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CITY OF MILPITAS

Mailing Address: 455 East Calaveras Boulevard, Milpitas, California 95035-5479 . www.ci.milpitas.ca.gov

February 29, 2008

Michelle DeRobertis
Senior Transportation Planner
VTA – Development & Congestion Management
3331 N First Street, Building B-2
San Jose, CA 95134

RE: Grant Proposal – 2008-09 TFCA Program Manager (40%) Fund
Milpitas – Traffic Signal Management System

Dear Michelle,

Please accept the attached grant proposal in response to the subject Call-for-Project. The City of Milpitas is seeking a grant to fund the construction its Traffic Signal Management System project which includes the replacement of all the City's traffic signal controllers, replacement of the City's aging VMS Central System, installation of new Ethernet-over-Copper communications network, and a citywide traffic signal retiming component. The City's existing Multisonics traffic signal controllers and VMS Central System are over 20-years old and do not allow for the use of modern traffic signal timing strategies which in return results in unnecessary delays to vehicles and public transit.

The City can immediately release a request for proposals for the project for procurement of the equipment as research and field demonstrations of new equipment is complete. Installation of field controllers will be with in-house staff. The new equipment will improve traffic signal coordination which will in turn reduce vehicle delays along commute corridors and provide for adaptive bicycle signal timing to increase bicycle safety.

The City is proposing a 24% local match for the project. If you have any questions, please feel free to contact me at (408) 586-3317 or Jaime Rodriguez of my staff at (408) 586-3335.

Sincerely,

Greg Armendariz,
Public Works Director/City Engineer

Application Form for Funds 2008/2009

Transportation Fund for Clean Air (TFCA)
Program Manager Funds (40%)
Santa Clara County

Please see page 4 of the Call for Projects for application instructions. Applications should be no more than 15 pages, including attachments.

Section 1 - Identification:

Agency: City of Milpitas – Traffic Engineering Division

Address: 455 E Calaveras Blvd, Milpitas, CA 95035

Contact: Greg Armendariz Title: Public Works Director/City Engineer

Phone: (408) 586-3317 Fax: (408) 586-3305

Email: garmendairz@ci.milpitas.ca.gov

Project Name: Milpitas – Traffic Signal Management System

Section 2 - Funding Request:

Fund Source	Amount
TFCA 40% Funds Requested	**$694,000**
Local Match (Source: City CIP No. CP4237 – Traffic Enhancements 2007)	**$171,000**
Other Match (Source: Milpitas – Transit Area Plan Local Project Mitigation)	**$75,000**
Total Project Cost	**$940,000**

Local matching funds are not required, but credit will be given for local matching funds in the scoring process as follows: one point will be awarded for each percent of local contribution to total project cost, up to a maximum of 30 points.

Section 3 - Cost Effectiveness

Please complete the appropriate Cost Effectiveness spreadsheet for your project type. Sponsors may obtain the spreadsheets in electronic format by contacting Bill Hough at william.hough@vta.org or 408-321-5735.

NOTE: projects showing TFCA Cost Effectiveness scores greater than $90,000/ton are ineligible for funding.

Section 4 - Project Narrative:

1. **Please provide an overview of the project. Describe project elements and provide an itemized project budget. State clearly what elements the grant will fund, i.e. construction, environmental, widening, operation, design, equipment, planning, etc. Provide a project schedule showing project start date, project milestones, project end date, and date(s) of final report submittal(s).**

   The Milpitas – Traffic Signal Management System project includes the replacement of the City's aging Multisonics 820 traffic signal controllers and Vehicle Management System (VMS) Central System. The existing traffic signal controllers and VMS are over 20-years old and do not allow for the use of more modern traffic signal timing strategies such as local field controller coordination, signal phasing by time-of-day, bicycle adaptive signal timing and field coordination along light rail transit corridors.

   The City of Milpitas has completed an analysis of traffic signal timing features desired for use within the City along with field tests of candidate traffic signal controllers including Naztec TS2 field controllers, the Naztec Advanced Traffic Management System (ATMS), and Actelis Ethernet-over-copper communications equipment.

   The TFCA Program Manager grant will help to fund the replacement of all field traffic signal controllers & conflict monitors, the VMS Central System including the communications & software servers, four new work stations, an upgrade to the City's Traffic Operations Center, and a retiming of the 69 traffic signals maintained by the City. Pending a funding commitment from the grant, the project schedule would be:

