-99/Central	\$8,668,281	0%	\$0	\$8,668,281	\$0	\$0	\$0	\$0	\$0
	5	SR99/Ventura	\$354,702	0%	\$0	\$354,702	\$0	\$0	\$0	\$0	\$0
	6	SR99/Fresno**	\$0	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	7	SR99/Stanslaus	\$1,246,618	0%	\$0	\$1,246,618	\$0	\$0	\$0	\$0	\$0
	8	SR99/Belmont	\$8,748,895	100%	\$8,748,895	\$0	\$0	\$0	\$0	\$0	\$8,748,895
	9	SR99/Olive	\$7,649,318	0%	\$0	\$7,649,318	\$0	\$0	\$0	\$0	\$0
	10	SR99/Clinton	\$523,670	0%	\$0	\$523,670	\$0	\$0	\$0	\$0	\$0
	11	SR99/Ashlan	\$8,970,101	0%	\$0	\$8,970,101	\$0	\$0	\$0	\$0	\$0
	12	SR99/Shaw	\$18,744,409	0%	\$0	\$18,744,409	\$0	\$0	\$0	\$0	\$0
	13	SR99/Herndon	\$3,259,392	0%	\$0	\$3,259,392	\$0	\$0	\$0	\$0	\$0
	14	SR41/Van Ness	\$709,405	0%	\$0	\$709,405	\$0	\$0	\$0	\$0	\$0
	15	SR41/Tulare&Divisadero	\$8,819,191	27%	\$2,363,966	\$6,455,225	\$0	\$0	\$0	\$0	\$0***
	16	SR41/McKinley	\$6,270,171	0%	\$0	\$6,270,171	\$0	\$0	\$0	\$0	\$0
	17	SR41/Shields	\$9,645,003	0%	\$0	\$9,645,003	\$0	\$0	\$0	\$0	\$0
	18	SR41/Ashlan	\$7,038,263	100%	\$7,038,263	\$0	\$0	\$0	\$0	\$0	\$7,038,263
	19	SR41/Shaw	\$7,796,681	0%	\$0	\$7,796,681	\$0	\$0	\$0	\$0	\$0
	20	SR41/Bullard	\$18,196,232	0%	\$0	\$18,196,232	\$0	\$0	\$0	\$0	\$0
	21	SR41/Friant	\$3,548,314	36%	\$1,282,669	\$2,265,644	\$0	\$0	\$0	\$0	\$0***
	22	SR180/N. Fulton & Van N	\$3,224,567	0%	\$0	\$3,224,567	\$0	\$0	\$0	\$0	\$0
	23	SR168/Bullard**	\$0	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	24	SR168/Shaw**	\$0	0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total			\$1,130,179,825		\$413,161,267	\$717,018,558	\$13,967,000	\$229,389,000	\$243,356,000	\$204,457,357	\$205,057,274
As a percent of total updated cost estimate					63%	63%	1%	20%	22%	18%	18%
<p>* This is for the interchange only. There is a separate project, funded by the City of Fresno, to provide surface streets to connect the interchange to Herdon Avenue and Shaw Avenue.</p> <p>** The FIDS Study analyzed this location but did not recommend that any improvements be made.</p> <p>*** These were left out of the RTMF program because no other source of funds is available for the non-RTMF portion</p>											

Exhibit 19: Calculation of the Amount Potentially Collectable Through the RTMF in the Next 13 Years

3.4 Residential and Non-Residential Shares of New Traffic

The amount of traffic generated by a new development is a function of the number of new trips associated with the development and the average length of those trips. Together, these two produce the total VMT associated with the development.

Outputs from the FCOG Travel Demand Model were used to forecast the growth in VMT for five different types of trips. The growth in VMT from new development was attributed to residential and non-residential developments based on trip type. The Agency chose to attribute all trips beginning or ending at the traveler’s home to the residential land use while all trips not involving a residential location were attributed to non-residential land uses. This approach is consistent with the state of the practice for estimating trip generation as described in NCHRP Report 187⁵, a primary reference for travel estimation techniques used in travel demand modeling, which states that "*HBW (Home Based Work) and HBNW (Home Based Non Work) trips are generated at the households, whereas the NHB (Non-Home Based) trips are generated elsewhere.*"

The forecast growth in VMT from residential and non-residential land uses is shown Exhibit 20.

