

City Council

Adjourned Regular Meeting

Tuesday, February 25, 2014

6:00 PM

City Council Chambers



Mayor Amy Howorth
Mayor Pro Tem Wayne Powell
Councilmember Mark Burton
Councilmember Tony D'Errico
Councilmember David J. Lesser

Executive Team

John Jalili, Interim City Manager
Quinn Barrow, City Attorney

Robert Espinosa, Fire Chief
Cathy Hanson, Human Resources Director
Eve R. Irvine, Police Chief
Mark Leyman, Parks & Recreation Director

Bruce Moe, Finance Director
Tony Olmos, Public Works Director
Liza Tamura, City Clerk
Richard Thompson, Community
Development Director

MISSION STATEMENT:

The City of Manhattan Beach is dedicated to providing exemplary municipal services, preserving our small beach town character and enhancing the quality of life for our residents, businesses and visitors.

February 25, 2014

City Council Meeting Agenda Packet

| Agenda Item No. | Starting Page | Ending Page |
|------------------------|----------------------|--------------------|
| AGENDA | 1 | 8 |
| 1 | 9 | 18 |
| 2 | 19 | 46 |
| 3 | 47 | 116 |
| 4 | 117 | 256 |
| 5 | 257 | 272 |
| 6 | 273 | 318 |

MANHATTAN BEACH'S CITY COUNCIL WELCOMES YOU!

Your presence and participation contribute to good city government.

By your presence in the City Council Chambers, you are participating in the process of representative government. To encourage that participation, the City Council has specified two additional times for public comments on the agenda--under "Community Announcements Regarding Upcoming Events," at which time the public may address the City Council regarding any upcoming events for up to one minute in duration for any speaker; and again under "Public Comment on Non-Agenda Items," at which time speakers may comment on any item of interest to the public that is within the subject matter jurisdiction of the legislative body, not including items on the agenda, for up to three minutes for each speaker. Estimated times have been placed under each heading to assist with meeting management. Please note that these times are merely an estimate.

Please note that each speaker may speak for up to 15 minutes at any one Council meeting, with additional time during public hearings.

Copies of staff reports or other written documentation relating to each item of business referred to on this agenda are available for review on the City's website at www.citymb.info, the Police Department located at 420 15th Street, and are also on file in the Office of the City Clerk for public inspection. Any person who has any question concerning any agenda item may call the City Clerk's office at (310) 802-5056.

In compliance with the Americans With Disabilities Act, if you need special assistance to participate in this meeting, you should contact the Office of the City Clerk at (310) 802-5056 (voice) or (310) 546-3501 (TDD). Notification 36 hours prior to the meeting will enable the City to make reasonable arrangements to assure accessibility to this meeting.

BELOW ARE THE AGENDA ITEMS TO BE CONSIDERED. THE RECOMMENDED COUNCIL ACTION IS LISTED IMMEDIATELY AFTER THE TITLE OF EACH ITEM IN BOLD CAPITAL LETTERS.**A. PLEDGE TO THE FLAG**

5 MINUTES

B. ROLL CALL

1 MINUTE

C. CERTIFICATION OF MEETING NOTICE AND AGENDA POSTING

1 MINUTE

I, Liza Tamura, City Clerk of the City of Manhattan Beach, California, state under penalty of perjury that this notice/agenda was posted on Wednesday, February 19, 2014, on the City's Website and on the bulletin boards of City Hall, Joslyn Community Center and Manhattan Heights.

D. APPROVAL OF AGENDA AND WAIVER OF FULL READING OF ORDINANCES

5 MINUTES

By motion of the City Council this is the time to notify the public of any changes to the agenda and/or rearrange the order of the agenda.

E. COMMUNITY ANNOUNCEMENTS REGARDING UPCOMING EVENTS

1 MINUTE PER PERSON

This portion of the meeting is to provide an opportunity for citizens to address the City Council regarding upcoming events. The duration for an individual speaking under "Community Announcements Regarding Upcoming Events" is limited to one minute. A second, extended opportunity to speak is provided under "Public Comment on Non-Agenda Items." While all comments are welcome, the Brown Act does not allow City Council to take action on any item not on the agenda, except under very limited circumstances. Please complete the "Request to Address the City Council" card by filling out your name, city of residence, and returning it to the City Clerk. Thank you!

F. PUBLIC COMMENT ON NON-AGENDA ITEMS

3 MINUTES PER PERSON - 30 MINUTES MAXIMUM

Speakers may comment on any item of interest to the public that is within the subject matter jurisdiction of the legislative body, not including items on the agenda. The Mayor may determine whether an item is within the subject matter jurisdiction of the City. While all comments are welcome, the Brown Act does not allow City Council to take action on any item not on the agenda, except under very limited circumstances. Please complete the "Request to Address the City Council" card by filling out your name, city of residence, and returning it to the City Clerk.

G. GENERAL BUSINESS

30 MINUTES PER ITEM

1. Fiscal Year 2013-2014 Mid-Year Budget Review (Finance Director Moe). [14-0070](#)
RECEIVE REPORT; APPROPRIATE
Attachments: [FY 2013-2014 Mid Year Budget Review](#)

2. Award of Contract to Harris and Associates for an Amount Not to Exceed [CON 14-0086](#)
 \$52,700 for Preliminary Analyses and Polling for Updated Storm Water Fees, and Street Lighting and Landscaping District Assessments (Finance Director Moe).
AWARD CONTRACT; APPROPRIATE
Attachments: [Harris & Associates Proposal](#)

3. Consideration of Fiscal Year 2013-2014 Capital Improvement Plan [RES 14-0008](#)
 (Public Works Director Olmos).
APPROVE
Attachments: [Resolution No. 14-0008](#)
[FY 2014-2018 Capital Improvement Plan](#)
[Projects by Type Spreadsheet for FY2013-2014](#)
[Operating Budget Placeholder Projects for FY2013-2014](#)

-
4. Sepulveda Boulevard Bridge Widening Project - Project Update and Bridge Aesthetic Treatments (Public Works Director Olmos). [14-0077](#)
RECEIVE REPORT AND PROVIDE DIRECTION
Attachments: [Project Appropriations and Funding Plan](#)
[Location Map](#)
[Traffic Engineer Memo](#)
[Traffic Analysis for Sepulveda Widening Project](#)
[Bridge Widening Alternatives](#)
[Retaining Wall and Concrete Barrier Aesthetic Treatment Options](#)
5. Presentation of the Proposed Fiscal Year 2014-2015 to Fiscal Year 2018-2019 Five Year Capital Improvement Plan (Public Works Director Olmos). [14-0075](#)
RECEIVE REPORT
Attachments: [FY 2015-2019 Proposed Projects by Type Spreadsheet \(excerpt from Capital In](#)
6. The Strand Stairs Rehabilitation Project - Project Update and Aesthetic Treatments of Retaining Walls (Public Works Director Olmos). [14-0078](#)
RECEIVE REPORT AND PROVIDE DIRECTION
Attachments: [Project Funding and Anticipated Expenditures](#)
[Stairs to be Improved](#)
[Strand Stairs Presentation to Council](#)

H. OPTIONAL ADDITIONAL PUBLIC COMMENTS ON NON-AGENDA ITEMS

For speakers who did not speak at the first "Public Comment" period.

3 MINUTES PER PERSON

I. OTHER COUNCIL BUSINESS, COMMITTEE AND TRAVEL REPORTS, FUTURE DISCUSSION ITEMS

5 MINUTES PER CITY COUNCILMEMBER FOR TOTAL OF 25 MINUTES

J. ADJOURNMENT

K. FUTURE MEETINGS**CITY COUNCIL MEETINGS**

Mar. 4, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Mar. 18, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Apr. 1, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Apr. 15, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Apr. 22, 2014 – Tuesday -- 5:00 PM - Adjourned Regular Meeting (Boards & Commissions Interviews)
Apr. 29, 2014 – Tuesday -- 9:00 AM - Adjourned Regular Meeting
May 6, 2014 – Tuesday -- 6:00 PM - City Council Meeting
May 8, 2014 – Thursday -- 6:00 PM - City Council Budget Study Session #1
May 13, 2014 – Tuesday -- 6:00 PM - City Council Budget Study Session #2
May 14, 2014 – Wednesday -- 6:00 PM - City Council Budget Study Session #3
May 20, 2014 – Tuesday -- 6:00 PM - City Council Meeting
May 21, 2014 – Wednesday -- 6:00 PM - City Council Budget Study Session #4
Jun. 3, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Jun. 17, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Jul. 1, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Jul. 15, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Aug. 5, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Aug. 19, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Sep. 2, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Sep. 16, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Oct. 7, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Oct. 21, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Nov. 4, 2014 – Tuesday -- 6:00 PM - City Council Meeting
Nov. 18, 2014 – Tuesday -- 6:00 PM - City Council Meeting

BOARDS, COMMISSIONS AND COMMITTEE MEETINGS

Feb. 26, 2014 – Wednesday – 6:30 PM – Planning Commission Meeting
Feb. 27, 2014 – Thursday – 6:30 PM – Parking & Public Improvements Commission Meeting
Mar. 10, 2014 – Monday – 6:30 PM – Library Commission Meeting
Mar. 11, 2014 – Tuesday – 6:00 PM – Cultural Arts Commission Meeting
Mar. 12, 2014 – Wednesday – 6:30 PM – Planning Commission Meeting
Mar. 24, 2014 – Monday – 6:30 PM – Parks & Recreation Commission Meeting
Mar. 26, 2014 – Wednesday – 6:30 PM – Planning Commission Meeting
Mar. 27, 2014 – Thursday – 6:30 PM – Parking & Public Improvements Commission Meeting
Apr. 8, 2014 – Tuesday – 6:00 PM – Cultural Arts Commission Meeting
Apr. 9, 2014 – Wednesday – 6:30 PM – Planning Commission Meeting
Apr. 14, 2014 – Monday – 6:30 PM – Library Commission Meeting
Apr. 23, 2014 – Wednesday – 6:30 PM – Planning Commission Meeting
Apr. 24, 2014 – Thursday – 6:30 PM – Parking & Public Improvements Commission Meeting
Apr. 28, 2014 – Monday – 6:30 PM – Parks & Recreation Commission Meeting
May 12, 2014 – Monday – 6:30 PM – Library Commission
May 13, 2014 – Tuesday – 6:00 PM – Cultural Arts Commission Meeting
May 14, 2014 – Wednesday – 6:30 PM – Planning Commission
May 22, 2014 – Thursday – 6:30 PM – Parking & Public Improvements Commission Meeting
May 26, 2014 – Monday – 6:30 PM – Parks & Recreation Commission Meeting
May 28, 2014 – Wednesday – 6:30 PM – Planning Commission Meeting

L. CITY HOLIDAYS**CITY OFFICES CLOSED ON THE FOLLOWING DAYS:**

May. 26, 2014 – Monday – Memorial Day

Jul. 4, 2014 - Friday - Independence Day

Sep. 1, 2014 – Monday – Labor Day

Oct. 13, 2014 – Monday – Columbus Day

Nov. 11, 2014 – Tuesday – Veterans Day

Nov. 27-28, 2014 – Thursday & Friday – Thanksgiving Holiday

Dec. 25, 2014 – Thursday – Christmas Day

Jan. 1, 2015 – Thursday – New Years Day

Jan. 19, 2015 – Monday – Martin Luther King Day

Feb. 16, 2015 – Monday – President's Day

Agenda Date: 2/25/2014

TO:

Honorable Mayor and Members of the City Council

THROUGH:

John Jalili, Interim City Manager

FROM:

Bruce Moe, Finance Director
Henry Mitzner, Controller
Eden Serina, Financial Analyst

SUBJECT:

Fiscal Year 2013-2014 Mid-Year Budget Review (Finance Director Moe).

RECEIVE REPORT; APPROPRIATE

RECOMMENDATION:

Staff recommends that the City Council: a) receive the Mid-Year Budget Report for Fiscal Year 2013-2014; b) appropriate \$50,000 from available unreserved General Fund moneys; and c) approve budget adjustments for the General, Water, Waste Water, Parking and CIP funds.

FISCAL IMPLICATIONS:

Current budget projections indicate that the City will finish fiscal year 2013-2014 with a surplus of approximately \$992,000 in the General Fund. The status of other funds is discussed later in this report.

Staff recommends several adjustments to the FY 2013-2014 General Fund budget (described later). One of those adjustments is to provide adequate funding for salaries and benefits in the City Manager program. The additional funds are required primarily due to the provision of severance for the former City Manager, while also maintaining funding for the interim and permanent Manager. An appropriation of \$50,000 from unreserved General Fund moneys is recommended.

DISCUSSION:

Overall, the fiscal year 2013-2014 General Fund budget-to-actuals through mid-year are performing better than expected. Revenues are estimated to exceed the adjusted budget by \$1,324,226 (2.34%). Expenditures (including all budget adjustments subsequent to adoption) are expected to total \$1,323,289 (2.27%) under the adjusted budget (The Adjusted Budget

includes City Council-approved amendments during the current year as well as encumbrances carried forward from the prior year which are added to the budgeted expenditures in the new fiscal year.). When comparing estimated year-end revenues and expenditures irrespective of the budget, a surplus of \$992,000 is conservatively projected.

Last year's improvement continues in several of the City's major revenues, including property tax and transient occupancy tax, as well as building and planning related fees. While revenues are up from the prior year, cost control remains a priority.

It is important to note that the policy reserve of 20% of General Fund expenditures (\$10.6 million) and the economic uncertainty reserve of \$4 million are maintained. Staff projects an unreserved General Fund balance of \$3.4 million at fiscal year-end.

See Attachment #1, Table 1 for General Fund Projections.

General Fund Revenues

The following are highlights of several key revenue areas. Please see Table 2 on Attachment #1 for General Fund Revenues.

Property Tax

Property tax is the General Fund's largest revenue source, accounting for approximately 39% of total revenue. The forecast is for Property Tax as a group to come in \$479,181 (2.2%) over budget and \$1,045,421 (4.8%) ahead of last year. Assessed property values have grown 5.8% from fiscal year 2013, reflecting the resurgent Manhattan Beach housing market. This continues the trend from the prior year's 4.3% growth.

FY 2011 Revenue: \$19,791,424
FY 2012 Revenue: \$20,408,314
FY 2013 Revenue: \$21,626,175
FY 2014 Budget: \$22,192,415
FY 2014 Full Year Estimate: \$22,671,596

Real Estate Transfer Tax

Real Estate Transfer Tax revenue is derived from a charge of fifty-five cents per \$500 of sales price, split evenly between the City and the County of Los Angeles. Home sales volume is steady, with single family residential sales volume for calendar year 2013 (398 units) on par with 2012 (392 units). The median price increased to \$1.65 million, up by 15.8% (Source: L.A. County DataQuick Property Data). For the current fiscal year, this revenue is expected to be 1% above the prior year, but to underperform budget by \$28,240 (4.5%). While the low inventory of properties for sale has added to price escalation (boosting this revenue), it has also constrained the number of sales, thereby depressing this revenue.

FY 2011 Revenue: \$473,280
FY 2012 Revenue: \$521,274
FY 2013 Revenue: \$587,399
FY 2014 Budget: \$621,275
FY 2014 Full Year Estimate: \$593,035

Sales Tax

After an increase in the prior year of 6.9%, sales tax (the city's second largest General Fund revenue source - 16% of total revenue) is trending even with last fiscal year, and 1.7% ahead of budget. Two of the City's most significant sales tax generators experienced doubled-digit declines in the July-September 2013 reporting period compared to the same period in 2012. Further, the potential impact of the security breach at Target stores in late 2013 is yet to be realized in the City's revenues.

FY 2011 Revenue: \$8,180,674
FY 2012 Revenue: \$8,702,672
FY 2013 Revenue: \$9,301,731
FY 2014 Budget: \$9,154,850
FY 2014 Full Year Estimate: \$9,310,765

Transient Occupancy Tax

Also known as the hotel bed tax, the City levies a 10% Transient Occupancy Tax (TOT) on hotel and motel rooms with 8.5% going to the General Fund and the remaining 1.5% going to the Capital Improvement Fund to fund Police & Fire Facility debt service and future projects (the City also collects TOT on vacation rental properties, but the entire 10%, approximately \$90,000, remains in the General Fund). Revenues for the full year are expected at 3.8% above budget and 7.1% above the prior year.

General Fund

FY 2011 Revenue: \$2,693,937
FY 2012 Revenue: \$2,671,897
FY 2013 Revenue: \$3,221,069
FY 2014 Budget: \$3,324,403
FY 2014 Full Year Estimate: \$3,450,761

Building Permit & Plan Check Fees

Building-related fees are continuing the upward trend from the prior year, as the local housing and construction market return. The number of demolitions, a leading indicator of the housing market, is up 34.3% in January compared to the same period last year (47 versus 35 permits). Building permits issued has increased by 9.7%. Both building permit and plan check fee revenues are expected to come in well ahead of budget (16.9% and 5.8% respectively).

Building Permits

FY 2011 Revenue: \$818,468
FY 2012 Revenue: \$818,417
FY 2013 Revenue: \$872,218
FY 2014 Budget: \$924,000
FY 2014 Full Year Estimate: \$1,080,000

Plan Check

FY 2011 Revenue: \$797,742

FY 2012 Revenue: \$958,673
FY 2013 Revenue: \$1,041,846
FY 2014 Budget: \$1,040,000
FY 2014 Full Year Estimate: \$1,100,000

Business License Tax

Business license tax, which is generally calculated upon a business' gross receipts, is expected to come in even with last year's collections, and \$50,000 (1.6%) ahead of budgetary estimates. This revenue showed resilience against the troubled economy, and has remained level or had slight increases year over year. Analysis of previous years showed this revenue is somewhat inelastic to the ebbs and flow of the economy. Despite modest declines and increases in businesses' total gross receipts, business license tax has remained steady, likely due to the fact that approximately 71 businesses pay the maximum gross receipts business license, and changes in their gross receipts are unlikely to impact their total license tax.

FY 2011 Revenue: \$2,844,066
FY 2012 Revenue: \$3,018,177
FY 2013 Revenue: \$3,122,503
FY 2014 Budget: \$3,050,000
FY 2014 Full Year Estimate: \$3,100,000

Interest Income

The City invests its idle cash in a number of instruments ranging from the state-run Local Agency Investment Fund and corporate debt, to U.S. Treasury notes, Governmental Agencies and Certificates of Deposit. During the last recession and economic problems, interest rates declined dramatically and currently remain at very low levels with little improvement expected in the near future. The City's maturing investments are being reinvested at the current low rates, resulting in a drop in portfolio yield. The portfolio was recently yielding 0.836%, down from .90% one year ago.

FY 2011 Revenue: \$647,027
FY 2012 Revenue: \$564,116
FY 2013 Revenue: \$578,873
FY 2014 Budget: \$548,092
FY 2014 Full Year Estimate: \$423,411

Other General Fund Revenues

In addition to the General Fund, there are several other revenues that are worth mentioning:

Parking Citations

A portion of the revenue from Parking Citations (\$4 of all citations except expired meters) goes to the CIP Fund, with the remainder going to the General Fund. The installation of new technology parking meters (now citywide as of October 2013) has resulted in fewer expired meter citations being issued, as individuals deposit more money into the meters to avoid possible citations. Case in point, expired meter citations, which at one time represented over 50% of all citations written (37,000 per year), has decreased by 39% (to an estimated 22,600

for the year) in the past four years (when the first batch of new meters were installed). At the same time, parking meter revenue has increased by approximately 27%; these funds are deposited into the respective parking funds, not the General Fund.

At mid-year, total parking citation revenue was about even with the prior year timeframe (\$1.19 million). Staff estimates that this revenue at year end will total \$2.3 million, \$140,000 (5.7%) under budget, but \$50,927 (2.3%) over last year's total.

Marriott Hotel Percentage Rent

In addition to the minimum rent payment per the ground lease, Marriott pays the City an additional 6% of room sales and 3% of food and beverage. Revenue for fiscal year 2014 is expected to be \$90,065 or 11.1% above the prior year and \$43,291 or 5.1% above the budget amount to \$856,709.

Use of Property and Money

The sale of the former City Manager's residence, for which the City was co-owner and lender, resulted in repayment of the loan of \$432,000. This is reflected as Loan Principal within this category. Because this sale was not anticipated during the FY 2013-2014 budget preparation, the revenue in this category will exceed budget by an estimated \$632,770 at year end.

General Fund Expenditures

Half way through the year the City has expended and encumbered \$28.2 million or 47.6% of the total adjusted budget allocation.

A review of the expenditure categories indicates that Salary & Wages will be under budget, by 3.1% or \$864,666, primarily due to vacancies which occur through normal attrition and retirements. Additional vacancies also exist for new positions created in the FY 2013-2014 budget which are in recruitment.

Within the Salary and Wages category, sworn salaries (Police and Fire) are trending over budget for the full year by 1.6% (\$187,900) due to near-full staffing levels, coupled with a 4% vacancy factor included in the budget. Part time salaries are also projected to exceed budget by \$215,500 (12.6%); this is the result of full time positions currently being filled by part time employees during recruitment. These trends are compensated by the savings achieved in full time salaries.

Employee Benefits are estimated at 1.3% or \$137,172 over budget for the full year. This trend can be attributed to PERS sworn contributions exceeding budget by \$302,500 (10.7%). City Council will recall that during the FY 2013-2014 budget adoption (June 18, 2013), staff reported a potential underfunding of PERS sworn contributions, but recommended no changes to the budget due to vacancy factors and the small amount in relation to the entire General Fund budget. While this expenditure will exceed budget at year end, savings in other areas (Salary and Wages) are sufficient to mitigate this trend. Further, due to the previously mentioned vacancies, Group Medical is trending \$175,000 (6%) under budget within this same Employee Benefits category.

Contract & Professional Services are also projected to exceed budget by \$186,703, or 2.7% of the total budgeted amount. This is primarily due to Contract Services trending \$166,300 (3.6%) over allocations. The use of contract labor for City Engineer services (Willdan) and temporary clerical staffing during employee vacancies and absences has caused the trend. However, in most cases, those costs are compensated with savings in Salary and Wages due to the vacancies.

Overall, General Fund expenditures are trending to a level 2.27% or \$1.3 million under budget.

Other Funds

Other City fund revenues and expenditures have been reviewed, and the majority of the funds are trending at appropriate levels at mid-year. Citywide expenditures for all other operating funds are trending below budget levels on a combined basis. The Street Lighting and Landscape Fund continues to run at a deficit requiring an annual cash infusion from the General Fund since the assessments are insufficient to cover costs. There is no fund balance to draw upon, and the General Fund contribution, which goes towards sustaining continued operations, is necessary until a Proposition 218 assessment vote is successful in raising the assessment rates and revenues.

Budget Adjustments

There are several budget adjustments included with this mid-year report for City Council approval:

Police/Fire Refunding of 2003 Certificates of Participation (CIP Fund)

In FY 2012-2013, the City refunded the Police/Fire facility Certificates of Participation (COPs) issued in 2003. The purpose was to lower borrowing costs through lower interest rates. Because the 2003 COPs could not be paid off until January 2014, new COPs were issued (to take advantage of low interest rates) and the proceeds to be used to pay off the original COPs in January 2014 were placed into an escrow account with a bond trustee.

In developing the FY 2013-2014 budget, staff assumed that the refunding proceeds would be included in the cash held by the bond trustee, and the 2003 defeased bonds to be paid off would remain on the City's books. However, staff discovered during the creation of the recently completed FY 2012-2013 Comprehensive Annual Financial Report (CAFR), that assumption was not correct; cash proceeds are held in an escrow account and defeased bonds are eliminated from the City accounts. The cash held in the escrow account is not considered a City asset, and any disbursements from the escrow account are independent of the City's budget.

This proper accounting for bond refunding was implemented with, and is reflected in, the 2013-2014 CAFR. The FY 2013-2014 budget now needs to be adjusted accordingly. The adjustment will eliminate all budgetary entries for the payment of principal and interest on the 2003 COPs which were refunded. This effects only the CIP Fund.

Water/Waste Water/Metlox Refunding Certificates of Participation (General, Water, Waste Water and Parking Funds)

In FY 2012-2013, the City refunded the 1996 Water & Waste Water Certificates of

Participation (COPs) and the 2004 Metlox Public Improvement COPs. The purpose was to lower borrowing costs through lower interest rates.

In an effort to reduce costs of issuance, the new COPs combined the previous three issues, and legally established the new COPs as General Fund debt (previously the Water, Waste Water and Parking Fund carried the debt). The expenditures for debt service for all three commitments were added to the General Fund budget, along with inter fund revenues to the General Fund from Water, Waste Water and Parking funds to reimburse the General Fund (thus ensuring that the cost of debt remained with the appropriate cost center).

While this structure meets the legal formation of the new debt, through the FY 2012-2013 CAFR preparation, staff discovered that the proper accounting treatment is for the individual enterprise funds to continue to carry that debt. As a result, the General Fund revenues and expenditures will be respectively reduced by \$966,613 (and are already reflected in the mid-year report projections). Because the Water, Waste Water and Parking Fund budgets already include repayment to the General Fund, the only changes in those funds will be to reclassify those expenses as principal and interest (not reimbursement to the General Fund).

City Manager Budget

The final budget adjustment is to provide sufficient funds (\$50,000) for the City Manager salary and benefits during the transition, while also providing for limited severance for the former Manager.

CONCLUSION:

Mid-Year results for the General Fund are positive, and a sign of continued improvement in the economy. Revenues are expected to outpace budget by \$1,324,226 while expenditures are expected to come in \$1,323,289 under budget. Irrespective of budget, revenues are expected to exceed expenditures at year end by \$992,000. This can be attributed to the increases in property tax, hotel bed tax (TOT) and building related revenues (permits and plan check fees), and savings in Salaries & Wages, with the continual focus of streamlining costs while maintaining the levels of service provided to the community. Additionally, steps taken last year to reduce debt service will continue to have a beneficial impact in the years to come.

With the budgeting process for fiscal year 2014-2015 underway, staff is focused on the challenges ahead, including the cost of funding employee pensions. CalPERS, with which the City contracts for pension benefits, decreased the actuarially assumed investment rate of return from 7.75% to 7.5% which affected the City's pension contribution rates beginning in the current fiscal year. Last week, the CalPERS board voted to make demographic changes, most notably in mortality. These changes will significantly affect the City's unfunded liabilities and future contribution rates. Staff is carefully analyzing the new assumptions and will report the impacts to the City Council. The changes will be reflected in the City's FY 2016-2017 pension rates.

Also worth noting are General Fund subsidies of other fund's activities, which diverts funds from Police, Fire and other general governmental services. For example, the Street Lighting and Landscaping Fund currently has no fund balance and assessments are inadequate to

fund operations or provide for future capital needs. As a result, the General Fund subsidizes this fund every year, budgeted at \$225,447 for this fiscal year. The General Fund is also providing uncompensated services to the Storm Water Fund of over \$400,000 per year. This fund is encountering higher operating costs due to legislative action to clean storm water runoff and limits, which reduces funds for highly needed capital improvement projects. While these issues require a Proposition 218 vote, it is most appropriate that the General Fund no longer support these ancillary services.

As the fiscal year 2014-2015 budget proceeds, staff will present the City Council with a balanced spending plan utilizing the tools available. Workshops are scheduled for decision making purposes and updated financial forecasts will be provided to facilitate the discussion. As always, there will be opportunities for public input, including City Council meetings and budget study sessions, in which Council will review each department's budget. Input may also be received at the public hearing prior to adoption, and individual meetings with staff may be scheduled.

Attachment:

1. Fiscal Year 2013-2014 General Fund Budget Projections

ATTACHMENT 1

Table 1. Fiscal Year 2013-2014 General Fund Budget Projections

| General Fund | Revenues | Expenditures | Surplus |
|---------------------------|---------------------|---------------------|------------------|
| Adopted Budget | \$57,528,730 | \$58,938,080 | (\$1,409,350) |
| Adjusted Budget | 56,605,384 | 58,261,003 | (1,655,619) |
| Full Year Estimate | \$57,929,610 | \$56,937,714 | \$991,896 |

Table 2. Fiscal Year 2013-2014 General Fund Revenues

| General Fund Revenues | 2013 Actuals | FY 2014 | | FY 2014 Full Year Estimate | | | |
|------------------------------------|---------------------|---------------------|---------------------|----------------------------|-------------|--------------------|-------------|
| | | Adj Budget* | Full Year Est | From 2014 Budget | | From 2013 Actuals | |
| Key Revenues | | | | | | | |
| Property Tax | \$21,626,175 | \$22,192,415 | \$22,671,596 | \$479,181 | 2.2% | \$1,045,421 | 4.8% |
| Sales & Use Tax | 9,301,731 | 9,154,850 | 9,310,765 | 155,915 | 1.7% | 9,034 | 0.1% |
| Transient Occupancy Tax | 3,221,069 | 3,324,403 | 3,450,761 | 126,358 | 3.8% | 229,692 | 7.1% |
| Business License Tax | 3,122,503 | 3,050,000 | 3,100,000 | 50,000 | 1.6% | (22,503) | (0.7%) |
| Building Permits | 872,219 | 924,000 | 1,080,000 | 156,000 | 16.9% | 207,781 | 23.8% |
| Building Plan Check Fees | 1,041,847 | 1,040,000 | 1,100,000 | 60,000 | 5.8% | 58,153 | 5.6% |
| Interest Earnings | 578,873 | 548,092 | 423,411 | (124,681) | (22.7%) | (155,462) | (26.9%) |
| Real Estate Transfer Tax | 587,399 | 621,275 | 593,035 | (28,240) | (4.5%) | 5,636 | 1.0% |
| Subtotal Key Revenues | \$40,351,816 | \$40,855,035 | \$41,729,568 | \$874,533 | 2.1% | \$1,377,752 | 3.4% |
| Other Revenues by Category | | | | | | | |
| Other Taxes & Assessments | \$1,804,401 | \$1,832,072 | \$1,826,483 | (\$5,589) | (0.3%) | \$22,082 | 1.2% |
| Revenue from Permits | 627,073 | 674,905 | 713,500 | 38,595 | 5.7% | 86,427 | 13.8% |
| Fines | 2,466,837 | 2,677,500 | 2,512,800 | (164,700) | (6.2%) | 45,963 | 1.9% |
| Use of Property & Money | 1,959,949 | 2,164,661 | 2,797,431 | 632,770 | 29.2% | 837,482 | 42.7% |
| Other Governments | 395,087 | 274,767 | 304,180 | 29,413 | 10.7% | (90,907) | (23.0%) |
| Service Charges & Transfers | 7,446,824 | 7,615,439 | 7,629,774 | 14,335 | 0.2% | 182,950 | 2.5% |
| Miscellaneous | 910,276 | 511,005 | 415,874 | (95,131) | (18.6%) | (494,402) | (54.3%) |
| Subtotal Other Revenues | \$15,610,447 | \$15,750,349 | \$16,200,042 | \$449,693 | 2.9% | \$589,595 | 3.8% |
| Total General Fund Revenues | \$55,962,263 | \$56,605,384 | \$57,929,610 | \$1,324,226 | 2.3% | \$1,967,347 | 3.5% |

Positive Variance indicates above budget; negative variance indicates below budget

* The General Fund Adjusted budget includes the adopted budget plus adjustments for grants and General Fund reimbursements.

ATTACHMENT 1

Table 3. Fiscal Year 2013-2014 General Fund Expenditures

| General Fund Expenditures | Adjusted Budget (a) | Projected Year End | Variance Under/(Over) | % |
|--|---------------------|---------------------|-----------------------|-------------|
| Salary & Wages | \$27,585,523 | \$26,720,857 | \$864,666 | 3.1% |
| Employee Benefits | 10,941,764 | 11,078,936 | (137,172) | (1.3%) |
| Contract & Professional Services | 7,033,854 | 7,220,557 | (186,703) | (2.7%) |
| Materials & Services | 2,459,666 | 2,346,815 | 112,851 | 4.6% |
| Utilities | 1,060,461 | 994,217 | 66,244 | 6.2% |
| Internal Service Charges | 5,981,558 | 5,640,934 | 340,624 | 5.7% |
| Property & Equipment | 1,438,005 | 1,445,993 | (7,987) | (0.6%) |
| Bond Debt | 1,734,880 | 1,464,115 | 270,765 | 15.6% |
| Transfers Out | 25,291 | 25,291 | - | - |
| Total General Fund Expenditures | \$58,261,003 | \$56,937,714 | \$1,323,289 | 2.3% |

(a) The Adjusted Budget includes City Council-approved amendments during the current year as well as encumbrances carried forward from the prior year which are added to the budgeted expenditures in the new fiscal year.

General Fund Revenue & Expenditure Summary

(Adjusted for Estimated Impact of Labor Negotiations)

| | |
|------------------------------|--------------|
| Total Projected Revenues | \$57,929,610 |
| Total Projected Expenditures | 56,937,714 |

| | |
|--------------------------|------------------|
| Projected Surplus | \$991,896 |
|--------------------------|------------------|

Agenda Date: 2/25/2014

TO:

Honorable Mayor and Members of the City Council

THROUGH:

John Jalili, Interim City Manager

FROM:

Bruce Moe, Finance Director

SUBJECT:

Award of Contract to Harris and Associates for an Amount Not to Exceed \$52,700 for Preliminary Analyses and Polling for Updated Storm Water Fees, and Street Lighting and Landscaping District Assessments (Finance Director Moe).

AWARD CONTRACT; APPROPRIATE

RECOMMENDATION:

Staff recommends that the City Council: a) authorize the City Manager to negotiate and execute a contract with Harris and Associates, for an amount not to exceed \$52,700, to analyze existing Storm Water fees and Street Lighting and Landscaping District assessments, develop a range of new preliminary fees/assessments, and poll the community on those rates and issues; and b) appropriate \$52,700 from available General Fund monies.

FISCAL IMPLICATIONS:

Both the Storm Water and Street Lighting & Landscaping District funds operate at a deficit. Further, over the next five years, General Fund subsidies of these funds are projected to total \$5.2 million. These subsidies draw resources away from other important General Fund needs as well as diminishing the City's ability to fund certain general capital improvement projects. Under current conditions, the City's five year forecast projects the use of Economic Uncertainty funds of \$3.1 million by fiscal year 2018, directly related to these subsidies.

Additionally, while yet to be fully identified, the costs of compliance with the National Pollution Discharge Elimination System (NDPES) will certainly add significant costs to the Storm Water utility in the coming years, which may require further fee increases in order to fund these federal mandates.

The cost of the preliminary studies is \$52,700. This project was not budgeted. As a result, staff recommends that City Council appropriate \$52,700 from available General Fund

moneys. The cost of these studies, as well as other costs associated with the districts may be recovered through the associated fees and assessments if approved.

BACKGROUND:

On August 20, 2013, the City Council authorized staff to solicit proposals to conduct preliminary studies of alternative funding for existing Street Lighting and Landscaping District assessments and Storm Water user fees. The goal of these studies is to determine adequate funding requirements, develop a range for the associated fees/assessments needed to meet those funding requirements, and through community surveys, determine the acceptance and likely support for increased fees and assessments. Based upon the results of the studies, the City Council may then elect to proceed with the process (described later) of obtaining approval for updated fees and assessments.

DISCUSSION:

The following information on the City's existing Storm Water and Street Lighting activities is an excerpt of information provided to the City Council in the August 20th staff report:

Storm Water

The City's Storm Water system is designed to channel water generated as a result of storm flows from public right of ways and private properties to its ultimate drainage destination, the Pacific Ocean. Because run-off water travels directly to the ocean without the benefit of treatment, operators of storm drain systems must comply with the conditions of the National Pollutant Discharge Elimination System (NPDES) permit. The Storm Drain system is comprised of: 83,538 feet of Manhattan Beach storm lines and 43,805 feet of Los Angeles County storm lines; 800 catch basins; eight continuous deflection systems; two dry weather storm water diversions; five storm water sumps; and one lift station.

The Storm Water utility is funded through the Storm Water Fund. The annual Storm Water fee is approximately \$19 per year per single family residence but varies with land use. It is collected by Los Angeles County through the property tax rolls, and remitted to the City. This fee generates approximately \$346,000 per year and has remained unchanged since 1996. However, total costs to operate this service are growing due to federal clean water mandates.

The City's Storm Water Fund is utilized to promote storm water pollution awareness to the citizens of Manhattan Beach in order to prevent property damage due to flooding, and minimize pollution run-off into the ocean consistent with the National Pollution Discharge Elimination System requirements. Other current activities in the fund include updating the City's Storm Drain System Master Plan; developing storm water runoff monitoring and capture programs that will reduce trash and pollutants that enter the sea; identifying and mitigating storm system illicit discharge and illicit connection violations; performing maintenance of catch basins, continuous deflector separators and Polliwog Pond to minimize trash conveyance to the sea in compliance with NPDES Total Daily Maximum Load (TMDL) requirements for trash and bacteria; and maintaining dry weather diversion sump to assure dry weather run-off is conveyed away from the ocean and to the Los Angeles Sanitation District in an effort to reduce bacteria contamination at the shore line.

While the total costs of compliance with the NPDES Municipal Separate Sanitary Storm

System (MS4) permit are yet to be determined, the City's current five year forecast (included in the FY 2013-2014 budget) projects General Fund subsidies totaling \$3.89 million through FY 2017-2018. This excludes the General Fund overhead charge for services provided by General Fund to the Storm Water utility of \$375,000 per year, which is not being recovered due to insufficient fund balance in the Storm Water Fund. These subsidies have a deleterious effect on the General Fund and take away from other services that are provided by the City with General Fund dollars (e.g., Police, Fire, Paramedics, Parks and Recreation, etc.). It also has a direct effect on the City's ability to fund capital improvement projects since General Fund surpluses are relied upon to fund such activities.

The City's current fee is insufficient to fully fund the Storm Water utility and its long range requirements. Increasing the fee to offset these costs is a logical starting point to correct the existing problem, while at the same time recognizing future costs are yet to be determined and may require further action by the City Council to offset those costs.

Substantive Requirements

Adjusting the funding for the Storm Water operation can be accomplished through updating the annual fee under the authority of the California Health and Safety Code Section 5471 et seq. The fee is also governed by Article XIII D of the California Constitution (Proposition 218) Section 6. Section 6 of Proposition 218 identifies five (5) specific requirements:

1. Revenues derived from the fee shall not exceed the funds required to provide the property related service.
2. Revenues derived shall not be used for any purpose other than that for which the fee was imposed.
3. The amount of the fee imposed upon any parcel as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel.
4. No fee may be imposed for a service unless that service is actually used by or immediately available to the owner of the property. Fees or charges based on potential or future use of a service are not permitted.
5. No fee may be imposed for general governmental services.

Procedural Requirements

Once the above conditions are met, the following steps are necessary to gain approval for the new fee:

1. Prepare a preliminary cost and fee analysis (including the City's periodic cost allocation plan)
2. Conduct public education and outreach/opinion polling
3. Mail a notice of Protest Hearing (45 days prior to hearing) to all property owners
4. Conduct Protest Hearing; if no majority protest is received, then submit the proposed fee

increase to the voters for approval at an election that is not less than 45 days after the public hearing.

5. Conduct election. The proposed fee increase must be approved by a majority vote of the property owners of the property subject to the fee or, at the option of the City, by a two-thirds vote of the electorate of the City.

This process typically lasts 9 to 12 months. It involves a tremendous amount of research, community outreach and information dissemination. Often times, community surveys are performed and public relations firms are retained in order to publicize the need and explain the purpose of the funding requirement. The total process from start to finish costs an estimated \$125,000 to \$175,000 plus mailing costs. It is possible to recover those costs through the fee, perhaps over an extended period of time (several years in order to keep the fee as low as possible). The City Council could also consider a sunset clause on the fee; the City of Rancho Palos Verdes included a 30 year sunset clause in their recent voter-approved storm drain fee.

Street Lighting & Landscaping Districts

In the early 1970's, the City formed several Street Lighting & Landscaping Assessment Districts under the State Landscaping and Lighting Act of 1972. Through an assessment paid by property owners, this program provides for the payment of energy and maintenance costs of one thousand, eight hundred and eighty five (1,885) street lights, and landscaping in the downtown streetscape district. The method of assessment, which was approved at the time of the districts' formation, is based on zones and dwelling units for street lighting, and frontage area in the landscaping district. It is collected by Los Angeles County through the property tax rolls, and remitted to the City.

Like the Storm Water utility, the revenues generated are insufficient to support existing operations, as well as funding for capital improvements. The assessments have remained unchanged since 1996 when Proposition 218 took effect, which imposed strict limitations on the City's authority to assess. As a result, the City has not changed the assessments since that time.

The result of unchanged assessments and rising costs has resulted in General Fund subsidies of SLLD of \$1.33 million over the next five years. Like Storm Water subsidies, these will directly impact the City's ability to fund general capital projects and offer expanded services to the community. The original assessments were created to fund these services and the fees required to meet that goal should be updated to reflect the actual costs.

Updating and increasing the assessments would be subject to the limitations in Proposition 218. As relevant here, the requirements to increase the assessment are as follows:

Substantive Requirements

Under Proposition 218, only special benefits, defined as "particular and distinct benefit over and above general benefits conferred on real property located in the [assessment district] or to the public at large" are assessable. General enhancement of property value does not constitute *special* benefit. Furthermore, no assessment may be levied against a parcel that

exceeds the reasonable cost of the proportional special benefit conferred on the parcel (This is a change from the requirements in place when the district was originally established). Funds other than assessment proceeds must be used to pay for the general benefits associated with a project. If an assessment is challenged in court, the City would bear the burden of showing that these requirements have been met.

Proposition 218 requires that an assessment be supported by a detailed engineer's report, prepared by a registered professional engineer. The report must, among other things, (i) identify all parcels which will have a special benefit conferred upon them by the assessment, (ii) determine the proportionate special benefit derived by each parcel in relation to the entire cost of the improvement being built or the service being provided, (iii) separate the general benefits from the special benefits conferred upon each parcel, and (iv) identify the amount of the assessment to be levied against each parcel.

As a practical matter, these requirements mean that, should the City decide to undertake proceedings to increase the assessment, it must be prepared to utilize some alternate source of funds to pay for a portion of the costs. This is because an assessment engineer likely will find at least some general benefit is generated by the street light services. As has been noted, such general benefits may not be assessed against real properties.

Procedural Requirements

Proposition 218 also requires that the City conduct a hearing and mail ballot proceeding prior to the imposition of a new or increased assessment. Mailed notice must be sent to each owner of property that will be subject to the assessment. Along with this notice, the City must include an assessment ballot, which may be cast by the property owner at any time before the close of the hearing on the assessment. If, upon the conclusion of the hearing, ballots submitted in opposition to the assessment exceed the ballots submitted in favor of the assessment, then the assessment may not be imposed. Ballots are weighted according to the proportional financial obligation that the property would bear if the assessment is imposed. Thus, for example, a ballot for a property that would be subject to a \$1,000 assessment would have ten times as much weight as a ballot for a property subject to a \$100 assessment.

Assuming no majority protest, the City Council may approve the assessment.

Similar to the Storm Water fee, this process typically lasts 9 to 12 months. It involves a tremendous amount of research, community outreach and information dissemination. Often times, community surveys are performed and public relations firms are retained in order to publicize the need and explain the purpose of the funding requirement. The total process from start to finish costs an estimated \$100,000 to \$150,000 plus mailing costs. It is possible to recover those costs through the assessment, perhaps over an extended period of time (several years in order to keep the assessment as low as possible).

Firm Selection

Based upon City Council's direction, a scope of work was created for the preliminary analyses of both Storm Water, and Street Lighting and Landscaping Districts (see Attachment #1 - Request for Proposal). Four proposals were received:

- Harris and Associates (\$52,700)
- NBS (\$68,000)
- David Taussig & Associates (\$143,350)
- SCI Consulting (\$72,500)

The Public Works Director, Finance Director and Controller reviewed the proposals and interviewed the top two firms, Harris and Associates, and NBS. Based on the interviews, experience with similar projects, and cost effectiveness of the proposal, staff recommends the firm of Harris and Associates for these studies. Harris and Associates have conducted numerous studies for other agencies for both Storm Water and Street Lighting/Landscaping districts. Further, Harris has satisfactorily performed several assessment engineering projects for the City of Manhattan Beach including underground assessment districts, as well as the annual Street Lighting and Landscaping District reports and renewal.

Scope of Work

The purpose of the study is to collect preliminary information on updating the Storm Water Fee and Street Lighting and Landscaping District Assessments prior to committing to a complete Proposition 218 process to increase the fees/assessments. That preliminary analysis includes the following scope of work/tasks:

Task 1 - Storm Drain Fee Methodology Analysis

- Review the City's current Master Plan of Drainage and identify any areas in the City without any improvements. Meet with the City to discuss these areas.
- Review the methodology options for rate structures for the Storm Drain User Fee, including the impacts (if any) of Article XIID of the State Constitution (Prop. 218), and provide a recommended option. Meet with the City to discuss these issues.
- Develop a parcel database, based on the County Assessor's Roll, with names and addresses of all property owners. Information, such as parcel area, percent impervious (per the averages shown in the L.A. County Hydrology Manual), and whether a parcel is draining to a storm drain that will be improved will be identified, as well as other pertinent information. Summarize the information.

Task 2 - Landscaping and Lighting Methodology Analysis

- Review the City's existing landscape and lighting improvements and identify improvements to be included or excluded from the assessment. Review the existing Engineer's Report.
- Review the methodology options for assessments, including the impacts of Article XIID of the State Constitution (Prop. 218) and recent case law, and provide a recommended option. Meet with the City to discuss these issues.
- Develop a parcel database, based on the County Assessor's Roll, with names and addresses of all property owners. Information should include parcel area, land use, building size, and frontage, as well as any other pertinent information. Summarize the information.

Task 3 - Preliminary Rate Analysis

Review the budgets for the improvements based on recent actual cost data from the City.
Provide recommendations for the annualized budgets for the improvements.
Prepare a draft Preliminary Analysis Report summarizing the above and providing preliminary storm drain rate calculations and lighting and landscaping assessments.
Provide five (5) copies for review and comment.
Meet with City staff to discuss the draft Preliminary Analysis Report. Make revisions to Report per discussions.

Task 4 - Public Opinion Polling

Meet with City to discuss questionnaire topics, sample size and schedule. Develop draft questionnaire and submit for review and comment. Finalize questionnaire and submit to City for final approval.
Conduct opinion poll.
Prepare an analysis of the polling and provide a report for review and comment.

Task 5 - Presentation

Present the Preliminary Analysis Report and results of the opinion polling at a City Council workshop.

This work is expected to take approximately six months.

If after this process, City Council chooses to proceed with the full effort to obtain approval for new user fees and/or assessments, a contract will need to be awarded for the added scope of work. The tasks under such agreement would be to complete the analyses, develop the ultimate methodology (including the benefit nexus for the street lighting/landscaping district assessments), develop ballot language, distribute ballots, handle public inquiries during noticing and levy the user fees and assessments through the property tax bill.

CONCLUSION:

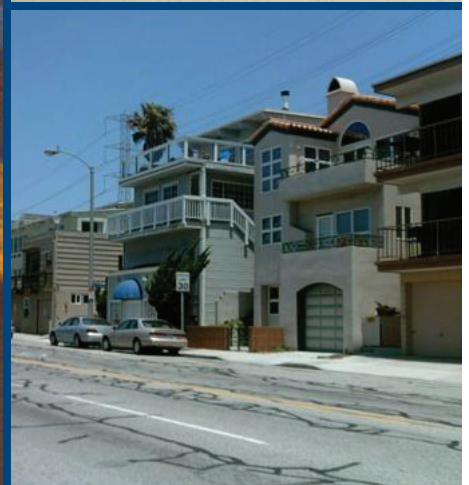
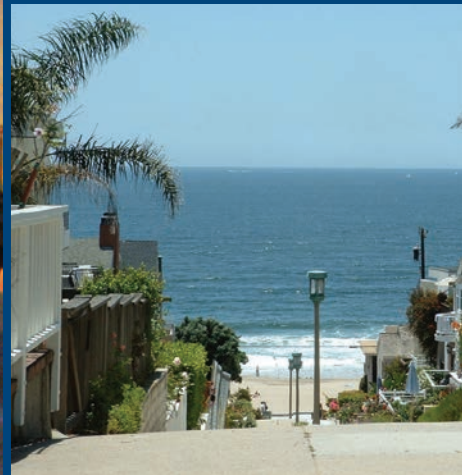
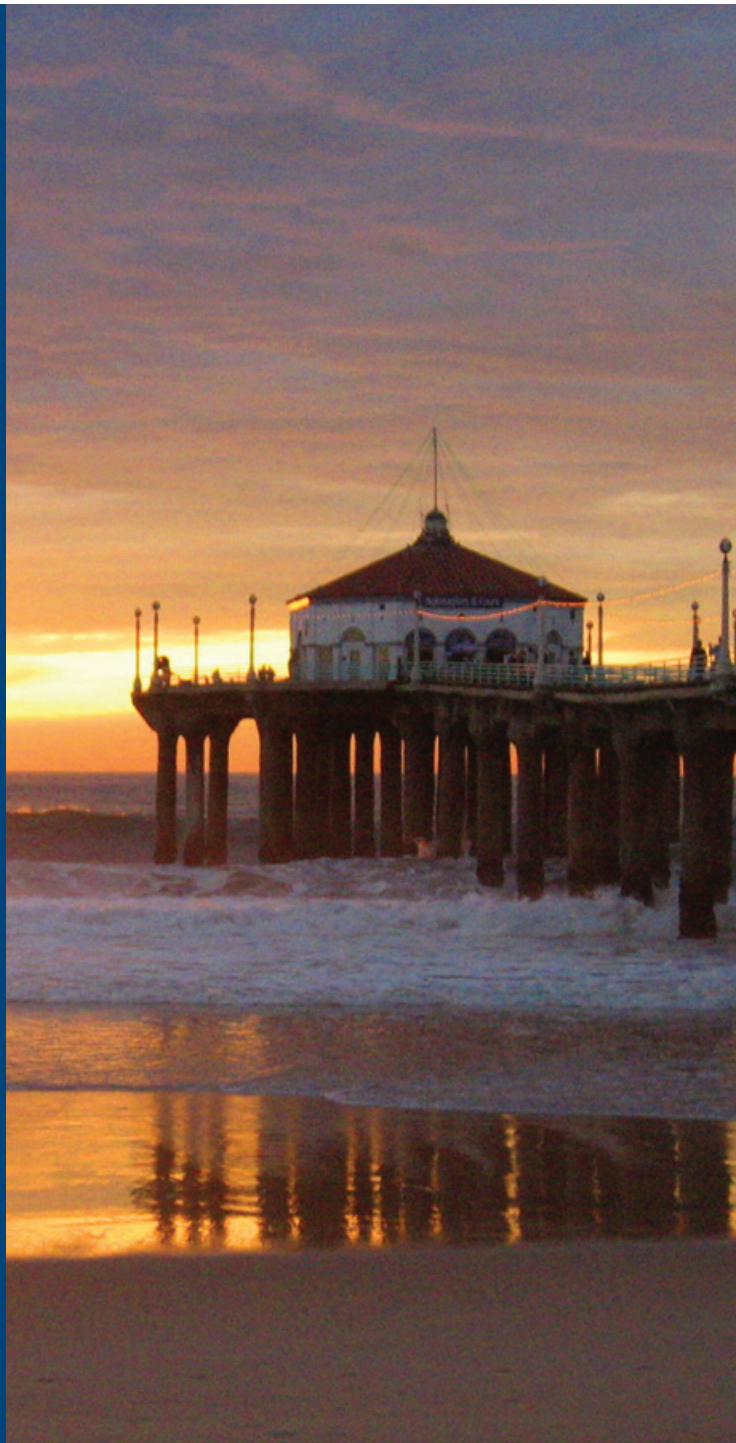
The Storm Water, and Street Lighting and Landscaping District services are operating at deficits, and will require continued General Fund subsidies unless action is taken to increase the fees/assessments to recover costs. As a result, staff recommends that the City Council authorize the City Manager to negotiate and execute a contract with Harris and Associates, for an amount not to exceed \$52,700, to analyze existing Storm Water fees and Street Lighting and Landscaping District assessments, develop a range of new preliminary fees/assessments, and poll the community on those rates and issues. Further, because this is an unfunded project, staff recommends that City Council appropriate \$52,700 from available General Fund monies.

If approved, these studies will take approximately six months to complete.

Attachment:

1. Harris & Associates Proposal

City of Manhattan Beach



Request for Proposal RFP #970-14, Storm Water and Street Lighting

January 3, 2014





January 3, 2014

Bruce Moe, Finance Director
City of Manhattan Beach
1400 Highland Avenue
Manhattan Beach, CA 90266

Subject: RFP # 970-14, Storm Water and Street Lighting

Dear Bruce:

Special benefit analyses, funding options, as well as assessment, fee and special tax formation and administration are all part of the services for which Harris & Associates' project team is known. As partners in analyzing your existing storm water fee, lighting and landscaping assessment, our team offers the City the following advantages:

- **Knowledgeable Project Manager.** Our Project Manager, Dennis A. Anderson, has more than 25 years of assessment engineering experience, and is supported by K. Dennis Klingelhofer, P.E., with over 25 years of public finance experience. They thoroughly understand the provisions and implications of Proposition 218 and are experienced in presenting information to City Councils and property owners.
- **Professional Research and Polling.** We have included on our team True North Research, Inc., a full-service survey research firm that has worked with the City of Manhattan Beach. True North Research is dedicated to providing California cities and other public agencies with a clear understanding of the opinions, priorities and concerns of their residents and voters. Timothy McLarney, Ph.D., will assist the City and Harris with developing the questionnaire and conduct the poll. Dr. McLarney is a nationally recognized expert in survey research methodology, sampling theory, weighting and the use of statistical methods to generate accurate survey results.
- **Skilled Project Team.** Each of our Harris' support team members has extensive financial engineering experience. They are experts in database research and development, accurate analysis and data transference to City departments, and providing efficient administration processes.
- **Skilled Communicators.** Our team members routinely provide clear and concise information to City Council, City staff and private citizens. Our management team members are experienced in presenting technical topics to both City Council and the public, and have been involved in all aspects of public education and outreach.
- **Proven Success.** Our team has a portfolio of successfully completed projects throughout California, which include recent assessment district formations, Proposition 218 analyses, and district annual administration. Through this experience, we have developed a reputation for meeting aggressive project deadlines and legally required time constraints.

We look forward to assisting the City with the analysis of your storm water fee and lighting and landscaping assessments. If you have any questions regarding this proposal, we would be pleased to discuss them at your convenience. I can be reached at 800-827-4901 ext. 2334.

Sincerely,
Harris & Associates, Inc.

Dennis A. Anderson
Director, Financial Engineering Practice

K. Dennis Klingelhofer, P.E.
Vice President



Table of Contents

Letter of Transmittal

| | |
|----------------------------------|----|
| 1. Qualifications | 3 |
| 2. References | 17 |
| 3. Compensation/Payment Schedule | 19 |



Qualifications

This section provides:

- Firm Description
- Similar Work Experience
- Team Member Resumes
- Approach and Methodology

About Harris

Harris & Associates specializes in serving the professional service needs of public agencies. Founded in 1974, Harris has a staff of 250 employee-owners including financial and assessment engineering specialists and licensed civil engineers. We understand that successful administration of assessment and special tax districts means more than being on time and under budget. Successful projects have to address the concerns of property owners, taxpayers, and users, be sensitive to the economic climate, and

conform to local political realities. By focusing on our client needs as our top priority, we have an excellent reputation within the public finance and engineering arenas. Our depth and breadth of skills will assist you in charting the course of these assessments.

Harris offers a variety of services with the aim of assisting public agencies with specialty consulting needs, including:

- Assessment engineering and financial services
- Rate and impact fee analysis; AB1600
- Capital improvement program development and management
- Development management
- Grant administration, including ARRA funding
- Staff augmentation
- Organizational analysis

True North Research, Inc. - Public Opinion Polling and Research

Included on our team is True North Research, a full-service survey research firm. They are dedicated to providing California cities and other public agencies with a clear understanding of the opinions, priorities and concerns of their residents and voters. Through designing and implementing scientific surveys, focus groups and one-on-one interviews, as well as expert interpretation of the findings, True North helps its clients to move with confidence when making strategic decisions in a variety of areas—including planning, performance measurement, service improvements and enhancements, passing revenue measures, and developing compelling public information campaigns.

The principals at True North have designed and conducted over 800 survey research studies for public agencies, including more than 300 studies for California cities. They specialize in helping clients profile community needs and priorities as they relate to municipal services and facilities, as well as plan, prepare and pass successful revenue measures to fund said services and facilities. To date, True North has helped clients raise over \$22 billion at the local level, while maintaining the highest success rate in the industry (94%) during today's challenging economic and political environments.

Similar Project Experience

Watershed Prop 218 Vote

County of Alameda, Zone 2—San Lorenzo Creek

Harris & Associates in association with MIG is currently helping the Alameda County Flood Control District pass a storm drain fee to provide seismic repairs to a dam, increase the capacity of another dam, increase channel capacity, improve bank stabilization— and while doing so, enhance the creek as a community asset. Harris & Associates analyzed financing strategies that could be used and recommended the establishment of a storm drain fee. Harris has also developed a preliminary fee structure in accordance with the requirements of Proposition 218. The need for additional funding for repairs and improvements became apparent when FEMA de-accredited the creek channel and earthen levees, requiring property owners to purchase expensive flood insurance. A property-owner vote is scheduled for 2014..

Storm Drain User

City of Rancho Palos Verdes

The City needed \$25 million of improvements to its storm drain system and current funding levels were not sufficient to provide the funds needed. Harris & Associates in association with MIG conducted stakeholder interviews that lead to a complete change in proposed fee methodology, as well as polling to identify fee threshold and key messages. The issue was highly political with an active opposition and media attention, so on-going strategic consulting was crucial throughout the process, especially in determining how to talk about controversial issues. Harris & Associates developed the new fee methodology, based upon impervious area and land use, and conducted the Proposition 218 property owner ballot proceedings. Property owners approved the new storm drainage fee of \$80 per median single family home. Harris has been administering the City's Storm Drain User Fee since it was adopted.

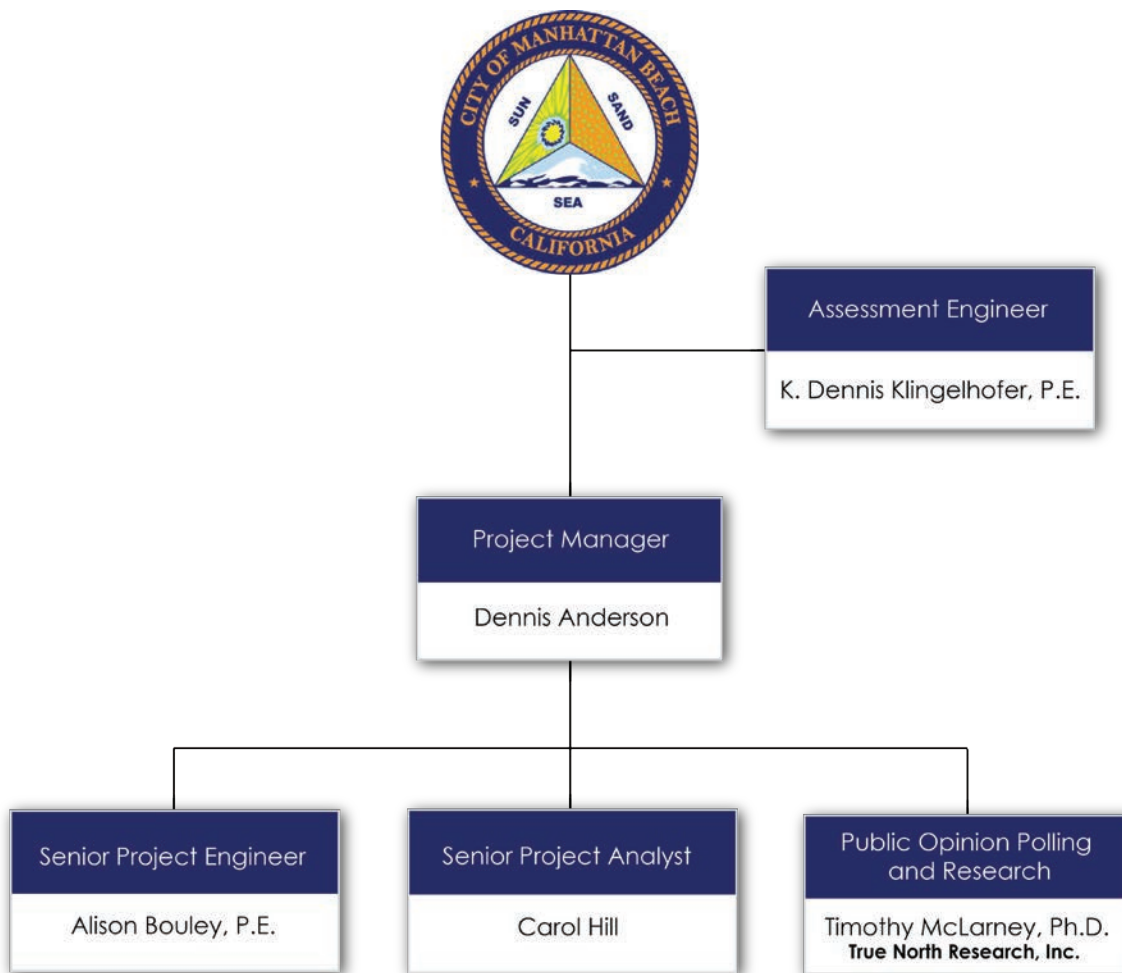
Citywide Lighting and Landscaping District

Assessment Increase Feasibility Study

City of Carlsbad

Harris & Associates reviewed the City of Carlsbad's existing pre-Prop. 218 landscaping and lighting maintenance district to determine the feasibility of increasing assessments. Harris identified the locations of all public improvements to be financed using the City's GIS system including street lights, parkways, medians and street trees. Harris applied the requirements of Proposition 218 and the most recent court cases and developed a proposed assessment methodology. The new assessments were calculated, compared to the existing program, and presented to City management.

