Example Application from HSIP-Cycle 5 and HR3-Cycle 3

07-Temple City-1

Countermeasures Used:

S2: Improve signal hardware: lenses, back-plates, mounting, size, and number
S19: Install pedestrian countdown signal heads

Primary reasons this application was selected to show as an Example:

- Application focuses on intersection safety for all modes of travel
- A corridor approach was used instead of individual spot locations
- A separate collision diagram was prepared for each countermeasure
- Crash data from multi-sources were used
    - Applicant used crash data from the TIMS
    - Other known and verifiable collisions were also added into the collision diagrams. Inapplicable collisions were marked out

Changes needed for similar applications in future HSIP calls for projects:

- The plan view of the improvements could be larger and clearer

APPLICATION FOR HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP) PROGRAM CYCLE 5 AND HIGH RISK RURAL ROADS (HR3) PROGRAM CYCLE 3

APPLICATION SUMMARY

After the application is finalized, please save this PDF form using the exact "Application ID" (shown below) as the file name.

This summary page is filled out automatically once the application is completed.

Application ID: 07-Temple City-1

Submitted By (Agency):
Temple City

Caltrans District	Application Number	Out of
07	1	1

Project Location

Various intersections located on Las Tunas Drive between Rosemead Boulevard and Temple City Boulevard, in the City of Temple City.

Project Description

Installation of signal improvements and pedestrian countdown signal heads.

Countermeasure 1: S2: Improve signal hardware: lenses, back-plates, mounting, size, and number

Countermeasure 2: S19: Install pedestrian countdown signal heads

Countermeasure 3:

Total Expected Benefit $6,646,860.00 **Total Project Cost** $665,000.00

B/C Ratio: 10.00

I. Basic Project Information

Date: Jul 19, 2012 Caltrans District: 07 MPO: SCAG

Agency: Temple City County: Los Angeles County

Total number of applications being submitted by your agency: 1

Application Number (each application must have a unique number): 1

Contact Person Information

Name (*Last, First*): Jose Pulido

Position/Title of Contact Person: City Manager

Email: jpulido@templecity.us Telephone: (626) 285-2171 Extension:

Address: 9701 Las Tunas Dr.

City: Temple City Zip Code: CA 91780 (Enter only a 5-digit number.)

Project Information

Project Location
-Be Brief (limited to 250 characters)
-See Instructions

Various intersections located on Las Tunas Drive between Rosemead Boulevard and Temple City Boulevard, in the City of Temple City.

Project Description
-Be Brief (limited to 250 characters)
-See Instructions

Installation of signal improvements and pedestrian countdown signal heads.

Functional Classification: Other Principal Arterial (For Functional Classification and CRS Maps, Visit http://www.dot.ca.gov/hq/tsip/hseb/crs_maps/)

CRS Map ID (e.g. 08E14): 13V15

Urban/Rural Area: Urban (Visit http://earth.dot.ca.gov/)

Eligible for HR3 Funding *(See Instructions)* No

Work on the State Highway System *(See Instructions)*

Does the project include improvements on the State Highway System? No

If no, move on to the next page; If yes, go to the below question.

Is this a joint-funded project with Caltrans? No

☐ If yes, check this box to confirm a formal Letter of Support from Caltrans - District Traffic is attached to the application. The letter should include estimates of cost sharing.

☐ If no, check this box to confirm a written correspondence from Caltrans District Traffic is attached to the application. The correspondence should indicate that Caltrans does not see issues that would prevent the proposed project from receiving an encroachment permit

Additional Information

1. Is the project focused primarily on "spot location" or "systemic" improvements? Systemic

The primary type of the "systemic" improvements: Add/Upgrade/Modify/Romove Traffic Signal

2. Which of the California's Strategic Highway Safety Plan (SHSP) Challenge Areas does the project address primarily? (For more information on the SHSP and its Challenge Areas, see: http://www.dot.ca.gov/SHSP/)

7: Improve Intersection and Interchange Safety for Roadway Users

3. How were the safety needs and potential countermeasures for this project **first** identified?

Jurisdiction-wide safety analysis

4. What is the primarily mode of travel intended to be benefited by this project?

Motorized users

5. Approximate percentage of project cost going to improvements related to **motorized** travel 75 %

6. Approximate percentage of project cost going to improvements related to **non-motorized** travel 25 %

7. Is the project focused primarily on "Intersection" or "Roadway" improvement?

Intersection

Number of Intersections 7

8. Posted Speed Limit (mph) 30

9. Average Daily Traffic *(See Instructions)*

ADT (Major Road)	ADT (Minor Road)	Year Collected
26,902	26,838	2010

II. Narrative Questions (See Instructions)

These narrative questions are intended to provide additional project details for the application reviewers and project files. Application reviewers will use the information in their "fatal flaw" assessment of the applications, including:

1) The project scope is eligible for HSIP and/or HR3 funding;
2) The countermeasures used in the B/C ratio calculation are appropriately applied based on the scope of the project;
3) The crash data used in the B/C ratio calculation is appropriately applied based on the scope of the project and countermeasures used;
4) The costs included in the application represent the likely total project cost necessary to fully construct the proposed scope. If the proposed project is a piece of a larger construction project, the entire scope of the larger project must be identified.
5) The application data and attachments are reasonable and meet generally accepted traffic engineering and transportation safety principles.

If significant inconsistencies or errors are found in the application information, the Caltrans reviewers may conclude that the application includes one or more "fatal flaws" and the application will be dropped from further funding considerations. The applicant will be notified of Caltrans findings until after the selection process is complete.

1. Overall Identification of Need

Describe how the agency identified the project as one of its top safety priorities. Was a data-driven, safety evaluation of their entire roadway network completed? (limited to 5,000 characters)

Las Tunas Drive serves as the City's downtown commercial corridor and is one of the City's major east-west arterials. The Gateway, City Center and Western Commercial Districts are situated along the project site along Las Tunas Drive and serves as an important entry point into the City of Temple City. There is also a large area of single family housing units located north and south of Las Tunas Drive. In addition, the Los Angeles Metropolitan Transportation Agency (Metro) provides bus service within Temple City along Las Tunas Drive (Route 78/378).

The City used a proactive approach in understanding existing conditions and determining appropriate locations for traffic countermeasures. The City contracted with RBF Consulting to develop a City Wide Traffic Calming Master Plan to reduce traffic accidents, improve safety for pedestrians and other non-motorists. RBF Consulting performed an existing conditions assessment to identify high priority areas by conducting extensive traffic volume counts, speed surveys, accident data assessment and field observations. The City Traffic Calming Study and the Las Tunas Safety Analysis received wide support from community leaders, the community and the public safety division, which includes the Sheriff's Department, neighborhood watch and emergency services. The City conducted workshops with these groups In an effort to gather data, educate the public on traffic safety and learn of current concerns regarding existing traffic conditions. RBF Consulting concluded that Las Tunas Drive was not appropriate for traffic calming measures because traffic volumes through the downtown exceeded the recommended thresholds for traffic calming to address speed and cut through traffic. The results of the existing conditions assessment of Las Tunas Drive by RBF prompted the City to continue to identify key safety needs and create effective solutions to achieve significant reduction in fatalities and serious injuries along the roadway.

Based on the data analysis and recommendations by RBF Consulting the City identified Las Tunas Drive as a priority for this grant program. The City felt that Las Tunas Drive represented an opportunity to significantly reduce and eliminate safety hazards. Based on the high traffic volumes and high accident rates of various intersections on Las Tunas Boulevard, the intersections between Sultana Avenue and Primrose Avenue on Las Tunas Drive were identified as a high priority areas and will be the primary focus area of this project. The following intersections on Las Tunas Boulevard will be included as part of this project: Sulatana Drive, Loma Avenue, Encinita Avenue, Alessandro Avenue, Oak Avenue, Cloverly Avenue and Primrose Avenue.

After the project area was selected, RBF Consulting continued to analyze the traffic data, location of hazards, and traffic patterns to recommend countermeasures that would yield the best benefit within the project limits. Other planning documents utilized in evaluation of the project area were the City Wide Traffic Calming Plan and previous traffic and pedestrian studies completed along Las Tunas Drive. RBF Consulting also ensured the traffic measures did not interfere with zoning plans, future development, pedestrian patterns and public transportation. The frequency of motor and pedestrian related traffic accidents and injuries show the need to update traffic signals and signal heads in order to promote and improve visibility for pedestrians as well as motorists.