Trip Purpose	2007 Vehicle Miles Traveled		2027 Vehicle Miles Traveled		Trip End Attribution*		Growth in VMT	
					Residential	Non-Res	Residential	Non-Res
	(A)		(B)		(C)	(D)	(E) = (A-B) * (C)	(F) = (A-B) * (D)
Home-Work VMT	7,333,042	45%	7,947,758	42%	2.0	0.0	1,229,432	-
Home-Shop VMT	1,345,155	8%	1,741,214	9%	2.0	0.0	792,118	-
Home-Other VMT	4,378,702	27%	5,520,722	29%	2.0	0.0	2,284,042	-
Other-Work VMT	783,953	5%	825,584	4%	0.0	2.0	-	83,262
Other-Other VMT	2,295,151	14%	2,761,201	15%	0.0	2.0	-	932,100
Total Vehicle Trips	16,136,002	100%	18,796,479	100%			4,305,592	1,015,362
							81%	19%

* Each trip has two ends, the origin end and the destination end. RTMF policy, based on NCHRP Report 187, is to allocate both ends of any trip involving a residence to the residence

Exhibit 20: Percentage of VMT Growth Attributable to Residential and Non-Residential Development

Based on this calculation, 81% of VMT growth was attributed to residential development and 19% was attributed to non-residential development. These figures were used to determine the project costs attributable to new development, as shown in Exhibit 21.

⁵ Quick Response Urban Travel Estimation Techniques and Transferable Parameters User's Guide, Transportation Research Board, 1978

	Project ID	Project Name	Amount Potentially Collectable from RTMF	% of VMT Growth Attributable to:		Share of Project Costs Attributable to:	
				Residential Trips	Non-Res Trips	New Residential Development	New Non-Residential Development
			(A)	(B)	(C)	(D) = (A) * (B)	(E) = (A) * (C)
URBAN TIER 1	B	SR-180 West Seg II	\$2,623,116	81%	19%	\$2,122,565	\$500,552
	C	SR-41/SR-168/SR-180	\$3,037,000	81%	19%	\$2,457,470	\$579,530
	N	Veteran's Boulevard	\$101,567,000	81%	19%	\$82,185,652	\$19,381,348
RURAL TIER 1	B	SR-180 East Seg III	\$20,561,000	81%	19%	\$16,637,482	\$3,923,518
	C	SR-180 East Seg IV	\$22,791,000	81%	19%	\$18,441,947	\$4,349,053
	D	SR-180 East Seg V	\$38,691,000	81%	19%	\$31,307,856	\$7,383,144
FIDS	8	SR99/Belmont	\$8,748,895	81%	19%	\$7,079,402	\$1,669,493
	18	SR41/Ashlan	\$7,038,263	81%	19%	\$5,695,198	\$1,343,064
Total			\$205,057,274			\$165,927,572	\$39,129,702
As % of Total			100%			81%	19%

Exhibit 21: Project Costs Attributable to New Development

3.5 Trip-Generation Rates by Land Use Type

Trip generation (trip-gen) rates are a key connection between future land development and its expected traffic impacts. FCOG's travel demand model bases its trip-gen equations for residential land uses on the vehicle ownership of the household, with different rates for households with zero, one, and two vehicles. While this approach makes sense for a traffic model, it is impractical to use for an impact fee program because when a new development is proposed the only known quantities are the number of dwellings to be constructed; neither the developer nor the jurisdiction has any way of knowing the size of the households that will live in the houses or what the vehicle ownership rates of the future residents will be. A similar situation occurs for non-residential development. The developer and the jurisdiction only know the floor area of the buildings proposed for construction; they have no way of knowing the number of employees who will work in the building (which is likely to vary from year to year in any case). The employee-based trip-gen rates used in the traffic model would thus be awkward to try to use for collecting an impact fee. For these reasons, a different source of information on trip-gen rates is required.

