

*WESTERN TRANSPORTATION  
DEVELOPMENT IMPACT FEE  
NEXUS STUDY UPDATE*

**OCTOBER 2014**

## EXECUTIVE SUMMARY

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The City of Chula Vista has prepared this Engineer's Report (report) to analyze the impacts of development on certain transportation facilities located west of Interstate I-805 and to calculate development impact fees for those facilities in western Chula Vista. This report represents the 2014 Chula Vista Western Area Transportation Development Impact Fee Program for Streets, also known as the Western Transportation Development Impact Fee, or "WTDIF".

The report includes a discussion of the rationale behind development of these impact fees, an analysis of the proposed fee program, the Average Daily Trip (ADT) rate assignments for each land use and associated Equivalent Dwelling Units (EDUs) and the transportation facility projects to be funded by future development in accordance with this fee program. The methods used in the report to calculate fees satisfy all legal requirements governing such fees, including provisions of the U.S. Constitution, the California Constitution *and California Government Code* Section 66000 *et seq.* (the "California Mitigation Fee Act", "Mitigation Fee Act" or "Act").

The WTDIF Program was originally established on March 18, 2008 by Ordinances 3106 through 3110. This program was intended to be similar to Eastern Transportation Development Impact Fee (TDIF) Program, which was established on January 12, 1988. In addition to preparing the City for future growth in the western portion of the City, these ordinances were required to be enacted by the City by the San Diego Association of Governments (SANDAG) in order to continue to receive annual Transnet funds for local streets.

Since the establishment of the fee in 2008, the main change in western Chula Vista has been the progress of the Bayfront planning documents. In April 2010 the Chula Vista Bayfront Master Plan and Final Environmental Impact Report (BFEIR) was completed. This document was adopted by the Chula Vista City Council on May 10, 2010. This document included estimates of new Equivalent Dwelling Units planned in the Bayfront development area, traffic to be generated, significant impacts caused and proposed mitigation measures. These documents made it clear that the impacts caused by the Bayfront development would be significantly different than the impacts caused by development in the rest of western Chula Vista, where most of the required improvements consist of improvements to existing infrastructure. For this reason, staff recommends that a separate Bayfront Development Impact Fee (BFDIF) be established and separated from the WTDIF.

The WTDIF is a single program with two separate funding roles. The first portion of the fee is to be used on Regional Arterial System (RAS) roadway projects, and arterial street projects within the western jurisdictional boundary of the City of Chula Vista. RAS roadways are generally described as those roads that act as critical links in providing direct connections between communities ensuring system continuity and congestion relief in high volume corridors. The second portion of the fee will be used to make improvements to non-RAS facilities. Non-RAS roadways are typically smaller in classification and of less importance to the region.

The WTDIF will be charged to residential as well as non-residential units. The exact amount charged per dwelling unit varies based on the type of residential unit. The exact amount charged per non-residential land use also varies as described below. A portion of the fees calculated in this study for all land uses provide for the regional component of the Regional Transportation Congestion Improvement Program (RTCIP).

The focus of this report is as follows:

- To update the fee program based on a revised benefit area.
- To document the average daily trip (ADT) traffic volume increases and Equivalent Dwelling Unit (EDU) values for residential and non-residential land uses due to planned growth.
- To update cost estimates for existing WTDIF projects and provide justifications, descriptions and cost estimates for new eligible WTDIF facilities.
- To provide for the justification for future automatic increases of the fee based on construction cost indices.

Additionally, the report will discuss the principles and requirements of *California Government Code* Section 66000 concerning how any proposed fees will not exceed the estimated reasonable cost of providing the new transportation improvements, i.e., the Reasonable Relationship Requirement.

The Mitigation Fee Act requires that for fees subject to its provisions, the following findings must be made:

- Identify the purpose of the fee.
- Identify the use to which the fee is to be put.
- Determine how there is a reasonable relationship between the use of the fee and the type of development on which it is imposed.
- Determine how there is a reasonable relationship between the need for a public facility and the type of development on which a fee is imposed.
- Determine how there is a reasonable relationship between the amount of the fee and the facility cost attributable to the development on which the fee is imposed.

## TRANSNET

In November 2004, San Diego County voters approved local Proposition A extending the TransNet ½ cent sales tax for transportation programs through 2048. Included in Proposition A and the TransNet Extension Ordinance is the Regional Transportation Congestion Improvement Program (RTCIP). 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. The RTCIP provides for the collection of a fee for each new residential unit. The RTCIP originally documented the need to collect a County-wide fee of \$2,000 per residential unit for roadways that are determined to be Regional Arterial System (RAS) facilities. This amount has been updated annually; on July 1, 2014, this amount was \$2,254. RAS roadways are listed in SANDAG's *Regional Transportation Plan (RTP)*, dated November, 2007.

The ordinance states, *“Revenue collected through the Funding Programs shall be used to construct transportation improvements on the Regional Arterial System such as new arterial roadway lanes, turning lanes, reconfigured freeway-arterial interchanges, railroad grade separations and new regional express bus services, or similar types of improvements, preliminary and final engineering, right of way acquisition, and construction that will be needed to accommodate future travel demand generated by new development throughout the San Diego region. A reasonable portion of the program revenue, up to a maximum of three percent, may be used for fund administration.”*

# SECTION 1 INTRODUCTION

## A. DEVELOPMENT IMPACT FEES

Development impact fees are imposed upon development in an area of benefit, often containing a number of different properties, property owners, and land use types.

The WTDIF has two main purposes: (1) To fund the construction of facilities needed to reduce, or mitigate, potential impacts, including but not limited to, direct and cumulative impacts resulting from development within the benefit area; and (2) To spread the costs associated with construction of the facilities equitably among the developing properties within the benefit area. The amended benefit area described herein is that area within the jurisdictional area of the western portion of the City of Chula Vista, generally meaning that area of the city located between I-5 on the west, Interstate 805 on the east, the city boundary on the north and the city's boundary on the south, as shown on the map and attached as Exhibit 1.

In the environmental review process, such as in the *California Environmental Quality Act* (CEQA) process, a project's potential impacts are identified and, where feasible, a method of mitigating those impacts (reducing the actual impact to a level of insignificance) is identified. In the case of larger projects, the Environmental Impact Report (EIR) identifies cumulative impacts resulting from the project, as well as direct impacts. Cumulative impacts are impacts created by overall development, of which individual projects do not create a significant impact directly, but contribute to an impact through the additive effect. Since future individual development projects located on the westside of Chula Vista are not solely responsible for the entire impact on any single segment of roadway, intersection, pedestrian or bicycle facility, they are only required to contribute a portion of the mitigation costs based on that project's fair share. Each project's fair share of the impact is based upon the amount of traffic the proposed project generates as measured by ADT and by EDUs.

## B. WESTERN TRANSPORTATION DEVELOPMENT IMPACT FEE (WTDIF)

A transportation development impact fee is an impact fee designed to mitigate cumulative impacts on the local transportation network as a result of new development. Generally, development of property produces impacts on the local road network resulting in decreased available traffic capacity on the street system. To measure the effects of traffic, cities establish capacity or Level of Service (LOS) standards that they each consider appropriate for their jurisdictions. Where potential impacts resulting from development are projected to reduce the capacity on streets to the point where the identified Level of Service will not be maintained, the impacts are deemed to be significant, and should be mitigated. Typical mitigation for cumulative impacts to the system would provide a host of improvements designed to restore capacity and maintain the desirable level of service. Examples of capacity-increasing improvements include but are not limited to such enhancements as adding new roads to the circulation network, widening or improving existing roads, installing new traffic signals or improving existing signalization, freeway interchange improvements, and improving signal coordination (management of traffic operations). For the City of Chula Vista, other non-traditional improvements were included in the calculation of the fee as a result of the City's goal of improving pedestrian and bicycle capacities as shown below from the city's General Plan.

## GENERAL PLAN GOALS, OBJECTIVES AND POLICIES

The following discussion of Goals, Objectives and Policies is taken from the City's General Plan approved on December 13, 2005 in the Land Use and Transportation (LUT) section and is the basis for including bicycle and pedestrian facilities in the fee calculation.

### **GOAL 7.9 - Improving Vehicular and Transit Mobility**

*The City of Chula Vista will continue its efforts to develop and maintain a safe and efficient transportation system with adequate roadway capacity; however, the City's ability to widen roads to accommodate increased demand from automobile traffic is limited. Additionally, road widening in some areas is not consistent with goals to create streets that are pedestrian-friendly and safe. Therefore, the City must seek alternative ways to increase the capacity to move both people and cars. This includes more efficient use of roadways, traffic demand reduction, and increased use of transit, bicycles, and walking.*

#### *Objective - LUT 18*

*Reduce traffic demand through Transportation Demand Management (TDM) strategies, increased use of transit, bicycles, walking, and other trip reduction measures.*

*POLICY LUT 18.3 Provide and enhance all feasible alternatives to the automobile, such as bicycling and walking, and encourage public transit ridership on existing and future transit routes.*

### **GOAL 7.11 - Increase Mobility Through Use of Bicycles and Walking**

*Bicycles are an alternative to driving, accommodating longer trips than walking, especially when combined with transit. Every trip begins and ends with walking, so the pedestrian environment becomes the primary transportation element that connects all travel modes. For walking and bicycling to be viable alternatives to travel by car, the bicycle and pedestrian systems must efficiently and conveniently connect residential areas and activity centers in a safe and comfortable manner, and within an interesting environment.*

#### *Objective – LUT 23*

*Promote the use of non-polluting and renewable alternatives for mobility through a system of bicycle and pedestrian paths and trails that are safe, attractive and convenient forms of transportation.*

*POLICY LUT 23.1 Encourage the use of bicycles and walking as alternatives to driving.*

*POLICY LUT 23.2 Foster the development of a system of inter-connecting bicycle routes throughout the City and region.*

The City has two additional documents that pertain to pedestrian and bicycle mobility. The latest version of the City's Bikeway Master Plan was adopted by Council on February 1, 2011. This document recommended and prioritized Class I (bike path), Class II (bikeway along the roadway) and Class III (bike route) bicycle facilities. The City's first Pedestrian Master Plan was adopted by Council on June 22, 2010. Twenty seven street corridors in western Chula Vista and three intersections in eastern Chula Vista were recommended and prioritized for pedestrian improvements.

## C. HISTORICAL BACKGROUND OF CHULA VISTA'S TRANSPORTATION DIF PROGRAM

In February 1986, the Chula Vista City Council adopted a schedule of development impact fees (DIF) for the Eastlake I development. Eastlake was the first major planned development that added significant traffic to the street system. Fees were established to ensure that Eastlake contributed to the cost of certain street improvements, including a four-lane interim facility in the State Route 125 (SR-125) corridor. Also included in the development impact fee was the cost of constructing a fire station and a community park in Eastlake I. While the fees were imposed as a condition of development on Eastlake, City staff recommended to the Council that a development impact fee ordinance be prepared to provide for the financing of transportation improvements by all of the developments that would benefit from the improvements.

Therefore, in January 1987, the Council authorized the preparation of a development impact fee program for the financing of street improvements in the area east of Interstate 805.

In December 1987, a report entitled "*The Interim Eastern Area Development Impact Fees for Streets*" was completed. The "Area of Benefit" included all of the undeveloped lands that benefited from the proposed transportation improvements, within the City of Chula Vista and County of San Diego, east of Interstate 805. The Council adopted an Eastern Area Transportation Development Impact Fee in January 1988 by Ordinance Number 2251 (TDIF). The fee was established at \$2,101 per equivalent dwelling unit (EDU).

In October 1993, the City Council approved the General Plan Amendment for the Otay Ranch. As a result, the TDIF program was updated in December 1993, including the first phase of the Otay Ranch. For the first time since the adoption of the original TDIF in 1988, a comprehensive general plan of land uses and circulation system requirements was in place in the Otay Valley area.

The TDIF program was subsequently updated again in 1999, 2002 and 2005 to reflect changes to the circulation element of the General Plan, land use changes and to adjust the construction cost estimates. The TDIF will also be revised in 2014.