2. Potential for Proposed Improvements to Correct the Problem

Describe the primary causes of the collisions that have occurred within the project limits. Are there patterns in the crash types? Clearly demonstrate the connection between the problem and the proposed countermeasures utilized in the Benefit/Cost Ratio calculations. (limited to 5,000 characters)

Note: Safety improvements that do not have countermeasures and crash reduction factors identified in the TIMS B/C Calculator can be included in the project scope; they just won't be added to the project's B/C ratio shown in the application.

The project limits between Sultana and Primrose Avenue on Las Tunas Drive will address safety issues at 7 signal controlled intersections. As stated in the "Local Roadway Safety Manual," upgrading signalized intersections provides better visibility and clarity of intersections and aids the driver's perception of road conditions ahead. The current signals along these intersections are outdated and do not provide the level of clarity of new LED lighting. The new poles and mast arms that will be installed to support the new signal modifications will also help improve visibility for motorists. The dangers that exist for motorists and pedestrians are evident from the high frequency of traffic accidents that continue to occur in these intersections. The intersections between Sultana and Primrose Avenue on Las Tunas Drive had a total of 93 injury and non-injury related crashes between 2006-2011. (SWITRS & LA County Sheriff's Department-Collision History Report) 41 out of the 93 crashes or 44% of crashes were injury related with one pedestrian being killed just 56 feet from the intersection. Out of the 41 injury related accidents, 62 people were injured and one fatality occurred. The SWITRS report for traffic related injuries lists "traffic signals and signs" as accounting for up to 40% of the crash data in the project area. Although the report does not go into depth about the problems with traffic signals and signs at these intersections, it is safe to assume that improving the visibility and clarity of these intersections will help drivers navigate through the intersection and provide advance warning of a signal ahead as they approach the intersection. Other accidents reported by the SWITRS report were a high occurrence of automobile right of way accidents and pedestrian involved collisions, which together account for 38% of injury related accidents. The FHWA stated that, "A major problem is driver inability to notice/see the traffic control device in time to comply." Research has shown that simple, low-cost treatment enhancements such as increasing the visibility of traffic signals using retroreflective borders can improve driver compliance with traffic control and reduce the number and severity of crashes. (FHWA-Safety) Based on the crash data improving traffic signals would have a tremendous impact on safety along the project area.

The City is also proposing to install pedestrian countdown signal heads as part of the the project. The pedestrian countdown signal heads are proposed at 7 intersections. This will help alert pedestrians to remove themselves from the intersection before they are exposed to passing motorists. According to walkinginfo.org there are 59,000 injuries and 4,902 deaths in pedestrian/motor vehicle crashes. From 2006-2010 10 people were injured and one person was killed along Las Tunas Drive. If pedestrians along the boulevard had countdown signal heads available to them they are much more likely to see the countdown and take the appropriate action to reach the other side of the intersection safely. Pedestrian countdown signal heads will also enhance the safety for elders and people with disabilities as they will be aware of how much time they have to cross. When pedestrians do not have countdown signal heads it gives the perception that it is safe to cross even though the light is about to change.

Other options considered in developing the project scope included reducing the speed limit along the boulevard, however, the results of the City's Traffic Calming Master Plan advised against it due to the high traffic volumes and cut through traffic experienced on Las Tunas Drive. Mid block crosswalks were also considered, but quickly dismissed because pedestrian patterns revealed that they were utilizing the signalized intersection to cross.

3. Crash Data Evaluation

Describe how the limits of the crash data were established to ensure only appropriate crashes were included in the Collision Summary Report(s), Collision Diagram(s) and B/C calculations. Explain how the influence areas for each separate countermeasure were established. (limited to 5,000 characters)

The limits for crash data were established pursuant to guidance provided in the "Local Roadway Safety, A Manual for California's Local Road Owners" manual to ensure only appropriate crashes were included in the qualification of each countermeasure. Following a comprehensive evaluation of the collision data in the project area and upon determining the appropriate countermeasure necessary to mitigate the safety concerns, the countermeasure tables provided in the manual were reviewed to determine their influence area as it relates to collisions. Upon determining the appropriate influence area for each of the selected countermeasures the Transportation Injury Mapping System (TIMS) GIS mapping tool was utilized to create maps and data sets. To ensure the accuracy of data utilized in the Collision Summary Report, Collision Diagram and B/C calculations, individual maps and collision data sets were created for each countermeasure selected for the project area.

4. Prior attempts to address the Safety Issue

If appropriate, list all other projects/countermeasures that have been (or are being) deployed at this location. Applicants must identify all prior federal HSIP, HR3 or Safe Routes To School (SRTS) funds approved within or directly adjacent to the propose projects limits within the last 5 years. (limited to 5,000 characters)

There have not been any projects/countermeasures deployed within the project area. The City has undertaken proactive steps in identifying safety concerns by performing a traffic safety analysis of Las Tunas Drive in correlation with their City Wide Traffic Calming Master Plan. However, due to limited funding, improvements have not been initiated to date.

The City was awarded HSIP grant funds for two projects directly adjacent to the proposed project limits. The first award was a Cycle 2 HSIP award which provided right of way control and improved left turn phasing in both directions on Temple City Boulevard and Las Tunas Drive. This intersection is approximately 500 feet from the end of the proposed project limits. The second award was a Cycle 4 HSIP grant, which is pending completion, and was awarded to install a new traffic signal on Garibaldi Avenue, install various speeds feedback signs along Rosemead Boulevard and install pedestrian countdown signal heads. These improvements will be completed along Rosemead Boulevard, which intersects with Las Tunas Drive approximately 500 feet from the beginning of the proposed project limits at Las Tunas Drive and Sultana Avenue.

The improvements to be completed on Rosemead Boulevard and those previously completed at Las Tunas Drive and Temple City Boulevard will directly correlate to the proposed improvements, which are key in assisting Temple City address traffic issues along two of its major arterials.

5. Total project costs

Describe the process used to establish the total cost for the project. Confirm contingencies for reasonably expected costs, including drainage, environmental, traffic, etc, are included. (limited to 5,000 characters)

Note: For applications with more than one countermeasure used in the B/C calculations, applicants need to describe the logic used to distribute the total project cost to each countermeasure.

The total cost of the project was determined utilizing historic project data. The total cost of recently completed projects similar in size, type and location were reviewed to create a unit price for all the items necessary to complete each of the countermeasures selected. Those unit costs were then utilized to determine the lump sum cost including reasonably expected costs for drainage, environmental, and traffic.

Upon determining the lump sum cost of each countermeasure this data was then utilized to determine the distribution of costs to each countermeasure. By dividing the individual cost of each countermeasure by the total cost of the project a percentage was assigned to each, which was then utilized in the TIMS B/C Calculator to distribute the total cost of the project.

III. Project Cost Estimate *(See Instructions)*

All project costs must be accounted for on this form, even if substantial elements of the overall project are to be funded by other sources.

Round all costs up to the nearest hundred dollars. Once all costs are entered, click "Check Cost Estimate" to perform validation. If errors are detected, they will appear below the button. Click it to check again each time when the costs have been revised.

Phase		Federal Funds	Local/Other Funds(7)	Total Cost	Federal/Total(5)
Preliminary Engineering	Environmental	$4,500	$500	$5,000	
	PS&E	$29,800	$3,400	$33,200	
	PE Subtotal(2)	**$34,300**	**$3,900**	**$38,200**	**90%**
	☐ Agency does NOT request **federal** funds for PE Phase (automatically checked if PE - federal funds Is $0).				
Right of Way	Right of Way Engineering				
	Appraisals, Acquisitions & Utilities				
	ROW Subtotal(3)				**0%**
Construction Engineering & Construction	Construction Engineering(4)	$67,000	$7,500	$74,500	**90%**
	Construction(1)	$497,000	$55,300	$552,300	**90%**
	CON Subtotal	**$564,000**	**$62,800**	**$626,800**	
	Total Cost(5)(6)(7)	**$598,300**	**$66,700**	**$665,000**	

(1) The "Total Construction Cost" (including contingencies) must match the detailed Engineer's Estimate (attached to the application).
(2) "Federal Funds" for Preliminary Engineering may not exceed 25% of the Federal Construction Cost.
(3) "Federal Funds" for Right of Way may not exceed 25% of the Federal Construction Cost.
(4) "Federal Funds" for Construction Engineering may not exceed 15% of the Federal Construction Cost.
(5) "Federal Funds" may not exceed 90% of "Total Cost." This applies to each phase.
(6) "Federal Funds" may not exceed $900,000.
(7) To maintain efficiencies in the overall Program and Project Management, the total "Federal Funds" must be no less than $100,000 (see Application Form Instructions for exceptions). If needed, agencies should consider extending the project limits and/or adding other safety improvements in order to increase both the Benefits and Costs.