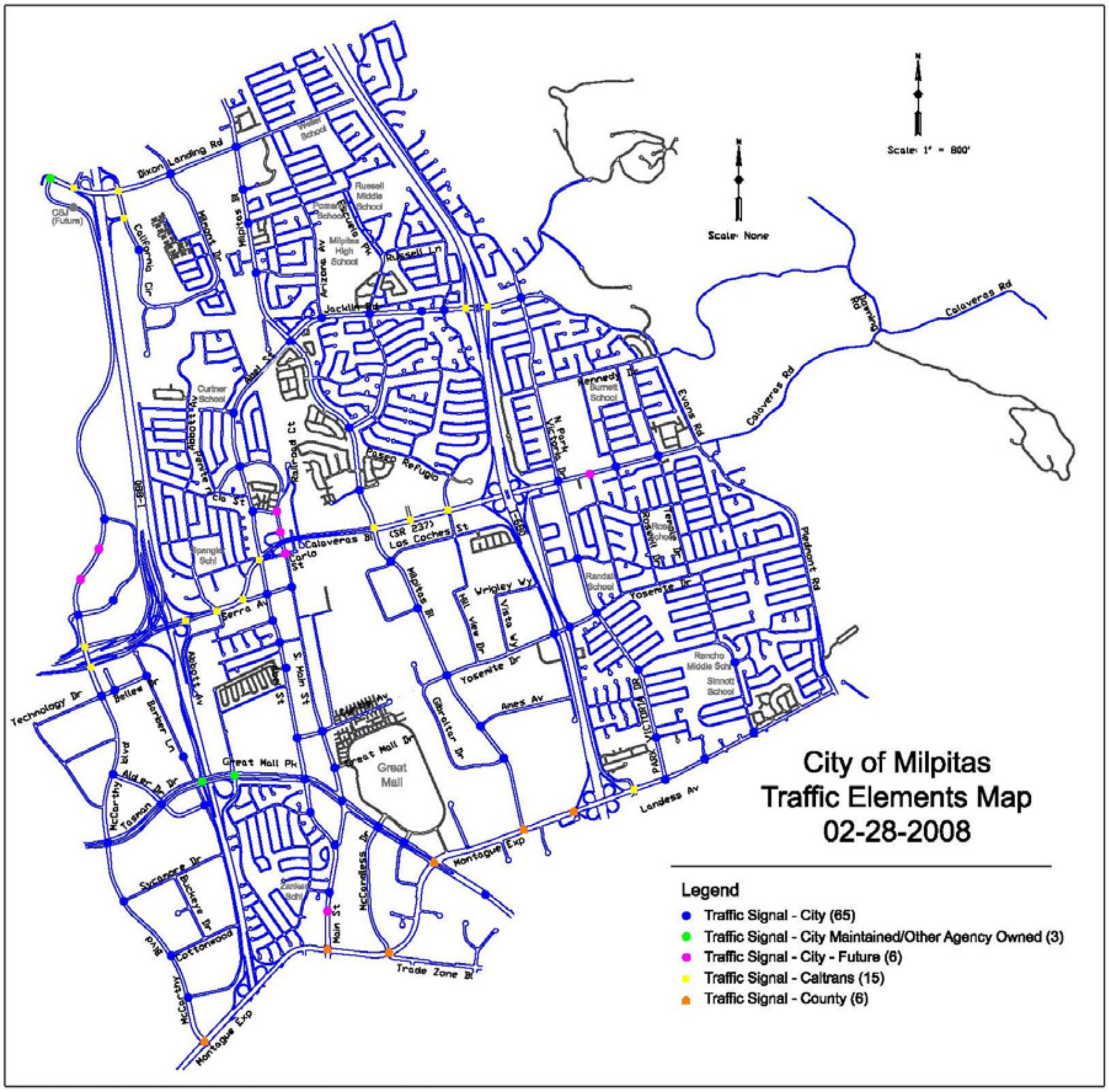
Description	Date
Development of Bid Documents	April 2008
Council Award	May 2008
Phase I Field Deployment/Comm Setup	December 2008
Phase II Field Deployment	June 2009
Phase III TOC Upgrade	June 2010

   Based on previous traffic signal retiming projects by the City, the City estimates a 16% increase on vehicle travel times with the equipment replacement and associated traffic signal retiming program; additional increases may be realized along corridors where more modern traffic signal timing features currently not available can be deployed. Based on these conservative estimates and TFCA Arterial Management worksheet, Attachment 1, this project will have a cost effectiveness of $89,921/Ton. Attachment 2 provides a more detailed breakdown for the project. A 4-year effectiveness for the project is assumed because of the amount of new equipment that will be provided with the project. The City commits to providing an evaluation after two years of construction completion.

A local project match of 26% will be provided using existing Capital Improvement Program funds and developer traffic impact fees.

2. Where will the project be located/implemented? Please provide a map to show the project location.

This project is located citywide at the City's existing 69 maintained & operated traffic signals and the City's Traffic Operations Center. A map of the City's existing traffic signal network is provided below.