On March 18, 2008, Council adopted the Western Transportation Development Impact Fee (WTDIF) by Ordinances 3106 through 3110. In addition to preparing the City for future growth in the Western portion of the City, these ordinances were required to be enacted by the City in order to continue to receive annual TransNet funds for local streets. The original rate was established at \$3,243 per equivalent dwelling unit (EDU).

In a letter dated December 15, 2010, SANDAG informed the City that a one percent administrative fee would not be collected. This fee had been included as part of the WTDIF since its inception. The City subsequently went to Council on October 25, 2011 and November 15, 2011 to enact Ordinance 3214, which deleted the one percent SANDAG fee from the WTDIF rates. City staff subsequently processed refunds of this fee to all permit holders who had paid it.

# SECTION 2 DEVELOPMENT

## A. POPULATION AND DEVELOPMENT FORECAST

A fundamental principle in the formulation of a development impact fee is that the need for additional public facilities is generated by new development, and thus the cost of the facilities should be paid by that new development. Generally, existing facilities have adequate capacity to support the existing state of development, and any capacity that is added to the street network is in response to the need for capacity and other improvements created by subsequent development, i.e. new demand. It is, therefore, incumbent upon new development to fully mitigate these impacts.

In preparation of this Engineer's Report, City staff reviewed a variety of previously approved reports that dealt with western Chula Vista traffic issues, their consequent impacts and mitigations. These sources included the General Plan Environmental Impact Report, and the Urban Core Specific Plan (UCSP) Traffic Impact Report. These sources also utilized the "Not So Brief Guide of Vehicular Traffic Generation Rates" published by the San Diego Association of Governments (SANDAG) in 2002, Exhibit 2. This table provides Average Daily Traffic estimates for various commercial, industrial and residential land uses.

Since the area of benefit has been changed to delete the bayfront and the method of estimating has become more conservative, it is necessary to recalculate the estimated population increase and the increase in development. The Residential Population and Dwelling Unit Estimates are shown on Exhibit 3. This table reflects the latest available population estimates and the estimate for Build out (approximately 2030). The existing population used in the 2008 WTDIF report was 110,493.

A variety of issues had to be addressed as part of the calculation process:

Existing Development The calculation of current and buildout trips and Equivalent Dwelling Units (EDUs) is shown on Exhibit 4. As defined by SANDAG, one EDU is defined as 10 Average Daily Trips (ADTs), the amount of trips expected from a single family dwelling. Current EDUs cannot be used to determine the EDUs that are used for calculation of the fee per EDU, because these facilities will not pay the WTDIF.

Public Facilities Public facilities do not pay DIFs. Although there are existing public facilities within the WTDIF area, no additional public facilities are planned. Therefore, no additional EDUs needed to be subtracted from the projected future EDUs.

Parcel Relocation. As part of the WTDIF calculation, the City relocated one parcel that was originally in the WTDIF calculation and moved it into the BFDIF calculation, due to its physical location. The parcel is located at the southwest corner of Bay Blvd. and F Street i.e. west of I-5 and is owned by the adjacent United Technology Aerospace Systems Company (UTAS)(previously the Rohr Corporation). It includes 6.7 acres of currently undeveloped light industrial land use (1340 trips). This same UTAS parcel was then added to the BFDIF calculations.

Shared Roadways WTDIF – BFDIF Certain roadways are shared between the WTDIF and the BFDIF. These roadways are associated with improvements to the Interstate-5, certain Regional Arterial System improvements (such as the grade separation projects), and the Bayshore Bikeway (bike path) parallel to Bay Blvd. In order to fairly reflect the shared benefit of these facilities, it is appropriate to allocate project costs to both the WTDIF and BFDIF

programs. Projected new ADTs reasonably reflect future facility use, and have therefore been used to calculate the proportional cost sharing between the two fee programs. With 74,593 projected new trips in the BFDIF area and 103,649 projected new trips in the WTDIF area, the WTDIF's share is calculated as follows:

$$\frac{103,649 \text{ ADT}}{74,593 + 103,649 \text{ ADT}} = 58\% \text{ WTDIF}$$

I-5 Shared Calculation Not all facilities planned for the WTDIF program area are required solely to serve new development. As discussed above, in order to fairly reflect the shared benefit of these facilities, it is appropriate to allocate costs between existing development and new development. These “joint impetus” projects serve not only new development, but may also be related to the need to upgrade for less than satisfactory traffic levels (below LOS C) or to keep pace with technological improvements.

One example is Project I-5-17: HOV (high volume occupancy) and managed lanes from SR905 to SR54, which will provide carpool only lanes for both current and existing traffic. Based on traffic estimates done for the 2008 Nexus Study, a portion of this traffic is also estimated to benefit traffic outside the City.

Table A was used to determine the fair share allocated to new users based on traffic along the I-5 corridor within the jurisdiction of the City of Chula Vista. These values represent the change in traffic attributable to both the WTDIF and BFDIF areas. The percentages shown will subsequently be multiplied by the percentage attributable to the BFDIF alone. Therefore, 74,593 of the buildout ADT are associated with the Bayfront increase, while 808,907 total ADT are attributed to the WTDIF area (see BFDIF Nexus Study for additional information). If the projected buildout of the Bayfront (74,593) is added to the WTDIF buildout (808,907), a total buildout ADT of 883,500 is derived.

**Table A**

**I-5 Traffic Volume Growth Estimate**

	Trips		Change
	2008 Report	Buildout	
<b>Volumes (ADT)</b>	546,850	883,500	336,650
<b>Percent of Total</b>			38%

Non-Vehicular Improvements Certain improvements that benefit both existing and future users, such as bikeways and pedestrian facilities, are not proportional to average daily traffic. For example, BP-1 and BP-9: The Bayshore Bikeway is a “joint impetus” project, which will be used by both existing and future cyclists. Project I-5-11: L Street Bridge widening, also falls into this category. The bridge will be widened to provide pedestrian access on the south side of the bridge and widen the pedestrian access on the north side (the current width does not meet City standards).

For these improvements, the increase in population was used. The existing population used in the 2008 WTDIF Nexus Study was 110,493. Since there were no permanent residents in the Bayfront area, the population of the Bayfront area was zero. Section 4.17 of the 2010

CVBMP EIR states that the planned residential development on the Bayfront consists of a maximum of 1,500 mixed low rise, medium rise and high rise residential units on approximately 14 acres of land. This is expected to increase the population in the Bayfront to approximately 3,780 people.

The projected buildout population for the WTDIF area, as shown below in Table B is 135,733, an increase of 25,240 over the 2008 estimated population of 110,493. Adding this to the projected Bayfront population of 3,780, results in a total buildout population of 139,513. The City of Chula Vista's share for bicycle and pedestrian projects is calculated as a percentage of the existing population of 110,493 divided by the buildout population of 139,513 or 79.20%. The WTDIF's share for bicycle and pedestrian projects is calculated by taking the increase in population within the WTDIF area of 25,240 and dividing by the buildout population of 139,513 which equals 18.09%, as shown below.

$$\frac{25,240}{139,513} = 18.09\%$$

**Table B**

**Population Growth Estimate**

<b>DIF Benefit Area</b>	<b>Existing Population</b>	<b>Population at Buildout</b>	<b>Net Increase in Population</b>	<b>Percentage of Total</b>
<b>WTDIF</b>	<b>110,493</b>	<b>135,733</b>	25,240	18.09%
<b>BFDIF</b>	<b>0</b>	<b>3,780</b>	3,780	2.71%
<b>TOTAL</b>	<b>110,493</b>	<b>139,513</b>	29,020	20.80%

**B. PROPOSED PROJECT COSTS (THE NUMERATOR)**

City staff determined which projects are to be included in the program. The process for calculating impact fees involves the determination of two significant numbers and is likened to a fraction. The numerator or top number represents the total cost of infrastructure improvements divided by the lower number (denominator) which is the EDU's determined from the various land use types and their consequent trips/EDU's. The following is staff's method for calculating the total cost of infrastructure improvements (the numerator).

The following categories of improvements are included in the WTDIF:

- Interstate 5 Improvements: These improvements are shared with the BFDIF and were originally included in the 2008 WTDIF report.
- Regional Arterial System (RAS) Projects: Some of these improvements are also shared with the BFDIF, depending on the location. These facilities were also originally included in the 2008 WTDIF report.

- **Bicycle and Pedestrian Facilities:** The Bayshore Bikeway projects BP-1 and BP-9 are shared with both current and future users in both the WTDIF and BFDIF areas. Other bikeways and pedestrian facilities on F Street, Industrial Blvd., Main Street, H Street and Broadway are entirely within the WTDIF area, but will be shared with existing users.
- **Other Roadways:** There are two additional RAS roadways: one along I-805 at Main Street and one along SR-54 at North Fourth Avenue. Non-RAS projects include the Transportation Demand Management Center and an all-way stop installation at Second Avenue and D Street.

Since this is an amendment and most of the projects have been described and estimated in the original Engineer's Report of 2008, this discussion will not repeat those project descriptions and estimates. Instead, this discussion will focus on the following items:

- Cost breakdown between WTDIF and BFDIF
- Projects deleted or amended since the 2008 report
- New projects and estimates
- Cost escalation for new and existing projects

## **PROJECTS DELETED OR AMENDED SINCE THE 2008 REPORT**

### **Interstate 5 Improvement Projects**

*I-5-3: I-5/NB ramp widening at E, H, J, Industrial, Palomar & Main*

This project will be funded as part of the Caltrans SHOPP Mobility Program (MPO ID CAL46A) (#11-24400) in Fiscal Year 2016/17. Therefore, no City or DIF funding is required. It has been deleted from Exhibit 5.

*I-5-15: I-5/ Main St. NB on/off ramps traffic signal*

This project has been completed and there are no additional costs to the City, the Traffic Signal Fund, or the DIF. It has been deleted from Exhibit 5.

*STM-361: I-5 Multi-Modal Corridor Study*

This project has been completed and there are no additional costs to the City or the DIF. It has been deleted from Exhibit 5.

### **Interstate 805 Improvements**

*I-805-1: NB on ramp widening & metering at Bonita, E. H St. (EB-NB)*

This project was 100% funded and completed by Caltrans. It has been deleted from Exhibit 5.

## **SR-54 Improvements**

*SR-54-1: SR-54 WB off-ramp at N. Fourth Avenue add ramp lane*

This project will be financed through a developer exaction. It has been deleted from Exhibit 5.

## **Regional Arterial System (RAS) Projects**

*RAS-2: C Street to Main Street bikeway improvements*

There is a separate CIP project for Broadway south of Main Street. This project is split into an estimate for bikeway improvements and an estimate for pedestrian improvements. This project includes a bike lane along Broadway between C Street and L Street (approximately 11,880 linear feet) and a bikeway from L Street to Main Street (approximately 8,580 LF) for an estimated cost of \$523,637.21. The estimate is included in Appendix A.

*RAS-5: E Street LRT Grade Separation and RAS-6: H Street LRT grade separation*

Environmental and Preliminary Engineering costs only are included at an estimate of \$950,000 per project. Costs are shared with the BFDIF.

*RAS-9: H Street widening to 6-lanes from Interstate 5 to Broadway*

All costs will be included in the WTDIF, except for \$500,000 to cover Environmental costs, which will be included in the BFDIF.

*RAS-12: L Street/Bay Boulevard traffic signal & turn lanes* – deleted, since other funding will be used.

## **Bicycle and Pedestrian Facilities**

*BP-1: Bayshore Bikeway (bike path) between E Street & F Street*

The revised cost estimate from the 2011 Bikeway Master Plan (Class 1 Rank #1) was used. This estimate is included in Appendix A. The cost was escalated to \$449,165.75 and the DIF share was split between the WTDIF and the BFDIF.

*BP-3: Industrial Blvd. Improvements & Bike Lanes from L Street to Main Street*

Grants have been received for construction of the missing improvements between Moss Street and Ada Street Grant applications were submitted for construction of the bike lanes between L Street and Moss Street and pedestrian improvements and bike lanes between Ada Street and Main Street. The total estimated cost is \$986,240. Because these estimates are relatively recent, the costs have not been escalated. This estimate is included in Appendix A.

