RTCIP IMPACT FEE NEXUS STUDY – FINAL REPORT

NOVEMBER 26, 2007

PREPARED FOR THE SAN DIEGO ASSOCIATION OF GOVERNMENTS

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1. Introduction and Summary

This chapter provides a summary of the study's results and explains the background and purpose for the study. The chapter also describes the initial nexus analysis that preceded the current study.

Summary

The purpose of this study is to provide a single nexus analysis that all local agencies in San Diego County can use to adopt an impact fee and fulfill their contribution to the Regional Transportation Congestion Improvement Plan (RTCIP). This report documents the required statutory findings under California's *Mitigation Fee Act*[1]. The nexus analysis conducted for this study finds that the impact fee required by the RTCIP of $2,000 per residential unit is justified based on the requirements of the *Act*.

This report is an update to the first version of this study dated September 5, 2006. The changes made in this report from the prior version are:

- Merged the mobile home land use category into the multi-family category because of the minimal amount of projected mobile home development and to simplify administration of the fee; and
- Updated unit cost inflation adjustment based on more accurate construction cost index (Caltrans highway cost index instead of a combination of several national indices).
- Clarified that the initial RTCIP fee beginning in 2008 will be $2,000 per residential unit regardless of type of unit.

The $2,000 fee per residential unit will be updated annually for cost inflation following initial adoption by local agencies in 2008.

New Development Investments in Regional Transportation

In 2004 voters in San Diego County approved a 40-year extension to TransNet, a program designed to fund improvements to the region's transportation system first initiated in 1987. The prime component of the program is a half-cent sales tax increase that is projected to raise over $10 billion for improvements through 2030.[2] Expenditure of TransNet funds is implemented through the *Regional Transportation Plan* (RTP), prepared by the San Diego Association of Governments (SANDAG) and updated periodically as mandated.

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[1] California Government Code, §§66000-66025.

[2] San Diego Association of Governments, *Draft 2007 Regional Transportation Plan* (June 2007), Table 4.1, p. 4-9.

The draft 2007 RTP details the need for $58 billion in transportation improvements.[3] Of that total, $27 billion in funding will come from a variety of state and federal sources. The remaining $31 billion will come from local funding sources including the TransNet sales tax extension. These amounts represent the Reasonably Expected Scenario, one of three scenarios examined in the draft 2007 RTP.[4]

In addition to the sales tax extension, the TransNet program requires implementation of a new local funding source for the draft 2007 RTP, the Regional Transportation Congestion Improvement Program (RTCIP).[5] The purpose of the RTCIP is to ensure that new development directly invests in the region's transportation system to offset the negative impacts of growth on congestion and mobility.

Key components of the RTCIP include:

- Beginning July 1, 2008 each local agency must contribute $2,000 from exactions imposed on the private sector for each new residence constructed in the County.
- Although the RTCIP does not specify a revenue source for this contribution, most local agencies are likely to collect this revenue as a development impact fee imposed on new dwelling units at building permit issuance.
- Revenues must be expended on improvements to the Regional Arterial System (RAS), described below, and in a manner consistent with the expenditure priorities in the most recent adopted RTP.
- The Independent Taxpayer Oversight Committee, created for the TransNet program, is responsible for reviewing local agency implementation of the RTCIP.
- If a local agency does not comply with the RTCIP the agency can lose TransNet sales tax funding for local roads.

Cities have the authority to impose impact fees under the *Mitigation Fee Act* contained in California Government Code sections 66000 through 66025. Counties have the same authority for their unincorporated areas. In doing so, each local agency is required to make findings demonstrating a reasonable nexus between the collection of fees, the need for facilities created by new development, and the expenditure of fee revenues to benefit new development.

Purpose of Study

The purpose of this study is to provide a single nexus analysis that all local agencies in San Diego County can use to adopt an impact fee and fulfill their contribution to the RTCIP. This report documents the required statutory findings under the *Mitigation Fee Act*.

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[3] Ibid., Table 4.3, page 4-11.

[4] Ibid., Table 4.1, page 4-9.

[5] San Diego Association of Governments, *TransNet Extension Ordinance and Expenditure Plan,* Commission Ordinance 04-01, May 28, 2004, Sec. 9.

Regional Arterial System

SANDAG employs a rigorous process to define the RAS.[6] The most important criterion for determining whether to include an arterial in the RAS is the arterial's role as a "critical link". Critical links provide direct connections between communities ensuring system continuity and congestion relief in high volume corridors. The other criteria for inclusion of an arterial in the RAS include:

- Links to areas with high concentrations of existing or future population or employment;
- Links to activity centers such as hospitals, retail centers, entertainment centers, hotels, colleges, and universities;
- Accommodate high future traffic volumes;
- Accommodate Regional Transit Vision (Red and Yellow Car service); and
- Provide access to intermodal (freight, port, military, or airport) facilities.

As of the date of the first version of this report in September 2006, the RAS included 777 route miles (not lane miles) of arterials. **Figure 1** is a map of the Regional Arterial System from the adopted 2005 RTP. The RAS included both the regionally significant arterials and the other regional arterials indicated on the map. A list of arterial segments included in this version of the RAS is provided in **Appendix A** to this report. A list of the types of improvements that the RTCIP can fund on the RAS is discussed in the *Implementation* chapter of this report.

Initial RTCIP Impact Fee Calculation

SANDAG staff developed the RTCIP contribution amount of $2,000 per residence using an approach that allocated transportation system improvements proportionately across both existing development and projected growth. The methodology was as follows:

1. The Regional Arterial System carried 10.8 million vehicle miles traveled (VMT) in 2000 and was projected to carry 14.9 million VMT in 2030. The difference of 4.1 million VMT, or 27 percent of the 2030 VMT total was attributed to growth (4.1 ÷ 14.9 = 27 percent).
2. The entire transportation network was projected to accommodate 60.1 million vehicle miles traveled (VMT) in 2030. Of this total, 37.4 million VMT, or 62 percent, were attributed to residential development (37.4 ÷ 60.1 = 62 percent). This amount included any trip that started or ended at a home (home-work, home-school, home-college, and home-other).
3. Multiplying the results of steps #1 and #2 resulted in 16 percent of total VMT in the County in 2030 attributed to new, residential development (0.27 × 0.62 = 16 percent).

[6] San Diego Association of Governments (SANDAG), *Final 2030 Regional Transportation Plan, Mobility 2030* (February 2005), Technical Appendix 7 – Evaluation Criteria and Rankings, Table TA 7.1, p. 105.

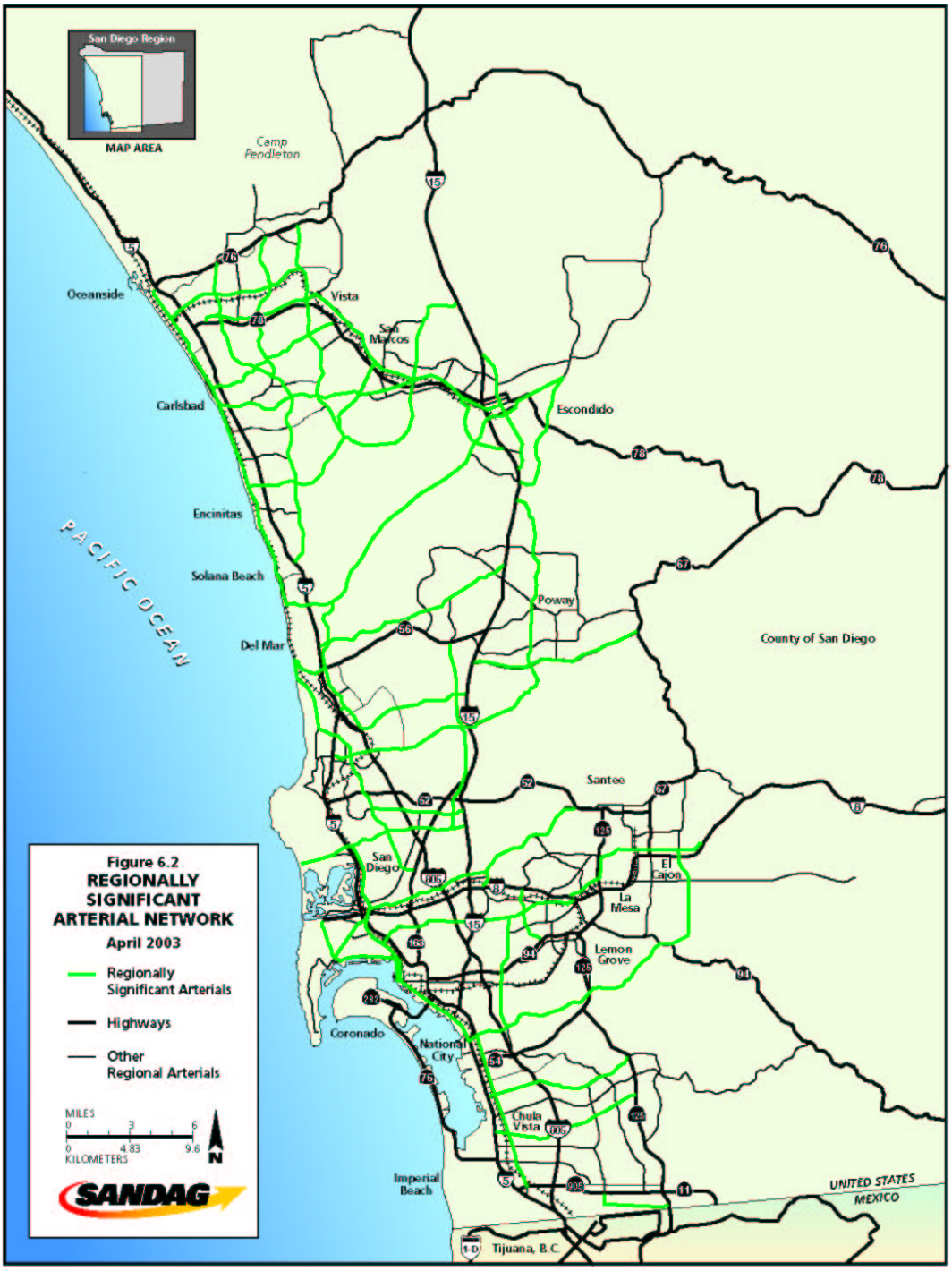
4. As of 2000, SANDAG and local agencies had identified improvements for 710 additional lane miles to complete the Regional Arterial System. At a cost of $5.1 million per lane mile (in 2002 dollars) this equals a total cost of $3.6 billion (710 × $5.1 million = $3.6 billion).
5. If all development, existing and new, paid a proportionate share of this cost new residential development's share would be $593 million (0.16 × $3.6 billion = $593 million).
6. Allocating the new residential development share over a projected increase in dwelling units of 320,000 from 2000 to 2030 yielded a cost per unit of slightly less than $2,000 ($593 million ÷ 320,000 = $1,853).

The methodology described above and employed by SANDAG to calculate the RTCIP assumes that all development, existing and new has the same impact on the need for RAS improvements based on the amount of travel demand generated (vehicle trips). Thus existing and new development should share proportionately in the cost of transportation system improvements. For descriptive purposes this can be considered an "average cost" approach.

The "average cost" approach probably results in a lower fee and is therefore more conservative and defensible compared to other approaches used for impact fee nexus analysis. The "average cost" approach does not focus on the marginal impacts of new development on congestion. A "marginal cost" approach examines the cost of additional transportation improvements needed to mitigate impacts by maintaining existing levels of services. Based on our experience preparing transportation fee studies, this "marginal cost" approach would probably result in allocating to new development a greater share of planned transportation system improvements compared to the "average cost" approach. The approach used by SANDAG to justify the RTCIP impact fee is therefore more conservative.

Figure 1

Regional Arterial System



2. Nexus Analysis

This chapter documents a reasonable relationship between increased travel demand from new development on the Regional Arterial System (RAS), the cost of RAS improvements needed to accommodate that growth, and an impact fee to fund those investments.

Approach

Impact fees are calculated to fund the cost of facilities required to accommodate growth. The four steps followed in any development impact fee study and described in detail in the sections that follow include:

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

Due to policy considerations SANDAG indicated that the nexus study should employ the same "average cost" approach used in the initial fee calculation to the greatest extent technically defensible under the *Mitigation Fee Act*. Consistent with the initial SANDAG approach, the need for RAS improvements determined by this nexus study is based on the relative amount of travel demand generated by all existing and new, residential and nonresidential, development. As mentioned above (see page 3), this is a conservative approach because a more detailed impact analysis probably would result in allocating to new development a greater share of planned RAS improvements.