3. **How and to what extent will the project reduce traffic congestion?**

The project will help to reduce traffic congestion by:

- Implementing new citywide traffic signal retiming plans
- Ensuring the maintenance of new signal retiming plans through the use of modern equipment that is capable of implementing time-of-day based traffic signal coordination independent of central system control
- Allowing the use of traffic signal coordination plans along the existing Tasman Dr light rail transit corridor where signal coordination is not currently feasible
- Encouraging the use of bicycles a non-motorized mode of transportation by increase bicycle safety through the use of bicycle adaptive signal timing features
- Enhancing traffic management capabilities through the use of advanced traffic management system features such as additional video surveillance and deployment of real-time traffic information in web pages
- Implementation of advanced traffic signal timing features by time-of-day which helps to reduce vehicle delay such as time-of-day signal sequencing

4. **How widespread do you expect the benefits to be?**

The benefits of this project are region wide because of the benefits they provide to commutes across multiple agencies including the Santa Clara - Valley Transportation Authority, the City of San Jose, the City of Fremont, the County of Santa Clara and freeway networks maintained by Caltrans. The improved operations & maintenance capabilities offered by the use of more modern traffic signal control equipment will allow for traffic signal coordination that the existing Multisonics traffic signal controllers and VMS central system do not offer helping to increase vehicle speeds along commute corridors, reducing delays to VTA light rail transit, and enhanced bicycle safety.

5. **Does the project serve the designated "Communities of Concern"?**

The City of Milpitas does not fall within any of the Areas of Concern identified in the Call-for-Projects.

6. **How many county residents will benefit from the project? What specific communities/groups will benefit (i.e. business, employers, bicyclists, pedestrians, the elderly, commuters, etc.)?**

All of the City's 65,000 residents, estimated 56,000 citywide employees, and estimated 183,732 commuters based on the sum of Average Daily Traffic counts for all of the commute corridors will benefit from this project. Businesses and

employees region wide in both Santa Clara and Alameda Counties also benefit from the realization of increased vehicle speeds on commute corridors, increased light rail transit speeds due to less delays along Tasman Dr, reductions in vehicles delays, and bicycle commute/recreation users.

7. How and to what extent does the project reduce emissions by encouraging a shift away from single occupant vehicles to shared-ride vehicles, non-motorized modes of transportation or telecommuting?

Along Tasman Dr, the new traffic signal controllers will help to reduce delays to the VTA light rail transit system which in turn will help to promote the use of public transit. In addition, the use of bicycle adaptive traffic signal timing features will also help to promote non-motorized modes of transportation.

8. Has your agency implemented a project similar to the proposed project in the past? Was the project completed on time? If applicable, briefly describe your experience (did the project meet expectations, did it stay within budget, etc.).

The City's existing Multisonics traffic signal controller inventory and central system were deployed over 20 years. In anticipation of this project, the City initiated the deployment of a Citywide Communications Enhancement Program in 2007 which includes new fiber optic and twisted-copper-pair infrastructure. The communications program is being completed over three phases with Phase 1 having been completed in October 2007, Phase 2 currently under design with construction planned to begin this Spring.

The City designed its current NEMA TS2-2 cabinet to take advantage of traffic signal timing features available in modern controllers and has a separate program to replace all of its aging NEMA TS-1 cabinets with TS2-2 cabinets. About 1/3rd of the city's cabinets, 25 are already retrofitted and five additional cabinets are replaced annually. Field installation of the new field equipment will be completed using City forces.

Section 5 - Certification

I am authorized by my agency to apply for these funds on its behalf. I understand that, if the project is funded, my agency will enter into an agreement with the program manager (VTA) to implement the project within budget, on schedule, and to provide the necessary record keeping for monitoring and audit purposes.

Greg Armendariz
Public Works Director/City Engineer

ARTERIAL MANAGEMENT/SIGNAL TIMING PROJECTS

Only make entries in shaded areas.

Version 1, updated 1/8/08 (GG)

General Project Information			
Application #	08SC05	**Project Type Code:**	
Project Title:	Milpitas - TS Mngmnt System	**Calculated by:**	
Project Sponsor:	City of Milpitas	**Project Sponsor Email:**	
Project Sponsor Contact:	Greg Armendariz	**Project Sponsor City:**	
Project Sponsor Phone #:	(408) 586-3317	**Project Sponsor Zip Code:**	
Project Sponsor Address:	455 E Calaveras Blvd, Milpitas, CA		

Cost Effectiveness Inputs	
# Years Effectiveness:	4
Total Project Cost:	$940,000
TFCA Cost 40%:	$694,000
TFCA Cost 60%:	
Total TFCA Cost:	$694,000