Organization Chart



Resumes

Resumes for all listed team members are included on the following pages.

K. Dennis Klingelhofer, P.E.

Assessment Engineer

Dennis is an expert in the field of financial engineering and is responsible for Harris' Financial Engineering practice. He has served as assessment engineer for the formation of over 100 assessment districts and CFD special tax districts for both maintenance and construction of major infrastructure facilities. He has managed the acquisition of public improvements, having conducted construction audits of public improvements valued at over \$200 million.

In addition to his public finance acumen, Dennis has firsthand experience with bearing the responsibility of public facility maintenance from his years serving as City Engineer/Public Works Director. During that time, he developed annual maintenance budgets, managed maintenance activities, and established long-term strategies to reduce life-cycle costs. He has also developed pavement and maintenance management programs for agencies ranging from Pleasanton to the National Park Service. This depth of experience gives Dennis the background needed to successfully assist the City in the formation of the Facilities Maintenance Services District for the Oakland Army Base redevelopment.

Relevant Experience

City of Rancho Cordova, Assessment District and CFD Formation Services. Project Director/Project Manager.

- **Formation of two new CFDs**, one for street maintenance and one for storm drain maintenance
- Prepared the Technical Memorandum supporting the special tax rates and maintenance cost estimates, reviewed planned land uses to determine if particular uses had an increased effect on deterioration of the street, and prepared a preliminary rate and method of apportionment of special taxes for the proposed CFD
- Provides annual district administration services for the City's other maintenance assessment districts

San Diego Port District, Maintenance Funding Study for Harbor Drive. Project Manager.

- Planned improvements along Harbor Drive in the "working waterfront" area included permeable concrete areas, open cobblestone stream courses and bioswales, and drought-tolerant landscaping in addition to roadway pavement, street lighting, and other improvements
- Developed **maintenance cost estimates and strategies for the formation of a maintenance CFD** to provide a long-term funding mechanism to maintain these improvements

City of San Diego, Carmel Valley Neighborhood 10 Cost Reimbursement District Formation and Cost Verification. Assessment Engineer.

- Responsible for the formation of a Cost Reimbursement District (CRD), which funded over \$20 million in developer-constructed infrastructure improvements
- Activities included researching and assembling pertinent land use information, identifying public improvement eligible construction costs, developing a method of apportionment, and preparing a plat showing the proposed boundaries of the CRD
- Documents reviewed included the city ordinance, the cost reimbursement agreement, Public Facilities Financing Plan and Facilities Benefit Assessment for the region, and resolutions

EDUCATION

MS, Engineering Administration

BS, Civil Engineering

REGISTRATION

Professional Civil Engineer, CA

AFFILIATIONS

American Public Works Association

California Society of Municipal Finance Officers

PUBLICATIONS

Co-author, "Are Your Maintenance Assessment Districts at Risk?"

"Creative Local Financing – Improving Fire Protection for Oakland Hills," Nation's Cities Weekly

"City Averts Economic Disaster," Public Works Magazine

"Fiscal Benefit of Contract Services," American City and County Magazine

SPEAKING ENGAGEMENTS

"Update on Legal Challenges to Assessment Districts," APWA Northern California Chapter

"Using Special Districts to Make Projects Happen," APWA San Diego Chapter

"GASB 34 Strategies for Compliance," CSMFO Annual Meeting

Clark County, Nevada, Summerlin Special Improvement District. Principal-in-Charge.

- Reviewed construction costs for the acquisition of over \$40 million of infrastructure improvements for a large master-planned development
- Improvements included roadway, traffic lights, utilities and landscaping improvements
- Work involved reviewing completed facilities to verify eligibility for costs reimbursement, verifying construction costs, developing a procedures manual for the processing of contractor reimbursement requests, and inspecting infrastructure construction

City of Davis, Mace Ranch Community Facilities District. Project Manager.

- Developed a policy and procedures manual used for the acquisition of over \$40 million of developer-constructed improvements
- Oversaw the review of all developer-submitted documentation to ensure that the facilities were constructed in accordance with City standards and that only eligible costs were reimbursed based on the specific conditions set forth in the project agreement

City of Tracy, Infrastructure Valuation to meet GASB Statement 34 Requirements. Principal-in-Charge.

- Developed methods for the valuation of water, wastewater, roads and streets, storm drain systems, and other infrastructure assets based upon the requirements of GASB 34
- Dennis' study **served as a model for cities throughout California** for compliance with GASB 34 reporting requirements
- Successfully provided methods of valuation and infrastructure values needed for the new reporting model
- Dennis presented the study's findings to the Annual Conference of the California Society of Municipal Finance Officers as well as to APWA chapters throughout California

City/County of San Francisco, Mission Bay Development Community Facilities District (CFD) Nos. 4 and 6. Project Manager.

- Mixed-use brownfield redevelopment project entitled for 6,000 residential units, a 500-room hotel, 280,000 SF of pedestrian-friendly retail space, 4.4 million SF of office and bio-tech lab space, a 57-acre UCSF biotech campus, and a 550-bed hospital
- Provides cost/reimbursement analyses for each reimbursement request submitted by the developer and recommendations for the appropriate reimbursement amounts to the City
- To date, Dennis' team has **reviewed and approved more than \$225 million in reimbursements**

Dennis A. Anderson

Project Manager

Dennis has over 25 years of assessment and financial engineering experience consulting to cities, counties, and special districts throughout California. Dennis has assisted agencies with feasibility studies and the analysis of special benefits from various types of improvements in accordance with Proposition 218 and the various assessment and special tax acts within the State Codes. He has prepared Engineer's Reports, Special Tax Rate and Method of Apportionments, Boundary Maps, and Assessment Diagrams, and has assisted with presentations to agency boards and property owners, the preparation and mailing of notices and ballots, and ballot tabulation. He has also managed the annual administration of both bond and maintenance districts, including facility acquisition and reimbursement.

Relevant Experience

City of Rancho Cordova, *Assessment District and CFD Formation Services*. Project Manager.

- Established a 1982 Act **Road Maintenance Assessment District** over four new developments, setting the maximum assessment rates based on the City's estimated maintenance costs, as developed by Dennis and his team in conjunction with City staff
- Also created a **Road Maintenance CFD for all new developments**, preparing the special tax analysis to adequately fund maintenance of the new road improvements
- Currently working on the creation of a Storm Drain Maintenance CFD for all new developments

City of Lake Elsinore, *CFD 2003-1 (Law Enforcement, Fire and Paramedic Services) and Annexation Nos. 1 through 23*. Project Manager.

- Mello-Roos CFD formed to fund the operations of law enforcement, fire, and paramedic services
- Responsibilities included preparation of Boundary Maps and CFD Report, certification of Special Tax Consultant, and review of the Rate and Method of Apportionments and bond documents
- Continues to assist the City with annexations into CFD 2003-1 as new developments occur; to date, **23 annexations have been accomplished**
- Also assisting with the establishment of additional CFDs for the new developments occurring throughout the City

City of Lake Elsinore, *CFD 2003-2, CFD 2004-3, CFD 2005-1, CFD 2005-2, CFD 2005-4, CFD 2005-5, CFD 2005-6, CFD 2006-1, CFD 2006-2, CFD 2006-3, CFD 2006-4, CFD 2006-6, CFD 2006-8, CFD 2006-9, CFD 2006-10, CFD 2007-4, CFD 2007-5, CFD 2007-6*. Project Manager.

- Mello-Roos CFDs formed to fund the **public infrastructure for over 9,000 residential units, covering an estimated \$300 million in construction costs**
- Responsibilities included preparation of the Rate and Method of Apportionment of Special Taxes, Boundary Maps and CFD Report, certification of Special Tax Consultant, and assistance with development of the bond documents
- Dennis has also prepared the annual special tax levy for these CFDs since their formation
- Audited the construction costs submitted by the developer for reimbursement out of CFD bond proceeds and recommended purchase price amounts to the City

EDUCATION

Undergraduate Studies

AFFILIATION

California Society of
Municipal Finance Officers

PUBLICATIONS

Co-author, "Are Your
Maintenance Assessment
Districts at Risk?"

SPEAKING ENGAGEMENTS

Southwest Securities Annual
Investment Seminar, Land-
Secured Investment Seminar,
2007

APWA Sacramento Chapter
Continuing Education
Program, 2005

APWA Northern California
Chapter Continuing
Education Program Financing
Public Projects, 2006

CSMFO Channel Islands
Chapter lunch presentation,
Current Practices in Special
Tax and Assessment
Districts, 2006 and 2007

SPECIAL ASSIGNMENTS

California Debt & Investment
Advisory Commission –
Special Committee on
Assessment Law, 2012-2013

City of Lake Elsinore, CFD 2009-1 (Park, Open Space and Street Lighting Maintenance). Project Manager.

- **Mello-Roos CFD formed to fund the maintenance of public parks, open space and street lighting** within the Canyon Hills development, planned to contain over 4,000 units
- Responsibilities included preparation of Boundary Maps and CFD Report, certification of Special Tax Consultant, and development of the Rate and Method of Apportionment
- Dennis has also prepared the annual special tax levy for this CFD since its formation

City of Moreno Valley, CFD No. 5 (Stoneridge Ranch). Project Manager.

- CFD formed to fund water, sewer, drainage, roads, and appurtenant structures in a **commercial and residential mix project**
- Responsibilities included preparation of special tax formula, methodology (rate and method of apportionment), and the District Report
- Audited the construction costs submitted by the developer for reimbursement out of CFD bond proceeds and recommended purchase price amounts to the City

City of Moreno Valley, CFD No. 4 (Ridge Properties Trust). Project Manager.

- CFD formed to fund the **public infrastructure for a 160-acre industrial and commercial development**
- Facilities included water, sewer, roads, drainage and electrical facilities
- Audited the construction costs submitted by the developer for reimbursement out of CFD bond proceeds and recommended purchase price amounts to the City

Alison Bouley, P.E.

Senior Project Engineer

Alison has 16 years of experience in providing program management and financial engineering services to cities, counties, and special districts on a wide variety of project types, including AB1600 Development impact fees. She is a true team-player, thriving in environments where she can accomplish the challenges presented by her clients through team motivation.

Relevant Experience

City of Tracy, Finance and Implementation Plans. Project Manager. Alison has been the Project Manager for the City of Tracy for 13 years on a variety of Finance and Implementation Plans. Alison has been responsible for managing the City's consultants through the preparation of technical studies, EIR's, and Specific Plans. She has assisted the City in their annual CIP process, has performed numerous reimbursement analyses, and was involved in the recent preparation of master plans and development impact fees for the City. Alison has also been responsible for the creation and implementation of the City's various finance and implementation plans over the last 13 years. Following is a list of projects that Alison has been responsible for:

- Tracy Hills Specific Plan
- Ellis Specific Plan
- Citywide Master Plans
- Cordes Ranch Specific Plan
- Gateway Specific Plan
- Interstate 205 Corridor Specific Plan
- NEI Phase I Specific Plan
- NEI Phase II Specific Plan
- Plan C Specific Plan
- Downtown Specific Plan
- ISP South Specific Plan
- Infill Area
- Citywide Public Building Fee

City of Rancho Cordova, Community Facilities District No. 2013-3 Road Maintenance. Deputy Project Manager.

- Responsible for the creation of maintenance CFD to fund road maintenance and replacement for new developments in Rancho Cordova.
- Responsible for determining estimated future build-out of new development, estimated funding for maintenance activities from new roadway improvements and the per unit cost of the required maintenance.
- Responsible for the preparation of a rate and method of apportionment of special taxes for the formation of a new CFD.
- Came up with creative ways to structure the rate and method of apportionment in order to not overburden the new development with taxes.

County of Sacramento, Storm Drain User Fee. Deputy Project Manager.

- Responsible for the established of a storm drain user fee.
- Determined new development in the County that the fee will apply to.
- Calculated the maintenance costs to be covered in the storm drainage user fee.

EDUCATION

BS, Civil Engineering

REGISTRATION

Professional Civil Engineer,
CA

AFFILIATIONS

American Society of Civil
Engineers

California Society of
Municipal Finance Officers

- Responsible for determining the structure and amount of the fee that can be legally charged to new development in the County.

City of Rancho Cordova, Storm Drain User Fee. Deputy Project Manager.

- Responsible for the establishment of a storm drain user fee.
- Determined new development in the City that the fee will apply to.
- Calculated the maintenance costs to be covered in the storm drainage user fee.
- Responsible for determining the structure and amount of fee that can be legally charged to new development in the County.

City of Tracy, Larch-Clover Sewer Improvement Assessment District. Co-Assessment Engineer.

- Responsible for the establishment of a 1913 Act Assessment District to fund sewer improvements within this unincorporated area of San Joaquin County that was within the City's sphere of influence
- Prepared the mailing of the notice and ballot packages and presented the proposed assessments to the property owners
- Prepared various assessment formula options that were presented to the City and property owners before formal proceedings were initiated.
- The Assessment District was ultimately voted through.

City of Lodi, Infrastructure Master Plan and Impact Fees. Project Manager.

- Managed the development of new master plans for traffic, storm drainage, water, wastewater, police, fire, general facilities, parks, and electrical utility
- Responsible for preparing the cost estimates for all the projects and calculated the development impact fees under AB1600
- Prepared a finance plan that summarized the fees, gave cash flow projections, and discussed important City policies, such as how reimbursements and credits should be handled
- Held monthly meetings with the development community and monthly council presentations to ensure project collaboration
- Ultimately, her team was able to adopt new fees within the City that offered some economic incentives for the next several years but ensured long-term cost recovery for the City

City of Sacramento, North Natomas Development Area. Project Manager.

- Responsible for setting up a cost estimating database for projects within the North Natomas Development Area, **forming the basis of the Finance Plan**
- The database tied cross-section input with quantity take-offs and utilized a single unit cost spreadsheet so that costs could easily be updated
- Performed Reimbursement Audits for the City for acquisition of the infrastructure.

City of Sacramento, River Districts Redevelopment Area. Project Manager.

- Responsible for setting up a cost estimating database for projects within the River Districts Redevelopment Area, **forming the basis of the Finance Plan**
- The database tied cross-section input with quantity take-offs and utilized a single unit cost spreadsheet so that costs could easily be updated

Carol Hill

Senior Project Analyst

EDUCATION
Certificate, Information
Processing

For 11 years, Carol has been responsible for the technical aspects of Public Financing Districts pursuant to the Municipal Improvement Act of 1913, the Landscape and Lighting Act of 1972, Mello-Roos Community Facility Districts, Fire Suppression Assessments, and Reassessment/Refunding Districts per the 1984 Act, as well as property-related user fees. She assists with methodology evaluations and is proficient at compiling district databases, researching and analyzing the different parcel attributes, confirming database accuracy, notice and ballot production and tabulation, and the annual levying of the assessment, fees, and taxes on county property tax bills throughout California.

Carol's computer and system network skills have been applied to resolve many technical data challenges associated with coordinating project implementation and handling property owner inquiries. In addition, she has been involved in the preparation of Assessment Diagrams and Boundary Maps and in using GIS as part of the database research effort.

Relevant Experience

Alameda County Flood Control and Water Conservation District, *Preliminary Funding Feasibility Analysis for the San Lorenzo Creek Watershed Master Plan*. Project Analyst.

- Responsible for the data analysis of a watershed/drainage utility fee for funding flood control capital improvements and on-going maintenance and environmental requirements within certain watersheds
- Analyzed the assessor's data for the greater San Lorenzo watershed, involving more than **56,000 parcels** and four sub-watersheds, providing research and data summaries for the feasibility analysis

City of Carlsbad, *Citywide Proposition 218 Analysis Feasibility Study*. Project Analyst.

- Assisted with the feasibility study for converting the City's two maintenance districts into one citywide district
- Used the **City's GIS as a tool in evaluating the improvements** and constructing modified zones of benefit
- Researched and analyzed the different parcel attributes
- Evaluated and incorporated modifications to the **assessment methodology and benefit zones** into the parcel database

City of Los Altos, *Sewer Services Fee*. Deputy Project Manager.

- Duties included reviewing the previous rate structure, analyzing the water consumption data for sewer accounts, and assisting with the proposed rate structure analysis
- Assisted with preparing and mailing the notice of public hearing on the sewer fee modification and increase
- **Proposition 218-required Protest Hearing was successfully completed and rates were increased**
- Since the restructuring, Carol has assisted with the annual administration and levy services, coordination of the sewer fee appeal process, and handling property owner inquiries about the fee

City of Pomona, *Lighting and Landscaping Maintenance District*. Deputy Project Manager/Project Analyst.

- Annual administration and levy service for this **maintenance district that involves 6,700 parcels** within eight zones of benefit
- Responsibilities included updating the database each year per the latest County Assessor's Roll, preparing the annual Engineer's Report, incorporating the newly annexed parcels into the Lighting Zone and updating the Assessment Diagram, and submitting the assessments to the County for inclusion on the property tax bills

City of San Diego, *Pacific Highlands Ranch Maintenance District*. Project Analyst.

- Formation of a **1,000-parcel Maintenance Assessment District to fund the operation and maintenance of decorative street lightning and median and parkway landscaping** within the Pacific Highlands Ranch development
- Responsibilities included benefit analyses and preparation of the Engineer's Report, coordination with the developer and City team, assistance with presentations to the City Council, the preparation and mailing of assessment notices and ballots, and ballot tabulation

Sonoma County Water Agency, *Flood Control User Fees – Zone 1A, Zone 2A, and Sonoma Creek Watersheds*. Project Analyst.

- Establishment of three separate Flood Control User Fees for funding **flood control capital improvements and ongoing maintenance and environmental requirements** within certain watersheds
- Reviewed and analyzed the Agency's GIS data and the assessor's data for the three watersheds (involving 92,600 parcels, 23,000 parcels, and 18,200 parcels, respectively), and provided data summary details for the Rate Analysis Reports for each of the fees

Timothy McLarney, Ph.D.

Public Opinion Polling and Research - True North Research, Inc.

Mr. McLarney, Ph.D., will serve as the project manager and day-to-day contact for all matters related to the study and will lead all design, analysis, reporting and presentation tasks. Dr. McLarney's work to date has provided California cities, counties, special jurisdictions, transportation planning agencies, councils of government, school districts, corporations, and political campaigns with research to address their often complex marketing, planning and/or performance measurement needs. During his career, Dr. McLarney has occupied a key role in over 800 research studies, more than 300 of which had research objectives similar to those of the City of Manhattan Beach.

EDUCATION

Ph.D. and Masters,
Government

BA, Politics

Relevant Experience

City of Manhattan Beach

- Project Manager. Dr. McLarney designed and conducted six surveys for the City of Manhattan Beach since 1999, including four resident satisfaction surveys and a survey to estimate the feasibility of establishing Prop. 218 assessment districts to fund utility undergrounding in select areas of the City. The assessments passed in all districts that our research indicated had sufficient property owner support.

City of Rancho Palos Verdes

- Project Manager. Working with Harris & Associates, True North conducted baseline and tracking research that led to the successful formation of a Prop. 218 stormwater improvement measure.

City of San Gabriel

- Project Manager. True North conducted research related to two revenue measures for the City of San Gabriel, including a successful 2% utility users tax increase (UUT) in November 2008 and a pending Prop. 218 fee for a proposed sewer fee increase.

City of Brea

- Project Manager. True North has conducted four surveys for the City of Brea, including a survey to gauge community sentiment regarding the proposed extension of the Olinda Alpha Landfill, two resident satisfaction surveys, and a survey to gauge the feasibility of a general sales tax measure on the November 2008 Ballot.

City of Thousand Oaks

- Project Manager. True North has designed and conducted two community priorities and satisfaction surveys for the City of Thousand Oaks, as well as a third revenue measure feasibility study.

City of Temecula

- Project Manager. True North designed and conducted seven research studies for the City of Temecula since 2000, including resident satisfaction surveys in 2000, 2007 and 2011; an extensive library needs assessment which included a telephone survey, one-on-one interviews with council members, staff, and community leaders, and several community workshops that helped in the successful application for Proposition 14 funding for a new library; a survey of voters and property owners to assess the feasibility of passing a revenue measure for parks and open space protection in 2002; a resident survey in 2004 related to cable television services; and a survey of Old Town visitors in 2008.

Approach and Methodology

Task 1 – Storm Drain Fee Methodology Analysis

- a. Review the City’s current Master Plan of Drainage and identify any areas in the City without any improvements. Harris will meet with the City to discuss these areas to determine if they are to be included based on where the storm drainage flows.
- b. Review the methodology options for rate structures for the Storm Drain User Fee, including the impacts (if any) of Article XIIIID of the State Constitution (Prop. 218), and provide a recommended option. Harris will meet with the City to discuss these issues.
- c. Develop a parcel database, based on the County Assessor’s Roll, with names and addresses of all property owners. Information, such as parcel area, percent impervious (per the averages shown in the L.A. County Hydrology Manual), and whether a parcel is draining to a storm drain that will be improved will be identified, as well as other pertinent information. Harris will summarize this information.

Task 2 – Landscaping and Lighting Methodology Analysis

- a. Review the City’s existing landscape and lighting improvements and identify improvements to be included or excluded from the assessment. Harris will review the existing Engineer’s Report.
- b. Review the methodology options for assessments, including the impacts of Article XIIIID of the State Constitution (Prop. 218) and recent case law, and provide a recommended option. Harris will meet with the City to discuss these issues.
- c. Develop a parcel database, based on the County Assessor’s Roll, with names and addresses of all property owners. Information should include parcel area, land use, building size, and frontage, as well as any other pertinent information. Harris will summarize this information.

Task 3 – Preliminary Rate Analysis

- a. Review the budgets for the improvements based on recent actual cost data from the City. Harris will provide recommendations for the annualized budgets for the improvements.
- b. Prepare a draft Preliminary Analysis Report summarizing the above and providing preliminary storm drain rate calculations and lighting and landscaping assessments. Harris will provide five (5) copies for review and comment.

- c. Harris will meet with City staff to discuss the draft Preliminary Analysis Report and make revisions to Report per those discussions. Harris will submit ten (10) hard copies of the final report and one (1) electronic copy in PDF format.

Task 4 – Public Opinion Polling

To ensure that the City selects the appropriate funding mechanism and is election-ready prior to Council committing to a particular ballot, we recommend that the City pursue a two-phased research plan. Using True North’s proprietary overlapping sampling methodology of voters and residential property owners that draws upon information in the voter file, assessor’s file, and our team’s experience passing hundreds of tax and Prop. 218 measure’s statewide, the Phase 1 Baseline Survey will be structured to evaluate both funding options – a parcel tax and a Prop. 218 property-related fee. Briefly, the scope of work for Phase 1 will include:

- Meet with City staff to discuss the research objectives, methodology, and potential challenges surrounding the study.
- Communicate with the City through email, telephone calls and in-person meetings as needed throughout the project.
- Develop a stratified random sampling plan that will produce data that is representative of Manhattan Beach voters and residential property-owners regardless of whether they use land lines, cell phones, or a combination of both.
- Develop a draft questionnaire and make revisions as needed until all parties approve of the instrument.
- Pre-test the survey instrument to ensure its integrity.
- CATI (Computer Assisted Telephone Interviewing) program the finalized survey instrument to ensure accurate and reliable data collection using live telephone interviewers.
- Program and test the same questionnaire into a proprietary web-based survey application hosted by True North Research. The site is protected so that only those who receive invitations will be able to access the site.
- Draft, produce and mail 3,000 invitation letters to a random sample of Manhattan Beach voters and residential property owners to recruit participation in the survey. Each letter will include a unique PIN for the individual that can be used once to access the online survey.
- Conduct targeted phone calls to recruit participation in the survey, balance the sample demographics, as well as complete a minimum 400 total interviews. A strong response to the online survey by residents will result in

a greater number of interviews at no additional cost. With at least 400 completed interviews in the sample, the survey will have a maximum margin of error of +/- 4.9% at the 95% level of confidence.

- Process the data, which includes conducting validity checks, cleaning, recoding, coding any open-end responses, and adjusting for strategic oversampling (if used) through a statistical procedure known as 'weighting'.
- Prepare a thorough report on the findings, including a detailed question-by-question analysis, description of the methodology, an executive summary of the key findings and conclusions/recommendations, as well as a comprehensive set of cross tabulations showing how the answers varied by subgroups of voters and property owners. The report will include extensive full-color graphics displaying the findings, as well as insightful narrative discussion of the results and their implications.
- Finalize the report based on the City's review and comments on the draft version.
- Prepare an electronic copy to allow the City to reproduce the report as needed.
- Prepare a PowerPoint presentation of the results and present the results at a City Council workshop.
- If the results of the Phase 1 Baseline Survey are positive and the City chooses to proceed with a property-related fee, a Phase 2 Tracking Survey is recommended once a draft measure is in place and public outreach efforts have been implemented. The Tracking Survey involves distributing a mail survey to a larger sample (5,000) of residential and non-residential property owners in the city. The mail survey will be designed to mimic the ballot and can be used to test the effectiveness of the information piece that accompanies the ballot, ensure that the outreach efforts are resonating with the community, confirm that the fee rate and other aspects of the measure are appropriate, and will gauge the uneven response rate by property owner types. In essence, the Tracking Survey is a 'test run' on the ballot to ensure that support in the community is adequate and that further education and outreach is not needed and during the pre-electoral phase and prior to mailing the actual ballots.

The scope of work for the Phase 2 Tracking Survey includes:

- Meet to thoroughly discuss the research objectives and methodology for the study, as well as discuss potential challenges, concerns and issues that may surround the study.
- Develop a stratified and clustered sample of 5,000 property owners in the City who are likely to cast ballots in a Prop. 218 proceeding, with strategic

oversamples for commercial, industrial and apartment property owners.

- Develop a draft questionnaire and make revisions as needed until all parties approve of the instrument.
- Print, produce, and mail 5,000 surveys. It is expected that 18% to 25% of the surveys will be returned, which is similar to normal participation rates for benefit assessments.
- Process the data, which includes conducting validity checks, cleaning, recoding, coding open-end responses, and adjusting for strategic oversampling (if used) through a statistical procedure known as 'weighting'.
- Prepare an addendum to the Phase 1 Baseline Survey Report which includes the results of the Phase 2 mail survey. The report will include extensive full-color graphics displaying the findings, as well as insightful narrative discussion of the results and their implications.
- Prepare three (3) full-color hard copies of the final report, as well as an electronic copy to allow the City to reproduce the report as needed.

Task 5 – Presentation

- a. Prepare a PowerPoint presentation of the results.
- b. Harris will present the Preliminary Analysis Report and True North will present the results of the opinion polling at a City Council workshop.
- c. Provide a CD that includes the report, final PowerPoint presentation, and all data and documentation associated with the study.



References

Harris & Associates References

1. County of Alameda, Zone 2—San Lorenzo Creek

Watershed Prop 218 Vote

Hank Ackerman, Principal Civil Engineer
Alameda County Public Works Agency | (510) 670-5553
399 Elmhurst Street, Hayward, CA 94544

Harris & Associates in association with MIG is currently helping the Alameda County Flood Control District pass a storm drain fee to provide seismic repairs to a dam, increase the capacity of another dam, increase channel capacity, improve bank stabilization— and while doing so, enhance the creek as a community asset. Harris & Associates analyzed financing strategies that could be used and recommended the establishment of a storm drain fee. Harris has also developed a preliminary fee structure in accordance with the requirements of Proposition 218. The need for additional funding for repairs and improvements became apparent when FEMA de-accredited the creek channel and earthen levees, requiring property owners to purchase expensive flood insurance. A property-owner vote is scheduled for 2014..

2. City of Rancho Palos Verdes

Storm Drain User

Dennis McLean, Director of Finance and IT
City of Rancho Palos Verdes | (310) 377-0360
30940 Hawthorne Blvd., Rancho Palos Verdes, CA 90275

The City needed \$25 million of improvements to its storm drain system and current funding levels were not sufficient to provide the funds needed. Harris & Associates in association with MIG conducted stakeholder interviews that lead to a complete change in proposed fee methodology, as well as polling to identify fee threshold and key messages. The issue was highly political with an active opposition and media attention, so on-going strategic consulting was crucial throughout the process, especially in determining how to talk about controversial issues. Harris & Associates developed the new fee methodology, based upon impervious area and land use, and conducted the Proposition 218 property owner ballot proceedings. Property owners approved the new storm drainage fee of \$80 per median single family home. Harris has been administering the City’s Storm Drain User Fee since it was adopted.

3. City of Carlsbad

Citywide Lighting and Landscaping District Assessment Increase Feasibility Study

Aaron Beanan, Senior Accountant
City of Carlsbad | (760) 602-2414
1200 Carlsbad Village Drive, Carlsbad, CA 92008

Harris & Associates reviewed the City of Carlsbad's existing pre-Prop. 218 landscaping and lighting maintenance district to determine the feasibility of increasing assessments. Harris identified the locations of all public improvements to be financed using the City's GIS system including street lights, parkways, medians and street trees. Harris applied the requirements of Proposition 218 and the most recent court cases and developed a proposed assessment methodology. The new assessments were calculated, compared to the existing program, and presented to City management.

True North Research, Inc. References

1. City of Manhattan Beach

Bruce Moe, Finance Director
City of Manhattan Beach | (310) 802-5000
1400 Highland Avenue, Manhattan Beach, CA 90266

The Principals at True North (Dr. McLarney and Mr. Sarles) have designed and conducted six surveys for the City of Manhattan Beach since 1999, including four resident satisfaction surveys and a survey to estimate the feasibility of establishing Prop. 218 assessment districts to fund utility undergrounding in select areas of the City. The assessments passed in all districts that our research indicated had sufficient property owner support.

2. City of Rancho Palos Verdes

Dennis McLean, Director of Finance and IT
City of Rancho Palos Verdes | (310) 377-0360
30940 Hawthorne Blvd., Rancho Palos Verdes, CA 90275

Working with Harris & Associates, True North conducted baseline and tracking research that led to the successful formation of a Prop. 218 stormwater improvement measure.

3. City of San Gabriel

Bob Kress, City Attorney
City of San Gabriel | (909) 593-9638
425 S. Mission Drive, San Gabriel CA 91776

True North has conducted research related to two revenue measures for the City of San Gabriel, including a successful 2% utility users tax increase (UUT) in November 2008 and a pending Prop. 218 fee for a proposed sewer fee increase.



Compensation/Payment Schedule

| TASKS | Not-to-Exceed Fixed Fee |
|--|-------------------------|
| Task 1 - Storm Drain Fee Methodology Analysis | \$ 6,500 |
| Task 2 - Landscaping and Lighting Methodology Analysis | \$ 6,500 |
| Task 3 - Preliminary Rate Analysis | \$ 11,500 |
| Task 4 - Public Opinion Polling | |
| Phase 1 - Baseline Survey - True North Research | \$ 23,700 |
| Phase 2 - Tracking Survey (Optional) - True North Research | \$ 22,100 |
| Task 5 - Presentation | \$ 4,500 |
| Total Not-to-Exceed Fixed Fee | \$ 74,800 |

Total less Optional Tasks (Task 4 - Phase 2) \$ 52,700

These costs include expenses and incidentals—including outgoing and return postage for Task 4.

SCHEDULE OF HOURLY RATES

| Position Title | Hourly Rate |
|-------------------------|-------------|
| Assessment Engineer | \$240 |
| Project Manager | \$220 |
| Senior Project Engineer | \$190 |
| Project Engineer | \$150 |
| Senior Project Analyst | \$125 |
| Project Analyst | \$100 |
| Administrative Support | \$65 |

Agenda Date: 2/25/2014

TO:

Honorable Mayor and Members of the City Council

THROUGH:

John Jalili, Interim City Manager

FROM:

Tony Olmos, Public Works Director
Bruce Moe, Finance Director
Michael Guerrero, Principal Civil Engineer
Anna Luke-Jones, Senior Management Analyst

SUBJECT:

Consideration of Fiscal Year 2013-2014 Capital Improvement Plan (Public Works Director Olmos).

APPROVE

RECOMMENDATION:

Staff recommends that

- The City Council adopt Resolution No. 14-0008 approving the Fiscal Year 2013-2014 Capital Improvement Plan.
- The City Council unappropriate \$22,582,972 in "placeholder" CIP project funds from the FY2013-2014 Operating Budget
- The City Council appropriate \$5,871,725 in actual project funds for the FY2013-2014 CIP

FISCAL IMPLICATIONS:

Funding for the first year of the Fiscal Year 2014-2018 Capital Improvement Plan (CIP) is included in the budget from various funds indicated in the attached CIP document. The proposed FY 2013-2014 CIP includes new expenditures totaling \$5,871,725 from all funding sources.

By way of appropriations, the FY2013-2014 budget includes the second year of the last CIP plan (FY2012-2016). Those projects and funding requirements were utilized as placeholders for budgetary purposes pending the completion of the new CIP plan. With the approval of the actual projects for FY2013-2014, the CIP funding and appropriations need to be updated through City Council action.

The defined projects for FY 2013-2014 will supersede current "placeholder" projects. From a budgetary standpoint, it will be necessary to reverse the budgets for "placeholder" projects and establish budgets for the defined FY2013-2014 projects.

The existing budget appropriations to be adjusted (unappropriated) are summarized by fund as follows:

| | |
|----------------------------------|--------------|
| - Gas Tax (Streets and Highways) | \$ 1,115,000 |
| - Proposition C | \$12,785,472 |
| - Capital Improvement Fund | \$ 2,000,000 |
| - Water Fund | \$ 4,600,000 |
| - Waste Water Fund | \$ 2,082,500 |
| | |
| - Total | \$22,582,972 |

The Operating Budget documents showing the "placeholder" projects can be found in Attachment 4.

The actual projects for adoption and budgetary appropriation are listed in Attachment 3, Projects by Type spreadsheet.

BACKGROUND:

Community Meeting

On October 24, 2013, City staff held a Community Meeting to present and discuss the proposed FY 2013-2014 CIP which provided a preview of the information available at the time and provided an opportunity for public input. City staff also presented the results of the City Facilities Assessment Study and the City Parking Structures Assessment Study.

City Council

On December 10, 2013, the City conducted a CIP Public Workshop to discuss the CIP and to receive public input. At the same meeting, City staff also presented results of the City Facilities Assessment Study and the City Parking Structures Assessment Study. Historically the CIP has been presented and approved in connection with the City's review and approval of the annual Operating Budget. The FY 2013-2014 CIP was bifurcated from the Budget in order to provide a separate means of presenting the CIP and obtaining public input. However, the FY 2013-2014 CIP was not adopted with the FY 2013-2014 Budget. As a result of the reduced schedule to complete the CIP approval process, the City Council directed staff to prepare a reduced list of projects for the FY 2013-2014 CIP. Staff will subsequently return with a full list of projects for the FY 2014-2015 CIP for consideration in order to realign the process with the annual City Operating Budget.

Planning Commission

On January 22, 2014, the Planning Commission found the proposed Fiscal Year 2013-2014 CIP to be consistent with the City of Manhattan Beach General Plan.

Parking and Public Improvements Commission

On January 23, 2014, the Parking and Public Improvements Commission (PPIC) reviewed

the proposed Fiscal Year 2013-2014 CIP.

DISCUSSION:

Public Works staff is pleased to submit the FY 2013-2014 CIP for consideration and adoption by the City Council. The proposed FY 2014-2018 CIP indicates the City's plan for capital improvements for the next five years. If adopted by the City Council, appropriations would be available on February 26, 2014 for projects identified in FY 2013-2014 only. The proposed FY 2013-2014 CIP includes nine new projects and two carryover projects that have been previously approved that require FY 2013-2014 funds to complete. Projects involve carryover funding for various reasons including planning and funding for larger, long-term projects, multiple phase projects, grant programming of fund expenditures, coordination with other CIPs, and outside agency review/approval.

Wastewater

The FY 2013-2014 CIP does not include any Wastewater projects.

Water

The FY 2013-2014 CIP includes two Water projects (one carryover and one new), with \$800,000 in new funds.

- Water Main Replacement: Sepulveda Blvd & 2nd Street (Sepulveda: MBB to 2nd; 2nd: Larsson Booster to 2nd St Booster) (Carryover Project)
- Well No. 11A Backup Generator Replacement (New Project)

Storm Water

The FY 2013-2014 CIP does not include any Storm Water projects.

Streets/Transportation

The FY 2013-2014 CIP includes six Streets/Transportation projects (one carryover and five new), with \$4,581,725 in new funds.

- Sepulveda Bridge Widening MTA Call (MTA Call funds for this project in the amount of \$3,629,325 will be received in FY13-14)
- Sepulveda Blvd at 8th Street Intersection Improvements (Highway Safety Improvement Program)
- Pathway to the Sea
- Pedestrian Improvements at 22 Intersections (Highway Safety Improvement Program)
- FY 2013-2014 Annual Curb, Gutter and Ramp Replacement Project (Area 2)
- Triennial Pavement Management System Update

Facilities (Capital Improvement Fund)

The FY 2013-2014 CIP includes two Facilities (Capital Improvement Fund) projects (both new), with \$190,000 in new funds.

- FY 2013-2014 Annual Non-Motorized Transportation Improvements
- Marine Avenue Skate Park (Design)

Facilities (Special Revenue Funds)

The FY 2013-2014 CIP includes two Facilities (Special Revenue Funds) projects (one

carryover and one new), with \$300,000 in new funds.

- City Yard Cover (Carryover Project)
- Pier Crash Rated Bollards Installation (New Project)

Parking

The FY 2013-2014 CIP does not include any Parking projects.

CONCLUSION:

Staff recommends that the City Council adopt Resolution No. 14-0008 approving the FY 2013-2014 to FY 2017-2018 Capital Improvement Plan.

Attachments:

1. Resolution No. 14-0008
2. FY 2014-2018 Capital Improvement Plan
3. Projects by Type Spreadsheet for FY2013-2014 (*11x17 spreadsheet copies will be provided at meeting*)
4. Operating Budget Placeholder Projects for FY2013-2014

RESOLUTION NO. 14-0008

A RESOLUTION OF THE MANHATTAN BEACH CITY COUNCIL
APPROVING THE CAPITAL IMPROVEMENT PLAN FOR FISCAL YEAR
2013-2014 THROUGH 2017-2018

THE MANHATTAN BEACH CITY COUNCIL DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City Council hereby makes the following findings:

A. The Manhattan Beach City Council desires to develop a proactive capital improvement plan to meet the community's needs for future services, programs, and facilities. The City Council wishes to improve the City's ability to continue providing essential services in emergency situations.

B. On December 10, 2013, the proposed Capital Improvement Plan was presented to the City Council.

C. On January 22, 2014, the Planning Commission determined that the proposed Capital Improvement Plan is consistent with the City of Manhattan Beach General Plan in accordance with Government Code Section 65401.

D. On January 23, 2014, the proposed Capital Improvement Plan was reviewed by the Parking and Public Improvements Commission.

Section 2. The City Council hereby finds that it can be seen with certainty that there is no possibility that the adoption of this Capital Improvement Plan may have a significant effect on the environment. The Capital Improvement Plan is a prioritizing and funding allocation program and cannot and does not have the potential to cause a significant effect on the environment. No physical activity will occur until all required environmental review is conducted at the time the physical improvements prioritized in the Capital Improvement Plan are undertaken at a future unspecified date. Accordingly, the adoption of this Capital Improvement Plan is therefore exempt from the environmental review requirements of the California Environmental Quality Act pursuant to Section 15061(b)(3) of Title 14 of the California Code of Regulations.

Section 3. That certain document entitled the "City of Manhattan Beach, California, FY 2013-2014 through FY 2017-2018 Capital Improvement Plan" a copy of which is on file in the office of the City Clerk, which may hereafter be amended by the Council, is hereby approved and adopted.

Section 4. The City Clerk is directed to maintain three copies of the Capital Improvement Plan on file at all times for inspection by the public.

Section 5. By adoption of the FY 2013-2014 through FY 2017-2018 Capital Improvement Plan, it is the intent of the City Council to revise the five year plan each year by continuing to identify capital improvement projects five years into the future and by re-prioritizing existing capital improvements as needed to serve the community.

Section 6. This resolution shall take effect immediately upon adoption.

Section 7. The City Clerk shall certify to the adoption of this resolution.

Res.

PASSED, APPROVED and ADOPTED this 25th day of February, 2014.

Ayes:
Noes:
Absent:
Abstain:

AMY THOMAS HOWORTH
Mayor, City of Manhattan Beach, California

ATTEST:

LIZA TAMURA
City Clerk

CITY OF MANHATTAN BEACH CALIFORNIA



2014-2018 PROPOSED CAPITAL IMPROVEMENT PLAN FEBRUARY 25, 2014

DRAFT

John Jalili, Interim City Manager
Tony Olmos, Director of Public Works
Bruce Moe, Director of Finance

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CITY OF MANHATTAN BEACH
2014-2018 PROPOSED CAPITAL IMPROVEMENT PLAN
TABLE OF CONTENTS

| | <u>Page</u> |
|---|-------------|
| <u>Introduction and Background</u> | |
| City Manager’s Introduction | 1 |
| Reader’s Guide | 3 |
| Glossary of Key Terms..... | 9 |
| <u>Projects by Fund/Type Spreadsheets (Five-Year Plan)</u> | |
| Projects by Type Five-Year Summary (carryover and new projects) | 13 |
| Projects by Fund Five-Year Summary (carryover and new projects) | 19 |
| <u>Utilities Project Summary Sheets</u> | |
| <i><u>Water</u></i> | |
| Water Main Replacement: Sepulveda Blvd & 2 nd St | 27 |
| Well 11A Backup Generator Replacement..... | 29 |
| <u>Streets Project Summary Sheets</u> | |
| <i><u>Capacity Enhancements</u></i> | |
| Sepulveda Blvd. & 8 th St. Intersection Improvements (NB & SB from Sep to 8 th)..... | 31 |
| <i><u>Pedestrian and Safety Improvements</u></i> | |
| Pathway to the Sea | 33 |
| Pedestrian Improvements at 22 Intersections (Hwy Safety Improvement Program) | 35 |
| <i><u>Concrete Repairs</u></i> | |
| FY13-14 through 17-18 Annual Curb, Gutter & Ramp Replacement Project. | 37 |
| <i><u>Asphalt Pavement Projects</u></i> | |
| Triennial Pavement Management System Update | 39 |
| <u>Facilities Project Summary Sheets</u> | |
| <i><u>Facilities Projects funded by CIP Fund</u></i> | |
| FY13-14 through 17-18 Non-Motorized Transportation Crosswalks, Bike Lanes, etc. ... | 41 |
| Marine Ave Skate Park | 43 |
| <i><u>Facilities Projects Funded by Special Revenue Funds</u></i> | |
| City Yard Cover | 45 |
| Crash Rated Pier Bollards..... | 47 |
| <u>Unfunded Projects</u> | |
| Unfunded Projects Summary | 49 |
| Acknowledgments | 51 |

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February 25, 2014

Honorable Mayor and Members of the City Council:

It is my pleasure to submit the Capital Improvement Plan (CIP) for City Council consideration. The Plan covers a select number of projects in Fiscal Year 2013-14 as discussed at the City Council's December 10, 2013 meeting. A CIP provides for multiyear systematic scheduling of local physical improvements based on sound planning, public demand for the improvements, and the city's ability to pay for the improvements. Effective CIP planning is essential if the community infrastructure is to be properly maintained for use by residents. The CIP was developed to achieve the following goals:

- Achieve regulatory compliance
- Replace or rehabilitate aging water and sewer infrastructure
- Rehabilitate existing public buildings
- Maintain and improve roadway pavement
- Promote the community's sustainable future
- Enhance public vitality, health and safety
- Improve energy efficiency at City facilities
- Improve traffic circulation
- Create a positive community legacy

Funding for these select 12 projects (9 new projects, 3 carryover projects requiring additional funding) includes \$5.8 million in new funds and \$4.9 million in carryover project funds. All listed projects have identified project funding.

Pavement management reports completed in 2010 indicate roadway pavement condition is declining with age. The slurry seal program extends pavement life, but underlying pavement structure eventually deteriorates requiring more extensive pavement rehabilitation. Accelerated funding beyond current funding levels is required to assure pavement condition is maintained at current levels.

Capital Improvement Fund

Capital Improvement Funds are generated from General Funds and are distinguished from other funds as being more discretionary and not restricted to certain uses such as Water Funds or funds reserved in various dedicated fund types. Previously funded projects include the Facilities Condition Assessment, Marine Avenue Park Synthetic Grass Field, Strand Stairs Rehabilitation, and Downtown Streetscape Improvements. New projects include the installation of flashing beacons on the bike path at the Pier to improve safety and the Marine Avenue Skate Park.

Gas Tax Fund (Includes Gas Tax, Prop. 42, MTA, STPL, Measure R South Bay Hwy) and Measure R (Local Return Fund)

The City funds street improvement projects with the dollars it receives from various sources including State and County Gas Tax Funds. These funds are restricted and may only be used for street related improvements. Annual street improvements typically include the Slurry Seal Program, the Curb, Gutter and Ramp program and arterial and collector pavement rehabilitation projects. In FY 2013-14 Area 2 will be the area of focus for the Slurry Seal and Curb, Gutter and Ramp programs.

Beginning in 2009, the City began receiving Measure R Local Return funding. The funding is available, on a per capita basis, through a Los Angeles County measure passed by voters in 2008. Funds may be used for street and transit purposes. FY 2013-14 CIP the Pathway to the Sea project.

Water and Wastewater Funds

The Water and Wastewater Funds are used for repairs and improvements to the city's water and wastewater infrastructure. Proposed water and sewer projects were identified through Utility Master Plans completed in 2010. These plans indicated significant investment is required to assure the long-term dependability of the water and sewer systems. FY 13-14 water projects include continuation of the water main replacement at Sepulveda Boulevard and 2nd Street, and the Well 11A Backup Generator Replacement.

Unfunded Projects

Capital funding constraints limit how many projects the City can fund. There are needs in excess of those projects included in the proposed CIP. Included in the CIP is a list of unfunded projects that would be included in the CIP if sufficient funding was available. These unfunded projects are primarily street paving and storm water projects. These projects are not prioritized at this time and do not yet have an identified funding source. As funding becomes available, additional projects proposed can be prioritized by the City Council for funding.

Conclusion

I wish to thank the City staff in their efforts in putting together this comprehensive plan and the City Council for their continued leadership and direction in helping to create a more livable, beautiful and safe community for all Manhattan Beach residents. Please note a detailed reader's guide is available in the Introduction.

Sincerely,

John Jalili
Interim City Manager

2

CITY OF MANHATTAN BEACH

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PROPOSED 2014-2018 CAPITAL IMPROVEMENT PLAN READER'S GUIDE

A Capital Improvement Plan (CIP) is very important for planning and managing a city's growth and development, as well as maintaining existing infrastructure. It begins to implement some of the community's goals and objectives and encourages discussion of the City's long-range vision. There are many factors involved in developing a Capital Improvement Plan. In this section, answers to frequently asked questions are provided, such as:

- What is a five-year Capital Improvement Plan?
- What is the purpose of a five-year Capital Improvement Plan?
- How do I read a Capital Improvement Plan?
- Who develops the CIP?
- Where does the money come from to pay for the CIP?
- What is the general philosophy behind the funding decisions?
- Will the CIP have any impact on the Operating Budget?
- Is there a policy behind a CIP?

What is a five-year Capital Improvement Plan?

A five-year Capital Improvement Plan is a planning document that shows a city's capital infrastructure needs for the next five-years. The document presents these needs in the form of project proposals for construction of various capital projects in the city. A capital project is defined as new, replacement of, or improvements to infrastructure (buildings, roads, parks, water mains, etc.) which have a minimum life expectancy of five-years and a minimum expense of \$10,000. (However, some capital projects fall outside this definition; these are one-time expenditures for initial studies that are associated with other capital improvement projects.) The first year's projects in a Capital Improvement Plan become that year's Capital Budget.

A Capital Improvement Plan can be a very dynamic document. In Manhattan Beach, the plan is revised every year. Therefore, the City's priorities and needs can be re-evaluated during each subsequent year. Thus, it is important to understand that the City Council usually appropriates funds for first year projects only and is not committed to doing any projects beyond the first year. Because this Capital Improvement Plan is being approved during the FY2013-2014 Fiscal Year, the City Council will be appropriating funds for a limited number of projects in FY2013-2014. As the community's goals change to reflect current issues and concerns, so will the direction of the Capital Improvement Plan since it is intended to meet the service and infrastructure needs of the community.

What is the purpose of a five-year Capital Improvement Plan?

The five-year Capital Improvement Plan is a framework for developing the City's current and future operating and capital needs. This systematic approach to programming operating and capital needs includes the following benefits:

Maximizes State and Federal Aid - Many State and Federal programs require early identification of community needs and incorporation of these needs into regional plans before the community can apply for project funding. A long-range capital improvement plan allows the community to program its needs in sufficient time to be included in regional plans. Also, it allows the community to coordinate future needs with various Federal and State Program criteria.

- **Establishes the level of capital expenditures the community can safely afford over the next five-years** – Multiple-year financial planning sets the basis from which the City Council can make capital project financial decisions. Pre-determining expenditures and revenues allows the community to prioritize capital expenditures and new programs without creating adverse impacts to existing services in the community.
- **Provides greater opportunity to fund larger projects** - The long-range capital plan provides a mechanism for funding larger more expensive capital improvement projects. This encourages a broad overview of needs and avoids a “piecemeal” approach to improving the community’s infrastructure. By identifying projects early, the most economical means of financing can be selected in advance. This financial planning helps the community avoid commitments and debts that may limit the initiation of more important projects at a later date.
- **Assists in maintaining a balance between debt service and current expenditures** - Pre-determining the operating and capital expenditures provides an early indication of the City’s need to obtain outside financing, and its ability to pay the debt service on these loans, within the limitation of annual revenues, and without impacting the operating budget.
- **Keeps the community informed of current and future projects** - The Capital Improvement Plan informs the public about the short and long-range fiscal and capital development goals for the community. It assists the citizens in understanding the constraints and limitations of capital improvements and community service financing.
- **Focuses attention on community goals, needs and capabilities** - The capital improvement process ensures that City objectives, future needs, and financial capabilities are incorporated into the planning of capital projects and services. The Capital Improvement Plan provides a mechanism for prioritizing new capital projects and programs based upon identifiable needs and available resources.

- **Encourages cooperation and coordination between City departments and other agencies** - Early identification of community needs allows the City ample time to plan and coordinate capital project construction with other City departments and outside agencies.
- **Consideration of impact on the Operating Budget** - The Capital Improvement Plan process forces consideration of how projects, once completed, will affect the City's Operating Budget. Too often, a capital project is built with little or no consideration of its operational cost and the potential impact on the annual Operating Budget.

How Do I Read a Capital Improvement Plan?

A quick review of this document without some preparation can be frustrating to the reader who simply wants to learn and understand what the City is doing with their tax dollars. The key to understanding this document is realizing that the information is presented in many different ways, with several different perspectives. Each capital project is presented in the following categories:

By Project Type: The bulk of the Capital Improvement Plan is individual project descriptions. If you would like to learn more about a specific project such as costs, description and location, and /or justification, this is the section you should use.

The project descriptions are grouped into project categories such as Public Facilities, Streets, Wastewater, Water, etc. Reviewing the projects by category allows the reader insight into what the City proposes to do in that general area. Individual projects may be scattered around the City, but the reader can learn what the priorities are and the type of projects emphasized in that category.

Also, it is important to understand that projects within a category are split into two subcategories "Funded", and "Unfunded". The City Council has tentatively approved the projects in the "Funded" category for completion in the years shown. Staff has determined that funds will be available for these projects and City Council has ranked these projects high enough, compared to other projects, to designate them for completion. However, it must be stated that the City Council has only committed to the projects designated for funding in FY2013-2014 and FY2014-2015 of the five-year capital improvement plan. Projects in the remaining years are shown only to establish the City Council's current priorities. Those priorities may change next year and the City Council must have the flexibility to meet new priorities as they arise.

The second sub-category is "Unfunded" projects. These are projects for which no funding source has been identified. These projects are presented so the public can see all capital projects submitted for consideration. The list of unfunded projects illustrates the total capital demands on available resources. Unfunded projects are not associated with a specific year and are presented only with a total project cost projection.

By Funding Source: The projects are also grouped by funding source. The section titled "Projects by Fund" shows a summary page for each fund that will be paying for

any capital project. The summary shows all projects within a fund. It is important to understand that a single project can receive funds from several different sources. In other words, the same project could be listed several times but under different funding sources. Likewise, a single fund can pay for projects that may fall into several different project categories.

Who Develops the Capital Improvement Plan?

The Capital Improvement Plan is developed in cooperation with all City departments and the public. The various City departments and divisions identify projects to be considered in the Capital Improvement Plan, complete the Capital Improvement Project Request Form describing the proposed project, and coordinate with one another on projects that involve more than one department.

CIP Committee: The CIP Committee consists of a representative from each City department. The Committee administers and conducts the process through which projects are selected for funding. The Committee develops criteria for ranking all projects in order of importance, reviews and ranks all General Fund projects, and develops a proposed Capital Improvement Plan that is fiscally sound and meets the City's goals and policies. The Capital Improvement Plan Committee includes the following positions:

- City Manager
- Director of Public Works
- Finance Director
- Director of Community Development
- Director of Parks & Recreation
- Police Chief
- Fire Chief

CIP Staff: The Capital Improvement Plan Staff provide support and complete staff work for the CIP Committee. Duties of the CIP Staff include assisting in the completion of the CIP Request Forms, working with all departments to develop revenue and expenditure summaries for each funding source, assembling and preparing all documents and materials, coordinating with the Engineering Division to prepare CIP project cost estimates, coordinating the entire CIP process, and making presentations to City Commissions and the public. The CIP Staff includes the following positions:

- City Engineer
- City Controller
- Public Works Senior Management Analyst

City Commissions: The proposed Capital Improvement Plan is initially presented to the Parking and Public Improvements Commission (PPIC) to review the projects and provide comment. In addition, the Parking and Public Improvement Commission hears public comments concerning proposed capital projects.

The proposed Capital Improvement Plan is then reviewed by the Planning Commission for consistency with the City's General Plan. All information provided by the Parking and Public Improvements Commission and the Planning Commission is forwarded to the City Council.

Manhattan Beach City Council: The City Council reviews, discusses and adopts the Capital Improvement Plan as part of the operating budget process.

Where does the money come from to pay for the CIP?

The cost of capital projects is allocated to several different funds depending upon the nature of the project. For example, capital projects that are associated with maintaining or upgrading the water system are paid for out of the City's Water Fund. The Water Fund generates revenue from water rate payers. It should be noted that projects which impact more than one department or program may have multiple funding sources. In this case, the total project cost will be shared among the various funding sources.

Every fund with an associated capital project cost is included in the "Projects by Fund" section later in this book. If you are interested in the impact of proposed capital projects on any particular fund, please read the summary for that fund.

What is the general philosophy behind the Funding Decisions?

The City uses a "pay-as-you-go" philosophy in funding capital projects whenever possible. This means that if the funds are not available in current receipts combined with the fund balance to complete the project, the project is not recommended for completion. An exception to this policy may occur from time-to-time due to extraordinary infrastructure replacement needs that arise. The City Council may approve the issuance of revenue bonds to fund large scale infrastructure repairs or replacements if current revenues will not support the needed work.

Will the CIP have any impact on the Operating Budget?

Capital projects typically either increase or decrease operating expenses. Projects that replace or rehabilitate existing facilities will likely decrease maintenance and operating costs, such as the annual water line replacement and street resurfacing programs. Projects that build new facilities and/or enhance services typically increase operating expenses to fund the increased staffing and maintenance needs of those facilities. Finally, a new facility or program that is the result of a capital project may increase revenue by offering a new service to residents. In this circumstance, the City may establish new fees to recover operating costs related to the new service being provided.

Is there a policy behind a Capital Improvement Plan?

The five-year Capital Improvement Plan is based on a long-term vision of the City, as developed by the City Council, to maintain the reliability of the City's infrastructure and to meet the needs and desires of the community for City services.

During the development of the five-year Capital Improvement Plan, capital projects that affect public health and safety, and/or legal mandates are given the highest priority. Emphasis is placed on capital projects that maintain existing service levels or prevent damage to critical property or disruption of service to the community. Projects that would enhance existing services or improve efficiency beyond industry standards receive secondary priority.

In Conclusion

This long-range vision of the City's infrastructure needs is the result of a combined effort and input of the City Council, City staff, and the public. These projects are intended to improve the quality of life for those who live, play and work in the City of Manhattan Beach.

CITY OF MANHATTAN BEACH

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PROPOSED 2014-2018 Capital Improvement Plan
GLOSSARY OF KEY TERMS

| <u>Term</u> | <u>Definition/Explanation</u> |
|------------------------------------|---|
| Capital Improvement Fund | <i>The Capital Improvement Fund</i> is used to account for capital projects not eligible for funding from other specific funding sources. Funding sources are derived from various sources such as grant funds or transfers from the General Fund. |
| Gas Tax Fund | <i>The Gas Tax Fund</i> is used to account for the City's share of state and county gasoline tax collection in accordance with the provisions of the State of California Streets and Highway Code. Revenues are disbursed by the State based on population and must be used towards the maintenance and repair of City streets that serve as State and County thoroughfares. |
| Grind and Overlay | The process used for rehabilitating a decaying street. In this process, a thin layer of asphalt, usually 1"-1 ½", is ground off the top of the street. A layer of new asphalt is then applied to the surface. This process typically extends a street's life by 10 to 15 years. |
| MWD | The Metropolitan Water District is responsible for supplying most all of Southern California's water needs through the California and Colorado River Aqueducts. After the water reaches Southern California, it is distributed to member agencies such as West Basin Municipal Water District. Manhattan Beach buys its water from West Basin. |
| Measure R Local Return | Measure R is a one-half cent (0.5%) sales tax approved by Los Angeles County voters in November, 2008 to meet the transportation needs of Los Angeles County. <u>Local Return</u> Measure R Local Return funds are provided to cities on a per capita basis. The City began receiving these funds in January 2010 and should receive an estimated \$330,000 per year. The funds can be used for street maintenance, bicycle and pedestrian facilities and transit purposes. |
| Measure R South Bay Highway | <u>South Bay Highway Projects</u> A portion of Measure R is allocated to 17 regional project group categories. South Bay agencies will receive funding under the subcategory entitled "Interstate 405, I-110, I-105, and SR-91 Ramp and Interchange Improvements (South Bay)". It is estimated that \$906 million will be available to South Bay agencies over 30 years to fund capacity improvements that benefit the state highway system. Eligibility provisions in the measure have been interpreted to include routes parallel to state highways as well. |
| Parking Fund | <i>The Parking Fund</i> is used to account for the general operations and maintenance of City parking lots and spaces. Revenues are generated from |

CITY OF MANHATTAN BEACH

DRAFT

PROPOSED 2014-2018 Capital Improvement Plan GLOSSARY OF KEY TERMS

the use of these properties.

**Prop A & C Funds
(Transportation)**

The Proposition A and C Funds are used to account for proceeds from the half-cent sales taxes generated by the approval of Propositions A and C by Los Angeles County voters. These funds, which are administered by the Los Angeles County Metropolitan Transportation Authority (MTA), are distributed based on population and must be used for transportation-related projects.

**Prop A Funds
(Recreation)**

The recreation Proposition A Funds were voter approved bonds for open acquisition, park improvements, nature trails, and other recreational improvements. A small portion of the funds are dedicated to special purposes such as improving the water quality of the Santa Monica Bay through structural improvements to reduce urban run-off.

Slurry Seal

An asphaltic coating applied to streets (approximately ¼ inch thick) to seal the street surface and prolong the useful life of the pavement.

**State Pier &
Parking Fund**

The State Pier & Parking Lot Fund is used to account for the operation and maintenance of the Manhattan Beach Pier, comfort station, and four adjacent parking lots. These properties are owned by the State, but controlled by the City through an operating agreement.

Stormwater

Stormwater is the run-off created as a result of rain. Typically, stormwater enters a storm drain which goes directly to the ocean without the benefit of any treatment.

Stormwater Fund

The Stormwater Fund is used to account for the maintenance of and improvements to, the City's storm drains. Revenues are derived from a storm drain assessment to property owners, which is based on size and use of the parcel, and collected through the property tax roles.

TDA Article III

Transportation Development Act. Administered by the MTA, TDA funds can be used for improvements to pedestrian and bicycle facilities.

Safetea-Lu

Federal transportation legislation entitled "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" (Safetea-Lu) that provides funding to agencies for improvements in roads and transportation systems.

Wastewater

Also known as sewage, wastewater is the waste that runs down sinks, toilets, showers, and other indoor drains. Wastewater in Manhattan Beach flows to the Joint Wastewater Pollution Control Plant in Carson where it is treated and then released into the ocean.

CITY OF MANHATTAN BEACH

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PROPOSED 2014-2018 Capital Improvement Plan
GLOSSARY OF KEY TERMS

Wastewater Fund *The Wastewater Fund* is used to account for the maintenance of and improvements to, the City's sewer system. Revenues are derived from a user charge placed on the water bills.

Water Fund *The Water Fund* is used to account for the operation of the City's water utility system. Revenues are generated from user fees, which are adjusted periodically to meet the costs of administration, operation, maintenance, and capital improvements to the system.

**West Basin
Municipal Water
District** The City of Manhattan Beach purchases its water from West Basin who is a member of MWD. West Basin also operates a water recycling facility in El Segundo. Approximately 15% of the City's water supply is recycled water which is used for irrigating the City's parks and landscaped medians.