The analysis required for each of the four steps listed above is conducted on a countywide basis consistent with SANDAG's initial fee calculation. We updated certain assumptions with more recent data when available. The approach takes a countywide perspective because the RAS represents a countywide network that facilitates mobility between and through cities and unincorporated areas. New development, regardless of location, both adds congestion (increased vehicle trips) to a range of arterials within the RAS and benefits from the expenditure of fee revenue on a range of RAS facilities.

Growth Projections

This section describes the SANDAG forecast for population and employment, and estimates of land use in terms of dwelling units and nonresidential building square feet. Land use forecasts are converted to vehicle trips to provide a measure of travel demand (further discussed below).

Population, Employment, and Land Use

The planning horizon for this analysis is 2030, consistent with current land use and transportation forecasts adopted by SANDAG. The nexus analysis uses forecasts of dwelling units and employment to estimate new development demand for transportation improvements. Forecasts for 2030 are from SANDAG's Urban Development Model (UDM). The UDM is one of four interrelated forecasting models used by SANDAG to project land use and transportation for the region.[1] The UDM allocates changes in the region's economic and demographic characteristics to jurisdictions and other geographic areas within the region. The model is based on the spatial interrelationships among economic factors, housing and population factors, land use patterns, and the transportation system. The model generates 2030 forecasts for small geographic areas including the traffic analysis zones used in the transportation modeling process. The UDM complies with federal mandates that transportation plans consider the long-range effects of the interaction between land uses and the transportation system.

The initial SANDAG fee calculation used 2002 as the base year for cost estimates so that is the base year used for this nexus analysis. Dwelling units and employment for 2002 are based on interpolations of development estimates for 2000 and 2005 from the UDM model. Total employment was allocated to land use categories based on analysis of employment by land use using data from five counties and conducted for the Southern California Association of Governments.

Table 1 lists the 2002 and 2030 land use assumptions based on SANDAG forecasts and used in the nexus analysis. The land use categories shown in Table 1 and used in this nexus analysis are the same that are used in the SANDAG forecasts with one exception. This nexus analysis includes mobile homes in the multi-family category because of the minimal amount of forecast mobile home development. SANDAG forecasts mobile homes to increase by 2,000 units during the planning horizon, or 1.3 percent of forecast growth in multi-family units.

The employment forecasts are converted to building square footage shown in Table 1 by land use using occupant densities factors shown in **Table 2**. These factors are derived from a study of employment, building square feet, and land use conducted for the Southern California Association of Governments (SCAG). The density factors were derived from a random sample of 2,721 parcels drawn from across five counties (Los Angeles, Orange, Riverside, San Bernardino, and Ventura). We could not identify such a study for San Diego County. The SCAG study's density factors are based on the largest sample of properties that we are aware of, and are used in development impact fee studies throughout the State.

[1] For more information on SANDAG's economic, demographic, and transportation forecasting models, see San Diego Association of Governments, *Final 2030 Forecast Process and Model Documentation,* April 2004.

Table 1: Population, Employment & Land Use Forecasts

	2002	2030	Increase	Percent
Residents	2,909,000	3,855,000	946,000	33%
Dwelling Units				
Single Family	648,000	778,000	130,000	20%
Multi-family[1]	419,000	576,000	157,000	37%
Total	1,067,000	1,354,000	287,000	27%
Employment[2]				
Retail	295,000	393,000	98,000	33%
Office/Services	348,000	451,000	103,000	30%
Industrial	383,000	628,000	245,000	64%
Subtotal	1,026,000	1,472,000	446,000	43%
Residential[3]	138,000	149,000	11,000	8%
Public[4]	139,000	157,000	29,000	21%
Total	1,303,000	1,778,000	475,000	36%
Building Square Feet (000s)[5]				
Retail	148,000	197,000	49,000	33%
Office/Services	104,000	135,000	31,000	30%
Industrial	345,000	565,000	220,000	64%
Total	597,000	897,000	300,000	50%

[1] Multi-family population includes mobile homes.

[2] Based on Series 10 forecast data provided by SANDAG. Estimates by major land use type rolled up from County Assessor's categories. Interpolated 2008 data based on 2005 and 2010 forecasts.

[3] Employment on residential land uses such as home-based businesses. Travel demand included in estimates for residential land uses.

[4] Travel demand caused by public land uses so excluded from nexus analysis.

[5] Based on occupant density factors shown in Table 2.

Sources: San Diego Association of Governments (SANDAG) Data Warehouse (http:datawarehouse.sandag. org), SANDAG Series 10 forecast of employment by land use; MuniFinancial.

Table 2: Occupant Density

Land Use		
Commercial	500	Square feet per employee
Office/Services	300	Square feet per employee
Industrial[1]	900	Square feet per employee

Note: Source data based on random sample of 2,721 developed parcels across five Los Angeles area counties (Los Angeles, Orange, Riverside, San Bernardino, and Ventura). MuniFinancial estimated weighting factors by land use categories used in the survey to calculate average employment densities by major category (commercial, office, industrial).

[1] Adjusted to correct for over-sampling of industrial parcels in Ventura County.

Source: The Natelson Company, Inc., *Employment Density Study Summary Report,* prepared for the Southern California Association of Governments; October 31, 2001, Table 2-A, p. 15. MuniFinancial.

Travel Demand By Land Use Category

To estimate travel demand by type of land use the nexus study uses vehicle trips rather than vehicle miles traveled (VMT) that were used in the initial SANDAG calculation. Vehicle trips can be calculated in a consistent manner across land use categories based on population and employment estimates by land use category. This enables the impact of development to be distinguished between land use categories, a key requirement of the *Mitigation Fee Act*. VMT, on the other hand, is available from transportation models only for a limited number of "production and attraction" categories: home-work, home-school, home-college, home-other, and non-home.

A reasonable measure of vehicle trips is weekday average daily vehicle trips ends. Because automobiles are the predominant source of traffic congestion, vehicle trips are a reasonable measure of demand for new capacity even though the measure excludes demand for alternative modes of transportation (transit, bicycle, pedestrian).

The following two adjustments are made to vehicle trip generation rates to better estimate travel demand by type of land use:

- Pass-by trips are deducted from the trip generation rate. Pass-by trips are intermediates stops between an origin and a final destination that require no diversion from the route, such as stopping to get gas on the way to work.
- The trip generation rate is weighted by the average length of trips for a specific land use category compared to the average length of all trips on the street system.

Table 3 shows the calculation of travel demand factors by land use category based on the adjustments described above. Data is based on extensive and detailed trip surveys conducted in the San Diego region by SANDAG. The surveys provide a robust database of trip generation rates, pass-by trips factors, and average trip length for a wide range of land uses.

Table 3: Travel Demand Factors

	A	B	C = A + B	D	E = C x D / 6.9	F	G = E x F
	Trip Rate Adjustment Factor						
	Primary Trips[1]	Diverted Trips[1]	Total Excluding Pass-by[1]	Average Trip Length[2]	Adjust-ment Factor[3]	Average Daily Trip Ends[4]	Travel Demand Factor[4]
Residential[5]							
Single Family	86%	11%	97%	7.9	1.11	10	11.10
Multi-family[6]	86%	11%	97%	7.9	1.11	8	8.88
Nonresidential[7]							
Commercial	47%	31%	78%	3.6	0.41	68	27.88
Office/Services	77%	19%	96%	8.8	1.22	20	24.40
Industrial	79%	19%	98%	9.0	1.28	8	10.24

[1] Percent of total trips. Primary trips are trips with no midway stops, or "links". Diverted trips are linked trips whose distance adds at least one mile to the primary trip. Pass-by trips are links that do not add more than one mile to the total trip.

[2] In miles.

[3] Systemwide average trip length is 6.9 miles.

[4] Trip ends or travel demand per dwelling unit or per 1,000 building square feet.

[5] Single family based on 3-6 units per acre category. Multi-family based on 6-20 units per acre category.

[6] Multi-family deman factos include mobile homes. The combined average daily trip ends calculation multiplies 2002 population by average daily trip ends for both multi-family and mobile homes and then weights the sum by the 2002 population.

[7] Commercial based on "community shopping center" category. Office/services based on "standard commercial office" category. Industrial based on "industrial park (no commercial)" category.

Sources: San Diego Association of Governments, *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region,* July 1998;

Shifting Burden of Commercial Development to Residential Development

Applying the travel demand factors shown in Table 3 directly to development by land use category implicitly assumes that the cause of each vehicle trip on the transportation network is shared equally by the land use at each trip end (origin and destination). But depending on the regional economic forces affecting development in a particular area, the cause of a trip may be related more to the land use at the origin or the destination. For example, in some areas residential development may be caused by job growth, while in other areas the opposite may occur (jobs follow housing). These cause and effect relationships may change over time in the same area. Given the complexity of these regional economic and land use relationships, most transportation impact fee nexus studies make the simplifying but reasonable assumption to weight the origin and destination of a trip equally when identifying the cause of travel demand on a transportation system.

However, there is one regional economic and land use cause and effect relationship that remains consistent across geographical areas and over time. Commercial development is to a large extent caused by the spending patterns of local residents. Commercial development follows residential development or anticipates new development occurring in the near term. This development pattern can be observed throughout metropolitan regions and is driven by the site location process followed by retailers. When seeking new locations, the most common measure of a potential market used by site location analysts is the number of

households within a reasonable driving distance for shopping trips and the median income of those households.

Given this consistent regional economic and land use cause and effect relationship, it is reasonable to allocate at least some of the burden of commercial trip ends to residential development. This approach is used in impact fee nexus studies to more accurately allocate the burden of transportation improvements needed to accommodate growth.[2]

Not all retail spending is related to local residential development. By "local" we mean residents (or businesses) located within the area subject to the impact fee. There are three major sources of retail spending:

1. Local households;
2. Local businesses; and
3. Visitors that travel to the area to shop.

The RTCIP impact fee is limited to residential development so the focus of this nexus study was shifting the appropriate share of travel demand from commercial to residential development. The demand for commercial development by local businesses was not identified.

To determine the amount of commercial development associated with residential development we conducted an analysis of taxable retail sales data for 2004, the most recent complete year of data available from the State Board of Equalization. The analysis calculated the total spending potential of San Diego County households and estimated what portion of that spending occurred within the County. The result was that 62.6 percent of total taxable retail sales was estimated to be associated with local household spending. The remainder was associated with local business and visitor spending. Based on this analysis, residential development directly causes 62.6 percent of commercial development. Consequently, the travel demand associated with that share of commercial development is shifted to residential development.

The results of this analysis are summarized in **Table 4** and presented in detail in **Appendix B**.

Total Travel Demand By Land Use Category

Table 5 shows estimates of travel demand from existing and new development and the shares that residential and nonresidential development comprise of the total. Travel demand is based on the travel demand factors calculated in Table 3 and the growth estimates in Table 1. Commercial development associated with local household spending as shown in Table 4 is included in the residential land use category. Based on this analysis new residential development will represent about 13 percent of total travel demand in 2030.

[2] See Economic and Planning Systems, Inc., *Infrastructure Financing Technical Report Southwest Area Plan,* prepared for the City of Santa Rosa Department of Community Development, January 1995, p.28. See also Economic and Planning Systems, Inc., *Road Impact Mitigation Fee Nexus Study,* prepared for the Calaveras Council of Governments, April 28, 2004, p.20.

Table 4: Allocation of Taxable Retail Spending & Commercial Sq. Ft. in San Diego County

	Taxable Retail Sales (2004)	Share	Building Square Feet 2002	2025	Growth
Total Taxable Retail Spending & Commercial Sq. Ft.	$ 44,470,000	100.0%	148,000	197,000	49,000
Local Residential Taxable Spending & Sq. Ft.	27,856,000	62.6%	93,000	123,000	30,000
Local Business and Visitor Taxable Spending & Sq. Ft.	16,614,000	37.4%	55,000	74,000	19,000

Sources: Tables 1 and B.4; MuniFinancial.

