

# Fresno Regional Transportation Mitigation Fee – 2019 Nexus Study Update

## Draft Final Report

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## Executive Summary

The Fresno County Regional Transportation Mitigation Fee (RTMF) was created to fulfill one of 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. The Mitigation Fee Act requires that impact fees be periodically reviewed and updated 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. This lowered the base of households and employment and lower future growth rates. 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. As a result, the RTMF nexus study update that was done in 2014 recommended that fees on residential development be reduced 5% and fees on non-residential development be reduced 18% to 35% depending on the category. These reductions were adopted by the COG Board in late 2014.

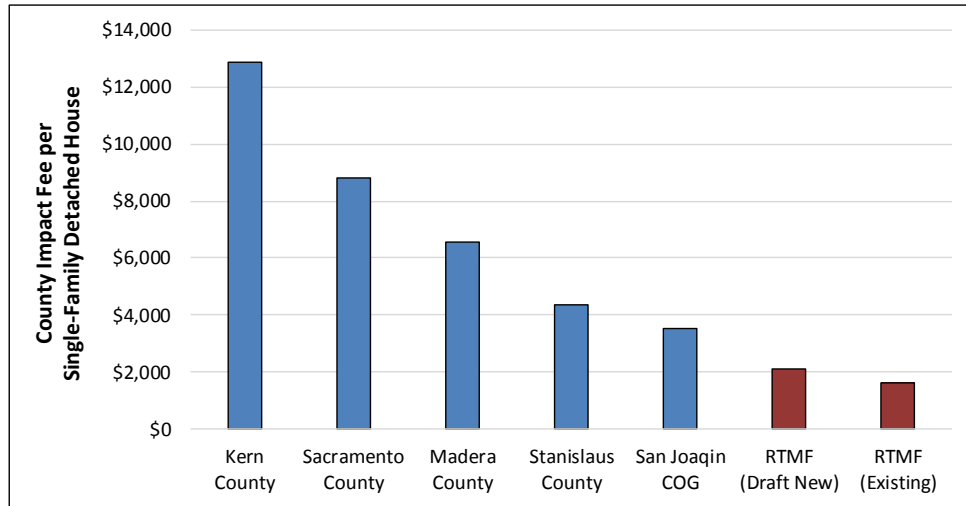
The real estate market has since rebounded and plans for new growth areas, such as the South Industrial Priority Area (SIPA), have increased the traffic demand in some parts of the county. This has resulted in the addition of the \$96 million South Interchanges project to the RTMF project list. In addition, recent traffic surveys have found that some types of development, such as retail, generate less traffic than before while others, such as heavy industrial (which includes fulfillment centers) generate more traffic than they used to.

These factors lead us to recommend that the RTMF fees should be increased, but not uniformly across-the-board. Exhibit ES-1 shows the recommended revised fee structure, taking the factors described above into account.

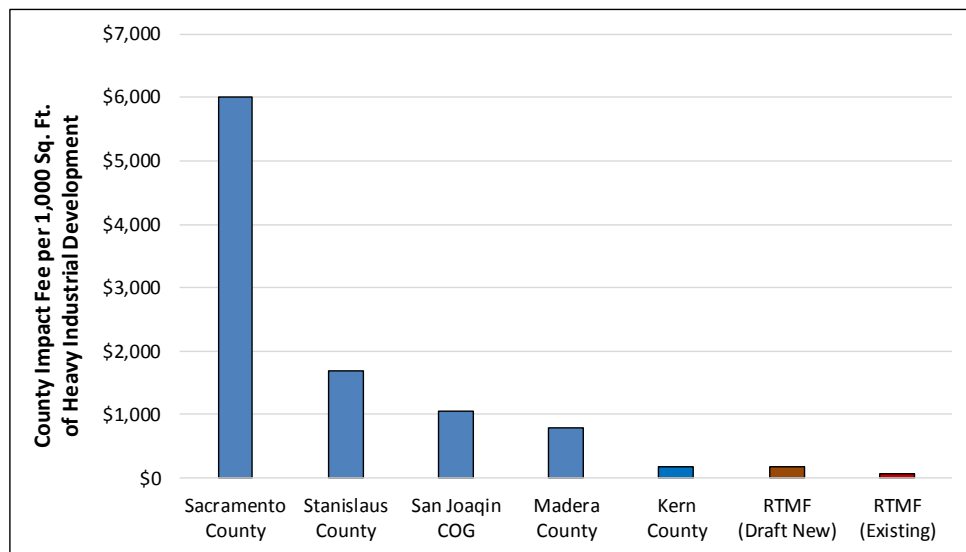
Land Use Category	Current Fee	Recommended Revised Fee	% Change
<b>Residential Development Categories</b>			
Single-Family Dwellings (market rate)	\$1,637 /DU	\$2,118 /DU	29%
Single-Family Dwellings (affordable)	\$819 /DU	\$1,059 /DU	29%
Multi-Family Dwellings (market rate)	\$1,150 /DU	\$1,642 /DU	43%
Multi-Family Dwellings (affordable)	\$575 /DU	\$821 /DU	43%
<b>Non-Residential Development Categories</b>			
Commercial/Retail	\$1.61 Sq.Ft.	\$1.85 Sq.Ft.	15%
Commercial/Office/Service	\$0.89 Sq.Ft.	\$1.18 Sq.Ft.	32%
Government	Exempt	Exempt	
Education	Exempt	Exempt	
Light Industrial	\$0.32 Sq.Ft.	\$0.30 Sq.Ft.	-7%
Heavy Industrial	\$0.07 Sq.Ft.	\$0.18 Sq.Ft.	162%
Other Non-Residential	\$0.28 Sq.Ft.	\$0.80 Sq.Ft.	187%

**Exhibit ES-1: Current and Recommended RTMF Fees**

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 \$127 million. This would be within the \$102M-to-\$235M target range of revenue originally set for the RTMF in the ballot measure.



**Exhibit ES-2: Comparison of County-Wide Residential Impact Fees Among Valley Counties**  
 (fee shown for comparative purposes is for a new single-family dwelling)



**Exhibit ES-3: Comparison of County-Wide Non-Residential Impact Fees Among Valley Counties**  
 (fee shown for comparative purposes is for new heavy industrial development)

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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 independent of a ballot measure.

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 8 Years of Operation

### 1.2.1 Revenue Collected by Source and Year

As of the end of 2018, the RTMF fee has been collected on more than 13 thousand new residential units and more than 13 million square feet of new non-residential development (see Exhibit 2). More than \$28 million has been collected, with 70% of the revenue coming from residential development and 30% from non-residential development (see Exhibit 3). 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.

Exhibit 1 shows the RTMF revenues by year. Revenue from residential sources has been rising steadily since 2011 as that sector has recovered from the recession. In contrast, revenues from non-residential development grew rapidly between 2010 and 2013, and have been in a slow decline since.

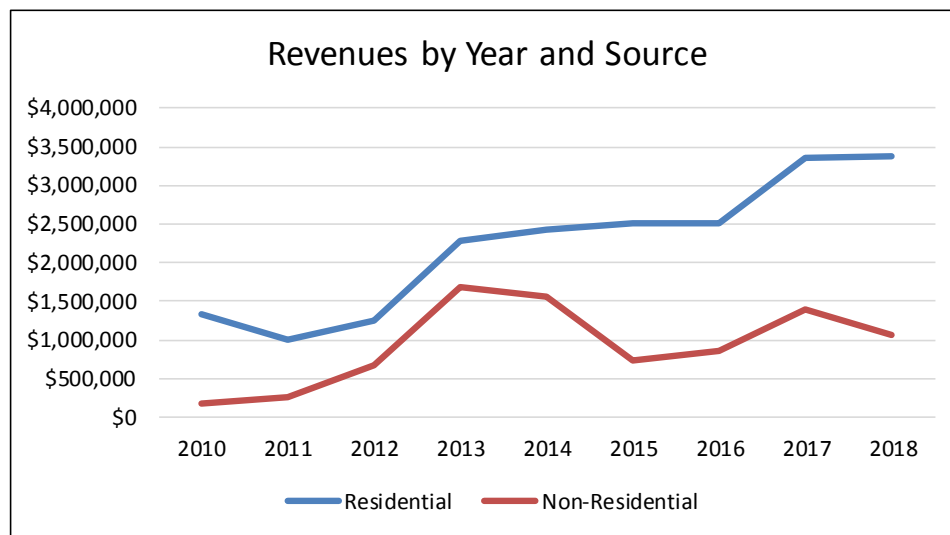


Exhibit 1: RTMF Receipts by Year

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

During the first years of the RTMF nearly a third (31%) of residential applications were exempted from the fee based on vesting (i.e. the new units had been approved prior to the RTMF coming into effect). The vesting issue is diminishing over time as the vested units are built out and new projects come on line. In 2018 only 18% of the residential units were exempt due to vesting. On the non-residential side, governmental and non-profit educational projects are exempt from the fee.