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2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | BY TYPE |
|--|--------------------------|---------------------------------------|-----------------------|-----------------------------------|--------------|------------|------------|------------|------------|--|----------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| SUMMARY ALL PROJECT TYPES | | | | | | | | | | | |
| WATER PROJECTS | | | | \$ 1,093,910 | \$ 800,000 | \$ - | \$ - | \$ - | \$ - | \$ 1,893,910 | See Below |
| STREETS PROJECTS | | | | \$ 3,183,995 | \$ 4,581,725 | \$ 515,000 | \$ 365,000 | \$ 405,000 | \$ 365,000 | \$ 9,415,720 | See Below |
| FACILITIES PROJECTS | | | | \$ - | \$ 190,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 940,000 | See Below |
| FACILITIES PROJECTS (Special Revenue Funds) | | | | \$ 583,788 | \$ 300,000 | \$ - | \$ - | \$ - | \$ - | \$ 883,788 | See Below |
| FUNDED PROJECTS BY TYPE TOTAL | | | | \$ 4,861,693 | \$ 5,871,725 | \$ 965,000 | \$ 465,000 | \$ 505,000 | \$ 465,000 | \$ 13,133,418 | See Below |

13

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | BY TYPE |
|--|--|---------------------------------------|-----------------------|-----------------------------------|--------------|------------|-----------|-----------|-----------|--|----------------|
| WATER PROJECTS | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| WATER PROJECTS | | | | | | | | | | | |
| 1 | Water Main Replacement: Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Booster to 2nd St Booster) | 12829E | FY 2011-12 | design | \$ 1,093,910 | \$ 700,000 | | | | \$ 1,793,910 | Water Fund |
| 2 | Well 11A Backup Generator Replacement | | | | \$ 100,000 | \$ 800,000 | | | | \$ 100,000 | Water Fund |
| Water Projects TOTAL | | | | | | | | | | | |
| | | | | | \$ 1,093,910 | \$ 800,000 | \$ - | \$ - | \$ - | \$ 1,893,910 | Water Fund |

14

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018
DRAFT PROJECTS BY TYPE FOR FY2013-2014

| STREETS, TRANSPORTATION | | | | | | | | | | BY TYPE | |
|---|--|---------------------------------------|-----------------------|-----------------------------------|--------------|------------|------------|------------|------------|--|------------------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| CAPACITY ENHANCEMENTS (GRANT FUNDED) | | | | | | | | | | | |
| 1 | Sepulveda Bridge Widening MTA Call | 13640E | FY12-13 | design | \$ 3,629,325 | | | | | \$ 6,813,320 | Proposition C |
| 2 | Sepulveda Blvd. & 8th St. Intersection Improvements (NB & SB from Sep to 8th) (Highway Safety Improvement Program 10% match) | | | | \$ 248,800 | | | | | \$ 248,800 | Gas Tax Fund |
| | Subtotal | | | | \$ 3,878,125 | | | | | \$ 7,062,120 | |
| PEDESTRIAN AND SAFETY IMPROVEMENTS | | | | | | | | | | | |
| 3 | Pathway to the Sea | | | | \$ 50,000 | | | | | \$ 50,000 | Measure R Local Return |
| 4 | Pedestrian Improvements at 22 Intersections (Highway Safety Improvement Program 10% match) | | | | \$ 248,600 | | | | | \$ 248,600 | Gas Tax Fund |
| | Subtotal | | | | \$ 298,600 | | | | | \$ 298,600 | |
| CONCRETE REPAIRS | | | | | | | | | | | |
| 5 | 13-14 - 17-18 Annual Curb, Gutter and Ramp Replacement Project (FY14-15 project includes Parkview Avenue) | | | | \$ 365,000 | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | Gas Tax Fund |
| | Subtotal | | | | \$ 365,000 | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | |
| ASPHALT PAVEMENT PROJECTS | | | | | | | | | | | |
| 6 | Triennial Pavement Management System Update | | | | \$ 40,000 | \$ 40,000 | \$ 40,000 | \$ 40,000 | \$ 40,000 | \$ 160,000 | Gas Tax Fund |
| | Subtotal | | | | \$ 40,000 | \$ 40,000 | \$ 40,000 | \$ 40,000 | \$ 40,000 | \$ 160,000 | |
| | Streets Projects TOTAL | | | | \$ 4,581,725 | \$ 515,000 | \$ 365,000 | \$ 405,000 | \$ 365,000 | \$ 9,415,720 | |

15

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | BY TYPE |
|--|--------------------------|---------------------------------------|-----------------------|-----------------------------------|------------|------------|------------|------------|------------|--|----------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| FACILITIES | | | | | | | | | | | |
| 1 | | | | | \$ 40,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 440,000 | CIP Fund |
| 13-14 - 17-18 Non-Motorized Transportation Crosswalks, Bike lanes etc (FY13-14 project: Flashing Beacons on Bike Path @ Pier \$40,000) | | | | | | | | | | | |
| 2 | | | | \$ - | \$ 150,000 | \$ 350,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 500,000 | CIP Fund |
| 2 Marine Ave State Park CIP Fund Facilities Projects TOTAL | | | | | | | | | | | |
| | | | | \$ - | \$ 190,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 840,000 | CIP Fund |

16

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | |
|--|---|---------------------------------------|-----------------------|-----------------------------------|------------|-----------|-----------|-----------|-----------|--|---|
| FACILITIES (SPECIAL REVENUE FUNDS) | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| FACILITIES (SPECIAL REVENUE FUNDS) | | | | | | | | | | | |
| 3 City Yard Cover | 10830E (CIP) 10834E (Water) 10839E (Storm) 10841E (WW) 10844E (RI9) | FY 2009-10 | design | \$ 583,788 | \$ 200,000 | | | | | \$ 783,788 | CIP Fund Water Fund Stormwater Fund Wastewater Fund Refuse Fund |
| 4 Crash Rated Pier Bollards | | | | | \$ 100,000 | | | | | \$ 100,000 | State Pier Fund |
| Other Fund Sources Facilities Projects TOTAL | | | | | | | | | | | |
| | | | | \$ 583,788 | \$ 300,000 | | | | | \$ 883,788 | |

17

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018
DRAFT PROJECTS BY TYPE FOR FY2013-2014

| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
|--|--------------------------|---------------------------------------|-----------------------|-----------------------------------|---------------------|-------------------|-------------------|-------------------|-------------------|--|----------------|
| | | | | | | | | | | | |
| WATER PROJECTS | | | | \$ 1,093,910 | \$ 800,000 | \$ - | \$ - | \$ - | \$ - | \$ 1,893,910 | See Above |
| STREETS PROJECTS | | | | \$ 3,183,995 | \$ 4,581,725 | \$ 515,000 | \$ 365,000 | \$ 405,000 | \$ 365,000 | \$ 9,415,720 | See Above |
| FACILITIES PROJECTS | | | | \$ - | \$ 190,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 840,000 | See Above |
| FACILITIES PROJECTS (Special Revenue Funds) | | | | \$ 583,788 | \$ 300,000 | \$ - | \$ - | \$ - | \$ - | \$ 883,788 | See Above |
| FY13-14 FUNDED PROJECTS BY TYPE TOTAL | | | | \$ 4,861,693 | \$ 5,871,725 | \$ 965,000 | \$ 465,000 | \$ 505,000 | \$ 465,000 | \$ 13,133,418 | |

18

DRAFT
 FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014
 DRAFT PROJECTS BY FUND FOR FY2013-2014

| BY FUND | | | | | | | | | | |
|-------------------------------|-----------------------------------|---------------------|-------------------|-------------------|-------------------|-------------------|--|----------------|--|--|
| Summary All Funds | | | | | | | | | | |
| Fund | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) | | |
| Wastewater Fund | \$ 148,750 | \$ 50,000 | \$ - | \$ - | \$ - | \$ - | 188,750 | See Below | | |
| Water Fund | \$ 1,217,660 | \$ 875,000 | \$ - | \$ - | \$ - | \$ - | 2,092,660 | See Below | | |
| Gas Tax, TDA3 & MTA STP-L | \$ - | \$ 902,400 | \$ 515,000 | \$ 365,000 | \$ 405,000 | \$ 365,000 | 2,552,400 | See Below | | |
| Measure R Local Return | \$ - | \$ 50,000 | \$ - | \$ - | \$ - | \$ - | 50,000 | See Below | | |
| Proposition C Fund | \$ - | \$ 3,629,325 | \$ - | \$ - | \$ - | \$ - | 3,629,325 | See Below | | |
| Capital Improvement Fund | \$ 97,608 | \$ 215,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | 1,062,608 | See Below | | |
| Refuse Fund | \$ 97,500 | \$ 50,000 | \$ - | \$ - | \$ - | \$ - | 147,500 | See Below | | |
| State Pier & Parking Lot Fund | \$ - | \$ 100,000 | \$ - | \$ - | \$ - | \$ - | 100,000 | See Below | | |
| Total All Funds | \$ 1,561,518 | \$ 5,871,725 | \$ 965,000 | \$ 465,000 | \$ 505,000 | \$ 465,000 | 9,833,243 | | | |

19

*Project has multiple funding sources

DRAFT
FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014 DRAFT PROJECTS BY FUND FOR FY2013-2014 | | | | | | | | | | | |
|--|--------------------------|--|-----------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|--|---|
| WASTEWATER FUND | | | | | | | | | | BY FUND | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| 1 City Yard Cover* | 10841E | FY2009-10 | design | \$ 148,750 | \$ 50,000 | | | | | \$ 198,750 | CIP, Water, Stormwater, Wastewater, Reuse |
| Wastewater Fund TOTAL | | | | | | | | | | | |
| | | | | \$ 148,750 | \$ 50,000 | | | | | \$ 198,750 | |

20

*Project has multiple funding sources

DRAFT
 FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014
 DRAFT PROJECTS BY FUND FOR FY2013-2014

| BY FUND | | | | | | | | | | | |
|--|--------------------------|--|-----------------------|-----------------------------------|-------------------|-------------|-------------|-------------|-------------|--|---|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| WATER FUND | | | | | | | | | | | |
| 1 City Yard Cover* | 10834E | FY2009-10 | design | \$ 123,750 | \$ 75,000 | | | | | \$ 198,750 | CIP, Water, Stormwater, Wastewater, Reuse |
| 2 Water Main Replacement, Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Booster to 2nd St Booster) | 12829E | FY 2011-12 | design | \$ 1,093,910 | \$ 700,000 | | | | | \$ 1,793,910 | Water Fund |
| 3 Well 11A Backup Generator Replacement | | | | \$ 100,000 | \$ 100,000 | | | | | \$ 100,000 | Water Fund |
| Water Fund TOTAL | | | | \$ 1,217,660 | \$ 875,000 | \$ - | \$ - | \$ - | \$ - | \$ 2,092,660 | |

21

*Project has multiple funding sources

DRAFT
FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014
DRAFT PROJECTS BY FUND FOR FY2013-2014

BY FUND

| GAS TAX FUND - Gas Tax, TDA3 & MTA STP-L | | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
|--|--------------------------|--|-----------------------|-----------------------------------|------------|------------|------------|------------|------------|--|--------------------------------|
| PROJECT TITLE | Carryover Project Number | | | | | | | | | | |
| GAS TAX FUND | | | | | | | | | | | |
| 1 | | | | | \$ 246,600 | | | | | \$ 246,600 | Gas Tax Fund (10% match grant) |
| 2 | | | | | \$ 246,800 | | | | | \$ 246,800 | Gas Tax Fund (10% match grant) |
| 3 | | | | | \$ 365,000 | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | Gas Tax Fund |
| 4 | | | | | \$ 40,000 | | | \$ 40,000 | | \$ 80,000 | Gas Tax Fund |
| | | | | | \$ - | \$ 902,400 | \$ 515,000 | \$ 405,000 | \$ 365,000 | \$ 2,552,400 | |
| Gas Tax Fund TOTAL | | | | | | | | | | | |

22

*Project has multiple funding sources

DRAFT
FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014 DRAFT PROJECTS BY FUND FOR FY2013-2014 | | | | | | | | | | | BY FUND | |
|--|--------------------------|--|-----------------------|-----------------------------------|-----------|-----------|-----------|-----------|-----------|--|------------------------|-----------|
| MEASURE R LOCAL RETURN FUND | | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) | |
| MEASURE R LOCAL RETURN FUND | | | | | | | | | | | | |
| 1 Pathway to the Sea | | | | \$ - | 50,000 | | | | | \$ 50,000 | Measure R Local Return | 50,000 |
| Measure R Local Return Fund TOTAL | | | | \$ - | 50,000 | | | | | \$ 50,000 | | 50,000 |
| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014 DRAFT PROJECTS BY FUND FOR FY2013-2014 | | | | | | | | | | | BY FUND | |
| PROPOSITION C FUND | | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) | |
| PROPOSITION C FUND | | | | | | | | | | | | |
| 1 Sepulveda Bridge Widening MTA Call | | | | \$ - | 3,629,325 | | | | | \$ 3,629,325 | Proposition C | 3,629,325 |
| Measure R Local Return Fund TOTAL | | | | \$ - | 3,629,325 | | | | | \$ 3,629,325 | | 3,629,325 |

23

*Project has multiple funding sources

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FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014
DRAFT PROJECTS BY FUND FOR FY2013-2014

| CAPITAL IMPROVEMENT FUND | | | | | | | | | | | BY FUND | | | | | |
|---|--------------------------|---------------------------------------|-----------------------|-----------------------------------|------------|------------|------------|------------|------------|--|--|------------|------------|------------|--------------|--|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) | | | | | |
| CAPITAL IMPROVEMENT FUND | | | | | | | | | | | | | | | | |
| 1 City Yard Cover* | 10830E | FY2009-10 | design | \$ 97,608 | \$ 25,000 | | | | | \$ 122,608 | CIP, Water, Stormwater, Wastewater, Refuse | | | | | |
| 2 13-14 - 17-18 Non-Motorized Transportation Crosswalks, Bike lanes, etc. (FY13-14 project: Flashing Beacons on Bike Path @ Pier) | | | | \$ | \$ 40,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 440,000 | CIP Fund | | | | | |
| 3 Marine Ave Skate Park | | | | \$ 97,608 | \$ 150,000 | \$ 350,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 500,000 | CIP Fund | | | | | |
| CIP Fund TOTAL | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | \$ 97,608 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 1,062,608 | |

24

*Project has multiple funding sources

DRAFT
 FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014
 DRAFT PROJECTS BY FUND FOR FY2013-2014

| BY FUND | | | | | | | | | | | | |
|-------------|--|---------------------------------|---|------------------------------|--|------------------|------------------|------------------|------------------|------------------|---|--|
| REFUSE FUND | PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| | REFUSE FUND | | | | | | | | | | | |
| 1 | City Yard Cover* | 10844E | FY2009-10 | design | \$ 97,500 | \$ 50,000 | | | | | \$ 147,500 | CIP, Water, Stormwater, Wastewater, Refuse |
| | Refuse Fund TOTAL | | | | \$ 97,500 | \$ 50,000 | | | | | \$ 147,500 | |
| | STATE PIER AND PARKING FUND | | | | | | | | | | | |
| | PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| 1 | Crash Rated Pier Bollards | | | | | \$ 100,000 | | | | | \$ 100,000 | State Pier Fund |
| | State Pier and Parking Fund TOTAL | | | | \$ - | \$ 100,000 | | | | | \$ 100,000 | |

25

*Project has multiple funding sources

DRAFT
FY 2013-2014 PROPOSED Capital Improvement Plan by Fund

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2013-2014
DRAFT PROJECTS BY FUND FOR FY2013-2014

BY FUND

| PROJECT TITLE | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
|-------------------------------|-----------------------------------|---------------------|-------------------|-------------------|-------------------|-------------------|--|----------------|
| Wastewater Fund | \$ 148,750 | \$ 50,000 | - | - | - | - | 198,750 | See Above |
| Water Fund | \$ 1,217,660 | \$ 875,000 | - | - | - | - | 2,092,660 | See Above |
| Gas Tax, TDA3 & MTA STP-L | \$ - | \$ 902,400 | \$ 515,000 | \$ 365,000 | \$ 405,000 | \$ 365,000 | 2,552,400 | See Above |
| Measure R Local Return | \$ - | \$ 50,000 | - | - | - | - | 50,000 | See Above |
| Proposition C Fund | \$ - | \$ 3,629,325 | - | - | - | - | 3,629,325 | See Below |
| Capital Improvement Fund | \$ 97,608 | \$ 215,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | 1,062,608 | See Above |
| Refuse Fund | \$ 97,500 | \$ 50,000 | - | - | - | - | 147,500 | See Above |
| State Pier & Parking Lot Fund | \$ - | \$ 100,000 | - | - | - | - | 100,000 | See Above |
| Total All Funds | \$ 1,561,518 | \$ 5,871,725 | \$ 965,000 | \$ 465,000 | \$ 505,000 | \$ 465,000 | \$ 9,833,243 | |

26

*Project has multiple funding sources

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

Carryover Project Type: Utilities –water
Carryover Project number: 12829E

Carryover Project Title: **Water Main Replacement: Sepulveda Boulevard & 2nd Street (Sepulveda – MBB to 2nd; 2nd – Larsson Booster to 2nd St Booster)**

Description: Construction of replacement water mains and new fire hydrants.

Sepulveda Boulevard (Manhattan Beach Boulevard to 2nd Street)
2nd Street (Larsson Pump Station to 2nd St Pump Station)

Justification: The existing water mains on the west side of Sepulveda Boulevard are 70 and 80 years old. Replacing the mains will restore the useful lives of these mains and will assure the longevity and dependability of the system.

Original Funding Year: FY 2011-12

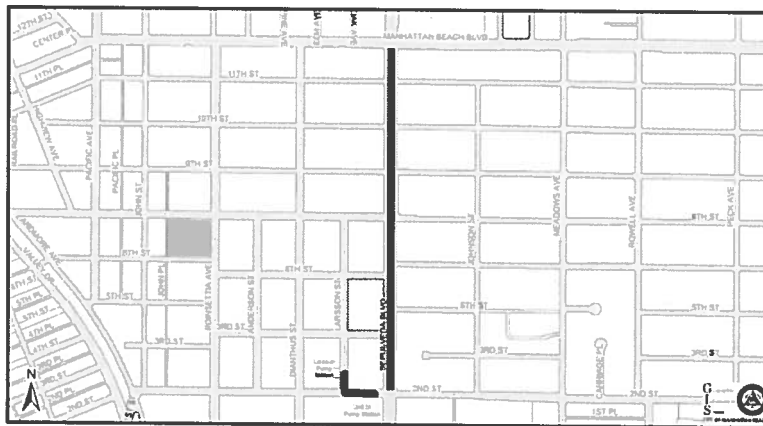
Funding Source: Water Fund

Funding Remaining: \$1,094,000.00

New Funds Requested: \$700,000.00 in FY 2013-14

Project Status: In design

Location Map:



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PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information



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PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Utilities - water

Project Title: Well 11A Backup Generator Replacement

Description: Replace failed emergency backup generator with AQMD approved and permitted backup generator

Justification: Diesel engine of backup generator failed. Though genset met all applicable laws and regulations at time of installation, currently mandated AQMD particulate and exhaust emission standards cannot be met with a compatible diesel engine that would mate to the generator portion of backup gen set. Staff has already received AQMD permit approval for new genset as specified. Project includes removal, replacement, exhaust plenum retrofit, modification of fuel tank, cabling, resealing of vault access cover, and certification of operation.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY 2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| Water Fund | \$100,000 | | | | | \$100,000 |
| TOTAL | \$100,000 | | | | | \$100,000 |

Location Map on following page:

29

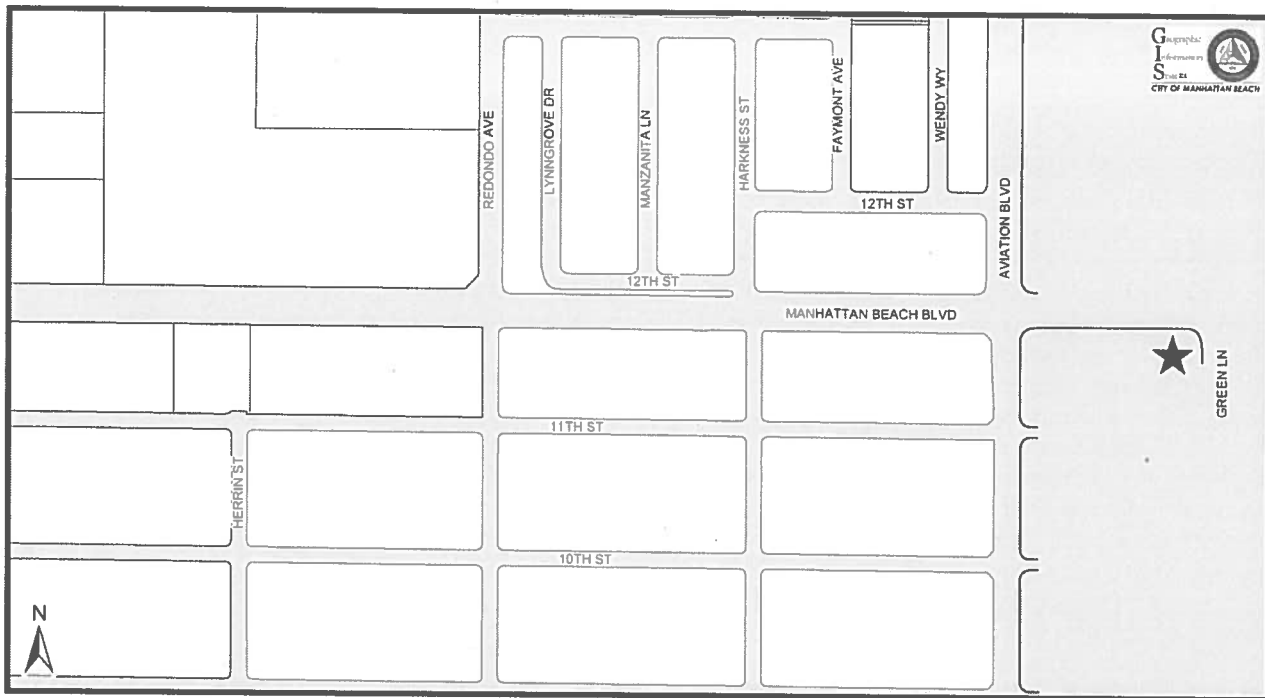
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Utilities - water

Project Title: Well 11A Backup Generator Replacement

Location map:



30
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Streets – capacity enhancements

Project Title: Sepulveda Boulevard & 8th Street Intersection Improvements, Northbound and Southbound from Sepulveda to 8th (Highway Safety Improvement Program – HSIP)

Description: Sepulveda Blvd at 8th Street, to upgrade traffic signals, install protected left-turn phasing and construct curb ramps to comply with current ADA standards.

Justification: This project aims to improve driver decisions about rights of way and turning based on a spot location safety analysis and a road safety assessment. This project is further justified in light of ongoing accident history at this location with respect to turning vehicles. Total project cost is \$248,800 which includes \$223,800 in Federal Funds and a 10% Local match contribution of \$25,000.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
| Gas Tax Fund | \$248,800 | | | | | \$248,800 |
| TOTAL | \$248,800 | | | | | \$248,800 |

Location Map:

No map

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information



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32
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Streets – pedestrian and safety improvements

Project Title: Pathway to the Sea

Description: Construct 8-foot wide by 70-foot long concrete sidewalk, located west of the Los Angeles County Beaches and Harbors bike path near 41st Street.

Justification: Provide an accessible walkway to beach access for people with limited mobility.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY 2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| Measure R Local Return | \$50,000 | | | | | \$50,000 |
| TOTAL | \$50,000 | | | | | \$50,000 |

Location Map:

No map



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34
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Streets – pedestrian and safety improvements

- Project Title:** **Pedestrian Improvements at 22 Intersections (Highway Safety Improvement Program – HSIP)**
- Description:** Twenty-two intersections throughout the City for pedestrian improvements including the installation of marked crosswalks and signage, construction of bulb-outs and installation of pedestrian countdown signal heads.
- Justification:** This project is justified to make walking and street crossing safer for all non-motorized users by proactively attempting to reduce pedestrian and bicycle related accidents as was identified through a city-wide safety analysis. Total project cost is \$248,600 which includes \$223,700 in Federal Funds and a 10% Local match contribution of \$24,900.

Project Cost Information:

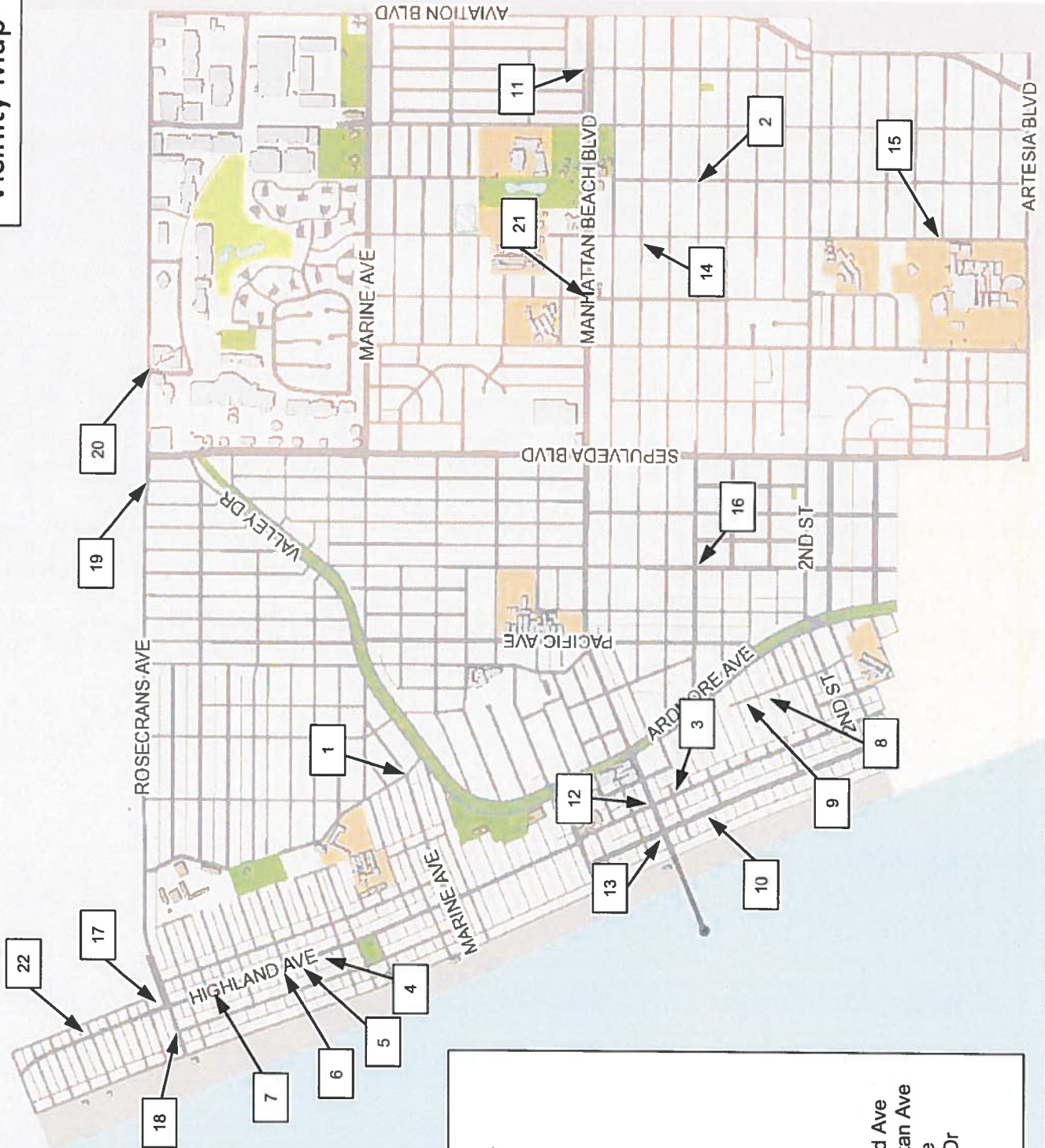
Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
| Gas Tax Fund | \$248,600 | | | | | \$248,600 |
| TOTAL | \$248,600 | | | | | \$248,600 |

Location Map on following page:

35
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Vicinity Map



- Project Locations**
1. Blanche Rd at Marine Ave
 2. Herrin St at 8th St
 3. Highland Ave at 11th St
 4. Highland Ave at 17th St
 5. Highland Ave at 18th St
 6. Highland Ave at 19th St
 7. Highland Ave at 32nd St
 8. Ingleside Dr at 5th St
 9. Ingleside Dr at 6th St
 10. Manhattan Ave at 10th St
 11. MBB at Harkness Ave
 12. MBB at Highland Ave
 13. MBB at Manhattan Ave
 14. Peck Ave at 10th St
 15. Peck Ave at Ruhland Ave
 16. Poinsettia Ave at 8th St
 17. Rosecrans Ave at Highland Ave
 18. Rosecrans Ave at Manhattan Ave
 19. Rosecrans Ave at Oak Ave
 20. Rosecrans Ave at Village Dr
 21. Rowell Ave at MBB
 22. Highland Ave at 40th St

36

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Streets – concrete repairs

Project Title: Annual Curb, Gutter and Ramp Replacement Project
(FY13-14 through FY17-18)

Description: Replacement of concrete improvements in advance of slurry sealing to mitigate trip hazards and gutter ponding. Curb ramps will also be installed as needed to comply with the Americans with Disabilities Act. The 2013-14 project will focus on Area 2 and the 2014-15 project will focus on Area 3 and Parkview Ave (per Council recommendation).

Justification: Tree roots and soil settlement cause displacement of curbs gutters and sidewalk. This project will eliminate displacements and gutter ponding.

Project Cost Information:

Capital Costs:

| <i>Funding Source</i> | <u>FY 2013-14</u> <u>Area 2</u> | <u>FY 2014-15</u> <u>Area 3</u> | <u>FY 2015-16</u> <u>Area 4</u> | <u>FY 2016-17</u> <u>Area 5</u> | <u>FY 2017-18</u> <u>Area 6</u> | <u>TOTAL</u> |
|-----------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------------|
| Gas Tax Fund | \$345,000 | \$495,000 | \$345,000 | \$345,000 | \$345,000 | \$1,875,000 |
| TDA – Art. 3 | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$20,000 | \$ 100,000 |
| TOTAL | \$365,000 | \$515,000 | \$365,000 | \$365,000 | \$365,000 | \$1,975,000 |

Location Map:



37
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information



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38
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Streets – asphalt pavement

Project Title: **Tiennial Pavement Management System Update**

Description: Inspection of pavement surfaces to assess condition, prioritize rehabilitation and determine resources required to maintain street pavements in good condition.

Justification: State, federal and county regulations require that Cities maintain a pavement management system. A pavement management system is a management tool to assist in the development of efficient pavement maintenance and rehabilitation programs. The City is required to inspect pavement condition on a triennial basis. The last pavement evaluation was completed in 2011 and is required to be updated again in 2014. The evaluations will update pavement condition for all streets in the City except Sepulveda Boulevard which is a State Highway.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY 2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| Gas Tax Fund | \$40,000 | | | \$40,000 | | \$80,000 |
| TOTAL | \$40,000 | | | \$40,000 | | \$80,000 |

Location Map:

No map

39
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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information



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40

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Facilities

Project Title: **FY 13-14 through FY 17-18 Non-Motorized Transportation
Crosswalks, Bike Lanes, Etc.**

FY 13-14 Project:
Install Bike Flashing Beacons at Manhattan Beach Pier

Description: Install automated flashing beacons on the bike path in advance of the Manhattan Beach Pier including crosswalk markings and wireless communication.

Justification: This project will require bicyclists to walk their bikes during high pedestrian times when warning beacons are activated on The Strand Bike Path. It will improve pedestrian safety where bicyclists cross the pier. The project promotes non-motorized transportation and conservation.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------------|
| CIP Fund | \$40,000 | \$100,000 | \$100,000 | \$100,000 | \$100,000 | \$440,000 |
| TOTAL | \$40,000 | \$100,000 | \$100,000 | \$100,000 | \$100,000 | \$440,000 |

Location Map on following page:

41
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W11-2

AHEAD

W16-9p

Remove existing "WATCH FOR PED TRAFFIC" and install W11-2 and W16-9P signs on ex. post.

Remove existing "WATCH FOR BICYCLE TRAFFIC".

Manhattan Beach Bl.

Paint 2' wide green bands with 2' wide spacing to represent shared bike path and pedestrian crossing area. Use textured green 2-part epoxy paint.

Repaint yellow centerline.

Remove existing "WATCH FOR PED TRAFFIC" and install W11-2 and W16-9P signs on ex. post.



© 2013 Google

33°53'03.58" N 118°24'42.54" W elev 25 ft

© 2013 Google

Imagery Date: 3/7/2011 3



City of Manhattan Beach
Department of Community Development

42

MANHATTAN BEACH PIER
Conceptual Bike Path Crossing Design

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Facilities

Project Title: Marine Avenue Skate Park

Description: Construction of a skate park at Marine Avenue Park, 1625 Marine Avenue.

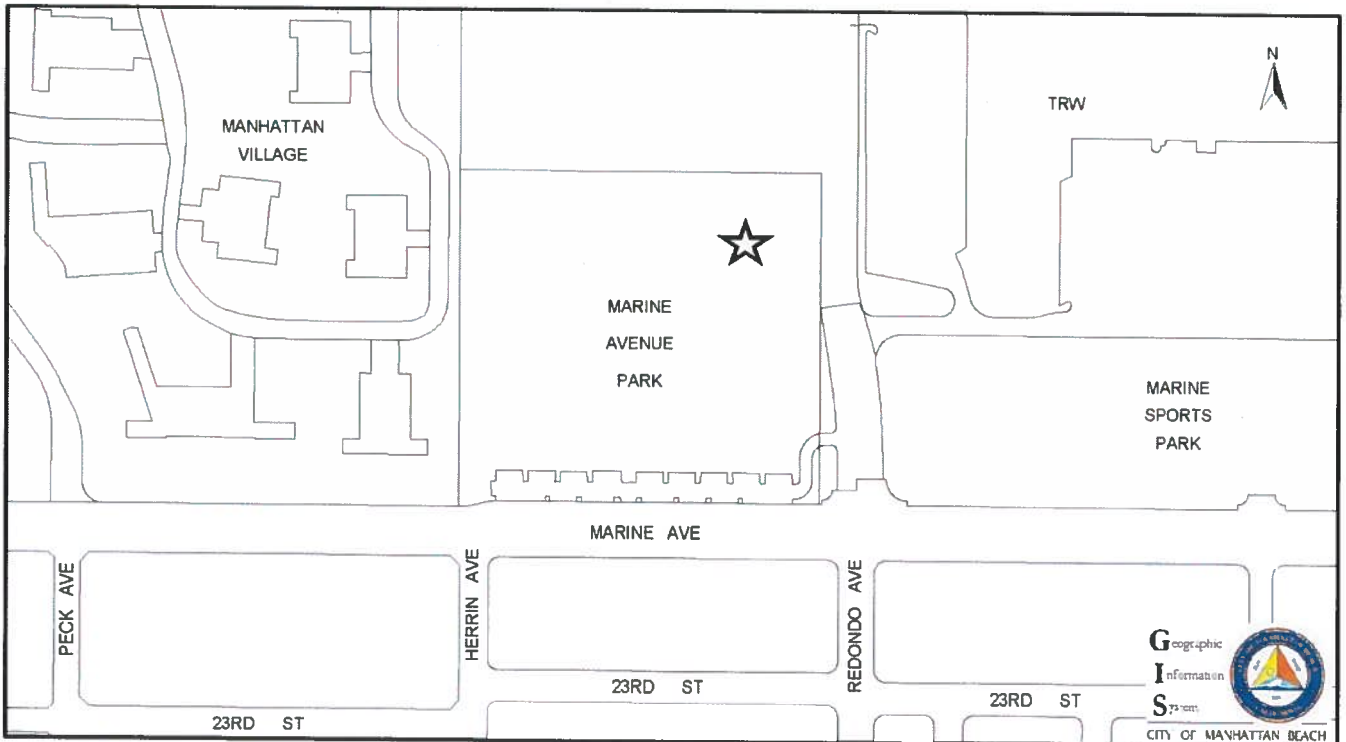
Justification: In the City of Manhattan Beach there are hundreds of teens who skateboard and who have approached the Teen Center and Playground staff with questions about providing a safe place for them to ride. Currently, there is no space provided for them (skateboarding is not allowed in our parks). Marine Avenue Park is a safe and secure location that is not fronted on a busy street and maintains a distance from neighboring homes. Placing the skate park near the Middle School stages the facility for maximum usage. The proposed budget includes lighting, equipment, landscaping, fencing, a staff office, and signage.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY 2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| CIP Fund | \$150,000 | \$350,000 | | | | \$500,000 |
| TOTAL | \$150,000 | \$350,000 | | | | \$500,000 |

Location Map:



43
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44

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

Carryover Project Type: Facilities
Carryover Project number: 10830E (CIP)
10834E (Water)
10839E (Storm)
10841E (WasteW)
10844E (Refuse)

Carryover Project Title: City Yard Cover

Description: Construct a cover for the materials and disposal areas of the City Maintenance Facility; reconstruct material storage bin walls.

Justification: This project will help the City comply with the National Pollutant Discharge Elimination System (NPDES) storm water permit requirements by providing a protective cover for the materials storage and waste disposal areas of the City Maintenance Facility. The NPDES permit requires public agencies to implement Best Management Practices (BMPs) to prevent discharges into storm water. Without a cover there is a greater potential for storm water runoff to carry loose materials and debris from the yard into the City's storm drain system. The expected outcome is cleaner storm drain runoff and a cleaner ocean. All residents of the City and beachgoers will benefit with cleaner, safer conditions on City beaches.

Original Funding Year: FY 2009-10

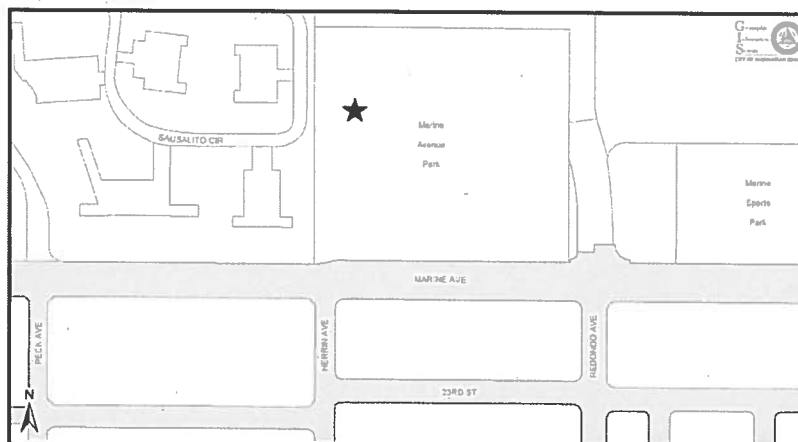
Funding Source(s): CIP Fund, Water Fund, Storm water Fund, Wastewater Fund, Refuse Fund

Funding Remaining: \$583,788.00

New Funds Requested: \$200,000.00 in FY 2013-14

Project Status: In design

Location Map:



45
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46

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City of Manhattan Beach
PROPOSED 2014-2018 Capital Improvement Plan
FY 2013-2014 Project Information

New Project Type: Facilities

Project Title: **Crash-Rated Pier Bollards**

Description: Replace decorative bollards damaged in traffic collision with engineered replacement that are crash rated.

Justification: In 2012, a vehicle suffered brake failure and crashed into the Pier. The accident did not result in any personal injury. The existing design is not crash-rated and due to the potential for property or personal injury, crash-rated bollard are proposed to be constructed and installed as a design /build project. Several of the bollards will be designed as removable to allow for the daily maintenance and special event activities.

Project Cost Information:

Capital Costs:

| <u>Funding Source(s)</u> | <u>FY 2013-14</u> | <u>FY 2014-15</u> | <u>FY 2015-16</u> | <u>FY 2016-17</u> | <u>FY 2017-18</u> | <u>TOTAL</u> |
|--------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|
| Pier Fund | \$100,000 | | | | | \$100,000 |
| TOTAL | \$100,000 | | | | | \$100,000 |

Location Map:



47
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48
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| UNFUNDED PROJECTS ALL PROJECT TYPES | | | | | | | | | |
|--|---|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|----------------|------------------|
| UNFUNDED PROJECTS BY TYPE FOR FY2013-2014 THRU FY2017-2018 | | | | | | | | | |
| PROJECT TITLE | Status as of 10/22/13 | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | Five-Year Total | FUND SOURCE(S) | |
| <u>UNFUNDED STORMWATER PROJECTS</u> | | | | | | | | | |
| a | Beach Infiltration | | | | | | | | Storm Drain Fund |
| | Stormwater Unfunded TOTAL | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 12,000,000 | | 12,000,000 |
| <u>UNFUNDED ASPHALT PAVEMENT PROJECTS</u> | | | | | | | | | |
| a | 2nd Street - Valley Dr. to Aviation Bl. | \$ 700,000 | | | | | | | TBD |
| b | Redondo Avenue - Artesia Bl. to Manhattan Beach Bl. | \$ 500,000 | | | | | | | TBD |
| c | Meadows Avenue - Artesia Bl. to Manhattan Beach Boulevard | | \$ 500,000 | | | | | | TBD |
| d | Poinsettia Ave. - Boundary Pl. to Manhattan Beach Bl. | | \$ 400,000 | | | | | | TBD |
| e | Residential Mill and Overlay/Reconstruction (Tree Section W/O Pacific Ave.) | | | \$ 1,050,000 | \$ 840,000 | | | | TBD |
| f | Harkness Street - 2nd St. to Manhattan Beach Bl. | | | | | \$ 280,000 | | | TBD |
| | Total Unfunded Pavement Projects | \$ 1,200,000 | \$ 900,000 | \$ 1,050,000 | \$ 840,000 | \$ 280,000 | \$ 4,270,000 | | |
| <u>UNFUNDED BICYCLE PROJECTS</u> | | | | | | | | | |
| a | Class I Bike Paths, Bell Av. and Redondo Av. Extensions | | \$ 200,000 | | \$ 200,000 | | | | TBD |
| b | Class II Bike Lanes, Rosecrans, Marine E/O Sepulveda, Aviation. | | | \$ 280,000 | | | | | TBD |
| c | Class III Bike Routes per South Bay Bicycle Master Plan | | \$ 110,000 | | | | | | TBD |
| d | Bike Friendly Streets per South Bay Bicycle Master Plan | | \$ 501,000 | | | | | | TBD |
| | Total Unfunded Concrete Street Projects | \$ - | \$ 811,000 | \$ 280,000 | \$ 200,000 | \$ - | \$ 1,291,000 | | |
| <u>UNFUNDED CONCRETE STREET PROJECTS</u> | | | | | | | | | |
| a | Concrete Street Replacement /Rehabilitation | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | | | TBD |
| | Total Unfunded Concrete Street Projects | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 750,000 | \$ 3,750,000 | | |
| | TOTAL UNFUNDED PROJECTS | \$ 1,950,000 | \$ 2,461,000 | \$ 2,080,000 | \$ 1,790,000 | \$ 1,030,000 | \$ 21,311,000 | | |

49



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ACKNOWLEDGMENTS

The 2014-2018 Capital Improvement Plan was prepared by an interdepartmental team whose members included:

- John Jalili, Interim City Manager
- Tony Olmos, Director of Public Works
- Bruce Moe, Director of Finance
- Henry Mitzner, City Controller
- Jeanne O'Brien, Senior Accountant
- Eden Serina, Financial Analyst
- Michael Guerrero, Principal Civil Engineer
- Bonnie Shrewsbury, GIS Analyst
- Anna Luke-Jones, Public Works Senior Management Analyst

The recommendations contained in this document represent our best analytical efforts and a shared organizational and community vision about Manhattan Beach's capital needs for the next five years.

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | BY TYPE | |
|--|--------------------------|--|-----------------------|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|--|------------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr. | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| SUMMARY ALL PROJECT TYPES | | | | | | | | | | | |
| WATER PROJECTS | | | \$ 1,093,910 | \$ 800,000 | \$ - | \$ - | \$ - | \$ - | \$ - | 1,893,910 | See Below |
| STREETS PROJECTS | | | \$ 3,183,995 | \$ 4,581,724 | \$ 515,000 | \$ 365,000 | \$ 465,000 | \$ 465,000 | \$ 365,000 | 9,415,720 | See Below |
| FACILITIES PROJECTS | | | \$ - | \$ 190,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | 940,000 | See Below |
| FACILITIES PROJECTS (Special Revenue Funds) | | | \$ 583,786 | \$ 300,000 | \$ - | \$ - | \$ - | \$ - | \$ - | 883,786 | See Below |
| FUNDED PROJECTS BY TYPE TOTAL | | | \$ 4,861,693 | \$ 5,871,725 | \$ 965,000 | \$ 465,000 | \$ 465,000 | \$ 505,000 | \$ 465,000 | 13,133,418 | See Below |

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 | | | | | | | | | | | BY TYPE |
|--|--|---------------------------------------|-----------------------|-----------------------------------|---------------------|-------------------|-----------|-----------|-----------|--|----------------|
| DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | |
| WATER PROJECTS | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| 1 | Water Main Replacement, Sepulveda Boulevard & 2nd Street (Sep-MBB to 2nd; 2nd-Larsson Booster to 2nd St Booster) | 12829E | FY 2011-12 | design | \$ 1,093,910 | \$ 700,000 | | | | \$ 1,793,910 | Water Fund |
| 2 | Well 11A Backup Generator Replacement | | | | \$ 100,000 | | | | | \$ 100,000 | Water Fund |
| Water Projects TOTAL | | | | | \$ 1,093,910 | \$ 800,000 | | | | \$ 1,893,910 | |

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | BY TYPE |
|--|--------------------------|---------------------------------------|-----------------------|-----------------------------------|--------------|------------|------------|------------|------------|--|------------------------|
| STREETS / TRANSPORTATION | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| CAPACITY ENHANCEMENTS (GRANT FUNDED) | | | | | | | | | | | |
| 1 Sepulveda Bridge Widening MTA Call | 13840E | FY12-13 | design | \$ 3,183,995 | \$ 3,629,325 | | | | | \$ 6,815,320 | Proposition C |
| 2 Sepulveda Blvd. & 8th St. Intersection Improvements (NB & SB from Sep to 8th) (Highway Safety Improvement Program 10% match) | | | | \$ | \$ 248,800 | | | | | \$ 248,800 | Gas Tax Fund |
| Subtotal | | | | \$ 3,183,995 | \$ 3,878,125 | \$ - | \$ - | \$ - | \$ - | \$ 7,062,120 | |
| PEDESTRIAN AND SAFETY IMPROVEMENTS | | | | | | | | | | | |
| 3 Pathway to the Sea | | | | \$ | \$ 50,000 | | | | | \$ 50,000 | Measure R Local Return |
| 4 Pedestrian Improvements at 22 Intersections (Highway Safety Improvement Program 10% match) | | | | \$ | \$ 248,600 | | | | | \$ 248,600 | Gas Tax Fund |
| Subtotal | | | | \$ | \$ 298,600 | \$ - | \$ - | \$ - | \$ - | \$ 298,600 | |
| CONCRETE REPAIRS | | | | | | | | | | | |
| 5 13-14 - 17-18 Annual Curb, Gutter and Ramp Replacement Project (FY14-15 project includes Parkview Avenue) | | | | \$ | \$ 365,000 | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | Gas Tax Fund |
| Subtotal | | | | \$ - | \$ 365,000 | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | |
| ASPHALT PAVEMENT PROJECTS | | | | | | | | | | | |
| 6 Triennial Pavement Management System Update | | | | \$ | \$ 40,000 | | | \$ 40,000 | | \$ 80,000 | Gas Tax Fund |
| Subtotal | | | | \$ - | \$ 40,000 | \$ - | \$ - | \$ 40,000 | \$ - | \$ 80,000 | |
| Streets Projects TOTAL | | | | \$ | \$ 4,581,725 | \$ 515,000 | \$ 365,000 | \$ 405,000 | \$ 365,000 | \$ 9,415,720 | |

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

| City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018 | | | | | | | | | | | |
|--|---|--|-----------------------|-----------------------------------|------------|-----------|-----------|-----------|-----------|--|--|
| DRAFT PROJECTS BY TYPE FOR FY2013-2014 | | | | | | | | | | | |
| FACILITIES (SPECIAL REVENUE FUNDS) | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| FACILITIES (SPECIAL REVENUE FUNDS) | | | | | | | | | | | |
| 3 | City Yard Cover | 10839E (CIP) 10834E (Water) 10839E (Storm) 10841E (WW) 10844E (RS) | FY 2009-10 | design | \$ 583,788 | 200,000 | | | | 785,788 | CIP Fund Water Fund Stormwater Fund Wastewater Fund Refuse Fund State Pier Fund |
| 4 | Crash Related Pier Bollards | | | | \$ 100,000 | | | | | 100,000 | |
| | Other Fund Sources Facilities Projects TOTAL | | | | \$ 300,000 | | | | | \$ 883,788 | |

DRAFT
2014-2018 PROPOSED Capital Improvement Plan Projects by Type

City of Manhattan Beach, PROPOSED Capital Improvement Plan 2014-2018
DRAFT PROJECTS BY TYPE FOR FY2013-2014

| BY TYPE | | | | | | | | | | | |
|--|--------------------------|---------------------------------------|-----------------------|-----------------------------------|---------------------|-------------------|-------------------|-------------------|-------------------|--|----------------|
| SUMMARY ALL PROJECT TYPES | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 10/22/13 | Carryover Project Funds Remaining | FY2013-14 | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| WATER PROJECTS | | | | \$ 1,093,910 | \$ 800,000 | | | | | | See Above |
| STREETS PROJECTS | | | | \$ 3,183,988 | \$ 4,561,728 | \$ 515,000 | \$ 385,000 | \$ 405,000 | \$ 385,000 | \$ 9,415,720 | See Above |
| FACILITIES PROJECTS | | | | \$ - | \$ 190,000 | \$ 450,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 940,000 | See Above |
| FACILITIES PROJECTS (Special Revenue Funds) | | | | \$ 583,788 | \$ 300,000 | | | | | \$ 883,788 | See Above |
| FY13-14 FUNDED PROJECTS BY TYPE TOTAL | | | | \$ 4,861,693 | \$ 5,871,725 | \$ 965,000 | \$ 465,000 | \$ 505,000 | \$ 465,000 | \$ 13,133,418 | |

City of Manhattan Beach
 FY 2013-2014 Dept Request Level 6
 Itemized Line Item Detail
 Controllable Costs
 Object Selection

Fiscal Year 2014
 Level 6
 Fund Streets, Highways & Sidewalk
 Grouping F
 CIP Street Improvements - CYr

XDB
 02/11/2014
 5:31:20PM

| Account Number /Title / Budget Line item Descriptions | Amount |
|---|---------------------|
| CIP Street Improvements - CYr | |
| 1 FY 2013-2017 CIP Year 2: \$350k - Annual Slurry Program | 350,000.00 1 |
| 2 FY 2013-2017 CIP Year 2: \$400k - Street Resurfacing Project: Blanche, marine, Oak, 27th St. and 11th St. | 400,000.00 2 |
| Total Account | 750,000.00 |
| CIP Street Improvements - CYr | |
| CIP Street Improvements - CYr | |
| 1 FY 2013-2017 CIP Year 2: Annual Curb, Gutter and Ramp Replacement Project | 365,000.00 1 |
| Total Account | 365,000.00 |
| Streets, Highways & Sidewalks | |
| 6222 | 1,115,000.00 |
| 205 | 1,115,000.00 |

City of Manhattan Beach
 FY 2013-2014 Dept Request Level 6
 Itemized Line Item Detail
 Controllable Costs
 Object Selection

Fiscal Year 2014
 Level 6
 Fund Prop. C Fund
 Grouping F
 CIP Street Improvements - CYr
 Data Date 02/11/2014
 XDB
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| Account Number /Title / Budget Line item Descriptions | Amount |
|--|----------------------|
| CIP Street Improvements - CYr | |
| 1 FY 2013-2017 CIP Year 2: Sepulveda Bridge Widening Project (33rd-Valley) | 10,265,472.00 |
| 2 FY 2013-2017 CIP Year 2: Aviation at Marine, Dual SB to EB Lefts | 1,500,000.00 |
| 3 FY 2013-2017 CIP Year 2: Dual Left-Turn Lanes on MBB at Sepulveda EB to NB, NB to WB, WB to SB. | 980,000.00 |
| Total Account 231-18-021-6222 | 12,745,472.00 |
| CIP Street Improvements - CYr | |
| 1 FY 2013-2017 CIP Year 2: Triennial Pavement Management System | 40,000.00 |
| Total Account 231-18-032-6222 | 40,000.00 |
| 6222 | 12,785,472.00 |
| 231 | 12,785,472.00 |

City of Manhattan Beach
 FY 2013-2014 Dept Request Level 6
 Itemized Line Item Detail
 Controllable Costs
 Object Selection

Fiscal Year 2014
 Level 6
 Fund Capital Improvement Fund
 Grouping F
 CIP Street Improvements - CYr

Data Date 02/11/2014
 5:31:20PM
 XDB

| Account Number /Title / Budget Line item Descriptions | Amount |
|--|---------------------|
| CIP Street Improvements - CYr | |
| 1 | 100,000.00 |
| 401-18-032-6222 Public Works Street Repair | 100,000.00 |
| FY 2013-2017 CIP Year 2: Non-Motorized Transportation Xwalks, Bike Lanes, etc. | |
| Total Account 401-18-032-6222 CIP Street Improvements - CYr | 100,000.00 |
| <hr/> | |
| 6222 | 100,000.00 |
| 1 | 1,900,000.00 |
| 401-18-021-6263 Public Works Civil Engineering | 1,900,000.00 |
| FY 2013-2017 CIP Year 2: City Structure Deferred Maintenance | |
| Total Account 401-18-021-6263 Infrastructure Improvements | 1,900,000.00 |
| <hr/> | |
| 6263 | 1,900,000.00 |
| 401 | 2,000,000.00 |
| 401 Capital Improvement Fund | |
| 1 | 2,500,000.00 |
| 501-18-221-6212 Public Works Water Source Of Supply | 2,500,000.00 |
| FY 2013-2017 CIP Year 2: Water Well at Aviation Boulevard/6th Street (Well 13) | |
| Total Account 501-18-221-6212 CIP Bldg & Facility - CYr | 2,500,000.00 |
| <hr/> | |
| 6212 | 2,500,000.00 |
| 1 | 1,600,000.00 |
| 501-18-211-6242 Public Works Water Administration | 1,600,000.00 |
| FY 2013-2017 CIP Year 2: \$1.6M Pipe Replacement Prog & Fire Hydrant Installation (Area 2) | |
| 2 | 500,000.00 |
| FY 2013-2017 CIP Year 2: \$0.5M Well Collection Line from Well 11A to Block 35 | |
| Total Account 501-18-211-6242 CIP Line Improvememnts - CYr | 2,100,000.00 |
| <hr/> | |
| 6242 | 2,100,000.00 |

City of Manhattan Beach
FY 2013-2014 Dept Request Level 6
Itemized Line Item Detail
Controllable Costs
Object Selection

Fiscal Year 2014
Level 6
Fund Water Fund
Grouping F
CIP Line Improvemmnts - CYr

Data Date 02/11/2014
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5:31:20PM

| Account Number /Title / Budget Line item Descriptions | Amount |
|--|----------------------|
| 501 Water Fund | 4,600,000.00 |
| CIP Bldg & Facility - CYr | |
| 1 FY 2013-2017 CIP Year 2: Poinsettia Sewage Pump Station | 1,982,500.00 1 |
| Total Account 503-18-321-6212 | 1,982,500.00 |
| <hr/> | |
| 6212 CIP Line Improvemmnts - CYr | 1,982,500.00 |
| 1 FY 2013-2017 CIP Year 2: FY2014-2015 Rehab of Gravity Sewer Mains (Spot Repairs) | 100,000.00 1 |
| Total Account 503-18-321-6242 | 100,000.00 |
| <hr/> | |
| 6242 Wastewater Fund | 100,000.00 |
| 503 City Totals | 2,082,500.00 |
| | 22,582,972.00 |

Agenda Date: 2/25/2014

TO:

Honorable Mayor and Members of the City Council

THROUGH:

John Jalili, Interim City Manager

FROM:

Tony Olmos, Public Works Director
Edward Kao, Senior Civil Engineer

SUBJECT:

Sepulveda Boulevard Bridge Widening Project - Project Update and Bridge Aesthetic Treatments (Public Works Director Olmos).

RECEIVE REPORT AND PROVIDE DIRECTION

RECOMMENDATION:

Staff recommends that the City Council receive this project status update on the Sepulveda Boulevard Bridge Widening Project and provide direction on bridge widening and aesthetic treatments.

FISCAL IMPLICATIONS:

A mixture of Federal, State and local funds in the amount of approximately \$21 million dollars are available for this project. The current estimated total project cost is approximately \$17 million dollars (Attachment 1). As such, the aesthetic treatment options presented for Council consideration can be accommodated within the funds available.

BACKGROUND:

Sepulveda Bridge (#53 0062) is located on Sepulveda Boulevard (SR 1) between Rosecrans Avenue and 33rd Street. The bridge is 100 feet wide and spans 165 feet across a vacant AT&SF railroad right of way. The area east of the bridge is currently used for parking and the area west of the bridge is the Veterans Parkway/jog path maintained by the City. The existing bridge currently has 3 northbound and 3 southbound lanes in each direction. Sepulveda Boulevard immediately north and south of the bridge has 3 southbound and 4 northbound lanes. The proposed project will widen the east side of the bridge to provide a fourth northbound lane to remove the existing bottleneck at the bridge (Attachment 2).

Sepulveda Boulevard (SR 1) including the bridge are owned and maintained by Caltrans. Due to the local significance of the roadway, the City entered into an agreement with

Caltrans in February 2009 to widen the bridge as a joint project with the City taking the lead and Caltrans serving in a supporting role. Since then, City has secured project funding.

As a result, at its June 5, 2012 meeting, City Council awarded a contract to HDR, Inc. for design, environmental and right of way acquisition services related to the widening of the Sepulveda Boulevard bridge. HDR Inc. is an international firm with 90 years of experience delivering large engineering and architectural projects and has completed many large local projects for the City of Los Angeles, County of Los Angeles, Orange County Transportation Authority and Caltrans and is actively working on the project.

DISCUSSION:

This project, located in the City of Manhattan Beach south of Rosecrans Avenue and north of 33rd Street, will add one additional northbound lane on Sepulveda Boulevard by widening the bridge between 33rd Street to just south of Rosecrans Avenue. The project will also improve the alignment of the roadway around the bridge and will also improve the safety of the bridge.

Sepulveda Boulevard is Route 1 on the State Highway System. According to Caltrans traffic count records, the 2012 average daily traffic over the Sepulveda Bridge is 71,000 vehicles per day. The peak hour is 5,400 vehicles.

The additional northbound lane will remove the bottleneck at the bridge and provide 4 continuous northbound lanes from Marine Avenue to Rosecrans Avenue. The existing right turn only lane leading to the Manhattan Village Shopping Center (at 33rd Street) will be changed to a shared through / right turn lane, thereby eliminating the need to merge from 4 lanes to 3 lanes between 30th Street and 33rd Street. This addition of approximately 700 feet of new travel lane will increase capacity, improve traffic flow on Sepulveda Boulevard, and reduce the number of cars on side streets.

Project Justification

At the October 15, 2013 City Council meeting, some councilmembers expressed concern regarding the cost/benefits of the project. As a result, staff was directed to gather project traffic data and report back at a future City Council meeting to demonstrate how the traffic circulation would be improved by this project.

As follow-up, Mr. Erik Zandvliet, City Traffic Engineer, reviewed the Traffic Analysis prepared for the project and conducted his own research on the existing conditions. His findings are summarized in a memo dated October 29, 2013 to then City Manager, Mr. Dave Carmany (Attachment 3). The Traffic Analysis was prepared by Iteris and is also attached (Attachment 4).

In summary, Mr. Zandvliet concludes that:

- Project will eliminate a long-standing bottleneck on Sepulveda Boulevard just south of Rosecrans Avenue.
- Project will increase northbound lane capacity by about 800 vehicles per hour or 10,000 vehicles per day. The additional northbound lane will improve the

- Level-of-Service of the street segment by 25% from “F” (over 100% of lane capacity) to “E” (90%+ of lane capacity). It is expected to handle expected traffic growth for at least 30 years.
- Reduced congestion on Sepulveda Boulevard as the result of the project will improve accessibility to adjacent businesses.
 - Reduced congestion on Sepulveda Boulevard as a result of the project will incrementally decrease the amount of bypass traffic through nearby neighborhoods .
 - Project will make it easier to use the northbound right turn at Rosecrans Avenue .
 - Project will straighten the lanes over the bridge, thereby reducing the potential for sideswipe collisions caused by substandard lane alignment in both directions.
 - Project will reduce the higher than expected collision rate by eliminating the merge required from the northbound right turn trap lane at 33rd Street. The existing collision rate is higher than the average statewide rate for this street segment (up to 2.45 collisions per million vehicle miles versus the statewide average of 1.85).
 - Project will reduce vehicle delays at the intersection of Sepulveda Boulevard and Rosecrans Avenue by providing four (4) full-length approach lanes. This reduction will allow additional green time to be more equitably redistributed to the other directional movements, resulting in better overall signal operation.
 - Project will improve the Level-of-Service at the intersection of Sepulveda Boulevard and 33rd Street by 20% from “E” (up to 100% of lane capacity) to “C” (up to 80% of lane capacity). The additional lane will allow additional green time to be more equitably redistributed to the other directions to reduce delays in crossing Sepulveda Boulevard or exiting the shopping center.
 - Project will eliminate recurring violations of the northbound right turn into the shopping center at 33rd Street by removing the right turn trap lane. The Police Department issues the greatest percentage of citations (45 per year) to motorists continuing straight in the right turn pocket. The Police Department will be able to reallocate its resources to other locations after the right turn trap is removed.
 - Due to closely spaced traffic signals and minimum lane widths in this street segment, an increase in prevailing speeds is not anticipated.
 - Manhattan Village Shopping Center Traffic Analysis did NOT include the bridge widening in its evaluation, therefore, the shopping center improvements are NOT contingent upon or related to the construction of the bridge. The shopping center analyzed the worst case scenario in which the bridge is not widened.