Table 5: Travel Demand From Existing and New Development

Land Use Category	Travel Demand Factor[1]	Development Existing[2] (2002)	Development Growth[2] (2002-2030)	Travel Demand[3] Existing (2002)	Travel Demand[3] Growth (2002-2030)	Total
Residential						
Single Family	11.10	648,000	130,000	7,193,000	1,443,000	8,636,000
Multi-family[4]	8.88	419,000	157,000	3,721,000	1,394,000	5,115,000
Local-serving Commercial[5]	27.88	93,000	30,000	2,593,000	836,000	3,429,000
Subtotal		1,160,000	317,000	13,507,000	3,673,000	17,180,000
Percent of Total				47.7%	13.0%	60.7%
Nonresidential						
Other Commercial[6]	27.88	55,000	19,000	1,533,000	530,000	2,063,000
Office/Services	24.40	104,000	31,000	2,538,000	756,000	3,294,000
Industrial	10.24	345,000	220,000	3,533,000	2,253,000	5,786,000
Subtotal		1,757,000	617,000	7,604,000	3,539,000	11,143,000
Percent of Total				26.8%	12.5%	39.3%
Total				21,111,001	7,212,000	28,323,000
Percent of Total				75.0%	25.0%	100.0%

[1] Per dwelling unit for residential land uses and per 1,000 square feet for nonresidential land uses.
[2] Dwelling units for residential land uses and 1,000 square feet for nonresidential land uses.
[3] Estimated total trip ends adjusted for the factors shown in Table 3.
[4] The multi-family travel demand factor and demand calculations include mobile homes.
[5] Represents share of total commercial square feet and travel demand associated with spending by San Diego County households.
[6] Represents share of total commercial square feet and travel demand associated with spending by San Diego County businesses and visitors.

Source: Tables 1, 3 and 4; MuniFinancial.

Facilities Standard and Need for Transportation Improvements

The critical policy issue in a development impact fee nexus study is the identification of a facility standard. The facility standard determines new development's need for new facilities. The facility standard is also used to evaluate the existing level of facilities to ensure that new development does not fund infrastructure needed to serve existing development.

The facility standard used by this nexus analysis is average weekday vehicle hours of delay on the Regional Arterial System (RAS) in 2008. Hours of delay provide a reasonable system-wide measure of the impact of new development on congestion and mobility. SANDAG's

transportation forecasting model (TransCAD) demonstrates that hours of delay increase with the level of new development, and decrease with investment in additional transportation system capacity. Projected hours of delay in 2002 is used for the standard because that is the implementation date for the RTCIP, representing existing conditions at the time new development would begin contributing to transportation system improvements.

The original RTCIP fee estimate was based on the need for 710 additional lane miles to complete the RAS as of the year 2000 (see "Initial RTCIP Impact Fee Calculation" in Chapter 1). Through 2002 the region added 73 lane miles to the RAS. This effort reduces the level of investment needed to complete the RAS to 637 lane miles.

The data in **Table 6** from the TransCAD model demonstrates a reasonable relationship between new development and the need for additional investment in the RAS. The table shows the projected increases in vehicle hours of delay from 2002 to 2030 and the benefits of adding 637 lane miles to the RAS. Without any investment in the RAS vehicle hours of delay will increase by 114 percent during this period. With an investment of 637 new lane miles in regional arterials vehicle hours of delay will increase substantially less, by 68 percent.

Table 6: Regional Arterial System Roadway Statistics

		Projected 2030	
	Existing 2002	Without Improvements	With Improvements
Lane Miles	2,805	2,805	3,442
Change, 2002-2030 (amount)		-	637
Change, 2002-2030 (percent)		0%	23%
Average Weekday Vehicle Hours of Delay	64,352	137,481	108,350
Change, 2002-2030 (amount)		73,129	43,998
Change, 2002-2030 (percent)		114%	68%

Note: 2002 data interpolated based on 2000 and 2005 data provided by model output (see Source).

Source: San Diego Association of Governments, TransCAD model output.

New development is not the entire cause of the forecasted increase in vehicle hours of delay. As discussed above, new development is only allocated a share of RAS investment costs. The SANDAG transportation model assumes that vehicle miles traveled (VMT) per capita for all existing and new development will increase 9.6 percent from 2000 to 2030 continuing recent trends.[3] Thus some of the increased in vehicle hours of delay is caused by increased travel from existing development. This trend does not affect the nexus analysis under the "average cost" approach taken by this nexus analysis (see "Initial RTCIP Impact Fee Calculation" in Chapter 1). Under this approach RAS investment costs are allocated

[3] Email communication from Bill McFarlane, Transportation Modeling Section, San Diego Association of Governments, March 8, 2006.

proportionately across existing and new development based on total travel demand, thus incorporating the impact of changes in travel behavior such as increased VMT per capita.

Facility Costs and Available Funding

This section estimates total costs associated with RAS improvements that are the responsibility of new development. The need for RTCIP funding based on available revenues identified in the adopted 2005 RTP is evaluated. Finally, this section provides a current list of specific projects identified for investment in the RAS.

Unit Cost Estimates and Total Facility Costs

For the purposes of this nexus analysis, facility costs are estimated in 2008 dollars, the first year of implementation of the RTCIP. This subsection explains the approach taken to increase unit costs from 2002 dollars to 2008 dollars.

Historically, SANDAG has assumed an annual increase of 2.6 percent for road construction costs based on the California Department of Transportation (Caltrans) construction cost index average annual compounded rate from 1980-2004. In recent years that rate has risen significantly and grown increasing volatile. To examine this issue SANDAG commissioned a study in 2005 by URS, a private consulting firm, that examined a range of data on transportation capital project cost inflation since 2002. The URS study recommended use of several national highway construction cost indices to adjust transportation project cost estimates for SANDAG's financial planning purposes. [4] These rates were used in the prior version of this nexus study dated September 5, 2006.

Analysis of actual costs for road construction projects in the San Diego region conducted by SANDAG staff during the past year has determined that the Caltrans highway remains the best indicator of local construction cost inflation. Indeed, the URS study recognized that California's construction costs are higher than those in national indexes.[5] Consequently this nexus analysis returns to the use of the Caltrans construction cost index to inflate unit cost estimate from 2002 dollars to 2008 dollars. Estimates for 2008 are based on Caltrans index data through 2007.

Annual Caltrans index data was available through 2006 at the time of this study. Index data for 2007 should be available by February 2008 when SANDAG will inform local agencies of the RTCIP impact fee amount that must be adopted by July 1, 2008 (see "Adoption By Local Agencies" in Chapter 3). For the purposes of this study the 2007 index was estimated based on the average annual compounded growth rate in the index for the ten-year period from 1996 through 2006. A ten-year average was used because of the high volatility of the index in recent years. The approach taken in this report is to estimate 2008 costs based on inflation through 2007.

As shown in **Table 7**, the cost estimate for an arterial lane mile is estimated at $10.9 million in 2008 dollars. The total compounded increase from the 2002 is 115 percent. Total costs to

[4] San Diego Association of Governments, *Transportation Project Cost Analysis* (June 17, 2005) completed by URS, p. 8-1.

[5] Ibid., p. 4-1.

complete the arterial system are estimated at $7.0 billion based on this revised unit cost estimate.

Table 7: Estimated Arterial System Capacity Investments ($2008)

Year	Caltrans Index	Inflation Rate Annual	Inflation Rate Cummulative	Cost
2002	142.2	NA	NA	$ 5,100,000
2003	148.6	4.50%	4.50%	5,330,000
2004	216.2	45.49%	52.04%	7,754,000
2005	268.3	24.10%	88.68%	9,623,000
2006	280.6	4.58%	97.32%	10,063,000
2007[1]	305.7	8.94%	114.96%	10,963,000
Regional Arterial Widenings & Extensions (lane miles) (2002-2030)				637
Total Regional Arterial System Capacity Investments (2002-2030) (Est. $2008)				$ 6,981,238,400

[1] Annual inflation rate for 2007 was estimated using the ten-year compounded annual growth rate from 1996 to 2006 for the CalTrans highway construction annual cost index. The actual rate for 2007 will be updated after the annual index data is published by CalTrans on January 30th of 2008.

Sources: San Diego Association of Governments, *Final 2030 Regional Transportation Plan, Mobility 2030* (February 2005), Technical Appeicix 9 - Project Cost Estimates, p. 159; California Dept. of Transportation, *Price Index for Selected Highway Construction Items* (Second Quarter Ending June 30, 2007); Table 6; MuniFinancial.

Available RTP Funding

To justify the need for the RTCIP impact fee, the fee should only be imposed to the extent additional funding is needed to accommodate new development net of other anticipated funding sources. The adopted 2005 RTP examined three funding and expenditure scenarios described below.[6] All dollars are in $2002 and are for the planning horizon 2002 to 2030.

- The Revenue Constrained scenario ($30 billion) was based on existing revenue sources and did not assume extension of the TransNet sales tax.
- The Reasonably Expected scenario ($42 billion) was based on extension of the TransNet sales tax ($8 billion) plus $4 billion more from higher levels of state and federal discretionary funds and increases in state and federal gas taxes based on historical trends.
- The Unconstrained Revenue scenario ($67 billion) was based on an analysis of transportation system needs to 2030 and identified potential revenue sources but did not specify which ones to implement.

[6] SANDAG, *Final 2030 Regional Transportation Plan, Mobility 2030* (February 2005), Chapter 4, pp. 35-53.

SANDAG adopted the Reasonably Expected scenario. Under this scenario the adopted 2005 RTP invests $24.5 billion for projects that expand system capacity. Other improvements totaling $17.5 billion would improve operations, maintenance, and rehabilitation of highway, road, and transit, and related facilities. The adopted 2005 RTP expenditure plan is summarized in **Table 8**, below.

Table 8: RTP Investment Plan, 2002-2030 ($2002)

	$ Millions ($2002)	
Capacity Expansion Investments		
New Transit Facilities	$ 8,500	20%
Managed High Occupancy Vehicle Lane Facilities	7,450	18%
Highway System Completion/Widening Projects	3,580	9%
New Local Streets and Roads	4,430	11%
Regional Significant Arterials	500	1%
Subtotal	$ 24,460	58%
Other Investments[1]	17,485	42%
Total Expenditures	$ 41,945	100%

[1] Includes projects that improve the operations, maintenance, and rehabilitation of highway, road, and transit, and related facilities.

Source: San Diego Association of Governments, *Final 2030 Regional Transportation Plan, Mobility 2030* (February 2005), p. 44; MuniFinancial.

As shown in Table 8, the adopted 2005 RTP allocates $500 million for investment in the RAS. Under the Revenue Constrained and Unconstrained Revenue scenarios the total allocation is $350 million and $700 million, respectively.[7] Given the need for a $6.98 billion total investment (Table 7), substantial additional resources are needed.

The adopted 2005 RTP indicates that local jurisdictions need to identify matching funds for investment in the RAS because the regional funding provided through the adopted 2005 RTP:

> …is intended to be matched with revenues from the local jurisdictions, which are responsible for improving regional roadways and local streets to meet their residents needs and mitigate the effects of local land use developments.[8]

[7] Ibid., Table 4.3, p. 46, Table 4.5, p. 49.

[8] Ibid., p. 103.

The adopted 2005 RTP further indicates that a regional development impact fee as contemplated by the RTCIP is one of the potential revenues sources for supplementing adopted 2005 RTP resources.[9]

The funding assumptions discussed above are based on the most recently adopted 2005 RTP because the draft 2007 RTP has not been adopted as of the date of this report. These assumptions are likely to vary in the final adopted 2007 RTP. However, the draft 2007 RTP continues to indicate that funding is needed from the RTCIP to mitigate the impacts of new development on the transportation system.

Specific RAS Improvement Projects

Table 9 shows the adopted 2005 RTP's initial planned improvements in the RAS. These projects represent a $700 million investment under the Unconstrained Revenue scenario, or 136 additional lane miles at the 2002 cost estimate of $5.1 million per lane mile. Under the adopted Reasonably Expected scenario the adopted 2005 RTP allocates $500 million, sufficient to fund 98 additional lane miles in $2002. These projects are candidates for funding with RTCIP contributions. Funding these improvements with the RTCIP would enable RTCIP resources to expand improvements in the RAS towards full completion of the system (637 lane miles from 2002 to 2030).

Cost Allocation and Fee Schedule

The vehicle trip rates described in the *Growth Projections* section, above, provide a means to allocate a proportionate share of total RAS improvements to each new development project. Trip rates are a reasonable measure of each development project's demand on the regional transportation system. New development's share of total RAS improvements is divided by total trips generated by new development to calculate a cost per trip. The cost per trip multiplied by the trips generated by a development project determines that project's fair share of total RAS improvements.

New development could contribute up to $320 per trip as shown in **Table 10**. This amount is based on the nexus approach taken for this analysis that allocates RAS costs to new residential development based on shares of total travel demand in 2030. This approach is based on allocating to residential development the entire burden of trips associated with commercial development that serves households within the County (see earlier discussion under "Shifting Burden of Commercial Development to Residential Development").