Check Cost Estimate [Per (2) through (7) above]

Congratulations! No errors have been found in the cost estimate.

IV. Implementation Schedule *(See Instructions)*

The local agency is expected to deliver the project per Caltrans Local Assistance safety program delivery requirements.
In order for the milestones to be calculated correctly, all fields needs to be filled in. For steps that are not applicable, enter "0".

Target Date for the Project's Amendment into the FTIP:		**01/01/2013**	
Time for agency to internally staff project and request PE authorization	2	Month(s)	
Typical Time for Caltrans and FHWA to process and approve PE authorization	2	Month(s)	
Proposed PE Authorization Date:		**05/02/2013**	**(PE Authorization Delivery Milestone)**
Will external consultants be required to complete the PE phase of this project?		*Yes*	
Additional time needed to the Delivery Process for hiring PE consultant(s)	0	Month(s) (0 - 6)	
Time to prepare environmental studies request	3	Month(s)	
Time to complete CEQA/NEPA studies/approvals	2	Month(s)	
See PES Form in the LAPM for Typical studies and permits			
Time to complete the Right of Way Acquisition (federal process)	3	Month(s)	
Plan on 18 months minimum for federal process including a condemnation			
Time to complete final PS&E documentation	6	Month(s)	
Other	0	Month(s)	
Expected Completion Date for the PE Phase:		**07/01/2014**	
Time for agency to request CON authorization	2	Month(s)	
Typical Time for Caltrans and FHWA to process and approve CON Auth	3	Month(s)	
Proposed CON Authorization Date:		**11/30/2014**	**(CON Authorization Delivery Milestone)**
Time included for the agency's workload-leveling or construction-window needs	1	Month(s)	
Time to award contract with CON contractor (following the federal process, including Board/Council approval, advertise, award, execute and mobilize)	4	Month(s)	
Time to complete construction	5	Month(s)	
Time included for closing the CON contract	2	Month(s)	
Other	0	Month(s)	
Expected Completion Date for the CON Phase:		**11/30/2015**	
Time to complete the project close-out process	2	Month(s)	
Typical Time for Caltrans and FHWA to process and approve project close-out	3	Month(s)	
Expected Completion Date for the project Close-Out:		**04/30/2016**	**(Close-Out Delivery Milestone)**

V. Countermeasures, Crash Data and Benefit/Cost Ratio *(See Instructions)*

In the process of completing this application, the Local Agency is required to utilize the Benefit/Cost Ratio Calculation Tool that is included in the Safe Transportation research and Education Center (SafeTREC) Transportation Injury Mapping System (TIMS) web site. This **web site** can be assessed at http://tims.berkeley.edu/

The final output summary page from TIMS must be included as part of the official application (both electronically and hard copy). The hard copy page must be included in the application following this page.

In order to facilitate the electronic collection and tracking of this data, Caltrans is requiring agencies to manually enter some of the key "input data" and "output data" used in their final TIMS B/C Ratio. *NOTE: If any of the values inputted on this sheet do not match the values from the TIMS B/C Ratio Output Summary sheet, THE APPLICATION WILL BE REJECTED.* ***Be Careful and confirm the numbers!***

TIMS Application ID: **07-Temple City-1** (This ID is generated by this form. TIMS Application ID must match this ID.)

Version (from TIMS) : **2**

Total Project Cost: $665,000 (This must match the total project cost in Section III.)

Countermeasure Information

Number of countermeasures utilized: 2

	Countermeasure	% of Total Project Cost
#1:	S2: Improve signal hardware: lenses, back-plates, mounting, size, and number	75 (%)
#2:	S19: Install pedestrian countdown signal heads	25 (%)
#3:		0 (%)

B/C Ratio Calculation

	Expected Benefit (Life)	Expected Cost	Resulting B/C
Countermeasure #1	$1,915,560	$498,750	3.84
Countermeasure #2	$4,731,300	$166,250	28.46
Countermeasure #3		$0	0.00
Project's Total (Overall)	**$6,646,860**	**$665,000**	**10.00**

VI. Application Data Verification and Signature *(See Instructions)*

All HSIP/HR3 applications (hard-copies only) must be signed by a registered engineer or the Agency's Transportation Manager in responsible charge of their Traffic Engineering section. By signing and submitting this application, the engineer/manager is attesting to:

1. All data in the application is accurate and represents the total scope of the planned project.
2. All likely project costs are included in the Total Project Cost (additional federal funds for cost increases will not be approved.)
3. Each countermeasure included represents a minimum of 20% of the Total Project Cost.
4. All crash data is: 1) accurately shown in collision diagram(s) attached to this application; and 2) applied to countermeasures using generally accepted traffic engineering principles.
5. The agency understands the Project Delivery Requirements for the HSIP and HR3 programs and is prepared to deliver the project with these requirements;
6. The agency understands if Caltrans staff determine that any of the above requirements are not met, inaccurate, or fail to meet the program guidelines and application instructions, the application will be rejected and will not be eligible to receive federal safety funding. Due to time constraints in the evaluation process, applicants will not be notified until after the selection process is complete. Refer to Application Form Instructions for more information on "fatal flaws."

Name *(Last, First)*: Pulido, Jose

Title: City Manager

Engineer License Number

Signature*:

Date: Jul 19, 2012

* Note: This signature is only expected on the two hard copies of the application. The electronic copy of this PDF form must be saved in the original format (NOT a scanned copy) so the application data can be extracted.

Application Attachments *(See Instructions)*

Check all attachments included in this application.

- ☒ Vicinity map /Location map (Required)
- ☒ Project map showing existing and proposed conditions (Required)
- ☒ Collision diagram(s) (Required)
- ☒ Collision summary report / list (Required)
- ☒ TIMS output summary sheet (Required)
- ☒ Detailed Engineer's Estimate (Required)
- ☐ Warrant studies (Required when applicable to proposed improvements)
- ☐ Letter of Support from Caltrans (Required when applicable)
- ☒ Additional narration, documentation, photographs, letters of support, etc.

Application Submittal Process

For applications to be included in the final Caltrans review, ranking and selection process, they must follow the exact submittal process identified in the application instructions. Some of the key requirements are as follows:

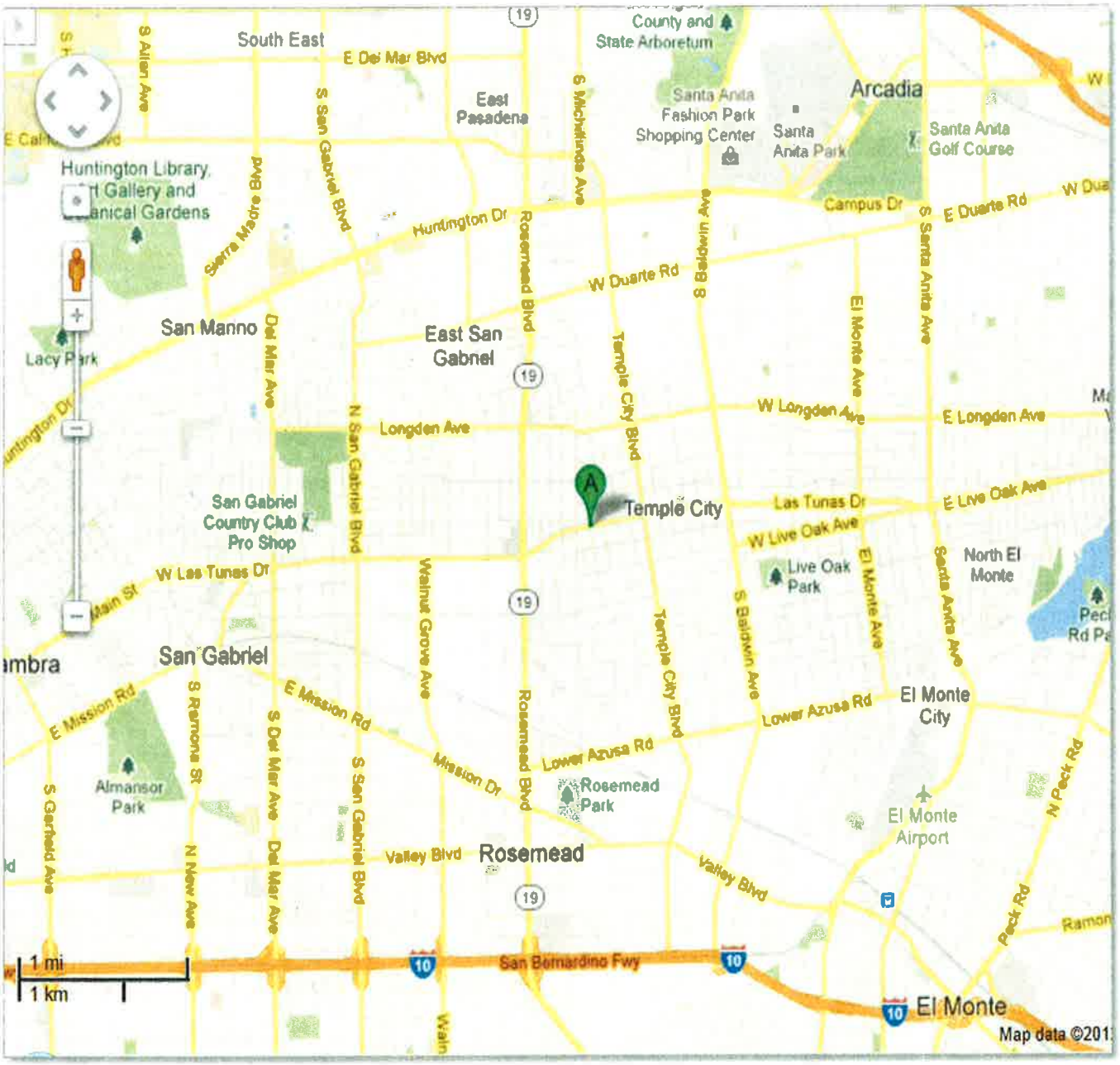
1). Submit two (2) original copies of the SIGNED application form and attachments;

2). On a CD or flash drive, submit electronic copies of

- The original PDF form with application data. The file name must match the "Application ID" shown on the cover page. This file will be used to extract the application data. It can not be a scanned or printed copy.
- Separate electronic PDF files for a scanned copy of signed application form and application attachments.

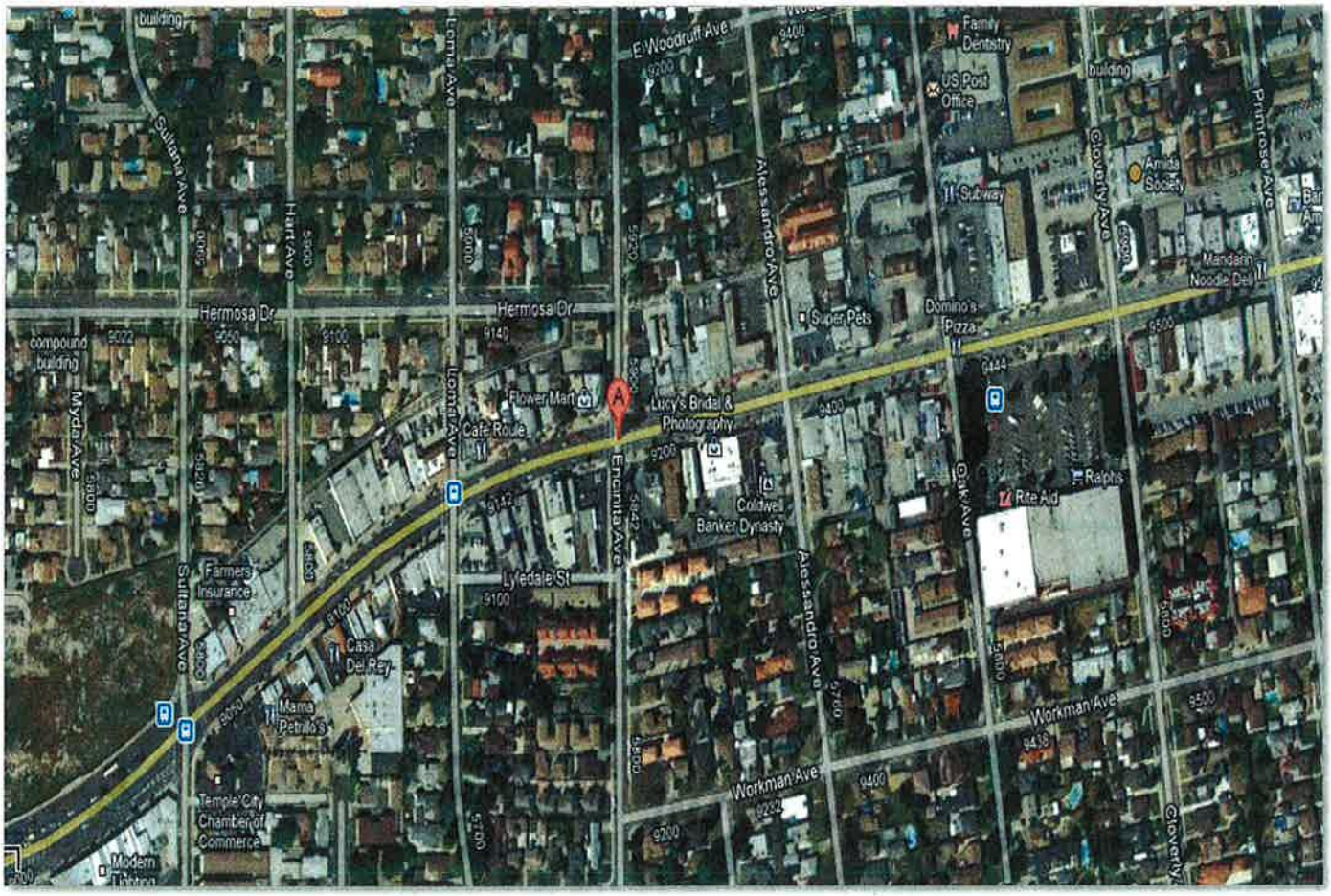
3) The above must be submitted to Caltrans Local Assistance District Local Assistance Engineer (DLAE), by Friday, July 20, 2012.