Design

Design is 35% Complete. In addition to the project plans, HDR is also working on a set of plans and specifications showing the bridge widening alternatives. The bridge widening alternatives package will be used by Caltrans’ engineers to select the type of bridge

widening for this project. As previously discussed with City Council, the project team is currently considering two bridge widening alternatives.

The first alternative will widen the bridge to structurally match the existing structure. This alternative would use columns and beams and will require seismic retrofitting. The second alternative will use an arch culvert design to eliminate the need for additional columns and beams. The second alternative will not require seismic retrofitting since the arch culvert design will improve the overall stability of the structure (Attachment 5).

In addition to the two project alternatives, the project team has also developed several aesthetic treatment options for the retaining walls and concrete barriers for both options. Staff is seeking City Council feedback on the bridge widening alternatives and aesthetic treatment options. Caltrans will ultimately select the bridge widening type and treatments, but the City's input will be taken into consideration (Attachment 6).

Environmental Documentation

A Finding of No Significant Impact (FONSI) was prepared by Caltrans for this project in 1988 and was reevaluated in 2004. Caltrans then completed project study reports for the project in 2004 and 2006. Lack of project funding prevented the project from moving forward and the environmental document expired in June 2007. Revalidation of the environmental document is required. The Initial Site Assessment (ISA), Advanced Planning Study (APS) and Draft Supplemental Project Report were submitted to Caltrans for review and approval. The Draft Supplemental Project Report submitted includes the Environmental Document (Initial Study/Environmental Assessment (IS/EA)) Revalidation. Staff continues working with Caltrans to expedite their review and approval.

Permits and Approvals

The bridge and roadway are owned by the State of California and maintained by the Department of Transportation (Caltrans). All plans must conform to Caltrans standards and must be reviewed and plan checked by Caltrans. Since the project is funded by Federal funds, special authorizations (E 76) need to be obtained at different stages of the project. The Authorization for Project Engineering (design) has been approved. In the near future, authorizations for Right Of Way Acquisition, Utilities, and Construction will be needed before each specific work can start. Prior to commencement of construction, Caltrans will issue a Double Permit to the City and to the Contractor hired by the City to construct the project. The construction management and inspection will be handled by a City consultant with oversight from Caltrans inspectors.

Right of Way Acquisition

Temporary construction easements as well as permanent easements are required for the project. Portions of four parcels on the east side of Sepulveda Boulevard must be acquired for the project. It is not anticipated that additional acquisition expense will be incurred to acquire the necessary right of way. Preliminary contacts have been made with affected land owners. However, no actual work can start until Authorization for Right Of Way (ROW) is received.

Traffic Impacts During Construction

During construction, Sepulveda Boulevard will remain open with 3 lanes in each direction

during morning and afternoon traffic peak hours. However, during off peak hours, northbound traffic will be reduced to 2 lanes and southbound traffic may be reduced to 2 lanes for construction, as well. Although Sepulveda Boulevard is a designated bike route, Caltrans does not allow bicycles on Sepulveda Boulevard in this area due to the high volume of traffic.

Project Schedule

The project is currently in the design stage. Environmental documentation, Permits, and Right of Way acquisition are expected to be completed in Fall 2014 with project ready to bid in early 2015. Construction is expected to start in the late Spring 2015 and be completed by Summer of 2016. At this time, project schedule is approximate since it's heavily dependent on Caltrans processing timelines.

CONCLUSION:

Staff recommends that the City Council receive this project status update and provide feedback on the bridge widening alternatives and retaining wall and concrete barrier treatment options.

Attachments:

1. Project Appropriations and Funding Plan
2. Location Map
3. Traffic Engineer Memo
4. Traffic Analysis for Sepulveda Widening Project
5. Bridge Widening Alternatives
6. Retaining Wall and Concrete Barrier Aesthetic Treatment Options

ATTACHMENT 1
 SEPULVEDA BOULEVARD BRIDGE WIDENING PROJECT
 Project Funding Plan

TABLE 1 – Project Funding Summary and Appropriations

| Funding Source | Previous Appropriations | FY2013-14 | FY-2014-15 | FY-2015-16 | TOTAL |
|--|-------------------------|--------------------|--------------------|--------------------|---------------------|
| 1. Metro Call 2009 ⁽¹⁾ | \$3,184,000 | \$3,629,325 | | | \$6,813,325 |
| 2. Safetea-Lu High Priority Project ⁽²⁾ | \$1,439,000 | | | | \$1,439,000 |
| 3. Proposition C ⁽³⁾ | \$1,749,300 | | \$1,345,200 | \$1,000,000 | \$4,094,500 |
| 4. Measure R South Bay ⁽⁴⁾ | \$4,550,000 | | \$4,550,000 | | \$9,100,000 |
| TOTAL ⁽⁵⁾ | \$10,922,300 | \$3,629,325 | \$5,895,200 | \$1,000,000 | \$21,446,825 |

- (1) Included in fiscal year 2012-13 Capital Improvement Plan approved by City Council on April 3, 2012. 63.5% Reimbursement Rate with 36.5 % Local Match (\$3,916,320) needed.
- (2) Funding agreement approved by City Council on February 15, 2011. 80% Reimbursement Rate with 20% Local Match (\$359,750) needed.
- (3) This is the City fund currently available for Local Matches. Total Local Matching fund needed is \$4,276,070. At this time, staff believes the projected Proposition C funds shown should be sufficient since the estimated project cost is less than available budget.
- (4) 100% Reimbursement. No Local Match Required.
- (5) Indicates total funding secured to date.

Safetea-Lu High Priority Project Funds (\$1,439,000) – The federal highway and transit programs legislation, “Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users”, known as Safetea-Lu, was signed into law in 2005. Safetea-Lu expired on September 30, 2009 and has been operating on a series of short-term extensions since. Safetea-Lu provides funding for surface transportation including earmark funds for 5173 High Priority Projects nationwide. Congresswoman Jane Harman sponsored High Priority Project 1286 the “South Bay Cities COG Coastal Corridor Transportation Initiative, Phase 3” and directed the entire earmark to the Sepulveda Boulevard Bride Widening Project. These funds are available on a reimbursement basis and a 20% local match is required. City Council approved a funding agreement for the use of these funds in February 15, 2011.

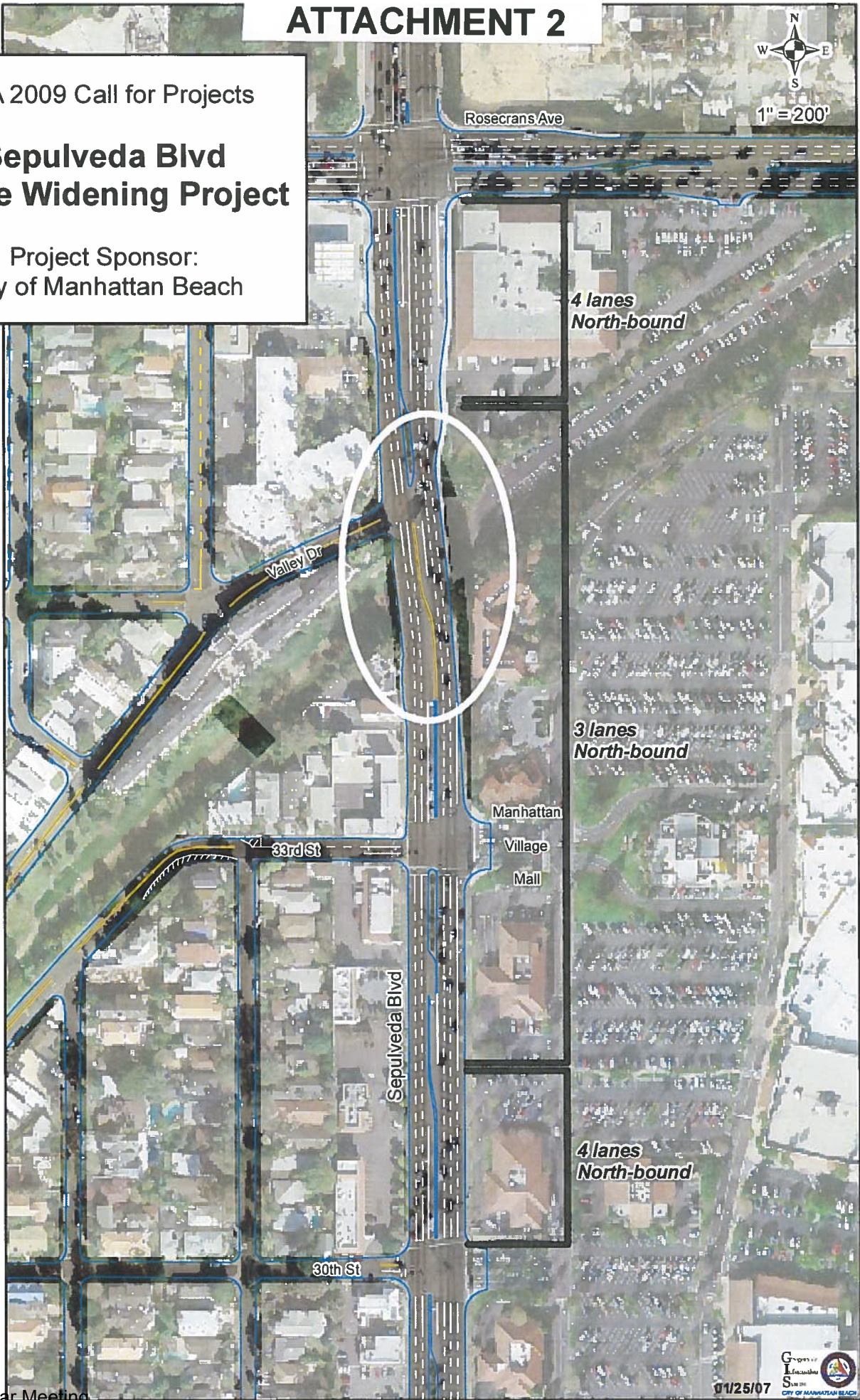
ATTACHMENT 2



MTA 2009 Call for Projects

Sepulveda Blvd Bridge Widening Project

Project Sponsor:
City of Manhattan Beach



ATTACHMENT 3

CITY OF MANHATTAN BEACH

DEPARTMENT OF COMMUNITY DEVELOPMENT

TO: David N. Carmany, City Manager

FROM: Tony Olmos, Public Works Director
Richard Thompson, Community Development Director
BY: Erik Zandvliet, Traffic Engineer

DATE: October 29, 2013

SUBJECT: **Sepulveda Boulevard Bridge Widening Project
Traffic Related Enhancements**

The City of Manhattan Beach, in coordination with the California Department of Transportation (Caltrans), is currently designing a project to widen the Sepulveda Boulevard Bridge just south of Rosecrans Avenue. The project will add a lane in the northbound direction within the project limits between Rosecrans Avenue and 33rd Street. In addition, the dedicated northbound right turn lane at the intersection of Sepulveda Boulevard and 33rd Street will be converted to a shared through-right turn lane. Construction is expected to begin in Spring 2015 and be completed by Summer 2016. Traffic will remain open in both directions with periodic lane closures during construction.

The City Traffic Engineer has reviewed the Traffic Analysis for the project and conducted research on the existing conditions. Some of the expected benefits of the widening based on his findings are summarized below:

1. The project will eliminate a long-standing bottleneck on Sepulveda Boulevard just south of Rosecrans Avenue.
2. The project will increase northbound lane capacity by about 800 vehicles per hour or 10,000 vehicles per day. The additional northbound lane will improve the Level-of-Service of the street segment by 25% from "F" (over 100% of lane capacity) to "E" (90%+ of lane capacity). It is expected to handle expected traffic growth for at least 30 years.
3. The reduced congestion on Sepulveda Boulevard as the result of the project will improve accessibility to adjacent businesses.
4. The reduced congestion on Sepulveda Boulevard as a result of the project will incrementally decrease the amount of bypass traffic through nearby neighborhoods.
5. The project will make it easier use the northbound right turn at Rosecrans Avenue.
6. The project will straighten the lanes over the bridge, thereby reducing the potential for sideswipe collisions caused by substandard lane alignment in both directions.
7. The project will reduce the higher than expected collision rate by eliminating the merge required from the northbound right turn trap lane at 33rd Street. The existing collision rate is higher than the average statewide rate for this street segment (up to 2.45 collisions per million vehicle miles versus the statewide average of 1.85).
8. The project will reduce vehicle delays at the intersection of Sepulveda Boulevard and Rosecrans Avenue by providing four (4) full-length approach lanes. This reduction will

allow additional green time to be more equitably redistributed to the other directional movements, resulting in better overall signal operation.

9. The project will improve the Level-of-Service at the intersection of Sepulveda Boulevard and 33rd Street by 20% from “E” (up to 100% of lane capacity) to “C” (up to 80% of lane capacity). The additional lane will allow additional green time to be more equitably redistributed to the other directions to reduce delays in crossing Sepulveda Boulevard or exiting the shopping center.
10. The project will eliminate recurring violations of the northbound right turn into the shopping center at 33rd Street by removing the right turn trap lane. The Police Department issues the greatest percentage of citations (45 per year) to motorists continuing straight in the right turn pocket. The Police Department will be able to reallocate its resources to other locations after the right turn trap is removed.
11. Due to closely spaced traffic signals and minimum lane widths in this street segment, an increase in prevailing speeds is not anticipated.
12. The Manhattan Village Shopping Center Traffic Analysis did NOT include the bridge widening in its evaluation, therefore, the shopping center improvements are NOT contingent upon or related to the construction of the bridge. The shopping center analyzed the worst case scenario in which the bridge is not widened.

Memorandum

| | | | |
|--------------|--|--------------------|----------------------------|
| To: | Project Team | From: | Shaumik Pal, Abi Mogharabi |
| Date: | December 10, 2012 | Job Number: | J12-1764 |
| Re: | Traffic Analysis for the Sepulveda Bridge Widening Project | | |

1. INTRODUCTION

The City of Manhattan Beach, in coordination with the California Department of Transportation (Caltrans), is proposing to widen the Sepulveda Boulevard Bridge from Rosecrans Avenue to 33rd Street. This memorandum documents the methodology used to develop the projected traffic volumes, the level of service (LOS) analysis methodologies employed, and traffic operations at intersections in the vicinity of the bridge for the existing and future (with and without improvements) conditions. The location of the project area is illustrated in **Figure 1**.

2. PROJECT DESCRIPTION

Sepulveda Boulevard is a north-south arterial highway and is part of State Route 1 within the limits of the proposed project area. The existing configuration in the northbound direction within the project limits is not consistent with the adjacent segments. Both in the north and south of the project limit's, Sepulveda Boulevard's consists of four (4) travel lanes in the northbound direction and three (3) travel lanes in the southbound direction. It narrows to three (3) travel lanes in the northbound direction from Rosecrans Avenue to 33rd Street. In addition to inconsistent number of lanes within the project limits, non-standard lane widths over the bridge have caused an operational bottleneck. This has resulted to an increase in traffic congestion and susceptibility to rear-end and sideswipe accidents.

The proposed project will add a lane in the northbound direction within the project limits between Rosecrans Avenue and 33rd Street. In addition, the dedicated northbound right turn lane at the intersection of Sepulveda Boulevard and 33rd Street will be converted to a shared through-right turn lane. The proposed project configuration is illustrated in **Figure 2**.

3. STUDY AREA

For the purposes of this analysis, the study area includes three intersections and one roadway segment.

1. Sepulveda Boulevard and Rosecrans Avenue (signalized)
2. Sepulveda Boulevard and Valley Drive (stop-controlled)
3. Sepulveda Boulevard and 33rd Street (signalized)

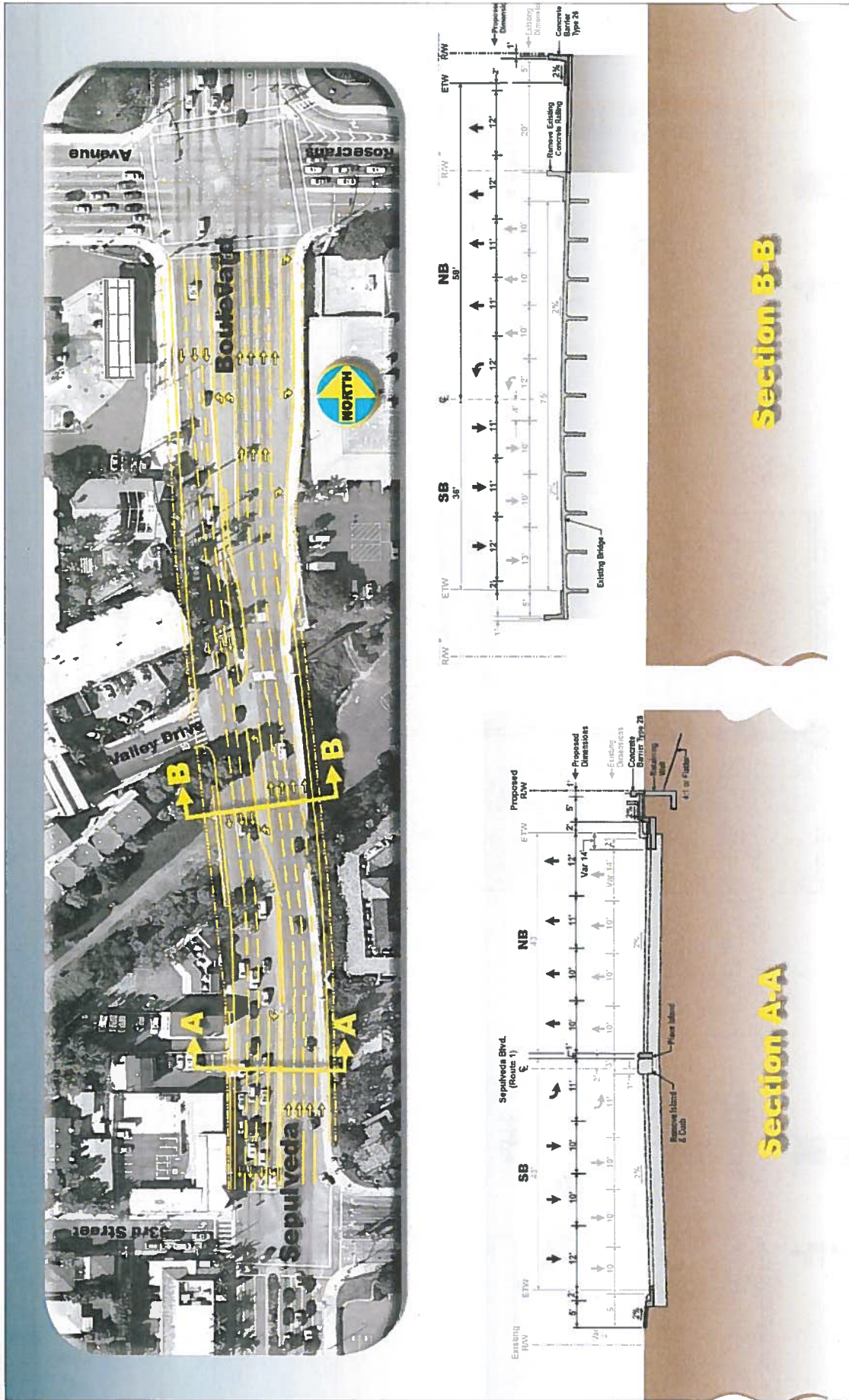
The roadway segment included for analysis is Sepulveda Boulevard between Rosecrans Avenue and 33rd Street. **Figure 3** illustrates existing lane configuration and the proposed lane configuration.



FIGURE 1
Project Location

Sepulveda Bridge Widening Project





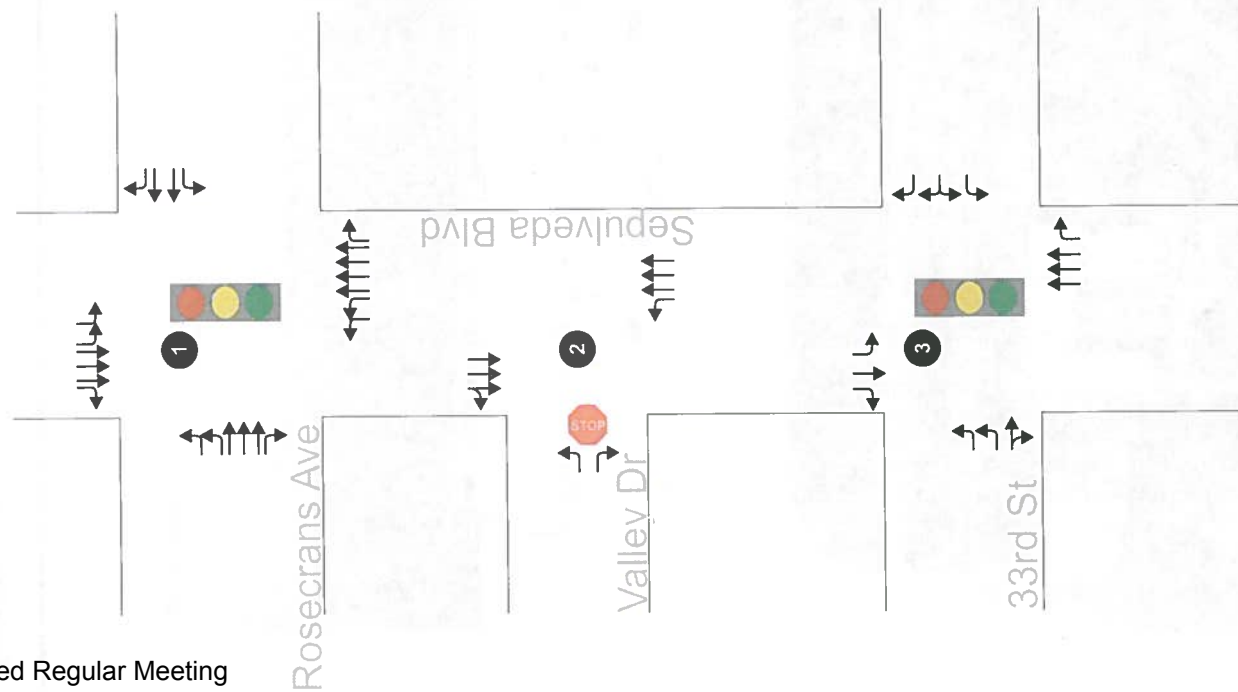
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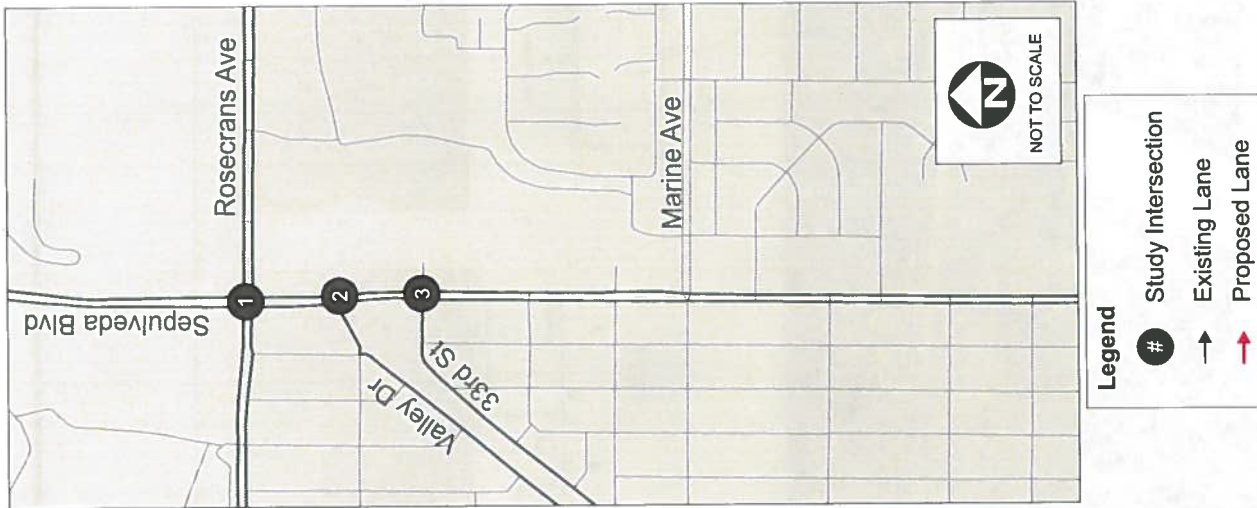
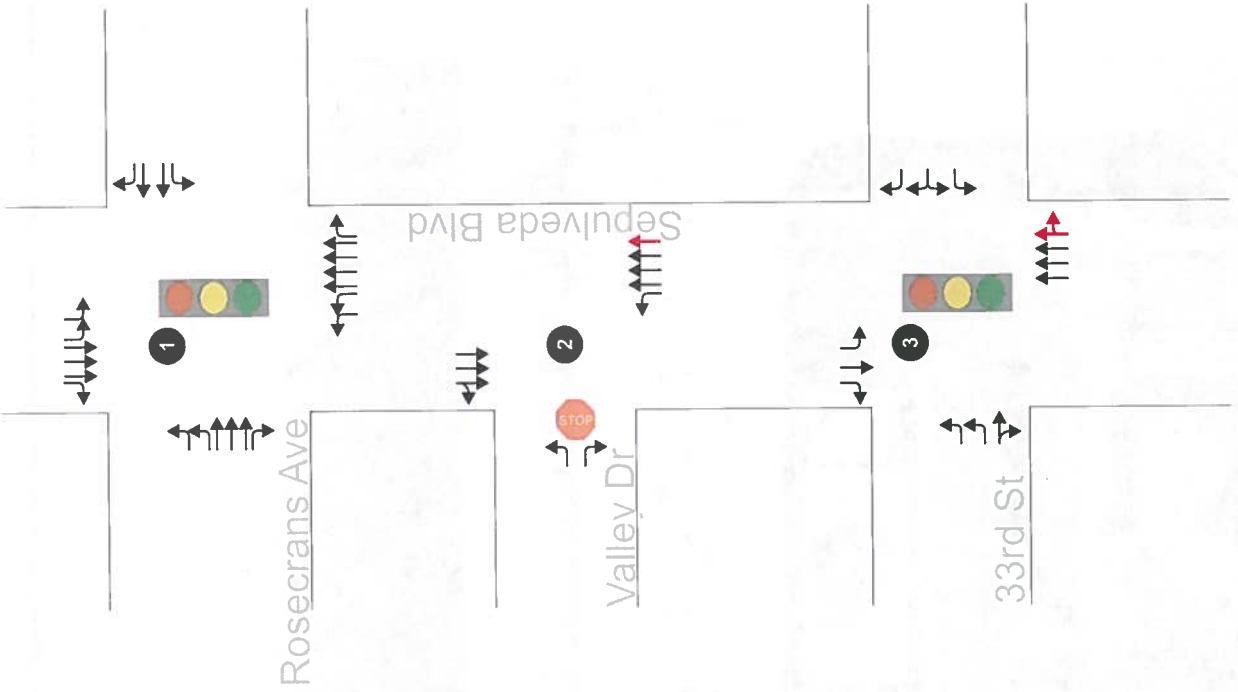
Sepulveda Bridge Widening Project

FIGURE 2
Proposed Project Configuration

Existing Lane Configuration



With Project Lane Configuration



Legend

- # Study Intersection
- Existing Lane
- Proposed Lane





4. TRAFFIC VOLUME DEVELOPMENT

4.1. Existing Year (2012)

Vehicle turning movement counts were collected at three (3) study intersections in the vicinity of the bridge in August 2012.

Additionally, daily vehicle counts were conducted in August 2012 at the following roadway segment:

- Sepulveda Boulevard between Rosecrans Avenue and 33rd Street.

The traffic count sheets are provided in **Appendix A**.

In order to preserve the conservation of flow between the three intersections, volume balancing was performed. Existing (2012) weekday peak hour volumes are illustrated in **Figure 4**.

4.2. Opening Year (2015)

The Opening Year (2015) traffic consists of existing traffic plus ambient traffic growth plus growth in traffic generated by specific cumulative projects.

Ambient traffic growth is the traffic growth that will occur in the study area due to general growth in employment, housing and growth in regional through trips in southern California. Even if there were no change in housing or employment, there would be some background (ambient) traffic growth in the region. A one percent (1%) per year growth rate was assumed as a conservative estimate of traffic increase in the study area. The existing traffic volumes (2012) were increased by a factor of 1.03 to account for ambient traffic growth to the year 2015 (three years at one percent per year).

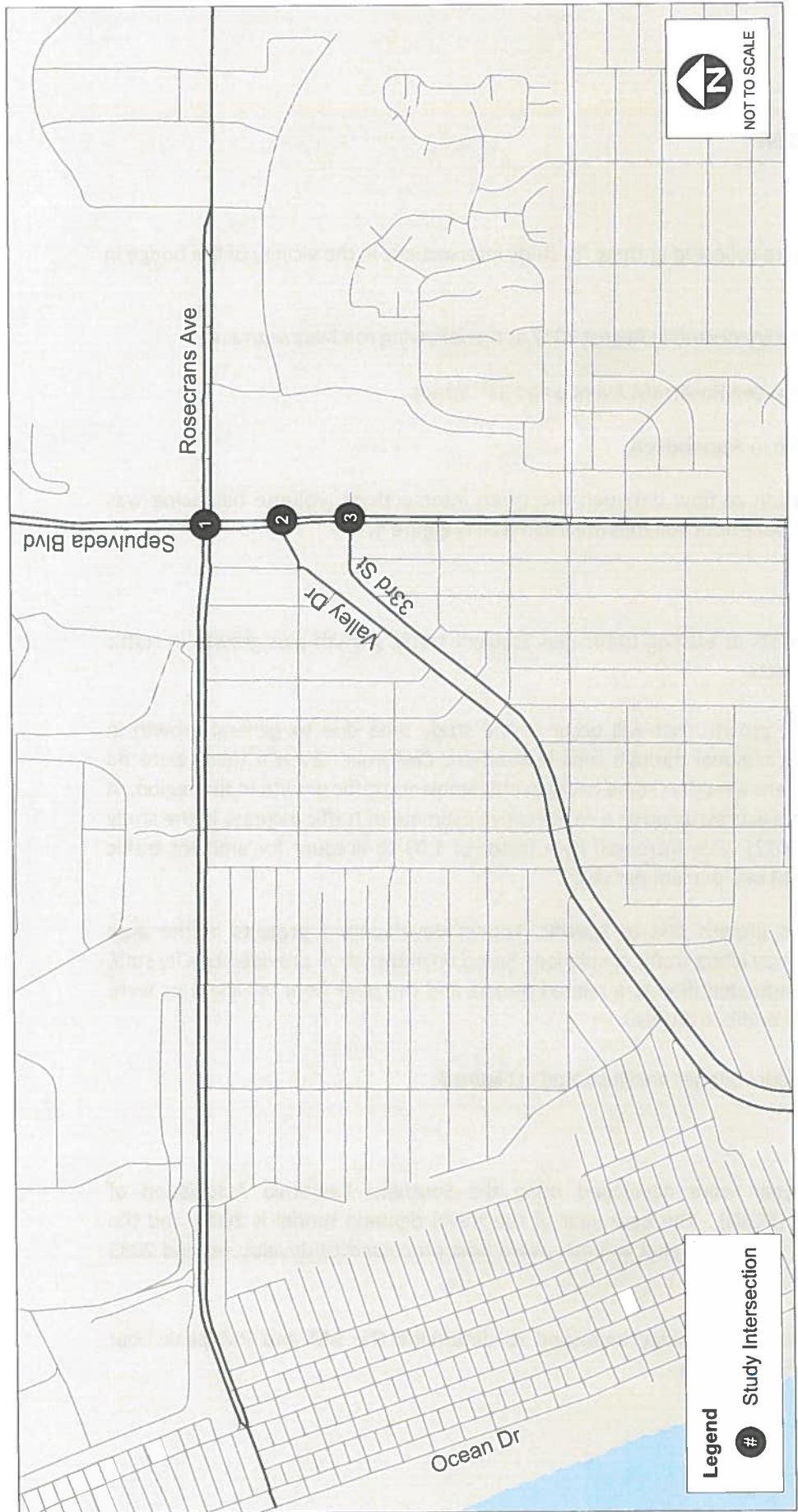
Cumulative project traffic growth is growth due to specific, known development projects in the area surrounding the study locations that may affect traffic circulation. Based on information provided by City staff, Manhattan Village Shopping Center was identified as a related project and the peak hour vehicle trips were added as part of opening year (2015) condition analysis.

Opening Year (2015) weekday peak hour volumes are illustrated in **Figure 5**.

4.3. Forecast Year (2035)

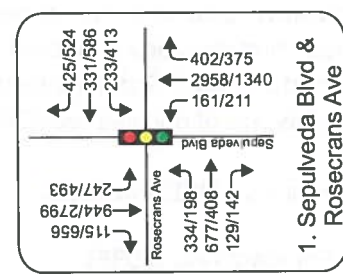
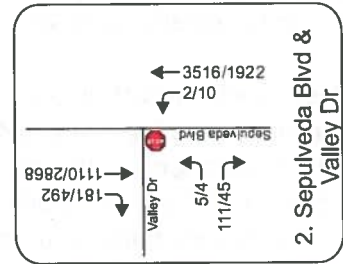
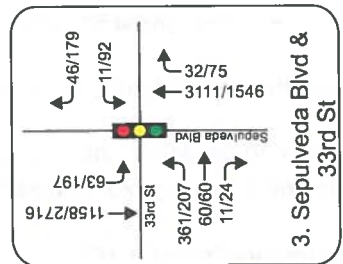
Traffic volumes for the forecast year were developed using the Southern California Association of Governments Transportation Model (SCAG). The base year of the travel demand model is 2008, and the forecast condition is year 2035. The "raw" modeled volumes were post-processed to develop refined 2035 modeled link volumes.

The following describes in detail the methodology employed to determine the AM and PM peak hour intersection turn movements for 2035 conditions:



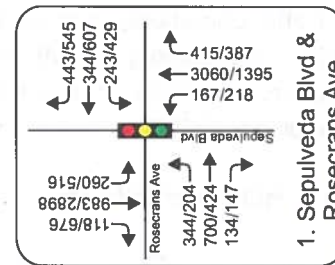
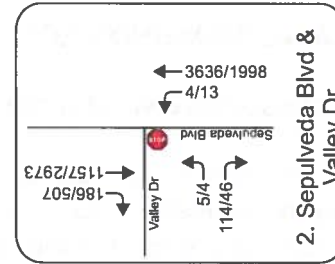
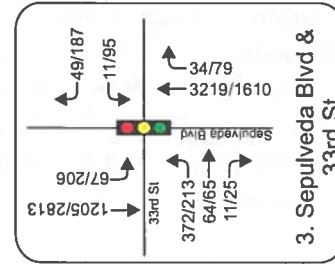
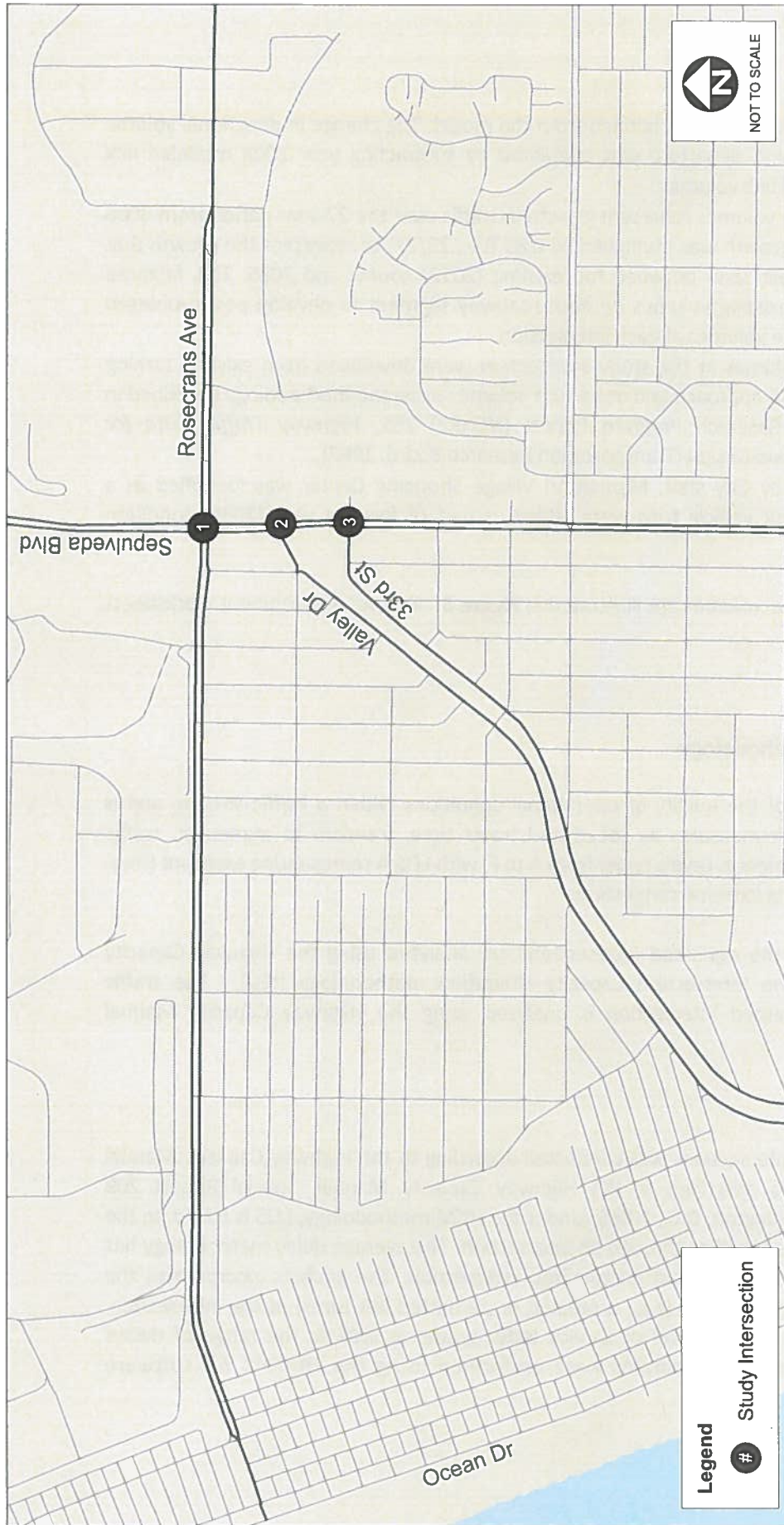
Legend
 # Study Intersection

NOT TO SCALE



Sepulveda Bridge Widening Project

FIGURE 4
 Existing (2012) Peak Hour Volumes



Opening Year (2015) Peak Hour Volumes

Sepulveda Bridge Widening Project



- Year 2008 and year 2035 PCE volumes were obtained from the model. The change in directional volume on each intersection approach and departure was calculated by subtracting year 2008 modeled link volumes from year 2035 modeled link volumes.
- The changes in peak hour vehicle volumes represent growth in traffic over the 27-year period from 2008 to 2035. Therefore, the 27-year growth was multiplied by 0.85 (i.e., 23/27) to represent the growth that would be expected in the 23-year span between the existing (2012) counts and 2035. This factored growth was then added to the existing volumes on each roadway segment to develop post-processed year 2035 approach and departure volumes at each intersection.
- Year 2035 turning movement volumes at the study intersection were developed from existing turning movement volumes and year 2035 approach and departure volumes using the methodology described in National Cooperative Highway Research Program Report (NCHRP) 255, *Highway Traffic Data for Urbanized Area Project Planning and Design* (Transportation Research Board, 1982).
- Based on information provided by City staff, Manhattan Village Shopping Center was identified as a related project and the peak hour vehicle trips were added as part of forecast year (2035) condition analysis.

Future Year (2035) weekday peak hour volumes are illustrated in **Figure 6**. Volume development worksheets are included in **Appendix B**.

5. ANALYSIS METHODOLOGY

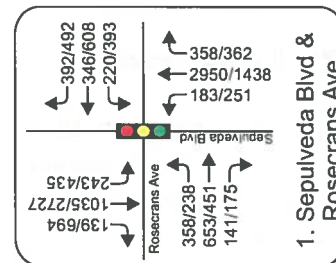
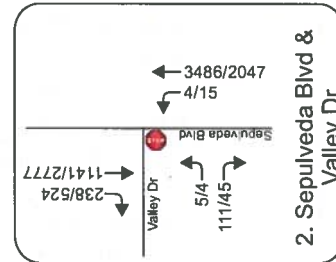
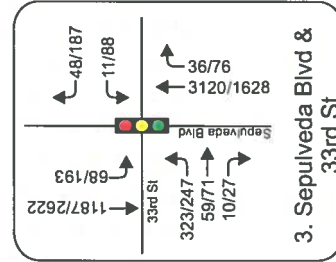
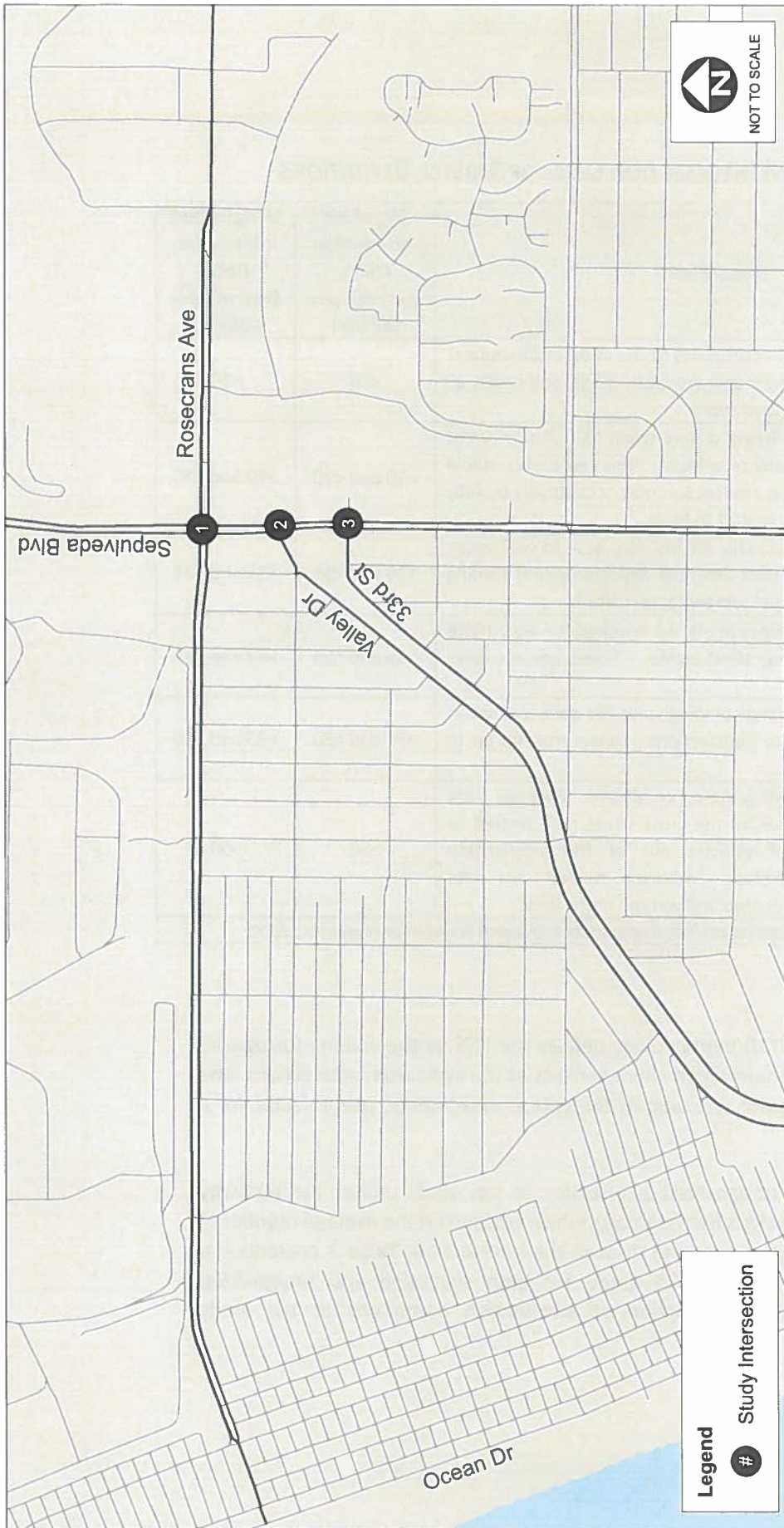
5.1. Intersection Level of Service Methodology

Level of service (LOS) is a measure of the quality of operational conditions within a traffic stream, and is generally expressed in terms of such measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Levels range from A to F, with LOS A representing excellent (free-flow) conditions and LOS F representing extreme congestion.

The traffic operations conditions at the signalized intersections are analyzed using the Highway Capacity Manual methodology (HCM) and the Intersection Capacity Utilization methodology (ICU). The traffic operations condition at the unsignalized intersection is analyzed using the Highway Capacity Manual methodology (HCM).

5.1.1 HCM Methodology

The analysis of traffic operations at intersections was conducted according to the Highway Capacity Manual (HCM) delay methodology, which is described in the Highway Capacity Manual, Special Report 209 (Transportation Research Board, Washington, D.C., 2000). Under the HCM methodology, LOS is based on the average delay experienced by vehicles traveling through an intersection. The average delay methodology has been consistently applied for both signalized and unsignalized intersection. The analysis incorporates the effects of the lane geometry and signal phasing (e.g., protected or permitted left turns) at the intersection. **Table 1** presents a brief description of each level of service letter grade, as well as the range of delays associated with each grade. All intersection analyses were performed using the TRAFFIX 7.9 software program.



Sepulveda Bridge Widening Project

FIGURE 6
Future Year (2035) Peak Hour Volumes

TABLE 1: HCM INTERSECTION LEVEL OF SERVICE DEFINITIONS

| Level of Service | Description | Signalized Intersection Delay (seconds per vehicle) | Unsignalized Intersection Delay (seconds per vehicle) |
|------------------|---|---|---|
| A | Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. | <10 | <10 |
| B | Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form. | >10 and <20 | >10 and <15 |
| C | Good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted. | >20 and <35 | >15 and <25 |
| D | Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no long-standing traffic queues. | >35 and <55 | >25 and <35 |
| E | Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes. | >55 and <80 | >35 and <50 |
| F | Forced flow. Represents jammed conditions. Backups form locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow. | >80 | >50 |

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington, DC, 2000

5.1.2 ICU Methodology

The *Intersection Capacity Utilization* (ICU) methodology defines the LOS by the volume-to-capacity ratio for the turning movements and intersection characteristics at the signalized intersections. The ICU value is determined by summing the V/C ratio of the critical movements, plus a factor for a yellow signal time.

The analysis of traffic operations at unsignalized intersection in this study utilizes the *Highway Capacity Manual* (HCM) Operations Analysis Methodology, which is based on the average number of seconds of delay experienced by vehicles traveling through the intersection. **Table 2** presents the V/C ratio and delay associated with each LOS grade for both signalized and unsignalized intersections, as well as a qualitative description of intersection operations at the study intersections.

TABLE 2: ICU INTERSECTION LEVEL OF SERVICE DEFINITIONS

| Level of Service | Description | Signalized Intersection Volume-to-Capacity Ratio (V/C) | Unsignalized Intersection Delay (seconds per vehicle) |
|------------------|--|--|---|
| A | Free flowing, virtually no delay. Minimal Traffic. | ≤ 0.600 | ≤ 10 |
| B | Free low and choice of lanes. Delays are minimal. All cars clear intersection easily. | >0.600 to 0.699 | >10 and ≤ 15 |
| C | Stale flow. Queue at signal starting to get relatively long. Delays starting to become a factor but still within acceptable limits. | >0.700 to 0.799 | >15 and ≤ 25 |
| D | Approaching unstable flow. Queues at intersection are quite long but most cars clear intersection no their green signal. Occasionally, several vehicles must wait for a second green signal. Congestion is moderate. | >0.800 to 0.899 | >25 and ≤ 35 |
| E | Severe Congestion and delay. Most of the available capacity is used. Many cars must wait through a complete signal cycle to clear the intersection. | >0.900 to 0.999 | >35 and ≤ 50 |
| F | Excessive delay and congestion. Most cars must wait through more than one on one signal cycle. Queues are very long and drivers are obviously irritated. | > 1.000 | > 50 |

5.2. Roadway Level of Service Methodology

The levels of service indicators for the roadway system are based on the volume of traffic for designated sections of roadway during a typical day and the practical vehicular capacity of that segment. In order to evaluate the project’s potential impact, a daily volume-to-capacity calculation has been conducted. The volume-to-capacity calculation has been translated into a LOS, similar to peak hour intersection analysis. **Table 3** defines and describes the level of service criteria for the roadway segment analysis.

TABLE 3: ROADWAY SEGMENT LEVEL OF SERVICE CRITERIA

| Level of Service | Description | Volume to Capacity Ratio (V/C) |
|------------------|--|--------------------------------|
| A | Free-flow speeds prevail. Vehicles are almost unimpeded in their ability to maneuver within the traffic stream. | ≤ 0.600 |
| B | Reasonably free-flow speeds are maintained. The ability to maneuver within traffic is only slightly restricted. | >0.600 to 0.699 |
| C | Flow with speeds at or near free-flow speed of the roadway. Freedom to maneuver within the traffic stream is noticeably restricted and lane changes require more care and vigilance on the part of the driver. | >0.700 to 0.799 |
| D | Speeds begin to decline slightly with increasing flows. In this range, density begins to increase somewhat more quickly with increasing flow. Freedom to maneuver within the traffic stream is noticeably limited. | >0.800 to 0.899 |
| E | Operation at capacity with no usable gaps in the traffic stream. Any disruption to the traffic stream has little or no room to dissipate. | >0.900 to 0.999 |
| F | Breakdown of the of the traffic flow with long queues of traffic. Unacceptable conditions. | > 1.000 |

Source: 2004 Congestion Management Program for Los Angeles County.

6. Existing Conditions

6.1. Intersection LOS

A level of service analysis using the previously described methodologies was conducted to evaluate existing traffic conditions in the study area. The results of the HCM and ICU intersection level of service analysis are summarized in **Table 4** and **Table 5**, respectively.

TABLE 4: EXISTING (2012) PEAK HOUR LEVEL OF SERVICE

HCM METHODOLOGY

| Intersection | Traffic Control | AM Peak Hour | | | PM Peak Hour | | |
|--|-----------------|--------------|-------|-----|--------------|-------|-----|
| | | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS |
| Sepulveda Blvd and Rosecrans Ave | Signal | 26.4 | 0.789 | C | 31.9 | 0.909 | C |
| Sepulveda Blvd and Valley Drive | Stop-controlled | 22.0 | - | C | OVRFL | - | F |
| Sepulveda Blvd and 33 rd St | Signal | 16.9 | 0.882 | B | 16.2 | 0.738 | B |

Notes: LOS = Level of Service; Delay = Average Vehicle Delay (seconds); V/C = Volume-to-Capacity Ratio; OVRFL = Overflow conditions.

An examination of the data in **Table 4** indicates that under the HCM methodology all the study intersections are operating at satisfactory levels of service, with the exception of Sepulveda Boulevard and Valley Drive during the PM peak hour.

TABLE 5: EXISTING (2012) PEAK HOUR LEVEL OF SERVICE

ICU METHODOLOGY

| Intersection | Traffic Control | AM Peak Hour | | | PM Peak Hour | | |
|--|------------------|--------------|---------|-----|--------------|---------|-----|
| | | Delay (sec) | ICU V/C | LOS | Delay (sec) | ICU V/C | LOS |
| Sepulveda Blvd and Rosecrans Ave | Signal | - | 1.006 | F | - | 1.025 | F |
| Sepulveda Blvd and Valley Drive* | Stop-controlled* | 22.0 | - | C | OVRFL | - | F |
| Sepulveda Blvd and 33 rd St | Signal | - | 0.942 | E | - | 0.783 | C |

Notes: LOS = Level of Service; Delay = Average Vehicle Delay (seconds); V/C = Volume-to-Capacity Ratio; OVRFL = Overflow conditions.

*HCM methodology used to analyze stop-controlled intersection.

An examination of the data in **Table 5** indicates that under the ICU methodology all the three intersections are currently operating unsatisfactorily in either or both the peak hours.



6.2. Roadway Segment LOS

Twenty-four hour traffic counts were collected in August 2012 and were used as the baseline volume for the ADT volume occurring along Sepulveda Boulevard. The roadway segment level of service is provided in **Table 6**.

TABLE 6: ROADWAY SEGMENT LEVEL OF SERVICE

| Roadway Segment | Existing (2012) | | |
|--|-----------------|-------|-----|
| | ADT Volume | V/C | LOS |
| Sepulveda Boulevard, between Rosecrans Ave and 33 rd St | 71,100 | 1.263 | F |
| <i>Note:</i> Capacities interpreted from Los Angeles County Congestion Management Program. For a 6-lane divided roadway, the capacity is 56,300. For a 8-lane divided roadway, the capacity is 75,000. Daily volumes rounded to nearest 100 vehicles. | | | |

An examination of the data in **Table 6** indicates that the project segment of Sepulveda Boulevard is currently operating at level of service F.

6.3. Accident Analysis

Table 7 shows the accident rate summary provided by Caltrans. Caltrans TASAS table is included in **Appendix C**.

TABLE 7: TASAS TABLE - ACCIDENTS RATES SUMMARY (Kp38.0/38.4)

| Period | Total # of Accidents | Actual Accident Rates (per million vehicle kilometer) | | | Average Accident Rates (per million vehicle kilometer) | | |
|----------------------|----------------------|--|-----------------------|--------------------------|---|-----------------------|--------------------------|
| | | Fatalities | Fatalities + Injuries | Total Reported Accidents | Fatalities | Fatalities + Injuries | Total Reported Accidents |
| 01/01/08 to 12/31/08 | 7 (NB) | 0 (NB) | 1.23 (NB) | 2.15 (NB) | 0.019 (NB) | 0.83 (NB) | 1.85 (NB) |
| | 8 (SB) | 0 (SB) | 1.23 (SB) | 2.45 (SB) | 0.019 (SB) | 0.83 (SB) | 1.85 (SB) |
| 01/01/09 to 12/31/09 | 7 (NB) | 0 (NB) | 0.59 (NB) | 2.05 (NB) | 0.019 (NB) | 0.83 (NB) | 1.85 (NB) |
| | 4 (SB) | 0 (SB) | 0.88 (SB) | 1.17 (SB) | 0.019 (SB) | 0.83 (SB) | 1.85 (SB) |
| 01/01/10 to 12/31/10 | 3 (NB) | 0 (NB) | 0.60 (NB) | 0.90 (NB) | 0.019 (NB) | 0.83 (NB) | 1.85 (NB) |
| | 2 (SB) | 0 (SB) | 0.00 (SB) | 0.60 (SB) | 0.019 (SB) | 0.83 (SB) | 1.85 (SB) |
| 3-Year Period | 17 (NB) | 0 (NB) | 1.23 (NB) | 2.15 (NB) | 0.019 (NB) | 0.83 (NB) | 1.85 (NB) |
| | 14 (SB) | 0 (SB) | 1.23 (SB) | 2.45 (SB) | 0.019 (SB) | 0.83 (SB) | 1.85 (SB) |

The accident statistics provided by Caltrans shows the following:

- 31 accidents occurred within the project limit for from January 2008 to December 2010.
- 100% of the accidents resulted in injuries and 0% resulted in fatalities.



- On the northbound direction, the accident rate is 1.70 within the segment limit compared to California average accident rate of 1.85 (accident rate expressed as # of accidents/million vehicle miles).
- On the southbound direction, the accident rate is 1.40 within the segment limit compared to California average accident rate of 1.85 (accident rate expressed as # of accidents/million vehicle miles).

7. OPENING YEAR (2015) CONDITIONS

7.1. Intersection LOS

A level of service analysis using the previously described methodologies was conducted to evaluate opening year (2015) without project and with project traffic conditions in the study area. The results of the intersection level of service analysis are summarized in **Table 8** and **Table 9**, respectively.

TABLE 8: OPENING YEAR (2015) PEAK HOUR LEVEL OF SERVICE
HCM METHODOLOGY

| Intersection | Traffic Control | Opening Year (2015) Without Project | | | | | | Opening Year (2015) With Project | | | | | |
|--|-----------------|-------------------------------------|-------|-----|--------------|-------|-----|----------------------------------|-------|-----|--------------|-------|-----|
| | | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS |
| Sepulveda Blvd and Rosecrans Ave | Signal | 27.7 | 0.825 | C | 37.4 | 0.970 | D | 27.7 | 0.825 | C | 37.4 | 0.970 | D |
| Sepulveda Blvd and Valley Drive | Stop-controlled | 23.1 | - | C | OVRFL | - | F | 18.8 | - | C | OVRFL | - | F |
| Sepulveda Blvd and 33 rd St | Signal | 17.5 | 0.893 | B | 16.9 | 0.767 | B | 13.3 | 0.721 | B | 16.9 | 0.767 | B |

Notes: LOS = Level of Service; Delay = Average Vehicle Delay (seconds); V/C = Volume-to-Capacity Ratio; OVRFL = Overflow conditions.

An examination of the data in **Table 8** indicates that under the HCM methodology all the study intersections are projected to operate at satisfactory levels of service, with the exception of Sepulveda Boulevard and Valley Drive for the “without project” and the “with project” scenarios during the PM peak hour.

**TABLE 9: OPENING YEAR (2015) PEAK HOUR LEVEL OF SERVICE
(ICU METHODOLOGY)**

| Intersection | Traffic Control | Opening Year (2015) Without Project | | | | | | Opening Year (2015) With Project | | | | | |
|--|-----------------|-------------------------------------|-------|-----|--------------|-------|-----|----------------------------------|-------|-----|--------------|-------|-----|
| | | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS |
| Sepulveda Blvd and Rosecrans Ave | Signal | - | 1.040 | F | - | 1.059 | F | - | 1.040 | F | - | 1.059 | F |
| Sepulveda Blvd and Valley Drive | Stop-controlled | 23.1 | - | C | OVRFL | - | F | 18.8 | - | C | OVRFL | - | F |
| Sepulveda Blvd and 33 rd St | Signal | - | 0.972 | E | - | 0.806 | D | - | 0.780 | C | - | 0.806 | D |

Notes: LOS = Level of Service; Delay = Average Vehicle Delay (seconds); V/C = Volume-to-Capacity Ratio; OVRFL = Overflow conditions.
*HCM methodology used to analyze stop-controlled intersection.

An examination of the data in **Table 9** indicates that under the ICU methodology that all the three intersections are projected to operate unsatisfactorily in either or both the peak hours under year 2015 without project conditions. Under year 2015 with project conditions, the intersection of Sepulveda Boulevard and 33rd Street is projected to operate satisfactorily.

7.2. Roadway LOS

Year 2015 roadway segment volumes were developed based on previously described post-processing methodologies and using the SCAG Model. The SCAG model in this area does not show much growth from existing conditions, and hence the growth in daily traffic is minimal.

Since the roadway segment is 0.2 miles long, the traffic volumes are not expected to change between “without project” and the “with project” conditions. The roadway segment level of service is provided in **Table 10**.

TABLE 10: ROADWAY SEGMENT LEVEL OF SERVICE

| Roadway Segment | Opening Year Without Project (2015) | | | Opening Year With Project (2015) | | |
|--|-------------------------------------|-------|-----|----------------------------------|-------|-----|
| | ADT Volume | V/C | LOS | ADT Volume | V/C | LOS |
| Sepulveda Boulevard, between Rosecrans Ave and 33 rd St | 71,200 | 1.264 | F | 71,200 | 0.949 | E |

Note:
Capacities interpreted from Los Angeles County Congestion Management Program. For a 6-lane divided roadway, the capacity is 56,300.
For a 8-lane divided roadway, the capacity is 75,000.
Daily volumes rounded to nearest 100 vehicles.



An examination of the data in **Table 10** indicates that the study roadway segment is projected to operate at level of service F for opening year (2015) “without project” scenario. The addition of the fourth lane in the “with project” scenario is expected to improve the study roadway conditions to LOS E.

8. FUTURE YEAR (2035) CONDITIONS

8.1. Intersection LOS

A level of service analysis using the previously described methodologies was conducted to evaluate future year (2035) without project and with project traffic conditions in the study area. The results of the intersection level of service analysis are summarized in **Table 11** and **Table 12**, respectively.