By far the most commonly used reference for trip generation rates in the U.S. is the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, which was chosen by the Agency as the reference to be used in this study. The 7th edition was the sources of the trip generation rates used in the original nexus study. This was updated to the 9th edition for the current update.

ITE's *Trip Generation Manual* has trip generation data for over a hundred land use categories. However, Measure 'C' stipulated that, "The RTMF shall apply to all types of land uses and to the extent possible limit the number of categories of fees to agriculture, single family residential, multifamily residential, commercial-office, commercial-retail, light industrial, heavy industrial and certain traffic generating nonessential public facilities." ITE's land use categories were therefore aggregated into the land use categories stipulated in Measure 'C', with the trip generation rate for each Measure 'C' category derived from the average of the ITE land use codes within each category. This is show in Exhibit 22. Note that only land use types where trip generation rates for both floor area and for employees were used; this was to prevent distortions in the calculation of square feet per employee for each broad category.

Land Use Category	ITE Code	Weekday Trips per KSF*	Weekday Trips per Employee*	Square Feet per Employee	PM Peak Pass-by Trips**
Retail					
Building Materials and Lumber	812	45.16	32.12		
Specialty Retail Center	814	44.32	22.36		
Discount Store	815	57.24	28.84		17%
Hardware Store	816	51.29	53.21		26%
Nursery (Garden Center)	817	68.10	21.83		
New Car Sales	841	32.30	21.14		
Tire Store	848	24.87	3.24		
Supermarket	850	102.24	87.82		36%
Discount Supermarket	854	96.86	40.36		
Discount Club	861	41.80	32.21		
Furniture Store	890	5.06	12.19		53%
Average		51.75	32.30	624	33%
Service					
Hospital	610	13.22	4.50		
Clinic	630	31.45	8.01		
General Office	710	11.03	3.32		
Medical-Dentist Office Building	720	36.13	8.91		
Office Park	750	11.42	3.50		
Business Park	770	12.44	4.04		
Average		19.28	5.38	279	
Government/Public Sector					
Government Office Building	730	68.93	11.95	173	
Education					
Elementary School	520		15.71		
Middle School	522		16.39		
High School	530		19.74		
University/College	550		8.96		
Average			15.20		
Light Industrial					
General Light Industry	110	6.97	3.02	433	
Heavy Industrial					
General Heavy Industry	120	1.50	0.82	547	
Other					
Truck Terminal	30	9.89	6.99		
Industrial Park	130	6.83	3.34		
Manufacturing	140	3.82	2.13		
Warehousing	150	3.56	3.89		
Average		6.03	4.09	678	
Notes:					
* Average weekday daily trip generation data derived from <i>ITE Trip Generation Manual</i> (9th Edition), 2012					
** Average weekday PM peak pass-by trip rates derived from <i>ITE Trip Generation Handbook</i> (3rd Edition), August 2014					

Exhibit 22: Calculation of Trip Generation Rates for RTMF Non-Residential Land Use Categories

3.6 Pass-By Trips

Some analyses of traffic impacts provide an allowance for what are termed “pass-by” trips. These are stops at intermediate destinations (coffee shops, gas stations, etc.) that occur in the course of a longer trip taken primarily for some other purpose, such as a home-to-work trip. It could be argued that such trips add little to the overall mileage driven and therefore have only a minor impact on traffic

conditions. The Agency chose to allow a pass-by reduction for retail development based on the average computed in Exhibit 22. The pass-by reduction is taken before the VMT growth for non-residential development is distributed among the non-residential land use categories, effectively assigning a larger share of the responsibility for VMT to other uses. So, for example, if a driver stops for coffee on the way to work in an office, this procedure would assign most of the VMT for that trip to the office and the remainder to the coffee shop.

3.7 Forecast Development by Land Use Category

Exhibit 23 shows a computation of the amount of new development forecast to occur over the 20-year life of Measure 'C' Extension (2007 to 2027). As was described in Section 2.1 of this report, the updated forecast incorporates the effects of the slump in development that occurred during the Great Recession.