*BP-4: Main St. bike lanes from Industrial Blvd. to I-805*

The revised estimate from the 2011 Bikeway Master Plan (Class 2 Rank #1) was used. This estimate is included in Appendix A. The cost was escalated to \$903,049.33.

*BP-5: Orange Avenue bike lanes from Palomar St. to Hilltop Drive*

This project is complete. No additional funding is required. It has been deleted from Exhibit 5.

*BP-6: Develop bike paths and pedestrian access to Third Avenue*

This project is complete. No additional funding is required. It has been deleted from Exhibit 5.

**Midbayfront Local Coastal Program Roadways**

These projects were originally taken from the "Midbayfront LCP Resubmittal No. 8 Amendment", Final Environmental Impact Report, Volumes I and II, dated July 1991. This document has been superseded by the "Chula Vista Bayfront Master Plan", Final Environmental Impact Report, Volumes I and II, dated April 2010.

Some of these projects are included in other categories. However, this category has been deleted because the Mid-bayfront report is obsolete.

**Other Roadways**

*OR-1 North Fourth Avenue/Brisbane Avenue traffic signal modifications*

This project is complete. No additional funding is required. It has been deleted from Exhibit 5.

*OR-3: Traffic signal and upgrades*

Projects have still not been determined. Therefore, costs have not been identified. This project is not included on Exhibit 5.

*OR-4 Transportation Demand Management*

A new cost estimate has been prepared in the Eastern Transportation Development Impact Fee (TDIF), Project #65. The total Citywide project hard cost was \$5,931,371. Including a 15 percent contingency on the total hard amount and the 2% administrative fee, the total project cost is \$6,939,704.07. Forty percent (\$2,775,881.63) is payable by the WTDIF. The remaining amount is payable by the Eastern Chula Vista TDIF.

**Bayfront Roadways**

*BAY-3: H Street add WB through & right turn lane at I-5 NB ramp*

This work is included under RAS-9.

*BAY-4: H Street at Woodlawn Ave. add WB & EB through lanes*

This work is included under RAS-9.

*BAY-5: H Street at Broadway add EB queue jumper & WB*

This work is included under RAS-7.

## **NEW PROJECTS**

### **Regional Arterial System (RAS) Projects**

#### *BP-7: H Street: I-5 to Second Avenue Pedestrian Improvements*

H Street and Broadway is a high priority intersection in western Chula Vista for pedestrians. Project 15 in the Pedestrian Master Plan includes enhanced crosswalks, sidewalk widening, and American with Disabilities Act (ADA) compliant pedestrian ramps. The estimate is included in Appendix A. The cost has been escalated to \$170,495.56.

#### *BP-8: Broadway: H Street to Main Street*

This project is broken down into two segments in the Pedestrian Master Plan. Project 13 includes pedestrian improvements between Moss Street and Main Street and Project 19 includes pedestrian improvements between H Street and Moss Street. Improvements include ladder crosswalks and pedestrian countdown signals at intersections. Estimates are included in Appendix A. The total cost has been escalated to \$283,603.72.

### **Bicycle & Pedestrian Facilities Improvements**

#### *BP-9: Bayshore Bikeway (bike path) between F Street & H Street*

This project includes a 12-foot wide AC bike path with parallel 24-inch gravel paths on either side. Fencing, drainage and a pedestrian signal crossing at H Street are included. This is the third ranking bike path in the Bikeway Master Plan. The estimate is included in Appendix A. The total cost has been escalated to \$669,278.46.

A summary of the total cost estimates for all projects is included in Exhibits 5 and 6. The cost categories include hard costs, soft costs (including contingencies), the 2 percent administrative fee and an escalation factor to the year 2014. These categories are explained below.

Individual cost estimates are provided for each project in Appendix A.

## **PROJECT COST ESTIMATES**

Hard costs relate to the actual construction costs paid to a contractor. Contingency costs are a percentage of the construction cost and relate to the amount of uncertainty of the cost estimate. The contingency amounts used vary between 10% and 20%. Most of the bicycle facilities use a 20% contingency factor. Some grant programs specify a maximum contingency. The estimate for the Industrial Blvd. bike and pedestrian facilities from Ada Street to Main Street is very detailed and includes a 10% contingency factor. Most of the other estimates use a 15% contingency factor. Since these estimates have all been previously approved by Council, whether in a report or grant application, it is recommended that these percentages be retained.

In addition to direct construction costs, the following “soft costs” associated with construction of the projects are included in the calculation of the WTDIF fee. The maximum total percentage allowed for all the categories below is 37.5%. However, the percentages vary, with the bicycle projects including a total of 22%. Smaller projects also tend to have a higher percentage design cost.

Civil Engineering: Civil engineering includes the cost of preparatory planning, initial surveying, and design of a project.

Construction/Soils Engineering: This includes construction inspection and soils testing.

Landscape Architecture: This includes eligible landscaping, landscape design and irrigation within the TDIF improvement.

Surveying: This includes surveying during the construction phase not performed by the contractor, such as for staking.

Utility Engineering/Coordination: This includes coordination and work on eligible dry utilities related to the WTDIF improvement.

Environmental Consulting: The work required to conduct, obtain and monitor all necessary environmental clearances required to construct the WTDIF facility.

## **COST ESCALATION AND OTHER FACTORS**

The base year for the cost estimates was 2013. Therefore, all estimates prepared during 2013 and 2014 are current.

The escalation factor for the WTDIF rate is intended to approximate the rate of inflation in the construction industry. The construction cost indices to be used shall be either the CalTrans Highway Construction cost index or the Engineering News Record (ENR) Construction Cost Index for Los Angeles. The current ENR index is assumed to be the index for July 2014 (10737.43), which is consistent with the TDIF and BFDIF, and estimates prepared prior to 2014 used the index for July of the year of preparation/approval. The index for July 2007 (8861.27) was therefore used for projects that were estimated in the original WTDIF Nexus Study. The index for July 2011 (10062.80) was used for the projects estimated in the 2011 Bikeway Master Plan and the index for July 2010 (9968.69) was used for the projects estimated in the 2010 Pedestrian Master Plan.

Because this program is being established and run in conjunction with the TransNet program, fee adjustments have been set in line with the RTCIP. The RTCIP states *“Local agencies and SANDAG can fund the administrative costs of the RTCIP with a charge added to the RTCIP impact fee... Local agencies may add up to 2 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.”*

Therefore, other costs to the WTDIF program are as follows:

WTDIF Project Administration: Two (2%) percent of the program’s direct construction costs to fund activities related to general administration of the WTDIF including the following:

- Strategic planning and funding advocacy;
- Staff time spent in administering the fee program and the various credits of each developer;
- Growth Management Activities;

- Geographic Information System (GIS);
- WTDIF program updates;
- Supplies and equipment used to administer the program; and
- Feasibility studies.

Since the administrative fee percentage is based on only the hard cost, its percentage of the total cost is less – approximately 1.3%. This percentage may be used at the time the fee is collected to determine the amount to be placed in the account for the administrative fee.

The final summary spreadsheet for the WTDIF is attached as Exhibit 6. This spreadsheet applies the percentage of each project applicable to the WTDIF and calculates the fee to be collected. Note that the total contribution to the Regional Arterial System (RAS) will be \$3,390.61 per EDU. This will meet SANDAG's requirements for contribution to the RAS.

### C. EQUIVALENT DWELLING UNITS (THE DENOMINATOR)

One of the more common methods used to compare trip generation potential among the different land uses involves the conversion of trips from a particular land use type into "Equivalent Dwelling Units" (EDUs). Residential dwellings of 0 – 6 dwelling units per acre (LOW density) are assigned one (1.0) EDU per unit and become the base for assigning EDU factors to other land uses by comparing the relationship and nature of vehicular trips generated by those land uses to the ADTs generated by this residential density category.

In other words, EDUs are units of measure that standardize all land use types (housing, retail, office, etc.) to the level of demand created by one single-family housing unit. For example, in the case of traffic generation, one EDU is equivalent to the amount of two way traffic (i.e, ADT) generated from and attracted to a single-family detached dwelling unit. A small business calculated to generate three times as much traffic as an average single-family detached dwelling unit would have a value of three EDUs. Similarly, a large industrial complex that generates a thousand times as much traffic each day would have a demand of 1,000 EDUs.

The basis and methodology used in calculating the fee in this Nexus Study is consistent with the basis and methodology used in previous Western and Eastern TDIF reports and Western and Eastern TDIF ordinances as amended.

As shown at the bottom of Exhibit 4, the total number of trips at buildout of the WTDIF area is estimated to be 808,907 trips. From this value existing land uses were subtracted as discussed above. The total number of remaining EDUs that can be allocated to the WTDIF is 10,365 EDUs.

## D. FINAL FEE DISCUSSION

Exhibit 8 is the summary conclusion table that determines the final WTDIF costs. This exhibit sums the new applicable infrastructure costs and applies the appropriate factors to each project. The sum total of all new costs is **\$40,597,039.50**. This is reduced to **\$40,500,633.49** after subtracting the fund balance. This value is divided by the total number of applicable EDUs (**10,365**) and is calculated to be **\$3,907.44, which is rounded to \$3,907 per EDU**.

Note that the total contribution to the Regional Arterial System (RAS) will be \$3,392.36 per EDU. This will meet SANDAG's requirements.

## E. FEE ADJUSTMENTS AND COLLECTION

The City has on file some bonds and liens for completion of minor segments of WTDIF facilities. These bonds and liens will be used to construct facilities once the CIP program is underway for a given improvement. As with all construction projects, there will be variations in each project cost so that the actual cost may vary. It is recommended when the WTDIF program is comprehensively updated, at a minimum of every 5 years, that any monies collected for deferral for WTDIF listed streets and facilities be added to the fund balance so that the fee will be lowered in a corresponding amount.

The WTDIF program allows for the construction of eligible transportation projects by developers in lieu of paying the WTDIF at building permit issuance with approval of City Engineer. Any projects constructed by a developer would be audited and credits issued incrementally as the facility is constructed. If the total construction costs amount to more than the total WTDIF fees for the developer's project, the developer is entitled to receive WTDIF credits in the amount of the excess of construction costs over the required WTDIF fees. The same builder can use this WTDIF credit to satisfy the fee obligations for a future development, or the developer will receive cash reimbursement when funds are available, as determined by the City Manager.

The fee shall be collected as a condition of building permit issuance. The TransNet ordinance currently provides for an annual inflation adjustment to the RTCIP impact fee on July 1 of each year beginning in 2009. In the future, the WTDIF and BFDIF will be adjusted on October 1 based on July indices in order to keep the timing consistent with the City's other impact fee programs. The annual inflation adjustment will be 2 per cent or based on Caltrans highway construction cost index or the Engineering News Record (ENR) Construction Cost 20-City Index for Los Angeles. SANDAG will calculate the fee adjustment for RAS arterials. Fees for non-RAS arterials may also be annually adjusted based on updated information regarding land use or the type, size, location, or cost of proposed facilities pursuant to City ordinances and policies. All fees collected shall be deposited in an interest-accruing fund, and shall be expended only with the approval of the City Council for the Proposed Projects listed in this report. These automatic adjustments do not require further action by the City Council. The total fund balance in the WTDIF as of October 31, 2013 is \$96,406.01. This amount has been subtracted from the total project amount in order to derive the new fee amount.

TransNet ordinance states, “Each jurisdiction shall have up to but no more than seven fiscal years to expend Funding Program revenues on the Regional Arterial Systems projects. The seven year term shall commence on the first day of July following the jurisdiction’s receipt of the revenue. At the time of the review and audit by the Independent Taxpayer Oversight Committee, each jurisdiction collecting a development impact fee to meet the requirements of its Funding Program shall provide the Committee with written findings for any expended, unexpended and uncommitted fees in their Program Fund and demonstrates a reasonable relationship between the fee and the purpose for which it was charged, consistent with the requirements of Government Code Section 66000 et seq.”