Emission Reduction Calculations

A	B	C	D	E	F	G	H	I	J	K	L
Name of Arterial	Segment Length (miles)	Days/Yr.	Time Period	Traffic Volume (ADT)	Travel Speed w/o Project (85%)	Travel Speed w/ Project (+16%)	Percent Speed Increase	ROG Emission Reductions (lbs/yr)	NOx Emission Reductions (lbs/yr)	PM Emission Reductions (lbs/yr)	CO2 Emission Reductions (lbs/yr)
Abel Street (N-S) Grp 1] Reduced Rd to Weller Ln Grp 2] Serra Wy to Curtis Rd	2.5	260	6:30-9:00AM 4:00-6:30PM	17,444	38	44	15.8%	0.00	0.00	0.00	259739
Calaveras Blvd (E-W) Grp 1] Park Victoria to Temple Dr	1	260	6:30-9:00AM 4:00-6:30PM	16,802	37	43	16.2%	96.22	0.00	0.00	127014
Great Mall Pkwy-Capitol Av (E-W) Grp 1] Abel St to Crestview Pointe Dr Grp 2] Montague Exp to LRT Station	1.5	260	6:30-9:00AM 4:00-6:30PM	24,691	40	46	15.0%	212.10	0.00	212.10	101810
Jacklin Road (E-W) Grp 1] Milpitas Blvd to Hillview Dr	1	260	6:30-9:00AM 4:00-6:30PM	21,077	36	42	16.7%	120.71	0.00	0.00	159331
Landess Avenue (E-W) Grp 1] Park Victoria Dr to Yellowstone Av	1	260	6:30-9:00AM 4:00-6:30PM	16,219	38	44	15.8%	0.00	0.00	0.00	96600
Main Street (N-S) Grp 1]Weller Ln to Curtis St Grp 2] Great Mall Pk to Montague Exp	2	260	6:30-9:00AM 4:00-6:30PM	12,008	36	42	16.7%	137.54	0.00	0.00	181548
McCarthy Blvd (N-S) Grp 1] Ranch Dr N to Dellrow Dr Grp 2] Alder Dr to Tasman Dr	2.6	260	6:30-9:00AM 4:00-6:30PM	17,337	48	56	16.7%	-258.15	-774.44	0.00	-258146
Milpitas Boulevard (N-S) Grp 1] Dixon Landing Rd to Abel St-Jacklin Rd Grp 2] Escuela Pkwy to Calaveras Blvd Grp 2] Calaveras Blvd to Montague Exp	3.7	260	6:30-9:00AM 4:00-6:30PM	15,497	37	43	16.2%	328.37	0.00	0.00	433452
Park Victoria Dr (N-S) Grp 1] Calaveras Blvd to Yosemite Dr Grp 2] Yellowstone Av to Landess Av	2.4	260	6:30-9:00AM 4:00-6:30PM	9,093	40	46	15.0%	124.98	0.00	124.98	59990
Tasman Dr (E-W) Grp 1] McCarthy Blvd to I-880 NB	1	260	6:30-9:00AM 4:00-6:30PM	23,404	45	52	15.6%	0.00	-201.05	-134.03	-46911
Yosemite Dr (E-W) Grp 1] Park Victoria Dr to Sinclair Frontage Rd	0.2	260	6:30-9:00AM 4:00-6:30PM	10,160	36	42	16.7%	11.64	0.00	0.00	15361
				#N/A	5	5	0.0%	0.00	0.00	0.00	0
					5	5	0.0%	0.00	0.00	0.00	0
						Total Emission Reductions		773.41	-975.48	203.05	1129787

Cost Effectiveness Results	Annual	Lifetime	
1. VMT Reduced	-48,726	-194,903	Miles
2. Trips Reduced	-14,331	-57,324	Trips
3. Annual ROG Emissions	0.39	1.55	Tons
4. Annual NOx Emissions	-0.49	-1.95	Tons
5. Annual PM Emissions	0.10	0.41	Tons
6. Weighted PM Emissions	2.03	8.12	Tons
7. CO2 Emissions Reduced	564.89	2259.57	Tons
8. Emission Reductions (ROG, NOx & PM)	0.00	0.00	Tons
9. TFCA Project Cost - Cost Effectiveness (ROG, NOx & PM)		**$355,375,592**	/Ton
10. TFCA Project Cost - Cost Effectiveness (ROG, NOx & Weighted PM)		**$89,921**	/Ton

Notes & Assumptions

1 Based on previous citywide traffic signal retiming projects, the City noted an average 16% increase in vehicle travel speeds. Using the average critical speeds per corridor from current Engineering & Traffic Surveys, a 16% increase in vehicle speeds with the project was assumed. The Final Report from the City's 2006 RSTP Program project is provided for reference in the Attachments.

2 As new traffic signal controllers are deployed, the City shall include a retiming of each corridor to confirm the actual vehicle speed increase with the project.

3 Because the critical speeds shown are taken during non-peak hours, the increase in vehicles speeds is assumed during non-peak hours. As part of signal retiming of corridors with the project, the City shall study whether signal coordination during non-peak commute hours is appropriate.

4 Life cycle of new traffic signal controller/TOC equipment is assumed to be 20 years before complete replacement is required.