[9] Ibid., p. 50.

Table 9: Regionally Significant Planned Arterial Improvements

Arterial	Limits	Type	Jurisdiction
Balboa Ave.	Kearney Villa Rd. - Ruffin Rd.	Widen	City of San Diego
Bear Mountain Pkwy.	Canyon Rd. - Valley Pkwy.	Widen	City of Escondido
Black Mountain Rd.	Mercy Rd. - Mira Mesa Blvd.	Widen	City of San Diego
Black Mountain Rd.	Emden Rd. - Caramel Valley Rd.	Extend	City of San Diego
Cannon Rd.	Hidden Valley Rd. - Frost Rd.	Extend	City of Carlsbad
Cannon Rd.	El Camino Real - Mystra Dr.	Extend	City of Carlsbad
Cannon Rd.	Melrose Dr. - SR 78	Extend	County of San Diego
Citracado Pkwy.	I-15 - Scenic Trail Way	Extend	City of Escondido
Citracado Pkwy.	Avenida Del Diablo - Vineyard Ave.	Extend	City of Escondido
College Ave.	Montezuma Rd. - Alvarado	Widen	City of San Diego
College Ave.	El Camino Real - Carlsbad Village Dr.	Extend	City of Carlsbad
Deer Springs Rd.	I-15 - Twin Oaks Valley Rd.	Widen	County of San Diego
Del Dios Hwy.	Via Rancho Pkwy. - Valley Pkwy.	Widen	City of Escondido
East Valley Pkwy.	East Valley Blvd. - Bear Valley Pkwy.	Widen	City of Escondido
El Camino Real	Camino Santa Fe - El Camino Real	Widen	City of San Diego
El Camino Real	Manchester Ave. - Tamarack Ave.	Widen	City of Carlsbad
El Camino Real	Tamarack Ave. - SR 76	Widen	City of Oceanside
Friars Rd.	Colusa St. - Lia Las Cumbres	Widen	City of San Diego
Friars Rd.	SR-163 - Frazee Rd.	Widen	City of San Diego
Genesee Ave.	I-5 - Campus Point Dr.	Widen	City of San Diego
Genesee Ave.	Osler St. - Marlesta Dr.	Widen	City of San Diego
H Street	Bonita Vista High - Otay Lakes	Widen	City of Chula Vista
Harbor Dr.	Pacific Hwy. - California St.	Widen	City of San Diego
Heritage Rd.	Airway Rd. - Siempre Viva Rd.	Extend	City of San Diego
Jamacha Blvd.	Omega St. - Pointe Pkwy.	Widen	County of San Diego
Kearny Villa Rd.	SR 52 - Ruffin Rd.	Widen	City of San Diego
Manchester Ave.	I-5 - Lux Canyon Dr.	Widen	City of Encinitas
Melrose Dr.	Spur Ave. - N Santa Fe Ave.	Extend	City of Oceanside
Melrose Dr.	Aspen Way - Palomar Airport Rd.	Extend	City of Carlsbad
Mission Ave.	Enterprise St. - Centre City Pkwy.	Widen	City of Escondido
Oceanside Blvd.	Oceanside Blvd. - Rancho Del Oro	Widen	City of Oceanside
Siempre Viva Rd.	Heritage Rd. - La Media Rd.	Widen	City of San Diego
South Santa Fe Ave.	Mar Vista Dr. - Bosstick Blvd.	Widen	County of San Diego
Torrey Pines Rd.	N. of Callan St. - S. of Carmel Valley Rd.	Widen	City of San Diego
Twin Oaks Valley Rd.	Craven Rd. - Rancho Santa Fe Rd.	Extend	City of San Marcos
Twin Oaks Valley Rd.	Deer Springs Rd. - Craven Rd.	Widen	City of San Marcos
Via de la Valle	Camino Santa Fe - El Camino Real	Widen	City of San Diego
Vista Sorrento Pkwy.	Rose Coral Row - Sorrento Valley Blvd.	Extend	City of San Diego
Vista Way	Emerald Dr. - Melrose Dr.	Widen	City of Vista

Source: San Diego Association of Governments, *Final 2030 Regional Transportation Plan, Mobility 2030 (February 2005),* Technical Appendix 9 - Project Cost Estimates, p. 160.

Table 10: Residential Cost per Trip (Estimated for $2008)

Allocation of Total Costs to Residential Land Uses		
Total Regional Arterial System Investments ($2008)	$ 6,981,238,400	
New Residential Development Share of Total Trips	13.0%	
New Residential Development Share of Total Costs		$ 907,561,000
New Residential Vehicle Trips (2002-2030)		
Single Family	1,443,000	
Multi-family[1]	1,394,000	
Total New Residential Vehicle Trips		2,837,000
New Residential Development Cost per Trip (Est. $2008)		$ 320

[1] Multi-family travel demand factor and demand calculations include mobile homes.

Tables 5 and 7; MuniFinancial.

The cost per trip of $320 is estimated in 2008 dollars the first year for implementation of the RTCIP. As explained in the "Facility Costs and Available Funding" section above this estimate is based on actual Caltrans construction cost index data through 2006 and an estimate for 2007.

The RTCIP specifies that new development must contribute $2,000 per dwelling unit. A single fee for all dwelling units may not adequately ensure a reasonable relationship between each new development project's proportionate share of total improvements and the amount of the fee. Separate fees by major residential land use category based on trip generation rates would more likely fulfill this statutory requirement.[10]

To test whether the required RTCIP contribution of $2,000 per unit is justified for different types of units, **Table 11** provides a fee schedule by major residential land use category based on the calculated RTCIP cost per trip from Table 10. As explained above in the "Growth Projections" section mobile homes are forecast separately by SANDAG but because of the extremely limited number they have been included in the multi-family land use category. The fee ranges from a low of $2,842 for multi-family units to a high of $3,552 for single family units. The average fee per dwelling unit is $3,164. The impact fee required by the RTCIP of $2,000 per residential unit is therefore well below the amount justified under the *Mitigation Fee Act* for major residential land use categories.

[10] *Mitigation Fee Act, California Government Code,* §66001(b).

Table 11: RTCIP Impact Fee (Estimated for $2008)

Land Use	Cost Per Trip	Trip Demand Factor	Fee[1]	New Development (dwelling units)	Estimated Revenue[2]
Single Family	$ 320	11.10	$ 3,552	130,000	$ 461,760,000
Multi-family[3]	320	8.88	2,842	157,000	446,194,000
Total Estimated Revenue					$ 907,954,000
Total New Dwelling Units (2006-2030)					287,000
Weighted Average RTCIP Impact Fee Per Dwelling Unit (Est. $2008)					$ 3,164

[1] Fee per dwelling unit.

[2] Numbers may vary due to rounding.

[3] Multi-family travel demand factor and demand calculations include mobile homes.

Sources: Tables 1, 3 and 10; MuniFinancial.

Extension of RTCIP to Nonresidential Land Uses

The RTCIP specifically exempts all nonresidential development. However, one option for increasing contributions from new development for RAS improvements would be to apply the RTCIP to nonresidential development as well. **Table 12** shows new development's total investment in the RAS that could be made under this approach.

A fee schedule by major nonresidential land use category based on the calculated RTCIP cost per trip from Table 12 is shown in **Table 13**. Fees per 1,000 building square feet range from a low of $2,519 for industrial and $2,704 for commercial and to a high of $6,002 for office/services.

Table 12: Nonresidential Cost per Trip (Estimated for $2008)

	Office/Services & Industrial		Commercial	
New Nonresidential Development Share of Total Trips				
Commercial[1]	NA		530,000	
Office/Services	756,000		NA	
Industrial	2,253,000		NA	
New Nonresidential Vehicle Trips (2002-2030)[1]	3,009,000		530,000	
Total Vehicle Trips (2030)[1]	28,323,000		28,323,000	
New Nonresidential Development Share	10.6%		1.9%	
Allocation of Total Costs to Nonresidential Land Uses				
Total Regional Arterial System Investments ($2008)	$ 6,981,238,400		$ 6,981,238,400	
New Nonresidential Development Share of Total Trips	10.6%		1.9%	
New Nonresidential Development Share of Total Costs		$ 740,011,000		$ 132,644,000
New Nonresidential Vehicle Trips (2002-2030)				
Commercial[2]	NA		1,366,000	
Office/Services	756,000		NA	
Industrial	2,253,000		NA	
Total Nonresidential Vehicle Trips (2030)[1]		3,009,000		1,366,000
Cost per Trip (Est. $2008)		$ 246		$ 97

[1] For the purpose of determining new commercial development's fair share of total costs, trips exclude those assocateid with spending by local (San Diego County) resdients. Commercial trips associated with local residential spending are used to allocate total costs to residential development (see Table 10).

[2] Includes local and regional commercial trips. It would be inpractical to identify on a project-by-project basis that portion of new commercial development associated only with non-local residential spending. Therefore, new commercial development's fair share of total costs is allocated across all new commercial vehicle trips (see Table 5).

Tables 5 and 7; MuniFinancial.

Table 13: Nonresidential Impact Fee (Estimated for $2008)

Land Use	Cost Per Trip	Trip Demand Factor	Fee[1]	New Development (ksf)	Estimated Revenue
Commercial	$ 97	27.88	$ 2,704	49,000	$ 132,496,000
Office/Services	246	24.40	6,002	31,000	186,062,000
Industrial	246	10.24	2,519	220,000	554,180,000
Total Estimated Revenue (Est. $2008)					$ 872,738,000

[1] Fee per 1,000 square feet.

Sources: Tables 1, 3 and 10; MuniFinancial.

3. Implementation

Local agencies need to adopt a "Funding Program" to implement the RTCIP.[1] The Funding Program must generate the funding per new residential unit required by the RTCIP. This chapter provides guidance on use of this nexus study by local agencies to implement a Funding Program and comply with the RTCIP. "Local agencies" includes all cities in the County plus the County of San Diego for development in the unincorporated area.

The guidance provided in this study is not a substitute for legal advice and all local agencies should consult with their legal counsel regarding compliance with the *Mitigation Fee Act (Act)*. Local agencies are hereby put on notice that the findings and guidance in this study are generalized, and were created for use as a framework to be tailored by each local agency. SANDAG disclaims any responsibility for any liability to users of this study, or any other party, for any loss or damages, consequential or otherwise, including but not limited to time, money, or goodwill, arising from the use, operation or modification of the information in the study. In using this report, local agencies further agree to indemnify, defend, and hold harmless SANDAG, its officers and employees, for any and all liability of any nature arising out of or resulting from use of the study. Distribution of this study shall not constitute any warranty by SANDAG.

Adoption By Local Agencies

Adoption Schedule

To meet the requirements of the *Act* and the July 1, 2008 RTCIP deadline, local agencies will need to adopt the RTCIP impact fee by May 1, 2008. This allows for the sixty-day period required under California Government Code section 60017 of the *Act* between the date of adoption and the date the fee becomes effective. The same section of the *Act* includes certain notice and public hearing requirements as well that each local agency must follow. Legal counsel should also advise on timelines, hearings requirements, and all other actions required for fee adoption by the *Act*.

A checklist for the initial adoption of the RTCIP with a schedule of steps required for implementation is included in **Appendix C** of this study. The checklist is titled, "RTCIP Impact Fee Initial Adoption - Local Agency Implementation Checklist."

Ordinance, Resolution, and Nexus Study

Local agencies may need to adopt an ordinance and resolution to implement the fee. The ordinance would provide the authority for the agency to impose the RTCIP impact fee. The resolution would specify the fee amount. Setting the fee by resolution avoids having to amend the local agency's municipal code whenever the fee must be adjusted, facilitating annual updates to the fee for cost inflation.

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[1] San Diego Association of Governments, *TransNet Extension Regional Transportation Congestion Improvement Program*, Sec. A.

To adopt the initial fee of $2,000 per residential unit the local agency fee resolution may reference this nexus study for documentation of the findings required by the *Act*.

The local agency may reference this nexus study to support adoption of a fee on residential development up to the maximum amounts shown in Tables 11. The adopted fee should be no higher than the levels indicated in the table by land use category. Fee revenues should only be used for the purposes described in this report. For the purposes of this study "single family" includes projects at net development densities of six or fewer units per acre (see Table 3, footnote 5). "Multi-family" includes projects at net development densities of over six units per acre.