Vicinity Map/ Location Map



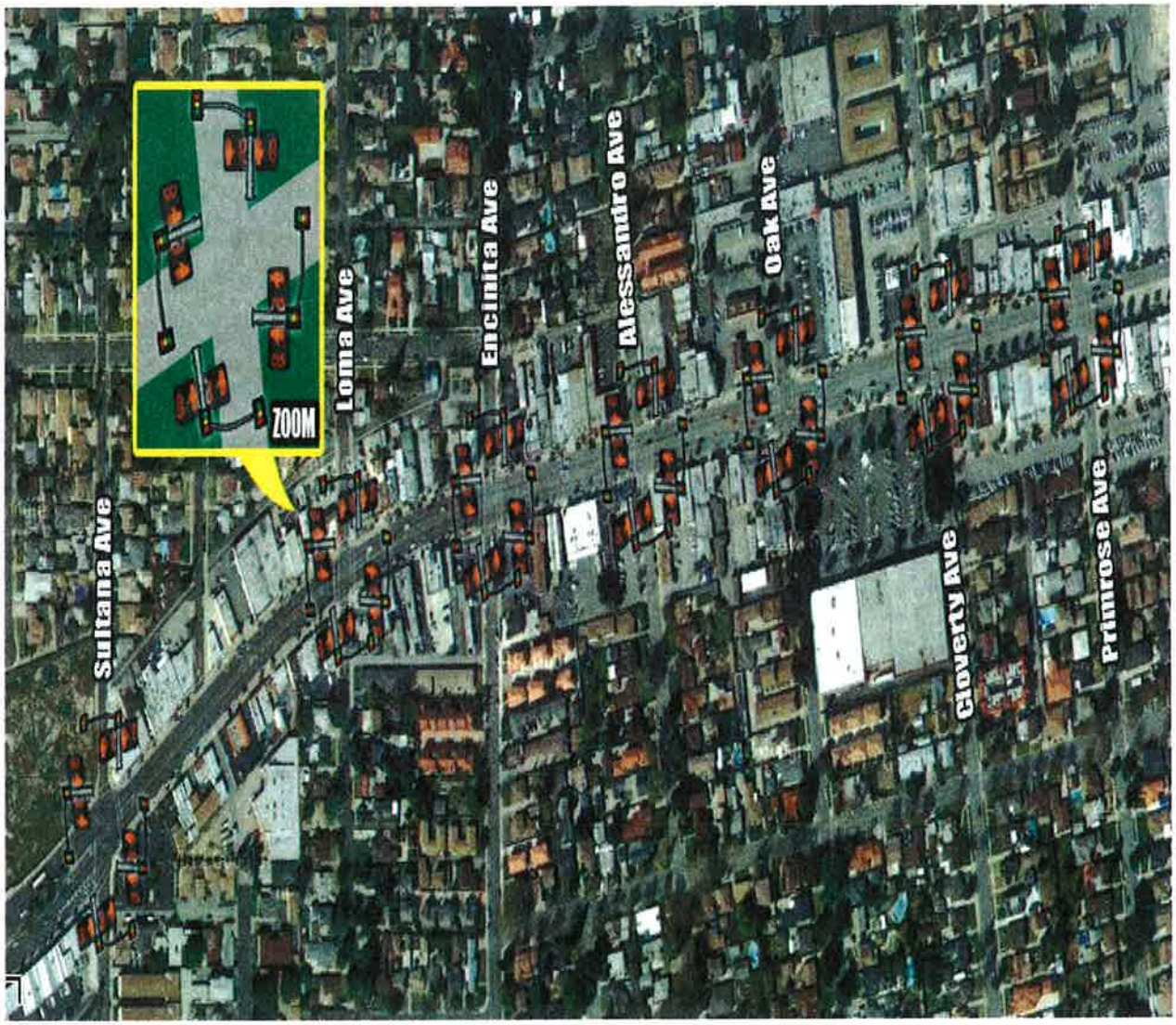
A = Project Site Vicinity

Project Map/Existing

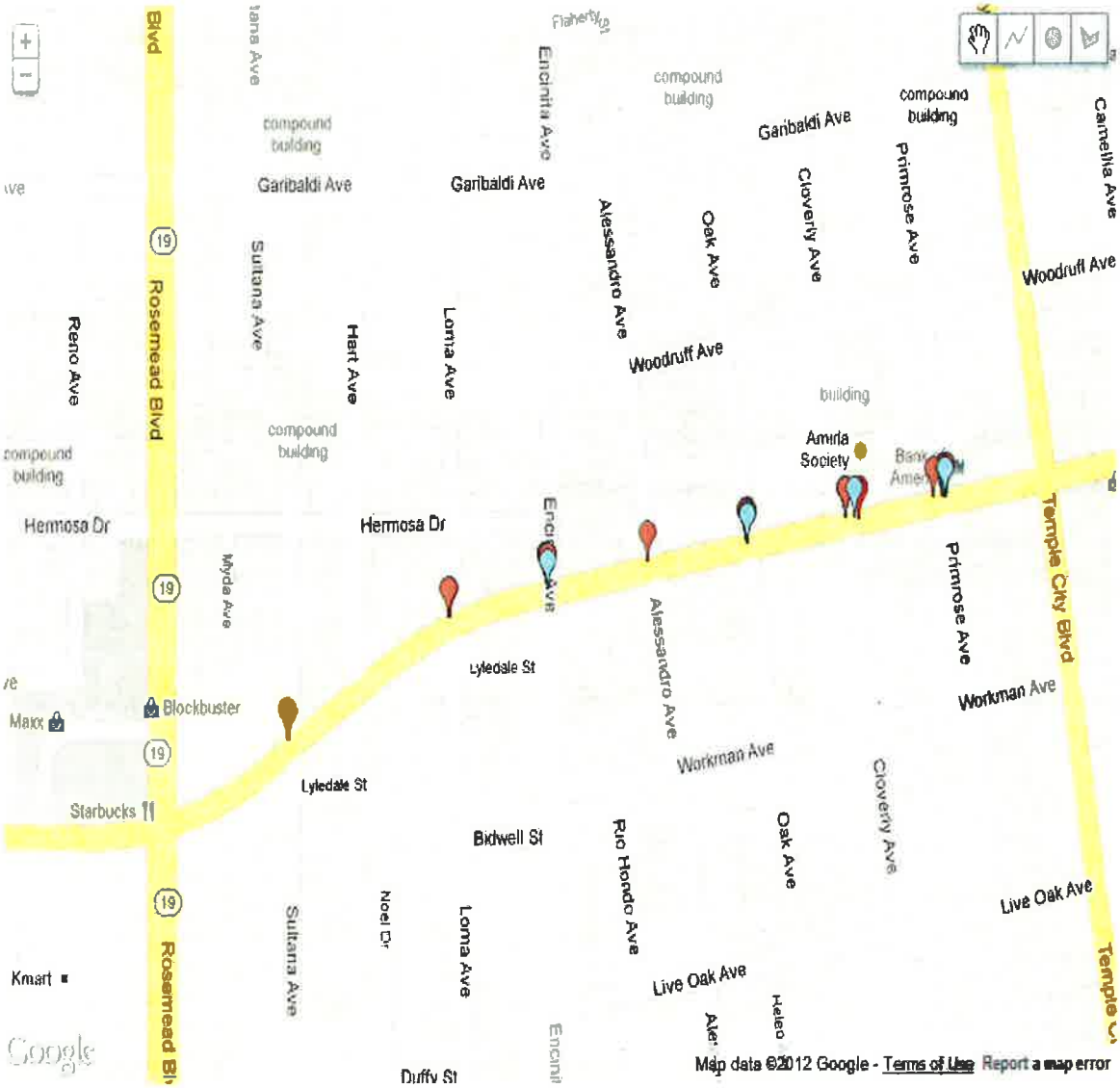


Aerial View

Project Map
Proposed Conditions

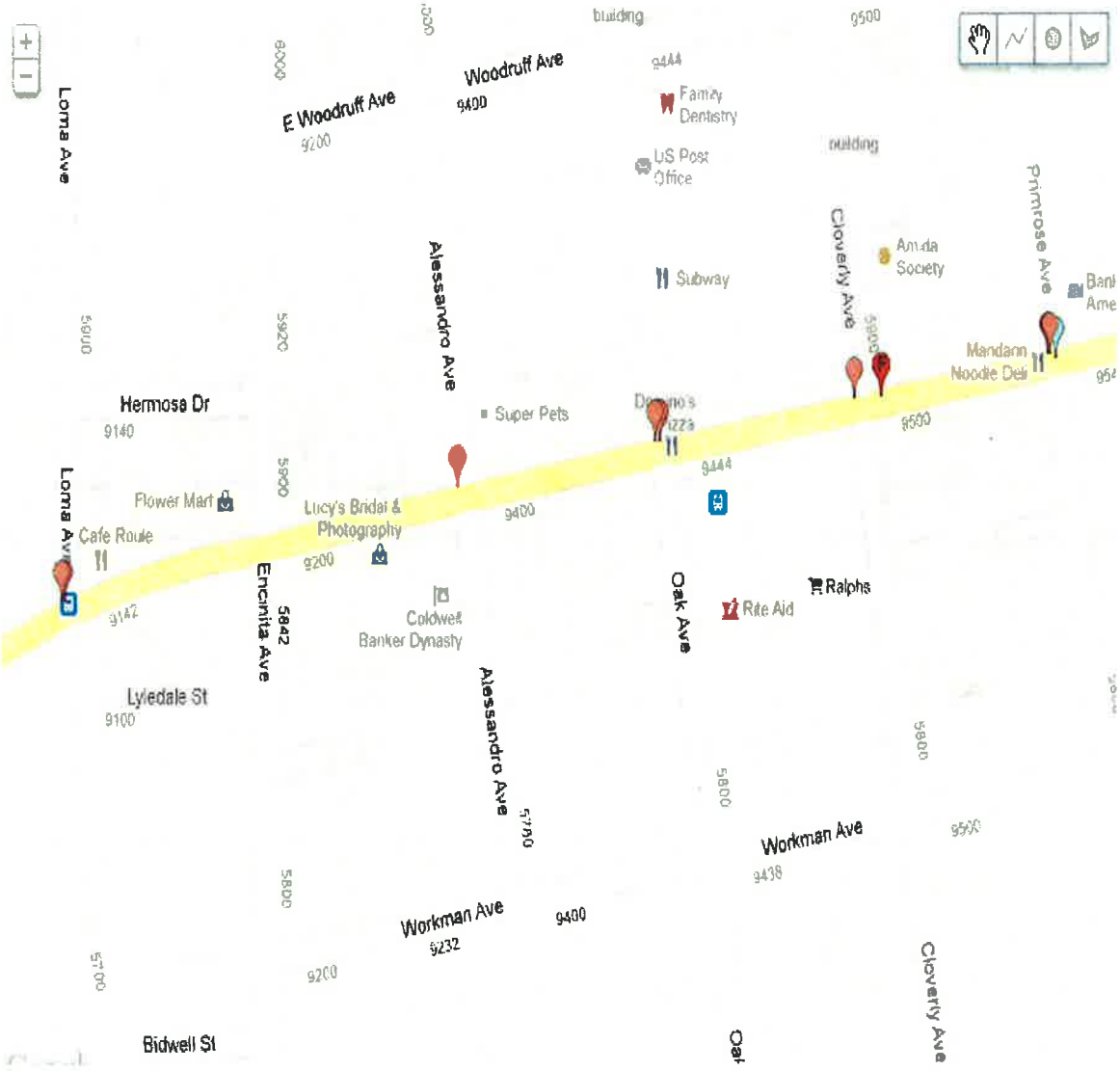


Collision Diagram
Signal Modifications- Caltrans CM Number: S2



The crashes above correlate with the crash data on the Collision Summary Report.

Collision Diagram
Pedestrian Countdown Signal Heads
Caltrans CM Number: S 19



The crashes above correlate with the crash data on the Collision Summary Report.

S2- Improved Signal

The Crashes

"CASEID"	POINT_X	POINT_Y	YEAR	LOCATION	CHPTYPE	DAYWEEK	CRASHSEV	VIOLCAT	KILLED	INJURED	WEATHER1	PEDCOL
3535934	-118.06521	34.1061249	2007	1971	0	1	3	12	0	2	A	
3621155	-118.06521	34.1061249	2008	1971	0	6	4	9	0	1	A	
3757409	-118.07174	34.1043358	2008	1971	0	6	4	9	0	6	A	
3785258	-118.06805	34.1057243	2008	1971	0	6	3	12	0	2	A	
3865612	-118.06805	34.1057243	2008	1971	0	5	3	9	0	1	A	
3936927	-118.06238	34.106514	2008	1971	0	6	3	10	0	1	A	Y
3998193	-118.06805	34.1057243	2008	1971	0	6	4	9	0	1	A	
4075668	-118.06377	34.1063156	2008	1971	0	5	4	12	0	1	A	
2427339	-118.06518	34.1061287	2006	1971	0	6	2	12	0	1	A	Y
2562717	-118.06521	34.1061249	2006	1971	0	3	3	12	0	3	A	
2638692	-118.06945	34.1054268	2006	1971	0	5	3	8	0	1	A	
2705088	-118.0623	34.1065254	2006	1971	0	2	4	4	0	1	A	
2714759	-118.06521	34.1061249	2006	1971	0	1	4	12	0	2	A	
2894555	-118.06805	34.1057243	2006	1971	0	7	3	12	0	2	A	
2954101	-118.06238	34.106514	2006	1971	0	3	4	8	0	1	A	
3062265	-118.06805	34.1057243	2007	1971	0	2	3	9	0	1	A	
3189477	-118.06238	34.106514	2007	1971	0	6	4	12	0	1	A	
3275145	-118.0625	34.1064987	2007	1971	0	2	4	3	0	1	A	
3315302	-118.06943	34.1054306	2007	1971	0	5	4	12	0	1	A	
4564754	-118.06521	34.1061249	2010	1971	0	3	4	9	0	3	-	
4706577	-118.06233	34.1065226	2010	1971	0	7	4	3	0	1	A	
4706585	-118.06377	34.1063149	2010	1971	0	5	3	10	0	1	A	Y
4786003	-118.06805	34.1057249	2010	1971	0	4	4	9	0	1	A	
4810108	-118.06359	34.1063411	2010	1971	0	7	1	11	1	0	A	Y
4913831	-118.06238	34.1065149	2010	1971	0	6	4	12	0	1	A	
4920526	-118.06521	34.1061249	2010	1971	0	6	4	10	0	1	A	Y
4430488	-118.06237	34.10651	2009	1971	0	4	4	5	0	1	A	
4406207	-118.06662	34.1059323	2009	1971	0	1	4	5	0	1	A	
4350808	-118.06376	34.10631	2009	1971	0	7	4	12	0	2	A	
4253938	-118.06376	34.10631	2009	1971	0	4	3	9	0	1	A	
4234898	-118.06376	34.10631	2009	1971	0	1	4	12	0	1	A	
4186529	-118.07173	34.10433	2009	1971	0	3	3	1	0	1	A	
4139667	-118.06376	34.10631	2009	1971	0	4	4	9	0	1	A	
4111424	-118.06804	34.10572	2009	1971	0	7	3	12	0	3	A	
4080579	-118.06804	34.10572	2009	1971	0	6	4	12	0	2	A	

BICCOL	MCCOL	TRUCKCOL	ETOH	TIMECAT	MONTH	CRASHTYP	INVOLVE	PED	PRIMARYRD	SECOND	DISTANCE	DIRECT	INTERSECT	PROCDATE	JURIS	DATE	TIME	BADGE
