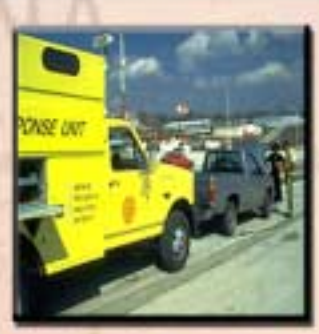

December 20, 2004

San Gabriel Valley Traffic Forum

ATMS Improvement Project

APPENDICES

Operational Objectives

(Deliverable 2.1.2)

&

System Needs

(Deliverable 2.2.2)

Final
Revision 1

Prepared by:

PUBLIC WORKS

METRO

TRANSCORE

Meyer, Mohaddes Associates, Inc.

SAN GABRIEL VALLEY TRAFFIC FORUM

APPENDICES

OPERATIONAL OBJECTIVES (Deliverable 2.1.2)
&
SYSTEM NEEDS (Deliverable 2.2.2)

FINAL – Revision 1

Prepared for:
LA County Department of Public Works

Prepared by:

TRANSCORE

626 Wilshire Boulevard
Suite 818
Los Angeles, California 90017

December 20th, 2004

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APPENDIX A – ACRONYMS/DEFINITIONS

The following acronyms and terms are used within this and other SGV Traffic Forum project documents:

Acronyms and Terms

Acronym/Term	Definition
ATMS	Advanced Transportation Management System
Caltrans	State of California Department of Transportation
CCTV	Closed Circuit Television
CDI	Command/Data interface. Software that implements a bi-directional interface between a TCS and the IEN
CMS	Changeable Message Sign. Fixed and mobile roadside signs that display informational messages (used synonymously with Variable Message Sign and Dynamic Message Sign)
DMS	Dynamic Message Sign (see CMS)
EDP	Early Deployment Project. A (relatively small-scale) project warranting initiating/completing prior to the completion of the Traffic Forum due to its high ROI or required to accomplish the goals of the Forum. (For the East SGV Traffic Signal Synchronization Project, the EDP was a Countywide intranet [on the IEN WAN] that disseminates I-210 traffic conditions from Caltrans and SGV IEN-related documentation to participating Agencies)
Equipment Package	National ITS Architecture term to group similar processes of a particular subsystem together into an “implementable” package
FMS	Freeway Management System. A system to operate and manage freeway ramp meters and other ITS roadside devices on the freeway
IEN	Information Exchange Network. Infrastructure (e.g., communications network, standards, software, etc.) to facilitate the exchange of real-time arterial traffic data/commands between participating jurisdictions’ TCSs and support incident management activities/information between Agency operators
IEN Workstation	A workstation connected to the IEN that allows inter-jurisdictional monitoring and control of traffic data/signals and the exchange of incident information. (See LCCS.)
ISP	Information Service Provider. A company or system that (re)distributes data taken from one or more sources. This data may be raw or processed.
ITS	Intelligent Transportation System(s)
LACO DPW	Los Angeles County Department of Public Works
LADOT	(City of) Los Angeles Department of Transportation
LCCS	Local City Control Site. An IEN workstation with a TCS CDI to allow inter-jurisdictional monitoring and control of traffic data/signals. (See IEN Workstation.)
Market Package	National ITS Architecture term to represent one or more equipment packages that work together to deliver a given transportation service
MOU	Memorandum of Understanding
MPO	Metropolitan area Planning Organization

Acronym/Term	Definition
MTA	(Los Angeles County) Metropolitan Transportation Authority – MPO for Los Angeles County
NIST	National Institute of Standards and Technology
RTCB	Real Time Clock Broadcast
SGV	San Gabriel Valley
SGVPP	SGV Pilot Project. Proof-of-concept implementation of the IEN in the SGV
SGVTF	SGV Traffic Forum
Signal System	Roadside equipment to control/manage (one or more) intersection traffic signals. (See TCS for centralized control.)
TCS	Traffic Control System. A centralized system to control/manage (at least some) intersection traffic signals in the network. (See Signal System for non-centralized control.)
TSSP	Traffic Signal Synchronization Project
USDOT	United States Department of Transportation
WAN	Wide Area Network
W/S	Workstation, usually a desktop computer
WWV	National Institute of Standards and Technology time broadcast used to ensure traffic signal controllers are synchronized
VDS	Vehicle Detection System
VIDs	Video Imaging Detection. Video camera-based roadside equipment system for vehicle detection and metrics
VMS	Variable Message Sign (see CMS)