5 ADT Traffic Volumes were obtained from the City's most current Traffic Volume Map provided in the Attachments.

6 A 4-year project effectiveness is shown in the Cost Effectiveness sheet because of the amount of new equipment to be provided with the project. The City commites to providing a evaluation two-years after completion of construction if necessary.

Attachment 2

Milpitas - Traffic Signal Management System

Detailed Project Estimate

No.	Description	Unit	Quantity	Cost/Unit	Total
1	Traffic Signal Controller/Conflict Monitor	ea	69	$4,500	$310,500
2	Communications Equipment				
	- Ethernet over Copper Modems	ea	83	$3,500	$289,800
	- Central System Comm Server	ea	1	$110,000	$110,000
	- Work Stations	ea	4	$2,500	$10,000
3	TOC Upgrade/Field Comm Server	LS	1	$100,000	$99,700
4	Traffic Signal Corridor Retiming	ea	40	$3,000	$120,000

Subtotal:	$940,000
City Local Match:	-$246,000
TFCA Program Manager Match:	$694,000

City Local Match:	26%
TFCA Program Manager Match:	74%

RSTP

City of Milpitas

Abel Street/Jacklin Road, Calaveras Boulevard, Landess Avenue, McCarthy Boulevard, Milpitas Boulevard, and Tasman Drive-Great Mall Parkway
Signal Timing Project

Final Timings and Evaluation Report

Prepared for:

City of Milpitas and
Metropolitan Transportation Commission (MTC)

Prepared by:

TY·LIN INTERNATIONAL | CCS
2290 N. First St. Suite 102
San Jose, CA 95131
408-544-2477
FAX: 408-544-2478

June 29, 2006

INTRODUCTION

The City of Milpitas received a Regional Signal Timing Program (RSTP) grant from the Metropolitan Transportation Commission to conduct a signal timing study for signalized intersections on various streets throughout the City. The initial City RSTP grant application listed 41 intersections, and 8 more were added during scoping discussions.

The study intersections are listed below and shown Figures 1A and 1B. The figures also show the AM and PM peak hour volumes.

Tasman Drive at:
1. McCarthy Boulevard
2. Alder Drive
3. I-880 Southbound Ramps
4. I-880 Northbound Ramps-Elmwood Access Road

Great Mall Parkway at:
5. Abel Street
6. Main Street
7. McCandless Drive
8. Centre Pointe Drive

Landess Avenue at:
9. South Park Victoria Drive[2]
10. Clear Lake Avenue
11. Yellowstone Avenue

Main Street at:
12. Great Mall Drive (Escort Drive)

Abel Street at:
13. Curtis Drive[2]
14. Post Office Driveway (future signal)
15. Corning Drive
16. Junipero Drive
17. Serra Way
18. Redwood Avenue
19. Marilynn Drive
20. Weller Lane

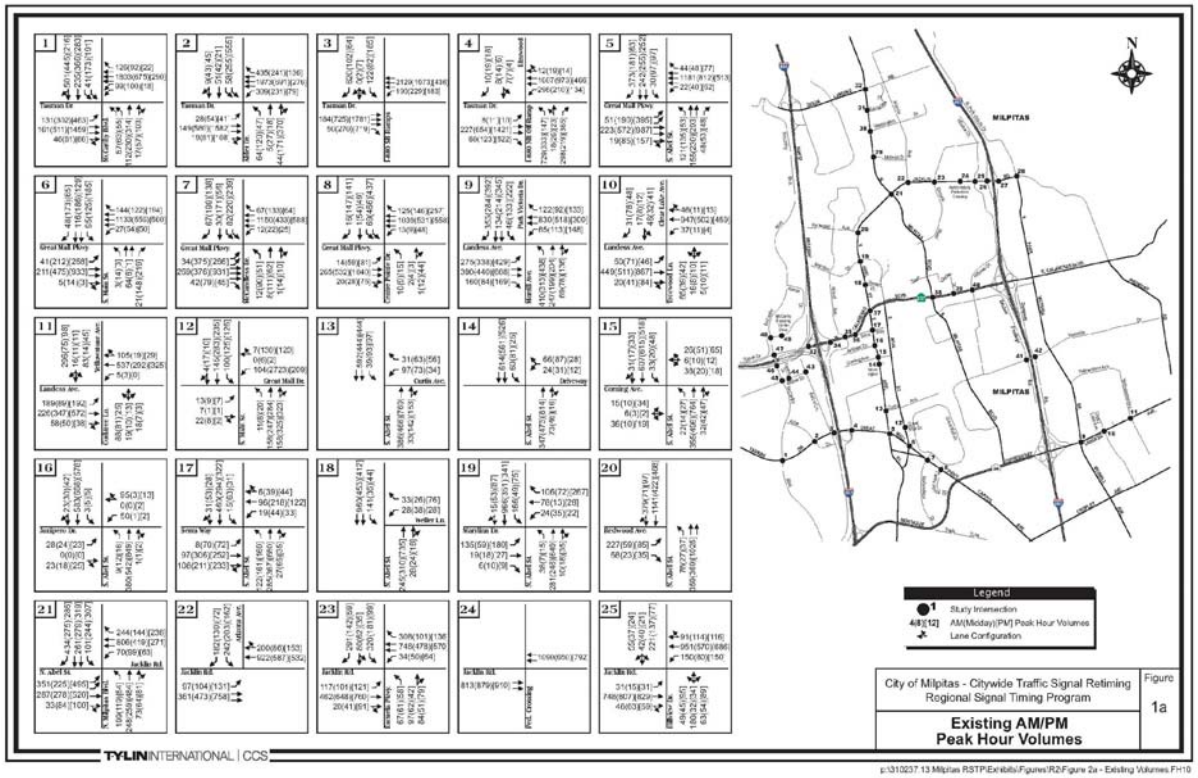
Jacklin Road at:
21. North Milpitas Boulevard[2]
22. Arizona Avenue
23. Escuela Parkway
24. Hetch Hetchy Pedestrian Crossing
25. Hillview Drive
26. I-680 Southbound Ramps
27. I-680 Northbound Ramps
28. Park Victoria