## Exhibits

1. Transportation DIF Benefit Areas Map
2. Not So Brief Guide of Vehicular Traffic Generation Rates” published by the San Diego Association of Governments (SANDAG) in 2002
3. Residential Population Estimates
4. WTDIF Land Use Table
5. WTDIF Project Cost Categories
6. WTDIF Cost Calculations

## Appendices

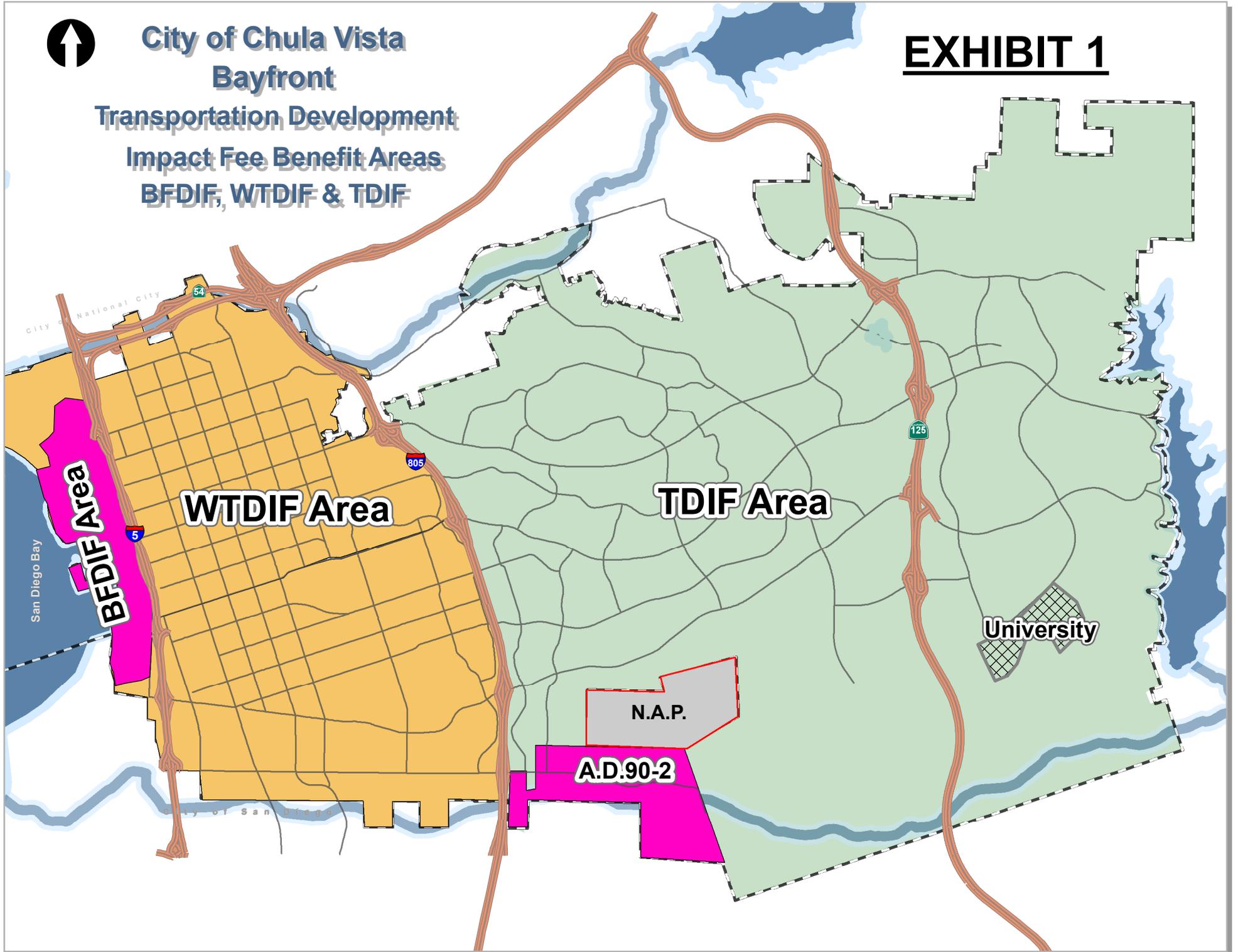
- A. Project Cost Estimates



# City of Chula Vista Bayfront

Transportation Development  
Impact Fee Benefit Areas  
BFDIF, WTDIF & TDIF

## EXHIBIT 1



(NOT SO)  
**BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES  
 FOR THE SAN DIEGO REGION**

APRIL 2002



NOTE: This listing only represents a *guide of average*, or estimated, traffic generation "driveway" rates and some very general trip data for land uses (emphasis on acreage and building square footage) in the San Diego region. These rates (both local and national) are subject to change as future documentation becomes available, or as regional sources are updated. For more specific information regarding traffic data and trip rates, please refer to the San Diego Traffic Generators manual. *Always check with local jurisdictions for their preferred or applicable rates.*

LAND USE	TRIP CATEGORIES [PRIMARY:DIVERTED:PASS-BY]*	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio)		TRIP LENGTH (Miles) <sup>†</sup>
			Between 6:00-9:30 A.M.	Between 3:00-6:30 P.M.	
AGRICULTURE (Open Space) .....	[80:18:2]	2/acre**			10.8
AIRPORT .....	[78:20:2]				12.5
Commercial		60/acre, 100/flight, 70/1000 sq. ft. **	5% (6:4)	6% (5:5)	
General Aviation		6/acre, 2/flight, 6/based aircraft ***	5% (7:3)	15% (5:5)	
Heliports		100/acre**			
AUTOMOBILE <sup>1</sup>					
Car Wash					
Automatic		900/site, 600/acre**	4% (5:5)	5% (5:5)	
Self-serve		100/wash stall**	4% (5:5)	6% (5:5)	
Gasoline .....	[21:51:28]				2.8
with/Food Mart		160/vehicle fueling space**	7% (5:5)	6% (5:5)	
with/Food Mart & Car Wash		155/vehicle fueling space**	6% (5:5)	5% (5:5)	
Older Service Station Design		150/vehicle fueling space, 900/station**	7% (5:5)	5% (5:5)	
Sales (Dealer & Repair)		50/1000 sq. ft., 300/acre, 60/service stall**	5% (7:3)	6% (4:6)	
Auto Repair Center		20/1000 sq. ft., 400/acre, 20/service stall*	6% (7:3)	11% (4:6)	
Auto Parts Sales		60/1000 sq. ft. **	4%	10%	
Quick Lube		40/service stall**	7% (6:4)	10% (5:5)	
Tire Store		25/1000 sq. ft., 30/service stall**	7% (6:4)	11% (5:5)	
CEMETERY		5/acre*			
CHURCH (or Synagogue) .....	[64:25:11]	9/1000 sq. ft., 30/acre** (quadruple rates for Sunday, or days of assembly)	5% (6:4)	6% (5:5)	5.1
COMMERCIAL/RETAIL <sup>3</sup>					
Super Regional Shopping Center (More than 80 acres, more than 800,000 sq. ft., w/usually 3+ major stores)		35/1000 sq. ft., <sup>c</sup> 400/acre*	4% (7:3)	10% (5:5)	
Regional Shopping Center (40-80 acres, 400,000-800,000 sq. ft., w/usually 2+ major stores)	[54:35:11]	50/1000 sq. ft., <sup>c</sup> 500/acre*	4% (7:3)	9% (5:5)	5.2
Community Shopping Center (15-40 acres, 125,000-400,000 sq. ft., w/usually 1 major store, detached restaurant(s), grocery and drugstore)	[47:31:22]	80/1000 sq. ft., 700/acre**	4% (6:4)	10% (5:5)	3.6
Neighborhood Shopping Center (Less than 15 acres, less than 125,000 sq. ft., w/usually grocery & drugstore, cleaners, beauty & barber shop, & fast food services)		120/1000 sq. ft., 1200/acre**	4% (6:4)	10% (5:5)	
Commercial Shops .....	[45:40:15]				
Specialty Retail/Strip Commercial		40/1000 sq. ft., 400/acre*	3% (6:4)	5% (5:5)	4.3
Electronics Superstore		50/1000 sq. ft.**		10% (5:5)	
Factory Outlet		40/1000 sq. ft.**	3% (7:3)	5% (5:5)	
Supermarket		150/1000 sq. ft., 2000/acre**	4% (7:3)	10% (5:5)	
Drugstore		90/1000 sq. ft.**	4% (6:4)	10% (5:5)	
Convenience Market (15-16 hours)		500/1000 sq. ft.**	6% (5:5)	6% (5:5)	
Convenience Market (24 hours)		700/1000 sq. ft.**	5% (5:5)	7% (5:5)	
Convenience Market (w/gasoline pumps)		850/1000 sq. ft., 550/vehicle fueling space**	6% (5:5)	7% (5:5)	
Discount Club		60/1000 sq. ft., 600/acre**	1% (7:3)	5% (5:5)	
Discount Store		60/1000 sq. ft., 600/acre**	3% (6:4)	5% (5:5)	
Furniture Store		6/1000 sq. ft., 100/acre**	4% (7:3)	5% (5:5)	
Lumber Store		30/1000 sq. ft., 150/acre**	7% (6:4)	5% (5:5)	
Home Improvement Superstore		40/1000 sq. ft.**	5% (6:4)	6% (5:5)	
Hardware/Paint Store		60/1000 sq. ft., 600/acre**	2% (6:4)	5% (5:5)	
Garden Nursery		40/1000 sq. ft., 90/acre**	3% (6:4)	10% (5:5)	
Mixed Use: Commercial (w/supermarket)/Residential		110/1000 sq. ft., 2800/acre* (commercial only)	3% (6:4)	5% (5:5)	
		1/5 dwelling unit, 200/acre* (residential only)	5% (3:7)	13% (6:4)	
EDUCATION					
University (4 years) .....	[91:9:0]	2.4/student, 100 acre*	10% (8:2)	9% (3:7)	6.9
Junior College (2 years) .....	[92:7:1]	1.2/student, 24/1000 sq. ft., 120/acre**	12% (8:2)	9% (6:4)	9.0
High School .....	[75:19:6]	1.3/student, 15/1000 sq. ft., 60/acre**	20% (7:3)	10% (4:6)	4.8
Middle/Junior High .....	[63:25:12]	1.4/student, 12/1000 sq. ft., 50/acre**	30% (6:4)	9% (4:6)	5.0
Elementary .....	[57:25:10]	1.6/student, 14/1000 sq. ft., 90/acre**	32% (6:4)	9% (4:6)	3.4
Day Care .....	[28:58:14]	5/child, 80/1000 sq. ft.**	17% (5:5)	18% (5:5)	3.7
FINANCIAL <sup>3</sup> .....	[35:42:23]				3.4
Bank (Walk-in only)		150/1000 sq. ft., 1000/acre**	4% (7:3)	6% (4:6)	
with Drive-Through		200/1000 sq. ft., 1500/acre**	5% (6:4)	5% (5:5)	
Drive-Through only		250 (125 one-way)/lane*	3% (5:5)	13% (5:5)	
Savings & Loan		60/1000 sq. ft., 600/acre**	2%	5%	
Drive-Through only		100 (50 one-way)/lane**	4%	15%	
HOSPITAL .....	[73:25:2]				8.3
General		20/bed, 25/1000 sq. ft., 250/acre*	6% (7:3)	10% (4:6)	
Convalescent/Nursing		3/bed**	7% (6:4)	7% (4:6)	
INDUSTRIAL					
Industrial/Business Park (commercial included) .....	[79:19:2]	16/1000 sq. ft., 200/acre**	12% (8:2)	12% (2:8)	9.0
Industrial Park (no commercial)		8/1000 sq. ft., 90/acre**	11% (9:1)	12% (2:8)	
Industrial Plant (multiple shifts) .....	[92:5:3]	10/1000 sq. ft., 120/acre**	14% (8:2)	15% (3:7)	11.7
Manufacturing/Assembly		4/1000 sq. ft., 50/acre**	19% (9:1)	20% (2:8)	
Warehousing		5/1000 sq. ft., 60/acre**	13% (7:3)	15% (4:6)	
Storage		2/1000 sq. ft., 0.2/vault, 30/acre*	6% (5:5)	5% (5:5)	
Science Research & Development		8/1000 sq. ft., 80/acre*	16% (9:1)	14% (1:9)	
Landfill & Recycling Center		6/acre	11% (5:5)	10% (4:6)	

(OVER)

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, SanTEE, Salana Beach, Vista and County of San Diego.  
 ADVISORY/LIAISON MEMBERS: California Department of Transportation, County Water Authority, U.S. Department of Defense, S.D. Unified Port District and Tijuana/Baja California.