Land Use Category	Units Developed by Year									Total
	2010	2011	2012	2013	2014	2015	2016	2017	2018	
<b>Residential Developments (dwelling unit)</b>										
Single-Family Dwelling (market-rate)	990	516	633	1,072	1,194	1,283	1,320	1,762	1,943	10,714
Single-Family Dwelling (affordable)	0	1	9	13	11	24	64	19	58	199
Multi-Family Dwelling (market-rate)	106	245	128	260	225	314	177	316	73	1,844
Multi-Family Dwelling (affordable)	124	0	0	184	139	45	150	158	116	915
<b>Total Residential</b>	<b>1,220</b>	<b>763</b>	<b>770</b>	<b>1,529</b>	<b>1,569</b>	<b>1,666</b>	<b>1,711</b>	<b>2,255</b>	<b>2,190</b>	<b>13,672</b>
<b>Non-Residential Developments (Sq.Ft.)</b>										
Commercial/Retail	21,116	48,728	175,006	632,133	511,177	187,349	281,678	390,954	270,634	2,518,775
Commercial/Office/Service	68,347	132,592	202,831	208,548	365,112	319,757	333,510	706,711	364,427	2,701,835
Education										
Government										
Light Industrial	71,499	72,752	59,029	140,020	19,540	258,718	167,957	83,949	706,514	1,579,978
Heavy Industrial	202,597	201,974	231,327	1,074,307	684,900	897,843	789,604	1,429,751	1,206,745	6,719,047
Other Non-Residential	204,635	7,751	67,132	11,457	47,345	35,635	630	7,337	1,636	383,558
<b>Total Non-Residential</b>	<b>568,194</b>	<b>463,797</b>	<b>735,325</b>	<b>2,066,465</b>	<b>1,628,074</b>	<b>1,699,302</b>	<b>1,573,379</b>	<b>2,618,701</b>	<b>2,549,955</b>	<b>13,903,193</b>

**Exhibit 2: Units of New Development that have Paid the RTMF**

Land Use Category	Revenues by Year									Total	% of Total
	2010	2011	2012	2013	2014	2015	2016	2017	2018		
<b>Residential Developments (dwelling unit)</b>											
Single-Family Dwelling (market-rate)	\$1,188,000	\$748,450	\$1,093,411	\$1,851,960	\$2,061,215	\$2,100,541	\$2,160,840	\$2,884,394	\$3,181,508	\$17,270,319	61%
Single-Family Dwelling (affordable)	\$0	\$725	\$7,767	\$11,220	\$9,493	\$19,654	\$52,417	\$15,561	\$47,502	\$164,338	1%
Multi-Family Dwelling (market-rate)	\$89,238	\$249,860	\$154,621	\$315,120	\$272,700	\$361,276	\$203,550	\$363,400	\$83,435	\$2,093,200	7%
Multi-Family Dwelling (affordable)	\$52,125	\$0	\$0	\$111,504	\$84,234	\$25,875	\$85,983	\$90,850	\$66,700	\$517,271	2%
<b>Total Residential</b>	<b>\$1,329,363</b>	<b>\$999,035</b>	<b>\$1,255,799</b>	<b>\$2,289,804</b>	<b>\$2,427,642</b>	<b>\$2,507,346</b>	<b>\$2,502,789</b>	<b>\$3,354,205</b>	<b>\$3,379,145</b>	<b>\$20,045,128</b>	<b>70%</b>
<b>Non-Residential Developments (Sq.Ft.)</b>											
Commercial/Retail	\$28,718	\$79,914	\$343,012	\$1,238,980	\$1,001,907	\$301,632	\$453,502	\$629,435	\$435,721	\$4,512,822	16%
Commercial/Office/Service	\$58,095	\$136,570	\$249,482	\$256,514	\$449,088	\$284,584	\$296,824	\$628,973	\$324,340	\$2,684,469	9%
Education											
Government											
Light Industrial	\$24,310	\$29,828	\$28,924	\$68,610	\$9,575	\$82,790	\$53,746	\$26,864	\$226,084	\$550,731	2%
Heavy Industrial	\$14,182	\$18,178	\$23,133	\$107,431	\$68,490	\$62,849	\$55,272	\$100,083	\$84,472	\$534,089	2%
Other Non-Residential	\$59,344	\$2,713	\$28,195	\$4,812	\$19,885	\$9,978	\$176	\$2,054	\$458	\$127,616	0%
<b>Total Non-Residential</b>	<b>\$184,649</b>	<b>\$267,203</b>	<b>\$672,746</b>	<b>\$1,676,347</b>	<b>\$1,548,944</b>	<b>\$741,832</b>	<b>\$859,521</b>	<b>\$1,387,408</b>	<b>\$1,071,075</b>	<b>\$8,409,726</b>	<b>30%</b>

**Exhibit 3: RTMF Revenues by Year and Land Use Type**

## 1.2.2 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 \$80M might have been expected to be collected in the first eight years of the program compared to approximately \$28M in actual receipts (35%).

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 seriously reduced the amount collected from similar transportation mitigation fees in other parts of California, as can be seen in Exhibit 4 and Exhibit 5.

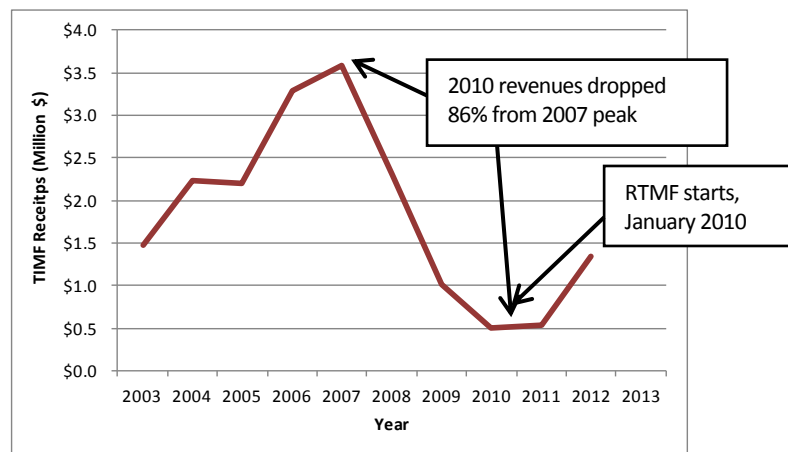
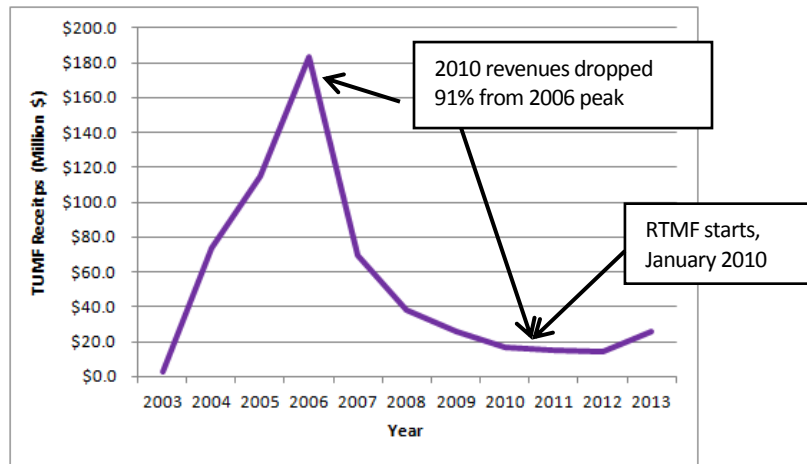
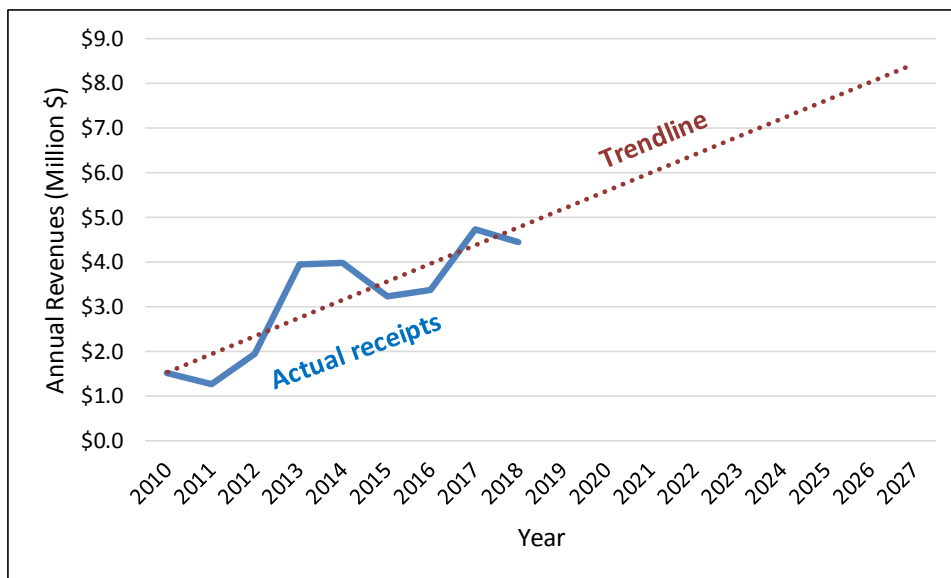


Exhibit 4: Revenues for the San Joaquin County Traffic Impact Mitigation Fee



**Exhibit 5: Revenues for the Western Riverside Transportation Uniform Mitigation Fee**

Although the RTMF started from a low base in 2010, revenues have grown as the real estate market recovers. Exhibit 6 shows the actual receipts and graphs out the trendline thus far. If the current growth continues, the RTMF program will collect approximately \$89 million by 2027, when it expires with Measure C Extension (unless Measure C and the RTMF are extended further). The ballot measure showed the projected revenue from the RTMF as \$102 million, so the program is currently on track to collect 87% of the target amount.



**Exhibit 6: Growth in RTMF Revenues**

## 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 staff<sup>1</sup>. 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 new Sustainable Communities Strategies were developed and adopted in 2014 and again in 2018. As a result of these developments the population and employment forecasts have changed substantially from the original forecasts.

#### 2.1.1 Forecasts of Households

Exhibit 7 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 base year for the current FCOG model. As can be seen in the exhibit, the original assumptions appear to have put too high a percentage (84%) of total households within the urban footprint of Fresno/Clovis and rural areas. The current estimate is 74%, which is based in part on information from the 2010 census that was not available to the original study.