North Milpitas Boulevard at:
29. Midwick Drive
30. Washington Drive
31. Sunny Hills Court
32. Dixon Landing Road

Calaveras Boulevard (Rte 237) at:
33. I-880 Southbound ramp
34. I-880 Northbound Off-ramp
35. Abbot Avenue
36. Serra Way
37. Abel Street
38. Milpitas Boulevard
39. Town Center Shopping Center Drive
40. Hillview Drive

Yosemite Drive at:
41. Sinclair Frontage Road
42. Dempsey Road

Route 237/McCarthy Boulevard Interchange:
43. Bellew Drive/Barber Lane
44. Bellew Drive/Cypress Drive
45. Bellew Drive/McCarthy Boulevard
46. McCarthy Boulevard/Route 237 Eastbound Ramps
47. McCarthy Boulevard/Route 237 Westbound Ramps
48. McCarthy Boulevard/Ranch Drive
49. Ranch Drive/McCarthy Shopping Center Drive


MILPITAS
Legend
Study Intersection
AM(Midday)/[PM] Peak Hour Volumes
Lane Configuration
City of Milpitas - Citywide Traffic Signal Retiming
Regional Signal Timing Program
Figure
1a
Existing AM/PM
Peak Hour Volumes
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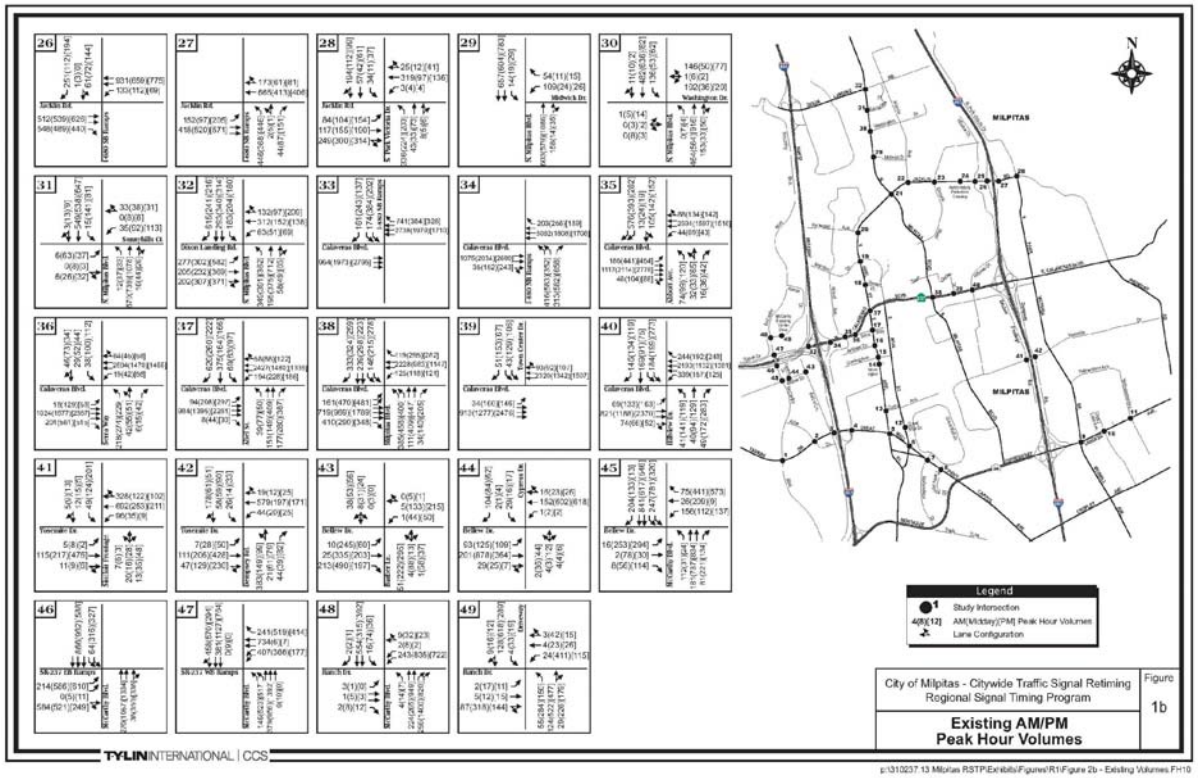
MILPITAS
Legend
Study Intersection
AM(Midday)/[PM] Peak Hour Volumes
Lane Configuration
City of Milpitas - Citywide Traffic Signal Retiming
Regional Signal Timing Program
Figure
1b
Existing AM/PM
Peak Hour Volumes
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SETTING