Land Use Category	Unit	Number of Units in 2007	Forecast Number of Units in 2027	Total # of New Units During Measure 'C' period	New Units Already Processed (2010-2014)	Average New Units/Year in Remaining 13 Years
		(A)	(B)	(C)=(B)-(A)	(D)	(E) = [(C)-(D)] / 13
Single-Family Dwellings (market rate)	Dwelling Unit	180,439	243,730	63,291	6,037	4,404
Single-Family Dwellings (affordable)*	Dwelling Unit	15,690	21,194	5,504	43	420
Multi-Family Dwellings (market rate)	Dwelling Unit	89,748	135,054	45,306	1,014	3,407
Multi-Family Dwellings (affordable)*	Dwelling Unit	7,804	11,744	3,940	491	265
Commercial/Retail	Employee	57,883	74,916	17,034	2,355	1,129
Commercial/Office/Service	Employee	94,792	125,686	30,894	2,465	2,187
Government	Employee	35,052	43,050	7,998	491	577
Education	Employee	37,674	38,464	790		61
Light Industrial	Employee	11,331	12,423	1,092	910	14
Heavy Industrial	Employee	22,662	24,846	2,184	4,012	0
Other Non-Residential	Employee	79,318	86,961	7,643	596	542

* per information provided by Fresno COG, 8% of new housing is to be considered affordable

Exhibit 23: Forecast of New Development

3.8 Computation of Fee Levels by Land Use Category

Using the information developed in the previous sections, a revised RTMF fee level for each land use category was computed. Exhibit 24 shows the computation of the revised fee for new residential development while Exhibit 25 shows a similar computation for non-residential development.

Land Use Category	Number of New Dwelling Units	Trip-Gen Rate	Total Trips Generated	Revised Fee Per New Dwelling Unit	Current Fee Per New Dwelling Unit	% Change in Fee
	(A)	(B)	(C)	(H)=(B)*(G) for market rate (H)=(B)*(G)/2 for affordable units	(I)	(J)=(H)/(I)-1
Single-Family Dwellings (market rate)	63,291	9.57	605,691	\$1,637	\$1,727	-5%
Single-Family Dwellings (affordable)	5,504	9.57	52,669	\$819	\$863	-5%
Multi-Family Dwellings (market rate)	45,306	6.72	304,457	\$1,150	\$1,212	-5%
Multi-Family Dwellings (affordable)	3,940	6.72	26,475	\$575	\$606	-5%
Total of New Residential Trips (D) >			989,291			
Costs Attribution to New Residential Trips (E) >			\$165,927,572			
Administrative Costs for RTMF (F) >			2%			
Cost per New Residential Trip (G) = (E)/(D)*(1+F) =			\$171			

Exhibit 24: Computation of Revised Fee Level for Residential Development

Land Use Category	Number of New Employees	Trip-Gen Rate	Total Trips Generated	Pass-By Reduction	Fee Per New Employee	Square Feet/ Employee	Revised Fee/ Square Foot	New Sq.Ft. of Development	Current Fee/ Square Foot	% Change in Fee
	(A)	(B)	(C)=(A)*(B)	(D)	(I)=[(B)-(D)]*(H)	(J)	(K) = (I)/(J)	(L) = (A) * (J)	(M)	(N)=(K)/(M)-1
Commercial/Retail	17,034	32.30	550,220	33%	\$1,004	624	\$1.61	10,632,448	\$1.96	-18%
Commercial/Office/Service	30,894	5.38	166,208		\$250	279	\$0.89	8,620,009	\$1.23	-27%
Government	7,998	11.95	95,574		Exempt				Exempt	
Education	790	15.20	12,011				Exempt		Exempt	
Light Industrial	1,092	3.02	3,298		\$140	433	\$0.32	473,105	\$0.49	-35%
Heavy Industrial	2,184	0.82	1,791		\$38	547	\$0.07	1,193,813	\$0.10	-30%
Other Non-Residential	7,643	4.09	31,242		\$190	678	\$0.28	5,185,402	\$0.42	-33%
Total of New Non-Residential Trips (E) >			860,344							
Costs Attribution to New Non-Residential Trips (F) >			\$39,129,702							
Administrative Costs for RTMF (G) >			2%							
Cost per New Non-Residential Trip (H) = (F)/(E)*(1+G) >			\$46							