**TABLE 11: FUTURE YEAR (2035) PEAK HOUR LEVEL OF SERVICE
HCM METHODOLOGY**

| Intersection | Traffic Control | Future Year (2035) Without Project | | | | | | Future Year (2035) With Project | | | | | |
|--|-----------------|------------------------------------|-------|-----|--------------|-------|-----|---------------------------------|-------|-----|--------------|-------|-----|
| | | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS |
| Sepulveda Blvd and Rosecrans Ave | Signal | 26.7 | 0.794 | C | 36.3 | 0.954 | D | 26.7 | 0.794 | C | 36.3 | 0.954 | D |
| Sepulveda Blvd and Valley Drive | Stop-controlled | 22.9 | - | C | OVRFL | - | F | 19.0 | - | C | OVRFL | - | F |
| Sepulveda Blvd and 33 rd St | Signal | 15.1 | 0.855 | B | 17.3 | 0.735 | B | 12.2 | 0.690 | B | 17.4 | 0.735 | B |

Notes: LOS = Level of Service; Delay = Average Vehicle Delay (seconds); V/C = Volume-to-Capacity Ratio; OVRFL = Overflow conditions.

An examination of the data in **Table 11** indicates that under the HCM methodology all the study intersections are projected to operate at satisfactory levels of service, with the exception of Sepulveda Boulevard and Valley Drive for the “without project” and the “with project” scenarios during the PM peak hour.

TABLE 12: FUTURE YEAR (2035) PEAK HOUR LEVEL OF SERVICE

ICU METHODOLOGY

| Intersection | Traffic Control | Future Year (2035) Without Project | | | | | | Future Year (2035) With Project | | | | | |
|--|-----------------|------------------------------------|-------|-----|--------------|-------|-----|---------------------------------|-------|-----|--------------|-------|-----|
| | | AM Peak Hour | | | PM Peak Hour | | | AM Peak Hour | | | PM Peak Hour | | |
| | | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS | Delay (sec) | V/C | LOS |
| Sepulveda Blvd and Rosecrans Ave | Signal | - | 0.993 | E | - | 1.049 | F | - | 0.993 | E | - | 1.049 | F |
| Sepulveda Blvd and Valley Drive | Stop-controlled | 22.9 | - | C | OVRFL | - | F | 19.0 | - | C | OVRFL | - | F |
| Sepulveda Blvd and 33 rd St | Signal | - | 0.933 | E | - | 0.777 | C | - | 0.747 | C | - | 0.777 | C |

Notes: LOS = Level of Service; Delay = Average Vehicle Delay (seconds); V/C = Volume-to-Capacity Ratio; OVRFL = Overflow conditions.
 *HCM methodology used to analyze stop-controlled intersection.

An examination of the data in **Table 12** indicates that under the ICU methodology that all the three intersections are projected to operate unsatisfactorily in either or both the peak hours under year 2015 without project conditions. Under year 2035 with project conditions, the intersection of Sepulveda Boulevard and 33rd Street is projected to operate satisfactorily.

8.2. Roadway LOS

Year 2035 roadway segment volumes were developed based on previously described post-processing methodologies and using the SCAG Model. The SCAG model in this area does not show much growth from existing conditions, and hence the growth in daily traffic is minimal.

Since the roadway segment is 0.2 miles long, the traffic volumes are not expected to change between “without project” and the “with project” conditions. The roadway segment level of service is provided in **Table 13**.

TABLE 13: ROADWAY SEGMENT LEVEL OF SERVICE

| Roadway Segment | Future Year Without Project (2035) | | | Future Year With Project (2035) | | |
|--|------------------------------------|-------|-----|---------------------------------|-------|-----|
| | ADT Volume | V/C | LOS | ADT Volume | V/C | LOS |
| Sepulveda Boulevard, between Rosecrans Ave and 33 rd St | 72,100 | 1.280 | F | 72,100 | 0.961 | E |

*Note:
 Capacities interpreted from Los Angeles County Congestion Management Program. For a 6-lane divided roadway, the capacity is 56,300.
 For a 8-lane divided roadway, the capacity is 75,000.
 Daily volumes rounded to nearest 100 vehicles.*



An examination of the data in **Table 13** indicates that the study roadway segment is projected to operate at level of service F for future year (2035) “without project” scenario. The addition of the fourth lane in the “with project” scenario is expected to improve the study roadway conditions to LOS E.

9. SUMMARY OF TRAFFIC ANALYSIS

The proposed project will add one lane in the northbound direction to the Sepulveda Boulevard Bridge from Rosecrans Avenue to 33rd Street. In addition, the dedicated right turn only at Sepulveda Boulevard and 33rd Street will be converted to a shared through-right turn lane. Since the roadway segment is 0.2 miles long, the traffic volumes are not expected to change between “without project” and the “with project” conditions, for both year 2015 and year 2035 conditions.

The HCM and the ICU methodologies were used to calculate the level of service at the signalized intersections. The unsignalized intersection was analyzed using the HCM methodology. A summary is provided for each methodology at the study intersections.

HCM Methodology

Results indicate that the study intersections are currently operating at a satisfactory level for existing (2012) conditions, except for Sepulveda Boulevard and Valley Drive in the PM peak hour. Intersection delay values shown at the unsignalized Sepulveda Boulevard and Valley Drive intersection represent the average delay experienced by vehicles at the stop-controlled Valley Drive approach as they attempt to turn onto Sepulveda Boulevard. Vehicles traveling along Sepulveda Boulevard continue through the intersection uninterrupted.

Opening year (2015) without project and with project results show that the Sepulveda Boulevard and Rosecrans Avenue intersection is forecasted to continue operating at LOS D or better. The Sepulveda Boulevard and Valley Drive intersection is forecasted to continue operating at deficient level of service during the PM peak hour. The Sepulveda Boulevard and 33rd Street intersection shows an improvement in the “with project” scenario.

Future year (2035) without project and with project results show that the Sepulveda Boulevard and Rosecrans Avenue intersection is forecasted to continue operating at LOS D or better. The Sepulveda Boulevard and Valley Drive intersection is forecasted to continue operating at deficient level of service during the PM peak hour. The Sepulveda Boulevard and 33rd Street intersection shows an improvement in the “with project” scenario.

ICU Methodology

Results indicate that all the three intersections are currently operating unsatisfactorily in either or both the peak hours.

Opening year (2015) without project and with project results show that the Sepulveda Boulevard and Rosecrans Avenue intersection and Sepulveda Boulevard and Valley Drive intersection is forecasted to continue operating at deficient level of service for the without project and the “with project” scenarios. However, the Sepulveda Boulevard and 33rd Street intersection shows an improvement in the “with project” scenario.



Future year (2035) without project and with project results show that the Sepulveda Boulevard and Rosecrans Avenue intersection and Sepulveda Boulevard and Valley Drive intersection is forecasted to continue operating at deficient level of service for the without project and the “with project” scenarios. However, the Sepulveda Boulevard and 33rd Street intersection shows an improvement in the “with project” scenario.

The study roadway segment is currently operating at a deficient level of service and it is projected to operate at a deficient level of service level for opening year (2015) and future (2035) without project conditions. However, the addition of the fourth lane in the northbound direction is expected to improve conditions on Sepulveda Boulevard. Opening year (2015) and future (2035) with project scenarios are forecasted to operate at LOS E.

10. TRANSPORTATION MANAGEMENT PLAN

The Transportation Management Plan (TMP) is structured for alleviating or minimizing work-related traffic delays during construction of the bridge. A set of effective application of traffic management strategies has been recommended. These strategies encompass public awareness campaigns, motorist information and construction staging.

Brochures and Mailers

The City of Manhattan Beach will send courtesy notices by direct mail to the project neighborhood to inform them of construction and work zone information. The information provided will include the project’s start date, schedules and alternative routes. Notices will be prepared for four milestones at a cost of \$500 per distribution for a total cost of \$ 2,000.

Press Release and Paid Advertising

Caltrans and the City of Manhattan Beach will provide press release related to any lane closures along the bridge. Caltrans will implement the press release upon receiving information from the Project Resident Engineer. A total of \$10,000 has considered for cost of press release and advertising.

- **Public Meeting**

It is anticipated that the City of Manhattan Beach will hold public meetings at the project start and at the beginning of each stage to present the project information to the community. A maximum of four meetings will be held during the duration of construction, at a cost of \$2,000 per meeting, for a total cost of \$ 4,000.

- **Internet**

A project website will be designed by the City to provide real-time interactive information on project plans and progress for a cost of \$2,000.

- **Portable Changeable Message Sign**

PCMS will be placed at key locations to notify motorists of lane closure. It is assumed that a total of 2 PCMS at a cost of \$20,000 each would be used as a TMP measure to be used in Stages 1 and 2. Additional PCMSs may be specified as part of the project signing.



- **Ground Mounted Signs**

Temporary ground mounted signs will provide traveler information to guide motorists through the work zone. A total of 12 signs are assumed as part of the TMP for a total cost of \$ 6,000.

Stage Construction

Construction is to be completed in 2 stages.

Stage 1: This would be a temporary phase that would close one lane so that a temporary road section can be built. During this phase, the sidewalk would be demolished so that the temporary roadway can be built. This allows for the K-rail to be placed such that the existing lane widths are maintained during construction.

Stage 2: Maintain the existing lane widths and have the K-rail on the temporary pavement. Once this phase is complete, a final phase might be a night/weekend lane closure with probably delineators instead of K-rail (like Stage 1) to construct the tie-in pieces.

10.2. Traffic Handling (Control) Plans

As part of the PS&E package Construction Staging plans shall be prepared and finalized that show the sequence of construction activities. The order of work specification will identify the portions of the project to be completed in a specific sequence to minimize impacts to the traveling public.

In addition to the construction staging plans, traffic handling plans shall be included. The traffic handling plans shall contain sufficient alignment detail, profiles and typical cross-sections to guide traffic through the work zone in the sequence shown in the stage construction plans. The traffic handling plan preparation and its cost of implementation is estimated to be from \$250,000 to \$300,000. Transportation Management Plan (TMP) Data Sheet is included in **Appendix E**.



APPENDIX A: EXISTING TRAFFIC COUNT DATA

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5327_001

Day: TUESDAY

City: City of Manhattan Beach

Date: 8/14/2012

| | | AM | | | | | | | | | | | | |
|-----------------------------|--------|----------------|-------|--------|----------------|--------|--------|---------------|--------|--------|---------------|--------|--------------|-------|
| NS/EW Streets: | | Sepulveda Blvd | | | Sepulveda Blvd | | | Rosecrans Ave | | | Rosecrans Ave | | | |
| | | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| LANES: | | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| | | 2 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 1 | |
| 6:00 AM | 22 | 286 | 28 | 23 | 63 | 13 | 26 | 60 | 3 | 21 | 45 | 45 | 635 | |
| 6:15 AM | 25 | 366 | 39 | 17 | 84 | 23 | 26 | 48 | 9 | 20 | 35 | 58 | 750 | |
| 6:30 AM | 31 | 405 | 44 | 23 | 93 | 12 | 32 | 79 | 7 | 37 | 37 | 62 | 862 | |
| 6:45 AM | 22 | 629 | 64 | 20 | 102 | 17 | 45 | 66 | 13 | 27 | 50 | 75 | 1130 | |
| 7:00 AM | 31 | 605 | 55 | 29 | 116 | 21 | 67 | 94 | 21 | 57 | 81 | 81 | 1258 | |
| 7:15 AM | 44 | 765 | 70 | 44 | 179 | 25 | 54 | 73 | 15 | 43 | 51 | 89 | 1452 | |
| 7:30 AM | 51 | 705 | 55 | 57 | 191 | 27 | 70 | 134 | 27 | 54 | 69 | 96 | 1536 | |
| 7:45 AM | 41 | 817 | 102 | 36 | 220 | 30 | 75 | 122 | 31 | 53 | 81 | 129 | 1737 | |
| 8:00 AM | 44 | 752 | 89 | 54 | 196 | 22 | 95 | 173 | 26 | 70 | 93 | 103 | 1717 | |
| 8:15 AM | 37 | 769 | 92 | 75 | 232 | 25 | 76 | 142 | 42 | 44 | 68 | 116 | 1718 | |
| 8:30 AM | 36 | 663 | 80 | 54 | 218 | 32 | 92 | 190 | 36 | 69 | 86 | 105 | 1661 | |
| 8:45 AM | 41 | 724 | 134 | 64 | 298 | 36 | 71 | 172 | 25 | 50 | 84 | 101 | 1800 | |
| TOTAL VOLUMES : | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | |
| APPROACH %'s : | 4.85% | 85.43% | 9.72% | 17.90% | 71.89% | 10.21% | 31.19% | 57.89% | 10.91% | 22.85% | 32.70% | 44.44% | 16256 | |
| PEAK HR START TIME : | 800 AM | | | | | | | | | | | | TOTAL | |
| PEAK HR VOL : | 158 | 2908 | 395 | 247 | 944 | 115 | 334 | 677 | 129 | 233 | 331 | 425 | 6896 | |
| PEAK HR FACTOR : | 0.962 | | | 0.820 | | | 0.896 | | | 0.930 | | | 0.958 | |

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5327_001

Day: TUESDAY

City: City of Manhattan Beach

Date: 8/14/2012

| PM | | | | | | | | | | | | | |
|-----------------------------|----------------|--------|--------|----------------|--------|--------|---------------|--------|--------|---------------|--------|--------|--------------|
| NS/EW Streets: | Sepulveda Blvd | | | Sepulveda Blvd | | | Rosecrans Ave | | | Rosecrans Ave | | | |
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| | 2 | 4 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 1 | |
| 4:00 PM | 66 | 283 | 73 | 123 | 519 | 61 | 35 | 131 | 45 | 96 | 92 | 100 | 1624 |
| 4:15 PM | 49 | 376 | 108 | 107 | 640 | 71 | 61 | 94 | 46 | 97 | 110 | 128 | 1887 |
| 4:30 PM | 63 | 307 | 92 | 136 | 591 | 77 | 34 | 170 | 51 | 104 | 109 | 120 | 1854 |
| 4:45 PM | 48 | 371 | 87 | 108 | 676 | 84 | 48 | 112 | 37 | 104 | 105 | 120 | 1900 |
| 5:00 PM | 60 | 300 | 71 | 140 | 629 | 115 | 44 | 135 | 47 | 99 | 147 | 135 | 1922 |
| 5:15 PM | 55 | 296 | 90 | 109 | 520 | 128 | 36 | 123 | 35 | 119 | 157 | 136 | 1804 |
| 5:30 PM | 34 | 318 | 87 | 120 | 695 | 177 | 53 | 112 | 40 | 88 | 142 | 129 | 1995 |
| 5:45 PM | 43 | 365 | 93 | 122 | 705 | 170 | 62 | 80 | 31 | 108 | 149 | 131 | 2059 |
| 6:00 PM | 69 | 275 | 78 | 149 | 684 | 163 | 39 | 123 | 31 | 105 | 171 | 121 | 2008 |
| 6:15 PM | 56 | 322 | 100 | 102 | 715 | 146 | 44 | 93 | 40 | 112 | 124 | 143 | 1997 |
| 6:30 PM | 68 | 294 | 68 | 137 | 662 | 129 | 49 | 88 | 39 | 79 | 117 | 139 | 1869 |
| 6:45 PM | 54 | 286 | 89 | 115 | 629 | 92 | 51 | 92 | 34 | 114 | 116 | 122 | 1794 |
| TOTAL VOLUMES : | 665 | 3793 | 1036 | 1468 | 7665 | 1413 | 556 | 1353 | 476 | 1225 | 1539 | 1524 | 22713 |
| APPROACH %'s : | 12.10% | 69.04% | 18.86% | 13.92% | 72.68% | 13.40% | 23.31% | 56.73% | 19.96% | 28.57% | 35.89% | 35.54% | |
| PEAK HR START TIME : | 530 PM | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 202 | 1280 | 358 | 493 | 2799 | 656 | 198 | 408 | 142 | 413 | 586 | 524 | 8059 |
| PEAK HR FACTOR : | 0.918 | | | 0.990 | | | 0.912 | | | 0.959 | | | 0.979 |

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA__

Day: NEED DATE

City: 0

Date: 0

| NS/EW Streets: | NOON | | | | | | | | | | | | TOTAL |
|----------------|------------|----|----|------------|----|----|-----------|----|----|-----------|----|----|-------|
| | 0 | | | 0 | | | 0 | | | 0 | | | |
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| 12:00 AM | | | | | | | | | | | | | 0 |
| 12:15 AM | | | | | | | | | | | | | 0 |
| 12:30 AM | | | | | | | | | | | | | 0 |
| 12:45 AM | | | | | | | | | | | | | 0 |
| 1:00 AM | | | | | | | | | | | | | 0 |
| 1:15 AM | | | | | | | | | | | | | 0 |
| 1:30 AM | | | | | | | | | | | | | 0 |
| 1:45 AM | | | | | | | | | | | | | 0 |
| 2:00 AM | | | | | | | | | | | | | 0 |
| 2:15 AM | | | | | | | | | | | | | 0 |
| 2:30 AM | | | | | | | | | | | | | 0 |
| 2:45 AM | | | | | | | | | | | | | 0 |
| 3:00 AM | | | | | | | | | | | | | 0 |
| 3:15 AM | | | | | | | | | | | | | 0 |
| 3:30 AM | | | | | | | | | | | | | 0 |
| 3:45 AM | | | | | | | | | | | | | 0 |
| 4:00 AM | | | | | | | | | | | | | 0 |
| 4:15 AM | | | | | | | | | | | | | 0 |
| 4:30 AM | | | | | | | | | | | | | 0 |
| 4:45 AM | | | | | | | | | | | | | 0 |
| 5:00 AM | | | | | | | | | | | | | 0 |
| 5:15 AM | | | | | | | | | | | | | 0 |
| 5:30 AM | | | | | | | | | | | | | 0 |
| 5:45 AM | | | | | | | | | | | | | 0 |
| 6:00 AM | | | | | | | | | | | | | 0 |
| 6:15 AM | | | | | | | | | | | | | 0 |
| 6:30 AM | | | | | | | | | | | | | 0 |
| 6:45 AM | | | | | | | | | | | | | 0 |
| 7:00 AM | | | | | | | | | | | | | 0 |
| 7:15 AM | | | | | | | | | | | | | 0 |
| 7:30 AM | | | | | | | | | | | | | 0 |
| 7:45 AM | | | | | | | | | | | | | 0 |
| 8:00 AM | | | | | | | | | | | | | 0 |
| 8:15 AM | | | | | | | | | | | | | 0 |
| 8:30 AM | | | | | | | | | | | | | 0 |
| 8:45 AM | | | | | | | | | | | | | 0 |
| 9:00 AM | | | | | | | | | | | | | 0 |
| 9:15 AM | | | | | | | | | | | | | 0 |
| 9:30 AM | | | | | | | | | | | | | 0 |
| 9:45 AM | | | | | | | | | | | | | 0 |
| 10:00 AM | | | | | | | | | | | | | 0 |
| 10:15 AM | | | | | | | | | | | | | 0 |
| 10:30 AM | | | | | | | | | | | | | 0 |
| 10:45 AM | | | | | | | | | | | | | 0 |
| 11:00 AM | | | | | | | | | | | | | 0 |
| 11:15 AM | | | | | | | | | | | | | 0 |
| 11:30 AM | | | | | | | | | | | | | 0 |
| 11:45 AM | | | | | | | | | | | | | 0 |
| 12:00 PM | | | | | | | | | | | | | 0 |
| 12:15 PM | | | | | | | | | | | | | 0 |
| 12:30 PM | | | | | | | | | | | | | 0 |
| 12:45 PM | | | | | | | | | | | | | 0 |
| 1:00 PM | | | | | | | | | | | | | 0 |
| 1:15 PM | | | | | | | | | | | | | 0 |
| 1:30 PM | | | | | | | | | | | | | 0 |
| 1:45 PM | | | | | | | | | | | | | 0 |
| 2:00 PM | | | | | | | | | | | | | 0 |
| 2:15 PM | | | | | | | | | | | | | 0 |
| 2:30 PM | | | | | | | | | | | | | 0 |
| 2:45 PM | | | | | | | | | | | | | 0 |
| 3:00 PM | | | | | | | | | | | | | 0 |
| 3:15 PM | | | | | | | | | | | | | 0 |
| 3:30 PM | | | | | | | | | | | | | 0 |
| 3:45 PM | | | | | | | | | | | | | 0 |
| 4:00 PM | | | | | | | | | | | | | 0 |
| 4:15 PM | | | | | | | | | | | | | 0 |
| 4:30 PM | | | | | | | | | | | | | 0 |
| 4:45 PM | | | | | | | | | | | | | 0 |
| 5:00 PM | | | | | | | | | | | | | 0 |
| 5:15 PM | | | | | | | | | | | | | 0 |
| 5:30 PM | | | | | | | | | | | | | 0 |
| 5:45 PM | | | | | | | | | | | | | 0 |
| 6:00 PM | | | | | | | | | | | | | 0 |
| 6:15 PM | | | | | | | | | | | | | 0 |
| 6:30 PM | | | | | | | | | | | | | 0 |
| 6:45 PM | | | | | | | | | | | | | 0 |
| 7:00 PM | | | | | | | | | | | | | 0 |
| 7:15 PM | | | | | | | | | | | | | 0 |
| 7:30 PM | | | | | | | | | | | | | 0 |
| 7:45 PM | | | | | | | | | | | | | 0 |
| 8:00 PM | | | | | | | | | | | | | 0 |
| 8:15 PM | | | | | | | | | | | | | 0 |
| 8:30 PM | | | | | | | | | | | | | 0 |
| 8:45 PM | | | | | | | | | | | | | 0 |
| 9:00 PM | | | | | | | | | | | | | 0 |
| 9:15 PM | | | | | | | | | | | | | 0 |
| 9:30 PM | | | | | | | | | | | | | 0 |
| 9:45 PM | | | | | | | | | | | | | 0 |
| 10:00 PM | | | | | | | | | | | | | 0 |
| 10:15 PM | | | | | | | | | | | | | 0 |
| 10:30 PM | | | | | | | | | | | | | 0 |
| 10:45 PM | | | | | | | | | | | | | 0 |
| 11:00 PM | | | | | | | | | | | | | 0 |
| 11:15 PM | | | | | | | | | | | | | 0 |
| 11:30 PM | | | | | | | | | | | | | 0 |
| 11:45 PM | | | | | | | | | | | | | 0 |

| | | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| TOTAL VOLUMES : | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| APPROACH %'s : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | |

| | | | | | | | | | | | | | |
|-----------------------------|-------|---|---|-------|---|---|-------|---|---|-------|---|---|--------------|
| PEAK HR START TIME : | 0 AM | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PEAK HR FACTOR : | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 |

CONTROL :

ITM Peak Hour Summary

Prepared by:

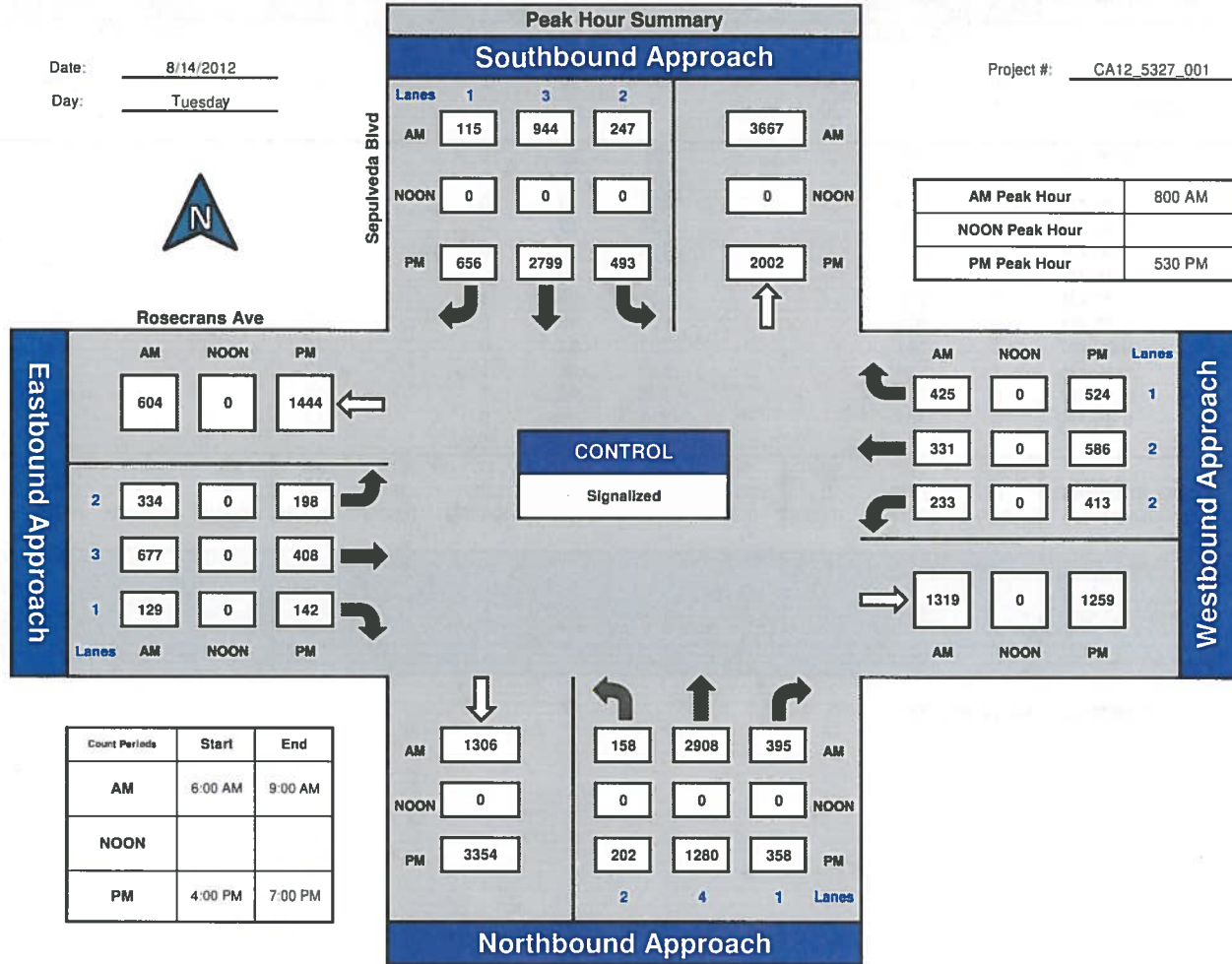


National Data & Surveying Services

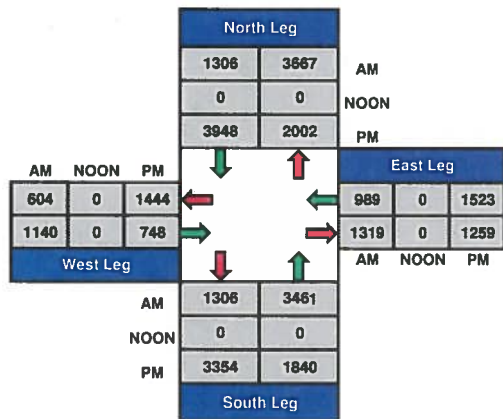
Sepulveda Blvd and Rosecrans Ave, City of Manhattan Beach

Date: 8/14/2012
Day: Tuesday

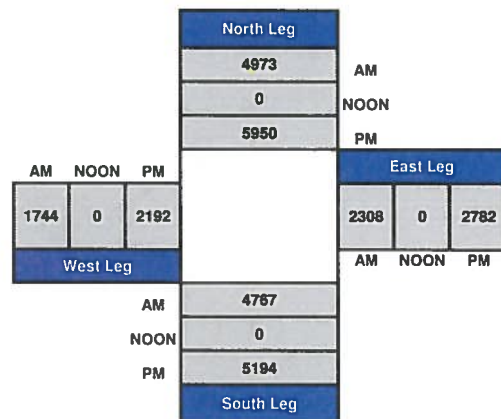
Project #: CA12_5327_001



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5327_003

Day: TUESDAY

City: City of Manhattan Beach

Date: 8/14/2012

| AM | | | | | | | | | | | | | |
|-----------------------------|----------------|--------|-------|----------------|--------|--------|-----------|-------|--------|-----------|---------|---------|--------------|
| NS/EW Streets: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | | |
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| | 1 | 3 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | |
| 6:00 AM | 3 | 361 | | | 82 | 10 | 0 | | 1 | | | | 457 |
| 6:15 AM | 1 | 406 | | | 96 | 7 | 1 | | 3 | | | | 514 |
| 6:30 AM | 0 | 514 | | | 123 | 10 | 0 | | 3 | | | | 650 |
| 6:45 AM | 0 | 682 | | | 124 | 19 | 0 | | 3 | | | | 828 |
| 7:00 AM | 1 | 702 | | | 173 | 33 | 0 | | 4 | | | | 913 |
| 7:15 AM | 0 | 880 | | | 181 | 40 | 0 | | 10 | | | | 1111 |
| 7:30 AM | 2 | 791 | | | 228 | 53 | 1 | | 7 | | | | 1082 |
| 7:45 AM | 0 | 979 | | | 262 | 46 | 0 | | 9 | | | | 1296 |
| 8:00 AM | 1 | 881 | | | 253 | 51 | 0 | | 10 | | | | 1196 |
| 8:15 AM | 1 | 884 | | | 287 | 38 | 1 | | 17 | | | | 1228 |
| 8:30 AM | 0 | 772 | | | 308 | 46 | 1 | | 11 | | | | 1138 |
| 8:45 AM | 8 | 887 | | | 310 | 49 | 6 | | 12 | | | | 1272 |
| TOTAL VOLUMES : | 17 | 8739 | 0 | 0 | 2427 | 402 | 10 | 0 | 90 | 0 | 0 | 0 | 11685 |
| APPROACH %'s : | 0.19% | 99.81% | 0.00% | 0.00% | 85.79% | 14.21% | 10.00% | 0.00% | 90.00% | #DIV/0! | #DIV/0! | #DIV/0! | |
| PEAK HR START TIME : | 745 AM | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 2 | 3516 | 0 | 0 | 1110 | 181 | 2 | 0 | 47 | 0 | 0 | 0 | 4858 |
| PEAK HR FACTOR : | 0.898 | | 0.912 | | | 0.681 | | | 0.000 | | | 0.937 | |

CONTROL : 1-Way Stop (EB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5327_003

Day: TUESDAY

City: City of Manhattan Beach

Date: 8/14/2012

PM

| NS/EW Streets: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | | TOTAL |
|-----------------------------|----------------|--------|-------|----------------|--------|--------|-----------|-------|--------|-----------|---------|---------|--------------|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | |
| | 1 | 3 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | |
| 4:00 PM | 0 | 450 | | | 607 | 83 | 1 | | 15 | | | | 1156 |
| 4:15 PM | 1 | 494 | | | 694 | 82 | 0 | | 9 | | | | 1280 |
| 4:30 PM | 0 | 464 | | | 681 | 76 | 0 | | 21 | | | | 1242 |
| 4:45 PM | 1 | 519 | | | 713 | 93 | 0 | | 8 | | | | 1334 |
| 5:00 PM | 0 | 466 | | | 710 | 87 | 0 | | 10 | | | | 1273 |
| 5:15 PM | 1 | 450 | | | 589 | 92 | 4 | | 7 | | | | 1143 |
| 5:30 PM | 4 | 443 | | | 708 | 119 | 1 | | 14 | | | | 1289 |
| 5:45 PM | 5 | 450 | | | 732 | 115 | 0 | | 14 | | | | 1316 |
| 6:00 PM | 0 | 441 | | | 696 | 140 | 1 | | 12 | | | | 1290 |
| 6:15 PM | 0 | 458 | | | 732 | 118 | 2 | | 5 | | | | 1315 |
| 6:30 PM | 0 | 410 | | | 706 | 101 | 2 | | 5 | | | | 1224 |
| 6:45 PM | 1 | 442 | | | 677 | 97 | 6 | | 15 | | | | 1238 |
| TOTAL VOLUMES : | 13 | 5487 | 0 | 0 | 8245 | 1203 | 17 | 0 | 135 | 0 | 0 | 0 | 15100 |
| APPROACH %'s : | 0.24% | 99.76% | 0.00% | 0.00% | 87.27% | 12.73% | 11.18% | 0.00% | 88.82% | #DIV/0! | #DIV/0! | #DIV/0! | |
| PEAK HR START TIME : | 530 PM | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 9 | 1792 | 0 | 0 | 2868 | 492 | 4 | 0 | 45 | 0 | 0 | 0 | 5210 |
| PEAK HR FACTOR : | 0.983 | | | 0.988 | | | 0.817 | | | 0.000 | | | 0.990 |

CONTROL : 1-Way Stop (EB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA

Day: NEED DATE

City: 0

Date: 0

| NS/EW Streets: | NOON | | | | | | | | | | | | TOTAL | |
|----------------|------------|----|----|------------|----|----|-----------|----|----|-----------|----|----|-------|---|
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | | |
| | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | | |
| LANES: | | | | | | | | | | | | | | |
| 12:00 AM | | | | | | | | | | | | | | 0 |
| 12:15 AM | | | | | | | | | | | | | | 0 |
| 12:30 AM | | | | | | | | | | | | | | 0 |
| 12:45 AM | | | | | | | | | | | | | | 0 |
| 1:00 AM | | | | | | | | | | | | | | 0 |
| 1:15 AM | | | | | | | | | | | | | | 0 |
| 1:30 AM | | | | | | | | | | | | | | 0 |
| 1:45 AM | | | | | | | | | | | | | | 0 |
| 2:00 AM | | | | | | | | | | | | | | 0 |
| 2:15 AM | | | | | | | | | | | | | | 0 |
| 2:30 AM | | | | | | | | | | | | | | 0 |
| 2:45 AM | | | | | | | | | | | | | | 0 |
| 3:00 AM | | | | | | | | | | | | | | 0 |
| 3:15 AM | | | | | | | | | | | | | | 0 |
| 3:30 AM | | | | | | | | | | | | | | 0 |
| 3:45 AM | | | | | | | | | | | | | | 0 |
| 4:00 AM | | | | | | | | | | | | | | 0 |
| 4:15 AM | | | | | | | | | | | | | | 0 |
| 4:30 AM | | | | | | | | | | | | | | 0 |
| 4:45 AM | | | | | | | | | | | | | | 0 |
| 5:00 AM | | | | | | | | | | | | | | 0 |
| 5:15 AM | | | | | | | | | | | | | | 0 |
| 5:30 AM | | | | | | | | | | | | | | 0 |
| 5:45 AM | | | | | | | | | | | | | | 0 |
| 6:00 AM | | | | | | | | | | | | | | 0 |
| 6:15 AM | | | | | | | | | | | | | | 0 |
| 6:30 AM | | | | | | | | | | | | | | 0 |
| 6:45 AM | | | | | | | | | | | | | | 0 |
| 7:00 AM | | | | | | | | | | | | | | 0 |
| 7:15 AM | | | | | | | | | | | | | | 0 |
| 7:30 AM | | | | | | | | | | | | | | 0 |
| 7:45 AM | | | | | | | | | | | | | | 0 |
| 8:00 AM | | | | | | | | | | | | | | 0 |
| 8:15 AM | | | | | | | | | | | | | | 0 |
| 8:30 AM | | | | | | | | | | | | | | 0 |
| 8:45 AM | | | | | | | | | | | | | | 0 |
| 9:00 AM | | | | | | | | | | | | | | 0 |
| 9:15 AM | | | | | | | | | | | | | | 0 |
| 9:30 AM | | | | | | | | | | | | | | 0 |
| 9:45 AM | | | | | | | | | | | | | | 0 |
| 10:00 AM | | | | | | | | | | | | | | 0 |
| 10:15 AM | | | | | | | | | | | | | | 0 |
| 10:30 AM | | | | | | | | | | | | | | 0 |
| 10:45 AM | | | | | | | | | | | | | | 0 |
| 11:00 AM | | | | | | | | | | | | | | 0 |
| 11:15 AM | | | | | | | | | | | | | | 0 |
| 11:30 AM | | | | | | | | | | | | | | 0 |
| 11:45 AM | | | | | | | | | | | | | | 0 |
| 12:00 PM | | | | | | | | | | | | | | 0 |
| 12:15 PM | | | | | | | | | | | | | | 0 |
| 12:30 PM | | | | | | | | | | | | | | 0 |
| 12:45 PM | | | | | | | | | | | | | | 0 |
| 1:00 PM | | | | | | | | | | | | | | 0 |
| 1:15 PM | | | | | | | | | | | | | | 0 |
| 1:30 PM | | | | | | | | | | | | | | 0 |
| 1:45 PM | | | | | | | | | | | | | | 0 |
| 2:00 PM | | | | | | | | | | | | | | 0 |
| 2:15 PM | | | | | | | | | | | | | | 0 |
| 2:30 PM | | | | | | | | | | | | | | 0 |
| 2:45 PM | | | | | | | | | | | | | | 0 |
| 3:00 PM | | | | | | | | | | | | | | 0 |
| 3:15 PM | | | | | | | | | | | | | | 0 |
| 3:30 PM | | | | | | | | | | | | | | 0 |
| 3:45 PM | | | | | | | | | | | | | | 0 |
| 4:00 PM | | | | | | | | | | | | | | 0 |
| 4:15 PM | | | | | | | | | | | | | | 0 |
| 4:30 PM | | | | | | | | | | | | | | 0 |
| 4:45 PM | | | | | | | | | | | | | | 0 |
| 5:00 PM | | | | | | | | | | | | | | 0 |
| 5:15 PM | | | | | | | | | | | | | | 0 |
| 5:30 PM | | | | | | | | | | | | | | 0 |
| 5:45 PM | | | | | | | | | | | | | | 0 |
| 6:00 PM | | | | | | | | | | | | | | 0 |
| 6:15 PM | | | | | | | | | | | | | | 0 |
| 6:30 PM | | | | | | | | | | | | | | 0 |
| 6:45 PM | | | | | | | | | | | | | | 0 |
| 7:00 PM | | | | | | | | | | | | | | 0 |
| 7:15 PM | | | | | | | | | | | | | | 0 |
| 7:30 PM | | | | | | | | | | | | | | 0 |
| 7:45 PM | | | | | | | | | | | | | | 0 |
| 8:00 PM | | | | | | | | | | | | | | 0 |
| 8:15 PM | | | | | | | | | | | | | | 0 |
| 8:30 PM | | | | | | | | | | | | | | 0 |
| 8:45 PM | | | | | | | | | | | | | | 0 |
| 9:00 PM | | | | | | | | | | | | | | 0 |
| 9:15 PM | | | | | | | | | | | | | | 0 |
| 9:30 PM | | | | | | | | | | | | | | 0 |
| 9:45 PM | | | | | | | | | | | | | | 0 |
| 10:00 PM | | | | | | | | | | | | | | 0 |
| 10:15 PM | | | | | | | | | | | | | | 0 |
| 10:30 PM | | | | | | | | | | | | | | 0 |
| 10:45 PM | | | | | | | | | | | | | | 0 |
| 11:00 PM | | | | | | | | | | | | | | 0 |
| 11:15 PM | | | | | | | | | | | | | | 0 |
| 11:30 PM | | | | | | | | | | | | | | 0 |
| 11:45 PM | | | | | | | | | | | | | | 0 |

| | | | | | | | | | | | | | |
|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| TOTAL VOLUMES : | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| APPROACH %'s : | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | |
| PEAK HR START TIME : | 0 AM | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PEAK HR FACTOR : | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 |

CONTROL :

ITM Peak Hour Summary

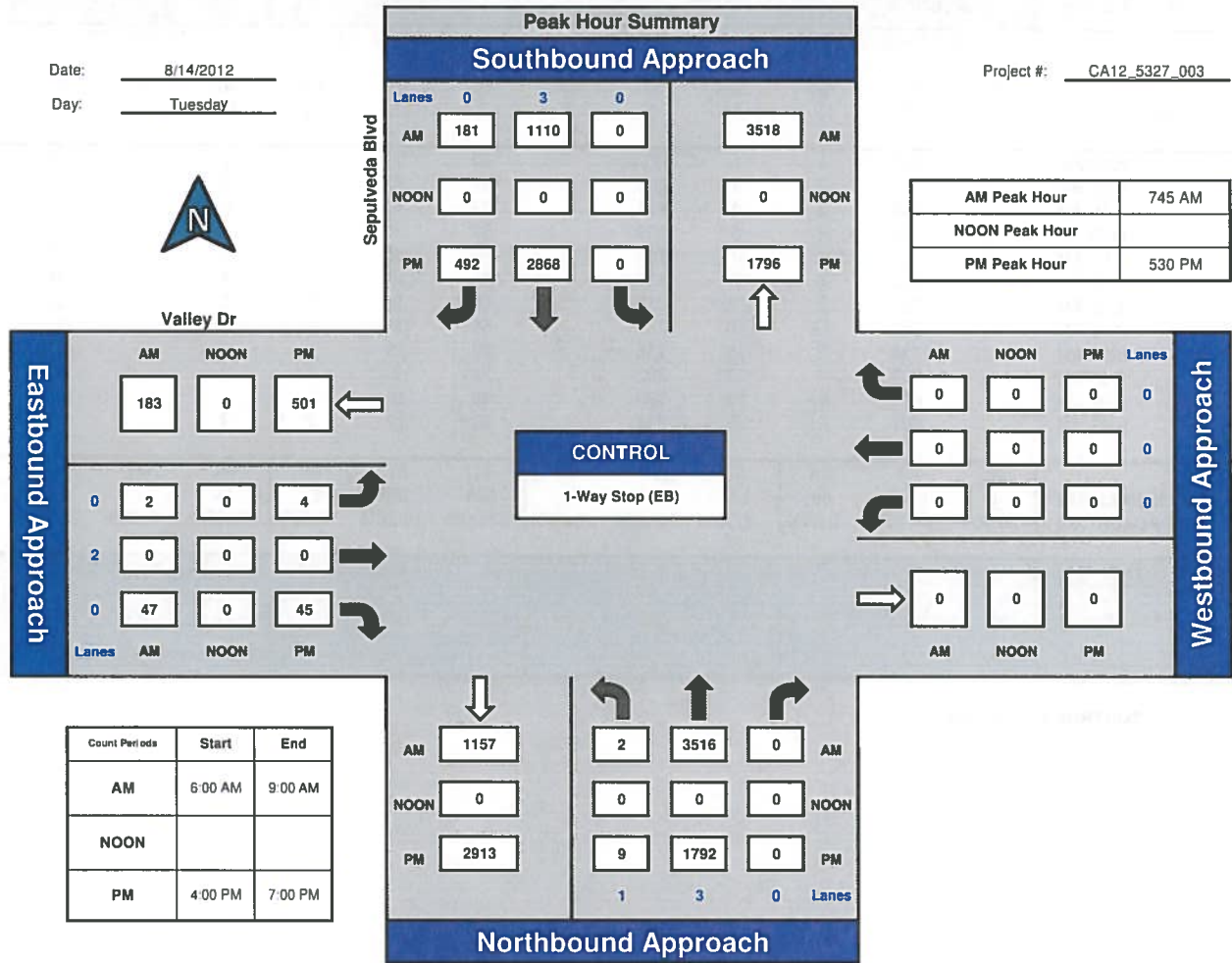
Prepared by:
NDS

National Data & Surveying Services

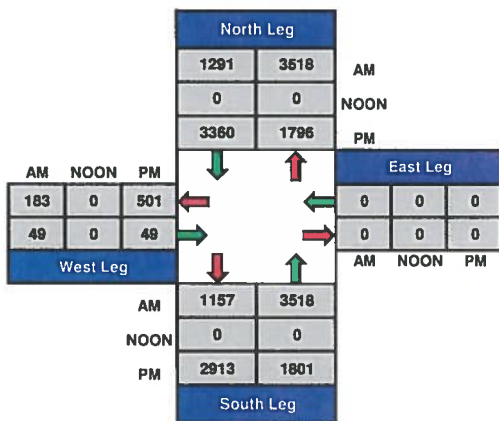
Sepulveda Blvd and Valley Dr., City of Manhattan Beach

Date: 8/14/2012
Day: Tuesday

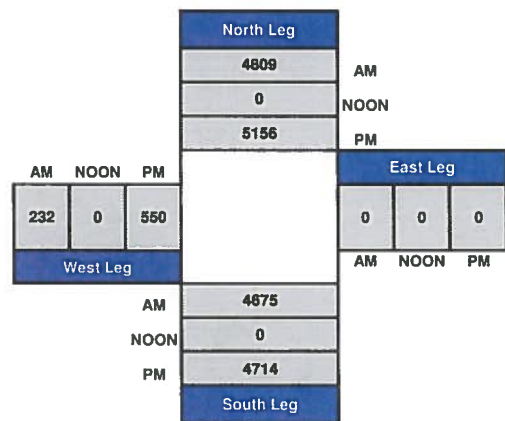
Project #: CA12_5327_003



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5327_002

Day: TUESDAY

City: City of Manhattan Beach

Date: 8/14/2012

| AM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|----------------|--------|-------|----------------|--------|-------|-----------|--------|-------|-----------|-------|--------|--------------|--|--|---|--|--|-----|--|--|----|--|--|----|--|--|----|--|--|---|--|--|----|--|--|------|--|--|
| NS/EW Streets: | Sepulveda Blvd | | | Sepulveda Blvd | | | 33rd St | | | 33rd St | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 3 | 1 | 1 | 3 | 0 | 2 | .5 | .5 | 1.5 | 0 | 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6:00 AM | | 334 | 1 | 1 | 71 | | 10 | 2 | 0 | 0 | | 3 | 422 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6:15 AM | | 409 | 3 | 4 | 104 | | 8 | 5 | 1 | 0 | | 3 | 537 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6:30 AM | | 458 | 2 | 4 | 111 | | 23 | 6 | 1 | 0 | | 2 | 607 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6:45 AM | | 676 | 4 | 6 | 129 | | 31 | 3 | 1 | 0 | | 8 | 858 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7:00 AM | | 667 | 1 | 10 | 163 | | 40 | 6 | 0 | 1 | | 8 | 896 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7:15 AM | | 818 | 6 | 7 | 179 | | 28 | 10 | 0 | 4 | | 10 | 1062 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7:30 AM | | 725 | 7 | 13 | 216 | | 68 | 8 | 1 | 1 | | 11 | 1050 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 7:45 AM | | 902 | 12 | 15 | 258 | | 65 | 8 | 4 | 1 | | 11 | 1276 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8:00 AM | | 774 | 7 | 15 | 256 | | 97 | 18 | 1 | 1 | | 10 | 1179 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8:15 AM | | 789 | 7 | 13 | 292 | | 74 | 7 | 2 | 2 | | 12 | 1198 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8:30 AM | | 659 | 9 | 15 | 279 | | 98 | 16 | 1 | 5 | | 13 | 1095 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8:45 AM | | 801 | 9 | 20 | 331 | | 82 | 19 | 7 | 3 | | 9 | 1281 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOTAL VOLUMES : | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROACH %'s : | 0 | 8012 | 68 | 123 | 2389 | 0 | 624 | 108 | 19 | 18 | 0 | 100 | 11461 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0.00% | 99.16% | 0.84% | 4.90% | 95.10% | 0.00% | 83.09% | 14.38% | 2.53% | 15.25% | 0.00% | 84.75% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PEAK HR START TIME : | 800 AM | | | | | | | | | | | | TOTAL | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | | | 3023 | | | 32 | | | 63 | | | 1158 | | | 0 | | | 351 | | | 60 | | | 11 | | | 11 | | | 0 | | | 44 | | | 4753 | | |
| PEAK HR FACTOR : | 0.943 | | | 0.870 | | | 0.909 | | | 0.764 | | | 0.928 | | | | | | | | | | | | | | | | | | | | | | | | | | |

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: CA12_5327_002

Day: TUESDAY

City: City of Manhattan Beach

Date: 8/14/2012

| PM | | | | | | | | | | | | | |
|-----------------------------|----------------|--------|-------|----------------|--------|-------|-----------|--------|-------|-----------|-------|--------|--------------|
| NS/EW Streets: | Sepulveda Blvd | | | Sepulveda Blvd | | | 33rd St | | | 33rd St | | | |
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL |
| | 0 | 3 | 1 | 1 | 3 | 0 | 2 | .5 | .5 | 1.5 | 0 | 1.5 | |
| 4:00 PM | | 349 | 12 | 50 | 565 | | 55 | 23 | 2 | 26 | | 44 | 1126 |
| 4:15 PM | | 401 | 18 | 54 | 649 | | 54 | 13 | 4 | 27 | | 45 | 1265 |
| 4:30 PM | | 363 | 15 | 56 | 640 | | 52 | 19 | 4 | 30 | | 32 | 1211 |
| 4:45 PM | | 430 | 23 | 38 | 692 | | 46 | 13 | 9 | 15 | | 54 | 1320 |
| 5:00 PM | | 352 | 19 | 44 | 669 | | 55 | 15 | 7 | 20 | | 48 | 1229 |
| 5:15 PM | | 366 | 11 | 43 | 559 | | 40 | 12 | 6 | 14 | | 50 | 1101 |
| 5:30 PM | | 365 | 21 | 56 | 663 | | 45 | 22 | 4 | 24 | | 36 | 1236 |
| 5:45 PM | | 375 | 18 | 48 | 695 | | 51 | 11 | 3 | 25 | | 29 | 1255 |
| 6:00 PM | | 337 | 22 | 66 | 634 | | 37 | 21 | 9 | 26 | | 43 | 1195 |
| 6:15 PM | | 406 | 15 | 54 | 678 | | 26 | 12 | 2 | 12 | | 29 | 1234 |
| 6:30 PM | | 333 | 14 | 55 | 649 | | 34 | 18 | 2 | 23 | | 41 | 1169 |
| 6:45 PM | | 370 | 18 | 44 | 659 | | 25 | 10 | 3 | 16 | | 36 | 1181 |
| TOTAL VOLUMES : | 0 | 4447 | 206 | 608 | 7752 | 0 | 520 | 189 | 55 | 258 | 0 | 487 | 14522 |
| APPROACH %'s : | 0.00% | 95.57% | 4.43% | 7.27% | 92.73% | 0.00% | 68.06% | 24.74% | 7.20% | 34.63% | 0.00% | 65.37% | |
| PEAK HR START TIME : | 415 PM | | | | | | | | | | | | TOTAL |
| PEAK HR VOL : | 0 | 1546 | 75 | 192 | 2650 | 0 | 207 | 60 | 24 | 92 | 0 | 179 | 5025 |
| PEAK HR FACTOR : | | 0.895 | | | 0.973 | | | 0.945 | | | 0.941 | | 0.952 |

CONTROL : Signalized

Intersection Turning Movement

Prepared by:
National Data & Surveying Services

| | | | | | | | | | | | | | | | |
|-----------------------------|----------------|---------|---------|------------|---------|---------|-----------|---------|---------|-----------|---------|---------|-------|--|--|
| Project ID: CA | Day: NEED DATE | | | | | | | | | | | | | | |
| City: 0 | Date: 0 | | | | | | | | | | | | | | |
| NS/EW Streets: | 0 | | | 0 | | | NOON | | | 0 | | | 0 | | |
| | NORTHBOUND | | | SOUTHBOUND | | | EASTBOUND | | | WESTBOUND | | | | | |
| LANES: | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | | |
| 12:00 AM | | | | | | | | | | | | | 0 | | |
| 12:15 AM | | | | | | | | | | | | | 0 | | |
| 12:30 AM | | | | | | | | | | | | | 0 | | |
| 12:45 AM | | | | | | | | | | | | | 0 | | |
| 1:00 AM | | | | | | | | | | | | | 0 | | |
| 1:15 AM | | | | | | | | | | | | | 0 | | |
| 1:30 AM | | | | | | | | | | | | | 0 | | |
| 1:45 AM | | | | | | | | | | | | | 0 | | |
| 2:00 AM | | | | | | | | | | | | | 0 | | |
| 2:15 AM | | | | | | | | | | | | | 0 | | |
| 2:30 AM | | | | | | | | | | | | | 0 | | |
| 2:45 AM | | | | | | | | | | | | | 0 | | |
| 3:00 AM | | | | | | | | | | | | | 0 | | |
| 3:15 AM | | | | | | | | | | | | | 0 | | |
| 3:30 AM | | | | | | | | | | | | | 0 | | |
| 3:45 AM | | | | | | | | | | | | | 0 | | |
| 4:00 AM | | | | | | | | | | | | | 0 | | |
| 4:15 AM | | | | | | | | | | | | | 0 | | |
| 4:30 AM | | | | | | | | | | | | | 0 | | |
| 4:45 AM | | | | | | | | | | | | | 0 | | |
| 5:00 AM | | | | | | | | | | | | | 0 | | |
| 5:15 AM | | | | | | | | | | | | | 0 | | |
| 5:30 AM | | | | | | | | | | | | | 0 | | |
| 5:45 AM | | | | | | | | | | | | | 0 | | |
| 6:00 AM | | | | | | | | | | | | | 0 | | |
| 6:15 AM | | | | | | | | | | | | | 0 | | |
| 6:30 AM | | | | | | | | | | | | | 0 | | |
| 6:45 AM | | | | | | | | | | | | | 0 | | |
| 7:00 AM | | | | | | | | | | | | | 0 | | |
| 7:15 AM | | | | | | | | | | | | | 0 | | |
| 7:30 AM | | | | | | | | | | | | | 0 | | |
| 7:45 AM | | | | | | | | | | | | | 0 | | |
| 8:00 AM | | | | | | | | | | | | | 0 | | |
| 8:15 AM | | | | | | | | | | | | | 0 | | |
| 8:30 AM | | | | | | | | | | | | | 0 | | |
| 8:45 AM | | | | | | | | | | | | | 0 | | |
| 9:00 AM | | | | | | | | | | | | | 0 | | |
| 9:15 AM | | | | | | | | | | | | | 0 | | |
| 9:30 AM | | | | | | | | | | | | | 0 | | |
| 9:45 AM | | | | | | | | | | | | | 0 | | |
| 10:00 AM | | | | | | | | | | | | | 0 | | |
| 10:15 AM | | | | | | | | | | | | | 0 | | |
| 10:30 AM | | | | | | | | | | | | | 0 | | |
| 10:45 AM | | | | | | | | | | | | | 0 | | |
| 11:00 AM | | | | | | | | | | | | | 0 | | |
| 11:15 AM | | | | | | | | | | | | | 0 | | |
| 11:30 AM | | | | | | | | | | | | | 0 | | |
| 11:45 AM | | | | | | | | | | | | | 0 | | |
| 12:00 PM | | | | | | | | | | | | | 0 | | |
| 12:15 PM | | | | | | | | | | | | | 0 | | |
| 12:30 PM | | | | | | | | | | | | | 0 | | |
| 12:45 PM | | | | | | | | | | | | | 0 | | |
| 1:00 PM | | | | | | | | | | | | | 0 | | |
| 1:15 PM | | | | | | | | | | | | | 0 | | |
| 1:30 PM | | | | | | | | | | | | | 0 | | |
| 1:45 PM | | | | | | | | | | | | | 0 | | |
| 2:00 PM | | | | | | | | | | | | | 0 | | |
| 2:15 PM | | | | | | | | | | | | | 0 | | |
| 2:30 PM | | | | | | | | | | | | | 0 | | |
| 2:45 PM | | | | | | | | | | | | | 0 | | |
| 3:00 PM | | | | | | | | | | | | | 0 | | |
| 3:15 PM | | | | | | | | | | | | | 0 | | |
| 3:30 PM | | | | | | | | | | | | | 0 | | |
| 3:45 PM | | | | | | | | | | | | | 0 | | |
| 4:00 PM | | | | | | | | | | | | | 0 | | |
| 4:15 PM | | | | | | | | | | | | | 0 | | |
| 4:30 PM | | | | | | | | | | | | | 0 | | |
| 4:45 PM | | | | | | | | | | | | | 0 | | |
| 5:00 PM | | | | | | | | | | | | | 0 | | |
| 5:15 PM | | | | | | | | | | | | | 0 | | |
| 5:30 PM | | | | | | | | | | | | | 0 | | |
| 5:45 PM | | | | | | | | | | | | | 0 | | |
| 6:00 PM | | | | | | | | | | | | | 0 | | |
| 6:15 PM | | | | | | | | | | | | | 0 | | |
| 6:30 PM | | | | | | | | | | | | | 0 | | |
| 6:45 PM | | | | | | | | | | | | | 0 | | |
| 7:00 PM | | | | | | | | | | | | | 0 | | |
| 7:15 PM | | | | | | | | | | | | | 0 | | |
| 7:30 PM | | | | | | | | | | | | | 0 | | |
| 7:45 PM | | | | | | | | | | | | | 0 | | |
| 8:00 PM | | | | | | | | | | | | | 0 | | |
| 8:15 PM | | | | | | | | | | | | | 0 | | |
| 8:30 PM | | | | | | | | | | | | | 0 | | |
| 8:45 PM | | | | | | | | | | | | | 0 | | |
| 9:00 PM | | | | | | | | | | | | | 0 | | |
| 9:15 PM | | | | | | | | | | | | | 0 | | |
| 9:30 PM | | | | | | | | | | | | | 0 | | |
| 9:45 PM | | | | | | | | | | | | | 0 | | |
| 10:00 PM | | | | | | | | | | | | | 0 | | |
| 10:15 PM | | | | | | | | | | | | | 0 | | |
| 10:30 PM | | | | | | | | | | | | | 0 | | |
| 10:45 PM | | | | | | | | | | | | | 0 | | |
| 11:00 PM | | | | | | | | | | | | | 0 | | |
| 11:15 PM | | | | | | | | | | | | | 0 | | |
| 11:30 PM | | | | | | | | | | | | | 0 | | |
| 11:45 PM | | | | | | | | | | | | | 0 | | |
| TOTAL VOLUMES : | NL | NT | NR | SL | ST | SR | EL | ET | ER | WL | WT | WR | TOTAL | | |
| APPROACH %'s : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | #DIV/0! | | | |
| PEAK HR START TIME : | 0 AM | | | | | | | | | | | | | | |
| PEAK HR VOL : | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| PEAK HR FACTOR : | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | | 0.000 | | |
| CONTROL : | | | | | | | | | | | | | | | |

ITM Peak Hour Summary

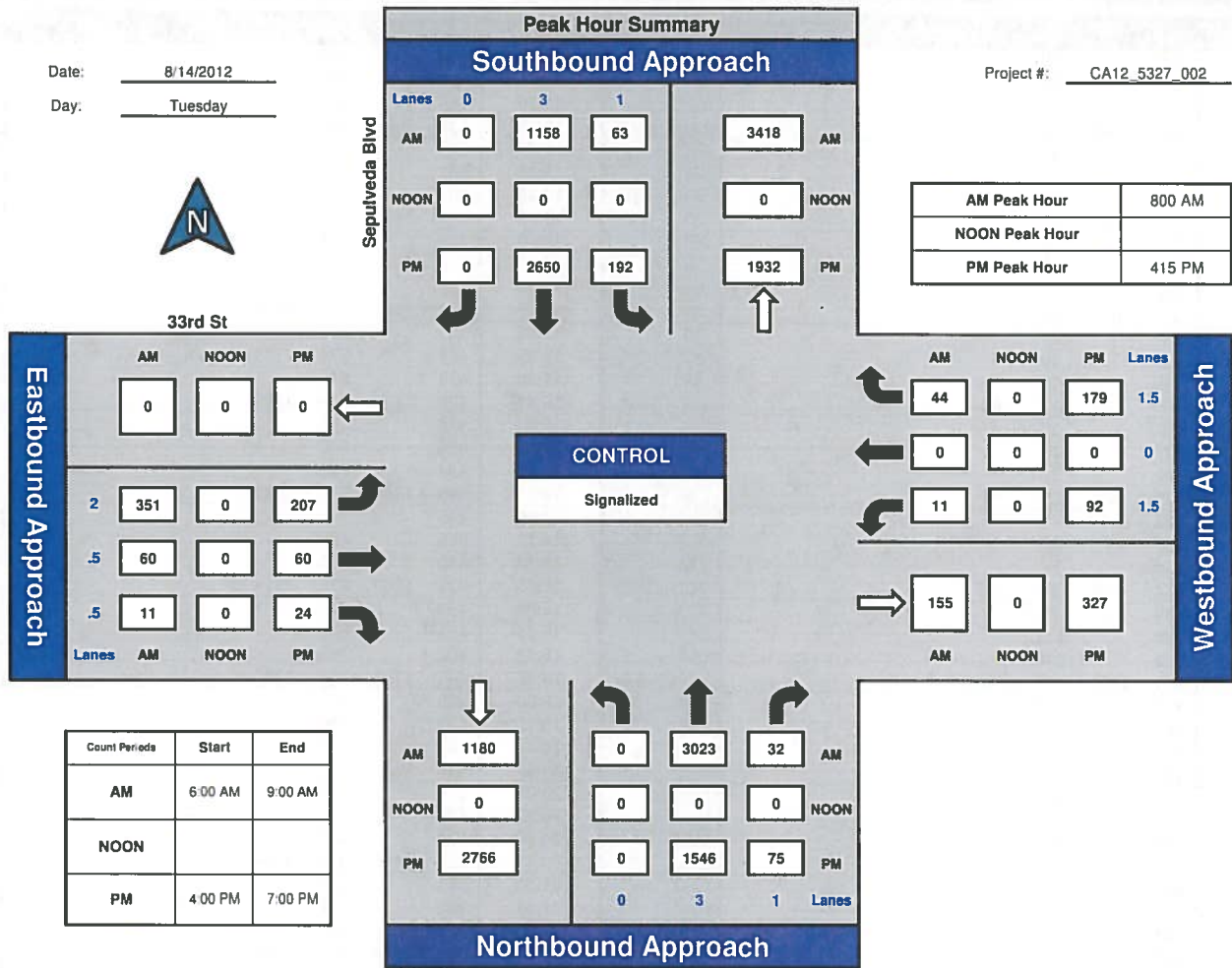


Prepared by:
National Data & Surveying Services

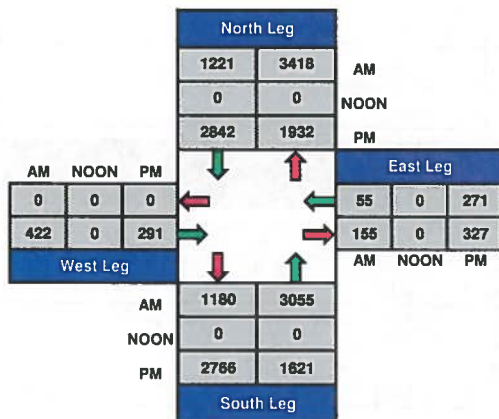
Sepulveda Blvd and 33rd St, City of Manhattan Beach