To facilitate integration with existing fee schedules, there are several conditions under which the local agency's fee schedule may vary while still referencing this nexus study for documentation of the findings required under the *Act*:

- The fee schedule shown in Table 11 may be applied to single family and multi-family land use categories that do not vary substantially from the definition of those categories used in this nexus study. For example the "break point" between the definition of single and multi-family may be at a different development density level.
- The fee may be applied to different residential land use categories, e.g. condominiums or mobile homes, using the cost per trip calculated in the this nexus study (see Table 10 for the cost per trip). The trip rate used to calculate the fee should reasonably reflect travel demand generated by new development within the land use category.

Local agencies must conduct a separate nexus study if the conditions described above are not met.

Applying Fee To Nonresidential Development

The local agency may also apply an impact fee to nonresidential development to fund improvements to the RAS. However, as mentioned above in the *Nexus Analysis* chapter, expansion of the RTCIP Funding Program to nonresidential development is not a requirement of the TransNet ordinance and is not necessary for a local agency to implement the RTCIP. If the agency chooses to apply the fee to nonresidential development and adopts the fee schedule as shown in Table 13, above, then the fee resolution can reference this nexus study and the local agency does not have to conduct a separate study. If the local agency adopts a different nonresidential fee schedule then the agency will need to conduct a new nexus study to justify the nonresidential fee.

Inflation Adjustment

The initial RTCIP funding requirement of $2,000 per new dwelling unit will apply upon initial adoptions of the fee in 2008. The TransNet ordinance provides for an annual inflation adjustment to the RTCIP impact fee on July 1 of each year beginning in 2009.[2] The inflation

[2] San Diego Association of Governments, *TransNet Extension Regional Transportation Congestion Improvement Program*, Sec. C.

adjustment will be two percent or based on the Caltrans highway construction cost index, whichever is higher. SANDAG may choose to use a different cost index. Each local agency will need to adjust their RTCIP impact fee annually.

A checklist for the annual update and a five-year update of the RTCIP fees along with a schedule of steps required for implementation is included in Appendix C. This checklist is titled, "RTCIP Impact Fee Annual and Five-Year Update - Local Agency Implementation Checklist."

Collection and Administration

Each local agency will be responsible for the collection, administration, and expenditure of RTCIP impact fee revenues generated within its jurisdiction. Fee revenues should be placed in a separate fund and administered pursuant to the requirements of the *Act*. For example, interest earnings on fund balances need to be credited to the fund. In addition, the *Act* requires that the local agency provide specific information regarding fee revenues and expenditures annually and every five years in a public report.[3]

The Independent Taxpayer Oversight Committee (ITOC), created for the TransNet program, is responsible for reviewing local agency implementation of the RTCIP. Each local agency must submit their Funding Program for review by the ITOC by April 1, 2008. The ITOC must review and audit each local agency's program annually. The reporting requirements required by the *Act* should be sufficient to meet the ITOC's needs in this regard. If a local agency does not comply with the RTCIP the agency can lose TransNet sales tax funding for local roads.

Local agencies and SANDAG can fund the administrative costs of the RTCIP with a charge added to the RTCIP impact fee. The RTCIP allows up to three percent of program revenues to be used for program administration.[4] SANDAG anticipates adding a one percent administrative charge to the RTCIP fee to fund costs related to the ITOC. Local agencies may add up to two percent for their program administration costs. These charges are similar to any other user fees imposed by local agencies and are not subject to the *Act*. These charges must be justified based on the actual program administration costs of each agency. Agencies should keep cost records and adjust the administrative charge as appropriate based on actual costs.

Use of Revenues

RTCIP impact fee revenues must be expended on improvements to the RAS in a manner consistent with the expenditure priorities in the most recent adopted RTP. Fee revenues may not be expended on road maintenance. RTCIP impact fee revenues may be used for any capital costs associated with improving the RAS including costs associated with:

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[3] California Government Code, §§66001(d) and 66006(b).

[4] San Diego Association of Governments, *TransNet Extension Regional Transportation Congestion Improvement Program*, Sec. D(2).

- Arterial widenings, extensions, and turning lanes;
- Traffic signal coordination and other traffic improvements;
- Reconfigured freeway-arterial interchanges;
- Railroad grade separations; and
- Expanded regional express bus service.

Costs funded by the RTCIP impact fee may include project administration and management, design and engineering, right-of-way acquisition, and construction. The RTCIP requires that each local agency expend revenues within seven years of receipt or have an expenditure plan that justifies keeping revenues for a longer period.[5] The *Act* has a similar requirement with a five years limitation unless there is an expenditure plan that justifies keeping revenues for a longer period.

EXEMPTIONS

The RTCIP program exempts the following residential development from the impact fee:[6]

- New moderate, low, very low, and extremely low income residential units as defined in Health & Safety Code sections 50079.5, 50093, 50105, 50106, and by reference in Government Code section 65585.1;
- Government/public buildings, public schools and public facilities;
- Rehabilitation and/or reconstruction of any legal, residential structure and/or the replacement of a previously existing residential unit;
- Development projects subject to development agreements prior the effective date of the TransNet ordinance (May 28, 2004) that expressly prohibit the imposition of new impact fees, however if the terms of the development agreement are extended beyond July 1, 2008, the requirements of the RTCIP shall apply;
- Guest dwellings;
- Additional residential units located on the same parcel regulated by the provisions of any agricultural zoning;
- Kennels and catteries established in conjunction with an existing residential unit;
- The sanctuary building of a church, mosque, synagogue, or other house of worship eligible for property tax exemption;
- Residential units that have been issued a building permit prior to July 1, 2008; and
- Condominium conversions.

[5] Ibid., Sec. G(4).

[6] Ibid, Sec. E.

4. Mitigation Fee Act Findings

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

Sample text that may be used for the five statutory findings required for adoption of the RTCIP impact fee are presented in this chapter and supported in detail by the *Nexus Analysis* chapter of this report. All statutory references below are to the *Act*. This sample framework for the mitigation fee act findings is only to provide local agencies with guidance and is not a substitute for legal advice. Local agencies should customize the findings for their jurisdiction and consult with their legal counsel prior to adoption of the RTCIP impact fee.

Purpose of Fee

For the first finding the local agency must:

> Identify the purpose of the fee. (§66001(a)(1))

SANDAG policy as expressed through the TransNet Extension Ordinance and Expenditure Plan (Commission Ordinance 04-01) is that new development shall contribute towards the Regional Arterial System (RAS) through the Regional Transportation Congestion Improvement Program (RTCIP). The purpose of the RTCIP impact fee is to implement this policy. The fee advances a legitimate public interest by enabling SANDAG to fund improvements to transportation infrastructure required to accommodate new development.

Use of Fee Revenues

For the second finding the local agency must:

> Identify the use to which the fee is to be put. If the use is financing public facilities, the facilities shall be identified. That identification may, but need not, be made by reference to a capital improvement plan as specified in Section 65403 or 66002, may be made in applicable general or specific plan requirements, or may be made in other public documents that identify the public facilities for which the fee is charged. (§66001(a)(2))

The RTCIP impact fee will fund expanded facilities on the Regional Arterial System (RAS) to serve new development. These facilities include:

- Roadway widening;
- Roadway extension;
- Traffic signal coordination and other traffic improvements;

- Freeway interchanges and related freeway improvements;
- Railroad grade separations; and
- Improvements required for regional express bus and rail transit.

Costs for planned traffic facilities are preliminarily identified in this report. Costs funded by the RTCIP impact fee may include project administration and management, design and engineering, right-of-way acquisition, and construction. More detailed descriptions of planned facilities, including their specific location, if known at this time, are shown in the SANDAG's *Regional Transportation Plan* and other documents. Local agencies implementing the RTCIP may change the list of planned improvements to meet changing circumstances and needs, as they deem necessary. Fee revenues will be used for the sole purpose of expanding capacity on the RAS to accommodate new development. The RTCIP impact fee will not be used for the purpose of correcting existing deficiencies in the roadway system.

Benefit Relationship

For the third finding the local agency must:

> Determine how there is a reasonable relationship between the fee's use and the type of development project on which the fee is imposed. (§66001(a)(3))

The local agency will restrict fee revenues to capital projects that expand capacity on the RAS to serve new development. Improvements funded by the RTCIP impact fee will expand a region-wide arterial system accessible to the additional residents and workers associated with new development. SANDAG has determined that the planned projects identified in this report will expand the capacity of the Regional Arterial System to accommodate the increased trips generated by new development. Thus, there is a reasonable relationship between the use of fee revenues and the residential and nonresidential types of new development that will pay the fee.

Burden Relationship

For the fourth finding the local agency must:

> Determine how there is a reasonable relationship between the need for the public facility and the type of development project on which the fee is imposed. (§66001(a)(4))

New dwelling units and building square footage are indicators of the demand for transportation improvements needed to accommodate growth. As additional dwelling units and building square footage are created, the occupants of these structures generate additional vehicle trips and place additional burdens on the transportation system.

The need for the RTCIP impact fee is based on SANDAG transportation model projections of growth that show an increase in vehicle hours of delay on the RAS primarily as a result of new development even with planned improvements to that system. The model estimated impacts from new development based on trip generation rates that varied by land use category, providing a reasonable relationship between the type of development and the need for improvements.

Proportionality

For the fifth finding the SANDAG must:

> Determine how there is a reasonable relationship between the amount of the fee and the cost of the public facility or portion of the public facility attributable to the development on which the fee is imposed. (§66001(b))

This reasonable relationship between the RTCIP impact fee for a specific development project and the cost of the facilities attributable to that project is based on the estimated vehicle trips the project will add to the Regional Arterial System. The total fee for a specific residential development is based on the number and type of new dwelling units multiplied the trip generation rate for the applicable residential land use category. The fee for a specific nonresidential development is based in a similar manner on the amount of building square footage by land use category. Larger projects generate more vehicle trips and pay a higher fee than smaller projects of the same land use category. Thus, the fee schedule ensures a reasonable relationship between the RTCIP impact fee for a specific development project and the cost of the Regional Arterial System improvements facilities attributable to the project.

Appendix A: Regional Arterial System

Table A.1 lists the arterials included in the Regional Arterial System by the *Regional Transportation Plan* adopted in 2005.

Table A.1: Regional Arterial System

Arterial	Limits
1st St	A St - K St.
2nd St	Greenfield Dr - Main St
30th St	National City Blvd - 2nd St
32nd St	Harbor Dr - Norman Scott Rd
54th St	El Cajon Blvd - SR94
70th St	University Ave - I-8
Ardath Rd	Hidden Valley Rd - I-5
Avocado Ave	Main St - Chase Ave
Avocado Blvd	Chase Ave - SR94
Balboa Ave	Mission Bay Dr - I-15
Ballantyne St	Broadway - Main St
Barham Dr	La Moree Rd - Mission Rd
Barnett Ave	Saint Charles St - Pacific Highway
Bay Marina Way (24th St)	I-5 - Terminal Ave
Bear Valley Pkwy	East Valley Pkwy - Sunset Dr
Bernardo Center Dr	Camino Del Norte - I-15
Beyer Blvd	Main St -Dairy Mart Road
Black Mountain Rd	Del Mar Heights - Pomerado Rd
Bobier Dr	Melrose Dr - E Vista Way
Bonita Rd	E St - San Miguel Rd
Borden Rd	Las Posas Rd – Woodland Pkwy
Borrego Springs Rd/Yaqui Pass Rd (S-3)	Palm Canyon Dr (S-22)- SR78
Bradley Ave	Marshall Ave - 2nd St
Broadway (El Cajon)	SR67 - E. Main St.
Broadway (Lemon Grove)	Spring St - College Ave
Broadway (San Diego)	C St - Main St
Broadway (Vista)	Lincoln Pkwy/SR78 - Washington Ave
Buckman Springs Rd/Hwy 80/Sunrise Hwy (S-1)	SR94 - SR79
Buena Creek Rd	Las Posas Rd - Twin Oaks Valley Rd
Cabrillo Dr (SR209)	Cochran St - Cabrillo Monument
Camino del Norte	Camino Ruiz - Pomerado Rd
Camino Del Rio North	Mission Center Rd - Mission Gorge Rd
Camino Ruiz	Camino del Norte - SR56
Camino Santa Fe Ave	Sorrento Valley Blvd - Miramar Rd
Cannon Rd	Carlsbad Blvd – Melrose Dr
Cannon Road	Melrose Drive - SR 78
Canon St	Rosecrans St - Jennings St
Carlsbad Blvd	Eaton St - La Costa Ave