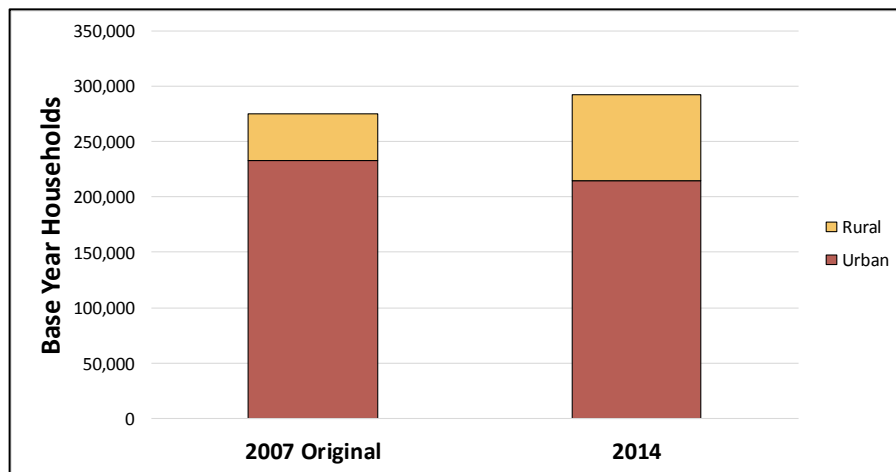
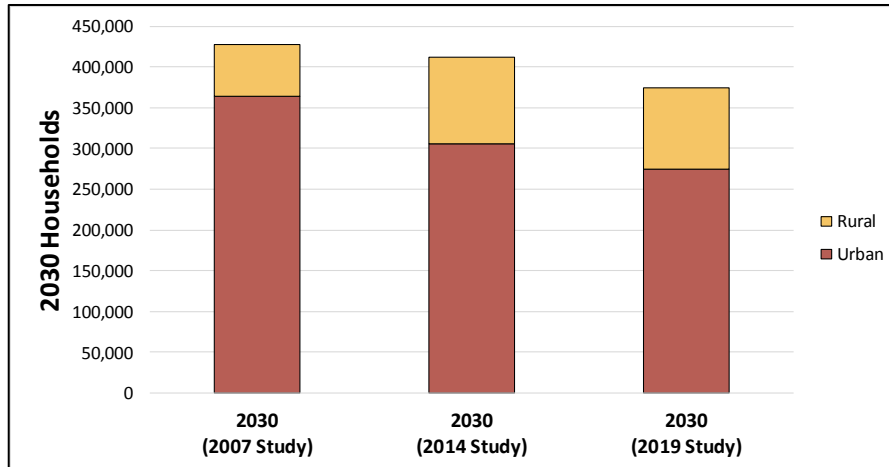


Exhibit 7: Estimates of 2007 and 2014 Households

Exhibit 8 compares the forecast for the number of households in Fresno County in 2030 that were used in the original (2007) nexus study, the 2014 nexus study, and the current nexus study. The exhibit shows that FCOG lowered its expectations for population growth in the urbanized area while raising the expected growth in the rural parts of the county. Overall, the number of households in 2030 is 12% below the forecast used in the original nexus study.

<sup>1</sup> See 2006 Fresno COG Conformity Analysis Model Documentation



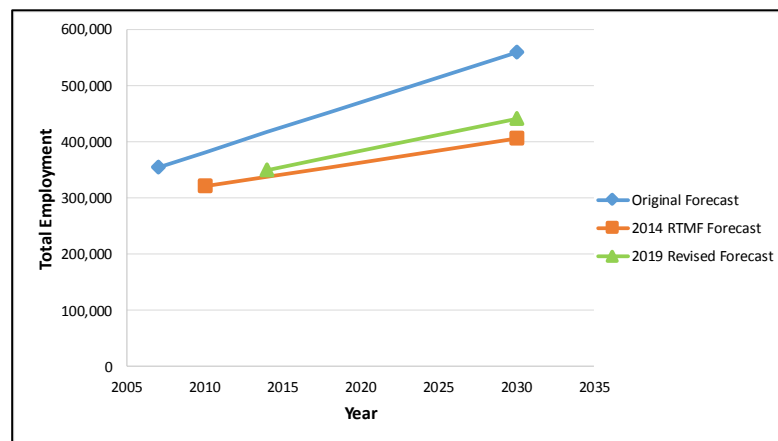
**Exhibit 8: Forecasts of Households in 2030**

The reduction in future population and the fact that more will be located in the rural areas 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 households means fewer new dwelling units paying the fee.
- The higher percentage of households in rural areas shifts some of the need for roadway improvements to road outside of the current urban envelope.

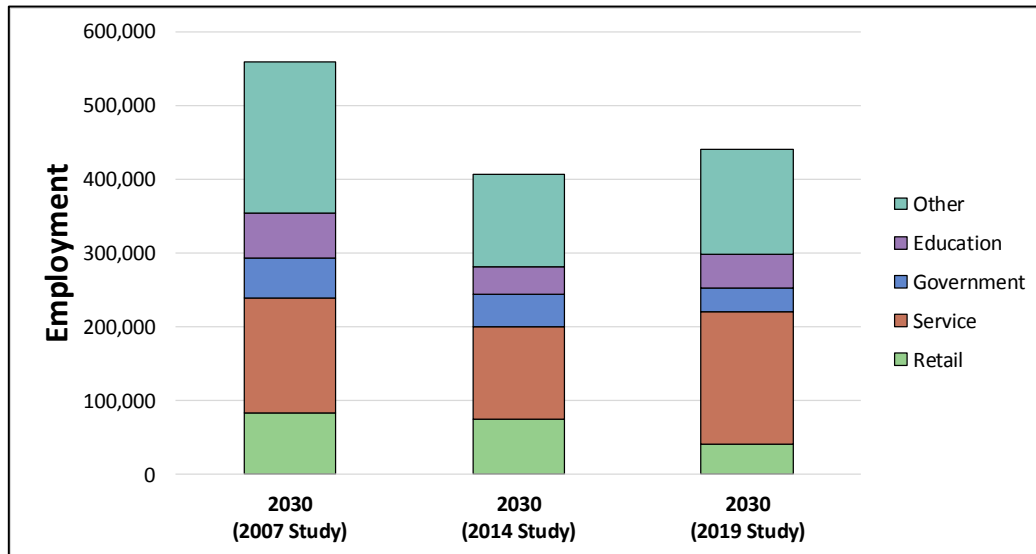
### 2.1.2 Forecasts of Employment

The forecasts for employment growth used in the original development of the RTMF predated the Great Recession and appear in retrospect to have been optimistic. The revised forecast based on the 2018 Sustainable Communities Strategy has both a lower base and a lower growth rate. The resulting forecast is for 21% less employment in 2030 than had previously been expected.



**Exhibit 9: Forecasts of Employment in 2030**

Exhibit 10 compares the forecast for employment in Fresno County in 2030 that were used in the original (2007) nexus study, the 2014 nexus study, and the current nexus study. Besides lowering the expectations for the total number of jobs, the distribution of jobs among categories has also changed substantially. Retail in particular is projected to shrink from 15% down to 10% of total employment while service jobs are expected to increase from 28% to 40% of employment.



**Exhibit 10: Forecast Composition of Employment in 2030**

One portion of the county with important implications for the RTMF program is the South Industrial Priority Area (SIPA). The City of Fresno’s specific plan for this area would encourage the development of 16,000 new jobs in the area centered around the existing SR-99/Cedar Avenue and SR-99/North Avenue interchanges. The existing interchanges cannot handle the additional traffic that would be generated from this development. Replacement of these interchanges would cost approximately \$96 million. The project is listed on the Measure C Tier 1 list and would be eligible for RTMF funding. The inclusion of this project would necessitate an increase in RTMF fees.