Exhibit 25: Computation of Revised Fee Level for Non-Residential Development

Note that in every case the new fee is less than the current fee. This is due to the lower forecast of future congestion and consequent reduced need for capacity improvements and to the effect of increased funding from other sources that was described in Section 2.2. The reduction is different for different types of non-residential development because some of the trip-generation rates shown in Exhibit 22 changed more than others in the recent update of survey data.

With the reduction in fee level the RTMF would be only about half the average for its peer group. It would be one of the lowest county-wide impact fees in the San Joaquin Valley and foothills (see Exhibit 26).

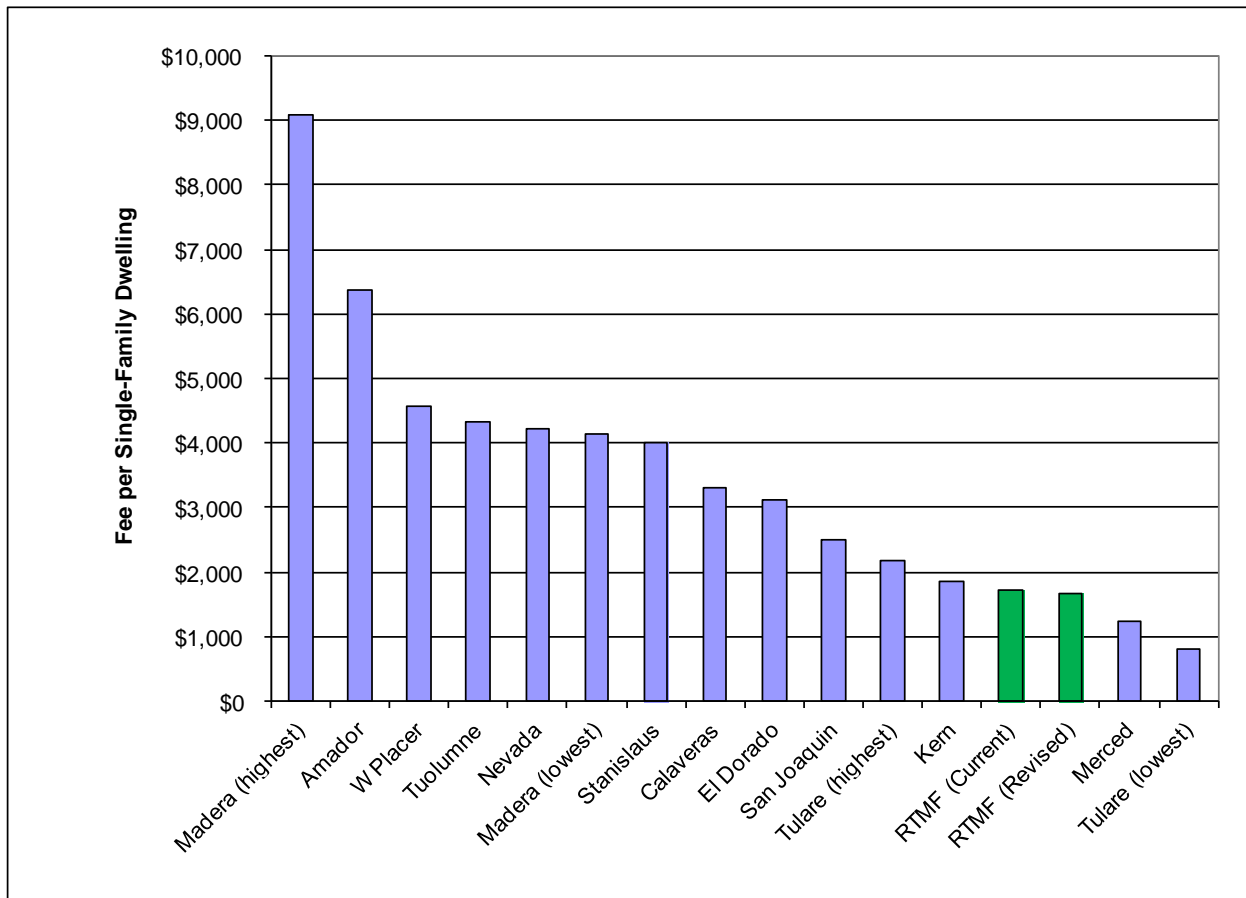


Exhibit 26: Comparison of County-Wide Impact Fees among Valley and Foothills Counties
(fee shown for comparative purposes is for a new single-family dwelling)

3.9 Revenues Raised by the RTMF Program

Based on the information found in Exhibit 24 and Exhibit 25, the total fee revenue expected to be generated by the RTMF in the remaining 13 years of the program and over the full life of the program (including the first 5 years) is shown in Exhibit 27.

Land Use Category	Fee per Unit	Average New Units/Year	Fees Generated per Year	Total Fees Generated 2015-2027
	(A)	(B)	(C)=(A)*(B)	(D)=(C)*13
Residential Developments (dwelling unit)				
Single-Family Dwelling (market-rate)	\$1,637	4,404	\$7,210,506	\$93,736,572
Single-Family Dwelling (affordable)	\$819	420	\$343,849	\$4,470,037
Multi-Family Dwelling (market-rate)	\$1,150	3,407	\$3,916,941	\$50,920,232