Date: 8/14/2012
Day: Tuesday

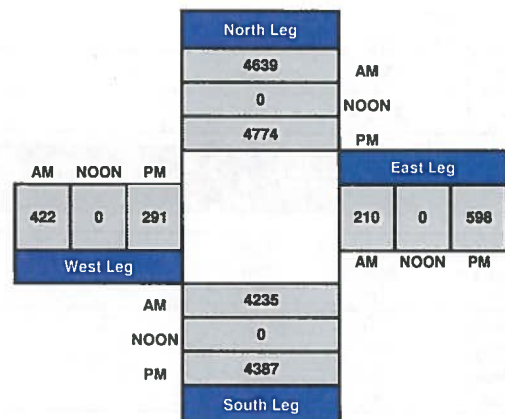
Project #: CA12_5327_002



Total Ins & Outs



Total Volume Per Leg



VOLUME

Sepulveda Blvd between Rosecrans Ave & 33rd St

Day: Tuesday
Date: 8/14/2012

City: Manhattan Beach
Project #: CA12_5328_001

| DAILY TOTALS | NB | SB | EB | WB | Total |
|--------------|----|--------|--------|----|-------|
| | | 36,630 | 34,438 | 0 | 0 |

| AM Period | NB | SB | EB | WB | TOTAL | PM Period | NB | SB | EB | WB | TOTAL |
|----------------|--------------|--------------|-----|------|--------------|----------------|--------------|--------------|-----|------|--------------|
| 00:00 | 81 | 123 | | | 204 | 12:00 | 468 | 542 | | | 1010 |
| 00:15 | 71 | 103 | | | 174 | 12:15 | 488 | 593 | | | 1081 |
| 00:30 | 61 | 78 | | | 139 | 12:30 | 564 | 563 | | | 1127 |
| 00:45 | 81 | 294 | 74 | 378 | 155 672 | 12:45 | 532 | 2052 | 491 | 2189 | 1023 4241 |
| 01:00 | 41 | 43 | | | 84 | 13:00 | 549 | 523 | | | 1072 |
| 01:15 | 37 | 36 | | | 73 | 13:15 | 561 | 551 | | | 1112 |
| 01:30 | 38 | 37 | | | 75 | 13:30 | 503 | 506 | | | 1009 |
| 01:45 | 33 | 149 | 37 | 153 | 70 302 | 13:45 | 549 | 2162 | 503 | 2083 | 1052 4245 |
| 02:00 | 36 | 29 | | | 65 | 14:00 | 475 | 501 | | | 976 |
| 02:15 | 21 | 29 | | | 50 | 14:15 | 475 | 515 | | | 990 |
| 02:30 | 23 | 27 | | | 50 | 14:30 | 489 | 542 | | | 1031 |
| 02:45 | 23 | 103 | 18 | 103 | 41 206 | 14:45 | 424 | 1863 | 536 | 2094 | 960 3957 |
| 03:00 | 13 | 17 | | | 30 | 15:00 | 435 | 551 | | | 986 |
| 03:15 | 22 | 20 | | | 42 | 15:15 | 444 | 574 | | | 1018 |
| 03:30 | 29 | 14 | | | 43 | 15:30 | 433 | 610 | | | 1043 |
| 03:45 | 27 | 91 | 12 | 63 | 39 154 | 15:45 | 438 | 1750 | 633 | 2368 | 1071 4118 |
| 04:00 | 45 | 10 | | | 55 | 16:00 | 476 | 686 | | | 1162 |
| 04:15 | 60 | 19 | | | 79 | 16:15 | 485 | 780 | | | 1265 |
| 04:30 | 96 | 32 | | | 128 | 16:30 | 454 | 752 | | | 1206 |
| 04:45 | 123 | 324 | 35 | 96 | 158 420 | 16:45 | 506 | 1921 | 827 | 3045 | 1333 4966 |
| 05:00 | 128 | 46 | | | 174 | 17:00 | 449 | 775 | | | 1224 |
| 05:15 | 167 | 45 | | | 212 | 17:15 | 468 | 698 | | | 1166 |
| 05:30 | 214 | 58 | | | 272 | 17:30 | 470 | 820 | | | 1290 |
| 05:45 | 254 | 763 | 89 | 238 | 343 1001 | 17:45 | 422 | 1809 | 821 | 3114 | 1243 4923 |
| 06:00 | 349 | 78 | | | 427 | 18:00 | 438 | 824 | | | 1262 |
| 06:15 | 420 | 121 | | | 541 | 18:15 | 451 | 859 | | | 1310 |
| 06:30 | 522 | 136 | | | 658 | 18:30 | 405 | 796 | | | 1201 |
| 06:45 | 671 | 1962 | 149 | 484 | 820 2446 | 18:45 | 441 | 1735 | 766 | 3245 | 1207 4980 |
| 07:00 | 718 | 199 | | | 917 | 19:00 | 385 | 706 | | | 1091 |
| 07:15 | 866 | 227 | | | 1093 | 19:15 | 413 | 680 | | | 1093 |
| 07:30 | 802 | 260 | | | 1062 | 19:30 | 405 | 574 | | | 979 |
| 07:45 | 963 | 3349 | 330 | 1016 | 1293 4365 | 19:45 | 412 | 1615 | 616 | 2576 | 1028 4191 |
| 08:00 | 900 | 301 | | | 1201 | 20:00 | 376 | 529 | | | 905 |
| 08:15 | 865 | 330 | | | 1195 | 20:15 | 398 | 450 | | | 848 |
| 08:30 | 761 | 360 | | | 1121 | 20:30 | 389 | 427 | | | 816 |
| 08:45 | 886 | 3412 | 353 | 1344 | 1239 4756 | 20:45 | 333 | 1496 | 392 | 1798 | 725 3294 |
| 09:00 | 897 | 400 | | | 1297 | 21:00 | 343 | 361 | | | 704 |
| 09:15 | 730 | 344 | | | 1074 | 21:15 | 302 | 416 | | | 718 |
| 09:30 | 681 | 335 | | | 1016 | 21:30 | 273 | 323 | | | 596 |
| 09:45 | 662 | 2970 | 402 | 1481 | 1064 4451 | 21:45 | 266 | 1184 | 304 | 1404 | 570 2588 |
| 10:00 | 603 | 360 | | | 963 | 22:00 | 249 | 281 | | | 530 |
| 10:15 | 570 | 375 | | | 945 | 22:15 | 210 | 235 | | | 445 |
| 10:30 | 534 | 412 | | | 946 | 22:30 | 172 | 228 | | | 400 |
| 10:45 | 554 | 2261 | 404 | 1551 | 958 3812 | 22:45 | 153 | 784 | 220 | 964 | 373 1748 |
| 11:00 | 578 | 431 | | | 1009 | 23:00 | 141 | 204 | | | 345 |
| 11:15 | 546 | 495 | | | 1041 | 23:15 | 111 | 161 | | | 272 |
| 11:30 | 484 | 504 | | | 988 | 23:30 | 120 | 152 | | | 272 |
| 11:45 | 496 | 2104 | 567 | 1997 | 1063 4101 | 23:45 | 105 | 477 | 137 | 654 | 242 1131 |
| TOTALS | 17782 | 8904 | | | 26686 | TOTALS | 18848 | 25534 | | | 44382 |
| SPLIT % | 66.6% | 33.4% | | | 37.5% | SPLIT % | 42.5% | 57.5% | | | 62.5% |

| DAILY TOTALS | NB | SB | EB | WB | Total |
|--------------|----|--------|--------|----|-------|
| | | 36,630 | 34,438 | 0 | 0 |

| | | | | | | | |
|-----------------|-------|-------|-------|-----------------|-------|-------|-------|
| AM Peak Hour | 07:15 | 11:45 | 08:15 | PM Peak Hour | 12:30 | 17:30 | 17:30 |
| AM Pk Volume | 3531 | 2265 | 4852 | PM Pk Volume | 2206 | 3324 | 5105 |
| Pk Hr Factor | 0.917 | 0.955 | 0.935 | Pk Hr Factor | 0.978 | 0.967 | 0.974 |
| 7 - 9 Volume | 6761 | 2360 | 9121 | 4 - 6 Volume | 3730 | 6159 | 9889 |
| 7 - 9 Peak Hour | 07:15 | 08:00 | 07:45 | 4 - 6 Peak Hour | 16:00 | 16:15 | 16:15 |
| 7 - 9 Pk Volume | 3531 | 1344 | 4810 | 4 - 6 Pk Volume | 1921 | 3134 | 5028 |
| Pk Hr Factor | 0.917 | 0.933 | 0.930 | Pk Hr Factor | 0.949 | 0.947 | 0.943 |



APPENDIX B: VOLUME DEVELOPMENT SHEETS



OPENING YEAR (2015) VOLUMES

EXISTING 2012 AM VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 161 | 2958 | 402 | 247 | 944 | 115 | 334 | 677 | 129 | 233 | 331 | 425 |
| 2 | 2 | 3516 | 0 | 0 | 1110 | 181 | 5 | 0 | 111 | 0 | 0 | 0 |
| 3 | 0 | 3111 | 32 | 63 | 1158 | 0 | 361 | 60 | 11 | 11 | 0 | 46 |

2015 AM BASE VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 166 | 3047 | 414 | 254 | 972 | 118 | 344 | 697 | 133 | 240 | 341 | 438 |
| 2 | 2 | 3621 | 0 | 0 | 1143 | 186 | 5 | 0 | 114 | 0 | 0 | 0 |
| 3 | 0 | 3204 | 33 | 65 | 1193 | 0 | 372 | 62 | 11 | 11 | 0 | 47 |

RELATED PROJECT TRIPS (COMPONENT 1) AM PEAK HOUR

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 13 | 1 | 6 | 11 | | | 3 | 1 | 3 | 3 | 5 |
| 2 | 2 | 15 | | | 14 | | | | | | | |
| 3 | | 15 | 1 | 2 | 12 | | | 2 | | | | 2 |

2015 FINAL AM VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 167 | 3060 | 415 | 260 | 983 | 118 | 344 | 700 | 134 | 243 | 344 | 443 |
| 2 | 4 | 3636 | 0 | 0 | 1157 | 186 | 5 | 0 | 114 | 0 | 0 | 0 |
| 3 | 0 | 3219 | 34 | 67 | 1205 | 0 | 372 | 64 | 11 | 11 | 0 | 49 |

| EXISTING 2012 PM VOLUMES | | | | | | | | | | | | |
|--------------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
| 1 | 211 | 1340 | 375 | 493 | 2799 | 656 | 198 | 408 | 142 | 413 | 586 | 524 |
| 2 | 10 | 1922 | 0 | 0 | 2868 | 492 | 4 | 0 | 45 | 0 | 0 | 0 |
| 3 | 0 | 1546 | 75 | 197 | 2716 | 0 | 207 | 60 | 24 | 92 | 0 | 179 |

2015 PM BASE VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 217 | 1380 | 386 | 508 | 2883 | 676 | 204 | 420 | 146 | 425 | 604 | 540 |
| 2 | 10 | 1980 | 0 | 0 | 2954 | 507 | 4 | 0 | 46 | 0 | 0 | 0 |
| 3 | 0 | 1592 | 77 | 203 | 2797 | 0 | 213 | 62 | 25 | 95 | 0 | 184 |

RELATED PROJECT TRIPS (COMPONENT 1) PM PEAK HOUR

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 15 | 1 | 8 | 15 | | | 4 | 1 | 4 | 3 | 5 |
| 2 | 3 | 18 | | | 19 | | | | | | | |
| 3 | | 18 | 2 | 3 | 16 | | | 3 | | | | 3 |

2015 FINAL PM VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 218 | 1395 | 387 | 516 | 2898 | 676 | 204 | 424 | 147 | 429 | 607 | 545 |
| 2 | 13 | 1998 | 0 | 0 | 2973 | 507 | 4 | 0 | 46 | 0 | 0 | 0 |
| 3 | 0 | 1610 | 79 | 206 | 2813 | 0 | 213 | 65 | 25 | 95 | 0 | 187 |



FUTURE YEAR (2035) VOLUMES

2008 AM Peak Hour - AUTOS+TRUCKS

| NODE NUMBER | APPROACH | | | | | | DEPARTURE | | | | | | TOTAL | |
|------------------------------|----------------------------------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|-------|-------|
| | NL | EL | SL | WL | NL | EL | SL | WL | NL | EL | SL | WL | IN | OUT |
| | Sepulveda Blvd and Rosecrans Ave | 1,300 | 1,067 | 2,700 | 1,044 | 2,282 | 1,261 | 1,433 | 1,136 | 2,700 | 1,261 | 1,433 | 1,136 | 6,111 |
| Sepulveda Blvd and Valley Dr | 1,433 | | 2,700 | | 2,700 | | 770 | 662 | 2,700 | | 770 | 662 | 4,133 | 4,133 |
| Sepulveda Blvd and 33rd St | 770 | | 1,847 | 853 | 2,700 | | 770 | | 2,700 | | 770 | | 3,470 | 3,470 |

2008 PM Peak Hour - AUTOS+TRUCKS

| NODE NUMBER | APPROACH | | | | | | DEPARTURE | | | | | | TOTAL | |
|------------------------------|----------------------------------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-------|-------|-------|
| | NL | EL | SL | WL | NL | EL | SL | WL | NL | EL | SL | WL | IN | OUT |
| | Sepulveda Blvd and Rosecrans Ave | 2,549 | 1,580 | 1,941 | 1,693 | 1,822 | 1,554 | 3,246 | 1,141 | 1,941 | 1,554 | 2,093 | 1,153 | 7,762 |
| Sepulveda Blvd and Valley Dr | 3,246 | | 1,941 | | 1,941 | | 2,093 | | 1,941 | | 2,093 | | 5,187 | 5,187 |
| Sepulveda Blvd and 33rd St | 2,093 | | 1,258 | 682 | 1,941 | | 2,093 | | 1,941 | | 2,093 | | 4,034 | 4,034 |

| 2035NP AM Peak Hour - AUTOS+TRUCKS | | | | | | | | | | | | |
|------------------------------------|----------|-------|-------|-----------|-------|-------|----------|-----------|-------|-------|--|--|
| NODE NUMBER | APPROACH | | | DEPARTURE | | | TOTAL IN | TOTAL OUT | | | | |
| | NL | EL | SL | WL | NL | EL | | | SL | WL | | |
| Sepulveda Blvd and Rosecrans Ave | 1,403 | 1,016 | 2,647 | 1,054 | 2,241 | 1,162 | 1,515 | 1,202 | 6,120 | 6,120 | | |
| Sepulveda Blvd and Valley Dr | 1,515 | | 2,647 | | 2,647 | | 785 | 730 | 4,162 | 4,162 | | |
| Sepulveda Blvd and 33rd St | 785 | | 1,844 | 803 | 2,647 | | 785 | | 3,432 | 3,432 | | |

| 2035NP PM Peak Hour - AUTOS+TRUCKS | | | | | | | | | | | | |
|------------------------------------|----------|-------|-------|-----------|-------|-------|----------|-----------|-------|-------|--|--|
| NODE NUMBER | APPROACH | | | DEPARTURE | | | TOTAL IN | TOTAL OUT | | | | |
| | NL | EL | SL | WL | NL | EL | | | SL | WL | | |
| Sepulveda Blvd and Rosecrans Ave | 2,412 | 1,524 | 2,058 | 1,823 | 1,910 | 1,505 | 3,154 | 1,249 | 7,818 | 7,818 | | |
| Sepulveda Blvd and Valley Dr | 3,154 | | 2,058 | | 2,058 | | 1,961 | 1,193 | 5,212 | 5,212 | | |
| Sepulveda Blvd and 33rd St | 1,961 | | 1,318 | 741 | 2,058 | | 1,961 | | 4,019 | 4,019 | | |

| AM Peak Hour Difference (2035-2008) - AUTOS+TRUCKS | | | | | | | | | | | | |
|--|----------|-----|-----|-----|-----|-----|-----------|----|----|----|----|----|
| NODE NUMBER | APPROACH | | | | | | DEPARTURE | | | | | |
| | NL | EL | SL | WL | NL | EL | SL | WL | NL | EL | SL | WL |
| Sepulveda Blvd and Rosecrans Ave | 104 | -51 | -53 | 10 | -40 | -99 | 82 | 66 | | | | |
| Sepulveda Blvd and Valley Dr | 82 | 0 | -53 | 0 | -53 | 0 | 14 | 68 | | | | |
| Sepulveda Blvd and 33rd St | 14 | 0 | -3 | -50 | -53 | 0 | 14 | 0 | | | | |

| PM Peak Hour Difference (2035-2008) - AUTOS+TRUCKS | | | | | | | | | | | | |
|--|----------|-----|-----|-----|-----|-----|-----------|-----|----|----|----|----|
| NODE NUMBER | APPROACH | | | | | | DEPARTURE | | | | | |
| | NL | EL | SL | WL | NL | EL | SL | WL | NL | EL | SL | WL |
| Sepulveda Blvd and Rosecrans Ave | -137 | -56 | 118 | 131 | 89 | -48 | -93 | 108 | | | | |
| Sepulveda Blvd and Valley Dr | -93 | 0 | 118 | 0 | 118 | 0 | -132 | 40 | | | | |
| Sepulveda Blvd and 33rd St | -132 | 0 | 59 | 58 | 118 | 0 | -132 | 0 | | | | |

| AM Peak Hour ADJUSTED DIFFERENCE (2035 to 2008) - AUTOS+TRUCKS | | | | | | | | | | |
|---|----------|-----|-----|-----|-----|-----------|-----|----|----|----|
| Adjust model numbers to year 2010 by taking 111.11% of the DIFFERENCE | | | | | | | | | | |
| NODE NUMBER | APPROACH | | | | | DEPARTURE | | | | |
| | NL | EL | SL | WL | WL | NL | EL | SL | WL | WL |
| Sepulveda Blvd and Rosecrans Ave | 88 | -43 | -45 | 8 | 8 | -34 | -84 | 70 | 56 | 56 |
| Sepulveda Blvd and Valley Dr | 70 | 0 | -45 | 0 | 0 | -45 | 0 | 12 | 58 | 58 |
| Sepulveda Blvd and 33rd St | 12 | 0 | -3 | -43 | -43 | -45 | 0 | 12 | 0 | 0 |

| PM Peak Hour ADJUSTED DIFFERENCE (2035 to 2008) - AUTOS+TRUCKS | | | | | | | | | | |
|---|----------|-----|-----|-----|-----|-----------|-----|------|----|----|
| Adjust model numbers to year 2010 by taking 111.11% of the DIFFERENCE | | | | | | | | | | |
| NODE NUMBER | APPROACH | | | | | DEPARTURE | | | | |
| | NL | EL | SL | WL | WL | NL | EL | SL | WL | WL |
| Sepulveda Blvd and Rosecrans Ave | -116 | -47 | 100 | 111 | 111 | 76 | -41 | -79 | 92 | 92 |
| Sepulveda Blvd and Valley Dr | -79 | 0 | 100 | 0 | 0 | 100 | 0 | -113 | 34 | 34 |
| Sepulveda Blvd and 33rd St | -113 | 0 | 50 | 50 | 50 | 100 | 0 | -113 | 0 | 0 |

| AM 2012 TURNING MOVEMENT COUNTS - AUTOS | | | | | | | | | | | | |
|---|----------------------------------|------|------|-----------|-----|-----|------------|------|-----|-----------|-----|-----|
| INTERSECTION | NORTHBOUND | | | EASTBOUND | | | SOUTHBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| | Sepulveda Blvd and Rosecrans Ave | 161 | 2958 | 402 | 334 | 677 | 129 | 247 | 944 | 115 | 233 | 331 |
| Sepulveda Blvd and Valley Dr | 2 | 3516 | 0 | 5 | 0 | 111 | 0 | 1110 | 181 | 0 | 0 | 0 |
| Sepulveda Blvd and 33rd St | 0 | 3111 | 32 | 361 | 60 | 11 | 63 | 1158 | 0 | 11 | 0 | 46 |

| PM 2012 TURNING MOVEMENT COUNTS - AUTOS | | | | | | | | | | | | |
|---|----------------------------------|------|------|-----------|-----|-----|------------|------|------|-----------|-----|-----|
| INTERSECTION | NORTHBOUND | | | EASTBOUND | | | SOUTHBOUND | | | WESTBOUND | | |
| | L | T | R | L | T | R | L | T | R | L | T | R |
| | Sepulveda Blvd and Rosecrans Ave | 211 | 1340 | 375 | 198 | 408 | 142 | 493 | 2799 | 656 | 413 | 586 |
| Sepulveda Blvd and Valley Dr | 10 | 1922 | 0 | 4 | 0 | 45 | 0 | 2868 | 492 | 0 | 0 | 0 |
| Sepulveda Blvd and 33rd St | 0 | 1546 | 75 | 207 | 60 | 24 | 197 | 2716 | 0 | 92 | 0 | 179 |

| AM LINK VOLUMES - AUTOS | | | | | | | | | |
|-------------------------|-----|-------|-------|--|-----------|-------|-------|-----|--|
| APPROACH | | | | | DEPARTURE | | | | |
| NL | EL | SL | WL | | NL | EL | SL | WL | |
| 1,306 | 989 | 3,521 | 1,140 | | 3,717 | 1,326 | 1,306 | 607 | |
| 1,291 | 0 | 3,518 | 116 | | 3,521 | 0 | 1,221 | 183 | |
| 1,221 | 57 | 3,143 | 432 | | 3,518 | 155 | 1,180 | 0 | |

| PM LINK VOLUMES - PM | | | | | | | | | |
|----------------------|-------|-------|-----|--|-----------|-------|-------|-------|--|
| APPROACH | | | | | DEPARTURE | | | | |
| NL | EL | SL | WL | | NL | EL | SL | WL | |
| 3,948 | 1,523 | 1,926 | 748 | | 2,062 | 1,276 | 3,354 | 1,453 | |
| 3,360 | 0 | 1,932 | 49 | | 1,926 | 0 | 2,913 | 502 | |
| 2,913 | 271 | 1,621 | 291 | | 1,932 | 332 | 2,832 | 0 | |

| 2035 AM Peak Hour REFINED VOLUMES - AUTOS+TRUCKS | | | | | | | | | | | | |
|--|----------|-----|-------|-------|-------|-------|-----------|-----|----|----|----|----|
| 2012 VOLUME+ADJUSTED DIFFERENCE | | | | | | | | | | | | |
| NODE NUMBER | APPROACH | | | | | | DEPARTURE | | | | | |
| | NL | EL | SL | WL | NL | EL | SL | WL | NL | EL | SL | WL |
| Sepulveda Blvd and Rosecrans Ave | 1,394 | 946 | 3,476 | 1,148 | 3,683 | 1,242 | 1,376 | 663 | | | | |
| Sepulveda Blvd and Valley Dr | 1,361 | 0 | 3,473 | 116 | 3,476 | 0 | 1,233 | 241 | | | | |
| Sepulveda Blvd and 33rd St | 1,233 | 57 | 3,140 | 389 | 3,473 | 155 | 1,192 | 0 | | | | |

| 2035 PM Peak Hour REFINED VOLUMES - AUTOS+TRUCKS | | | | | | | | | | | | |
|--|----------|-------|-------|-----|-------|-------|-----------|-------|----|----|----|----|
| 2012 VOLUME+ADJUSTED DIFFERENCE | | | | | | | | | | | | |
| NODE NUMBER | APPROACH | | | | | | DEPARTURE | | | | | |
| | NL | EL | SL | WL | NL | EL | SL | WL | NL | EL | SL | WL |
| Sepulveda Blvd and Rosecrans Ave | 3,832 | 1,476 | 2,026 | 859 | 2,138 | 1,235 | 3,275 | 1,545 | | | | |
| Sepulveda Blvd and Valley Dr | 3,281 | 0 | 2,032 | 49 | 2,026 | 0 | 2,800 | 536 | | | | |
| Sepulveda Blvd and 33rd St | 2,800 | 271 | 1,671 | 341 | 2,032 | 332 | 2,719 | 0 | | | | |

2035 AM FINAL LINK VOLUMES - TOTAL

AUTOS+TRUCKS

| INTERSECTION | NB | | SB | | EB | | WB | | Total | |
|----------------------------------|-------|-------|-------|-------|-------|-----|-----|-------|-------|-------|
| | IN | OUT | IN | OUT | IN | OUT | IN | OUT | In | Out |
| Sepulveda Blvd and Rosecrans Ave | 3,476 | 1,376 | 1,394 | 3,683 | 1,148 | 663 | 946 | 1,242 | 6,964 | 6,964 |
| Sepulveda Blvd and Valley Dr | 3,473 | 1,233 | 1,361 | 3,476 | 116 | 241 | 0 | 0 | 4,950 | 4,950 |
| Sepulveda Blvd and 33rd St | 3,140 | 1,192 | 1,233 | 3,473 | 389 | 0 | 57 | 155 | 4,820 | 4,820 |

2035 PM FINAL LINK VOLUMES - TOTAL

AUTOS+TRUCKS

| INTERSECTION | NB | | SB | | EB | | WB | | Total | |
|----------------------------------|-------|-------|-------|-------|-----|-------|-------|-------|-------|-------|
| | IN | OUT | IN | OUT | IN | OUT | IN | OUT | In | Out |
| Sepulveda Blvd and Rosecrans Ave | 2,026 | 3,275 | 3,832 | 2,138 | 859 | 1,545 | 1,476 | 1,235 | 8,193 | 8,193 |
| Sepulveda Blvd and Valley Dr | 2,032 | 2,800 | 3,281 | 2,026 | 49 | 536 | 0 | 0 | 5,362 | 5,362 |
| Sepulveda Blvd and 33rd St | 1,671 | 2,719 | 2,800 | 2,032 | 341 | 0 | 271 | 332 | 5,084 | 5,084 |

2035 AM BASE VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 182 | 2937 | 357 | 235 | 1020 | 139 | 358 | 649 | 140 | 216 | 343 | 387 |
| 2 | 2 | 3470 | 0 | 0 | 1122 | 238 | 5 | 0 | 111 | 0 | 0 | 0 |
| 3 | 0 | 3104 | 34 | 65 | 1171 | 0 | 323 | 56 | 10 | 11 | 0 | 46 |

RELATED PROJECT TRIPS (COMPONENT 1) AM PEAK HOUR

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 1 | 13 | 1 | 8 | 15 | | | 4 | 1 | 4 | 3 | 5 |
| 2 | 2 | 16 | | | 19 | | | | | | | |
| 3 | | 16 | 2 | 3 | 16 | | | 3 | | | | 2 |

2035 FINAL AM VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 183 | 2950 | 358 | 243 | 1035 | 139 | 358 | 653 | 141 | 220 | 346 | 392 |
| 2 | 4 | 3486 | 0 | 0 | 1141 | 238 | 5 | 0 | 111 | 0 | 0 | 0 |
| 3 | 0 | 3120 | 36 | 68 | 1187 | 0 | 323 | 59 | 10 | 11 | 0 | 48 |

2035 PM BASE VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 249 | 1416 | 361 | 427 | 2712 | 694 | 238 | 447 | 174 | 389 | 603 | 484 |
| 2 | 11 | 2022 | 0 | 0 | 2756 | 524 | 4 | 0 | 45 | 0 | 0 | 0 |
| 3 | 0 | 1603 | 74 | 190 | 2604 | 0 | 247 | 68 | 27 | 88 | 0 | 183 |

RELATED PROJECT TRIPS (COMPONENT 1) PM PEAK HOUR

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1 | 2 | 22 | 1 | 8 | 15 | | | 4 | 1 | 4 | 5 | 8 |
| 2 | 4 | 25 | | | 21 | | | | | | | |
| 3 | | 25 | 2 | 3 | 18 | | | 3 | | | | 4 |

2035 FINAL PM VOLUMES

| STUDY INTERSECTION | NBL | NBT | NBR | SBL | SBT | SBR | EBL | EBT | EBR | WBL | WBT | WBR |
|--------------------|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | 251 | 1438 | 362 | 435 | 2727 | 694 | 238 | 451 | 175 | 393 | 608 | 492 |
| 2 | 15 | 2047 | 0 | 0 | 2777 | 524 | 4 | 0 | 45 | 0 | 0 | 0 |
| 3 | 0 | 1628 | 76 | 193 | 2622 | 0 | 247 | 71 | 27 | 88 | 0 | 187 |



APPENDIX C: ACCIDENT DATA TABLE

California Department of Transportation
Table C - Potential Investigation Locations

| Location Description | SCL RMP LNS | R U S | Rate Grp | Confidence Level | District 07 ALL Accidents | | | Total Accidents / Significance | | | AVE ADT 1000 VEH Main | 12 MOS RATE ACCS/MV-MVM ACTUAL AVERAGE | | Req | | |
|---|-------------------|-------------|-------------|------------------|--|----------------|---------------|--------------------------------|-----|-------|-----------------------------|---|------|------|--------|-----|
| | | | | | 99.5 Interval 01-JAN-08 thru 31-DEC-10 | 12 mo. ACCS | 6 mo. ACCS | 3 mo. ACCS | F+I | TOT | | F+I | TOT | | | |
| 001 LA 3.479 NB CIR--LOS COYOTES/PCH | -X | U | I 27 | 17 Y | 14 Y | 6 Y | 2 N | 2 N | 2 N | 16.5 | 0 | 0.00 | 1.00 | 0.06 | 0.15 + | Req |
| 001 VEN 1.151 YERBA BUENA RD RT | -XX | R | I 17 | 10 Y | 9 Y | 5 Y | 4 Y | 1 N | 1 N | 12.6 | .1 | 0.22 | 1.08 | 0.08 | 0.20 + | Req |
| 001 VEN 15.061 PLEASANT VALLEY RD | -XX | U | I 14 | 17 Y | 12 Y | 6 N | 5 Y | 2 N | 2 N | 12.5 | 1 | 0.61 | 1.42 | 0.14 | 0.35 + | Req |
| 001 VEN 16.636 STATHAM BLVD | XXX | U | I 14 | 22 Y | 14 Y | 10 Y | 6 Y | 6 Y | 6 Y | 14.4 | 1 | 1.07 | 1.78 | 0.14 | 0.35 + | Req |
| 001 VEN 17.626 SAVIERS/WOOLEY & A ST | XXX | U | I 14 | 50 Y | 37 Y | 21 Y | 15 Y | 8 Y | 8 Y | 22.5 | 33 | 0.35 | 1.04 | 0.14 | 0.35 + | Req |
| 001 VEN 18.154 FIFTH ST-JCT RTE 34 | XXX | U | I 14 | 45 Y | 30 Y | 12 N | 8 N | 6 Y | 6 Y | 32.3 | 13.3 | 0.48 | 0.72 | 0.14 | 0.35 + | Req |
| 002 LA R 23.437 FOOTHILL BLVD (END FWY) | XXX | U | I 14 | 6 N | 5 N | 5 N | 5 Y | 4 Y | 4 Y | 12.6 | 0 | 0.43 | 1.09 | 0.14 | 0.35 + | Req |
| 005 LA 1.571 005/NB ON ALONDRA | O G | U | R 24 | 7 N | 7 N | 5 N | 4 Y | 2 N | 2 N | 3.7 | - | 0.74 | 3.70 | 0.26 | 0.80 + | Req |
| 005 LA 001.040 TO 001.240 SOUTH | 03D | U | H 64 | 47 Y | 30 Y | 22 Y | 10 N | 6 N | 6 N | 84.1 | - | 1.47 | 3.58 | 0.41 | 1.33 | Req |
| 005 LA 002.140 TO 002.340 SOUTH | 03D | U | H 64 | 31 N | 19 N | 10 N | 8 N | 7 Y | 7 Y | 82.5 | - | 0.00 | 1.66 | 0.40 | 1.31 | Req |
| 005 LA 002.340 TO 002.540 NORTH | 03D | U | H 64 | 72 Y | 51 Y | 26 Y | 15 Y | 5 N | 5 N | 82.8 | - | 0.83 | 4.30 | 0.40 | 1.31 | Req |
| 005 LA 002.900 TO 003.100 NORTH | 03D | U | H 64 | 33 N | 20 N | 12 N | 7 N | 7 Y | 7 Y | 83.0 | - | 0.66 | 1.98 | 0.40 | 1.31 | Req |
| 005 LA 006.295 TO 006.495 NORTH | 03D | U | H 64 | 68 Y | 50 Y | 30 Y | 18 Y | 6 N | 6 N | 93.0 | - | 1.03 | 4.42 | 0.43 | 1.42 | Req |
| 005 LA 007.990 TO 008.190 NORTH | 04D | U | H 65 | 38 N | 22 N | 18 N | 11 N | 9 Y | 9 Y | 115.0 | - | 0.71 | 2.14 | 0.37 | 1.21 | Req |
| 005 LA 010.750 TO 011.150 NORTH | 04D | U | H 65 | 156 | 98 | 61 | 37 | 15 | 15 | 109.0 | - | 0.94 | 3.83 | 0.36 | 1.16 | C1 |
| 005 LA 011.470 TO 011.670 SOUTH | 04D | U | H 65 | 48 Y | 36 Y | 24 Y | 13 Y | 9 Y | 9 Y | 111.3 | - | 0.62 | 2.95 | 0.36 | 1.18 | Req |
| 005 LA 012.610 TO 012.810 NORTH | 04D | U | H 65 | 42 N | 25 N | 15 N | 12 N | 8 Y | 8 Y | 113.0 | - | 0.61 | 1.82 | 0.36 | 1.19 | Req |
| 005 LA 015.677 TO 015.877 SOUTH | 04D | U | H 65 | 38 N | 30 N | 16 N | 12 N | 9 Y | 9 Y | 129.0 | - | 0.42 | 1.70 | 0.40 | 1.30 | Req |

+ denotes MV used in rates.

Req = investigation required (4 or more accs. & significant in 12, 6, or 3 months)

California Department of Transportation

OTM22130

Table B - Selective Accident Rate Calculation

Policy controlling the use of Traffic Accident Surveillance and Analysis System (TASAS) - Transportation Systems Network (TSN) Reports

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.
2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.
3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.
4. The contents of these reports shall be considered confidential and may be privileged pursuant to 23 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.

OTM22130 Table B - Selective Accident Rate Calculation

Report Parameters-

Event ID: 3476311
Request Name: LENA #684
Ref Date: 08/27/2012

| Request- & Line | D L O I S C R C | Route/Location | BegIn Date | End Date | Rate Type | Out Seq | Override Rates | | | Override ADT | | Req. Com- Type bine? | Excl Ramp? |
|--------------------|-----------------------|--|------------|-----------|--------------|------------|----------------|------|------|--------------|-------|-------------------------|---------------|
| | | | | | | | Rate | Inj% | Fat% | Main | Cross | | |
| 1 1 | H N I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-08 | 31-DEC-10 | N | L | | | | | | N | N |
| 1 2 | H N I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-08 | 31-DEC-08 | N | L | | | | | | N | N |
| 1 3 | H N I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-09 | 31-DEC-09 | N | L | | | | | | N | N |
| 1 4 | H N I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-10 | 31-DEC-10 | N | L | | | | | | N | N |
| 1 5 | H S I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-08 | 31-DEC-10 | N | L | | | | | | N | N |
| 1 6 | H S I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-08 | 31-DEC-08 | N | L | | | | | | N | N |
| 1 7 | H S I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-09 | 31-DEC-09 | N | L | | | | | | N | N |
| 1 8 | H S I | 07 LA 001 023.600 - 07 LA 001 023.901 | 01~JAN-10 | 31-DEC-10 | N | L | | | | | | N | N |

Event Log:

Job id is : 466070 Accidents Table B Request LENA #684 Submitted by TTYFAIL
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2008 TO 12/31/2010
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2008 TO 12/31/2008
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2009 TO 12/31/2009
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2010 TO 12/31/2010
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2008 TO 12/31/2010
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2008 TO 12/31/2008
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2009 TO 12/31/2009
 07 LA 001 23.6 - 07 LA 001 23.901 01/01/2010 TO 12/31/2010

California Department of Transportation
 Table B - Selective Accident Rate Calculation

| Location Description | Rate Group (RUS) | No. of Accidents / Significance Multi | No. of Accidents / Significance | | | Pers Klid Inj | ADT Main X-St | Total MV+ or MV/M | Actual | | Accident Rates Average | | | | | | | |
|--|--------------------------------|---------------------------------------|---------------------------------|-----|-----|---------------|---------------|-------------------|--------|-----|------------------------|-------|-------|------|------|-------|-----|------|
| | | | Tot | Fat | Inj | | | | F+I | Fat | F+I | Tot | Fat | F+I | Tot | | | |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0001 2008-01-01 2010-12-31 | .301 MI H 44 36 mo. NORTH U | 17 | 0 | 8 | 8 | 16 | 2 | 3 | 0 | 11 | 30.4 | 10.02 | 0.000 | .80 | 1.70 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0002 2008-01-01 2008-12-31 | .301 MI H 44 12 mo. NORTH U | 7 | 0 | 4 | 4 | 6 | 0 | 1 | 0 | 6 | 29.6 | 3.26 | 0.000 | 1.23 | 2.15 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0003 2009-01-01 2009-12-31 | .301 MI H 44 12 mo. NORTH U | 7 | 0 | 2 | 2 | 7 | 2 | 1 | 0 | 2 | 31.0 | 3.41 | 0.000 | .59 | 2.05 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0004 2010-01-01 2010-12-31 | .301 MI H 44 12 mo. NORTH U | 3 | 0 | 2 | 2 | 3 | 0 | 1 | 0 | 3 | 30.5 | 3.35 | 0.000 | .60 | .90 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0005 2008-01-01 2010-12-31 | .301 MI H 44 36 mo. SOUTH U | 14 | 0 | 7 | 7 | 13 | 0 | 6 | 0 | 10 | 30.4 | 10.02 | 0.000 | .70 | 1.40 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0006 2008-01-01 2008-12-31 | .301 MI H 44 12 mo. SOUTH U | 8 | 0 | 4 | 4 | 8 | 0 | 4 | 0 | 6 | 29.6 | 3.26 | 0.000 | 1.23 | 2.45 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0007 2009-01-01 2009-12-31 | .301 MI H 44 12 mo. SOUTH U | 4 | 0 | 3 | 3 | 3 | 0 | 2 | 0 | 4 | 31.0 | 3.41 | 0.000 | .88 | 1.17 | 0.019 | .83 | 1.85 |
| 07 LA 001 023.600 - 07 LA 001 023.900 0001-0008 2010-01-01 2010-12-31 | .301 MI H 44 12 mo. SOUTH U | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 30.5 | 3.35 | 0.000 | .00 | .60 | 0.019 | .83 | 1.85 |

Accident Rates expressed as: # of accidents / Million vehicle miles
 + denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).
 For Ramps RUS only considers R(Rural) U(Urban)



APPENDIX D: LOS CALCULATION SHEETS



HCM CALCULATION SHEETS

Scenario Report

Scenario: EX AM Peak Hour
Command: EX AM Peak Hour
Volume: EX AM Peak Hour
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: EX AM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | | Base | | | Future | | | Change in |
|----------------------------------|---|------|-------------|---------|--------|-------------|-------------|--------------|
| | | LOS | Del/ Veh | V/ C | LOS | Del/ Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | C | 26.4 | 0.789 | C | 26.4 | 0.789 | + 0.000 D/V | |
| # 2 Sepulveda Blvd/Valley Dr | C | 22.0 | 0.000 | C | 22.0 | 0.000 | + 0.000 D/V | |
| # 3 Sepulveda Blvd/33rd St | B | 16.9 | 0.882 | B | 16.9 | 0.882 | + 0.000 D/V | |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.789

Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.4

Optimal Cycle: 63 Level Of Service: C

Street Name: Sepulveda Blvd Rosecrans Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Ovl Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 2 0 4 0 1 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1

Volume Module:

Table with 13 columns for traffic movements and rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module:

Table with 13 columns for traffic movements and rows for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:

Table with 13 columns for traffic movements and rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[22.0]

Street Name: Sepulveda Blvd Valley Dr

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 3 0 0 0 0 2 1 0 0 1 0 1 0 0 0 0 0 0

Volume Module:

Table with 13 columns and 8 rows: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Volume.

Critical Gap Module:

Table with 13 columns and 2 rows: Critical Gp, FollowUpTim.

Capacity Module:

Table with 13 columns and 4 rows: Cnflct Vol, Potent Cap., Move Cap., Volume/Cap.

Level Of Service Module:

Table with 13 columns and 10 rows: 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, ApproachLOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.882
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 16.9
Optimal Cycle: 91 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Sepulveda Blvd and 33rd St with North, South, East, and West bound movements.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: EX PM Peak Hour
Command: EX PM Peak Hour
Volume: EX PM Peak Hour
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: EX PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | | Future | | | Change in |
|----------------------------------|------|-------------|---------|--------|-------------|---------|--------------|
| | LOS | Del/ Veh | V/ C | LOS | Del/ Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | C | 31.9 | 0.909 | C | 31.9 | 0.909 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | F | 231.3 | 0.000 | F | 231.3 | 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 16.2 | 0.738 | B | 16.2 | 0.738 | + 0.000 D/V |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.909
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.9
 Optimal Cycle: 105 Level Of Service: C

| Approach: | Sepulveda Blvd | | | | | Rosecrans Ave | | | | | | | | | | | | | | |
|-------------|----------------|---|-------------|---|---|---------------|---|---|------------|---|---|-----------|---|---|---|---|---|---|---|---|
| | North Bound | | South Bound | | | East Bound | | | West Bound | | | | | | | | | | | |
| | L | T | R | L | T | R | L | T | R | L | T | R | | | | | | | | |
| Control: | Protected | | | | | Protected | | | Protected | | | Protected | | | | | | | | |
| Rights: | Ovl | | | | | Include | | | Include | | | Ignore | | | | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| Lanes: | 2 | 0 | 4 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 2 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 211 | 1340 | 375 | 493 | 2799 | 656 | 198 | 408 | 142 | 413 | 586 | 524 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 211 | 1340 | 375 | 493 | 2799 | 656 | 198 | 408 | 142 | 413 | 586 | 524 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.98 | 0.00 |
| PHF Volume: | 216 | 1369 | 383 | 504 | 2859 | 670 | 202 | 417 | 145 | 422 | 599 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 216 | 1369 | 383 | 504 | 2859 | 670 | 202 | 417 | 145 | 422 | 599 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 216 | 1369 | 383 | 504 | 2859 | 670 | 202 | 417 | 145 | 422 | 599 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.95 | 1.00 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3502 | 6916 | 1615 | 3502 | 5187 | 1615 | 3502 | 5187 | 1615 | 3502 | 3610 | 1900 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.06 | 0.20 | 0.24 | 0.14 | 0.55 | 0.41 | 0.06 | 0.08 | 0.09 | 0.12 | 0.17 | 0.00 |
| Crit Moves: | **** | | | | **** | | **** | | | | **** | |
| Green/Cycle: | 0.07 | 0.39 | 0.53 | 0.28 | 0.61 | 0.61 | 0.06 | 0.11 | 0.11 | 0.14 | 0.18 | 0.00 |
| Volume/Cap: | 0.91 | 0.51 | 0.45 | 0.51 | 0.91 | 0.68 | 0.91 | 0.76 | 0.86 | 0.86 | 0.91 | 0.00 |
| Uniform Del: | 46.3 | 23.2 | 14.4 | 30.0 | 17.3 | 13.2 | 46.5 | 43.5 | 44.0 | 42.0 | 40.1 | 0.0 |
| IncrcmntDel: | 35.0 | 0.2 | 0.4 | 0.4 | 4.4 | 2.0 | 36.5 | 6.4 | 32.2 | 13.7 | 16.6 | 0.0 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 81.3 | 23.3 | 14.8 | 30.4 | 21.7 | 15.3 | 83.0 | 49.9 | 76.2 | 55.6 | 56.7 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 81.3 | 23.3 | 14.8 | 30.4 | 21.7 | 15.3 | 83.0 | 49.9 | 76.2 | 55.6 | 56.7 | 0.0 |
| LOS by Move: | F | C | B | C | C | B | F | D | E | E | E | A |
| HCM2kAvgQ: | 6 | 9 | 7 | 7 | 32 | 15 | 6 | 6 | 7 | 9 | 13 | 0 |

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 2.2 Worst Case Level Of Service: F[231.3]

Table with columns for Street Name, Approach, Movement, Control, Rights, and Lanes for Sepulveda Blvd and Valley Dr.

Volume Module: Table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume for each approach.

Critical Gap Module: Table showing Critical Gp and FollowUpTim for each approach.

Capacity Module: Table showing Cnflct Vol, Potent Cap., Move Cap., and Volume/Cap for each approach.

Level Of Service Module: Table showing 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., SharedQueue, Shrd ConDel, Shared LOS, ApproachDel, and ApproachLOS for each approach.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 16.2
Optimal Cycle: 54 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Sepulveda Blvd and 33rd St with various movement and control details.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume. Rows include Sepulveda Blvd and 33rd St.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. Rows include Sepulveda Blvd and 33rd St.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ. Rows include Sepulveda Blvd and 33rd St.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2015NP AM Peak Hour
Command: 2015NP AM Peak Hour
Volume: 2015 AM Peak Hour
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2015NP AM Peak Hour

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Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|----------------------------------|---|------|-------|--------|------------|--------------|
| | | LOS | Veh C | LOS | Veh C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | C | 27.7 | 0.825 | C | 27.7 0.825 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | C | 23.1 | 0.000 | C | 23.1 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 17.5 | 0.893 | B | 17.5 0.893 | + 0.000 D/V |

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.825
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7
 Optimal Cycle: 71 Level Of Service: C

| Street Name: Sepulveda Blvd | | | | | Rosecrans Ave | | | | | | | | | | | | | | |
|-----------------------------|--|--|--|--|---------------|--|--|--|--|------------|--|--|--|--|------------|--|--|--|--|
| Approach: North Bound | | | | | South Bound | | | | | East Bound | | | | | West Bound | | | | |
| Movement: L - T - R | | | | | L - T - R | | | | | L - T - R | | | | | L - T - R | | | | |
| Control: Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: Ovl | | | | | Include | | | | | Include | | | | | Ignore | | | | |
| Min. Green: 0 0 0 | | | | | 0 0 0 | | | | | 0 0 0 | | | | | 0 0 0 | | | | |
| Lanes: 2 0 4 0 1 | | | | | 2 0 3 0 1 | | | | | 2 0 3 0 1 | | | | | 2 0 2 0 1 | | | | |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 167 | 3060 | 415 | 260 | 983 | 118 | 344 | 700 | 134 | 243 | 344 | 443 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 167 | 3060 | 415 | 260 | 983 | 118 | 344 | 700 | 134 | 243 | 344 | 443 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 176 | 3221 | 437 | 274 | 1035 | 124 | 362 | 737 | 141 | 256 | 362 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 176 | 3221 | 437 | 274 | 1035 | 124 | 362 | 737 | 141 | 256 | 362 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 176 | 3221 | 437 | 274 | 1035 | 124 | 362 | 737 | 141 | 256 | 362 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.95 | 1.00 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3502 | 6916 | 1615 | 3502 | 5187 | 1615 | 3502 | 5187 | 1615 | 3502 | 3610 | 1900 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.05 | 0.47 | 0.27 | 0.08 | 0.20 | 0.08 | 0.10 | 0.14 | 0.09 | 0.07 | 0.10 | 0.00 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.13 | 0.56 | 0.65 | 0.09 | 0.53 | 0.53 | 0.13 | 0.17 | 0.17 | 0.09 | 0.13 | 0.00 |
| Volume/Cap: | 0.38 | 0.82 | 0.41 | 0.82 | 0.38 | 0.15 | 0.78 | 0.82 | 0.51 | 0.82 | 0.78 | 0.00 |
| Uniform Del: | 39.6 | 17.7 | 8.2 | 44.4 | 14.0 | 12.1 | 42.0 | 39.9 | 37.5 | 44.8 | 42.2 | 0.0 |
| IncrcmntDel: | 0.5 | 1.5 | 0.3 | 15.4 | 0.1 | 0.1 | 8.4 | 6.3 | 1.5 | 16.3 | 8.4 | 0.0 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 40.1 | 19.3 | 8.5 | 59.9 | 14.1 | 12.2 | 50.3 | 46.3 | 39.1 | 61.1 | 50.6 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.1 | 19.3 | 8.5 | 59.9 | 14.1 | 12.2 | 50.3 | 46.3 | 39.1 | 61.1 | 50.6 | 0.0 |
| LOS by Move: | D | B | A | E | B | B | D | D | D | E | D | A |
| HCM2kAvgQ: | 3 | 24 | 6 | 7 | 7 | 2 | 8 | 10 | 5 | 6 | 8 | 0 |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C [23.1]

| Street Name: | Sepulveda Blvd | | | | | | Valley Dr | | | | | |
|--------------|----------------|---|---|--------------|---|---|------------|---|---|------------|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 | 0 | 3 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 |

| Volume Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|----------------|----------------|------|------|----------------|------|------|-----------|------|------|-----------|------|------|
| Base Vol: | 4 | 3636 | 0 | 0 | 1157 | 186 | 5 | 0 | 114 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 3636 | 0 | 0 | 1157 | 186 | 5 | 0 | 114 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 4 | 3827 | 0 | 0 | 1218 | 196 | 5 | 0 | 120 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Volume: | 4 | 3827 | 0 | 0 | 1218 | 196 | 5 | 0 | 120 | 0 | 0 | 0 |

| Critical Gap Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|----------------------|----------------|------|--------|----------------|------|--------|-----------|-----|-----|-----------|------|--------|
| Critical Gp: | 4.1 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 6.8 | 6.5 | 6.9 | xxxxxx | xxxx | xxxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 3.5 | 4.0 | 3.3 | xxxxxx | xxxx | xxxxxx |

| Capacity Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|------------------|----------------|------|--------|----------------|------|--------|-----------|------|------|-----------|------|--------|
| Cnflict Vol: | 1414 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 2600 | 5152 | 504 | xxxx | xxxx | xxxxxx |
| Potent Cap.: | 488 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 21 | 0 | 519 | xxxx | xxxx | xxxxxx |
| Move Cap.: | 488 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 21 | 0 | 519 | xxxx | xxxx | xxxxxx |
| Volume/Cap: | 0.01 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 0.25 | 0.00 | 0.23 | xxxx | xxxx | xxxxxx |

| Level Of Service Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|--------------------------|----------------|------|--------|----------------|------|--------|-----------|------|--------|-----------|------|--------|
| 2Way95thQ: | 0.0 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx |
| Control Del: | 12.4 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 21 | xxxx | 519 | xxxx | xxxx | xxxxxx |
| SharedQueue: | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 0.7 | xxxx | 0.9 | xxxxxx | xxxx | xxxxxx |
| Shrd ConDel: | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 230.7 | xxxx | 14.0 | xxxxxx | xxxx | xxxxxx |
| Shared LOS: | * | * | * | * | * | * | F | * | B | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 23.1 | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | C | | | * | | |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.893
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 17.5
Optimal Cycle: 96 Level Of Service: B

Street Name: Sepulveda Blvd 33rd St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 3 0 1 1 0 3 0 0 2 0 0 1 0 1 0 1 0 1

Volume Module:
Base Vol: 0 3219 34 67 1205 0 372 64 11 11 0 49
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 3219 34 67 1205 0 372 64 11 11 0 49
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 3388 36 71 1268 0 392 67 12 12 0 52
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 3388 36 71 1268 0 392 67 12 12 0 52
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 0 3388 36 71 1268 0 392 67 12 12 0 52

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.85 0.95 0.91 1.00 0.92 0.98 0.98 0.87 1.00 0.87
Lanes: 0.00 3.00 1.00 1.00 3.00 0.00 2.00 0.85 0.15 1.18 0.00 1.82
Final Sat.: 0 5187 1615 1805 5187 0 3502 1586 273 1954 0 3000

Capacity Analysis Module:
Vol/Sat: 0.00 0.65 0.02 0.04 0.24 0.00 0.11 0.04 0.04 0.01 0.00 0.02
Crit Moves: ****
Green/Cycle: 0.00 0.73 0.73 0.04 0.78 0.00 0.13 0.13 0.13 0.02 0.00 0.02
Volume/Cap: 0.00 0.89 0.03 0.89 0.32 0.00 0.89 0.34 0.34 0.31 0.00 0.89
Uniform Del: 0.0 10.4 3.7 47.6 3.3 0.0 43.1 40.0 40.0 48.4 0.0 48.9
IncrementDel: 0.0 3.1 0.0 66.2 0.0 0.0 20.0 0.9 0.9 0.9 0.0 71.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00
Delay/Veh: 0.0 13.5 3.7 113.8 3.4 0.0 63.1 40.8 40.8 49.2 0.0 119.9
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 13.5 3.7 113.8 3.4 0.0 63.1 40.8 40.8 49.2 0.0 119.9
LOS by Move: A B A F A A E D D D A F
HCM2kAvgQ: 0 33 0 4 4 0 9 3 3 1 0 2

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2015NP PM Peak Hour
Command: 2015NP PM Peak Hour
Volume: 2015 PM Peak Hour
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2015NP PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | | Future | | | Change in |
|----------------------------------|------|-------|---------|--------|-------|---------|--------------|
| | LOS | Veh | V/ C | LOS | Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | D | 37.4 | 0.970 | D | 37.4 | 0.970 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | F | 418.4 | 0.000 | F | 418.4 | 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 16.9 | 0.767 | B | 16.9 | 0.767 | + 0.000 D/V |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.970
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 37.4
Optimal Cycle: 159 Level Of Service: D

Table with columns for Street Name (Sepulveda Blvd, Rosecrans Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across various movements.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrmentDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.767
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 16.9
Optimal Cycle: 58 Level Of Service: B

Table with columns for Street Name (Sepulveda Blvd, 33rd St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Split Phase), Rights (Include), Min. Green, and Lanes.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across various movement categories.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat. across various movement categories.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueuDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ across various movement categories.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2015WP AM Peak Hour
Command: 2015WP AM Peak Hour
Volume: 2015 AM Peak Hour
Geometry: FUTURE WP
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2015WP AM Peak Hour

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Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in |
|----------------------------------|---|------|-------|--------|------------|--------------|
| | | LOS | Veh C | LOS | Veh C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | C | 27.7 | 0.825 | C | 27.7 0.825 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | C | 18.8 | 0.000 | C | 18.8 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 13.3 | 0.721 | B | 13.3 0.721 | + 0.000 D/V |

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Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.825
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 27.7
 Optimal Cycle: 71 Level Of Service: C

| Street Name: Sepulveda Blvd | | | | | Rosecrans Ave | | | | | | | | | | | | | | |
|-----------------------------|--|--|--|--|---------------|--|--|--|--|------------|--|--|--|--|------------|--|--|--|--|
| Approach: North Bound | | | | | South Bound | | | | | East Bound | | | | | West Bound | | | | |
| Movement: L - T - R | | | | | L - T - R | | | | | L - T - R | | | | | L - T - R | | | | |
| Control: Protected | | | | | Protected | | | | | Protected | | | | | Protected | | | | |
| Rights: Ovl | | | | | Include | | | | | Include | | | | | Ignore | | | | |
| Min. Green: 0 0 0 | | | | | 0 0 0 | | | | | 0 0 0 | | | | | 0 0 0 | | | | |
| Lanes: 2 0 4 0 1 | | | | | 2 0 3 0 1 | | | | | 2 0 3 0 1 | | | | | 2 0 2 0 1 | | | | |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 167 | 3060 | 415 | 260 | 983 | 118 | 344 | 700 | 134 | 243 | 344 | 443 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 167 | 3060 | 415 | 260 | 983 | 118 | 344 | 700 | 134 | 243 | 344 | 443 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 176 | 3221 | 437 | 274 | 1035 | 124 | 362 | 737 | 141 | 256 | 362 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 176 | 3221 | 437 | 274 | 1035 | 124 | 362 | 737 | 141 | 256 | 362 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Final Volume: | 176 | 3221 | 437 | 274 | 1035 | 124 | 362 | 737 | 141 | 256 | 362 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.95 | 1.00 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3502 | 6916 | 1615 | 3502 | 5187 | 1615 | 3502 | 5187 | 1615 | 3502 | 3610 | 1900 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.05 | 0.47 | 0.27 | 0.08 | 0.20 | 0.08 | 0.10 | 0.14 | 0.09 | 0.07 | 0.10 | 0.00 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.13 | 0.56 | 0.65 | 0.09 | 0.53 | 0.53 | 0.13 | 0.17 | 0.17 | 0.09 | 0.13 | 0.00 |
| Volume/Cap: | 0.38 | 0.82 | 0.41 | 0.82 | 0.38 | 0.15 | 0.78 | 0.82 | 0.51 | 0.82 | 0.78 | 0.00 |
| Uniform Del: | 39.6 | 17.7 | 8.2 | 44.4 | 14.0 | 12.1 | 42.0 | 39.9 | 37.5 | 44.8 | 42.2 | 0.0 |
| IncrcmntDel: | 0.5 | 1.5 | 0.3 | 15.4 | 0.1 | 0.1 | 8.4 | 6.3 | 1.5 | 16.3 | 8.4 | 0.0 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 40.1 | 19.3 | 8.5 | 59.9 | 14.1 | 12.2 | 50.3 | 46.3 | 39.1 | 61.1 | 50.6 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.1 | 19.3 | 8.5 | 59.9 | 14.1 | 12.2 | 50.3 | 46.3 | 39.1 | 61.1 | 50.6 | 0.0 |
| LOS by Move: | D | B | A | E | B | B | D | D | D | E | D | A |
| HCM2kAvgQ: | 3 | 24 | 6 | 7 | 7 | 2 | 8 | 10 | 5 | 6 | 8 | 0 |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 0.4 Worst Case Level Of Service: C[18.8]

Street Name: Sepulveda Blvd Valley Dr
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Uncontrolled Uncontrolled Stop Sign Stop Sign
Rights: Include Include Include Include
Lanes: 1 0 4 0 0 0 0 2 1 0 0 1 0 1 0 0 0 0 0 0

Volume Module:
Base Vol: 4 3636 0 0 1157 186 5 0 114 0 0 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 4 3636 0 0 1157 186 5 0 114 0 0 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 4 3827 0 0 1218 196 5 0 120 0 0 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume: 4 3827 0 0 1218 196 5 0 120 0 0 0

Critical Gap Module:
Critical Gp: 4.1 xxxx xxxxx xxxxx xxxx xxxxx 6.8 6.5 6.9 xxxxx xxxx xxxxx
FollowUpTim: 2.2 xxxx xxxxx xxxxx xxxx xxxxx 3.5 4.0 3.3 xxxxx xxxx xxxxx

Capacity Module:
Cnflct Vol: 1414 xxxx xxxxx xxxx xxxx xxxxx 2281 5152 504 xxxx xxxx xxxxx
Potent Cap.: 488 xxxx xxxxx xxxx xxxx xxxxx 34 0 519 xxxx xxxx xxxxx
Move Cap.: 488 xxxx xxxxx xxxx xxxx xxxxx 34 0 519 xxxx xxxx xxxxx
Volume/Cap: 0.01 xxxx xxxx xxxx xxxx xxxxx 0.15 0.00 0.23 xxxx xxxx xxxxx

Level Of Service Module:
2Way95thQ: 0.0 xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Control Del: 12.4 xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
LOS by Move: B * * * * * * * * * * * * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx xxxx xxxxx xxxx xxxx xxxxx 34 xxxx 519 xxxx xxxx xxxxx
SharedQueue:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx 0.5 xxxx 0.9 xxxxx xxxx xxxxx
Shrd ConDel:xxxxxx xxxx xxxxx xxxxx xxxx xxxxx 128.5 xxxx 14.0 xxxxx xxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * * *
ApproachDel: xxxxxx xxxxxx 18.8 xxxxxx
ApproachLOS: * * * * * * * * * * * * * * * *

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.721
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 13.3
 Optimal Cycle: 51 Level Of Service: B

Street Name: Sepulveda Blvd 33rd St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

| | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------|---|---|-----------|---|---|-------------|---|---|-------------|---|---|---|---|---|---|---|---|---|---|
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | | | | | | | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | | | | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Lanes: | 0 | 0 | 3 | 1 | 0 | 1 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 3219 | 34 | 67 | 1205 | 0 | 372 | 64 | 11 | 11 | 0 | 49 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 3219 | 34 | 67 | 1205 | 0 | 372 | 64 | 11 | 11 | 0 | 49 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 0 | 3388 | 36 | 71 | 1268 | 0 | 392 | 67 | 12 | 12 | 0 | 52 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 3388 | 36 | 71 | 1268 | 0 | 392 | 67 | 12 | 12 | 0 | 52 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 3388 | 36 | 71 | 1268 | 0 | 392 | 67 | 12 | 12 | 0 | 52 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 0.91 | 0.95 | 0.91 | 1.00 | 0.92 | 0.98 | 0.98 | 0.87 | 1.00 | 0.87 |
| Lanes: | 0.00 | 3.96 | 0.04 | 1.00 | 3.00 | 0.00 | 2.00 | 0.85 | 0.15 | 1.18 | 0.00 | 1.82 |
| Final Sat.: | 0 | 6837 | 72 | 1805 | 5187 | 0 | 3502 | 1586 | 273 | 1954 | 0 | 3000 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.00 | 0.50 | 0.50 | 0.04 | 0.24 | 0.00 | 0.11 | 0.04 | 0.04 | 0.01 | 0.00 | 0.02 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.00 | 0.69 | 0.69 | 0.05 | 0.74 | 0.00 | 0.16 | 0.16 | 0.16 | 0.02 | 0.00 | 0.02 |
| Volume/Cap: | 0.00 | 0.72 | 0.72 | 0.72 | 0.33 | 0.00 | 0.72 | 0.27 | 0.27 | 0.25 | 0.00 | 0.72 |
| Uniform Del: | 0.0 | 9.7 | 9.7 | 46.5 | 4.4 | 0.0 | 40.2 | 37.3 | 37.3 | 47.9 | 0.0 | 48.5 |
| IncrcmntDel: | 0.0 | 0.6 | 0.6 | 23.0 | 0.1 | 0.0 | 4.7 | 0.5 | 0.5 | 0.5 | 0.0 | 25.3 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 10.3 | 10.3 | 69.5 | 4.5 | 0.0 | 44.9 | 37.8 | 37.8 | 48.4 | 0.0 | 73.7 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 10.3 | 10.3 | 69.5 | 4.5 | 0.0 | 44.9 | 37.8 | 37.8 | 48.4 | 0.0 | 73.7 |
| LOS by Move: | A | B | B | E | A | A | D | D | D | D | A | E |
| HCM2kAvgQ: | 0 | 19 | 19 | 4 | 5 | 0 | 7 | 2 | 2 | 1 | 0 | 2 |

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2015WP PM Peak Hour

Command: 2015WP PM Peak Hour

Volume: 2015 PM Peak Hour

Geometry: FUTURE WP

Impact Fee: Default Impact Fee

Trip Generation: Default Trip Generation

Trip Distribution: Default Trip Distribution

Paths: Default Path

Routes: Default Route

Configuration: 2015WP PM Peak Hour

Impact Analysis Report
Level Of Service

| Intersection | Base | | | Future | | | Change in |
|----------------------------------|------|-------------|---------|--------|-------------|---------|--------------|
| | LOS | Del/ Veh | V/ C | LOS | Del/ Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | D | 37.4 | 0.970 | D | 37.4 | 0.970 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | F | 316.5 | 0.000 | F | 316.5 | 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 16.9 | 0.767 | B | 16.9 | 0.767 | + 0.000 D/V |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.970
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 37.4
 Optimal Cycle: 159 Level Of Service: D

Street Name: Sepulveda Blvd Rosecrans Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Ovl Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 2 0 4 0 1 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 218 | 1395 | 387 | 516 | 2898 | 676 | 204 | 424 | 147 | 429 | 607 | 545 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 218 | 1395 | 387 | 516 | 2898 | 676 | 204 | 424 | 147 | 429 | 607 | 545 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 229 | 1468 | 407 | 543 | 3051 | 712 | 215 | 446 | 155 | 452 | 639 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 229 | 1468 | 407 | 543 | 3051 | 712 | 215 | 446 | 155 | 452 | 639 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 229 | 1468 | 407 | 543 | 3051 | 712 | 215 | 446 | 155 | 452 | 639 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.95 | 1.00 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3502 | 6916 | 1615 | 3502 | 5187 | 1615 | 3502 | 5187 | 1615 | 3502 | 3610 | 1900 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.07 | 0.21 | 0.25 | 0.16 | 0.59 | 0.44 | 0.06 | 0.09 | 0.10 | 0.13 | 0.18 | 0.00 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.07 | 0.39 | 0.53 | 0.28 | 0.61 | 0.61 | 0.06 | 0.10 | 0.10 | 0.14 | 0.18 | 0.00 |
| Volume/Cap: | 0.97 | 0.55 | 0.48 | 0.55 | 0.97 | 0.73 | 0.97 | 0.82 | 0.91 | 0.91 | 0.97 | 0.00 |
| Uniform Del: | 46.5 | 23.7 | 14.7 | 30.3 | 18.8 | 13.8 | 46.7 | 43.8 | 44.3 | 42.4 | 40.6 | 0.0 |
| IncrementDel: | 49.7 | 0.2 | 0.4 | 0.6 | 10.0 | 2.8 | 51.6 | 9.7 | 45.2 | 21.6 | 27.5 | 0.0 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 96.3 | 23.9 | 15.2 | 30.9 | 28.8 | 16.6 | 98.4 | 53.5 | 89.5 | 63.9 | 68.1 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 96.3 | 23.9 | 15.2 | 30.9 | 28.8 | 16.6 | 98.4 | 53.5 | 89.5 | 63.9 | 68.1 | 0.0 |
| LOS by Move: | F | C | B | C | C | B | F | D | F | E | E | A |
| HCM2kAvgQ: | 7 | 10 | 8 | 8 | 39 | 16 | 7 | 7 | 8 | 11 | 15 | 0 |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: F[316.5]

| Street Name: | Sepulveda Blvd | | | | | | Valley Dr | | | | | |
|--------------|----------------|---|---|--------------|---|---|------------|---|---|------------|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 | 0 | 4 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 13 | 1998 | 0 | 0 | 2973 | 507 | 4 | 0 | 46 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 13 | 1998 | 0 | 0 | 2973 | 507 | 4 | 0 | 46 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 14 | 2103 | 0 | 0 | 3129 | 534 | 4 | 0 | 48 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 14 | 2103 | 0 | 0 | 3129 | 534 | 4 | 0 | 48 | 0 | 0 | 0 |

Critical Gap Module:

| | | | | | | | | | | | | |
|--------------|-----|------|--------|--------|------|--------|-----|-----|-----|--------|------|--------|
| Critical Gp: | 4.1 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 6.8 | 6.5 | 6.9 | xxxxxx | xxxx | xxxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 3.5 | 4.0 | 3.3 | xxxxxx | xxxx | xxxxxx |

Capacity Module:

| | | | | | | | | | | | | |
|--------------|------|------|--------|--------|------|--------|------|------|------|------|------|--------|
| Cnflict Vol: | 3663 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 3949 | 5527 | 1310 | xxxx | xxxx | xxxxxx |
| Potent Cap.: | 63 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 2 | 0 | 152 | xxxx | xxxx | xxxxxx |
| Move Cap.: | 63 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 2 | 0 | 152 | xxxx | xxxx | xxxxxx |
| Volume/Cap: | 0.22 | xxxx | xxxx | xxxx | xxxx | xxxx | 2.17 | 0.00 | 0.32 | xxxx | xxxx | xxxx |

Level Of Service Module:

| | | | | | | | | | | | | | | | |
|--------------|---------|------|--------|---------|------|--------|--------|------|--------|---------|------|--------|-----|---|----|
| 2Way95thQ: | 0.7 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx | xxxx | xxxx | xxxxxx | | | |
| Control Del: | 77.0 | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | | | |
| LOS by Move: | F | * | * | * | * | * | * | * | * | * | * | * | | | |
| Movement: | LT | - | LTR | - | RT | LT | - | LTR | - | RT | LT | - | LTR | - | RT |
| Shared Cap.: | xxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 2 | xxxx | 152 | xxxx | xxxx | xxxxxx | | | |
| SharedQueue: | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 1.4 | xxxx | 1.3 | xxxxxx | xxxx | xxxxxx | | | |
| Shrd ConDel: | xxxxxx | xxxx | xxxxxx | xxxxxx | xxxx | xxxxxx | 3503 | xxxx | 39.3 | xxxxxx | xxxx | xxxxxx | | | |
| Shared LOS: | * | * | * | * | * | * | F | * | E | * | * | * | | | |
| ApproachDel: | xxxxxxx | | | xxxxxxx | | | 316.5 | | | xxxxxxx | | | | | |
| ApproachLOS: | * | | | * | | | F | | | * | | | | | |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.767
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 16.9
Optimal Cycle: 58 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Sepulveda Blvd and 33rd St with North, South, East, and West bound movements.