LAND USE	TRIP CATEGORIES (PRIMARY:DIVERTED:PASS-BY)*	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio)		TRIP LENGTH (Miles)†		
			Between 6:00-9:30 A.M.	Between 3:00-6:30 P.M.			
LIBRARY	[44:44:12]	50/1000 sq. ft., 400/acre**	2%	(7:3)	10%	(5:5)	3.9
LODGING	[58:38:4]						7.6
Hotel (w/convention facilities/restaurant)		10/occupied room, 300/acre	8%	(5:4)	8%	(5:4)	
Motel		9/occupied room, 200/acre*	8%	(4:6)	8%	(5:4)	
Resort Hotel		8/occupied room, 100/acre*	5%	(6:4)	7%	(4:6)	
Business Hotel		7/occupied room**	8%	(4:6)	5%	(5:4)	
MILITARY	[82:16:2]	2.5/military & civilian personnel*	9%	(9:1)	10%	(2:8)	11.2
OFFICE							
Standard Commercial Office (less than 100,000 sq. ft.)	[77:19:4]	20/1000 sq. ft., 300/acre*	14%	(9:1)	13%	(2:8)	8.8
Large (High-Rise) Commercial Office (more than 100,000 sq. ft., 6+ stories)	[82:15:3]	17/1000 sq. ft., 600/acre*	13%	(9:1)	14%	(2:8)	10.0
Office Park (400,000+ sq. ft.)		12/1000 sq. ft., 200/acre**	13%	(9:1)	13%	(2:8)	
Single Tenant Office		14/1000 sq. ft., 180/acre*	15%	(9:1)	15%	(2:8)	8.8
Corporate Headquarters		7/1000 sq. ft., 110/acre*	17%	(9:1)	16%	(1:9)	
Government (Civic Center)	[50:34:16]	30/1000 sq. ft.**	9%	(9:1)	12%	(3:7)	6.0
Post Office							
Central/Walk-In Only		99/1000 sq. ft.**	5%		7%		
Community (not including mail drop lane)		200/1000 sq. ft., 1300/acre*	8%	(5:4)	8%	(5:5)	
Community (w/mail drop lane)		300/1000 sq. ft., 2000/acre*	7%	(5:5)	10%	(5:5)	
Mail Drop Lane only		1500 (750 one-way)/lane*	7%	(5:5)	12%	(5:5)	
Department of Motor Vehicles		180/1000 sq. ft., 900/acre**	6%	(5:4)	10%	(4:6)	
Medical-Dental	[60:30:10]	50/1000 sq. ft., 500/acre*	8%	(8:2)	11%	(3:7)	6.4
PARKS	[66:28:6]						5.4
City (developed w/meeting rooms and sports facilities)		50/acre*	13%	(5:5)	9%	(5:5)	
Regional (developed)		20/acre*					
Neighborhood/County (undeveloped)		5/acre (add for specific sport uses), 6/picnic site**					
State (average 1000 acres)		7/acre, 10/picnic site**					
Amusement (Theme)		80/acre, 130/acre (summer only)**			6%	(6:4)	
San Diego Zoo		115/acre*					
Sea World		80/acre*					
RECREATION							
Beach, Ocean or Bay	[52:39:9]	600/1000 ft. shoreline, 60/acre*					6.3
Beach, Lake (fresh water)		50/1000 ft. shoreline, 5/acre*					
Bowling Center		30/1000 sq. ft., 300/acre, 30/lane**	7%	(7:3)	11%	(4:6)	
Campground		4/campsite**	4%		8%		
Golf Course		7/acre, 40/hole, 700/course**	7%	(8:2)	9%	(3:7)	
Driving Range only		70/acre, 14/tee box*	7%	(7:3)	9%	(5:5)	
Marinas		4/berth, 20/acre**	3%	(3:7)	7%	(5:4)	
Multi-purpose (miniature golf, video arcade, batting cage, etc.)		90/acre	2%		8%		
Racquetball/Health Club		30/1000 sq. ft., 300/acre, 40/court*	4%	(6:4)	9%	(5:4)	
Tennis Courts		16/acre, 30/court**	5%		11%	(5:5)	
Sports Facilities							
Outdoor Stadium		50/acre, 0.2/seat*					
Indoor Arena		30/acre, 0.1/seat*					
Racetrack		40/acre, 0.6 seat*					
Theaters (multiplex w/matinee)	[66:17:17]	80/1000 sq. ft., 1.8/seat, 360/screen*	10%		8%	(6:4)	6.1
RESIDENTIAL	[86:11:3]						7.9
Estate, Urban or Rural (average 1-2 DU/acre)		12/dwelling unit**	8%	(3:7)	10%	(7:3)	
Single Family Detached (average 3-6 DU/acre)		10/dwelling unit**	8%	(3:7)	10%	(7:3)	
Condominium (for any multi-family 6-20 DU/acre)		8/dwelling unit**	8%	(2:8)	10%	(7:3)	
Apartment (for any multi-family units more than 20 DU/acre)		6/dwelling unit**	8%	(2:8)	9%	(7:3)	
Military Housing (off-base, multi-family) (less than 6 DU/acre)		8/dwelling unit	7%	(3:7)	8%	(5:4)	
Mobile Home (6-20 DU/acre)		6/dwelling unit	7%	(3:7)	8%	(5:4)	
Family		5/dwelling unit, 40/acre*	8%	(3:7)	11%	(6:4)	
Adults Only		3/dwelling unit, 20/acre*	8%	(3:7)	10%	(5:4)	
Retirement Community		4/dwelling unit**	8%	(4:6)	7%	(5:4)	
Congregate Care Facility		2.5/dwelling unit**	4%	(5:4)	8%	(5:5)	
RESTAURANT*	[51:37:12]						4.7
Quality		100/1000 sq. ft., 3/seat, 500/acre**	7%	(5:4)	8%	(7:3)	
Sit-down, high turnover		160/1000 sq. ft., 6/seat, 1000/acre**	8%	(5:5)	8%	(6:4)	
Fast Food (w/drive-through)		650/1000 sq. ft., 20/seat, 3000/acre**	7%	(5:5)	7%	(5:5)	
Fast Food (without drive-through)		700/1000 sq. ft.**	5%	(6:4)	7%	(5:5)	
Delicatessen (7am-4pm)		150/1000 sq. ft., 11/seat*	5%	(6:4)	3%	(3:7)	
TRANSPORTATION							
Bus Depot		25/1000 sq. ft.**					
Truck Terminal		10/1000 sq. ft., 7/bay, 80/acre**	8%	(4:6)	8%	(5:5)	
Waterport/Marine Terminal		170/berth, 12/acre**					
Transit Station (Light Rail w/parking)		300/acre, 2 <sup>1/2</sup> /parking space (4/occupied)**	14%	(7:3)	15%	(3:7)	
Park & Ride Lots		400/acre (600/paved acre), 5/parking space (8/occupied)**	14%	(7:3)	15%	(3:7)	

\* Primary source: San Diego Traffic Generators.

\*\* Other sources: ITE Trip Generation Report (6th Edition), Trip Generation Rates (other agencies and publications), various SANDAG & CALTRANS studies, reports and estimates.

† Trip category percentage ratios are daily from local household surveys, often cannot be applied to very specific land uses, and do not include non-resident drivers (draft SANDAG Analysis of Trip Diversion, revised November, 1990).

PRIMARY - one trip directly between origin and primary destination.

DIVERTED - linked trip having one or more stops along the way to a primary destination) whose distance compared to direct distance ≥ 1 mile.

PASS-BY - undiverted or diverted < 1 mile.

† Trip lengths are average weighted for all trips to and from general land use site. (All trips system-wide average length = 6.9 miles)

° Fitted curve equation:  $\ln(T) = 0.502 \ln(A) + 6.945$  }  $T$  = total trips,  $x = 1,000$  sq. ft.

° Fitted curve equation:  $\ln(T) = 0.756 \ln(A) + 3.950$  }

\* Fitted curve equation:  $t = -2.169 \ln(d) + 12.85$  }  $t$  = trips/DU,  $d$  = density (DU/acre), DU = dwelling unit

† Suggested PASS-BY (undiverted or diverted < 1 mile) percentages for trip rate reductions only during P.M. peak period (based on combination of local data/review and Other sources\*\*):

COMMERCIAL/RETAIL	Percentage
Regional Shopping Center	20%
Community	30%
Neighborhood	40%
Specialty Retail/Strip Commercial (other)	10%
Supermarket	40%
Convenience Market	50%
Discount Club/Store	30%
FINANCIAL	
Bank	25%
AUTOMOBILE	
Gasoline Station	50%
RESTAURANT	
Quality	10%
Sit-down high turnover	20%
Fast Food	40%

\* Trip Reductions - In order to help promote regional "smart growth" policies, and acknowledge San Diego's expanding mass transit system, consider vehicle trip rate reductions (with proper documentation and necessary adjustments for peak periods). The following are some examples:

[1] A 5% daily trip reduction for land uses with transit access or near transit stations accessible within 1/4 mile.

[2] Up to 10% daily trip reduction for mixed-use developments where residential and commercial retail are combined (demonstrate mode split of walking trips to replace vehicular trips).

**EXHIBIT 3**

**Residential Population and Dwelling unit Estimates**

Western Chula Vista Planning Areas	Existing Conditions		Buildout		Change	
	<i>Westside Dwelling Units</i>	<i>Westside Population</i>	<i>Westside Dwelling Units</i>	<i>Westside Population</i>	<i>Westside Dwelling Units</i>	<i>Westside Population</i>
<b>Northwest</b>	19,954	52,954	25,375	66,940	5421 <sup>(1)</sup>	13,986
<b>Southwest</b>	19,350	61,982	21,990	68,793	2640 <sup>(2)</sup>	6,811
<b>Total</b>	<b>39,304</b>	<b>114,936</b>	<b>47,365</b>	<b>135,733</b>	<b>9,561</b>	<b>20,797</b>
<b>Percent Change</b>					<b>20%</b>	<b>15%</b>

(1) Reflects yields based on select residential parcel exclusions from the Urban Core Specific Plan. For parcels rezoned per UCSP, reflect full development potential.

(2) Includes yields from recently adopted Palomar Gateway District Specific Plan, along with other areas.

(3) Based on approved Bayfront Master Plan.

Western TDIF Land Use Table (Between I-5 and I-805)<sup>(1,2,3)</sup>

SANDAG Codes	Land Use	Year 2010	Buildout	Delta LU Years 2030 - 2010	Trip Rate	Year 2010 Trips	Buildout Trips	Delta Trips	EDU's
101	Single Family Residential	15362	14415	-947	10	153620	144150	9470	947.00
102	Multi-Family Residential	20,515	29,523	9,008	8	164120	236184	-72064	-7206.40
103	Mobile Home	3,427	3,427	0	5	17135	17135	0	0.00
1501	Low Rise Hotel or Motel	25.23	28.40	3.17	200	5046	5680	-634	-63.38
2103	Light Industrial	322.70	370.44	47.74	200	64540	74088	-9548	-954.80
2104	Warehouse/Storage	75.31	43.29	-32.02	60	4519	2597	1921	192.12
5001	Wholesale Trade	22.35	12.85	-9.50	600	13410	7710	5700	570.00
5002	Regional Commercial	55.34	33.20	-22.14	500	27670	16602	11068	1106.80
5003	Community Commercial	100.58	128.16	27.58	700	70406	89712	-19306	-1930.60
5004	Neighborhood Commercial	95.36	95.36	0.00	1200	114432	114432	0	0.00
5007	Streetfront Commercial	213.98	249.35	35.37	160	34237	39896	-5659	-565.90
6001	High Rise Office	0.00	17.09	17.09	600	0	10255	-10255	-1025.46
6002	Low Rise Office	90.04	137.85	47.81	300	27012	41355	-14343	-1434.30
6003	Government Office	30.37	30.37	0.00	300	9111	9111	0	0.00
<b>TOTAL</b>						<b>705257</b>	<b>808907</b>	<b>-103649</b>	<b>-10365</b>

(1) Reflects yields based on select residential parcel exclusions from the Urban Core Specific Plan. For parcels rezoned per UCSP, reflect full development potential.