Table A.1: Regional Arterial System (continued)

Arterial	Limits
Carlsbad Village Dr	I-5 - Coast Blvd/Coast Hwy
Carmel Mountain Rd	Sorrento Valley Rd - El Camino Real
Carmel Valley Rd	North Torrey Pines Rd - El Camino Real
Centre City Pkwy	I-15(N) - I-15(S)
Citracado Pkwy	Centre City Pkwy - SR78
Clairemont Mesa Blvd	I-15 - Moraga Ave
Coast Hwy (S-21)	La Costa Ave - Via de la Valle
College Ave	Federal Blvd - Waring Rd
College Blvd	North River Rd - Palomar Airport Rd
Community Rd	Twin Peaks Rd - Scripps Poway Pkwy
Convoy St	Linda Vista Rd - SR 52
Crosby St	I-5 - Harbor Dr
Cuyamaca St	Mission Gorge Rd - Marshall Ave
Dairy Mart Rd	SR-905 - I-5
Deer Springs Rd	Twin Oaks Valley Rd - I-15
Dehesa Road	Jamacha Rd - Harbison Canyon Rd
Dehesa Road*	Harbison Canyon Rd – Sycuan Rd
Del Dios Hwy	Via Rancho Pkwy - Claudan Rd
Del Mar Heights Rd (SA 710)	I-5 - Camino Del Norte
Discovery St	San Marcos Blvd - La Moree Rd
Douglas Dr	SR76 (Mission Ave) - North River Rd
E St	I-5 - E Bonita Rd
East H St	Hilltop Dr - Mount Miguel Rd
East Main St	Broadway - Greenfield Dr
East Valley Pkwy	Lake Wohlford Rd - East Valley Pkwy
East Via Rancho Pkwy	Broadway - Bear Valley Pkwy
East Vista Way	Vista Village Dr - SR76
El Cajon Blvd	Park Blvd - I-8
El Cajon Blvd	Chase Ave - Washington Ave
El Camino Real	Via de la Valle - Carmel Valley Rd/SR56
El Camino Real	SR 56 - Carmel Mountain Rd
El Camino Real (S-11)	Douglas Dr - Manchester Ave
El Norte Pkwy	Woodland Pkwy - Washington Ave
Encinitas Blvd	First St - El Camino Real
Espola Rd	Summerfield Ln - Poway Rd
Euclid Ave	SR94 - Sweetwater Rd
Fairmount Ave	I-8 - El Cajon Blvd
Faraday Ave	Melrose Dr - College Blvd
Federal Blvd	College Ave - SR94
Fletcher Pkwy	I-8 - SR-67
Friars Rd	Sea World Dr - Mission Gorge Rd
Garnet Ave	Balboa - Mission Bay Dr
Genesee Ave	N. Torrey Pines Rd - SR163
Gilman Dr	La Jolla Village Dr - I-5
Grand Ave	Mission Blvd to Mission Bay Dr

Table A.1: Regional Arterial System (continued)

Arterial	Limits
Grape St	North Harbor Dr - I-5
Greenfield Dr	E Main St - I-8
Grossmont Center Dr	I-8 - Fletcher Pkwy
H St	I-5 - Hilltop Dr
Harbor Dr	Pacific Hwy - I-5 (National City)
Hawthorn St	I-5 - North Harbor Dr
Heritage Rd	Otay Mesa Rd - Siempre Viva Rd
Hill St	I-5 (Oceanside) - Eaton St
Hunte Pkwy	Proctor Valley Rd - SR 125
Imperial Ave	Valencia Pkwy - Lisbon St
Jackson Dr	Mission Gorge Rd - I-8
Jamacha Blvd	Sweetwater Pkwy - SR94
Jamacha Rd	Main St - SR94
Kearny Villa Rd	Pomerado Rd - Waxie Way
Kettner Blvd	I-5 - India St
L St	I-5 - I-805
La Costa Ave	Carlsbad Blvd - El Camino Real
La Jolla Village Dr	North Torrey Pines Rd - I-805
La Media Rd	Telegraph Canyon Rd - SR905
La Mesa Blvd	University Ave - I-8
Lake Jennings Rd	Mapleview St - I-8
Lake Murray	I -8 - Navajo Rd
Lake Wohlford Rd	Valley Ctr Road (N) - Valley Ctr Rd (S)
Las Posas Rd	Discovery St - Buena Creek Rd
Laurel St	North Harbor Dr - I-5
Lemon Grove Ave	Lisbon St - SR94
Leucadia Blvd	1st St - El Camino Real
Linda Vista Rd	Morena Blvd - Convoy St
Lomas Santa Fe Ave	I-5 - Coast Hwy
Lytton St	Rosecrans St - Saint Charles St
Main St	I-5 - Hilltop Dr
Manchester Ave	El Camino Real - I-5
Mapleview St	SR67 - Lake Jennings Rd
Mar Vista Dr	Buena Vista Dr - SR78
Market St	Harbor Dr - Valencia Pkwy
Marshall Ave	Fletcher Pkwy - West Main St
Marshall Ave	Cuyamaca - Fletcher Pkwy
Marshall Ave	Main St - Washington Ave
Massachusetts Ave	Broadway - University Ave
Massachusetts Ave	Lemon Grove Ave - Broadway Ave
Melrose Dr	SR76 - Rancho Santa Fe Rd
Mira Mesa Blvd	I-805 - I-15
Miramar Rd	I-805 to I-15
Mission Ave	Andreason Dr - Center City Pkwy
Mission Ave	Escondido Blvd - Broadway Ave
Mission Ave	Coast Hwy - Frazee Rd

Table A.1: Regional Arterial System (continued)

Arterial	Limits
Mission Bay Dr	Grand Ave to I-5
Mission Gorge Rd	I-8 - Magnolia Ave
Mission Rd	Rancho Santa Fe Rd - Andreason Dr
Mission Road (S-13; incl. Main St in Fallbrook)	I-15 - SR76
Montezuma Rd	Fairmount Ave - El Cajon Blvd
Montezuma Valley Rd/Palm Canyon Dr (S-22)	SR79 - Imperial Co Line
Morena Blvd	Balboa Ave - I-8
National City Blvd	I-5 - C St
Navajo Rd	Waring Rd - Fletcher Pkwy
Nimitz Blvd	I-8 - Harbor Dr
Nobel Dr	I-5 - I-805
Nordahl Rd	SR78- Nordahl Rd
North Harbor Dr	Rosecrans St - Grape St
North River Rd	Douglas Dr - SR76 (Mission Rd)
North Santa Fe Ave	SR76 - Melrose Dr
North Torrey Pines Rd (S-21)	Carmel Valley Rd - La Jolla Village Dr
Ocean View Hills Pkwy	I-805 - SR905
Oceanside Blvd	Hill St - Melrose Dr
Old Highway 80	SR79 - Sunrise Hwy
Old Highway 80	Buckman Springs Rd - I-8 (In-ko-pah)
Olivehain Rd	El Camino Real - Rancho Santa Fe Rd
Olympic Pkwy	Brandywine Ave - SR125
Orange Ave	Palomar St - Brandywine Ave
Otay Lakes Rd	Bonita Rd - SR 94
Otay Mesa Rd	SR905 - SR125
Otay Valley Rd	Hilltop Dr - Heritage Rd
Pacific Highway	Sea World Dr - Harbor Dr
Palm Ave	I-5 - I-805
Palomar Airport Rd	Carlsbad Blvd - Business Park Dr
Palomar St	I-5 - Orange Ave
Paradise Valley Rd	8th Street - Sweetwater Pkwy
Paseo Ranchero	East H St - Otay Mesa Rd
Plaza Blvd	National City Blvd - 8th St
Poinsettia Lane	Carlsbad Blvd - Melrose Dr
Pomerado Rd	I-15 (N) - I-15 (S)
Poway Rd	I-15 - SR67
Proctor Valley Rd	Mount Miguel Rd - Hunte Pkwy
Questhaven Rd	Twin Oaks Valley Rd - Rancho Santa Fe Rd
Rancho Bernardo Rd	I-15 - Summerfield Ln
Rancho Del Oro Dr	SR 78 - SR 76
Rancho Penasquitos Blvd	SR56 - I-15
Rancho Santa Fe Rd	Mission Rd - Olivenhain Rd
Regents Rd	Moraga Ave - Genesee Ave
Rosecrans St	I-8 - Canon St
Ruffin Rd	Waxie Way - Balboa Ave
San Felipe Rd/Great S. Overland Route (S-2)	S-22 - Imperial Co Line

Table A.1: Regional Arterial System (continued)

Arterial	Limits
San Marcos Blvd	Business Park Dr - Mission Rd
Scripps Poway Pkwy	I-15 - SR67
Sea World Dr	W Mission Bay Dr - Morena Blvd
Siempre Viva Rd	Heritage Rd - SR905
Sorrento Valley Blvd	Sorrento Valley Rd - Camino Santa Fe Ave
Sorrento Valley Rd	Carmel Mountain Rd - I-805
South Santa Fe Ave	Broadway (Vista) - Pacific St
Sports Arena Blvd	Sea World Dr - Rosecrans St/SR209
Spring St	I-8 - SR125
SR75	No limits
Sunrise Highway	SR79 - I-8
Sunset Cliffs Blvd	I-8 - W Mission Bay Dr
Sweetwater Rd	2nd St - Willow St
Sweetwater Rd	2nd St to Willow St
Sweetwater Road	Broadway Ave - Troy St
Sycamore Avenue	South Santa Fe Avenue – S. Melrose Dr
Ted Williams Pkwy	I-15 - Twin Peaks Rd
Telegraph Canyon Rd	I-805 - Otay Lakes Rd
Torrey Pines Rd	Prospect Pl - La Jolla Village Dr
Twin Oaks Valley Rd	Deer Springs Rd - Questhaven Rd
Twin Peaks Rd	Pomerado Rd - Espola Rd
Twin Peaks Rd	Ted Williams Pkwy - Espola Rd
University Ave	54th St - La Mesa Blvd
Valencia Pkwy	Market - Imperial Ave
Valley Center Rd	SR76 - Lake Wohlford Rd
Vandegrift Blvd	North River Rd - Camp Pendleton
Via de la Valle	Hwy 101 (S-21) - El Camino Real
Via Rancho Pkwy	I-15 - Del Dios Hwy
Via Rancho Pkwy	Sunset Dr - I-15
Vista Sorrento Pkwy	Sorrento Valley Blvd - Carmel Mtn Rd
Wabash Blvd	Norman Scott Rd - I-5
Washington Ave	El Norte Pkwy - Center Valley Pkwy
Washington Ave	El Cajon Blvd - Jamacha Rd
Washington St	Pacific Hwy - Park Blvd
West Main St	I-8 - Marshall Ave
West Valley Pkwy	Claudan Rd - Broadway
West Vista Way	Jefferson St/SR78 - Vista Village Dr
Wildcat Canyon Rd*	Mapleview Street - San Vicente Rd
Willow St	Sweetwater Rd - Bonita Rd
Willow St	Sweetwater - Bonita Rd
Willows Road	I-8 - Viejas Casino
Winter Gardens Blvd	SR67 - Greenfield Dr
Woodland Dr	Barham Dr - El Norte Pkwy
Woodside Ave	Magnolia Ave - SR67

* Inclusion in Regional Arterial System contingent upon designation as a four-lane arterial by the County of San Diego.

Appendix B: Retail Spending and Sales Analysis

This appendix presents the analysis conducted to estimate the amount of commercial development within San Diego County that is associated with spending by local (San Diego County) households. The following steps summarize the approach taken for the analysis and are explained in more detail below.

1. Estimate total potential spending by local households based on estimates of per household spending by retail category;
2. Compare total local household spending potential with total retail sales to estimate by retail category:
    a. Leakage of spending by local households to retail establishments outside the County,
    b. Capture of sales from visitors outside the County by local retail establishments;
3. Calculate the share of retail sales associated with local household spending; and
4. Validate the estimate of total local household spending by analyzing visitor industry data.

All data is from 2004 because this was the last complete year of retail sales data available from the State Board of Equalization (SBOE) at the time of this report.

Total Household Spending

Total spending by San Diego households is estimated by adjusting per household spending based on statewide data for the difference in median household income between the State and the County.