Multi-Family Dwelling (affordable)	\$575	265	\$152,490	\$1,982,370
Non-Residential Developments (Sq.Ft.)				
Commercial/Retail	\$1.61	708,830	\$1,140,130	\$14,821,686
Commercial/Office/Service	\$0.89	574,667	\$514,039	\$6,682,502
Education	Exempt	0	\$0	\$0
Government	Exempt	0	\$0	\$0
Light Industrial	\$0.32	31,540	\$10,198	\$132,580
Heavy Industrial	\$0.07	79,588	\$5,538	\$71,997
Other Non-Residential	\$0.28	345,693	\$96,624	\$1,256,106
Total			\$13,390,314	
RTMF Funds Expected to be Collected in Next 15 Years				\$174,074,082
RTMF Funds Collected in First 5 Years				\$13,967,000
Total Forecast Revenue from RTMF				\$188,041,082

Exhibit 27: Forecast of RTMF Revenues

The forecasted revenue shown in Exhibit 27 can be compared with the revenue target(s) set in Measure ‘C’ Extension. The ballot measure described the expected revenues from the RTMF two ways, namely,

*“Funds collected through the RTMF program will provide an anticipated **20% of Urban and Rural Measure “C” funds needed to deliver Tier 1 Projects over the Measure “C” funding period (2007 through 2027).**”* (Page 5 of ballot measure. Emphasis added)

*“**Approximately \$102 million** from developer fees. New growth and development throughout the County would be required to contribute to Tier 1 project costs as part of the Regional Transportation Mitigation Fee (RTMF) program.”* (Page 8 of ballot measure. Emphasis added)

These two descriptions were consistent when the ballot measure was being developed but then diverged when project costs escalated (see Section 2.3). As can be seen in Exhibit 28, the current forecast for revenues falls between the forecasts in the ballot measure.