APPENDIX B – STAKEHOLDER AGENCY LIST OF CONTACTS

The following table presents the names and contact information for each of the stakeholders in the San Gabriel Valley Traffic Forum. In cases where there are multiple names, the first is the primary contact for the Agency, but may not have participated in the interview process.

Agency	Address	Contact(s)	Phone Number	Email Address
Alhambra	111 S. First St. 91801-3796	Mary Swink, DPW Edward Wright, TE Spvsr.	(626) 570-5067 (626) 570-5062 (626) 282-1035-Fax	mswink@cityofalhambra.org ewright@cityofalhambra.org
Arcadia	240 W. Huntington Dr. P.O. Box 60021 91006-6021	Phil Wray, CE Ramiro Gonzalez, Asst. Eng.	(626) 574-5488 (626) 547-5486 (626) 447-7866-Fax	pwray@ci.arcadia.ca.us rgonzalez@ci.arcadia.ca.us
Azusa	213 E. Foothill Blvd. 91702-2514	Nasser Abbaszadeh, CE Lance Miller	(626) 812-5261 (626) 812-5284 (626) 334-5464-Fax	nabbaszadeh@ci.azusa.ca.us lmiller@ci.azusa.ca.us
Baldwin Park	14403 E. Pacific Ave. 91706-4297	Arjan Idrnani, Engr. Mgr, David Lopez, Assoc. Eng.	(626) 960-4011 x254 (626) 960-4011 x458 (626) 962-2625-Fax	aidnani@baldwinpark.com dlopez@baldwinpark.com
Bradbury	600 Winston Ave. 91010-1199	Dan Heil (Willdan)	(714) 974-7863	dheil@wildan.com
Covina	125 E. College St. 91723-2199	Vince Mastrosimone, DPW C. Hui Lai (TSE)	(626) 858-7248 (714) 974-7863 (626) 967-6084-Fax	vmastros@ci.covina.ca.us sahl@msn.com
Duarte	1600 Huntington Dr. 91010-2592	Steve Esbenshade, PW Coord.	(626) 357-7931 X-233	esbenshades@accessduarte.com
El Monte	11333 Valley Blvd. 91731-3293 P.O. Box 6008, 91734-2008	Kev Tcharkhoutian, CE Rudy Sousa	(626) 580-2058 (626) 580-2250 (626) 454-3143-Fax	ktcharkhoutian@ci.el-monte.ca.us
Glendora	116 E. Foothill Blvd. 91741-3335	Chad Veinot, Civ. Eng. Tech.	(626) 852-4845 (626) 914-9053-Fax	cveinot@ci.glendora.ca.us