As an initial step in the analysis, statewide taxable retail sales by category were compared with San Diego County sales to determine if any anomalies existed in San Diego sales patterns that should be accommodated in the model. As shown in **Table B.1**, San Diego has about $44 billion in taxable retail sales in 2004 compared to statewide sales of $500 billion. Sales patterns in the County are very similar to the statewide sales though the County has slightly more spending in retail stores compared to non-retail stores. The retail store categories that exhibit higher levels of spending compared to the state as a whole (apparel, general merchandise, specialty, and food and beverage) are associated with visitor spending, indicative of San Diego's strong tourism industry. We also conjecture that the higher levels of spending in the building material category are associated with spending by Mexican visitors, though we could not find specific data to support this hypothesis.

Table B.1 - Taxable Retail Sales (2004)

	Taxable Retail Sales 2004 ($000s)		Percent of Category		
Retail Category	San Diego County	California	San Diego County	Calif-ornia	Diff-erence
Apparel Stores					
Women's Apparel	420,000	4,617,000	0.9%	0.9%	0.0%
Men's Apparel	107,000	1,034,000	0.2%	0.2%	0.0%
Family Apparel	907,000	8,819,000	2.0%	1.8%	0.3%
Shoes	210,000	2,487,000	0.5%	0.5%	(0.0%)
Subtotal	1,644,000	16,957,000	3.7%	3.4%	0.3%
General Merchandise					
General Merchandise	4,721,000	47,948,000	10.6%	9.6%	1.0%
Drug Store	484,000	5,992,000	1.1%	1.2%	(0.1%)
Subtotal	5,205,000	53,940,000	11.7%	10.8%	0.9%
Specialty					
Gift, Art Goods, Novelty	167,000	1,858,000	0.4%	0.4%	0.0%
Sporting Goods	353,000	3,652,000	0.8%	0.7%	0.1%
Florists	122,000	1,078,000	0.3%	0.2%	0.1%
Photo Equip., and Supplies	37,000	523,000	0.1%	0.1%	(0.0%)
Musical Instruments	121,000	1,516,000	0.3%	0.3%	(0.0%)
Stationery and Books	356,000	4,018,000	0.8%	0.8%	(0.0%)
Jewelry	258,000	2,638,000	0.6%	0.5%	0.1%
Office and School Supply	1,411,000	15,661,000	3.2%	3.1%	0.0%
Other Specialties	1,716,000	18,018,000	3.9%	3.6%	0.3%
Subtotal	4,541,000	48,962,000	10.2%	9.8%	0.4%
Grocery					
Grocery - All Type Liq.	1,005,000	12,550,000	2.3%	2.5%	(0.2%)
Grocery - All Other	732,000	7,276,000	1.6%	1.5%	0.2%
Subtotal	1,737,000	19,826,000	3.9%	4.0%	(0.1%)
Food and Beverage					
Restaurant - No Alcohol	1,890,000	19,960,000	4.3%	4.0%	0.3%
Restaurant - Bar -Beer-Wine	795,000	10,792,000	1.8%	2.2%	(0.4%)
Restaurant - Bar -All Type Liq.	1,363,000	12,523,000	3.1%	2.5%	0.6%
Subtotal	4,048,000	43,275,000	9.1%	8.7%	0.4%
Household					
Home Furnishings	1,162,000	11,991,000	2.6%	2.4%	0.2%
Household Appliances	387,000	4,414,000	0.9%	0.9%	(0.0%)
Subtotal	1,549,000	16,405,000	3.5%	3.3%	0.2%
Building Material					
Building Material	2,649,000	25,603,000	6.0%	5.1%	0.8%
Hardware Stores	231,000	3,392,000	0.5%	0.7%	(0.2%)
Plumbing and Elec. Supply	414,000	4,086,000	0.9%	0.8%	0.1%
Paint, Glass, Wallpaper	47,000	1,074,000	0.1%	0.2%	(0.1%)
Subtotal	3,341,000	34,155,000	7.5%	6.8%	0.7%
Automotive					
Auto Dealers - New	5,541,000	59,683,000	12.5%	11.9%	0.5%
Aut Dealers - Used	551,000	5,752,000	1.2%	1.2%	0.1%
Auto Supplies and Parts	421,000	5,334,000	0.9%	1.1%	(0.1%)
Service Stations	2,805,000	32,760,000	6.3%	6.6%	(0.2%)
Subtotal	9,318,000	103,529,000	21.0%	20.7%	0.3%
Other Retail Stores					
Liquor Stores	186,000	2,350,000	0.4%	0.5%	(0.1%)
Second-hand Merch.	66,000	534,000	0.1%	0.1%	0.0%
Farm Impl. Dealers	177,000	2,976,000	0.4%	0.6%	(0.2%)
Farm and Garden Supply	95,000	2,386,000	0.2%	0.5%	(0.3%)
Fuel and Ice Dealers	9,000	321,000	0.0%	0.1%	(0.0%)
Mobile Home and Camper	108,000	1,453,000	0.2%	0.3%	(0.0%)
Boat, Motorcycle, Plane	321,000	3,104,000	0.7%	0.6%	0.1%
Subtotal	962,000	13,124,000	2.2%	2.6%	(0.5%)
Subtotal Retail Stores	32,345,000	350,173,000	72.7%	70.0%	2.7%
Non-Retail Stores					
Business and Personal Services	2,147,000	22,307,000	4.8%	4.5%	0.4%
All Other Outlets	9,978,000	127,597,000	22.4%	25.5%	(3.1%)
Subtotal	12,125,000	149,904,000	27.3%	30.0%	(2.7%)
Total	44,470,000	500,077,000			

Source: *Taxable Sales In California (Sales & Use Tax) During 2004,* California State Board of Equalization.

To separate out household from business spending, all household spending is assumed to occur in retail stores and all business-to-business spending is assumed to occur in non-retail stores. As shown in Table B.1, non-retail stores include "Business and Personal Services" and "All Other Outlets". Both categories are largely composed of retail establishments that sell primarily to businesses. The "All Other Outlets" category primarily includes manufacturing, warehousing and other establishments that sell primarily to businesses. There is some overlap in the source of spending (household versus business) across all retail (store and non-store) categories but this overlap is assumed to be largely offsetting between total retail store and total non-store spending. This approach is commonly used in retail spending and sales analysis to separate household from business spending.

Per household spending estimates were generated based on statewide data for retail stores adjusted for the difference in median household income between the State and the County. San Diego's median income is about one percent less than the State's median income resulting in a commensurate adjustment to state per household spending patterns by retail store category.

San Diego per household spending is multiplied by the number of households in San Diego to estimate total spending for 2004. As shown in **Table B.2** this approach results in a total spending potential for San Diego households of $30 billion.

Table B.2 - Household Taxable Retail Spending Potential (2004)

Major Business Group	Total Spending California Householdes ($000s)	Per Household Spending State	Per Household Spending San Diego County	Total Spending San Diego Households ($000s)
Households		12,015,591	1,043,221	
Median Household Income		$ 47,493	$ 47,067	
Household Spending and Sales		Per Household Spending		
Apparel Stores	$ 16,957,000	$ 1,411	$ 1,399	$ 1,459,000
General Merchandise	53,940,000	4,489	4,449	4,641,000
Specialty	48,962,000	4,075	4,038	4,213,000
Grocery	19,826,000	1,650	1,635	1,706,000
Food and Beverage	43,275,000	3,602	3,569	3,724,000
Household	16,405,000	1,365	1,353	1,412,000
Building Material	34,155,000	2,843	2,817	2,939,000
Automotive	103,529,000	8,616	8,539	8,908,000
Other Retail Stores	13,124,000	1,092	1,082	1,129,000
Total - Consumer	$ 350,173,000	$ 29,143	$ 28,882	$ 30,131,000

Source: U.S. Census, Table P53; California Department of Finance, Rerpot E-5; Table A.1; MuniFinancial.

Capture and Leakage

Capture and leakage are common concepts used in retail analysis. Not all local household spending occurs in San Diego County; some spending leaks out to other areas when residents travel or are otherwise attracted to retail opportunities outside the County. Furthermore, not all retail store sales in San Diego County are generated by local households; some are captured by stores from customers visiting the County from other locations including Mexico. Given San Diego's attractiveness as a tourist destination and its proximity to the Mexican border, one would expect that a significant share of total retail store sales would represent capture of visitor spending.

Given this regional economic context, we estimated leakage rates by major store category to calculate net local household spending in San Diego County by category. We then compared this estimate of spending with actual sales by store category and calculated the amount of outside capture that the category would need to force local household spending to equal local sales. This analysis is shown in **Table B.3**. The model resulted in a leakage estimate of eight percent of household spending, and capture estimate of 14 percent of retail store sales. The differences between the estimates of local spending and sales by category shown in the middle columns are due to rounding.

Table B.3 - San Diego County Local Household Taxable Retail Spending & Sales (2004)

	A	B	C = A x (1 - B)	D = C / E	E = G x (1 - F)	F = 1 - (C / G)	G
	Potential Spending		Local Spending/Sales Reconciliation			Actual Sales	
Major Business Group	San Diego Households ($000s)	Leakage	Based on Spending ($000s)	Diff-erence[1]	Based on Sales ($000s)	Outside Capture	San Diego County Sales ($000s)
Apparel Stores	$ 1,459,000	15%	$ 1,240,000	1%	$ 1,233,000	25%	$ 1,644,000
General Merchandise	4,641,000	15%	3,945,000	(0%)	3,956,000	24%	5,205,000
Specialty	4,213,000	15%	3,581,000	(0%)	3,587,000	21%	4,541,000
Grocery	1,706,000	0%	1,706,000	0%	1,702,000	2%	1,737,000
Food and Beverage	3,724,000	15%	3,165,000	0%	3,157,000	22%	4,048,000
Household	1,412,000	0%	1,412,000	0%	1,410,000	9%	1,549,000
Building Material	2,939,000	0%	2,939,000	(0%)	2,940,000	12%	3,341,000
Automotive	8,908,000	0%	8,908,000	(0%)	8,945,000	4%	9,318,000
Other Retail Stores	1,129,000	15%	960,000	(0%)	962,000	0%	962,000
Total	$ 30,131,000	8%	$ 27,856,000	(0%)	$ 27,892,000	14%	$ 32,345,000
Leakage/Capture Total		$ 2,275,000				$ 4,453,000	

[1] Difference not equal to zero due to rounding.

Source: Tables A.1 and A.2; MuniFinancial.

The leakage rates in Table B.3 that determine the local spending amounts and outside capture rates were estimated based on (1) survey data of visitor spending in San Diego estimating spending by retail category, and (2) an assumptions that comparison goods such as apparel and general merchandise are likely to have higher leakage rates compared to convenience goods such as groceries. Local households are most likely to spend on comparison goods and travel related activities outside the County in the "apparel stores", "general merchandise", "specialty", and "food and beverage" categories. For these categories a leakage rate of 15 percent was estimated. For all other categories all household spending was assumed to remain local (zero leakage). The "other retail store" was a special case in that

it was the only category where potential local spending was greater than total sales. For this category we assumed a 15 percent leakage rate to generate a zero percent capture rate.

Local Spending Share of Total Sales

The share of total retail sales in the County associated with spending by local residential development can be calculated from the results of Tables B.1 and B.3. As shown in **Table B.4**, an estimated 62.6 percent of total retail spending (store and non-store) is associated with spending by residential development (households) located in San Diego County.

Table B.4: Allocation of Taxable Retail Spending in San Diego County (2004)

	Taxable Retail Sales ($000s)	Share
Total Taxable Retail Spending	$ 44,470,000	100.0%
Local Residential Taxable Spending	27,856,000	62.6%
Local Business and Visitor Taxable Spending	16,614,000	37.4%

Sources: Tables B.1, and B.3; MuniFinancial.

Visitor Industry Spending

Visitor industry spending was analyzed to validate the estimate of retail spending associated with local households. Data regarding spending by overnight visitors from the San Diego Conventions and Visitor Bureau (SDCVB) was supplemented with research on cross-border spending by residents of Mexico (primarily day visitors) to construct a comprehensive model of visitor spending. As shown in **Table B.5**, visitors spent about $8.249 billion in San Diego County in 2004. Of the amount about $3.901 billion was associated with hotel accommodations, food, drugs, services, and other non-retail taxable items. Taxable retail spending equaled the remaining $4.348 billion split between two categories, "restaurants and dining" and "shopping". This estimate of taxable retail spending is nearly equal to the estimated $4.489 billion in capture shown at the bottom of Table B.3, suggesting that the model's estimates of local household spending based on the SBOE data and estimated leakage rates are reasonable.