The City of Milpitas is located in the northeast corner of Santa Clara County on the east end of Silicon Valley. In addition to its own intra-city commute, it sees a considerable amount of commute traffic between housing to the north and east and Silicon Valley jobs, some within the City and many to the south and west. As such, commute patterns generally flow to the south and west in the morning and north and east in the evening.

The City has about 85 signalized intersections within its limits (not including signal owned by the County of Santa Clara).

This traffic signal timing focused on the following streets within Milpitas:

East-West Arterials

- Tasman Drive-Great Mall Parkway
- Calaveras Boulevard (State Route 237)
- Landess Avenue
- Jacklin Road
- Yosemite Drive

North-South Arterials

- North Milpitas Boulevard
- Abel Street

Route 237 – McCarthy Interchange Area
This area includes seven traffic signals

FINAL TIMINGS

The recommended timings were implemented in late fall 2005 and spring 2006 by City, State, and TY Lin staff. Table 2 shows the final timings implemented in each peak.

Table 1
Final Subarea Groupings and Cycles

Intersection	VMS Group No.	AM		Midday		PM	
		Proposed Group No.	System Cycle (sec)	Proposed Group No.	System Cycle (sec)	Proposed Group No.	System Cycle (sec)
1: Tasman Drive & McCarthy Blvd.			150		140		150
2: Tasman Drive & Alder Drive	1	1	150	1	140	1	150
3: Tasman Drive & I-880 SB Ramps			150		140		150
4: Great Mall Pkwy. & Elmwood			150		140		150
5: Great Mall Pkwy. & S. Abel Street			150		140		150
6: Great Mall Pkwy. & Main Street	2	2	150	2	140	2	150
7: Great Mall Pkwy. & McCandless Drive			150		140		150
8: Great Mall Pkwy. & Centrepointe Drive			150		140		150
9: Landess Avenue & Park Victoria Drive	Free	10	NA	Free	NA	Free	NA
10: Landess Avenue & Clear Lake Avenue	**Free**		NA	**Free**	NA		NA
11: Landess Avenue & Yellowstone Avenue			NA		NA		NA
12: Great Mall Drive & Main Street	Free	2	75	2	70	2	75
13: Curtis Avenue & S. Abel Street			75		140		75
15: Corning Avenue & S. Abel Street	5	5	90	5	90	5	90
16: Junipero Drive & S. Abel Street			90		90		90
17: Serra Way & S. Abel Street			90		90		90
18: Weller Lane & N. Abel Street	6	6	**120**	6	95	6	120
19: Marylinn Drive & N. Abel Street			**120**		95		120
20: Redwood Avenue & N. Abel Street			**120**		85		120
21: N. Milpitas Blvd. & Jacklin Road	7	7	120	Free	NA	7	120
22: Jacklin Road & Arizona Avenue			120		NA		120
23: Jacklin Road & Escuela Parkway			120		NA		120
24: Jacklin Road & Hetch Hetchy Ped Xing			120		NA		120
25: Jacklin Road & Hillview Drive			120		NA		120
26: Jacklin Road & I-680 SB Ramps			120	7	80		120