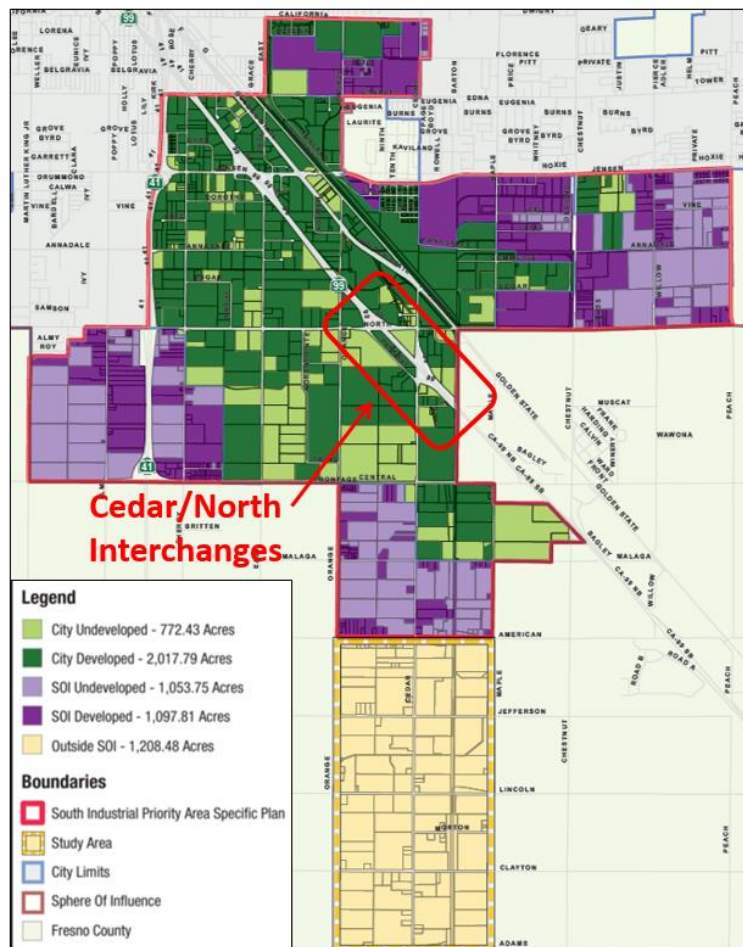


Exhibit 11: Spatial Relationship between SIPA and the South Interchanges

## 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. In addition, the sales tax portion of Measure C has also been a fruitful source of funding for transportation improvements. As can be seen in Exhibit 12 \$822M has been secured for regional roadway 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 (2019)		
URBAN TIER 1	A	SR-180 East Seg II	\$33,478,000	\$33,479,701	\$33,478,000		
	B	SR-180 West Seg II	\$6,397,000		\$3,639,000		
	C	SR-41/SR-168/SR-180	\$66,938,000		\$57,275,000		
	G	SR-99 Monterey Bridge Retrofit	\$1,602,000		\$1,602,000		
	J	SR-41 Auxiliary Lane	\$4,900,000		\$4,900,000		
	M	SR-99 North & Cedar Interchanges	\$96,311,000		\$96,311,000		
	N1	Veteran's Boulevard (Interchange)	\$91,477,000		\$32,135,000		
	N2	Veteran's Boulevard (Connection)	\$59,656,000		\$59,656,000		
RURAL TIER 1	A	SR-180 West	\$12,782,000		\$12,782,000		
	B	SR-180 East Seg III	\$68,443,000		\$57,382,000		
	C	SR-180 East Seg IV	\$35,937,000		\$16,706,000		
	D	SR-180 East Seg V	\$104,462,000		\$66,173,000		
	G	SR-269 Bridge Improvement	\$28,720,000		\$28,720,000		
	H	SR-180 West I5 Extension	\$305,110,000		\$305,110,000		
	K	SR-99 American Ave Interchange	\$60,171,000		\$60,171,000		
	L	I-5/SR-198 Interchange Improvement	\$18,236,000		\$18,236,000		
	Total for Tier 1				\$994,620,000	\$33,479,701	\$854,276,000
	As a percent of total updated cost estimate					3%	86%
Total for RTMF-eligible Projects (only)			\$903,143,000	\$33,479,701	\$822,141,000		
As a % of total cost estimate for RTMF-eligible projects				4%	91%		

**Exhibit 12: Funding Available from Other Sources**

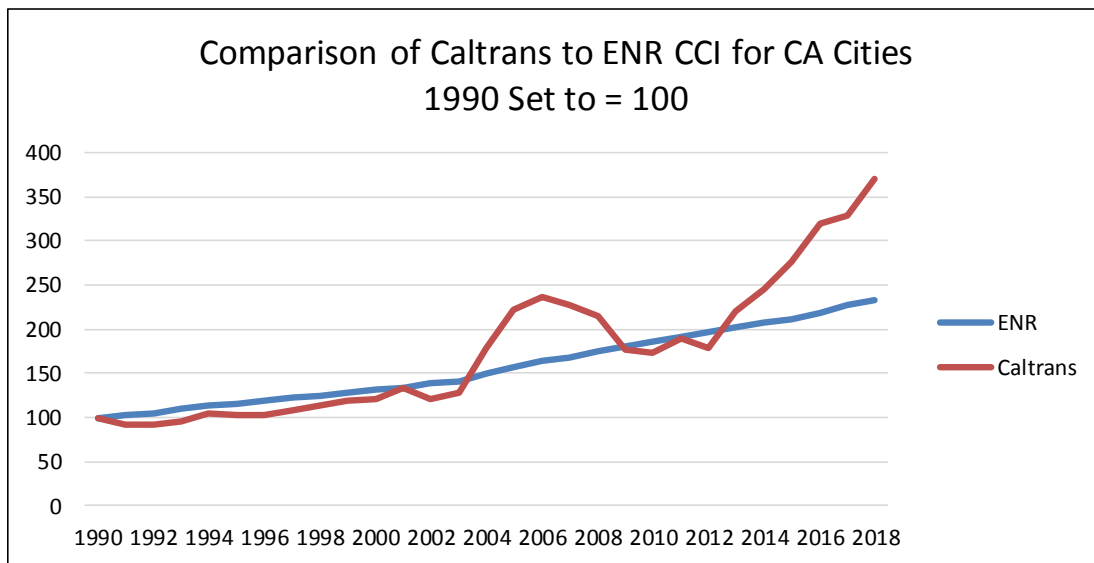
### 2.3 Project Costs

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

There are two cost indices that are commonly used to estimate the cost of future roadway projects in California. The indices track different cost components and so produce different results. The first is the Caltrans cost index, which is based on actual bid prices for projects done in the previous year. The second cost index, prepared by the Engineering News Record (ENR), 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.



Exhibit 13 compares the two indexes for the period from 1900 to 2018. As can be seen in the exhibit, both indices 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, followed in 2005 by another increase. This sudden rise in prices meant that the project costs used to development the ballot measure became under-estimates. Thus when the original RTMF nexus study was developed it was necessary to update the project cost estimates to 2006 prices (the most current available at the time). Bid prices for Caltrans projects subsequently dropped during the Great Recession, and have risen steadily since starting their recovery in 2010. Last year's bid prices were 57% higher than they were at the peak of the early-2000 boom period.



**Exhibit 13: The Caltrans and ENR Construction Price Indexes, 1990-2014**

In contrast to the volatile Caltrans index, the ENR index has had a steady growth rate of about 3% per year for the last 15 years. Measure C specifies that the ENR index be used to update cost estimates but, as can be seen for the 2013-to-2018 period in Exhibit 13, this creates a possibility that the cost estimates used in the RTMF program might under-budget for projects. However, the RTMF program has been somewhat insulated from the increases in bid prices shown in Exhibit 13 due to the fact that several of the most expensive projects on the Tier 1 list were contracted out during the recession when prices were low.

### 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 14 below.

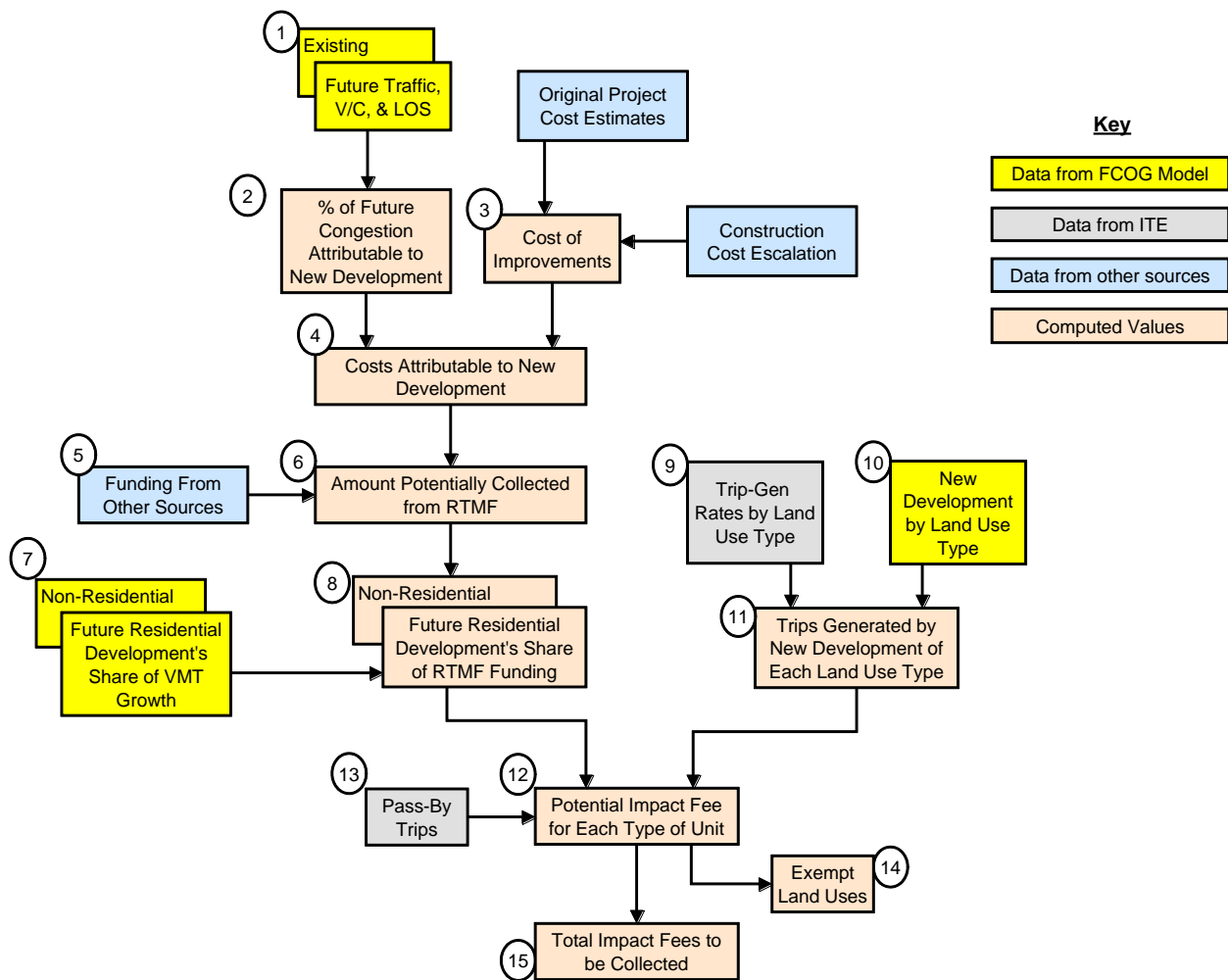


Exhibit 14: Steps in the Fee Computation

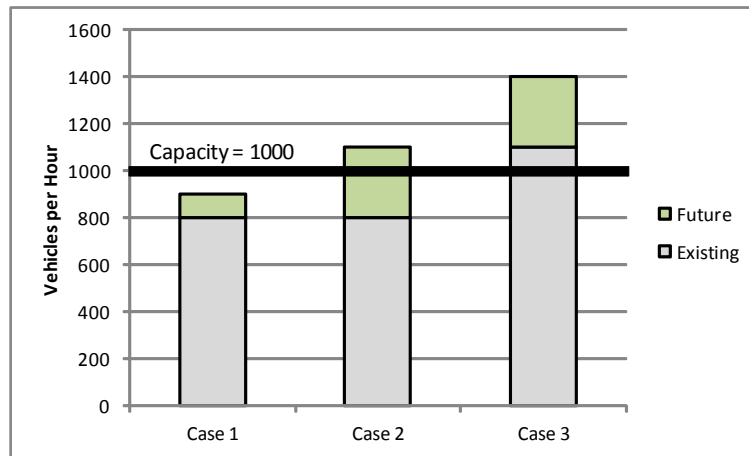
The major steps include:

- 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 base year (2007 when Measure C Extension was passed) and 2035 (FCOG's planning horizon year from the most recent Sustainable Communities Strategy) 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 15.