Table B.5: Visitor Industry Retail Spending (2004)

	Total Visitor Spending		Non-taxable Retail Sales	Taxable Retail Sales
	Percent	Amount		
Visitor Spending (Non-Mexican Visitors - see Note)				
Lodging	24%	$ 1,324,000	$ 1,324,000	$ -
Restaurants & Dining[1]	33%	1,821,000	273,000	1,548,000
Attractions & Entertainment	10%	552,000	552,000	-
Shopping	23%	1,269,000	-	1,269,000
Other	10%	552,000	552,000	-
Subtotal	100%	$ 5,518,000	2,701,000	$ 2,817,000
Visitor Spending (Mexican Visitors - see Note)				
Lodging[2]	[Incl. in "Other"]		NA	NA
Restaurants & Dining[1,3]	5%	137,000	21,000	116,000
Attractions & Entertainment[2]	[Incl. in "Other"]		NA	NA
Shopping[4]	52%	1,420,000	-	1,420,000
Other[5]	43%	1,174,000	1,174,000	-
Subtotal	100%	$ 2,731,000	$ 1,195,000	$ 1,536,000
Total Taxable Retail Visitor Spending				
Lodging				NA
Restaurants & Dining				$ 1,664,000
Attractions & Entertainment				NA
Shopping				2,689,000
Other (primarily groceries)				-
Total				$ 4,353,000

Note: Non-Mexican visitor spending data based on San Diego Conventions & Visitor Bureau (SDCVB) estimates. Shares by category based on a 2002 visitor survey. The survey focused on overnight visitors and therefore excluded most spending by visitors from Mexico because a large majority of visits are day trips. This study assumes that the SDCVB estimates exclude all Mexican visitor spending. Mexican visitor spending is based on the Ghaddar and Brown study.

[1] Non-taxable retail sales represent tips for service estimated by SDCVB. Same percentage applied to estimate of visitor spending from Mexico.

[2] The Ghaddar and Brown study did not separate out this category in estimates of spending.

[3] Ghaddar and Brown study did not separate out this category for California estimates. Share of spending estimated at one-half of share estimated for Texas and Arizona Mexican visitors based on a higher percentage of day trips in California. Share deducted from food and groceries category.

[4] Includes the clothing (46 percent) and appliances and furniture (six percent) from Ghaddar and Brown study.

[5] Includes groceries (32 percent) personal hygiene (five percent) and other (six percent) from Ghaddar and Brown study.

Sources: San Diego Conventions & Visitor Bureau, *San Diego County Visitor Industry Summary (2004)* ; San Diego Conventions & Visitors Bureau, email from Susan Bruinzeel, June 11, 2006; Ghaddar, Suad and Cynthia J. Brown, *The Economic Impact of Mexican Visitors Along the U.S.-Mexico Border: A Research Synthesis,* Center for Border Economic Studies, University of Texas-Pan American, December 2005, Table 4, Figures 1,2, and 3; MuniFinancial.

The only significant discrepancy between the visitor spending estimates based on SDCVB and Mexican visitor survey data, and the outside capture estimates based on the SBOE data, is in the food and beverage category. The visitor spending data for restaurants and dining, substantially the same category as the SBOE food and beverage category, resulted in an

estimate of $1,664 million in taxable spending (see Table B.5). The SBOE model resulted in an outside capture estimate of $883 million (see the difference between total sales and the local spending estimate for this category in Table B.3). The visitor spending estimate of $1,664 million would represent a significant share, about 41 percent, of total sales in the SBOE food and beverage category. Consequently, we suspect that the visitor survey data probably overestimates spending in this category. Rather than reduce estimates of total capture, the approach taken for this study assumes that the visitor survey data underestimates taxable retail spending by an equal amount across all other categories. Therefore the estimate of total retail sales associated with local household spending remains a reasonable estimate for the purposes of this analysis (shifting the burden of commercial traffic associated with local household spending to residential land uses).

Appendix C: Local Agency Implementation Checklists

This appendix presents the steps that local agencies are required to take when adopting and updating a funding program to implement the RTCIP. The first checklist describes steps for initial adoption of the RTCIP impact fee and the second checklist shows steps for the required annual and five-year updates. These checklists follow a timeline that meets the requirements established by the California Government Code section 60017 and the TransNet Ordinance.

Initial RTCIP Fee Adoption – Local Agency Implementation Checklist

Note: Local agencies with existing impact fee programs that meet the requirements of the RTCIP impact fee may not need to complete all steps outlined below.

- ❑ **Prepare initial Funding Program[1]** 2007
  - ❑ Estimate annual RTCIP impact fee revenues
  - ❑ Identify Regional Arterial System[2] improvements (location and description) and estimate costs
  - ❑ Estimate construction schedule and program RTCIP impact fee for identified improvements (minimum five-year planning horizon)
  - ❑ For improvements to be funded with RTCIP fees and other revenues, identify the anticipated source, amount, and timing of other revenues
  - ❑ Work with adjacent local agencies if improvements extend beyond boundaries
  - ❑ Optional – Prepare local nexus study (if required to substitute for or supplement SANDAG's *RTCIP Impact Fee Nexus Study*)

- ❑ **Prepare fee adoption documents for Council action** Early 2008
  - ❑ Draft ordinance and resolution to enable local agency to impose RTCIP impact fee
  - ❑ If using SANDAG's *RTCIP Impact Fee Nexus Study* revise Funding Program based on updated fee schedule

- ❑ **Prepare for Council public hearing and fee adoption[3]** Before April 1, 2008
  - ❑ At least 14 days prior mail notice to any interested party that has filed a written request to be notified
  - ❑ At least 10 days prior make nexus study, Funding Program, and fee schedule available to public
  - ❑ At least 10 days prior publish notice of meeting
  - ❑ Place public hearing and adoption of ordinance/resolution on agenda of regularly scheduled meeting

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[1] The term "Funding Program" is used in the Regional Transportation Congestion Improvement Program of the *TransNet Extension,* Ordinance and Expenditure Plan (RTCIP). The Funding Program as described herein is designed to meet certain requirements of both the RTCIP and the Mitigation Fee Act (*California Government Code* Sections 66000-660025).

[2] The Regional Arterial System is defined by SANDAG. See San Diego Association of Governments (SANDAG), *Final 2030 Regional Transportation Plan, Mobility 2030* (February 2005) and applicable amendments.

[3] *California Government Code* Sections 6062, 66002, 66016(a), 66018, and 65090.

- ❑ **Adopt RTCIP impact fee and Funding Program at regularly scheduled Council meeting and submit to Independent Taxpayer Oversight Committee**[4] — By April 1, 2008

- ❑ **Incorporate RTCIP impact fee and Funding Program into local agency's FY 2008-09 budget process**[5] — By July 1, 2008
  - ❑ Establish separate account for collection of fee revenue
  - ❑ Appropriate annual estimate of fee revenues and expenditures

- ❑ **Collect RTCIP impact fee** — By July 1, 2008
  - ❑ Fees become effective no sooner than 60 days following adoption[6]
  - ❑ Collect at same time as other building permit fees
  - ❑ Deposit revenues in separate account

4 *RTCIP*, Section A(5).

5 *California Government Code* Section 66007(b). Adoption of the Funding Program and appropriation of fee revenues will enable collection of the fee at building permit issuance rather than at final inspection or issuance of certificate of occupancy.

6 *California Government Code* Section 66017(a).

Annual and Five-Year RTCIP Fee Update - Local Agency Implementation Checklist

Note: Local agencies with existing impact fee programs that meet the requirements of the RTCIP impact fee will need to integrate the steps outlined below into the periodic update of their existing programs.

Note: Years shown are for the first fiscal year of RTCIP implementation. Schedule would repeat annually thereafter.

- ❑ **Receive transmittal from SANDAG of RTCIP impact fee schedule updated for cost inflation** — By February 1 (2009)

- ❑ **Update Funding Program**[7] — February (2009)
  - ❑ Estimate annual RTCIP impact fee revenues
  - ❑ Update Regional Arterial System[8] improvements (location and description) and estimated costs
  - ❑ Update construction schedule and program RTCIP impact fee for identified improvements (minimum five-year planning horizon)
  - ❑ For improvements to be funded with RTCIP fees and other revenues, identify the anticipated source, amount, and timing of other revenues
  - ❑ Continue to work with adjacent local agencies if improvements extend beyond boundaries
  - ❑ Optional – Update local nexus study (if required to substitute for or supplement SANDAG *RTCIP Impact Fee Nexus Study*)

- ❑ **Prepare for Council public hearing and fee update**[9] — March (2009)
  - ❑ Draft resolution updating fee schedule
  - ❑ At least 14 days prior mail notice to any interested party that has filed a written request to be notified
  - ❑ At least 10 days prior make nexus study, Funding Program, and fee schedule available to public
  - ❑ At least 10 days prior publish notice of meeting

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[7] The term "Funding Program" is used in the Regional Transportation Congestion Improvement Program of the *TransNet Extension,* Ordinance and Expenditure Plan (RTCIP). The Funding Program as described herein is designed to meet certain requirements of both the RTCIP and the Mitigation Fee Act (*California Government Code* Sections 66000-660025).

[8] The Regional Arterial System is defined by SANDAG. See San Diego Association of Governments (SANDAG), *Final 2030 Regional Transportation Plan, Mobility 2030* (February 2005) and applicable amendments.

[9] *California Government Code* Sections 6062, 66002, 66016(a), 66018, and 65090.

- ❑ **Adopt updated RTCIP impact fee and Funding Program at regularly scheduled Council meeting and submit to Independent Taxpayer Oversight Committee (ITOC)**[10] — By April 1 (2009)

- ❑ **Update RTCIP impact fee and Funding Program as part of local agency's annual budget process**[11] — By July 1 (2009)
  - ❑ Appropriate annual estimate of fee revenues and expenditures

- ❑ **Prepare Annual RTCIP report based on audited financial data for prior fiscal year** [12] — Fall (2009)
  - ❑ Brief description of the fee
  - ❑ Fee schedule
  - ❑ Fiscal year beginning and ending balance of fee account
  - ❑ Fee revenue collected and interest earned
  - ❑ Identification of each improvement funded by the fee and amount of the expenditures on each improvement including the total percentage of the public improvement cost funded with fees
  - ❑ Identification of an approximate date by which the construction of the improvement will commence if the local agency determines that sufficient funds have been collected to complete the improvement (may refer to adopted Funding Program)
  - ❑ Description of each interfund transfer or loan made from the account including the public improvement on which the transferred or loaned fees will be expended, and, in the case of an interfund loan, the date on which the loan will be repaid, and the rate of interest that the account or fund will receive on the loan.
  - ❑ Amount of refunds made, if any

- ❑ **Submit Funding Program and Annual RTCIP report to ITOC**[13] — Fall (2009)

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[10] RTCIP, Section A(5).

[11] *California Government Code* Section 66007(b). Adoption of the Funding Program and appropriation of fee revenues will enable collection of the fee at building permit issuance rather than at final inspection or issuance of certificate of occupancy.

[12] *California Government Code* Section 66006(b)(1) and RTCIP, Section G(2).

[13] (RTCIP, Section G(2). This schedule may require amendment of Section G(2).

- ❑ **Submit Funding Program and Annual RTCIP report to Council[14]** January 1 (2010)
  - ❑ Make annual RTCIP report available to the public
  - ❑ Review annual RTCIP report at regularly scheduled Council meeting at least 15 days following issuance of report (by January 15)
  - ❑ At least 15 days prior to review of annual RTCIP report at regularly scheduled Council meeting mail notice to any interested party that has filed a written request to be notified

- ❑ **Prepare and submit Five-Year RTCIP Report to ITOC[15]** Fall (2013)
  - ❑ To be done after the end of every five years following adoption of the program in FY 2008-09
  - ❑ Use Funding Program as basis for report
  - ❑ Identify the purpose of the fee, i.e. improvement of Regional Arterial System to accommodate new development
  - ❑ Demonstrate a reasonable relationship between the fee and the purpose of the fee by referencing the Funding Program and showing that anticipated fee revenues are fully programmed to fund planned improvements
  - ❑ Identify sources, amounts, and timing of other revenues if needed to complete planned improvements
  - ❑ Fee revenues not committed to a planned improvement within five years of collection must be refunded to the ITOC

- ❑ **Prepare and submit Five-Year RTCIP Report to Council[16]** January 1 (2014)
  - ❑ To be done after the end of every five years following adoption of the program in FY 2008-09

14 *California Government Code* Section 66006(b)(2).

15 RTCIP, Section G(4). This schedule may require amendment of Section G(4).

16 *California Government Code* Section 66001(d).