Agency	Address	Contact(s)	Phone Number	Email Address
Irwindale	5050 N. Irwindale Ave. 91706-2192	Kwok Tam, DPW	(626) 430-2211	ktam@ci.irwindale.ca.us
La Puente	15900 E. Main St. 91744-4788	Bill Woolard, ComSvcDir Gregg Yamachika, City Planner Joe Boada (AAE, Inc.) Ray Abasi (AAE, Inc.)	(626) 855-1500 x517 (626) 855-1500 (626) 855-1500 x540 (714) 940-0100 x233 (626) 961-4626-Fax	bwoolard@lapuente.org gyamachika@lapuente.org jboada@aaeinc.com rabasi@aaeinc.com
Monrovia	415 S. Ivy Ave. 91016-2888	Doug Benash, CE	(626) 932-5562 (626) 932-5559-Fax	dbenash@ci.monrovia.ca.us
Montebello	1600 W. Beverly Blvd. 90640-3970	Ted Spaseff, DPW Mike Ho, Assoc. Eng.	(323) 887-1466 (323) 887-1471 (323) 887-1464-Fax	tspaseff@cityofmontebello.com mho@cityofmontebello.com
Monterey Park	320 W. Newmark Ave. 91754-2896	Ronald Merry, CE/DPW Elias Saykali, Asst. CE Stephan Hilton, Traffic Consult.	(626) 307-1323 (626) 307-1330 (626) 307-1332 (626) 307-2500-Fax	rmerry@montereypark.ca.gov esaykali@montereypark.ca.gov shilton@montereypark.ca.gov
Pasadena	100 N. Garfield Ave. 91109-1782	Bahman Janka, Trans Admin Norman Baculinao, TE Mgr.	(626) 744-4610 (626) 744-4263 (626) 744-4757-Fax	bjanka@ci.pasadena.ca.us nbaculinao@ci.pasadena.ca.us
Rosemead	8838 E. Valley Blvd. 91770-1787	Ken Rukavina, CE Joanne Itagaki, Sr. Des. Mgr. Ken Hanson, Sr. Des. Mgr. (all Wildan)	(626) 569-2151 (City Hall) (562) 908-6226 (562) 908-6239	krukavina@cityofrosemead.org jitagaki@wildan.com khanson@wildan.com
San Dimas	245 E. Bonita Ave. 91773-3002	Krishna Patel, DPW/CE John Campbell, PW Maint. Super.	(909) 394-6245 (909) 394-6270 (909) 394-6249-Fax	kpatel@ci.san-dimas.ca.us jcampbell@ci.san-dimas.ca.us
San Gabriel	425 S. Mission Dr. 91776	Bruce Mattern, CE Ed Sheets, Maint. Fmn.	(626) 308-2800 x715 (626) 308-2825 x222 (626) 458-2830-Fax	bmattern@sgch.org esheets@sgpw.org

Agency	Address	Contact(s)	Phone Number	Email Address
San Marino	2200 Huntington Dr. 91108-2691	John Alderson, DPW	(626) 943-2649 (626) 943-2650-Fax	jalderson@ci.san-marino.ca.us
Sierra Madre	232 W. Sierra Madre Blvd. 91024-2312	Bruce Inman, DPW	(626) 355-7135 X239	binman@ci.sierra-madre.ca.us
South El Monte	1415 N. Santa Anita Ave. 91733-3389	George Envall, TE	(626) 579-6540 (626) 579-2409-Fax	genvall@soelmonte.org
South Pasadena	1414 Mission St. 91030-3298	Albert Carbon, DPW/CE Karen Heit, Trans. Mgr. Steve Moronez	(626) 403-7242 (626) 403-7200 (626) 403-7379 (626) 403-7241-Fax	acarbon@ci.south-pasadena.ca.us kheit@ci.south-pasadena.ca.us smoronez@ci.south-pasadena.ca.us
Temple City	9701 Las Tunas Dr. 91780-2249	Janice Stroud, Dir Public Svcs Patrick Lang (Transtech)	(626) 285-2171 X-2340 (818) 730-1970 (626) 309-9352-Fax	jstroud@ci.temple-city.ca.us
West Covina	1444 W. Garvey Ave. 91790-2716	Shannon Yauchzee, DPW Miguel Hernandez, Civ. Eng. Assoc.	(626) 939-8416 (626) 939-8731 (626) 939-8660-Fax	shannon.yauchzee@westcov.org miguel.hernandez@westcov.org
Foothill Transit	100 North Barranca Ave. Suite 100 West Covina, CA 91791-1644	Doran Barnes, Exec Dir	(626) 967-3147 (Main)	dbarnes@foothilltransit.org
Montebello Bus	400 S. Taylor Ave. Montebello, CA 90640-5057	Allan Pollock, Dir of Trans. Manny Thomas, Ops Mgr.	(323) 887-4637	apollock@cityofmontebello.com mthomas@cityofmontebello.com
ACE	4900 Rivergrade Rd. Suite A120 Irwindale, CA 91706-1446	Bruce Armistead	(626) 962-9292 (Main)	
Caltrans District 7	120 S. Spring St. Los Angeles, CA 90012-3602	Yi Tsau Allen Z. Chen	(213) 897-4656 (213) 897-8922	yi_tsau@dot.ca.gov allen.z.chen@dot.ca.gov