**Exhibit 15: 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 project<sup>2</sup>.
- 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.

<sup>2</sup> 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.

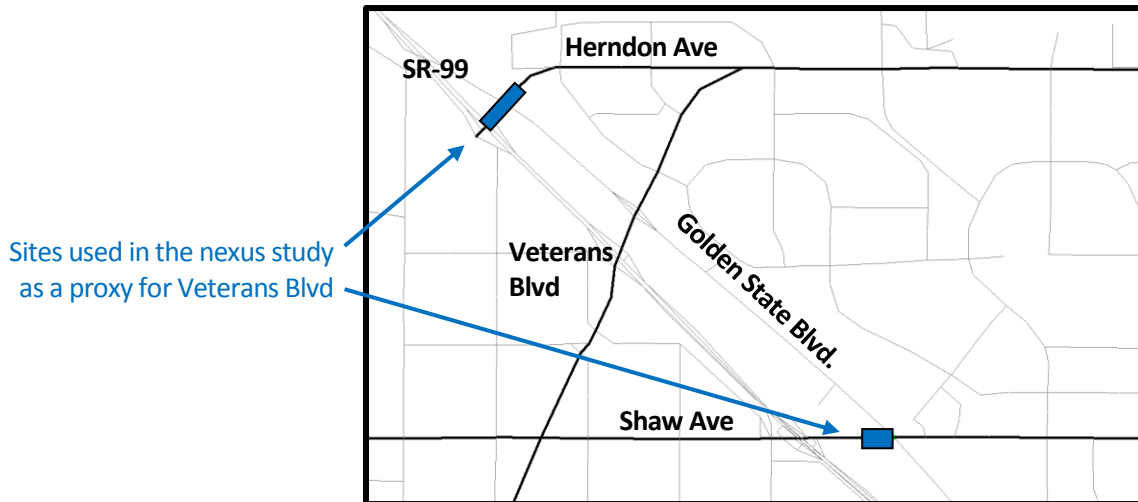
Exhibit 16 shows how this methodology was applied to the project on the Measure 'C' Tier 1 Project List and the FIDS projects, based on the latest version of the FCOG travel demand model. Note that only projects considered "regional" (i.e. not local projects), and thus eligible for RTMF funding, are shown.

	Project ID	Project Name	Existing 2007				Future (2035) Without Improvements				% of Deficiency Attributable to New Development (I)=(G-C)/(G-1)
			Volume	Capacity	V/C Ratio	LOS	Volume	Capacity	V/C Ratio	LOS	
			(A)	(B)	(C)=(A)/(B)	(D)	(E)	(F)	(G)=(E)/(F)	(H)	
URBAN TIER 1	A	SR-180 East Seg II *	22,500	12,600	1.79	F	57,985	12,600	4.60	F	78%
	B	SR-180 West Seg II *	20,091	12,600	1.59	F	54,993	12,600	4.36	F	82%
	C	SR-41/SR-168/SR-180	4,865	5,410	0.90	D	8,673	5,410	1.60	F	100%
	G	SR-99 Monterey Bridge Retrofit	9,331	15,300	0.61	C or better	14,424	15,300	0.94	D	No Deficiency
	J	SR-41 Auxiliary Lane	3,529	5,410	0.65	C or better	4,718	5,410	0.87	D	No Deficiency
	M	SR-99 North & Cedar Interchanges **	320	286	1.12	F	1,653	896	1.85	F	86%
	N	Veteran's Boulevard *	46,899	55,800	0.84	D	87,395	55,800	1.57	F	100%
RURAL TIER 1	A	SR-180 West	8,506	13,700	0.62	D	9,371	13,700	0.68	D	No Deficiency
	B	SR-180 East Seg III	13,080	13,700	0.95	D	23,649	13,700	1.73	E	100%
	C	SR-180 East Seg IV	13,721	13,700	1.00	E	19,509	13,700	1.42	E	100%
	D	SR-180 East Seg V	13,110	13,700	0.96	D	18,358	13,700	1.34	E	100%
	G	SR-269 Bridge Improvement	7,832	13,700	0.57	C or better	9,813	13,700	0.72	D	No Deficiency
	H	SR-180 West I-5 Extension	4,754	13,700	0.35	C or better	5,364	13,700	0.39	C or better	No Deficiency
	K	SR-99 American Ave Interchange ***	216	706	0.31	C or better	243	573	0.42	C or better	No Deficiency
	L	I-5/SR-198 Interchange Improvement	210	1,275	0.17	C or better	247	1,275	0.19	C or better	No Deficiency
FIDS	8	SR-99/Belmont	915	1,275	0.72	C or better	1,286	1,275	1.01	E	100%
	18	SR-41/Ashlan ****	7,062	7,050	1.00	E	7,378	7,050	1.05	F	96%

Notes:  
 \* V/C Ratio of existing facilities that currently serve this function  
 \*\* Results are from intersection analysis using Synchro  
 \*\*\* Results are from intersection analysis using Synchro  
 \*\*\*\* Results are from Merge Analysis using HCS7  
 Italicized values in the Volume and Capacity columns are for the peak-hour; non-italicized are daily values  
 Shaded cells in LOS columns indicate that the facility does not meet FCOG's LOS standard of "D" or better

Exhibit 16: Determination of Percent of Project Need Attributable to New Development

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. Instead, a combination of Herndon and Shaw Avenues was used as a proxy for Veterans Blvd. (see the two segments highlighted in blue in Exhibit 17). No existing deficiency was found, so 100% of the need for Veterans Blvd. was attributed to new development.



**Exhibit 17: Road Segments Used to Analyze Veterans Blvd.**

As can be seen from Exhibit 16, there are only ten 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 fee<sup>3</sup>.

### 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 show in Exhibit 16, and the funding available from other sources shown in Exhibit 12. This calculation is shown in Exhibit 18.

Column H in Exhibit 18 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.

<sup>3</sup> 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.

	Project ID	Project Name	Project Status	Updated Cost Estimate	% of Need Attributable to New Development	Costs Attributable to New Development	Costs Attributable to Existing Deficiencies (not New Development)	First 9 Years of RTMF Funding	Funding from Other Sources (Measure C, STIP, SHOPP, etc.)	Total Funding Available from Sources Other than Future RTMF Fees	Funds from other sources beyond what is needed for existing deficiencies	Amount Potentially Collectable from RTMF in the Future	
				(A)	(B)	(C) = (A)*(B)	(D) = (A) - (C)	(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	Constructed	\$33,478,000	78%	\$26,112,840	\$7,365,160	\$0	\$33,478,000	\$33,478,000	\$26,112,840	\$0	
	B	SR-180 West Seg II	Constructed	\$6,397,000	82%	\$5,245,540	\$1,151,460	\$559,959	\$3,639,000	\$4,198,959	\$3,047,499	\$2,198,041	
	C	SR-41/SR-168/SR-180	Constructed	\$66,938,000	100%	\$66,938,000	\$0	\$1,595,471	\$57,275,000	\$58,870,471	\$58,870,471	\$8,067,529	
	G	SR-99 Monterey Bridge Retrofit		\$1,602,000	0%	\$0	\$1,602,000	\$0	\$1,602,000	\$1,602,000	\$0	\$0	
	J	SR-41 Auxiliary Lane		\$4,900,000	0%	\$0	\$4,900,000	\$0	\$4,900,000	\$4,900,000	\$0	\$0	
	M	SR-99 North & Cedar Interchanges		\$96,311,000	86%	\$82,827,460	\$13,483,540	\$0	\$13,483,540	\$13,483,540	\$0	\$82,827,460	
	N1 N2	Veteran's Boulevard (Interchange)* Veteran's Boulevard (Connection)*		\$91,477,000 \$59,656,000	100% 100%	\$91,477,000 \$59,656,000	\$0 \$0	\$7,234,570 \$0	\$32,135,000 \$59,656,000	\$39,369,570 \$59,656,000	\$39,369,570 \$59,656,000	\$52,107,430 \$0	
RURAL TIER 1	A	SR-180 West	Constructed	\$12,782,000	0%	\$0	\$12,782,000	\$0	\$12,782,000	\$12,782,000	\$0	\$0	
	B	SR-180 East Seg III		\$68,443,000	100%	\$68,443,000	\$0	\$2,180,647	\$57,382,000	\$59,562,647	\$59,562,647	\$8,880,353	
	C	SR-180 East Seg IV		\$35,937,000	100%	\$35,937,000	\$0	\$4,326,031	\$16,706,000	\$21,032,031	\$21,032,031	\$14,904,969	
	D	SR-180 East Seg V		\$104,462,000	100%	\$104,462,000	\$0	\$7,657,322	\$66,173,000	\$73,830,322	\$73,830,322	\$30,631,678	
	G	SR-269 Bridge Improvement		\$28,720,000	0%	\$0	\$28,720,000	\$0	\$28,720,000	\$28,720,000	\$28,720,000	\$0	\$0
	H	SR-180 West I5 Extension		\$305,110,000	0%	\$0	\$305,110,000	\$0	\$305,110,000	\$305,110,000	\$305,110,000	\$0	\$0
	K	SR-99 American Ave Interchange		\$60,171,000	0%	\$0	\$60,171,000	\$0	\$60,171,000	\$60,171,000	\$60,171,000	\$0	\$0
L	I-5/SR-198 Interchange Improvement	\$18,236,000	0%	\$0	\$18,236,000	\$0	\$18,236,000	\$18,236,000	\$18,236,000	\$0	\$0		
FIDS	8	SR-99/Belmont		\$11,735,598	100%	\$11,735,598	\$0	\$0	\$0	\$0	\$0	\$11,735,598	
	18	SR-41/Ashlan		\$9,440,988	96%	\$9,063,349	\$377,640	\$0	\$377,640	\$377,640	\$0	\$9,063,349	
Balance in RTMF Account								\$5,266,000		\$5,266,000	\$5,266,000	-\$5,266,000	
Total				\$994,620,000		\$541,098,840	\$453,521,160	\$28,820,000	\$771,448,540	\$795,002,540	\$341,481,380	\$215,150,407	
As a percent of total updated cost estimate							46%	3%	78%	80%	34%	22%	

\* Only the interchange portion is considered "regional" and thus eligible for RTMF funding. The City of Fresno's surface street portion is considered local.