(2) Includes yields from recently adopted Palomar Gateway District Specific Plan, along with other areas.

(3) Not includes Bayfront Master Plan land use.

## EXHIBIT 5: WTDIF PROJECT CATEGORIES

Project No	Project Name	Hard + Admin Costs	Contingencies + Soft Costs	Total	Total + Escalation
I5-1	I-5/E Street NB off-ramp restriping add lane	\$ 10,514.16	\$ 2,319.30	\$ 12,833.46	\$ 15,528.49
I-5-2	I-5/E Street/Bay Blvd SB off-ramp restriping add lane	\$ 10,514.16	\$ 2,319.30	\$ 12,833.46	\$ 15,528.49
I-5-4	E Street bridge widening over I-5 (250' X 20')	\$ 1,785,000.00	\$ 393,750.00	\$ 2,178,750.00	\$ 2,636,287.50
I-5-5	F Street bridge widening over I-5 (250' X 20')	\$ 1,785,000.00	\$ 393,750.00	\$ 2,178,750.00	\$ 2,636,287.50
I-5-6	I-5/H Street NB off-ramp restriping add lane:	\$ 10,514.16	\$ 2,319.30	\$ 12,833.46	\$ 15,528.49
I-5-7	I-5/H Street SB off-ramp restriping add lane:	\$ 10,514.16	\$ 2,319.30	\$ 12,833.46	\$ 15,528.49
I-5-8	H Street bridge widening over I-5 (200'X40'):	\$ 2,856,000.00	\$ 630,000.00	\$ 3,486,000.00	\$ 4,218,060.00
I-5-9	I-5/J Street NB off-ramp restriping add lane:	\$ 10,514.16	\$ 2,319.30	\$ 12,833.46	\$ 15,528.49
I-5-10	I-5 /J Street Undercrossing widening add EB-NB (175x20)	\$ 1,249,500.00	\$ 275,625.00	\$ 1,525,125.00	\$ 1,845,401.25
I-5-11	L Street bridge widening over I-5 (S/W for peds 300' X 12')(38%)(58%):	\$ 1,285,200.00	\$ 283,500.00	\$ 1,568,700.00	\$ 1,898,127.00
I-5-12	I-5/Bay Blvd (south of L St.) SB on/off ramps traffic signal:	\$ 214,574.69	\$ 47,332.65	\$ 261,907.35	\$ 316,907.89
I-5-13	I-5/Industrial Blvd NB on/off ramps traffic signal:	\$ 214,574.69	\$ 47,332.65	\$ 261,907.35	\$ 316,907.89
I-5-14	I-5/Palomar Street bridge widening (275lf X 50lf):	\$ 4,908,750.00	\$ 1,082,812.50	\$ 5,991,562.50	\$ 7,249,790.63
I-5-16	I-5/Main Street bridge widening (275lf X 20lf):	\$ 1,602,857.14	\$ 353,571.43	\$ 1,956,428.57	\$ 2,367,278.57
I-5-17	I-5 HOV & Managed Lanes from SR905 to SR54 (50% in CV)	\$ 180,363,419.66	\$ 39,786,048.46	\$ 220,149,468.12	\$ 266,380,856.43
I-805-2	Main St undercrossing widening for EB-NB lt. turn lane:	\$ 4,284,000.00	\$ 945,000.00	\$ 5,229,000.00	\$ 6,327,090.00
SR-54-2	SR-54 EB off-ramp at N. Fourth Avenue add ramp lane:	\$ 77,804.78	\$ 17,162.82	\$ 94,967.60	\$ 114,910.80
RAS-1	Bonita Road from First Avenue to I-805	\$ 327,785.16	\$ 72,305.55	\$ 400,090.71	\$ 484,109.76
RAS-2	Broadway: C Street to s. City Limits missing imp. (STM367 & 381)	\$ 409,836.00	\$ 92,213.10	\$ 502,049.10	\$ 523,637.21
RAS-3	E Street improvements First Ave to Bonita Road/E. Flower St:	\$ 677,390.16	\$ 149,424.30	\$ 826,814.46	\$ 1,000,445.50
RAS-4	E Street improvements I-5 to 300' east of NB ramp (15%):	\$ 146,146.82	\$ 32,238.27	\$ 178,385.09	\$ 215,845.96
RAS-5	E Street LRT grade separation (underpass LRT option)*:	\$ -	\$ 950,000.00	\$ 950,000.00	\$ 950,000.00
RAS-6	H Street LRT grade separation (underpass LRT option)*:	\$ -	\$ 950,000.00	\$ 950,000.00	\$ 950,000.00
	*PE and Environmental only				
RAS-7	H Street at Broadway EB queue jumper lane & tr. signal mods.:	\$ 391,126.75	\$ 86,277.96	\$ 477,404.71	\$ 577,659.70
RAS-9	H Street widening to 6-lanes from Interstate-5 to Broadway:	\$ 9,513,211.97	\$ 2,098,502.64	\$ 11,611,714.61	\$ 14,050,174.68
RAS-10	H Street improvements from Second Ave to Hilltop Drive	\$ 20,971.20	\$ 4,626.00	\$ 25,597.20	\$ 30,972.61
RAS-11	East H St. north side improvements from Hilltop Dr. to I-805	\$ 188,649.00	\$ 41,613.75	\$ 230,262.75	\$ 278,617.93
RAS-13	L Street improvements south side west of Industrial Blvd	\$ 188,649.00	\$ 41,613.75	\$ 230,262.75	\$ 278,617.93
RAS-14	Telegraph Canyon Road at I-805 south side sidewalk	\$ 119,447.10	\$ 26,348.63	\$ 145,795.73	\$ 176,412.83
RAS-15	Orange Avenue from Palomar Street to Hilltop Drive	\$ 417,052.50	\$ 91,996.88	\$ 509,049.38	\$ 615,949.75
RAS-16	Palomar Street improvements from I-5 to I-805	\$ 360,496.56	\$ 79,521.30	\$ 440,017.86	\$ 532,421.61
RAS-17	Main St. improvements from I-5 to I-805 (See GPU Table 5.10-6)	\$ 6,308,146.14	\$ 1,391,502.83	\$ 7,699,648.97	\$ 9,316,575.25
RAS-18	H St/5th Ave add WB-NB right turn lane & P-P signal for 5th Ave	\$ 77,804.78	\$ 17,162.82	\$ 94,967.60	\$ 114,910.80

**EXHIBIT 5: WTDIF PROJECT CATEGORIES**

Project No	Project Name	Hard + Admin Costs	Contingencies + Soft Costs	Total	Total + Escalation
RAS-19	H St/4th Ave add WB-NB & EB-SB right turn lanes	\$ 63,514.11	\$ 14,010.47	\$ 77,524.57	\$ 93,804.74
TF-358	West Side Transportation Development Impact Fee (WTDIF)	\$ 291,428.57	\$ 64,285.71	\$ 355,714.29	\$ 430,414.29
BP-1	Bayshore Bikeway (bike path) between E Street & F Streets	\$ 289,340.34	\$ 131,621.00	\$ 420,961.34	\$ 449,165.75
BP-2	F Street sidewalk/bike lane impts I-5 to Fourth Avenue:	\$ 8,470,550.62	\$ 1,868,503.81	\$ 10,339,054.43	\$ 12,510,255.86
BP-3	Industrial Blvd improvements & bike lanes from L St. to Main St.:	\$ 695,640.00	\$ 290,600.00	\$ 986,240.00	\$ 986,240.00
BP-4	Main Street bike lanes from Industrial Blvd & I-805 (RAS)	\$ 581,719.26	\$ 264,625.00	\$ 846,344.26	\$ 903,049.33
BP-7	H Street: Broadway to Second Ave. ped improvements (PMP) (RAS)	\$ 93,636.00	\$ 64,670.00	\$ 158,306.00	\$ 170,495.56
BP-8	Broadway: D Street to Main Street ped improvements (PMP)(RAS)	\$ 166,081.50	\$ 97,246.00	\$ 263,327.50	\$ 283,603.72
BP-9	Bayshore Bikeway (bike path) between F Street & H Streets	\$ 431,130.54	\$ 196,122.00	\$ 627,252.54	\$ 669,278.46
OR-2	Second Avenue/D Street all-way stop installation:	\$ 10,514.16	\$ 2,319.30	\$ 12,833.46	\$ 15,528.49
OR-4	Transportation Demand Management	\$ 6,049,998.42	\$ 889,705.65	\$ 6,939,704.07	\$ 6,939,704.07
<b>TOTAL</b>			<b>\$ 54,276,538.72</b>	<b>\$ 291,246,057.18</b>	<b>\$ 349,933,439.66</b>