				1500	12	D	C	A	LAS TUNAS D	OAK AV	0		Y	6/18/08	1900	12/24/07	1226	44003
				1500	2	A	C	A	LAS TUNAS D	OAK AV	0		Y	9/4/08	1900	2/16/08	1400	48780
				1500	5	A	C	A	LAS TUNAS D	SULTANA AV	0		Y	11/11/08	1900	5/17/08	1400	44558
				1200	6	D	C	A	LAS TUNAS D	ENCINITA AV	0		Y	1/3/09	1900	6/21/08	900	47271
				1500	7	D	C	A	LAS TUNAS D	ENCINITA AV	0		Y	2/12/09	1900	7/18/08	1415	46743
				1200	9	D	B	B	LAS TUNAS D	PRIMROSE A'	0		Y	4/10/09	1900	9/27/08	1020	47271
				1200	11	D	C	A	LAS TUNAS D	ENCINITA AV	0		Y	6/23/09	1900	11/22/08	1023	46021
				1500	12	D	C	A	LAS TUNAS D	CLOVERLY A\	0		Y	8/3/09	1900	12/19/08	1250	9405
				1500	1	A	B	B	LAS TUNAS D	OAK AV	9	E	N	5/5/06	1900	1/7/06	1300	44306
				1800	3	D	C	A	LAS TUNAS D	OAK AV	0		Y	7/11/06	1900	3/29/06	1716	44306
Y				1800	5	G	G	A	LAS TUNAS D	LOMA AV	0		Y	9/1/06	1900	5/19/06	1525	44295
				1800	7	C	C	A	LAS TUNAS D	PRIMROSE A'	24	E	N	11/29/06	1900	7/4/06	1634	46122
				2400	7	D	C	A	LAS TUNAS B	OAK AV	0		Y	11/8/06	1900	7/3/06	2200	46022
				1500	11	D	C	A	LAS TUNAS D	ENCINITA AV	0		Y	3/15/07	1900	11/12/06	1315	46122
				1800	12	E	I	A	LAS TUNAS D	PRIMROSE A'	0		Y	3/31/07	1900	12/20/06	1630	46808
				2100	2	D	C	A	LAS TUNAS D	ENCINITA AV	0		Y	6/14/07	1900	2/13/07	1825	46808
Y				1200	5	-	G	A	LAS TUNAS D	PRIMROSE A'	0		Y	9/18/07	1900	5/19/07	1138	44003
				2100	7	C	C	A	LAS TUNAS D	PRIMROSE A'	36	W	N	12/19/07	1900	7/3/07	1820	47271
Y				1500	8	B	G	A	LAS TUNAS D	LOMA AV	6	E	N	1/22/08	1900	8/10/07	1230	47684
				2100	1	A	C	A	LAS TUNAS D	OAK AV	0		Y	11/24/10	1900	1/6/10	1900	516570
				1800	5	C	C	A	LAS TUNAS D	PRIMROSE A'	15	E	N	4/20/11	1900	5/16/10	1620	519511
				1800	5	G	B	B	LAS TUNAS D	CLOVERLY A\	0		Y	4/25/11	1900	5/14/10	1730	504675
				1200	6	B	C	A	LAS TUNAS D	ENCINITA AV	0		Y	6/10/11	1900	6/17/10	1155	516570
				900	4	G	B	D	LAS TUNAS D	CLOVERLY A\	56	E	N	8/26/10	1900	4/25/10	608	449773
				1200	9	D	C	A	LAS TUNAS D	PRIMROSE A'	0		Y	9/29/11	1900	9/25/10	1025	223487
				1200	10	G	B	B	LAS TUNAS D	OAK AV	0		Y	11/19/11	1900	10/23/10	900	223258
Y				1800	10	H	G	A	PRIMROSE A'	LAS TUNAS D	0		Y	8/2/10	1900	10/8/09	1521	483161
Y				1500	9	D	G	A	ALLESSANDR	LAS TUNAS D	1	S	N	6/18/10	1900	9/14/09	1330	401097
				1800	8	A	C	A	LAS TUNAS D	CLOVERLY A\	0		Y	4/28/10	1900	8/9/09	1630	478218
				1800	5	A	C	A	CLOVERLY A\	LAS TUNAS D	0		Y	1/15/10	1900	5/14/09	1735	504675
				1800	5	D	C	A	LAS TUNAS D	CLOVERLY A\	0		Y	12/19/09	1900	5/4/09	1705	504675
			Y	2400	4	E	J	A	LAS TUNAS D	SULTANA AV	0		Y	11/23/09	1900	4/1/09	2324	480750
				2100	2	B	C	A	LAS TUNAS D	CLOVERLY A\	0		Y	10/14/09	1900	2/19/09	1830	448423
				1800	2	F	C	A	LAS TUNAS D	ENCINITA AV	0		Y	12/24/09	1900	2/1/09	1600	509721
				2400	1	D	C	A	LAS TUNAS D	ENCINITA AV	0		Y	9/17/09	1900	1/3/09	2323	480750