Table 1
Final Subarea Groupings and Cycles

Intersection	VMS Group No.	AM		Midday		PM	
		Proposed Group No.	System Cycle (sec)	Proposed Group No.	System Cycle (sec)	Proposed Group No.	System Cycle (sec)
27: Jacklin Road & I-680 NB Ramp			120		80		120
28: Jacklin Road & N. Park Victoria Drive			120		80		120
29: Midwick Drive & N. Milpitas Blvd.			75		80		75
30: Washington Drive & N. Milpitas Blvd.	8	8	75	8	80	8	75
31: Sunnyhills Court & N. Milpitas Blvd.			75		80		75
32: Dixon Landing Road & N. Milpitas Blvd.			150	Free	NA		150
33: Route 237 WB & I-880 SB Off-Ramp			150		70		140
34: Route 237 WB & I-880 NB Ramps			150		70		140
35: Route 237 & Abbott Avenue	11**	11	150	11	140	11	140
36: Calaveras Blvd. & Serra Way			150		140		140
37: S. Abel Street & Calaveras Blvd.			150		140		140
38: Calaveras Blvd. & N. Milpitas Blvd.			150		140		140
39: Calaveras Blvd. & Town Center Drive	12**	12	150	12	140	12	140
40: Calaveras Blvd. & Hillview Drive			150		140		140
41: Yosemite Avenue & Sinclair Frontage Road	9	9	100	Free	NA	9	100
42: Yosemite Avenue & Dempsey Road			100		NA		100
43: Bellew Drive & Barber Lane			NA		110		90
44: Bellew Drive & Cypress Drive	3	Free	NA	3	110	3	90
45: Bellew Drive & McCarthy Blvd.			NA		110		90
46: McCarthy Blvd. & Route 237 EB	Free	3	80		110	4	90
47: Route 237 WB & McCarthy Blvd.			80	4	110		90
48: Ranch Drive & McCarthy Blvd.	4	Free	NA		110	Free	NA
49: Ranch Drive & Applebee's			NA		110		NA

Notes:
* = Subject to results of focused study. ** = Part of State system. VMS group shown for labeling only. Caltrans also uses transitional timing plans with shorter cycle lengths along Calaveras Boulevard. **Bold font** indicates change from recommendations.

EVALUATION

Table 3 shows Measures of Effectiveness (MOE) based on the "before" and "after" travel time data and the MOE estimate spreadsheet supplied by MTC. It is very important to note that the City staff combined the RSTP retiming effort with updates to pedestrian crossing times. This update, in general, results in a longer pedestrian crossing time which takes time away from the coordinated green band, and results in lower travel times.

Table 3
MOE Comparison Results – All Intersections on Expressway

Street	Average Speed Increase (mph)	Travel Time Savings (hrs)	Fuel Consumption Savings (gal)	ROG Emission Reduction (lbs)	NOx Emission Reduction (lbs)	PM10 Emission Reduction (lbs)	CO Emission Reduction (lbs)
Tasman Drive	13%	-614	11,189	124	70	17	1,912
Calaveras Blvd (237)	12%	-1,083	5,057	50	-53	19	1,299
Landess	10%	1,944	2,764	33	35	2	292
Jacklin-Abel	39%	43,177	50,007	623	555	66	5,746
Milpitas	15%	-177	512	1	-11	3	210
McCarthy/237	8%	9,295	11,190	146	135	11	1,141
TOTAL	16%	52,542	80,719	977	731	118	10,600

The bulk of the benefits were obtained from retiming of the Jacklin-Abel corridor. This may be a reflection of the City's success at redeveloping in the Midtown area, or of changes in regional commute use of the corridor since the last timing plan was developed. The streets with negative results, generally small magnitude changes, are generally the very high volume streets that are capacity constrained. This suggests that making improvements in very high volume corridors is difficult.

City of Milpitas, California

BUDGET CHANGE FORM

Type of Change	From		To	
	Account	Amount	Account	Amount
Check one:				
☒ Budget Appropriation	311-9514248153565	$775,000	311-951424814800	$150,000
☐ Budget Transfer	310-2931	105,000	311-951424824800	40,000
	311-951424174800	9,000	311-951424844800	90,000
	311-951423714800	38,000	311-951424874800	600,000
	311-951423724800	20,000	310-2931	105,000
	311-951423774800	38,000		

Explain the reason for the budget change:

On February 29, 2007 the City submitted a grant proposal to the Valley Transportation Authority (VTA) in response to their Call-for-Projects for the 2008-09 TFCA program requesting $694,000 to upgrade the City's Traffic Signal Management System.

The proposal has been approved by both the VTA and the Metropolitan Transportation Commission (MTC) and due to the availability of additional funds in the grant program, MTC also increased the grant allocation to $775,000. The total cost of the project is $940,000 which requires an 18% local match from the City, of which is $165,000.

Recommendation:

1. Close project CP4237 in the amount of $96,000. Partially defund CP4241 in the amount of $9,000.
2. Approve Budget Appropriation for CP4248– Traffic Management Enhancements 2009, in the amount of $880,000 for the Traffic Signal Management System project, $775,000 will be paid by a TFCA grant and $105,000 from the Street Fund.

☒ **Check if City Council Approval required.** **Meeting Date**: October 7, 2008

Itemization of funds, if needed:	Amount

Requested by:	**Division Head:**	**Date:**
	Department Head:	**Date:** 9/30/08
Reviewed by:	**Finance Director:**	**Date:** 9/30/08
Approved by:	**City Manager:**	**Date:**

Date approved by City Council, if required: **Confirmed by:**