APPENDIX C – SGVTF AGENCY INTERVIEW SCHEDULE

Most of the Agencies of the Traffic Forum were interviewed, either in person or by phone. A majority of the face-to-face interviews were conducted by a team consisting of one person from each of the consulting firms (TransCore and MMA/Iteris) and a member of the LACODPW Traffic and Lighting group.

Due to the compressed project schedule, we tried to schedule all of the interviews into a two (2) week timeframe. The following tables show the interview schedule, the first one sorted by date and the next, by Agency.

Agency Interview Schedule – By Date/Time

Date/Time	Agency/Contact(s)
November 3, 2003 / 1:00 PM	Azusa - Lance Miller Dankocsik/Miller, DPW: Jane White
November 4, 2003 / 9:00 AM	Arcadia - Phil Wray Dankocsik/Miller, DPW: Inez Yeung
November 4, 2003 / 9:00 AM	El Monte - Kev Tcharkhoutian Schneider/Porter, DPW: Fernando Villaluna
November 4, 2003 / 11:00 AM	Alhambra - Ed Wright Schneider/Porter, DPW: Inez Yeung
November 4, 2003 / 1:00 PM	San Gabriel - Bruce Mattern/Ed Sheetz Dankocsik/Miller, DPW: Inez Yeung
November 5, 2003 / 8:30 AM	West Covina - Miguel Hernandez Schneider/Hattrup, DPW: Inez Yeung
November 5, 2003 / 9:00 AM	South Pasadena - Albert Carbon Dankocsik/Miller, DPW: Fernando Villaluna
November 5, 2003 / 11:00 AM	Glendora - Chad Veinot Schneider/Hattrup, DPW: Inez Yeung
November 5, 2003 / 3:00 PM	Pasadena - Bahman Janka/Norman Baculinao/Victor Koo Dankocsik/Miller, DPW: Fernando Villaluna
November 5, 2003 / 3:00 PM	Montebello - Mike Ho Schneider/Hattrup, DPW: Inez Yeung
November 6, 2003 / 9:00 AM	Monrovia - Doug Benash Dankocsik/Miller, DPW: Fernando Villaluna
November 6, 2003 / 9:00 AM	Baldwin Park - Arjan Idmani Schneider/Hattrup, DPW: Inez Yeung
November 6, 2003 / 11:00 AM	Monterey Park - Ron Merry Schneider/Hattrup, DPW: Inez Yeung
November 7, 2003 / 9:00 AM	Temple City - Janice Stroud/Patrick Lang Dankocsik/Miller, DPW: Inez Yueng
November 7, 2003 / 10:00 AM	San Dimas - Krishna Patel Schneider/Porter, DPW: Jane White
November 10, 2003 / 2:00 PM	Montebello Bus (Phone) - Allan Pollock, Manny Thomas Dankocsik/Schneider
November 12, 2003 / 9:00 AM	South El Monte - George Envall Schneider/Porter, DPW: Inez Yeung
November 12, 2003 / 10:00 AM	Duarte - Steve Esbanshade Dankocsik/Miller, DPW: Jane White
November 12, 2003 / 11:00 AM	La Puente - Ray Abasi Schneider/Porter, DPW: Fernando Villaluna