519- Pedestrian Countdown Signal Heads

"CASEID"	POINT_X	POINT_Y	YEAR	LOCATION	CHPTYPE	DAYWEEK	CRASHSEV	VIOLCAT	KILLED	INJURED	WEATHER1	PEDCOL	BICCOL
3936927	-118.06238	34.106514	2008	1971	0	6	3	10	0	1	A	Y	
2427339	-118.06518	34.1061287	2006	1971	0	6	2	12	0	1	A	Y	
2638692	-118.06945	34.1054268	2006	1971	0	5	3	8	0	1	A		Y
3189477	-118.06238	34.106514	2007	1971	0	6	4	12	0	1	A		Y
3315302	-118.06943	34.1054306	2007	1971	0	5	4	12	0	1	A		Y
4706585	-118.06377	34.1063149	2010	1971	0	5	3	10	0	1	A	Y	
4810108	-118.06359	34.1063411	2010	1971	0	7	1	11	1	0	A	Y	
4920526	-118.06521	34.1061249	2010	1971	0	6	4	10	0	1	A	Y	
4430488	-118.06237	34.10651	2009	1971	0	4	4	5	0	1	A		Y
4406207	-118.06662	34.1059323	2009	1971	0	1	4	5	0	1	A		Y

MCCOL	TRUCKCOL	ETOH	TIMECAT	MONTH	CRASHTYP	INVOLVE	PED	PRIMARYRD	SECOND	DISTANCE	DIRECT	INTERSECT	PROCDATE	JURIS	DATE	TIME	BADGE	JURIDIST
			1200	9	D	B	B	LAS TUNAS D	PRIMROSE A	0		Y	4/10/09	1900	9/27/08	1020	47271	523
			1500	1	A	B	B	LAS TUNAS D	OAK AV	9	E	N	5/5/06	1900	1/7/06	1300	44306	523
			1800	5	G	G	A	LAS TUNAS D	LOMA AV	0		Y	9/1/06	1900	5/19/06	1525	44295	523
			1200	5	-	G	A	LAS TUNAS D	PRIMROSE A	0		Y	9/18/07	1900	5/19/07	1138	44003	521
			1500	8	B	G	A	LAS TUNAS D	LOMA AV	6	E	N	1/22/08	1900	8/10/07	1230	47684	522
			1800	5	G	B	B	LAS TUNAS D	CLOVERLY A\	0		Y	4/25/11	1900	5/14/10	1730	504675	521
			900	4	G	B	D	LAS TUNAS D	CLOVERLY A\	56	E	N	8/26/10	1900	4/25/10	608	449773	523
			1200	10	G	B	B	LAS TUNAS D	OAK AV	0		Y	11/19/11	1900	10/23/10	900	223258	521
			1800	10	H	G	A	PRIMROSE A	LAS TUNAS D	0		Y	8/2/10	1900	10/8/09	1521	483161	521
			1500	9	D	G	A	ALLESSANDR	LAS TUNAS D	1	S	N	6/18/10	1900	9/14/09	1330	401097	523

9701 LAS TUNAS DRIVE • TEMPLE CITY • CALIFORNIA 91780-2249 • (626) 285-2171

July 20, 2012

David Sosa
Caltrans District Director
District 7
100 South Main Street
Los Angeles, CA 90012

RE: Addition of Crash Data

Dear Mr. Sosa

The following collisions were not included in the Transportation Injury Mapping System TIMS crash summary report. Please accept the additional crash data that I have manually added into our TIMS report as part of the City Temple City's 2012-13 Highway Safety Improvement Program HSIP application. I attest that the following traffic collision information has been carefully reviewed and compared to the TIMS report for accuracy. Below is a list of collision data that was added to the TIMS report. Please see attachment for supplemental collision data.

1. **Collision Date:** 07/16/2007 **Time:** 14:10 **Primary Rd:** Las Tunas Dr. **Secondary Rd:** Oak Ave. **#injured** 1 **Primary Collision Factor:** Traffic Signals and Signs
2. **Collision Date:** 01/18/2008 **Time:** 08:53 **Primary Rd:** Las Tunas Dr. **Secondary Rd:** Encinita Ave. **#injured** 4 **Primary Collision Factor:** Traffic Signals and Signs
3. **Collision Date:** 06/08/2008 **Time:** 13:20 **Primary Rd:** Primrose Ave. **Secondary Rd:** Las Tunas Dr.**#injured** 1 **Primary Collision Factor:** Unknown
4. **Collision Date:** 08/30/2008 **Time:** 14:30 **Primary Rd:** Las Tunas Dr. **Secondary Rd:** Primrose Ave. **#injured** 1 **Primary Collision Factor:** Pedestrian R/W Violation
5. **Collision Date:** 09/19/2009 **Time:** 13:00 **Primary Rd:** Las Tunas Dr. **Secondary Rd:** Oak Ave. **#injured** 1 **Primary Collision Factor:** Unsafe Starting or Backing
6. **Collision Date:** 02/25/2010 **Time:** 15:29 **Primary Rd:** Las Tunas Dr. **Secondary Rd:** Cloverly Ave. **#injured** 2 **Primary Collision Factor:** Following to Closely

Sincerely,

Bryan Ariizumi
Public Safety Officer
City of Temple City

The following Crashes were manually inputed into TIMS.