**WESTERN TRANSPORTATION DEVELOPMENT IMPACT FEE COST ESTIMATES (EXHIBIT 6) 10-16-14**

A	B	C	C	D	E		F	G	H
WTDIF IMPROVEMENT LOCATIONS		INITIAL PROJECT COST	CURRENT PROJECT COST	WTDIF SHARE%	CURRENT WTDIF COSTS	2% ADMIN COSTS	EX. COND.s	2030 COND.s	Source
<b>Interstate-5 Improvements*</b>									
I-5-1	I-5/E Street NB off-ramp restriping add lane:	\$12,833.46	\$15,528.49	58.00%	\$9,006.52	\$119.57	LOS C	LOS E	UCSP T- 5.8-4 INT #
I-5-2	I-5/E Street/Bay Blvd SB off-ramp restriping add lane:	\$12,833.46	\$15,528.49	58.00%	\$9,006.52	\$119.57	LOS B	LOS F	UCSP T- 5.8-4 INT #
I-5-4	E Street bridge widening over I-5 (250' X 20'):	\$2,178,750.00	\$2,636,287.50		See I5-17		LOS D		GMOCTMP
I-5-5	F Street bridge widening over I-5 (250' X 20'):	\$2,178,750.00	\$2,636,287.50		See I5-17				
I-5-6	I-5/H Street NB off-ramp restriping add lane:	\$12,833.46	\$15,528.49	58.00%	\$9,006.52	\$119.57	LOS B	LOS F	UCSP T- 5.8-4 INT #
I-5-7	I-5/H Street SB off-ramp restriping add lane:	\$12,833.46	\$15,528.49	58.00%	\$9,006.52	\$119.57	LOS C	LOS F	UCSP T- 5.8-4 INT #
I-5-8	H Street bridge widening over I-5 (200' X 40'):	\$3,486,000.00	\$4,218,060.00	58.00%	\$2,446,474.80	\$32,480.00	LOS DDE		GMOCTMP
I-5-9	I-5/J Street NB off-ramp restriping add lane:	\$12,833.46	\$15,528.49	58.00%	\$9,006.52	\$119.57	LOS B	LOS F	UCSP T- 5.8-4 INT #
I-5-10	I-5/J Street undercrossing widening add EB-NB (175x20):	\$1,525,125.00	\$1,845,401.25		See I-5-17		LOS E/PM	GMOCTMP	UCSP T- 5.8-4 INT #
I-5-11	L Street bridge widening over I-5 (S/W for peds 300' X 12')	\$1,568,700.00	\$1,898,127.00	18.09%	\$343,371.17	\$4,558.68			
I-5-12	I-5/Bay Blvd (south of L St.) SB on/off ramps traffic signal:	\$261,907.35	\$316,907.89	58.00%	\$183,806.58	\$2,440.26	LOS E	LOS F	UCSP T- 5.8-4 INT #
I-5-13	I-5/Industrial Blvd NB on/off ramps traffic signal:	\$261,907.35	\$316,907.89	58.00%	\$183,806.58	\$2,440.26	LOS C	LOS F	UCSP T- 5.8-4 INT #
I-5-14	I-5/Palomar Street bridge widening (275lf X 50lf):	\$5,991,562.50	\$7,249,790.63		See I5-17		LOS DEE		GMOCTMP
I-5-16	I-5/Main Street bridge widening (275lf X 20lf):	\$1,956,428.57	\$2,367,278.57		See I5-17				
I-5-17	I-5 HOV & Managed Lanes from SR905 to SR54 (50% in CV)**	\$220,146,468.12	\$266,380,856.43	2.38%	\$6,334,536.77	\$84,098.87	LOS D	LOS F	SANDAG I-5 Study 6/05
**(WTDIF % \$239.2M X 0.50 X 0.082 X 0.58 is based on CV volumes.)									
<b>Interstate-805 Improvements</b>									
I-805-2	Main St undercrossing widening for EB-NB lt. turn lane***:	\$ 5,229,000.00	\$6,327,090.00	100.00%	\$6,327,090.00	\$84,000.00	LOS CAD		GMOCTMP
*** (Assume 300lfX40') TDIF paid for interim.									
<b>State Route 54 Improvements</b>									
SR-54-2	SR-54 EB off-ramp at N. Fourth Avenue add ramp lane:	\$ 94,967.60	\$114,910.80	100.00%	\$114,910.80	\$1,525.58	LOS C	LOS F	UCSP T- 5.8-4 INT #
<b>Regional Arterial System (RAS) Projects</b>									
RAS-1	Bonita Road from First Avenue to I-805	\$ 400,090.71	\$ 484,109.76	38.00%	\$183,961.71	\$2,442.32			
RAS-2	Broadway: C Street to s. City Limits missing imp. (STM367 & 381)	\$ 502,049.10	\$ 523,637.21	18.09%	\$94,725.97	\$1,453.71			
RAS-3	E Street improvements First Ave to Bonita Road/E. Flower St:	\$ 826,814.46	\$ 1,000,445.50	38.00%	\$380,169.29	\$5,047.22			RAS-2 NOTE: WTDIF share is 14.91% due to population growth to Year 2030 per General Plan Update Table 5-5.
RAS-4	E Street improvements I-5 to 300' east of NB ramp (15%):	\$ 178,385.09	\$ 215,845.96	38.00%	\$82,021.47	\$1,088.94			
RAS-5	E Street LRT grade separation (underpass LRT option)****:	\$ 950,000.00	\$ 950,000.00	58.00%	\$551,000.00	\$0.00	LOS D	LOS F	GMOCTMP
RAS-6	H Street LRT grade separation (underpass LRT option)****:	\$ 950,000.00	\$ 950,000.00	58.00%	\$551,000.00	\$0.00	LOS C	LOS F	General Plan Traffic Study Appendix A
****Environmental and PE costs only. Costs divided 58% WTDIF/ 42% BFDIF									
RAS-7	H Street at Broadway EB queue jumper lane & tr. signal mods.:	\$ 477,404.71	\$ 577,659.70	100.00%	\$577,659.70	\$7,669.15	LOS C	LOS F	UCSP T- 5.8-4 INT #
RAS-9	H Street widening to 6-lanes from Interstate-5 to Broadway:	\$ 11,611,714.61	\$ 14,050,174.68	96.44%	\$13,550,174.68	\$179,895.45	LOS B	LOS F	
RAS-10	H Street improvements from Second Ave to Hilltop Drive	\$ 25,597.20	\$ 30,972.61	38.00%	\$11,769.59	\$156.26	LOS C		GMOCTMP
RAS-11	East H St. north side improvements from Hilltop Dr. to I-805	\$ 230,262.75	\$ 278,617.93	38.00%	\$105,874.81	\$1,405.62	LOS D		GMOCTMP
RAS-13	L Street improvements south side west of Industrial Blvd	\$ 230,262.75	\$ 278,617.93	38.00%	\$105,874.81	\$1,405.62			See "RAS Note" this section for 21% WTDIF share.
RAS-14	Telegraph Canyon Road at I-805 south side sidewalk	\$ 145,795.73	\$ 176,412.83	38.00%	\$67,036.88	\$890.00	LOS C		GMOCTMP
RAS-15	Orange Avenue from Palomar Street to Hilltop Drive	\$ 509,049.38	\$ 615,949.75	38.00%	\$234,060.90	\$3,107.45			
RAS-16	Palomar Street improvements from I-5 to I-805	\$ 440,017.86	\$ 532,421.61	18.09%	\$96,315.07	\$1,278.70			RAS-16 & 17 NOTE: WTDIF share is 14.91% due to population growth to Year 2030 per General Plan Update Table 5-5.
RAS-17	Main St. improvements from I-5 to I-805 (See GPU Table 5.10-6)	\$ 7,699,648.97	\$ 9,316,575.25	18.09%	\$1,685,368.46	\$22,375.37			
RAS-18	H St/5th Ave add WB-NB right turn lane & P-P signal for 5th Ave	\$ 94,967.60	\$ 114,910.80	100.00%	\$114,910.80	\$1,525.58			UCSP T- 5.8-4 INT #
RAS-19	H St/4th Ave add WB-NB & EB-SB right turn lanes	\$ 77,524.57	\$ 93,804.74	100.00%	\$114,910.80	\$1,245.37			UCSP T- 5.8-4 INT #
TF-358	West Side Transportation Development Impact Fee (WTDIF)	\$ 355,714.29	\$ 430,414.29	100.00%	\$430,414.29	\$5,714.29			
BP-4	Main Street bike lanes from Industrial Blvd & I-805 (RAS)	\$ 846,344.26	\$ 903,049.33	18.09%	\$163,361.62	\$2,063.39			
BP-7	H Street: Broadway to Second Ave. ped improvements (PMP) (RAS)	\$ 158,306.00	\$ 170,495.56	18.09%	\$30,842.65	\$332.13			
BP-8	Broadway: D Street to Main Street ped improvements (PMP)(RAS)	\$ 263,327.50	\$ 283,603.72	18.09%	\$51,303.91	\$589.10			
					<b>\$35,161,786.73</b>				
<b>TOTAL PER EDU CONTRIBUTION TO THE RAS</b>					<b>\$3,392.36</b>				

**WESTERN TRANSPORTATION DEVELOPMENT IMPACT FEE COST ESTIMATES (EXHIBIT 6) 10-16-14**

A	B	C	C	D	E	F	G	H	
WTDIF IMPROVEMENT LOCATIONS		INITIAL PROJECT COST	CURRENT PROJECT COST	WTDIF SHARE%	CURRENT WTDIF COSTS	2% ADMIN COSTS	EX. COND.s	2030 COND.s	Source
<b>Bicycle &amp; Pedestrian Facilities (18.09% WTDIF share)</b>									
BP-1	Bayshore Bikeway (bike path) between E Street & F Streets	\$420,961.34	\$449,165.75	18.09%	\$81,254.08	\$1,026.31			
BP-2	F Street sidewalk/bike lane impts I-5 to Fourth Avenue:	\$10,339,054.43	\$12,510,255.86	18.09%	\$2,263,105.29	\$30,045.54			
BP-3	Industrial Blvd improvements & bike lanes from L St. to Main St.:	\$986,240.00	\$986,240.00	18.09%	\$178,410.82	\$2,467.48			
BP-9	Bayshore Bikeway (bike path) between F Street & H Street	\$627,252.54	\$669,278.46	18.09%	\$121,072.47	\$1,529.25			
<b>Other Roadways</b>									
OR-2	Second Avenue/D Street all-way stop installation:	\$12,833.46	\$15,528.49	100.00%	\$15,528.49	\$206.16	LOS B	LOS E	UCSP T- 5.8-4 INT #
OR-4	Transportation Demand Management	\$6,939,704.07	\$6,939,704.07	40.00%	\$2,775,881.63	\$47,450.97	See TDIF Facility #65		
<b>SubTotal : WTDIF Program w/no Bayfront Roadways.</b>		<b>\$291,243,057.18</b>			<b>\$40,597,039.50</b>	<b>\$534,552.88</b>			
<b>WTDIF Roadways subtotal (See Note 1)</b>					<b>\$40,597,039.50</b>				
<b>minus 10/31/13 Fund Balance</b>					<b>\$96,406.01</b>				
<b>TOTAL</b>					<b>\$40,500,633.49</b>				
<b>WTDIF 10,365 EDU's</b>					<b>\$3,907.44</b>				

NOTE 1: Includes costs of: design, surveying, civil & geotechnical engineering, inspection, remediation, mitigation, R/W, utility coordination & construction

NOTE 2: A 2% WTDIF Project Administration factor has been added to the sum of the project costs for auditing and administration of contracts.

**% WTDIF for Regional Arterials** **86.82%**

**WTDIF**

**APPENDIX**

**A**































**COST ESTIMATE**

FACILITY I-805-2

Main St undercrossing widening for EB-NB lt. turn lane\*\*\*:

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	Main St undercrossing widening for EB-NB lt. turn lane***:				\$ 4,200,000.00	
	Admin (2% hard costs)				\$ 84,000.00	
					<hr/>	
				<b>TOTAL HARD COSTS</b>	\$ 4,284,000.00	
					<hr/>	
	<b><u>SOFT COSTS</u></b>					
	Contingencies and soft costs				\$ 945,000.00	
					<hr/>	
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				\$ 945,000.00	
					<hr/>	
				<b>PROJECT COST</b>	\$ 5,229,000.00	
					<hr/>	
				ENR Index Increase to 2014: 1.21		
				<b>TOTAL PROJECT COST</b>	\$ 6,327,090.00	

**COST ESTIMATE**

FACILITY SR-54-2

SR-54 EB off-ramp at N. Fourth Avenue add ramp lane:

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	SR-54 EB off-ramp at N. Fourth Avenue add ramp lane:				\$ 76,279.20	
	Admin (2% hard costs)				\$ 1,525.58	
					<hr/>	
				<b><u>TOTAL HARD COSTS</u></b>	<b>\$ 77,804.78</b>	
	<b><u>SOFT COSTS</u></b>					
	Contingencies and soft costs				\$ 17,162.82	
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b>\$ 17,162.82</b>	
					<hr/>	
				<b>PROJECT COST</b>	<b>\$ 94,967.60</b>	
				ENR Index Increase to 2014: 1.21		
				<b>TOTAL PROJECT COST</b>	<b>\$ 114,910.80</b>	



**COST ESTIMATE**

FACILITY BP-1

Bayshore Bikeway (bike path) between E Street & F Streets

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
1	Bike Path striping/signing	MI	0.25	\$ 3,300.00	\$ 825.00
2	144 " (12') AC path (3" thick) w/CAB (3/16")	SF	10,560	\$ 3.50	\$ 36,960.00
3	2-24" parallel DG side paths (3")	SF	10,560	\$ 2.10	\$ 22,176.00
4	Clear & grub	SF	10,560	\$ 1.00	\$ 10,560.00
5	Subgrade preparation/excavation	CY	587	\$ 16.50	\$ 9,685.50
6	Drainage (PVC drainage system)	LF	1,320	\$ 5.50	\$ 7,260.00
7	Fencing or guardrail	LF	1,320	\$ 35.00	\$ 46,200.00
8	Pedestrian signal crossing including ADA ramps	LS	1	\$ 150,000.00	\$ 150,000.00
				\$	283,667.00
	Admin (2% hard costs)			\$	5,673.34
	<b><u>TOTAL HARD COSTS</u></b>			\$	<b>289,340.34</b>
	<b><u>SOFT COSTS</u></b>				
	Contingencies and soft costs			\$	131,621.00
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>			\$	<b>131,621.00</b>
	<b>PROJECT COST</b>			\$	<b>420,961.34</b>
	ENR Index increase to 2014: 1.067				
	<b><u>TOTAL PROJECT COST</u></b>			\$	<b>449,165.75</b>



**COST ESTIMATE**

FACILITY BP-3

Industrial Blvd improvements &amp; bike lanes from L St. to Main St.:

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
1	Clearing & grubbing	LS	1	\$ 15,000.00	\$ 15,000.00
2	Removal & disposal of existing improvements	LS	1	\$ 10,000.00	\$ 10,000.00
3	Excavation and grading	LS	1	\$ 15,000.00	\$ 15,000.00
4	PCC curb & gutter, SDRSD G-2, east side	ft	3,450	\$ 35.00	\$ 120,750.00
5	Monolithic PCC sidewalk, SDRSD G-3, west side	ft	2,510	\$ 70.00	\$ 175,700.00
6	ADA ped ramps	EA	6	\$ 3,500.00	\$ 21,000.00
7	AC pavement (~6")	TON	660	\$ 200.00	\$ 132,000.00
8	Crushed aggregate base (~12 inches)	CY	690	\$ 100.00	\$ 69,000.00
9	PCC driveway (4 EA) (4x15x15)	ft2	900	\$ 11.00	\$ 9,900.00
10	Bike lane signs	EA	6	\$ 600.00	\$ 3,600.00
11	Pavement striping (bike lane)	ft	9,800	\$ 1.00	\$ 9,800.00
12	Pavement markings & legends	LS	1	\$ 5,000.00	\$ 5,000.00
13	Regulatory signs	EA	6	\$ 600.00	\$ 3,600.00
14	Public convenience and traffic control	LS	1	\$ 15,000.00	\$ 15,000.00
15	Filtera pre-cast bio-retention unit	EA	2	\$ 13,000.00	\$ 26,000.00
16	Adjustment of utility covers	EA	12	\$ 300.00	\$ 3,600.00
17	Chain link gate & fence	LF	30	\$ 35.00	\$ 1,050.00
18	Wing and U type headwalk	EA	1	\$ 3,000.00	\$ 3,000.00
19	Curb inlet type B	EA	1	\$ 5,000.00	\$ 5,000.00
20	Storm drain clean-out	EA	1	\$ 5,000.00	\$ 5,000.00
21	Rip-rap energy dissipator	EA	1	\$ 4,000.00	\$ 4,000.00
22	SWPP compliance	LS	1	\$ 5,000.00	\$ 5,000.00
23	Road construction signs	EA	4	\$ 1,000.00	\$ 4,000.00
24	Public convenience & safety (traffic control)	LS	1	\$ 20,000.00	\$ 20,000.00
				<b>SUBTOTAL</b>	<b>\$ 682,000.00</b>
	Admin (2% hard costs)				\$ 13,640.00
				<b><u>TOTAL HARD COSTS</u></b>	<b><u>\$ 695,640.00</u></b>
	<b><u>SOFT COSTS</u></b>				
	Contingencies and soft costs				\$ 290,600.00
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b><u>\$ 290,600.00</u></b>
				<b>PROJECT COST</b>	<b><u>\$ 986,240.00</u></b>
	No escalation required				
	<b><u>TOTAL PROJECT COST</u></b>				<b><u>\$ 986,240.00</u></b>

**COST ESTIMATE**

FACILITY BP-4

Main Street bike lanes from Industrial Blvd &amp; I-805 (RAS)

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
1	Bike lane striping/signing	MI	2.88	\$3,300.00	\$9,497.75
2	Stripe removal	LF	15259	\$1.50	\$22,888.50
3	Restripe centerline w/raised markers	LF	15259	\$2.25	\$34,332.75
4	Pavement markings	EA	51	\$300.00	\$15,300.00
5	Curb & gutter	LF	15259	\$32.00	\$488,294.00
			SUBTOTAL		\$ 570,313.00
	Admin (2% hard costs)				\$ 11,406.26
			<b><u>TOTAL HARD COSTS</u></b>		<b>\$ 581,719.26</b>
	<b><u>SOFT COSTS</u></b>				
	Contingencies and soft costs				\$ 264,625.00
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b>\$ 264,625.00</b>
			<b>PROJECT COST</b>		<b>\$ 846,344.26</b>
			ENR Index Increase to 2014: 1.067		
			<b>TOTAL PROJECT COST</b>		<b>\$ 903,049.33</b>

**COST ESTIMATE**

FACILITY BP-7

H Street: Broadway to Second Ave. ped improvements (PMP) (RAS)

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
1	Traffic Control	LS	1	\$ 10,000.00	\$ 10,000.00
2	Countdown Signal Heads	EA	8	\$ 800.00	\$ 6,400.00
3	Crosswalk - High Visibility	EA	4	\$ 1,200.00	\$ 4,800.00
4	Crosswalk - Traverse	EA	12	\$ 500.00	\$ 6,000.00
5	Curb Extension	EA	2	\$ 20,000.00	\$ 40,000.00
6	Curb Ramp Retrofit (diagonal)	EA	2	\$ 5,000.00	\$ 10,000.00
7	Sidewalk Widening	LF	300	\$ 46.00	\$ 13,800.00
8	Truncated Domes (retrofit plastic)	EA	2	\$ 400.00	\$ 800.00
			<b>SUBTOTAL</b>		<b>\$ 91,800.00</b>
	Admin (2% hard costs)				\$ 1,836.00
			<b><u>TOTAL HARD COSTS</u></b>		<b><u>\$ 93,636.00</u></b>
	<b><u>SOFT COSTS</u></b>				
	Contingencies and soft costs				\$ 64,670.00
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b><u>\$ 64,670.00</u></b>
			<b>PROJECT COST</b>		<b><u>\$ 158,306.00</u></b>
			ENR Index Increase to 2014: 1.077		
			<b>TOTAL PROJECT COST</b>		<b>\$ 170,495.56</b>

**COST ESTIMATE**

FACILITY BP-8

Broadway: D Street to Main Street ped improvements (PMP)(RAS)

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
1	Countdown Signal Heads	EA	88	\$ 800.00	\$ 70,400.00
2	Crosswalk - High Visibility	EA	44	\$ 1,200.00	\$ 52,800.00
3	Sidewalk - 5' Wide	LF	405	\$ 45.00	\$ 18,225.00
4	Truncated Domes (retrofit plastic)	EA	16	\$ 400.00	\$ 6,400.00
5	Traffic Control	LS	1	\$ 15,000.00	\$ 15,000.00
			<b>SUBTOTAL</b>		<b>\$ 162,825.00</b>
	Admin (2% hard costs)				\$ 3,256.50
			<b><u>TOTAL HARD COSTS</u></b>		<b><u>\$ 166,081.50</u></b>
	<b><u>SOFT COSTS</u></b>				
	Contingencies and soft costs				\$ 97,246.00
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b><u>\$ 97,246.00</u></b>
			<b>PROJECT COST</b>		<b><u>\$ 263,327.50</u></b>
			ENR Index Increase to 2014: 1.077		
			<b>TOTAL PROJECT COST</b>		<b>\$ 283,603.72</b>

**COST ESTIMATE**

FACILITY BP-9

Bayshore Bikeway (bike path) between F Street & H Streets

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
1	Bike Path striping/signing	MI	0.51	\$ 3,300.00	\$ 1,683.00
2	144 " (12') AC path (3" thick) w/CAB (3/16")	SF	21542	\$ 3.50	\$ 75,397.00
3	2-24" parallel DG side paths (3")	SF	21542	\$ 2.10	\$ 45,238.20
4	Clear & grub	SF	21542	\$ 1.00	\$ 21,542.00
5	Subgrade preparation/excavation	CY	1197	\$ 16.50	\$ 19,750.50
6	Drainage (PVC drainage system)	LF	2693	\$ 5.50	\$ 14,811.50
7	Fencing or guardrail	LF	2693	\$ 35.00	\$ 94,255.00
8	Pedestrian signal crossing including ADA ramps	LS	1	\$ 150,000.00	\$ 150,000.00
				\$	<b>422,677.00</b>
	Admin (2% hard costs)			\$	8,453.54
					<hr/>
				<b>TOTAL HARD COSTS</b>	<b>\$ 431,130.54</b>
					<hr/>
	<b>SOFT COSTS</b>				
	Contingencies and soft costs			\$	196,122.00
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>			\$	<b>196,122.00</b>
					<hr/>
				<b>PROJECT COST</b>	<b>\$ 627,252.54</b>
					<hr/>
				ENR Index Increase to 2014: 1.067	
				<b>TOTAL PROJECT COST</b>	<b>\$ 669,278.46</b>
					<hr/>







**COST ESTIMATE**

FACILITY RAS-2

Broadway: C Street to s. City Limits missing imp. (STM367 & 381)

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL
	Removal of existing striping or raised markers, C St to L St	LF	11,880	\$ 2.50	\$ 29,700.00
	Install pavement markings & legends (16/mi), C St to L St	EA	36	\$ 400.00	\$ 14,400.00
	Pavement striping & markers (travel and bike lanes), C St to L St	MI	13.50	\$ 5,000.00	\$ 67,500.00
	Bike lane signs C St to Main St	EA	31	\$ 600.00	\$ 18,600.00
	Pavement chip seal to cover esisting striping only, C St to L St	SF	475,200	\$ 0.50	\$ 237,600.00
	Construction signs	EA	4	\$ 1,000.00	\$ 4,000.00
	Public convenience and traffic control	LS	1	\$ 30,000.00	\$ 30,000.00
			<b>SUBTOTAL</b>		<b>\$ 401,800.00</b>
	Admin (2% hard costs)				\$ 8,036.00
			<b><u>TOTAL HARD COSTS</u></b>		<b>\$ 409,836.00</b>
	<b><u>SOFT COSTS</u></b>				
	Contingencies and soft costs				\$ 92,213.10
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b>\$ 92,213.10</b>
			<b>PROJECT COST</b>		<b>\$ 502,049.10</b>
			ENR Index Increase to 2014: 1.043		
			<b>TOTAL PROJECT COST</b>		<b>\$ 523,637.21</b>





**COST ESTIMATE**

FACILITY RAS-5

E Street LRT grade separation (underpass LRT option)\*\*\*\*:

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	E Street LRT grade separation (underpass LRT option)****: Admin (2% hard costs)				\$ -	
				<b><u>TOTAL HARD COSTS</u></b>	\$ -	
	<b><u>SOFT COSTS</u></b>					
	Contingencies and soft costs				\$ 950,000.00	
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b>\$ 950,000.00</b>	
				<b>PROJECT COST</b>	<b>\$ 950,000.00</b>	
				<b><u>TOTAL PROJECT COST</u></b>	<b>\$ 950,000.00</b>	

\*\*\*\* Environmental and PE Costs only

**COST ESTIMATE**

FACILITY RAS-6

H Street LRT grade separation (underpass LRT option)\*\*\*\*:

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	H Street LRT grade separation (underpass LRT option)****: Admin (2% hard costs)				\$ -	
				<b><u>TOTAL HARD COSTS</u></b>	\$ -	
	<b><u>SOFT COSTS</u></b>					
	Contingencies and soft costs				\$ 950,000.00	
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				\$ <b><u>950,000.00</u></b>	
				<b>PROJECT COST</b>	\$ <b><u>950,000.00</u></b>	
				<b><u>TOTAL PROJECT COST</u></b>	\$ <b><u>950,000.00</u></b>	

\*\*\*\* Environmental and PE Costs only









**COST ESTIMATE**

FACILITY RAS-13

L Street improvements south side west of Industrial Blvd

ITEM	DESCRIPTION	UNITS	QTY.	UNIT COST	TOTAL	ITEM TOTAL
1	L Street improvements south side west of Industrial Blvd				\$ 184,950.00	
	Admin (2% hard costs)				\$ 3,699.00	
				<b><u>TOTAL HARD COSTS</u></b>	<b>\$ 188,649.00</b>	
	<b><u>SOFT COSTS</u></b>					
	Contingencies and soft costs				\$ 41,613.75	
	<b>TOTAL SOFT COSTS &amp; CONTINGENCIES</b>				<b>\$ 41,613.75</b>	
				<b>PROJECT COST</b>	<b>\$ 230,262.75</b>	
				ENR Index Increase to 2014: 1.21		
				<b>TOTAL PROJECT COST</b>	<b>\$ 278,617.93</b>	