Exhibit 18: Calculation of the Amount Potentially Collectable Through the RTMF in the Remaining 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. Consistent with earlier RTMF studies, all trips beginning or ending at the traveler's home were attributed 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 187<sup>4</sup>, 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 19.

Trip Purpose	2014 Vehicle Miles Traveled		2035 Vehicle Miles Traveled		Trip End Attribution*		Growth in VMT	
					Residential	Non-Res	Residential	Non-Res
	(A)	(B)	(C)	(D)	(E) = (B-A) * (C)	(F) = (B-A) * (D)		
Home-Based VMT	34,116,312	76%	57,351,812	77%	2.0	0.0	46,471,001	0
		0%		0%	2.0	0.0	0	0
		0%		0%	2.0	0.0	0	0
		0%		0%	0.0	2.0	0	0
Non Home-Based VMT	10,706,064	24%	17,222,602	23%	0.0	2.0	0	13,033,077
<b>Total Vehicle Trips</b>	<b>44,822,376</b>	<b>100%</b>	<b>74,574,415</b>	<b>100%</b>			<b>46,471,001</b>	<b>13,033,077</b>
							<b>78%</b>	<b>22%</b>

\* 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 19: Percentage of VMT Growth Attributable to Residential and Non-Residential Development

Based on this calculation, 78% of VMT growth was attributed to residential development and 22% was attributed to non-residential development. These figures were used to determine the project costs attributable to new development, as shown in Exhibit 20.

<sup>4</sup> 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	A	SR-180 East Seg II	\$0	78%	22%	\$0	\$0
	B	SR-180 West Seg II	\$2,198,041	78%	22%	\$1,716,608	\$481,433
	C	SR-41/SR-168/SR-180	\$8,067,529	78%	22%	\$6,300,512	\$1,767,017
	G	SR-99 Monterey Bridge Retrofit	\$0	78%	22%	\$0	\$0
	J	SR-41 Auxiliary Lane	\$0	78%	22%	\$0	\$0
	M	SR-99 North & Cedar Ave Interchanges	\$82,827,460	78%	22%	\$64,685,902	\$18,141,558
	N1	Veteran's Boulevard (Interchange)	\$52,107,430	78%	22%	\$40,694,428	\$11,413,002
N2	Veteran's Boulevard (Connection)	\$0	78%	22%	\$0	\$0	
RURAL TIER 1	A	SR-180 West	\$0	78%	22%	\$0	\$0
	B	SR-180 East Seg III	\$8,880,353	78%	22%	\$6,935,304	\$1,945,049
	C	SR-180 East Seg IV	\$14,904,969	78%	22%	\$11,640,359	\$3,264,610
	D	SR-180 East Seg V	\$30,631,678	78%	22%	\$23,922,474	\$6,709,204
	G	SR-269 Bridge Improvement	\$0	78%	22%	\$0	\$0
	H	SR-180 West I5 Extension	\$0	78%	22%	\$0	\$0
	K	SR-99 American Ave Interchange	\$0	78%	22%	\$0	\$0
L	I-5 Interchange Improvement	\$0	78%	22%	\$0	\$0	
FIDS	8	SR-99/Belmont	\$11,735,598	78%	22%	\$9,165,170	\$2,570,428
	18	SR-41/Ashlan	\$9,063,349	78%	22%	\$7,078,219	\$1,985,130
Balance in RTMF Account			-\$5,266,000			-\$4,112,597	-\$1,153,403
Total			\$215,150,407			\$168,026,378	\$47,124,028
As % of Total			100%			78%	22%

Exhibit 20: 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 size and income the household. 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 income 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 7<sup>th</sup> edition was the sources of the trip generation rates used in the original nexus study. This was updated to the 10<sup>th</sup> 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 E xhibit 21. 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.

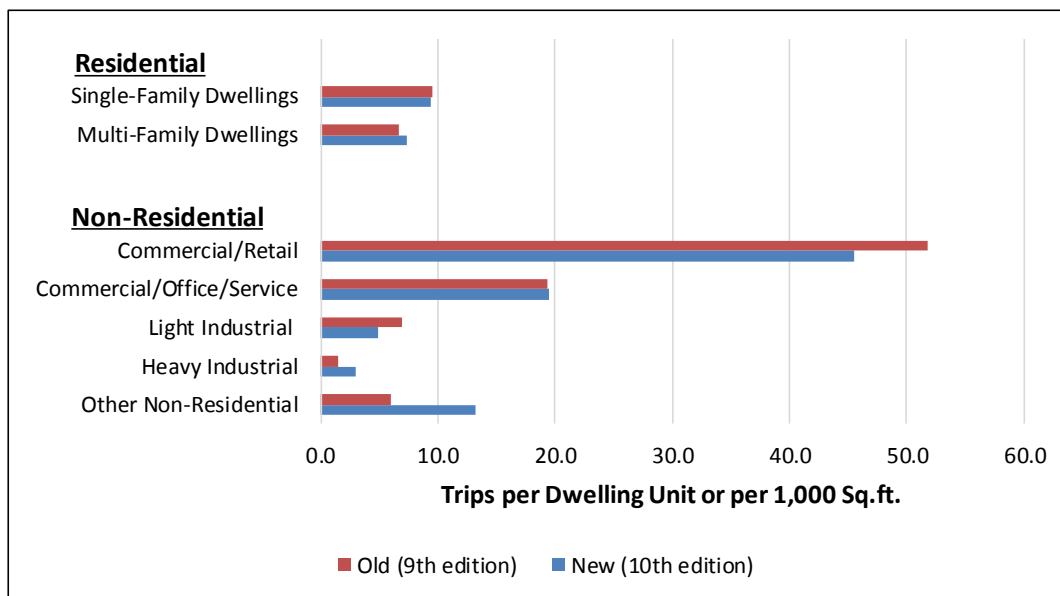
Land Use Category	ITE Code	Weekday Trips per KSF*	Weekday Trips per Employee*	Square Feet per Employee	PM Peak Pass-by Trips**
<b>Retail</b>					
Building Materials and Lumber Variety Store	812	18.05	24.55		
Free-Standing Discount Store	814	63.47	95.59		
Hardware/Paint Store	815	53.12	24.63		17%
Nursery (Garden Center)	816	9.14	36.53		26%
Automobile Sales (Used)	817	68.10	21.83		
Tire Store	841	27.06	12.48		
Supermarket	848	28.52	18.43		
Discount Supermarket	850	106.78	75.01		36%
Sporting Goods Superstore	854	90.87	40.36		
Furniture Store	861	28.75	4.44		
Average	890	6.30	10.93		53%
		45.47	33.16	729	33%
<b>Service</b>					
Hospital	610	10.72	3.79		
Clinic	630	38.16	9.25		
General Office Building	710	9.74	3.28		
Medical-Dentist Office Building	720	34.80	8.70		
Office Park	750	11.07	3.54		
Business Park	770	12.44	4.04		
Average		19.49	5.43	279	
<b>Light Industrial</b>					
General Light Industry	110	4.96	3.05	615	
<b>Heavy Industrial ***</b>					
Industrial Park	130	3.37	2.91		
Manufacturing	140	3.93	2.47		
Warehousing	150	1.74	5.05		
Average		3.01	3.48	1154	
<b>Other</b>					
Utility	170	13.24	4.11		
Average		13.24	4.11	310	
<b>Notes:</b>					
* Average weekday daily trip generation data derived from <i>ITE Trip Generation Manual</i> (10th Edition), 2017					
** Average weekday PM peak pass-by trip rates derived from <i>ITE Trip Generation Handbook</i> (3rd Edition), September 2017					
*** The "General Heavy Industry (120)" used in earlier calculations of the RTMF was removed in the 10th edition of <i>Trip Generation</i> due to the age of the data (1970s).					

### E xhibit 21: Calculation of Trip Generation Rates for RTMF Non-Residential Land Use Categories

ITE periodically updates its trip generation rates as new surveys show that travel patterns have changed. The rates shown in E xhibit 21 for the 10<sup>th</sup> edition are somewhat different from those in the earlier editions. Exhibit 22 compares the trip-gen rates used for the current RTMF nexus study with those used in the previous nexus study. As can be seen in the figure, the surveyed trip-gen rate for multi-family dwellings has gone up while the rate for single-family dwellings has gone down. The rate for heavy industry has risen substantially, at least in part due to the rise of fulfillment centers for on-line shopping, which generate much more traffic than

traditional warehouses of a similar size. And finally, the “Other Non-Residential” category has only ever been used for utilities projects. That being the case, the trip-generation rates for collection of miscellaneous land uses that had been used for this category were replaced with the trip-gen rate for utilities (only). This resulted in an increase in the trip-gen rate used for this category.

The fact that some rates have gone up while other have gone down ultimately resulted in difference in the percentage change in fees among different land use categories, as is shown later in Section 3.8 of this report.



**Exhibit 22: Comparison of Trip Generation Rates**

### 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. The rationale for not counting these trips is that they 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 21. 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 average amount of new development forecast to occur between 2014 and 2035. As was described in Section 2.1 of this report, the updated forecast incorporates information from the most recent SCS and the City of Fresno's plan for the South Industrial Priority Area.