Volume Module: Table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume. Rows include Sepulveda Blvd and 33rd St.

Saturation Flow Module: Table with columns for Sat/Lane, Adjustment, Lanes, Final Sat. Rows include Sepulveda Blvd and 33rd St.

Capacity Analysis Module: Table with columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, HCM2kAvgQ. Rows include Sepulveda Blvd and 33rd St.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2035NP AM Peak
Command: 2035NP AM Peak
Volume: 2035NP AM Peak
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2035NP AM Peak

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Impact Analysis Report
Level Of Service

| Intersection | | Base | | Future | | Change in | |
|----------------------------------|---|------|-------|--------|------------|--------------|-----|
| | | LOS | Veh C | LOS | Veh C | | |
| # 1 Sepulveda Blvd/Rosecrans Ave | C | 26.7 | 0.794 | C | 26.7 0.794 | + 0.000 | D/V |
| # 2 Sepulveda Blvd/Valley Dr | C | 22.9 | 0.000 | C | 22.9 0.000 | + 0.000 | D/V |
| # 3 Sepulveda Blvd/33rd St | B | 15.1 | 0.855 | B | 15.1 0.855 | + 0.000 | D/V |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794

Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7

Optimal Cycle: 64 Level Of Service: C

Street Name: Sepulveda Blvd Rosecrans Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Protected Protected Protected Protected

Rights: Ovl Include Include Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 2 0 4 0 1 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 183 2950 358 243 1035 139 358 653 141 220 346 392

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 183 2950 358 243 1035 139 358 653 141 220 346 392

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.00

PHF Volume: 193 3105 377 256 1089 146 377 687 148 232 364 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 193 3105 377 256 1089 146 377 687 148 232 364 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

FinalVolume: 193 3105 377 256 1089 146 377 687 148 232 364 0

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.95 1.00

Lanes: 2.00 4.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00

Final Sat.: 3502 6916 1615 3502 5187 1615 3502 5187 1615 3502 3610 1900

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.45 0.23 0.07 0.21 0.09 0.11 0.13 0.09 0.07 0.10 0.00

Crit Moves: **** **** **** ****

Green/Cycle: 0.14 0.57 0.65 0.09 0.52 0.52 0.14 0.18 0.18 0.09 0.13 0.00

Volume/Cap: 0.40 0.79 0.36 0.79 0.40 0.17 0.79 0.76 0.52 0.76 0.79 0.00

Uniform Del: 39.5 17.1 7.9 44.5 14.5 12.6 41.9 39.2 37.5 44.6 42.4 0.0

IncrcmntDel: 0.6 1.2 0.2 12.7 0.1 0.1 9.0 3.7 1.8 10.3 9.2 0.0

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00

Delay/Veh: 40.0 18.3 8.1 57.2 14.6 12.7 50.8 42.9 39.3 54.9 51.6 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 40.0 18.3 8.1 57.2 14.6 12.7 50.8 42.9 39.3 54.9 51.6 0.0

LOS by Move: D B A E B B D D D D D A

HCM2kAvgQ: 3 22 5 6 7 2 8 9 5 5 8 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap. (X): 0.855

Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 15.1

Optimal Cycle: 81 Level Of Service: B

Street Name: Sepulveda Blvd 33rd St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

| | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------|---|---|-----------|---|---|-------------|---|---|-------------|---|---|---|---|---|---|---|---|---|---|
| Control: | Protected | | | Protected | | | Split Phase | | | Split Phase | | | | | | | | | | |
| Rights: | Include | | | Include | | | Include | | | Include | | | | | | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | |
| Lanes: | 0 | 0 | 3 | 0 | 1 | 1 | 0 | 3 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 0 | 3120 | 36 | 68 | 1187 | 0 | 323 | 59 | 10 | 11 | 0 | 48 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 0 | 3120 | 36 | 68 | 1187 | 0 | 323 | 59 | 10 | 11 | 0 | 48 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 0 | 3284 | 38 | 72 | 1249 | 0 | 340 | 62 | 11 | 12 | 0 | 51 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 0 | 3284 | 38 | 72 | 1249 | 0 | 340 | 62 | 11 | 12 | 0 | 51 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Final Volume: | 0 | 3284 | 38 | 72 | 1249 | 0 | 340 | 62 | 11 | 12 | 0 | 51 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 1.00 | 0.91 | 0.85 | 0.95 | 0.91 | 1.00 | 0.92 | 0.98 | 0.98 | 0.87 | 1.00 | 0.87 |
| Lanes: | 0.00 | 3.00 | 1.00 | 1.00 | 3.00 | 0.00 | 2.00 | 0.86 | 0.14 | 1.19 | 0.00 | 1.81 |
| Final Sat.: | 0 | 5187 | 1615 | 1805 | 5187 | 0 | 3502 | 1589 | 269 | 1961 | 0 | 2998 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|-------|------|------|------|------|------|------|------|-------|
| Vol/Sat: | 0.00 | 0.63 | 0.02 | 0.04 | 0.24 | 0.00 | 0.10 | 0.04 | 0.04 | 0.01 | 0.00 | 0.02 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.00 | 0.74 | 0.74 | 0.05 | 0.79 | 0.00 | 0.11 | 0.11 | 0.11 | 0.02 | 0.00 | 0.02 |
| Volume/Cap: | 0.00 | 0.86 | 0.03 | 0.86 | 0.31 | 0.00 | 0.86 | 0.34 | 0.34 | 0.30 | 0.00 | 0.86 |
| Uniform Del: | 0.0 | 9.2 | 3.5 | 47.3 | 3.0 | 0.0 | 43.5 | 40.9 | 40.9 | 48.3 | 0.0 | 48.9 |
| IncrcmntDel: | 0.0 | 2.1 | 0.0 | 53.6 | 0.0 | 0.0 | 16.4 | 1.0 | 1.0 | 0.8 | 0.0 | 59.0 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Delay/Veh: | 0.0 | 11.2 | 3.5 | 100.9 | 3.0 | 0.0 | 59.9 | 41.9 | 41.9 | 49.1 | 0.0 | 107.9 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 0.0 | 11.2 | 3.5 | 100.9 | 3.0 | 0.0 | 59.9 | 41.9 | 41.9 | 49.1 | 0.0 | 107.9 |
| LOS by Move: | A | B | A | F | A | A | E | D | D | D | A | F |
| HCM2kAvgQ: | 0 | 29 | 0 | 4 | 4 | 0 | 8 | 2 | 2 | 1 | 0 | 2 |

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2035NP PM Peak
Command: 2035NP PM Peak
Volume: 2035NP PM Peak
Geometry: EXISTING
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2035NP PM Peak

Impact Analysis Report
Level Of Service

| Intersection | Base | | | Future | | | Change in |
|----------------------------------|------|-------------|---------|--------|-------------|---------|--------------|
| | LOS | Del/ Veh | V/ C | LOS | Del/ Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | D | 36.3 | 0.954 | D | 36.3 | 0.954 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | F | 315.7 | 0.000 | F | 315.7 | 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 17.3 | 0.735 | B | 17.3 | 0.735 | + 0.000 D/V |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.954
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 36.3
Optimal Cycle: 141 Level Of Service: D

Street Name: Sepulveda Blvd Rosecrans Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Ovl Include Include Ignore
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 2 0 4 0 1 2 0 3 0 1 2 0 3 0 1 2 0 2 0 1

Volume Module:
Base Vol: 251 1438 362 435 2727 694 238 451 175 393 608 492
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 251 1438 362 435 2727 694 238 451 175 393 608 492
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.00
PHF Volume: 264 1514 381 458 2871 731 251 475 184 414 640 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 264 1514 381 458 2871 731 251 475 184 414 640 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
FinalVolume: 264 1514 381 458 2871 731 251 475 184 414 640 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.91 0.85 0.92 0.95 1.00
Lanes: 2.00 4.00 1.00 2.00 3.00 1.00 2.00 3.00 1.00 2.00 2.00 1.00
Final Sat.: 3502 6916 1615 3502 5187 1615 3502 5187 1615 3502 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.08 0.22 0.24 0.13 0.55 0.45 0.07 0.09 0.11 0.12 0.18 0.00
Crit Moves: **** **** ****
Green/Cycle: 0.08 0.41 0.55 0.25 0.58 0.58 0.07 0.13 0.13 0.13 0.19 0.00
Volume/Cap: 0.95 0.53 0.43 0.53 0.95 0.78 0.95 0.71 0.89 0.89 0.95 0.00
Uniform Del: 45.9 22.1 13.5 32.7 19.7 16.1 46.1 41.8 42.9 42.6 40.3 0.0
IncrementDel: 41.5 0.2 0.3 0.6 8.2 4.3 42.9 3.7 34.3 18.8 23.9 0.0
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 87.4 22.3 13.9 33.3 28.0 20.3 89.0 45.5 77.2 61.4 64.2 0.0
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 87.4 22.3 13.9 33.3 28.0 20.3 89.0 45.5 77.2 61.4 64.2 0.0
LOS by Move: F C B C C C F D E E E A
HCM2kAvgQ: 8 10 7 7 36 19 7 7 9 10 15 0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 3.0 Worst Case Level Of Service: F[315.7]

| Street Name: | Sepulveda Blvd | | | | | | Valley Dr | | | | | |
|--------------|----------------|---|---|--------------|---|---|------------|---|---|------------|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 | 0 | 3 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 |

| Volume Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|----------------|----------------|------|------|----------------|------|------|-----------|------|------|-----------|------|------|
| Base Vol: | 15 | 2047 | 0 | 0 | 2777 | 524 | 4 | 0 | 45 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 15 | 2047 | 0 | 0 | 2777 | 524 | 4 | 0 | 45 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 16 | 2155 | 0 | 0 | 2923 | 552 | 4 | 0 | 47 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FinalVolume: | 16 | 2155 | 0 | 0 | 2923 | 552 | 4 | 0 | 47 | 0 | 0 | 0 |

| Critical Gap Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|----------------------|----------------|------|-------|----------------|------|-------|-----------|-----|-----|-----------|------|-------|
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | 6.5 | 6.9 | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx |

| Capacity Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|------------------|----------------|------|-------|----------------|------|-------|-----------|------|------|-----------|------|-------|
| Cnflct Vol: | 3475 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 3949 | 5385 | 1250 | xxxx | xxxx | xxxxx |
| Potent Cap.: | 75 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 2 | 0 | 167 | xxxx | xxxx | xxxxx |
| Move Cap.: | 75 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 2 | 0 | 167 | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.21 | xxxx | xxxx | xxxx | xxxx | xxxx | 2.16 | 0.00 | 0.28 | xxxx | xxxx | xxxx |

| Level Of Service Module: | Sepulveda Blvd | | | Sepulveda Blvd | | | Valley Dr | | | Valley Dr | | |
|--------------------------|----------------|------|-------|----------------|------|-------|-----------|------|-------|-----------|------|-------|
| 2Way95thQ: | 0.7 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 64.9 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | F | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 2 | xxxx | 167 | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 1.4 | xxxx | 1.1 | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3474 | xxxx | 34.9 | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | F | * | D | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 315.7 | | | xxxxxx | | |
| ApproachLOS: | | * | | | * | | F | | | | * | |

Note: Queue reported is the number of cars per lane.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 17.3
Optimal Cycle: 53 Level Of Service: B

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, and Lanes. Rows include Sepulveda Blvd and 33rd St with various movement controls like Protected and Split Phase.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across different movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for various movements.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, InitQueueDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2035WP AM Peak
Command: 2035WP AM Peak
Volume: 2035NP AM Peak
Geometry: FUTURE WP
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2035WP AM Peak

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Impact Analysis Report
Level Of Service

| Intersection | Base | | | Future | | | Change in |
|----------------------------------|------|-------------|---------|--------|-------------|---------|--------------|
| | LOS | Del/ Veh | V/ C | LOS | Del/ Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | C | 26.7 | 0.794 | C | 26.7 | 0.794 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | C | 19.0 | 0.000 | C | 19.0 | 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 12.2 | 0.690 | B | 12.2 | 0.690 | + 0.000 D/V |

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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.794
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 26.7
 Optimal Cycle: 64 Level Of Service: C

Street Name: Sepulveda Blvd Rosecrans Ave

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

| | | | | | | | | | | | | | | | |
|-------------|-----------|---|---|-----------|---|---|-----------|---|---|-----------|---|---|---|---|---|
| Control: | Protected | | | Protected | | | Protected | | | Protected | | | | | |
| Rights: | Ovl | | | Include | | | Include | | | Ignore | | | | | |
| Min. Green: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Lanes: | 2 | 0 | 4 | 0 | 1 | 2 | 0 | 3 | 0 | 1 | 2 | 0 | 3 | 0 | 1 |

Volume Module:

| | | | | | | | | | | | | |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 183 | 2950 | 358 | 243 | 1035 | 139 | 358 | 653 | 141 | 220 | 346 | 392 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 183 | 2950 | 358 | 243 | 1035 | 139 | 358 | 653 | 141 | 220 | 346 | 392 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.00 |
| PHF Volume: | 193 | 3105 | 377 | 256 | 1089 | 146 | 377 | 687 | 148 | 232 | 364 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Reduced Vol: | 193 | 3105 | 377 | 256 | 1089 | 146 | 377 | 687 | 148 | 232 | 364 | 0 |
| PCE Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| MLF Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| FinalVolume: | 193 | 3105 | 377 | 256 | 1089 | 146 | 377 | 687 | 148 | 232 | 364 | 0 |

Saturation Flow Module:

| | | | | | | | | | | | | |
|-------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Sat/Lane: | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Adjustment: | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.91 | 0.85 | 0.92 | 0.95 | 1.00 |
| Lanes: | 2.00 | 4.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 3.00 | 1.00 | 2.00 | 2.00 | 1.00 |
| Final Sat.: | 3502 | 6916 | 1615 | 3502 | 5187 | 1615 | 3502 | 5187 | 1615 | 3502 | 3610 | 1900 |

Capacity Analysis Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol/Sat: | 0.06 | 0.45 | 0.23 | 0.07 | 0.21 | 0.09 | 0.11 | 0.13 | 0.09 | 0.07 | 0.10 | 0.00 |
| Crit Moves: | **** | | | **** | | | **** | | | **** | | |
| Green/Cycle: | 0.14 | 0.57 | 0.65 | 0.09 | 0.52 | 0.52 | 0.14 | 0.18 | 0.18 | 0.09 | 0.13 | 0.00 |
| Volume/Cap: | 0.40 | 0.79 | 0.36 | 0.79 | 0.40 | 0.17 | 0.79 | 0.76 | 0.52 | 0.76 | 0.79 | 0.00 |
| Uniform Del: | 39.5 | 17.1 | 7.9 | 44.5 | 14.5 | 12.6 | 41.9 | 39.2 | 37.5 | 44.6 | 42.4 | 0.0 |
| IncramntDel: | 0.6 | 1.2 | 0.2 | 12.7 | 0.1 | 0.1 | 9.0 | 3.7 | 1.8 | 10.3 | 9.2 | 0.0 |
| InitQueueDel: | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Delay Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 |
| Delay/Veh: | 40.0 | 18.3 | 8.1 | 57.2 | 14.6 | 12.7 | 50.8 | 42.9 | 39.3 | 54.9 | 51.6 | 0.0 |
| User DelAdj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| AdjDel/Veh: | 40.0 | 18.3 | 8.1 | 57.2 | 14.6 | 12.7 | 50.8 | 42.9 | 39.3 | 54.9 | 51.6 | 0.0 |
| LOS by Move: | D | B | A | E | B | B | D | D | D | D | D | A |
| HCM2kAvgQ: | 3 | 22 | 5 | 6 | 7 | 2 | 8 | 9 | 5 | 5 | 8 | 0 |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: C[19.0]

| Street Name: | Sepulveda Blvd | | | | | | Valley Dr | | | | | |
|--------------|----------------|---|---|--------------|---|---|------------|---|---|------------|---|---|
| Approach: | North Bound | | | South Bound | | | East Bound | | | West Bound | | |
| Movement: | L | T | R | L | T | R | L | T | R | L | T | R |
| Control: | Uncontrolled | | | Uncontrolled | | | Stop Sign | | | Stop Sign | | |
| Rights: | Include | | | Include | | | Include | | | Include | | |
| Lanes: | 1 | 0 | 4 | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 0 |

Volume Module:

| | | | | | | | | | | | | |
|---------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Base Vol: | 4 | 3486 | 0 | 0 | 1141 | 238 | 5 | 0 | 111 | 0 | 0 | 0 |
| Growth Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Initial Bse: | 4 | 3486 | 0 | 0 | 1141 | 238 | 5 | 0 | 111 | 0 | 0 | 0 |
| User Adj: | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| PHF Adj: | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 | 0.95 |
| PHF Volume: | 4 | 3669 | 0 | 0 | 1201 | 251 | 5 | 0 | 117 | 0 | 0 | 0 |
| Reduct Vol: | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Final Volume: | 4 | 3669 | 0 | 0 | 1201 | 251 | 5 | 0 | 117 | 0 | 0 | 0 |

Critical Gap Module:

| | | | | | | | | | | | | |
|--------------|-----|------|-------|-------|------|-------|-----|-----|-----|-------|------|-------|
| Critical Gp: | 4.1 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 6.8 | 6.5 | 6.9 | xxxxx | xxxx | xxxxx |
| FollowUpTim: | 2.2 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 3.5 | 4.0 | 3.3 | xxxxx | xxxx | xxxxx |

Capacity Module:

| | | | | | | | | | | | | |
|--------------|------|------|-------|------|------|-------|------|------|------|------|------|-------|
| Cnflct Vol: | 1452 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 2252 | 5004 | 526 | xxxx | xxxx | xxxxx |
| Potent Cap.: | 472 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 36 | 1 | 502 | xxxx | xxxx | xxxxx |
| Move Cap.: | 472 | xxxx | xxxxx | xxxx | xxxx | xxxxx | 36 | 1 | 502 | xxxx | xxxx | xxxxx |
| Volume/Cap: | 0.01 | xxxx | xxxx | xxxx | xxxx | xxxx | 0.15 | 0.00 | 0.23 | xxxx | xxxx | xxxx |

Level Of Service Module:

| | | | | | | | | | | | | |
|--------------|--------|------|-------|--------|------|-------|-------|------|-------|--------|------|-------|
| 2Way95thQ: | 0.0 | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx |
| Control Del: | 12.7 | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx |
| LOS by Move: | B | * | * | * | * | * | * | * | * | * | * | * |
| Movement: | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT | LT | LTR | RT |
| Shared Cap.: | xxxx | xxxx | xxxxx | xxxx | xxxx | xxxxx | 36 | xxxx | 502 | xxxx | xxxx | xxxxx |
| SharedQueue: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 0.5 | xxxx | 0.9 | xxxxx | xxxx | xxxxx |
| Shrd ConDel: | xxxxx | xxxx | xxxxx | xxxxx | xxxx | xxxxx | 122.2 | xxxx | 14.3 | xxxxx | xxxx | xxxxx |
| Shared LOS: | * | * | * | * | * | * | F | * | B | * | * | * |
| ApproachDel: | xxxxxx | | | xxxxxx | | | 19.0 | | | xxxxxx | | |
| ApproachLOS: | * | | | * | | | C | | | * | | |

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.690
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 12.2
Optimal Cycle: 47 Level Of Service: B

Street Name: Sepulveda Blvd 33rd St

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 3 1 0 1 0 3 0 0 2 0 0 1 0 1 0 1

Volume Module:
Base Vol: 0 3120 36 68 1187 0 323 59 10 11 0 48
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 0 3120 36 68 1187 0 323 59 10 11 0 48
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 0 3284 38 72 1249 0 340 62 11 12 0 51
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 3284 38 72 1249 0 340 62 11 12 0 51
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 0 3284 38 72 1249 0 340 62 11 12 0 51

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 0.91 0.91 0.95 0.91 1.00 0.92 0.98 0.98 0.87 1.00 0.87
Lanes: 0.00 3.95 0.05 1.00 3.00 0.00 2.00 0.86 0.14 1.19 0.00 1.81
Final Sat.: 0 6823 79 1805 5187 0 3502 1589 269 1961 0 2998

Capacity Analysis Module:
Vol/Sat: 0.00 0.48 0.48 0.04 0.24 0.00 0.10 0.04 0.04 0.01 0.00 0.02
Crit Moves: **** **** **** ****
Green/Cycle: 0.00 0.70 0.70 0.06 0.75 0.00 0.14 0.14 0.14 0.02 0.00 0.02
Volume/Cap: 0.00 0.69 0.69 0.69 0.32 0.00 0.69 0.28 0.28 0.24 0.00 0.69
Uniform Del: 0.0 8.8 8.8 46.3 4.0 0.0 40.9 38.4 38.4 47.9 0.0 48.4
IncrementDel: 0.0 0.4 0.4 18.0 0.0 0.0 4.1 0.6 0.6 0.5 0.0 20.4
InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00
Delay/Veh: 0.0 9.3 9.3 64.2 4.0 0.0 45.0 39.0 39.0 48.4 0.0 68.8
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 0.0 9.3 9.3 64.2 4.0 0.0 45.0 39.0 39.0 48.4 0.0 68.8
LOS by Move: A A A E A A D D D D A E
HCM2kAvgQ: 0 17 17 4 5 0 7 2 2 1 0 2

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario: 2035WP PM Peak

Command: 2035WP PM Peak
Volume: 2035NP PM Peak
Geometry: FUTURE WP
Impact Fee: Default Impact Fee
Trip Generation: Default Trip Generation
Trip Distribution: Default Trip Distribution
Paths: Default Path
Routes: Default Route
Configuration: 2035WP PM Peak

Impact Analysis Report
Level Of Service

| Intersection | Base | | | Future | | | Change in |
|----------------------------------|------|-------|---------|--------|-------|---------|--------------|
| | LOS | Veh | V/ C | LOS | Veh | V/ C | |
| # 1 Sepulveda Blvd/Rosecrans Ave | D | 36.3 | 0.954 | D | 36.3 | 0.954 | + 0.000 D/V |
| # 2 Sepulveda Blvd/Valley Dr | F | 237.4 | 0.000 | F | 237.4 | 0.000 | + 0.000 D/V |
| # 3 Sepulveda Blvd/33rd St | B | 17.4 | 0.735 | B | 17.4 | 0.735 | + 0.000 D/V |

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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 Sepulveda Blvd/Rosecrans Ave

Cycle (sec): 100 Critical Vol./Cap. (X): 0.954
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 36.3
Optimal Cycle: 141 Level Of Service: D

Table with columns for Street Name (Sepulveda Blvd, Rosecrans Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, and Lanes.

Table for Volume Module showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume across various movements.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat. for different movements.

Table for Capacity Analysis Module showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, InitQueuDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, LOS by Move, and HCM2kAvgQ.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #2 Sepulveda Blvd/Valley Dr

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: F[237.4]

Street Name: Sepulveda Blvd Valley Dr

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 1 0 4 0 0 0 0 2 1 0 0 1 0 1 0 0 0 0 0 0

Volume Module:

Table with 13 columns and 8 rows showing traffic volume data including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Volume.

Critical Gap Module:

Table with 13 columns and 2 rows showing critical gap and follow-up time data.

Capacity Module:

Table with 13 columns and 4 rows showing capacity data including Conflict Vol, Potent Cap., Move Cap., and Volume/Cap.

Level Of Service Module:

Table with 13 columns and 10 rows showing level of service data including 2Way95thQ, Control Del, LOS by Move, Movement, Shared Cap., Shared Queue, Shrd ConDel, Shared LOS, Approach Del, and Approach LOS.

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 Sepulveda Blvd/33rd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.735
Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 17.4
Optimal Cycle: 53 Level Of Service: B

Street Name: Sepulveda Blvd 33rd St

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Split Phase Split Phase

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 3 1 0 1 0 3 0 0 2 0 0 1 0 1 0 1 1

Volume Module:

Base Vol: 0 1628 76 193 2622 0 247 71 27 88 0 187

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 1628 76 193 2622 0 247 71 27 88 0 187

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95

PHF Volume: 0 1714 80 203 2760 0 260 75 28 93 0 197

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 1714 80 203 2760 0 260 75 28 93 0 197

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 0 1714 80 203 2760 0 260 75 28 93 0 197

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 1.00 0.90 0.90 0.95 0.91 1.00 0.92 0.96 0.96 0.88 1.00 0.88

Lanes: 0.00 3.82 0.18 1.00 3.00 0.00 2.00 0.72 0.28 1.32 0.00 1.68

Final Sat.: 0 6561 306 1805 5187 0 3502 1320 502 2216 0 2821

Capacity Analysis Module:

Vol/Sat: 0.00 0.26 0.26 0.11 0.53 0.00 0.07 0.06 0.06 0.04 0.00 0.07

Crit Moves: **** **** **** ****

Green/Cycle: 0.00 0.51 0.51 0.22 0.72 0.00 0.10 0.10 0.10 0.09 0.00 0.09

Volume/Cap: 0.00 0.52 0.52 0.52 0.73 0.00 0.73 0.56 0.56 0.44 0.00 0.73

Uniform Del: 0.0 16.5 16.5 34.5 8.1 0.0 43.6 42.8 42.8 42.7 0.0 44.0

IncremntDel: 0.0 0.1 0.1 1.2 0.8 0.0 7.8 3.9 3.9 0.5 0.0 7.0

InitQueueDel: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

Delay Adj: 0.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00 1.00

Delay/Veh: 0.0 16.7 16.7 35.6 8.9 0.0 51.4 46.7 46.7 43.2 0.0 51.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 0.0 16.7 16.7 35.6 8.9 0.0 51.4 46.7 46.7 43.2 0.0 51.1

LOS by Move: A B B D A A D D D D A D

HCM2kAvgQ: 0 10 10 6 19 0 6 4 4 3 0 5

Note: Queue reported is the number of cars per lane.



ICU CALCULATION SHEETS

Sepulveda Bridge Widening

Existing AM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 161 | 0.063 |
| NBT | 4 | 6400 | 2958 | 0.462 * |
| NBR | 1 | 1600 | 402 | 0.251 |
| SBL | 2 | 2560 | 247 | 0.096 * |
| SBT | 3 | 4800 | 944 | 0.197 |
| SBR | 1 | 1600 | 115 | 0.072 |
| EBL | 2 | 2560 | 334 | 0.130 * |
| EBT | 3 | 4800 | 677 | 0.141 |
| EBR | 1 | 1600 | 129 | 0.081 |
| WBL | 2 | 2560 | 233 | 0.091 |
| WBT | 2 | 3200 | 331 | 0.103 * |
| WBR | 1 | 1600 | 425 | 0.266 |
| Right Turn Adjustment | | | WBR | 0.115 * |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.006

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 |
| NBT | 3 | 4800 | 3111 | 0.648 * |
| NBR | 1 | 1600 | 32 | 0.020 |
| SBL | 1 | 1280 | 63 | 0.049 * |
| SBT | 3 | 4800 | 1158 | 0.241 |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 361 | 0.141 * |
| EBT | 0.5 | s | 60 | 0.042 |
| EBR | 0.5 | s | 11 | 0.042 |
| WBL | 1.5 | s | 11 | 0.004 |
| WBT | 0 | s | 0 | 0.004 * |
| WBR | 1.5 | s | 46 | 0.018 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.942

Sepulveda Bridge Widening

Existing PM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| | LANES | CAPACITY | PM PK HOUR | |
|-----------------------|-------|----------|------------|---------|
| | | | VOL | V/C |
| NBL | 2 | 2560 | 211 | 0.082 * |
| NBT | 4 | 6400 | 1340 | 0.209 |
| NBR | 1 | 1600 | 375 | 0.234 |
| SBL | 2 | 2560 | 493 | 0.193 |
| SBT | 3 | 4800 | 2799 | 0.583 * |
| SBR | 1 | 1600 | 656 | 0.410 |
| EBL | 2 | 2560 | 198 | 0.077 * |
| EBT | 3 | 4800 | 408 | 0.085 |
| EBR | 1 | 1600 | 142 | 0.089 |
| WBL | 2 | 2560 | 413 | 0.161 |
| WBT | 2 | 3200 | 586 | 0.183 * |
| WBR | 1 | 1600 | 524 | 0.328 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.025

3. Sepulveda Blvd and 33rd St

| | LANES | CAPACITY | PM PK HOUR | |
|-----------------------|-------|----------|------------|---------|
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 * |
| NBT | 3 | 4800 | 1546 | 0.322 |
| NBR | 1 | 1600 | 75 | 0.047 |
| SBL | 1 | 1280 | 197 | 0.154 |
| SBT | 3 | 4800 | 2716 | 0.566 * |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 207 | 0.081 * |
| EBT | 0.5 | s | 60 | 0.049 |
| EBR | 0.5 | s | 24 | 0.049 |
| WBL | 1.5 | s | 92 | 0.036 |
| WBT | 0 | s | 0 | 0.036 * |
| WBR | 1.5 | s | 179 | 0.070 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.783

Sepulveda Bridge Widening
 2015 No Project AM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 167 | 0.065 |
| NBT | 4 | 6400 | 3060 | 0.478 * |
| NBR | 1 | 1600 | 415 | 0.259 |
| SBL | 2 | 2560 | 260 | 0.102 * |
| SBT | 3 | 4800 | 983 | 0.205 |
| SBR | 1 | 1600 | 118 | 0.074 |
| EBL | 2 | 2560 | 344 | 0.134 |
| EBT | 3 | 4800 | 700 | 0.146 * |
| EBR | 1 | 1600 | 134 | 0.084 |
| WBL | 2 | 2560 | 243 | 0.095 * |
| WBT | 2 | 3200 | 344 | 0.107 |
| WBR | 1 | 1600 | 443 | 0.277 |
| Right Turn Adjustment | | | WBR | 0.119 * |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.040

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 |
| NBT | 3 | 4800 | 3219 | 0.671 * |
| NBR | 1 | 1600 | 34 | 0.021 |
| SBL | 1 | 1280 | 67 | 0.052 * |
| SBT | 3 | 4800 | 1205 | 0.251 |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 372 | 0.145 * |
| EBT | 0.5 | s | 64 | 0.044 |
| EBR | 0.5 | s | 11 | 0.044 |
| WBL | 1.5 | s | 11 | 0.004 |
| WBT | 0 | s | 0 | 0.004 * |
| WBR | 1.5 | s | 49 | 0.019 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.972

Sepulveda Bridge Widening

2015 No Project PM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 218 | 0.085 * |
| NBT | 4 | 6400 | 1395 | 0.218 |
| NBR | 1 | 1600 | 387 | 0.242 |
| SBL | 2 | 2560 | 516 | 0.201 |
| SBT | 3 | 4800 | 2898 | 0.604 * |
| SBR | 1 | 1600 | 676 | 0.422 |
| EBL | 2 | 2560 | 204 | 0.080 * |
| EBT | 3 | 4800 | 424 | 0.088 |
| EBR | 1 | 1600 | 147 | 0.092 |
| WBL | 2 | 2560 | 429 | 0.168 |
| WBT | 2 | 3200 | 607 | 0.190 * |
| WBR | 1 | 1600 | 545 | 0.340 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.059

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 * |
| NBT | 3 | 4800 | 1610 | 0.335 |
| NBR | 1 | 1600 | 79 | 0.050 |
| SBL | 1 | 1280 | 206 | 0.161 |
| SBT | 3 | 4800 | 2813 | 0.586 * |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 213 | 0.083 * |
| EBT | 0.5 | s | 65 | 0.053 |
| EBR | 0.5 | s | 25 | 0.053 |
| WBL | 1.5 | s | 95 | 0.037 |
| WBT | 0 | s | 0 | 0.037 * |
| WBR | 1.5 | s | 187 | 0.073 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.806

Sepulveda Bridge Widening

2015 With Project AM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 167 | 0.065 |
| NBT | 4 | 6400 | 3061 | 0.478 * |
| NBR | 1 | 1600 | 415 | 0.260 |
| SBL | 2 | 2560 | 261 | 0.102 * |
| SBT | 3 | 4800 | 984 | 0.205 |
| SBR | 1 | 1600 | 119 | 0.074 |
| EBL | 2 | 2560 | 344 | 0.134 * |
| EBT | 3 | 4800 | 701 | 0.146 |
| EBR | 1 | 1600 | 134 | 0.084 |
| WBL | 2 | 2560 | 243 | 0.095 |
| WBT | 2 | 3200 | 344 | 0.108 * |
| WBR | 1 | 1600 | 443 | 0.277 |
| Right Turn Adjustment | | | WBR | 0.118 * |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.040

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 |
| NBT | 3.5 | s | 3221 | 0.479 * |
| NBR | 0.5 | s | 34 | 0.479 |
| SBL | 1 | 1280 | 67 | 0.052 * |
| SBT | 3 | 4800 | 1205 | 0.251 |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 372 | 0.145 * |
| EBT | 0.5 | s | 64 | 0.044 |
| EBR | 0.5 | s | 11 | 0.044 |
| WBL | 1.5 | s | 11 | 0.004 |
| WBT | 0 | s | 0 | 0.004 * |
| WBR | 1.5 | s | 49 | 0.019 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.780

Sepulveda Bridge Widening

2015 With Project PM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 218 | 0.085 * |
| NBT | 4 | 6400 | 1396 | 0.218 |
| NBR | 1 | 1600 | 387 | 0.242 |
| SBL | 2 | 2560 | 516 | 0.202 |
| SBT | 3 | 4800 | 2899 | 0.604 * |
| SBR | 1 | 1600 | 676 | 0.422 |
| EBL | 2 | 2560 | 204 | 0.080 * |
| EBT | 3 | 4800 | 424 | 0.088 |
| EBR | 1 | 1600 | 147 | 0.092 |
| WBL | 2 | 2560 | 430 | 0.168 |
| WBT | 2 | 3200 | 607 | 0.190 * |
| WBR | 1 | 1600 | 545 | 0.341 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.059

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 * |
| NBT | 3.5 | s | 1611 | 0.249 |
| NBR | 0.5 | s | 79 | 0.249 |
| SBL | 1 | 1280 | 206 | 0.161 |
| SBT | 3 | 4800 | 2815 | 0.586 * |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 213 | 0.083 * |
| EBT | 0.5 | s | 65 | 0.053 |
| EBR | 0.5 | s | 25 | 0.053 |
| WBL | 1.5 | s | 95 | 0.037 |
| WBT | 0 | s | 0 | 0.037 * |
| WBR | 1.5 | s | 187 | 0.074 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.806

Sepulveda Bridge Widening

2035 No Project AM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 183 | 0.071 |
| NBT | 4 | 6400 | 2950 | 0.461 * |
| NBR | 1 | 1600 | 358 | 0.224 |
| SBL | 2 | 2560 | 243 | 0.095 * |
| SBT | 3 | 4800 | 1035 | 0.216 |
| SBR | 1 | 1600 | 139 | 0.087 |
| EBL | 2 | 2560 | 358 | 0.140 * |
| EBT | 3 | 4800 | 653 | 0.136 |
| EBR | 1 | 1600 | 141 | 0.088 |
| WBL | 2 | 2560 | 220 | 0.086 |
| WBT | 2 | 3200 | 346 | 0.108 * |
| WBR | 1 | 1600 | 392 | 0.245 |
| Right Turn Adjustment | | | WBR | 0.089 * |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.993

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 |
| NBT | 3 | 4800 | 3120 | 0.650 * |
| NBR | 1 | 1600 | 36 | 0.022 |
| SBL | 1 | 1280 | 68 | 0.053 * |
| SBT | 3 | 4800 | 1187 | 0.247 |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 323 | 0.126 * |
| EBT | 0.5 | s | 59 | 0.041 |
| EBR | 0.5 | s | 10 | 0.041 |
| WBL | 1.5 | s | 11 | 0.004 |
| WBT | 0 | s | 0 | 0.004 * |
| WBR | 1.5 | s | 48 | 0.019 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.933

Sepulveda Bridge Widening

2035 No Project PM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 251 | 0.098 * |
| NBT | 4 | 6400 | 1438 | 0.225 |
| NBR | 1 | 1600 | 362 | 0.226 |
| SBL | 2 | 2560 | 435 | 0.170 |
| SBT | 3 | 4800 | 2727 | 0.568 * |
| SBR | 1 | 1600 | 694 | 0.434 |
| EBL | 2 | 2560 | 238 | 0.093 * |
| EBT | 3 | 4800 | 451 | 0.094 |
| EBR | 1 | 1600 | 175 | 0.110 |
| WBL | 2 | 2560 | 393 | 0.154 |
| WBT | 2 | 3200 | 608 | 0.190 * |
| WBR | 1 | 1600 | 492 | 0.307 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.049

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 * |
| NBT | 3 | 4800 | 1628 | 0.339 |
| NBR | 1 | 1600 | 76 | 0.047 |
| SBL | 1 | 1280 | 193 | 0.151 |
| SBT | 3 | 4800 | 2622 | 0.546 * |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 247 | 0.096 * |
| EBT | 0.5 | s | 71 | 0.058 |
| EBR | 0.5 | s | 27 | 0.058 |
| WBL | 1.5 | s | 88 | 0.035 |
| WBT | 0 | s | 0 | 0.035 * |
| WBR | 1.5 | s | 187 | 0.073 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.777

Sepulveda Bridge Widening

2035 With Project AM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 183 | 0.071 |
| NBT | 4 | 6400 | 2950 | 0.461 * |
| NBR | 1 | 1600 | 358 | 0.224 |
| SBL | 2 | 2560 | 243 | 0.095 * |
| SBT | 3 | 4800 | 1035 | 0.216 |
| SBR | 1 | 1600 | 139 | 0.087 |
| EBL | 2 | 2560 | 358 | 0.140 * |
| EBT | 3 | 4800 | 653 | 0.136 |
| EBR | 1 | 1600 | 141 | 0.088 |
| WBL | 2 | 2560 | 220 | 0.086 |
| WBT | 2 | 3200 | 346 | 0.108 * |
| WBR | 1 | 1600 | 392 | 0.245 |
| Right Turn Adjustment | | | WBR | 0.089 * |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.993

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | AM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 |
| NBT | 3.5 | s | 3120 | 0.464 * |
| NBR | 0.5 | s | 36 | 0.464 |
| SBL | 1 | 1280 | 68 | 0.053 * |
| SBT | 3 | 4800 | 1187 | 0.247 |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 323 | 0.126 * |
| EBT | 0.5 | s | 59 | 0.041 |
| EBR | 0.5 | s | 10 | 0.041 |
| WBL | 1.5 | s | 11 | 0.004 |
| WBT | 0 | s | 0 | 0.004 * |
| WBR | 1.5 | s | 48 | 0.019 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.747

Sepulveda Bridge Widening

2035 With Project PM Peak Hour

1. Sepulveda Blvd and Rosecrans Ave

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 2 | 2560 | 251 | 0.098 * |
| NBT | 4 | 6400 | 1438 | 0.225 |
| NBR | 1 | 1600 | 362 | 0.226 |
| SBL | 2 | 2560 | 435 | 0.170 |
| SBT | 3 | 4800 | 2727 | 0.568 * |
| SBR | 1 | 1600 | 694 | 0.434 |
| EBL | 2 | 2560 | 238 | 0.093 * |
| EBT | 3 | 4800 | 451 | 0.094 |
| EBR | 1 | 1600 | 175 | 0.110 |
| WBL | 2 | 2560 | 393 | 0.154 |
| WBT | 2 | 3200 | 608 | 0.190 * |
| WBR | 1 | 1600 | 492 | 0.307 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 1.049

3. Sepulveda Blvd and 33rd St

| Existing | | | | |
|-----------------------|-------|----------|------------|---------|
| | LANES | CAPACITY | PM PK HOUR | |
| | | | VOL | V/C |
| NBL | 0 | 0 | 0 | 0.000 * |
| NBT | 3.5 | s | 1628 | 0.251 |
| NBR | 0.5 | s | 76 | 0.251 |
| SBL | 1 | 1280 | 193 | 0.151 |
| SBT | 3 | 4800 | 2622 | 0.546 * |
| SBR | 0 | 0 | 0 | 0.000 |
| EBL | 2 | 2560 | 247 | 0.096 * |
| EBT | 0.5 | s | 71 | 0.058 |
| EBR | 0.5 | s | 27 | 0.058 |
| WBL | 1.5 | s | 88 | 0.035 |
| WBT | 0 | s | 0 | 0.035 * |
| WBR | 1.5 | s | 187 | 0.073 |
| Right Turn Adjustment | | | | 0.000 |
| Clearance Interval | | | | 0.100 * |

TOTAL CAPACITY UTILIZATION 0.777



APPENDIX E: TRANSPORTATION MANAGEMENT PLAN DATA SHEET



**TRANSPORTATION MANAGEMENT PLAN DATA SHEET
(Preliminary TMP Elements and Costs)**

Co/Rte/PM LA/01/23.701-23.824 EA 220500 Alternative No. 3

Project Limit PM 23.7 to PM 23.9 on Sepulveda Blvd. (Route 1)

Project Description Road and Bridge Widening

1) Public Information

- a. Brochures and Mailers \$ 2,000
- b. Press Release
- c. Paid Advertising \$ 10,000
- d. Public Information Center/Kiosk \$
- e. Public Meeting/Speakers Bureau \$ 4,000
- f. Telephone Hotline
- g. Internet
- h. Others \$ 2,000

2) Motorists Information Strategies

- a. Changeable Message Signs (Fixed) \$
- b. Changeable Message Signs (Portable) \$ 40,000
- c. Ground Mounted Signs \$ 6,000
- d. Highway Advisory Radio
- e. Caltrans Highway Information Network (CHIN)
- f. Others \$

3) Incident Management

- a. Construction Zone Enhanced Enforcement Program (COZEEP) \$
- b. Freeway Service Patrol \$
- c. Traffic Management Team
- d. Helicopter Surveillance \$
- e. Traffic Surveillance Stations (Loop Detector and CCTV) \$
- f. Others \$

4) Construction Strategies

- a. Lane Closure Chart



- b. Reversible Lanes
- c. Total Facility Closure
- d. Contra Flow
- e. Truck Traffic Restrictions \$ _____
- f. Reduced Speed Zone \$ _____
- g. Connector and Ramp Closures
- h. Incentive and Disincentive \$ _____
- i. Moveable Barrier \$ _____
- j. Others _____ \$ _____

5) Demand Management

- a. HOV Lanes/Ramps (New or Convert) \$ _____
- b. Park and Ride Lots \$ _____
- c. Rideshare Incentives \$ _____
- d. Variable Work Hours
- e. Telecommute
- f. Ramp Metering (Temporary Installation) \$ _____
- g. Ramp Metering (Modify Existing) \$ _____
- h. Others _____ \$ _____

6) Alternative Route Strategies

- a. Add Capacity to Freeway Connector \$ _____
- b. Street Improvement (widening, traffic signal... etc) \$ _____
- c. Traffic Control Officers \$ _____
- d. Parking Restrictions
- e. Others _____ \$ _____

7) Other Strategies

- a. Application of New Technology \$ _____
- e. Others _____ \$ _____

TOTAL ESTIMATED COST OF TMP ELEMENTS = **\$ 64,000**

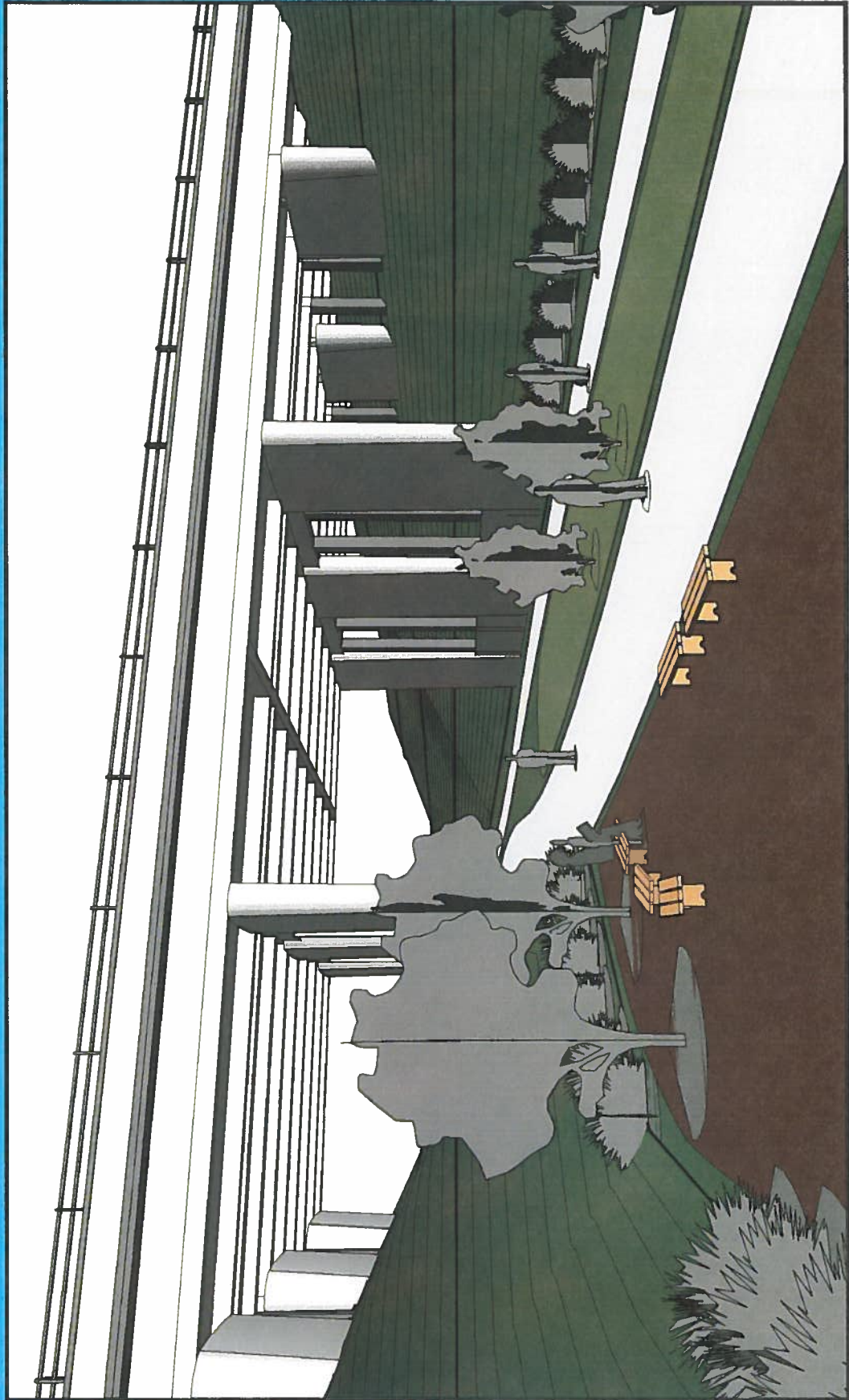
Total Estimated Cost of Traffic Control Design and Implementation **\$ 300,000**