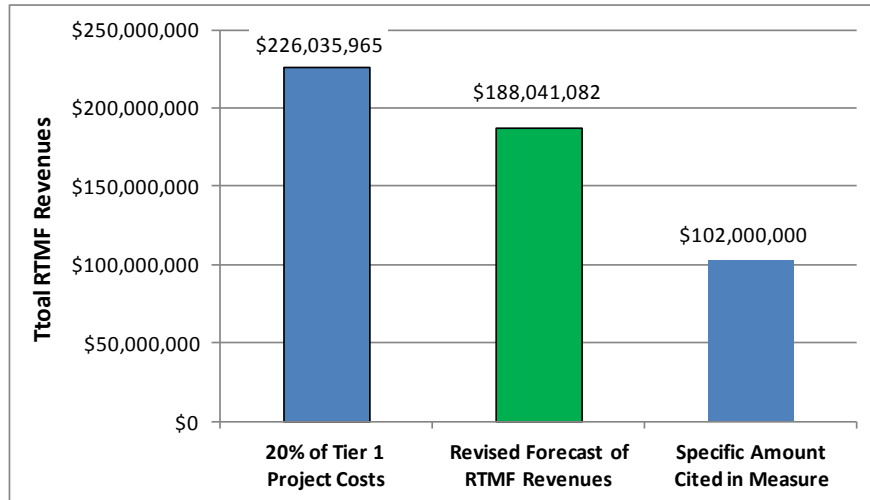


Exhibit 28: Comparison of RTMF Revenue Forecasts

It should be noted that revenues will only reach these levels if the pace of development accelerates to an average of approximately 4,800 single-family dwelling per year from its pace of 1,350 units/year over the first 4 years of operations.

3.10 Results in Terms of Project Funding

The revenue forecast computed in the previous section is compared to the amounts potentially fundable by project in Exhibit 29.

Projects Receiving Funds	Amount Potentially Fundable from RTMF
Urban Tier 1	
B SR-180 West Seg II	\$3,375,116
C SR-41/SR-168/SR-180	\$12,700,000
N Veteran's Boulevard	\$105,119,000
Rural Tier 1	
B SR-180 East Seg III	\$20,561,000
C SR-180 East Seg IV	\$22,791,000
D SR-180 East Seg V	\$38,691,000
Freeway Interchange Deficiency Study	
8 SR99/Belmont	\$8,748,895
18 SR41/Ashlan	\$7,038,263
Total Amount Potentially Fundable from RTMF	\$219,024,274
Forecast Total Revenues from RTMF	\$188,041,082
Forecast Revenues as % of Amount Fundable (remainder lost through discounts and exemptions)	86%

Exhibit 29: Possible Allocation of RTMF Revenues to Projects

Due to the exemptions and discounts mandated in Measure 'C' Extension, the RTMF will be able to fund only 86% of the amount potentially collectable under the Mitigation Fee Act.

As was shown in Exhibit 19, the majority of projects fundable through the RTMF already have some level of funding available to them. Exhibit 30 shows that existing funding sources are expected to cover 44% of the costs of RTMF-eligible projects, with the RTMF covering approximately 45%, leaving 11% to be covered by funds from other Measure 'C' sources such as sale tax revenue.

Projects Receiving Funds	Total Project Costs	Funding from Other Sources (STIP, SHOPP, etc.)
Urban Tier 1		
B SR-180 West Seg II	\$7,519,000	\$2,213,000
C SR-41/SR-168/SR-180	\$67,700,000	\$55,000,000
N Veteran's Boulevard	\$105,619,000	\$500,000
Rural Tier 1		
B SR-180 East Seg III	\$68,443,000	\$47,882,000
C SR-180 East Seg IV	\$40,100,000	\$17,309,000
D SR-180 East Seg V	\$96,448,000	\$57,757,000
Freeway Interchange Deficiency Study		
8 SR99/Belmont	\$8,748,895	\$0
18 SR41/Ashlan	\$7,038,263	\$0
Total	\$413,983,663	
Funds Available from STIP, SHOPP, etc.		\$180,661,000 44%
Funds Available from RTMF		\$188,041,082 45%
Funds Needed from Other Measure 'C' Sources		\$45,281,581 11%
		<u>\$413,983,663 100%</u>

Exhibit 30: Funding for RTMF-Eligible Projects

4.0 MITIGATION FEE ACT FINDINGS

The Mitigation Fee Act, as set forth in the California Government Code Sections 66000 through 66008, establishes the framework for mitigation fees in the State of California. The Act requires agencies to make five findings with respect to a proposed fee. These are described in the sections below.