Land Use Category	Unit	Number of Units in 2014	Forecast Number of Units in 2035	Total # of New Units During Planning Horizon	Average New Units/Year in Remaining Years
		(A)	(B)	(C)=(B)-(A)	(D) = (C) / (2035-2019)
Single-Family Dwellings (market rate)	Dwelling Unit	203,360	254,280	50,920	3,182
Single-Family Dwellings (affordable)*	Dwelling Unit	16,269	20,342	4,074	255
Multi-Family Dwellings (market rate)	Dwelling Unit	89,183	120,162	30,979	1,936
Multi-Family Dwellings (affordable)*	Dwelling Unit	7,135	9,613	2,478	155
Commercial/Retail	Employee	35,241	42,067	6,826	427
Commercial/Office/Service	Employee	129,127	178,300	49,173	3,073
Government	Employee	28,673	32,150	3,478	217
Education	Employee	35,338	45,379	10,041	628
Light Industrial	Employee	10,722	14,144	3,421	214
Heavy Industrial	Employee	44,361	56,636	12,275	767
Other Non-Residential	Employee	65,642	72,163	6,521	408

\* 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. The key take-aways from these exhibits are:

- The draft fees based on the analysis described in this nexus study are on average 38% higher than the current fees. This is due to the addition of the South Interchanges Project, which accounts for 38% of the project costs attributable to new development (see Exhibit 18).
- The percentage change differs by land use type because the trip generation rates changed with more recent survey data (see Exhibit 22). In the case of Light Industrial development, the reduction in the trip generation rate was enough to result in a reduction in fees.
- The previous RTMF nexus study recommended a fee decrease based on the depressive effect of the Great Recession on the real estate market. The decreases adopted for retail and office/services development were so substantial that, even with the fee increases currently proposed, the resultant fee will be lower than the ones originally adopted for the RTMF (see Exhibit 27).

Land Use Category	Number of New Dwelling Units	Trip-Gen Rate	Total Trips Generated	Proposed Fee Per New Dwelling Unit	Current (2014) Fee Per New Dwelling Unit	Proposed % Change in Fee
	(A)	(B)	(C) = (A) * (B)	(H)=(B)*(G) for market rate (H)=(B)*(G)/2 for affordable units	(I)	(J)=(H)/(I)-1
Single-Family Dwellings (market rate)	50,920	9.44	480,681	\$2,118	\$1,637	29%
Single-Family Dwellings (affordable)	4,074	9.44	38,454	\$1,059	\$819	29%
Multi-Family Dwellings (market rate)	30,979	7.32	226,769	\$1,642	\$1,150	43%
Multi-Family Dwellings (affordable)	2,478	7.32	18,142	\$821	\$575	43%
Total of New Residential Trips (D) >			764,046			
Costs Attribution to New Residential Trips (E) >			\$168,026,378			
Administrative Costs for RTMF (F) >			2%			
Cost per New Residential Trip (G) = (E)/(D)*(1+F) =			\$224			

**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	Updated Fee/ Square Foot	New Sq.Ft. of Development	Current (2014) 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	6,826	33.16	226,369	33%	\$1,346	729	\$1.85	4,978,527	\$1.61	15%
Commercial/Office/Service	49,173	5.43	267,175		\$329	279	\$1.18	13,709,508	\$0.89	32%
Government	3,478	7.45	25,908				Exempt		Exempt	
Education	10,041	19.32	194,023				Exempt		Exempt	
Light Industrial	3,421	3.05	10,435		\$185	615	\$0.30	2,103,828	\$0.32	-7%
Heavy Industrial	12,275	3.48	42,678		\$211	1154	\$0.18	14,162,966	\$0.07	162%
Other Non-Residential	6,521	4.11	26,803		\$249	310	\$0.80	2,024,364	\$0.28	187%
Total of New Non-Residential Trips (E) >			793,391							
Costs Attribution to New Non-Residential Trips (F) >			\$47,124,028							
Administrative Costs for RTMF (G) >			2%							
Cost per New Non-Residential Trip (H) = (F)/(E)*(1+G) >			\$61							

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

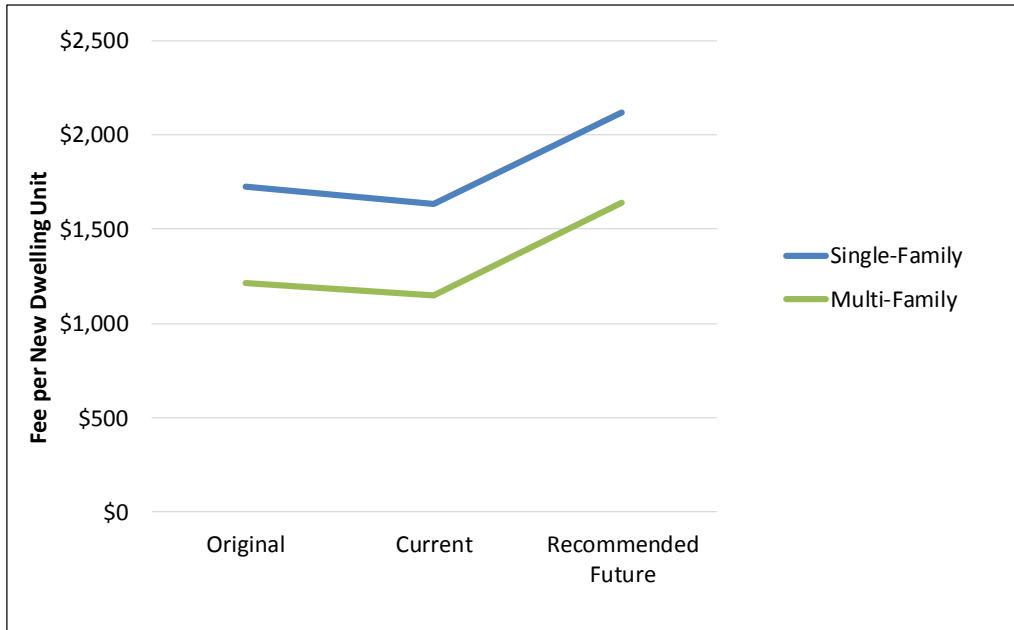


Exhibit 26: RTMF by Land Use Category and Time Period, Residential

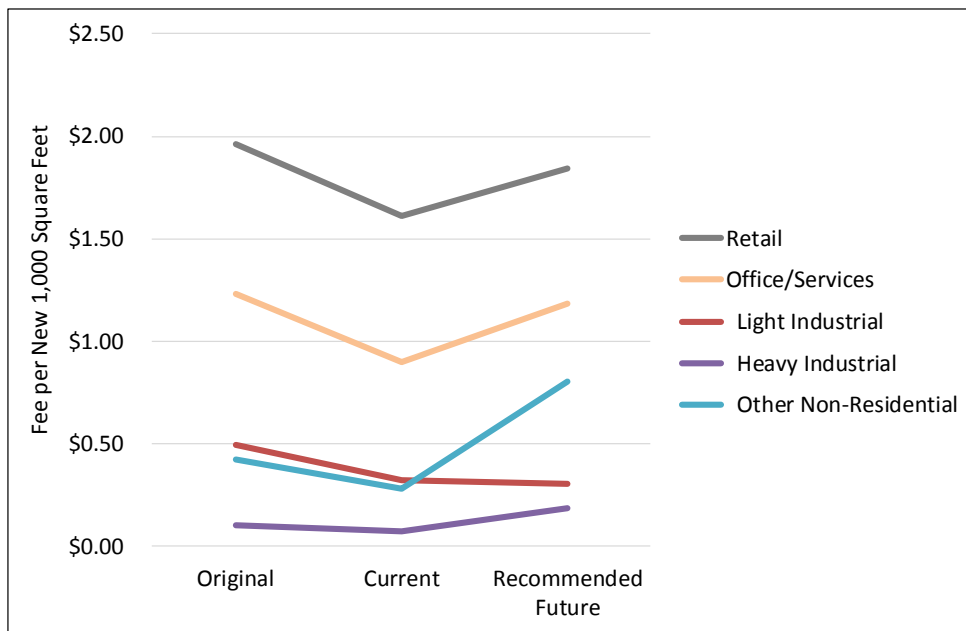
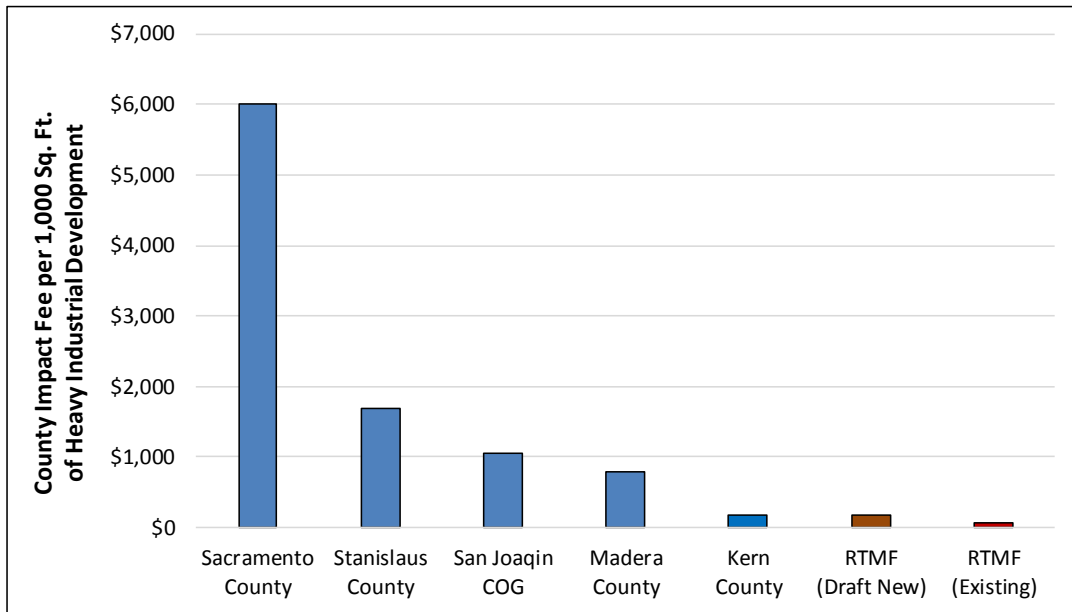