GRAND TOTAL **\$ 364,000**

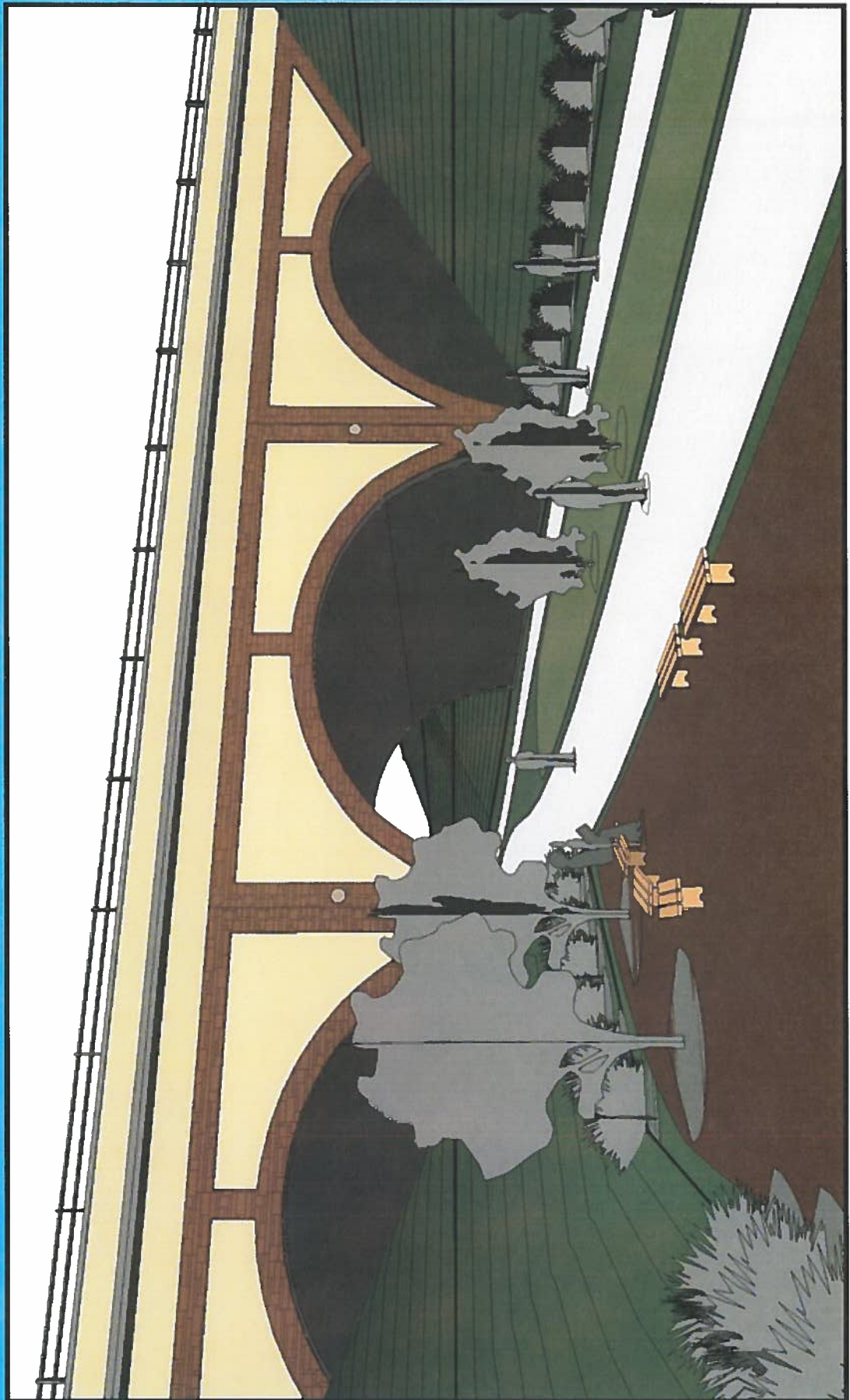
ATTACHMENT 5

Bridge Widening Alternatives

Traditional Widening & Seismic Retrofit Alternative One



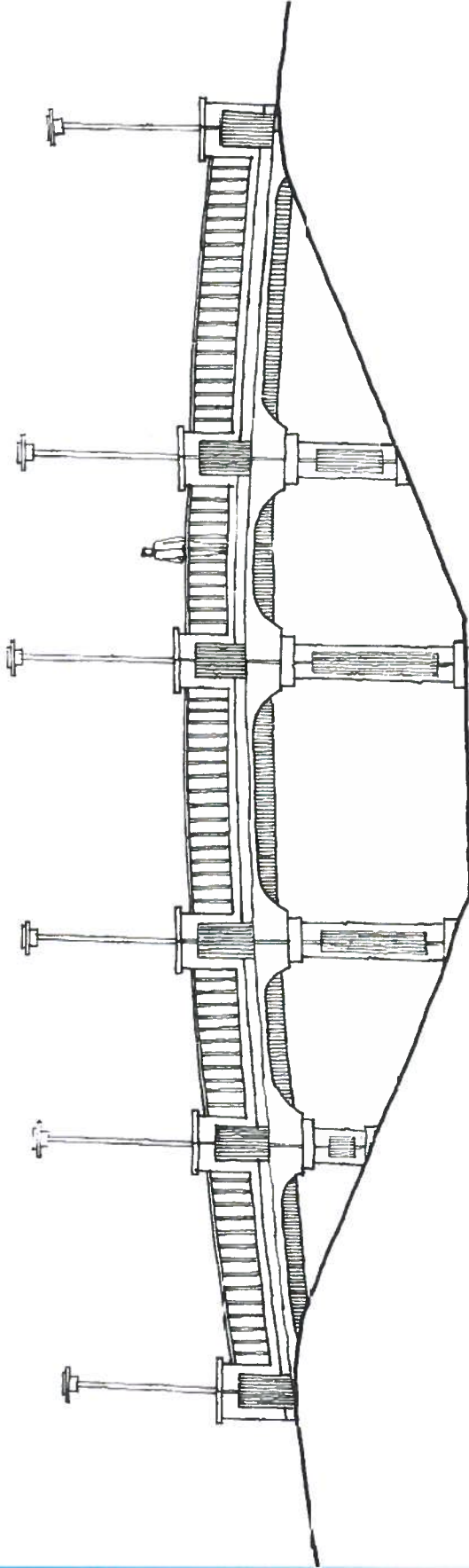
Arch-Culvert Design Alternative Two



ATTACHMENT 6

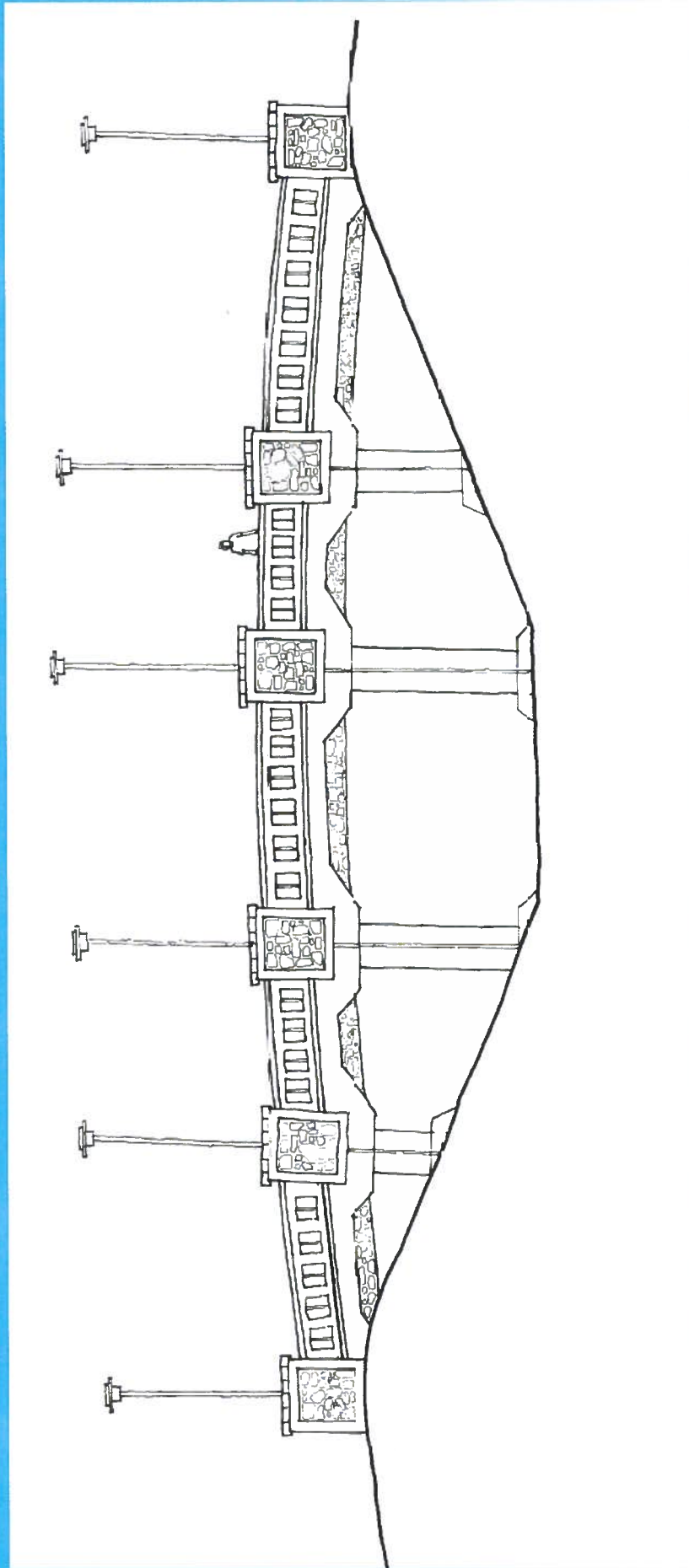
Aesthetic Treatment Options

Aesthetic Alternatives – Traditional Widening



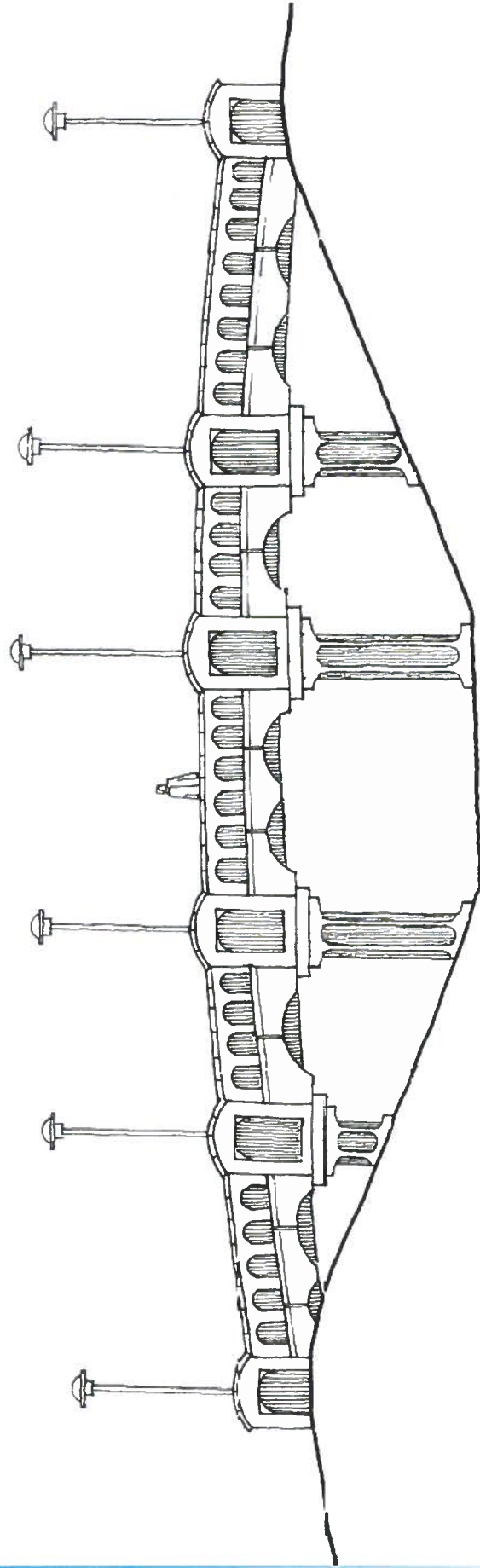
Design 1

Aesthetic Alternatives – Traditional Widening



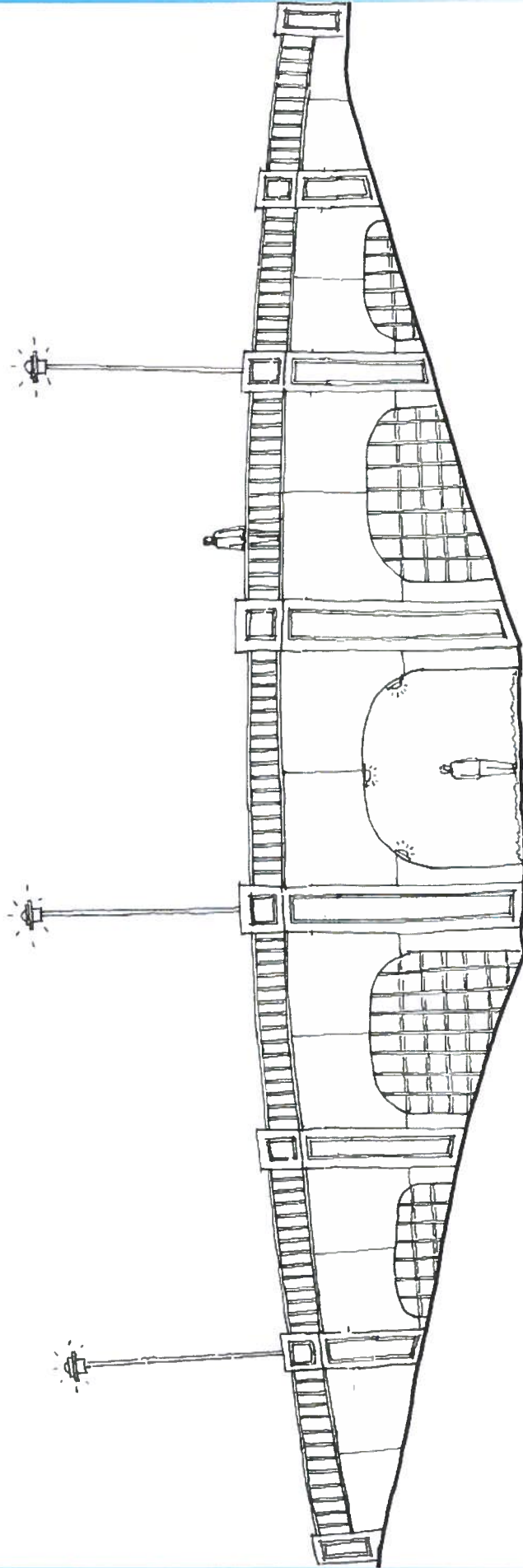
Design 2

Aesthetic Alternatives – Traditional Widening



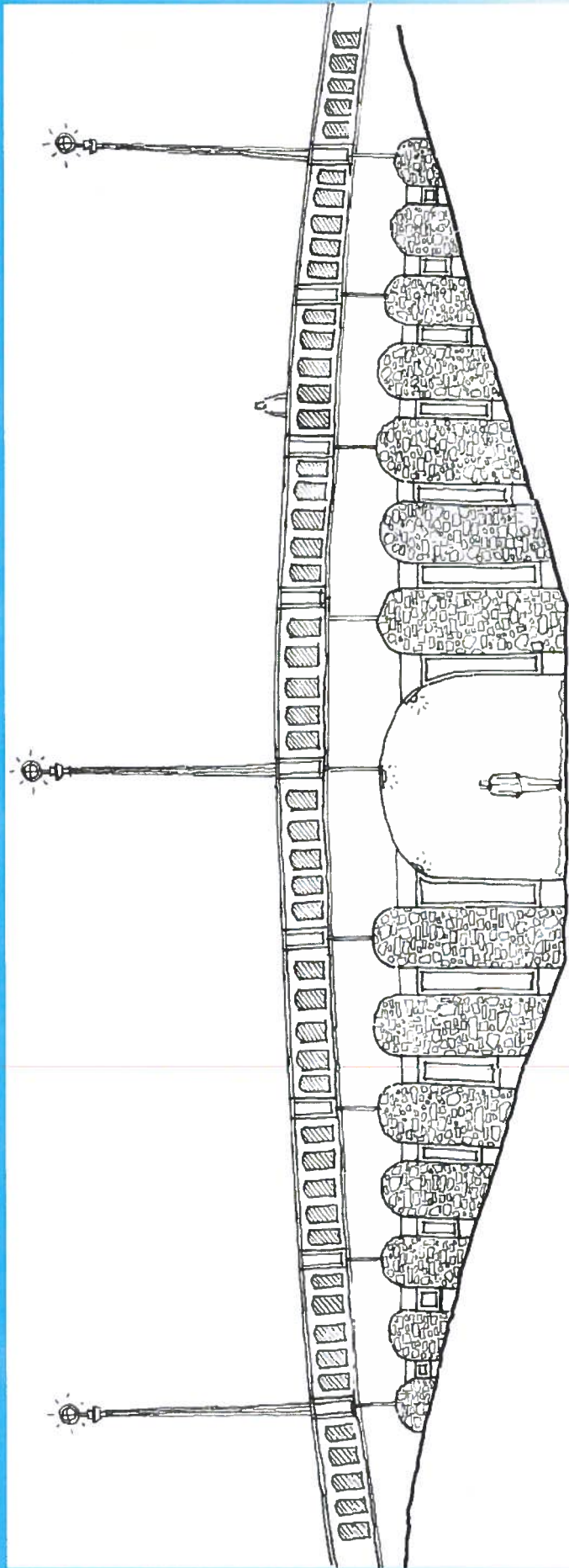
Design 3

Aesthetic Alternatives - Arch



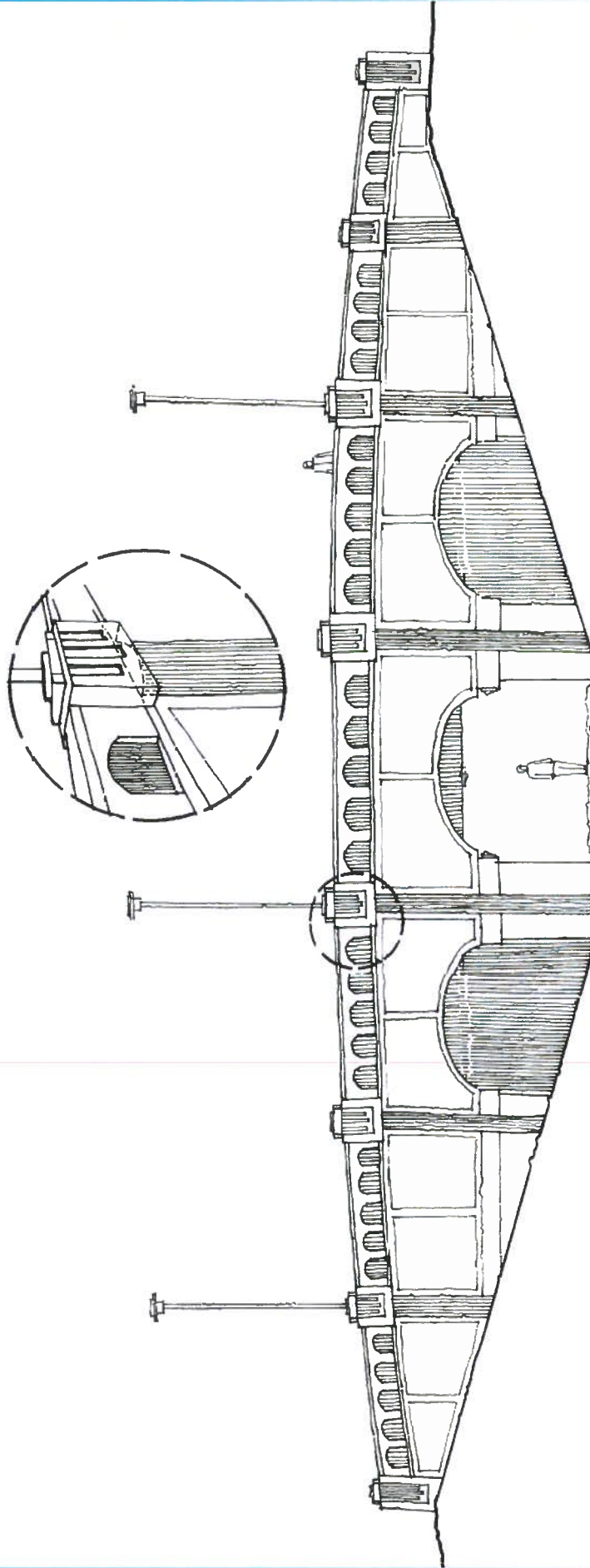
Design 1

Aesthetic Alternatives - Arch



Design 2

Aesthetic Alternatives - Arch



Design 3

Agenda Date: 2/25/2014

TO:

Honorable Mayor and Members of the City Council

THROUGH:

John Jalili, Interim City Manager

FROM:

Tony Olmos, Public Works Director
Bruce Moe, Finance Director
Michael Guerrero, Principal Civil Engineer
Anna Luke-Jones, Senior Management Analyst

SUBJECT:

Presentation of the Proposed Fiscal Year 2014-2015 to Fiscal Year 2018-2019 Five Year Capital Improvement Plan (Public Works Director Olmos).

RECEIVE REPORT

RECOMMENDATION:

Staff recommends that the City Council receive the Proposed Fiscal Year 2014-2015 to Fiscal Year 2018-2019 Five Year Capital Improvement Plan (CIP).

FISCAL IMPLICATIONS:

Depending on City Council feedback, resources from transportation, water, sewer, storm water, parking, and general funds may be impacted. The proposed FY 2014-2015 CIP includes expenditures totaling \$17,837,615 from all funding sources. The five-year expenditure total for the FY 2015-2019 proposed CIP includes expenditures of \$82,854,085 in proposed new project funds and \$21,702,378 in carryover projects for a five year total of \$104,556,463 (Attachment No. 1).

While the total funding represents a significant investment in the City's infrastructure, it is important to note that the wastewater (sewer) system projects (\$15,703,081), water system projects (\$34,672,170), and Sepulveda Bridge Widening Project (\$20,831,715) are a combined total \$71,206,966. Therefore, the wastewater projects, water projects, and Sepulveda Bridge Widening Project together make up approximately 68% of the overall (carryover funds and new funds) five-year Capital Improvement Plan (\$104,556,463). The five year forecast of all fund sources may be reviewed in Attachment No. 2.

BACKGROUND:

The Capital Improvement Plan is a tool to assist the City Council to make capital project decisions. Most capital projects are long-term design-construction projects, and may require funding beyond one fiscal year. This is why a five year plan is proposed to the City Council each year, so that long-term planning may be considered. The document is dynamic and may change as the City's priorities and needs change. The Capital Improvement Plan allows for multiyear systematic scheduling of local physical improvements based on sound planning, public demand for improvements, and the City's ability to fund the improvements.

Annually, the City Council considers and approves projects to be funded in the upcoming fiscal year. In addition, projects for the subsequent four years are listed, but funding is not approved until the appropriate fiscal year. However, review of subsequent year projects allows for the planning and budgeting of the improvements, communicates City Council intent, and assists in organization of capital and maintenance projects in future CIP work.

On September 24, 2013, Staff held a community meeting to present and discuss the results of the Facility Assessment Study and the draft FY2014-2018 Capital Improvement Plan. On December 10, 2013, Staff presented an overview of the draft CIP to the City Council. The City Council directed Staff to include a select number of projects in the FY2013-2014 CIP for consideration of approval on February 25, 2014. The remaining projects previously listed in the draft FY2014-2018 CIP would be included in the FY2015-2019 Capital Improvement Plan, which would be considered for approval in June 2014 along with the City's Operating Budget. Several requests for additional information and action were made by Council. The City Council's requests and Staff responses are listed in the Discussion section of this report.

DISCUSSION:

At the February 25, 2014 Capital Improvement Plan presentation, projects will be presented in project type categories in order to correlate projects/costs with associated available revenue. There are 92 projects (24 carryover projects and 68 new projects) over the five year Capital Improvement Plan that have varied costs, public interest, and impacts that are listed on the attached Projects by Type spreadsheet (Attachment No. 1). Projects involve carryover funding for various reasons including planning and funding for larger, long-term projects, multiple phase projects, grant programming of fund expenditures, coordination with other CIPs, and outside agency review/approval. Staff will present an overview of the projects considered for the CIP and will be prepared to answer questions from City Council or members of the public.

Projects in the City's Capital Improvement Plan are typically presented in two formats; projects are organized by Project Type and projects are organized by Fund source. There are overarching considerations in each of the funding areas (Wastewater, Water, Storm Water, Streets/Transportation, Facilities, and Parking) that require discussion and direction. The Projects by Type spreadsheet is an excerpted section of the proposed Capital Improvement Plan and may be used for project reference during the presentation and is listed as Attachment No. 1.

City Council requests and Staff Responses from December 10, 2013

The following items reflect requests made by City Council at the December 10, 2013 City Council meeting, along with the Staff responses.

- Council Request: Discuss Strand Stair Railing Options.
 - o Staff Response: Public Works Director Tony Olmos is presenting an update to the Strand Stairs project on February 25, 2014.
- Council Request: Discuss Downtown Crosswalk Options.
 - o Staff Response: Public Works Director Tony Olmos is presenting options for the Downtown Crosswalk project on February 25, 2014.
- Council Request: Place Peck Pool Improvements Project on the CIP Unfunded List.
 - o Staff Response: Staff placed the Peck Pool Improvements Project on the FY2015-2019 CIP Unfunded List.
- Council Request: Address sidewalk issue on Parkview Avenue in front of the Senior Villas.
 - o Staff Response: Staff included the Parkview Avenue sidewalk improvements with the FY2014-2015 Annual Curb, Gutter and Ramp Replacement Project (reference page six in Attachment 1).
- Council Request: Provide additional information regarding the replacement of Fire Station 2.
 - o Staff Response: Staff included \$430,000 in the FY2014-2015 proposed CIP for Fire Station 2 Design Development and Interim Improvements. Once the design development has been completed, City Council will have a more defined plan with which to provide Staff direction on the Fire Station 2 project.
- Council Request: Address the issue with the Strand's "slippery areas"
 - o Staff Response: Public Works Director Tony Olmos has been coordinating with Staff to address this issue.

Overview of the FY2015-2019 Capital Improvement Plan

The following summary addresses each "Type" of project. Attachment 1, the Projects by Type Spreadsheet, provides a five-year plan with project titles and individual costs of each project. The column "Difference from 12.10.13 presentation" in the Projects by Type spreadsheet is intended as a quick reference as to why the information was revised since the Council viewed the CIP at its December 10, 2013 meeting. Public Works Director Olmos will address any questions from Council on the revised information.

Wastewater

The CIP includes ten (10) Wastewater projects (two carryover and eight new), with \$1,803,081 in carryover funds and \$13,900,000 in new funds over the five year plan.

- Project funding and priorities for all five years are consistent with previously identified 2010 Wastewater Master Plan costs and adopted rates.
- Scheduled projects previously budgeted have either been constructed or are in the process of design or pending construction; previously budgeted projects focused on sewer main spot repairs, sewer main replacements, and sewer manhole repairs/replacements.
- Scheduled new projects will focus on continuation of sewer main repairs/replacements and upgrades/replacement of existing sewer lift stations.

Water

The CIP includes fourteen (14) Water projects (three carryover and eleven new), with

\$941,145 in carryover funds and \$33,731,025 in new funds over the five year plan.

- Project funding and priorities for all five years is consistent with previously identified 2010 Water Master Plan costs and adopted rates.
- Scheduled projects previously budgeted have either been constructed or are in the process of design or pending construction; previously budgeted projects focused on water main replacements and booster pump station replacement/upgrade.
- Scheduled new projects include continuation of water main replacements, Peck Reservoir replacement, Block 35 reservoir replacement, and improvements to the City's existing groundwater wells including upgrades to well collection mains.

Storm Water

The CIP includes seven (7) Storm Water projects (all new) totaling \$2,620,000 over the five year plan.

- Scheduled new projects are consistent with identified 2013 Storm Drain System video inspection and evaluation and requirements of the National Pollutant Discharge Elimination System (NPDES) permit; scheduled projects focus on storm drain mainline spot repairs and section replacements and installation of catch basin screen inserts.
- The current storm water fee (from the Utility Service Charge) only funds a portion of operational costs. Current allocations are not sufficient to fund needed infrastructure replacements and are not expected to meet the future needs of the system improvements based on the new NPDES permit requirements.

Streets/Transportation

The CIP includes thirty-two (32) Streets/Transportation projects (twelve carryover and twenty new), with \$15,930,627 in carryover funds (including \$10,458,755 for Sepulveda Bridge project) and \$22,111,559 in new funds over the five year plan. Thirteen of the thirty-two projects are capacity enhancement/pedestrian safety projects, and nineteen of the thirty-two projects are concrete/asphalt street improvement projects.

- Scheduled projects are categorized as Capacity Enhancements, Pedestrian and Safety Improvements, and Street Repairs/Rehabilitation
- Grant and one-time funded projects that are currently scheduled are primarily capacity related (Sepulveda Bridge, traffic signal intersection improvements) or pedestrian improvements.
- Annually funded projects include multiple funding sources. These funds are restricted to certain uses and represent reliable sources of revenue. These funds are dedicated to annual slurry seal projects, annual concrete repairs projects, and street resurfacing projects.
- There exists a significant deficit in funding for street rehabilitation projects as projected by the City's 2010 Pavement Management System assessment. The 2010 pavement assessment identified approximately a \$1,600,000 annual funding deficit for street rehabilitation projects. The Pavement Management System data is updated triennially and is included in the FY 2013-2014 CIP.

Facilities

The CIP includes twenty-three (23) Facilities projects (six carryover and seventeen new), with \$2,889,255 in carryover funds and \$8,410,000 in new funds over the five year plan. Twenty of the twenty-three Facility projects are funded from the CIP fund; the remaining

three projects are funded from special revenue sources such as the State Pier Fund, other enterprise funds, or private contributions.

- Scheduled projects are consistent with the 2013 Facilities Assessment Study. The CIP is based on a 10-year expenditure forecast for the combined facilities with a total anticipated combined expenditure over the study period of \$10,500,000 and an average annual expenditure of \$1,000,000.
- Identified Facilities work has been prioritized based on deficiencies found during the 2013 assessment. Scheduled FY 2014-2015 projects are consistent with study Priority 1 category that includes Life Safety/Code Compliance/American with Disabilities Act (ADA) improvements.
- Scheduled new projects include the design development and improvements for Fire Station No. 2 reconstruction, Live Oak Park Tot Lot reconstruction, Marine Avenue Skate Park construction, and Veterans Park Phase I improvements.
- Scheduled Facilities projects include funding from Special Revenue Funds (State Pier Fund, Refuse Fund)

Parking

The CIP includes six (6) Parking projects (one carryover and five new), with \$138,270 in carryover funds and \$2,081,500 in new funds.

- Scheduled projects are consistent with the 2013 Parking Structures Assessment Study. The CIP is based on a 10-year expenditure forecast with a total anticipated combined expenditure over the study period of \$2,100,000.
- Identified parking structures work has been prioritized based on deficiencies found during the 2013 assessment. Scheduled FY 2014-2015 projects are consistent with study Priority 1 category that includes Life/Safety improvements.

Tentative FY 2015-2019 Capital Improvement Plan Schedule

Since the February 25, 2014 meeting is intended as more of an introduction meeting for City Council to discuss the proposed CIP, a CIP adoption schedule must still be considered. The following tentative schedule reviews the actions which still need to occur and suggests a general schedule so that the effective date of funding appropriations is realigned with the approval of the City Operating Budget.

- April 8, 2014: Proposed FY 2015-2019 CIP Public Meeting
- April 23, 2014: Planning Commission Adoption
- April 24, 2014: Parking and Public Improvements Commission Review
- May 20, 2014: City Council Consideration of CIP Adoption (FY 2014-2015 Budget Public Hearing and Adoption scheduled for June 3, 2014 City Council Meeting)
- July 1, 2014: Adopted FY 2014-2015 CIP Effective Date

CONCLUSION:

The CIP presentation provides an opportunity to discuss and provide direction on policy issues regarding funding levels, revenue generation, and the impacts on all City facilities and infrastructure, in addition to selecting projects for the next CIP cycle under consideration. The CIP projects which require funding in FY 2014-2015 are of particular importance since the City Council may be considering appropriating funds for this fiscal year at the June 3, 2014 City Council Meeting (meeting date subject to change per City Manager or City Council direction). Staff from the departments who have responsibility in the provisions of the service

or facility are available to answer questions from the City Council or the public.

Attachments:

1. FY 2015-2019 Proposed Projects by Type Spreadsheet (excerpt from Capital Improvement Program)

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

BY TYPE

| WASTEWATER PROJECTS | | | | | | | | | | | | |
|--|--------------------------|---------------------------------------|-----------------------|-----------------------------------|------------|--------------|--------------|--------------|--------------|--|---|-----------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | Difference from 12.10.13 presentation | FUND SOURCE(S) |
| WASTEWATER PROJECTS | | | | | | | | | | | | |
| 1 Utility Radio Telemetry | 11838E | FY 2010-11 | work in progress | \$ 119,860 | | | | | | \$ 119,860 | | Wastewater Fund |
| 2 FY11-12 Rehabilitation of Gravity Sewer Mains (Phase 2) | 13835E | FY2011-12 | design | \$ 1,683,221 | | | | | | \$ 1,683,221 | | Wastewater Fund |
| 3 FY14-15 Rehabilitation of Gravity Sewer Mains (Spot Repairs) | | | | | \$ 100,000 | \$ 1,200,000 | | | | \$ 1,300,000 | Moved from 13-14, 14-15 to 14-15, 15-16 | Wastewater Fund |
| 4 FY15-16 Rehabilitation of Gravity Sewer Mains | | | | | \$ 150,000 | \$ 1,400,000 | | | | \$ 1,550,000 | Moved from 14-15, 15-16 to 15-16, 16-17 | Wastewater Fund |
| 5 FY17-18 Rehabilitation of Gravity Sewer Mains (area 5, 6, 7) | | | | | | | | \$ 150,000 | \$ 1,000,000 | \$ 1,150,000 | Moved from 16-17, 17-18 to 17-18, 18-19 | Wastewater Fund |
| 6 Poinsettia Sewage Lift Station Replacement and Force Main Replacement | | | | | \$ 300,000 | \$ 2,800,000 | | | | \$ 3,200,000 | Design was split \$150K in 13-14, \$150K in 14-15, now all design, \$300K, in 14-15 | Wastewater Fund |
| 7 Pacific Lift Station Upgrade, Emergency Storage, and Force Main Replacement | | | | | \$ 250,000 | \$ 2,150,000 | | | | \$ 2,400,000 | | Wastewater Fund |
| 8 Voorhees Lift Station Upgrade, Emergency Storage, and Force Main Replacement | | | | | | \$ 1,900,000 | \$ 250,000 | \$ 1,900,000 | | \$ 2,150,000 | | Wastewater Fund |
| 9 Meadows Lift Station Upgrade, Emergency Storage, and Force Main | | | | | | | | \$ 250,000 | \$ 1,700,000 | \$ 1,950,000 | | Wastewater Fund |
| 10 Palm Lift Station Upgrade, Emergency Storage, and Force Main | | | | | | | | | \$ 200,000 | \$ 200,000 | Added with FY18-19 in 5 year plan | Wastewater Fund |
| Wastewater Projects TOTAL | | | | \$ 1,803,081 | \$ 400,000 | \$ 4,500,000 | \$ 3,500,000 | \$ 2,300,000 | \$ 2,900,000 | \$ 15,703,081 | | |

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

BY TYPE

| WATER PROJECTS | | | | | | | | | | | | |
|---|--------------------------|---------------------------------------|-----------------------|-----------------------------------|--------------|--------------|---------------|--------------|--------------|--|---|----------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | Difference from 12.10.13 presentation | FUND SOURCE(S) |
| WATER PROJECTS | | | | | | | | | | | | |
| 1 Utility Radio Telemetry (Fiber Op Imp) | 11834E | FY 2010-11 | in progress | \$ 330,525 | | | | | | \$ 330,525 | Funds spent | Water Fund |
| 2 Larsson Street Booster Station Improvement | 12828E | FY 2011-12 | design | \$ 486,100 | | | | | | \$ 486,100 | Funds spent | Water Fund |
| 3 Pipe Replacement Program and Fire Hydrant Installation (Area 2) | 13833E | FY 2012-13 | design | \$ 124,520 | \$ 1,600,000 | | | | | \$ 1,724,520 | Funds spent | Water Fund |
| 4 Pipe Replacement Program and Fire Hydrant Installation (Area 3) | | | | | \$ 100,000 | | \$ 900,000 | | | \$ 1,000,000 | Moved from 14-15, 15-16 to 15-16, 16-17 | Water Fund |
| 5 Pipe Replacement Program and Fire Hydrant Installation (Area 5, 6, 7) | | | | | | | | \$ 300,000 | \$ 2,000,000 | \$ 2,300,000 | Moved from 16-17, 17-18 to 17-18, 18-19 | Water Fund |
| 6 Block 35 Ground Level Reservoir Replacement | | | | | | | \$ 2,100,000 | \$ 3,700,000 | \$ 3,700,000 | \$ 9,500,000 | | Water Fund |
| 7 Block 35 Booster Discharge Line Replacement | | | | | \$ 253,125 | | | | | \$ 253,125 | | Water Fund |
| 8 Paint Block 35 Elevated Tank | | | | | \$ 500,000 | | | | | \$ 500,000 | | Water Fund |
| 9 Well Collection line From Well 11A to Block 35 | | | | | \$ 1,275,750 | | \$ 4,474,250 | | | \$ 5,750,000 | | Water Fund |
| 10 Chloramination System at Wells 11 & 15 | | | | | \$ 352,000 | | | | | \$ 352,000 | Moved from 13-14, 14-15 to 100% in 14-15 | Water Fund |
| 11 Redrill & Equip Well 15 | | | | | | \$ 300,000 | \$ 2,500,000 | | | \$ 2,800,000 | Moved from 14-15, 15-16 to 15-16, 16-17 | Water Fund |
| 12 Herin/Marine Pipe Installation | | | | | \$ 75,900 | | | | | \$ 75,900 | | Water Fund |
| 13 Peck Ground Level Reservoir Replacement | | | | | \$ 1,500,000 | \$ 4,000,000 | \$ 4,000,000 | | | \$ 9,500,000 | \$1.5 mill was split 13-14, 14-15, now all in 14-15 | Water Fund |
| 14 Peck Reservoir Booster Pump Variable Frequency | | | | | \$ 100,000 | | | | | \$ 100,000 | | Water Fund |
| Water Projects TOTAL | | | | \$ 941,145 | \$ 4,381,025 | \$ 5,675,750 | \$ 13,974,250 | \$ 4,000,000 | \$ 5,700,000 | \$ 34,672,170 | | |

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

BY TYPE

| STREETS / TRANSPORTATION | | | | | | | | | | | | |
|---|---|---------------------------------------|-----------------------|-----------------------------------|---------------|--------------|-----------|-----------|-----------|--|---------------------------------------|------------------------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | Difference from 12.10.13 presentation | FUND SOURCE(S) |
| CAPACITY ENHANCEMENTS (GRANT FUNDED) | | | | | | | | | | | | |
| 1 | Sepulveda Bridge Widening Prop C Local (merged 08827 & 10827) | 10827E | FY 2009-10 | design | \$ 1,720,415 | \$ 1,000,000 | | | | \$ 3,865,615 | Funds spent | Proposition C |
| 2 | Sepulveda Bridge Widening (33rd/Valley) | 11830E | FY 2010-11 | design | \$ 1,004,340 | | | | | \$ 1,204,340 | Funds spent | Proposition C |
| 3 | Safetee-Lu Fairmark | 13840E | FY 2012-13 | design | \$ 3,184,000 | \$ 3,629,325 | | | | \$ 6,813,325 | | Proposition C |
| 4 | Sepulveda Bridge Widening Measure R South Bay | 13841E | FY 2012-13 | design | \$ 4,550,000 | | | | | \$ 9,100,000 | | Proposition C |
| 5 | Rosecrans Utility Undergrounding | 05820E | FY 2004-05 | design | \$ 29,662 | | | | | \$ 29,662 | | Proposition C |
| 6 | So Rosecrans Utility Undergrounding-Street Work | 04824E | FY 2003-04 | design | \$ 178,626 | | | | | \$ 178,626 | | Proposition C |
| 7 | South Side Rosecrans Ave. Widening | 07822E | FY 2006-07 | design | \$ 346,396 | | | | | \$ 346,396 | | Proposition C |
| 8 | Dual Left-Turn Lanes on Main Ave at Sepulveda Blvd. WB to SB (Gas Tax & Measure R South Bay Hwy) | 12821E | FY 2011-12 | design | \$ 335,000 | | | | | \$ 335,000 | | Gas Tax Fund |
| 9 | Dual Left-Turn Lanes on MBB at Sepulveda EB to NB, NB to WB, WB to SB (Proposition C & Measure R South Bay Hwy) | 09823E | FY 2008-09 | on hold | \$ 383,203 | \$ 980,000 | | | | \$ 1,363,203 | | Proposition C |
| 10 | Aviation at Artesia, SB to WB Right-Turn Lane (Gas Tax & Measure R South Bay Hwy) | | | | | \$ 1,500,000 | | | | \$ 1,500,000 | Moved all funds into 15-16 | Gas Tax Fund |
| 11 | Dual Left-Turn Lanes, Aviation at Marine, SB to EB Lefts (Gas Tax & Measure R South Bay Hwy) | | | | | \$ 4,629,325 | | | | \$ 4,629,325 | | Gas Tax Fund |
| | Subtotal (Sepulveda Bridge) | | | | \$ 10,458,755 | \$ 5,895,200 | | | | \$ 20,983,280 | | |
| | Subtotal (Other) | | | | \$ 1,272,887 | \$ 3,980,000 | | | | \$ 5,252,887 | | |
| | Subtotal (Combined) | | | | \$ 11,731,642 | \$ 9,875,200 | | | | \$ 26,236,167 | | |
| PEDESTRIAN AND SAFETY IMPROVEMENTS | | | | | | | | | | | | |
| 12 | Strand Stairs | 09825E | FY 2008-09 | design | \$ 290,799 | | | | | \$ 290,799 | | CIP Fund |
| 13 | Strand Stairs Phase I | 10824E | FY 2009-10 | design | \$ 1,572,910 | | | | | \$ 1,572,910 | | CIP Fund |
| 14 | Cycle 3 Safe Routes to School Program | 13842E | FY 2012-13 | pending state approval | \$ 65,000 | \$ 425,600 | | | | \$ 490,600 | | CIP Fund & State Grant Funds |
| 15 | Cycle 10 Safe Routes to School Program | 13844E | FY 2012-13 | pending state approval | \$ 497,500 | | | | | \$ 497,500 | | CIP Fund & State Grant Funds |
| 16 | Signalized Crosswalk: MBB @ Target Driveway | | | | \$ 185,000 | | | | | \$ 185,000 | | Measure R Local Return |
| 17 | Raised Median Construction: MBB, west of Aviation | | | | \$ 150,000 | | | | | \$ 150,000 | | Measure R Local Return |
| 18 | CDBG Access Ramp Construction Project | | | | \$ 208,000 | | | | | \$ 208,000 | New project | CIP Fund (CDBG Funds) |
| | Subtotal | | | | \$ 2,426,209 | \$ 988,600 | | | | \$ 3,394,809 | | |

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

BY TYPE

| STREETS / TRANSPORTATION Cont'd | | | | | | | | | | | | |
|----------------------------------|---|---------------------------------------|-----------------------|-----------------------------------|---------------|---------------|--------------|------------|------------|--|--|-------------------------|
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | Difference from 12.10.13 presentation | FUND SOURCE(S) |
| CONCRETE REPAIRS | | | | | | | | | | | | |
| 19 | 14-15 - 18-19 Annual Curb, Gutter and Ramp Replacement (FY14-15 project includes Parkview Avenue) | | | | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | | Gas Tax Fund |
| | Subtotal | | | | \$ 515,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 365,000 | \$ 1,975,000 | | |
| ASPHALT PAVEMENT PROJECTS | | | | | | | | | | | | |
| 20 | 12-13 Annual Slurry Seal Program | 13820E | FY2012-13 | construction | \$ 350,000 | | | | | \$ 350,000 | Project changed from "in progress" to "construction" | Gas Tax Fund |
| 21 | Street Resurfacing Project: Rosecrans Avenue (Sepulveda Blvd to Redondo Ave) | 11822E | FY 2010-11 | design | \$ 250,000 | | | | | \$ 250,000 | | Gas Tax Fund (MTA STPL) |
| 22 | Street Resurfacing Project: Ardmore and Valley | 12820E | FY 2011-12 | construction | \$ 468,540 | | | | | \$ 468,540 | Project changed from "in progress" to "construction" and funds spent | Gas Tax Fund |
| 23 | Manhattan Ave./Highland Ave. Improvement Project (1st-8th) (Proposition 1B) | 10823E | FY 2009-10 | design | \$ 704,236 | | | | | \$ 704,236 | | Gas Tax Fund |
| 24 | Street Resurfacing Project: MBB, Sepulveda to Aviation | | | | \$ 100,000 | \$ 900,000 | | | | \$ 1,000,000 | | Gas Tax Fund |
| 25 | Street Resurfacing Project: Marine, Sepulveda to Aviation | | | | | \$ 800,000 | | | | \$ 800,000 | | Gas Tax Fund |
| 26 | Street Resurfacing Project: Blanche, Marine, Oak, 27th St & 11th St | | | | \$ 125,000 | \$ 500,000 | | | | \$ 625,000 | | Gas Tax Fund |
| 27 | 13-14 - 17-18 Annual Slurry Seal Program | | | | \$ 700,000 | \$ 350,000 | \$ 350,000 | \$ 350,000 | \$ 350,000 | \$ 2,100,000 | | Gas Tax Fund |
| 28 | Triennial Pavement Management System Update | | | | | \$ 40,000 | | | | \$ 40,000 | | Gas Tax Fund |
| 29 | Morningside Drive Rehabilitation (10th Pl to MBB) | | | | \$ 250,000 | | | | | \$ 250,000 | | Gas Tax Fund |
| | Subtotal | | | | \$ 1,772,776 | \$ 1,750,000 | \$ 1,190,000 | \$ 350,000 | \$ 350,000 | \$ 6,587,776 | | |
| | Streets (Sepulveda Bridge) | | | | \$ 10,458,755 | \$ 5,895,200 | \$ 4,629,325 | \$ - | \$ - | \$ 20,983,280 | | |
| | Streets (Other) | | | | \$ 5,471,872 | \$ 6,095,000 | \$ 1,555,000 | \$ 715,000 | \$ 715,000 | \$ 17,210,472 | | |
| | Streets Projects TOTAL | | | | \$ 15,930,627 | \$ 10,724,325 | \$ 1,555,000 | \$ 715,000 | \$ 715,000 | \$ 38,193,752 | | |

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

BY TYPE

| FACILITIES | PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | Difference from 12.10.13 presentation | FUND SOURCE(S) |
|-------------------|---|--------------------------|---------------------------------------|-----------------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--|---|----------------|
| FACILITIES | | | | | | | | | | | | | |
| 1 | Downtown Streetscape Improvements: Tile Crosswalk Replacement | 13823E | FY 2012-13 | no new development | \$ 825,000 | \$ | | | | | \$ 825,000 | | CIP Fund |
| 2 | Downtown Streetscape Improvements: Traffic Signal Pole Replacement (16 poles) | 13822E | FY 2012-13 | no new development | \$ 1,100,000 | | | | | | \$ 1,100,000 | | CIP Fund |
| 3 | Downtown Streetscape Improvements: Pavement Rehabilitation & Traffic Striping | 13824E | FY 2012-13 | no new development | \$ 315,000 | | | | | | \$ 315,000 | | CIP Fund |
| 4 | 12-13 Non-Motorized Transportation Crosswalks, Bike lanes, etc. | 13829E | FY 2012-13 | under development | \$ 100,000 | | | | | | \$ 100,000 | | CIP Fund |
| 5 | 14-15 - 18-19 Non-Motorized Transportation Crosswalks, Bike Lanes, etc. | | | | | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 | \$ 500,000 | | CIP Fund |
| 6 | Citywide Sign Program | | | | | \$ 40,000 | | | | | \$ 40,000 | | CIP Fund |
| 7 | Fire Station 2 Design Development and Interim Improvements | | | | | \$ 430,000 | | | | | \$ 430,000 | | CIP Fund |
| 8 | Marine Ave Skate Park | | | | | \$ 350,000 | | | | | \$ 350,000 | | CIP Fund |
| 9 | Live Oak Tot Lot Reconstruction | | | | | \$ 40,000 | \$ 150,000 | \$ 350,000 | | | \$ 500,000 | Moved from 13-14, 14-15 to 14-15, 15-16 | CIP Fund |
| 10 | Fire Station Security Card Installation | | | | | \$ 135,000 | | | | | \$ 135,000 | | CIP Fund |
| 11 | Veterans Park Phase I | | | | | \$ 500,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 1,000,000 | \$ 4,500,000 | Moved from 13-14 to 14-15 | CIP Fund |
| 12 | Facility Improvements | | | | \$ 2,340,000 | \$ 1,595,000 | \$ 1,250,000 | \$ 1,450,000 | \$ 1,100,000 | \$ 1,100,000 | \$ 8,935,000 | | CIP Fund |
| | CIP Fund Facilities Projects TOTAL | | | | \$ 2,340,000 | \$ 1,595,000 | \$ 1,250,000 | \$ 1,450,000 | \$ 1,100,000 | \$ 1,100,000 | \$ 8,935,000 | | |

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

| BY TYPE | | | | | | | | | | | |
|---|--------------------------|---------------------------------------|-----------------------|-----------------------------------|------------------|----------------|----------------|-----------|-----------|--|---|
| PARKING PROJECTS | | | | | | | | | | | |
| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | FUND SOURCE(S) |
| PARKING PROJECTS | | | | | | | | | | | |
| 1 North End Business District Streetscape | 07829E | FY 2006-07 | pending | \$ 138,270 | | | | | | \$ 138,270 | Funds spent |
| 2 Parking Structure Structural Rehabilitation/Reinvestment (Based on findings of Structural Inspection) | | | | \$ | 417,000 | 550,000 | 464,500 | | | \$ 1,431,500 | Facility Assessment report accepted by Council; just need CIP approved. |
| 3 Vehicle Detection Sensors (citywide metered spaces) | | | | \$ | 550,000 | | | | | \$ 550,000 | |
| 4 Lot 1 Retaining Wall (10th & Bayview) | | | | \$ | 100,000 | | | | | \$ 100,000 | |
| Parking Projects TOTAL | | | | \$ | 1,067,000 | 550,000 | 464,500 | - | - | 2,219,770 | moved from 13-14 to 14-15 |

**City of Manhattan Beach, PROPOSED Capital Improvement Plan 2015-2019
DRAFT PROJECTS BY TYPE FOR FY2014-15 THRU FY2018-19**

BY TYPE

| PROJECT TITLE | Carryover Project Number | Carryover Project Original Funding Yr | Status as of 02/13/14 | Carryover Project Funds Remaining | FY2014-15 | FY2015-16 | FY2016-17 | FY2017-18 | FY2018-19 | FIVE YEAR TOTAL (Includes Carryover Project Funds Remaining & New Funds) | Difference from 12.10.13 presentation | FUND SOURCE(S) |
|---|--------------------------|---------------------------------------|-----------------------|-----------------------------------|---------------|---------------|---------------|--------------|---------------|--|---------------------------------------|----------------|
| SUMMARY ALL PROJECT TYPES | | | | | | | | | | | | |
| WASTEWATER PROJECTS | | | | \$ 1,803,081 | \$ 400,000 | \$ 4,500,000 | \$ 3,800,000 | \$ 2,300,000 | \$ 2,900,000 | \$ 15,703,081 | | See Above |
| WATER PROJECTS | | | | \$ 941,145 | \$ 4,381,025 | \$ 5,675,750 | \$ 13,974,250 | \$ 4,000,000 | \$ 5,700,000 | \$ 34,672,170 | | See Above |
| STORMWATER PROJECTS | | | | \$ - | \$ 440,000 | \$ 650,000 | \$ 650,000 | \$ 440,000 | \$ 440,000 | \$ 2,620,000 | | See Above |
| STREETS PROJECTS (w/out Sep Bdg) | | | | \$ 5,471,872 | \$ 2,658,600 | \$ 6,095,000 | \$ 1,555,000 | \$ 715,000 | \$ 715,000 | \$ 17,210,472 | | See Above |
| FACILITIES PROJECTS | | | | \$ 2,340,000 | \$ 1,595,000 | \$ 1,250,000 | \$ 1,450,000 | \$ 1,100,000 | \$ 1,100,000 | \$ 8,835,000 | | See Above |
| FACILITIES PROJECTS (Special Revenue Funds) | | | | \$ 549,255 | \$ 1,390,000 | \$ 555,000 | \$ - | \$ - | \$ - | \$ 2,494,255 | | See Above |
| PARKING PROJECTS | | | | \$ 138,270 | \$ 1,067,000 | \$ 550,000 | \$ 464,500 | \$ - | \$ - | \$ 2,219,770 | | See Above |
| FUNDED PROJECTS BY TYPE SUBTOTAL | | | | \$ 11,243,623 | \$ 11,931,625 | \$ 19,275,750 | \$ 21,893,750 | \$ 8,555,000 | \$ 10,855,000 | \$ 83,754,748 | | |
| STREETS (Sep/veia Bridge) | | | | \$ 10,458,755 | \$ 5,895,200 | \$ 4,629,325 | \$ - | \$ - | \$ - | \$ 20,983,280 | | |
| FUNDED PROJECTS BY TYPE TOTAL | | | | \$ 21,702,378 | \$ 17,826,825 | \$ 23,905,075 | \$ 21,893,750 | \$ 8,555,000 | \$ 10,855,000 | \$ 104,738,028 | | |

Agenda Date: 2/25/2014

TO:

Honorable Mayor and Members of the City Council

THROUGH:

John Jalili, Interim City Manager

FROM:

Tony Olmos, Public Works Director
Edward Kao, Senior Civil Engineer

SUBJECT:

The Strand Stairs Rehabilitation Project - Project Update and Aesthetic Treatments of Retaining Walls (Public Works Director Olmos).

RECEIVE REPORT AND PROVIDE DIRECTION

RECOMMENDATION:

Staff recommends that the City Council discuss this project status update on the Strand Stairs Rehabilitation Project and review and select the various aesthetically enhanced alternatives for the retaining walls and direct staff to return with a funding plan .

FISCAL IMPLICATIONS:

Funding for the Strand Stair rehabilitation project was appropriated by City Council as indicated in Attachment 1. There is approximately \$1.5 million available for construction. The scope of work for this project includes only the bare minimum patching and repair of the existing retaining walls. The aesthetically enhanced alternatives will require additional funds and cannot be funded from the grant sources. Any additional amounts required to provide for a plain concrete finish or the two enhanced options will have to be appropriated from a City funding source - these options range from \$50,000 to \$340,000 depending upon the selected features.

BACKGROUND:

There are currently two major recreational features located along the City's entire two mile coastline, a pedestrian walkway (Strand) owned and maintained by the City and a bike path (Marvin Braude Bike Path) owned and operated by the County of Los Angeles Department of Public Works. The bike path is situated to the west of the Strand and is separated from the Strand by a vegetated slope of varying widths and grade. Connecting the Strand and the bike path are thirty six pedestrian access points. Twenty seven of these access ways have stairs of varying designs and conditions. In addition to stairs, there are three handicap

accessible ramps; two leading from the Strand to the El Porto parking lots at 41st and 43rd Streets and a third leading from the parking lot to the bike path at 42nd Street.

The City identified the need to remove and/or replace stairs at twenty locations as shown on Attachment 2. The improvements will provide safe access from the Strand to the beach and will comply with current ADA requirements. Two ADA compliant ramps are proposed at 26th St. and Marine Ave.

The City Council at its May 1, 2012 meeting approved a contract with Community Works Design Group (Consultant) to conduct public meetings and prepare plans and specifications for construction. The Consultant conducted two public meetings on January 10, 2013 and April 29, 2013 to determine public design preferences. During the second public meeting, the residents at the meeting recommended that appearance of the existing stairs essentially remain the same and preferred that art elements be not included in the stair design since it may compromise the view of the ocean from the Strand.

On August 13, 2013, the Consultant was instructed to make a presentation to the Cultural Arts Commission on the status of the Strand Project and entertain input on the possibility of incorporating an art element in the design of the project. The consultant identified five stair cases that may lend themselves to art elements: Rosecrans Avenue, 20th Street, 18th Street, 16th Street, and 14th Street. On September 30, 2013, the Commission held a walking tour of the five proposed locations. After the tour, the Commission discussed possible elements that could be considered.

On October 29, 2013, the City Council held a joint meeting with Cultural Arts Commission. During that meeting, City Council instructed staff to meet with representatives from the Cultural Arts Commission to develop alternatives along with associated costs for introducing aesthetically enhanced elements into the project.

At its December 3, 2013 meeting, City Council reviewed the proposed aesthetically enhanced alternatives and selected rail design elements and gave direction to separate the Stairs and the Retaining Walls into two independent projects. This was needed so stair reconstruction can proceed through the federal funding authorization process, while the aesthetic design elements for the five retaining wall locations can be developed and approved at a slightly less aggressive pace. Goal was to bid and construct the projects at the same time and start construction during the targeted 2014 Fall season.

Since the project has federal funding, funding authorization will need to be obtained from Caltrans (E-76) since Caltrans is the federal funding administrator. In order to start construction during the 2014 Fall season, all design plans will need to be completed by the end of April 2014 and Coastal and County permits obtained by May 2014. Bidding would then take place in June 2014 and award of construction contract in July 2014.

DISCUSSION:

Staff conducted a Third Public Meeting on January 23, 2014 to present the rail design elements selected by the City Council, share City Council's decision to separate the Stairs and the Retaining Walls into two independent projects, and discuss possible aesthetic elements for the retaining walls.

For the retaining walls, staff and City's consultant presented various aesthetic alternatives

ranging from sandblasted figures to landscaped walls. Due to the concern for long term maintenance cost, the Green Wall concept was eliminated. General consensus was to repair the retaining walls and minimally sandblast designs onto the five retaining wall locations. The wave motif seemed to be preferred by most in attendance. After the meeting, there was a suggestion that motifs of marine life that can be spotted along the coast of Manhattan Beach such as dolphins and whales should be included as part of the options. All the proposed design concepts are included in the PowerPoint presentation to be presented at tonight's meeting as shown in Attachment 3.

The three options presented with the estimated costs are:

- Plain Concrete \$50,000 to \$60,000
- Sandblasted Design \$77,500 to \$112,500
- Formlined Design \$245,000 to \$340,000

CONCLUSION:

Staff recommends that the City Council review and select the various aesthetically enhanced alternatives for the retaining walls and instruct staff to return with a funding plan .

Attachments:

1. Project Funding and Anticipated Expenditures
2. Stairs to be Improved
3. Strand Stairs Presentation to Council

Attachment 1

Project Funding and Anticipated Expenditures

| Table 1 | | Budget |
|---------------------------|-------------------------------|-------------------------|
| | Year / Appropriation | Actual Available |
| Federal Earmark | FY 2009-2010 / \$1,600,000 | \$1,439,000 |
| Capital Improvement Funds | FY 2008-2009 / \$320,000 | \$320,000 |
| Total | \$1,920,000 | \$1,759,000 |

| Table 2 | | Anticipated Expenditures |
|--|--|---------------------------------|
| Budget | | \$1,759,000 |
| Community Works Design Group's Design and Public Outreach Contract | | \$200,885 |
| Balance Available for Construction | | \$1,558,115 |

Stair Locations

Attachment 2



STRAND STAIRS IMPROVEMENT PROJECT

CITY OF MANHATTAN BEACH

Presented by:



FEBRUARY 25, 2014

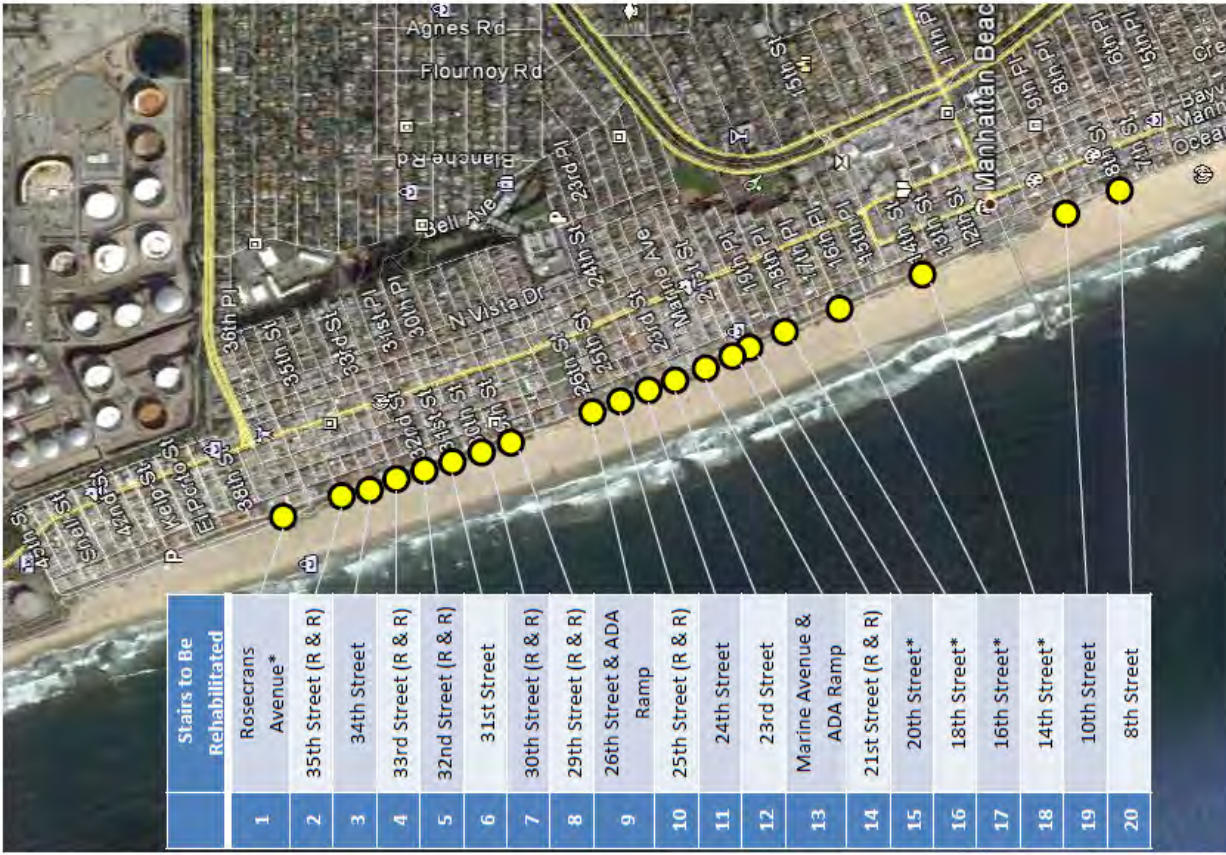
SCOPE OF WORK



- City has secured federal funds to enhance access from The Strand to the beach.
- Project includes removal and replacement of stairs at 20 locations
- Installation of two new wheelchair ramps leading from the Strand to the Bike Path near Marine Avenue and 26th Street.
- Total of 20 stairs will be impacted.



SCOPE OF WORK



| Stairs to Be Rehabilitated |
|----------------------------|
| Rosecrans Avenue* |
| 35th Street (R & R) |
| 34th Street |
| 33rd Street (R & R) |
| 32nd Street (R & R) |
| 31st Street |
| 30th Street (R & R) |
| 29th Street (R & R) |
| 26th Street & ADA Ramp |
| 25th Street (R & R) |
| 24th Street |
| 23rd Street |
| Marine Avenue & ADA Ramp |
| 21st Street (R & R) |
| 20th Street* |
| 18th Street* |
| 16th Street* |
| 14th Street* |
| 10th Street |
| 8th Street |



PROJECT AREA

WHERE WE HAVE BEEN...



- First two public meetings were held on January 10, 2013 and April 29, 2013
- Staff presented project to the Cultural Arts Commission on August 13, 2013
- Staff presented project to joint City Council/ Cultural Arts Commission on October 29, 2013 for consideration and seeking direction.

WHERE WE HAVE BEEN...



- Presented aesthetic concepts to City Council on December 3, 2013
- City Council selected rail design elements and gave direction to separate the Stairs and the Retaining Walls into two independent projects
- The design elements selected by the City Council were presented to the public at a Public Meeting held on January 23, 2014, and additional feedback was received on the retaining wall treatments.

WHERE WE HAVE BEEN...



WHERE WE ARE GOING...



Wall Options:

- Need to select final aesthetic treatments for the five retaining wall locations



WALL OPTIONS

EXISTING WALL LOCATIONS





EXISTING CONDITION – 14th Street



EXISTING CONDITION – 16th Street



EXISTING CONDITION – 18th Street



EXISTING CONDITION – 20th Street



EXISTING CONDITION – Rosecrans Street

PROPOSED WALL TREATMENTS



- Clean Concrete
- Sandblasted figures/ designs
- Concrete forms (similar to El Porto)
- ~~Green Wall~~

At January 23, 2014 Public Meeting, the public recommended the minimally sandblasted wall designs.

WALL TREATMENT IDEAS



DESIGN CONCEPTS





CLEAN CONCRETE – concrete repaired where necessary and finished with tilt wall panel finishing compound



SANDBLAST light stenciled wave pattern on heavy sandblast background



SANDBLAST light stenciled sun pattern on heavy sandblast background



SANDBLAST varied weight stenciled wave pattern on med. sandblast background



SANDBLAST varied weight stenciled dolphin pattern on light sand background –
\$7,500-\$10,000 per location depending on intricacy of pattern



SANDBLAST medium stenciled wave pattern on light sandblast background –
\$7,500-\$10,000 per location depending on intricacy of pattern



FORMLINED CONCRETE similar to El Porto Retaining Wall



FORMLINED CONCRETE – amount of detail achievable is directly proportional to cost of finished product

DESIGN CONCEPTS

(Distant View)





EXISTING CONDITION – 18th Street



POTENTIAL CONDITION — sandblast pattern and street numbering



POTENTIAL CONDITION — sandblast pattern and street numbering



POTENTIAL CONDITION — sandblast pattern and street numbering



POTENTIAL CONDITION — sandblast pattern and street numbering



EXISTING CONDITION – Rosecrans Street



WALL OPTION – Sandblasted Collage

PROJECT COSTS



Project Costs:

- **If Plain Concrete:**

Clean / Repair/ patch/ finish: \$3,500-\$5,000 per site x 5 sites: \$17,500 - \$25,000
Add Anti-graffiti coating: allow \$5,000 per location: \$25,000
Design Fees/ Permitting/ Inspection, etc.: \$7,500 - \$10,000
Total – Plain Concrete \$50,000 - \$60,000

- **If Sandblasted Design Concrete:**

Clean / Repair/ patch/ finish: \$7,500-\$12,500 per site x 5 sites: \$37,500 - \$62,500
Add Anti-graffiti coating: allow \$5,000 per location: \$25,000
Design Fees/ Permitting/ Inspection, etc.: \$15,000 - \$25,000
Total – Plain Concrete \$77,500 - \$112,500



PROJECT COSTS

Project Costs:

- **If Formlined Concrete:**

Demolish concrete to rebar / set forms/ place new concrete/

strip forms and patch: \$35,000-\$50,000+ per site x 5 sites: **\$175,000 - \$250,000**

Add Anti-graffiti coating: allow \$5,000 per location: **\$25,000**

Design Fees/ Permitting/ Inspection, etc.: **\$45,000 - \$65,000**

Total – Formlined Concrete
\$245,000 - \$340,000



PROJECT COSTS

SCHEDULES



Proposed Ideal Schedule (Rails and Stairs):

- Concept Selection (COMPLETED 12/10/13)
- Finish Design: End of February 2014
- E-76/ LA Co/ Coastal Permit Approvals: Mar-Apr 2014
- Advertise/ Bid Opening: May/ June 2014
- Award Contract: July 2014
- Construction Start: Mid-September 2014



SCHEDULES

Proposed Ideal Schedule (Retaining Walls):

- Concept Selection: February 25, 2014
- Finish Design: End of March 2014
- LA Co/ Coastal Permit Approvals: March-April 2014
- Advertise/ Bid Opening: May/ June 2014
- Award Contract: July 2014
- Construction Start: Mid-September 2014



SCHEDULES

QUESTIONS/ COMMENTS?