4.1 Purpose of the Fee

Identify the purpose of the fee

The purpose of the RTMF is to establish a uniform, cooperative program to mitigate the cumulative indirect regional impacts of future developments on traffic conditions on high-priority state roadways in Fresno County. The fees will help fund improvements needed to maintain the target level of service in the face of the higher traffic volumes brought on by new developments.

4.2 Use of Fee Revenues

Identify the use to which the fees will be put. If the use is financing facilities, the facilities shall be identified

The Mitigation Fee Act requires that the local government identify the public facilities that are to be financed through the use of the impact fee. In the case of the RTMF there is guidance in Measure “C” regarding the intended uses of RTMF funds:

“The RTMF shall apply to Regional Transportation Program-Measure “C” projects identified in Tier 1, Tier 2 and other such regional projects as may be identified in the RTMF Study.”

“Although it is the primary purpose of the RTP-MC funds to augment Tier 1 funding levels, there is recognition that it is difficult to accurately project revenues / expenditures for a 20-year period. Therefore, in the event that additional resources (e.g. federal or state earmarks) are made available to fully fund all of the Tier 1 projects, then it is acknowledged that the Fresno County Transportation Authority (Authority), in consultation with the Council of Fresno County Governments (Fresno COG), will have the flexibility to fund other urban and rural street and road projects contained in the Tier 2 list of regional transportation projects. This would be accomplished through the Expenditure Plan update process, and appropriate Tier 2 list project(s) would be amended into the Tier 1 funded program.”

“The RTMF shall also be structured to effectively address improvements identified in the Fresno-Madera County Freeway Deficiency Study.”

Based on this guidance, the Agency determined that RTMF funds would be used for projects on the Regional Transportation Program Tier 1 list and those identified in the Fresno-Madera County Freeway Interchange Deficiency Study (FIDS). Furthermore, based on input from the member agencies and the public, FCOG adopted a policy that the regional fee should be used only for roads for regional significance. Only projects involving state facilities were considered “regional” under this policy.

Earlier sections of this report show how projects were identified for inclusion in the RTMF program. The list of projects to receive RTMF funding is shown in Exhibit 29.

4.3 Use/Type-of-Development Relationship

Determine the reasonable relationship between the fees' use and the type of development project on which the fees are imposed

To determine the “use” relationship, the development being assessed an impact fee must be reasonably shown to derive some use or benefit from the facility being built using the fee. In the case of the RTMF the projects to be funded were selected based on their ability to satisfy three sets of criteria, namely: that they were of high priority as expressed by the voters through the Measure “C” Extension priority project lists, that they performed a regional (as opposed to local) function, and that the need for the project was at least in part attributable to new development. The fact that the projects that will be funded by the RTMF are high-priority regional roads means that all of the county’s new residents and businesses will benefit in important ways from the maintenance of a reasonable level of service. Most drivers in the new developments can be expected to use these roads regularly, and those that do not will nevertheless benefit because good traffic conditions on the RTMF-funded roads will keep drivers from diverting to other roads and causing congestion in other parts of the county. Even residents or workers in the new developments who do not drive at all will benefit from access to goods and services made possible in part by the serviceability of the regional road network.

4.4 Need/Type-of-Development Relationship

Determine the reasonable relationship between the need for the public facilities and the types of development on which the fees are imposed

To determine the “need” relationship the facilities to be financed must be shown to be needed at least in part because of the new development. One of the purposes of the RTMF study is to determine extent to which each of the projects on the Measure “C” project lists are needed because of new land development. This was determined by analyzing the forecast traffic demand with the expected degree of new development and comparing that with the demand without new development. Projects were analyzed individually and the degree to which the need for the project was attributable to new development varied widely from project to project. This analysis is described in an earlier chapter of this report.

4.5 Proportionality Relationship

Determine how there is a reasonable relationship between the fees amount and the cost of the facilities or portion of the facilities attributable to the development on which the fee is imposed

The “proportionality” relationship requires that there be rough proportionality between the fee charged to each type of development and the cost of the facility being financed. In the case of the RTMF the differences in the traffic generated by different types of development were factored into the fee to be charged for each type, as is described earlier in this report.