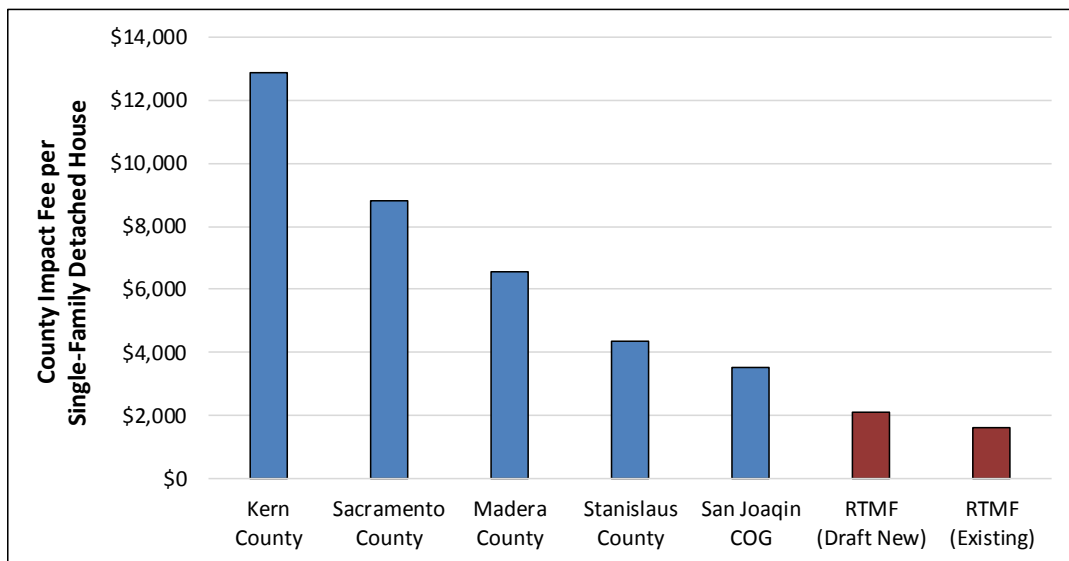
Exhibit 27: RTMF by Land Use Category and Time Period, Non-Residential

### 3.9 Comparison with Fee Programs in Peer Counties

Policy-makers are often concerned about whether an increase in fees will deter new development or encourage developers to go to other, lower-fee locales. This should not be a major concern for jurisdictions in Fresno County. As can be seen in Exhibit 28 and Exhibit 29, even with the proposed increase the RTMF fees would be well below the county-wide transportation fees in peer San Joaquin Valley counties.



**Exhibit 28: Comparison of County-Wide Residential Impact Fees Among Valley Counties**  
 (fee shown for comparative purposes is for a new single-family dwelling)



**Exhibit 29: Comparison of County-Wide Non-Residential Impact Fees Among Valley Counties**  
 (fee shown for comparative purposes is for new heavy industrial development)



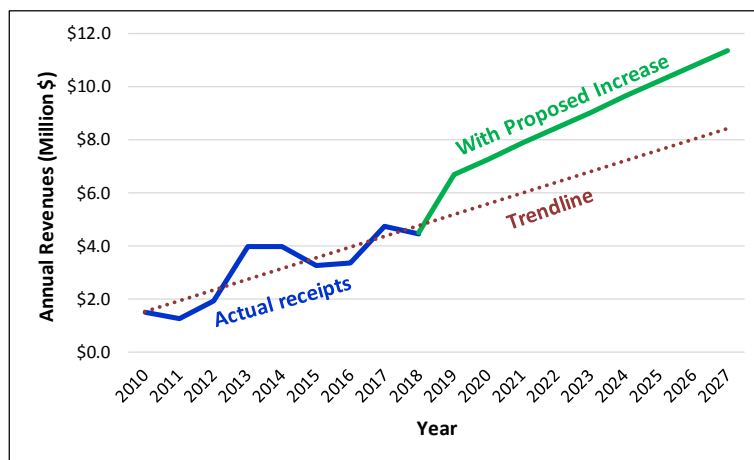
### 3.10 Revenues Raised by the RTMF Program

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 8 years of the program and over the full life of the program (including past years) is shown in Exhibit 30.

Land Use Category	Fee per Unit	Average New Units/Year	Fees Generated per Year	Total Fees Generated 2019-2027
	(A)	(B)	(C)=(A)*(B)	(D)=(C)*8
<b>Residential Developments (dwelling unit)</b>				
Single-Family Dwelling (market-rate)	\$2,118	3,182	\$6,738,989	\$53,911,912
Single-Family Dwelling (affordable)	\$1,059	255	\$269,560	\$2,156,476
Multi-Family Dwelling (market-rate)	\$1,642	1,936	\$3,179,235	\$25,433,878
Multi-Family Dwelling (affordable)	\$821	155	\$127,169	\$1,017,355
<b>Non-Residential Developments (Sq.Ft.)</b>				
Commercial/Retail	\$1.85	331,902	\$612,570	\$4,900,560
Commercial/Office/Service	\$1.18	913,967	\$1,079,097	\$8,632,774
Education	Exempt	0	\$0	\$0
Government	Exempt	0	\$0	\$0
Light Industrial	\$0.30	140,255	\$42,146	\$337,168
Heavy Industrial	\$0.18	944,198	\$172,371	\$1,378,971
Other Non-Residential	\$0.80	134,958	\$108,253	\$866,025
Total			\$12,329,390	
RTMF Funds Expected to be Collected in Next 8 Years				\$98,635,119
RTMF Funds Collected to Date				\$28,820,000
Total Forecast Revenue from RTMF				\$127,455,119

**Exhibit 30: Forecast of RTMF Revenues Based on Land Use Forecasts**

Exhibit 30 uses the average growth in new development called for in the SCS and SIPA Specific Plan, which is somewhat higher than actual growth in recent years. If we instead use the trend growth in development, combined with the proposed increase in fees, RTMF's projected revenues would be approximately \$110 million over the 27-year life of the program (see Exhibit 31).



**Exhibit 31: Forecast of RTMF Based on Current Growth Trends**

The forecasted revenue of between \$110 million and \$127 million shown in Exhibit 30 and 30 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. This amounts to approximately \$225 million).

*“**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). 20% of Measure C’s Tier 1 project costs would now be over \$200 million. Thus the current forecast for revenues falls between the target forecasts in the ballot measure.

### 3.11 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 32.

Projects Receiving Funds	Amount Potentially Fundable from RTMF
<b>Urban Tier 1</b>	
B SR-180 West Seg II	\$2,758,000
C SR-41/SR-168/SR-180	\$9,663,000
M SR-99 North & Cedar Interchanges	\$82,827,460
N1 Veteran’s Boulevard (Interchange)	\$59,342,000
<b>Rural Tier 1</b>	
B SR-180 East Seg III	\$11,061,000
C SR-180 East Seg IV	\$19,231,000
D SR-180 East Seg V	\$38,289,000
<b>Freeway Interchange Deficiency Study</b>	
8 SR-99/Belmont	\$11,735,598
18 SR-41/Ashlan	\$9,063,349
Total Amount Potentially Fundable from RTMF	\$243,970,407
Forecast Total Revenues from RTMF	\$127,455,119
Forecast Revenues as % of Amount Fundable (remainder lost through discounts and exemptions)	52%

**Exhibit 32: Possible Allocation of RTMF Revenues to Projects**

Note that RTMF is expected to collect only about half (52%) of the amount theoretically collectable under the Mitigation Fee Act. This is due to a combination of exemptions and discounts mandated in Measure ‘C’

Extension, and the fact that time horizon used in the analysis (2035, which is FCOG's planning time horizon for the RTP/SCS), extends past the current end date of the RTMF, which coincides with the end date of Measure C extension (2027). If the RTMF is extended beyond that date, then new development post-2027 would boost RTMF revenues beyond what is shown in Exhibit 29. The RTMF could be extended past that date in either of two ways, namely:

- As part of a further extension of Measure C - Ballot measures to extend sales taxes in California have an excellent change of being approved by the voters; in the last several voting cycles all 17 sales tax extension measures passed.
- The Agency could extend the RTMF as a stand-alone program separate from the Measure C sales tax. The current nexus study could serve as a basis for such an extension.

As was shown in Exhibit 18, the majority of projects fundable through the RTMF already have some level of funding available to them. Exhibit 33 shows that RTMF is expected to cover approximately 26% of the costs of the RTMF-eligible projects, leaving 74% to be covered by funds from other sources such as STIP, SHOPP, Measure 'C' sales tax revenue, and future impact fees.

Projects Receiving Funds	Total Project Costs	Funding from Other Sources (STIP, SHOPP, etc.)
<b>Urban Tier 1</b>		
B SR-180 West Seg II	\$6,397,000	\$4,829,355
C SR-41/SR-168/SR-180	\$66,938,000	\$61,643,992
M SR-99 North & Cedar Interchanges	\$96,311,000	\$58,338,976
N1 Veteran's Boulevard (Interchange)	\$91,477,000	\$60,353,920
<b>Rural Tier 1</b>		
B SR-180 East Seg III	\$68,443,000	\$62,191,179
C SR-180 East Seg IV	\$35,937,000	\$24,777,826
D SR-180 East Seg V	\$104,462,000	\$82,761,668
<b>Freeway Interchange Deficiency Study</b>		
8 SR-99/Belmont	\$11,735,598	\$6,355,445
18 SR-41/Ashlan	\$9,440,988	\$5,285,921
Total	\$491,141,586	
Funds Available from STIP, SHOPP, etc.		\$366,538,284 74%
Funds Available from RTMF		\$127,455,119 26%
		<u>\$493,993,403 100%</u>
(Includes RTMF administrative costs)		

**Exhibit 33: 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 32.

### 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.