Date/Time	Agency/Contact(s)
November 12, 2003 / 1:00 PM	San Marino - John Alderson Dankocsik/Miller, DPW: Inez Yeung
November 12, 2003 / 1:30 PM	Rosemead - Ken Rukavina Schneider/Porter, DPW: Jane White
November 13, 2003 / 9:00 AM	Irwindale - Kwok Tam Dankocsik/Miller, DPW: Inez Yeung
November 13, 2003 / 9:30 AM	Covina - Vince Mastrosimone Schneider/Porter, DPW: Jane White
November 14, 2003 / 9:00 AM	Foothill Transit (Phone) - Doran Barnes Dankocsik/Schneider
November 17, 2003 / 2:00 PM	LACO DPW Dankocsik/Schneider
December 5, 2003 / 9:00 AM	Caltrans District 7 – Yi Tsau Schneider/Porter/Hattrup, DPW: Jeff Pletyak
July 14, 2004 / 1:30 PM	ACE (Phone) – Paul Hubler Schneider

Agency Interview Schedule – By Agency

Date/Time	Agency/Contact(s)
July 14, 2004 / 1:30 PM	ACE (Phone) – Paul Hubler Schneider
November 4, 2003 / 11:00 AM	Alhambra - Ed Wright Schneider/Porter, DPW: Inez Yeung
November 4, 2003 / 9:00 AM	Arcadia - Phil Wray Dankocsik/Miller, DPW: Inez Yeung
November 3, 2003 / 1:00 PM	Azusa - Lance Miller Dankocsik/Miller, DPW: Jane White
November 6, 2003 / 9:00 AM	Baldwin Park - Arjan Idmani Schneider/Hattrup, DPW: Inez Yeung
December 5, 2003 / 9:00 AM	Caltrans District 7 – Yi Tsau Schneider/Porter/Hattrup, DPW: Jeff Pletyak
November 13, 2003 / 9:30 AM	Covina - Vince Mastrosimone Schneider/Porter, DPW: Jane White
November 12, 2003 / 10:00 AM	Duarte - Steve Esbanshade Dankocsik/Miller, DPW: Jane White
November 4, 2003 / 9:00 AM	El Monte - Kev Tcharkhoutian Schneider/Porter, DPW: Fernando Villaluna
November 14, 2003 / 9:00 AM	Foothill Transit (Phone) - Doran Barnes Dankocsik/Schneider
November 5, 2003 / 11:00 AM	Glendora - Chad Veinot Schneider/Hattrup, DPW: Inez Yeung
November 13, 2003 / 9:00 AM	Irwindale - Kwok Tam Dankocsik/Miller, DPW: Inez Yeung
November 12, 2003 / 11:00 AM	La Puente - Ray Abasi Schneider/Porter, DPW: Fernando Villaluna
November 17, 2003 / 2:00 PM	LACO DPW Dankocsik/Schneider
November 6, 2003 / 9:00 AM	Monrovia - Doug Benash Dankocsik/Miller, DPW: Fernando Villaluna

Date/Time	Agency/Contact(s)
November 5, 2003 / 3:00 PM	Montebello - Mike Ho Schneider/Hattrup, DPW: Inez Yeung
November 10, 2003 / 2:00 PM	Montebello Bus (Phone) - Allan Pollock, Manny Thomas Dankocsik/Schneider
November 6, 2003 / 11:00 AM	Monterey Park - Ron Merry Schneider/Hattrup, DPW: Inez Yeung
November 5, 2003 / 3:00 PM	Pasadena - Bahman Janka/Norman Baculinao/Victor Koo Dankocsik/Miller, DPW: Fernando Villaluna
November 12, 2003 / 1:30 PM	Rosemead - Ken Rukavina Schneider/Porter, DPW: Jane White
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November 4, 2003 / 1:00 PM	San Gabriel - Bruce Mattern/Ed Sheetz Dankocsik/Miller, DPW: Inez Yeung
November 12, 2003 / 1:00 PM	San Marino - John Alderson Dankocsik/Miller, DPW: Inez Yeung
November 12, 2003 / 9:00 AM	South El Monte - George Envall Schneider/Porter, DPW: Inez Yeung
November 5, 2003 / 9:00 AM	South Pasadena - Albert Carbon Dankocsik/Miller, DPW: Fernando Villaluna
November 7, 2003 / 9:00 AM	Temple City - Janice Stroud/Patrick Lang Dankocsik/Miller, DPW: Inez Yueng
November 5, 2003 / 8:30 AM	West Covina - Miguel Hernandez Schneider/Hattrup, DPW: Inez Yeung

APPENDIX D – SGVTF AGENCY SURVEYS

Appendix D contains the completed survey forms for each of the interviewed SGVTF Agencies.