LOS ANGELES COUNTY SHERIFF'S DEPARTMENT
TEMPLE STATION

Traffic Collision History Report
Midblock Collisions

[redacted]

Arterial: LAS TUNAS DR
Limit 1: ROSEMEAD BLVD
Limit 2: TEMPLE CITY BLVD

Total Number of Collisions: 214
Date Range Reported: 1/1/2007 - 7/17/2012

Seq. No.	Date Time	Dist/Dir	Location	Collision Pattern	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
107-10937-0523-471	7/16/07 14:10	0' In Int.	Las Tunas Dr/Oak Av	Broadside	Other Motor Vehicle	North		East		Traffic Signals and Signs	2	0
108-00852-0522-471	1/18/08 08:53	0' In Int.	Las Tunas Dr/Encinita Av	Broadside	Motor Vehicle on Other Roadway	East		South		Traffic Signals and Signs	4	0
108-08730-0521-471	6/8/08 13:20	0' In Int.	Primrose Av/Las Tunas Dr			West		North			1	0
108-12736-0521-471	8/30/08 14:30	0' In Int.	Las Tunas Dr/Primrose Av	Vehicle - Pedestrian	Pedestrian	North		South		Ped R/W Violation	1	0
109-12036-0521-471	9/19/09 13:00	0' In Int.	Las Tunas Dr/Oak Av	Sideswipe	Other Motor Vehicle	West		West		Unsafe Starting or Backing	1	0
910-02675-0523-471	2/25/10 15:29	185' East of	Las Tunas Dr/Cloverly Av	Rear-End	Other Motor Vehicle	West		West		Following Too Closely	2	0

Benefit / Cost Calculation Result

1. Project Information

Application ID	07-Temple City-1	Version	2

2. Countermeasures and Crash Data

• Improve signal hardware: lenses, back-plates, mounting, size, and number

CM Number	Project Type	Crash Type	CRF	Life
S2	Signal Mod.	All	15	10

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
All	1	1	12	27	0	41

Annual Benefit	$191,556
Life Benefit	$1,915,560
Cost	$ 498,750
B/C Ratio	3.84

• Install pedestrian countdown signal heads

CM Number	Project Type	Crash Type	CRF	Life
S19	Ped and Bike	Ped & Bike	25	20

Crash Type	Fatality (Death)	Severe Injury	Injury - Other Visible	Injury - Complaint of Pain	Property Damage Only	Total
Ped & Bike	1	1	3	6	0	11

Annual Benefit	$236,565
Life Benefit	$4,731,300
Cost	$ 166,250
B/C Ratio	28.46

3. Benefit Cost Result

Total Benefit	$6,646,860
Total Cost	$665,000
B/C Ratio	10.00

Safety Practitioner / Engineer: Jose Pulido

Signature:

By signing this B/C Calculation Result, you are attesting to your authority / responsibility at your local agency for this work and you are attesting to the accuracy of the values on this page and that they have been entered into the HSIP Application Form correctly, DO NOT SIGN if any of this is not the case.

Detailed Engineer's Estimate

For Construction Items Only

Agency: City of Temple City | **Application ID:** 07-Temple City-1 | **Date:** 7/19/2012

Project Description: Traffic Signal Upgrade

Project Location: Las Tunas Drive

Prepared by: Avant-Garde, Inc.

Item No.	Item Description	Quantity	Units	Unit Cost	Total	% to CM #1 %	% to CM #1 $	% to CM #2 %	% to CM #2 $	% to CM #3 %	% to CM #3 $
1	Improve Signal Hardware: lenses, back-plates, mounting, size and number	7	LS	$57,300.00	$401,100						
2	Pedestrian Countdown Signal Head	56	LS	$2,700.00	$151,200						
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16	**Sub Total of Construction Items:**				$552,300						
17	**Construction Item Contingencies** (% of Con Items) :					CM #1		CM #2		CM #3	

Total Construction Items: 552,300

Note: 1. "Preliminary Engineering", "Right of Way", and "Construction Engineering" costs are accounted for in the Application Form.

2. See the Application Instructions for more details on the requirement that all Countermeasures (CM) used in the Benefit / Cost ratio calculations represent a minimum of 20% of the total cost of the Construction Items. The Engineer's Estimate will be used to verify this.

Looking West-bound at Las Tunas Drive
Approaching Sultana Avenue

Looking East-bound at Las Tunas Drive
Approaching Sultana Avenue

Looking West-bound at Las Tunas Drive
Approaching Loma Avenue

Looking East-bound at Las Tunas Drive
Approaching Loma Avenue

LOS ANGELES COUNTY SHERIFF'S DEPARTMENT
TEMPLE STATION

Traffic Collision History Report
Midblock Collisions

Arterial: LAS TUNAS DR
Limit 1: ROSEMEAD BLVD
Limit 2: TEMPLE CITY BLVD

Total Number of Collisions: 214
Date Range Reported: 1/1/2007 - 7/17/2012

Seq. No.	Date Time	Dist/Dir	Location	Collision Pattern	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
[redacted]												
[redacted]												
[redacted]												
107-02184-0521-472	2/10/07 21:19	0' In Int.	Las Tunas Dr/Primrose Av	Head-On	Other Motor Vehicle	West		North		Traffic Signals and Signs	0	0
107-02207-0523-471	2/11/07 14:48	114' East of	Las Tunas Dr/Oak Av	Sideswipe	Other Motor Vehicle	North		East		Auto R/W Violation	0	0
107-02666-0521-472	2/20/07 13:08	10' West of	Las Tunas Dr/Cloverly Av	Rear-End	Other Motor Vehicle	East		East		Unsafe Speed	0	0
[redacted]												
107-03185-0523-242	3/2/07 00:40	0' In Int.	Primrose Av/Las Tunas Dr	Rear-End	Other Motor Vehicle	South		South		Driving Under Influence	0	0
107-03685-0522-472	3/10/07 12:10	367' East of	Las Tunas Dr/Rosemead Blvd	Sideswipe	Other Motor Vehicle	East		East		Unsafe Lane Change	0	0
[redacted]												
[redacted]												

LOS ANGELES COUNTY SHERIFF'S DEPARTMENT
TEMPLE STATION

Traffic Collision History Report
Midblock Collisions

Arterial: LAS TUNAS DR
Limit 1: ROSEMEAD BLVD
Limit 2: TEMPLE CITY BLVD

Total Number of Collisions: 214
Date Range Reported: 1/1/2007 - 7/17/2012

Seq. No.	Date Time	Dist/Dir	Location	Collision Pattern	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
107-04950-0521-472	3/31/07 15:30	0' In Int.	Las Tunas Dr/Oak Av			West		East			0	0
[redacted]												
107-07293-0522-472	5/14/07 07:30	9' West of	Las Tunas Dr/Sultana Av	Broadside	Other Motor Vehicle	North		West		Traffic Signals and Signs	0	0
107-07659-0521-471	5/19/07 11:38	0' In Int.	Las Tunas Dr/Primrose Av	Not Stated	Bicycle	West		North		Traffic Signals and Signs	1	0
[redacted]												
107-09261-0521-472	6/15/07 09:50	140' East of	Las Tunas Dr/Loma Av	Rear-End	Other Motor Vehicle	West		East		Unsafe Speed	0	0
107-09765-0521-472	6/25/07 13:20	0' In Int.	Las Tunas Dr/Oak Av	Sideswipe	Other Motor Vehicle	East		East		Improper Passing	0	0
107-09870-0523-472	6/27/07 10:02	12' East of	Las Tunas Dr/Oak Av	Broadside	Other Motor Vehicle	East		South		Traffic Signals and Signs	0	0
107-10207-0523-471	7/3/07 18:20	36' West of	Las Tunas Dr/Primrose Av	Rear-End	Other Motor Vehicle	East		East		Unsafe Speed	1	0

LOS ANGELES COUNTY SHERIFF'S DEPARTMENT
TEMPLE STATION

Traffic Collision History Report
Midblock Collisions

Arterial: LAS TUNAS DR
Limit 1: ROSEMEAD BLVD
Limit 2: TEMPLE CITY BLVD

Total Number of Collisions: 214
Date Range Reported: 1/1/2007 - 7/17/2012

Seq. No.	Date Time	Dist/Dir	Location	Collision Pattern	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	# Inj	# Kld
[redacted]												
[redacted]												
[redacted]												
[redacted]												
910-12387-0521-471	9/25/10 10:25	0' In Int.	Las Tunas Dr/Primrose Av	Broadside	Other Motor Vehicle	East		South		Traffic Signals and Signs	1	0
[redacted]												
[redacted]												
[redacted]												
910-13346-0523-472	10/18/10 13:45	99' West of	Las Tunas Dr/Primrose Av	Other	Parked Motor Vehicle	West		East		Unsafe Starting or Backing	0	0
910-13422-0521-472	10/20/10 09:25	0' In Int.	Las Tunas Dr/Cloverly Av	Broadside	Other Motor Vehicle	West		North		Traffic Signals and Signs	0	0
[redacted]												