Agency Survey – City of Alhambra

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Alhambra

2) Date: November 4, 2003

3) Participants:

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Ed Wright Traffic Engineering Supervisor	626.570.5067	626.282.5833	ewright@cityofalhambra.org
Traffic Engineer	Ali Cayir	909.595.8599	909.595.8863	cayir@transteche.com
Maintenance	Stan Hertel Traffic & Lighting Foreman	626.570.5074	626.282.5833	
Planning	Ali Cayir	909.595.8599	909.595.8863	cayir@transteche.com
Admin	Mary Swink Director Of Public Works	626.570.5067	626.282.5833	mswink@cityofalhambra.org

5) Please identify other City Agencies/personnel that we should contact:
Note: Participants at interview: Ed Wright/
Inez Yeung/Jack Schneider, George Hattrup

6) Please identify major traffic generators (include frequency and volume, if known):
Los Angeles County Public Works, COSTCO, 1000 S Fremont Complex

7) Please identify the most congested roadways and intersections in your jurisdiction:
Fremont Ave, Atlantic Blvd, Garfield Ave, Valley Blvd, Main St, Mission Road
Fremont & Valley, Fremont & Mission, Atlantic & Valley, Garfield & Valley

8) Does your City operate its own transit or (para-) transit? Yes ☒ No☐

B. Traffic Management Center

1) Does your Agency (plan to) operate a Traffic Management Center (TMC)?
Yes ☐ No☒ (continue to Question 11)

2) Where is the TMC located? _____

3) Size of TMC (sq. ft.) _____

4) Satellite location(s) _____

5) Hours of operations _____

6) Staff size (total and by shift) _____

7) Law enforcement co-location? _____

8) Maintenance co-location? _____

9) TMC Usage:

Function	Currently Use	Planned Use
Signal Monitoring/Control	☐	☐
Incident Management	☐	☐
Event Management	☐	☐
Transit Coordination	☐	☐
Emergency Operations	☐	☐
Law Enforcement	☐	☐
ITS Device Management/Control	☐	☐
Other:	☐	☐

10) Describe any TMC replacement, upgrade, or expansion plans (include dates, if known):

11) TMC needs/comments:

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 97

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): Master (2); RCTB (45)
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
NEMA/ECONOLITE	73	
170	23	LACO-1R
170	3	LACO-3

Comments:

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

City of Alhambra

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☒	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

RCTB: Atlantic Blvd, Garfield Ave, Huntington Dr, Main St, Valley Blvd, Garvey Ave
Closed Loop Interconnect: Fremont Ave, Main St, and Mission Road.

7a) How are signal timing plans and/or coordination strategies initially established?

Los Angeles County Coordination Projects.

7b) How are signal timing issues recognized and resolved?

Recognized by staff observation and public comments; resolved by staff.

7c) How often are signal timing plans and/or coordination strategies updated?

As dictated by observation and new development.

8) Signals/Controllers needs/comments (include desired signalized intersections):

Upgrade non-TS-2 NEMA cabinets.

B. Centralized Control

1) Does your Agency have a central traffic control system (TCS)?
Yes ☒ No ☐ (Please skip to Question B6)

2) System Information:

Vendor/Software	ECONOLITE Aries
Version	1.51
Date Implemented	April, 1996
Hardware	
Polling Rate	1/sec

3) Number intersections connected to the central system: 37

Comments: 18 existing (generally Main St from Atlantic Bl to the City of San Gabriel), remaining 19 (Fremont Av from Montezuma to Alhambra Rd and Mission Rd from Chapel to Fremont Av) on-line by Fall 2004

4) Please rate your satisfaction with your TCS High ☐ ☐ ☒ ☐ ☐ ☐ Low

5) What additional features/functionality would you like your TCS to provide?

Monitor 170 equipment.

6) Describe any central control replacement, upgrade, or expansion plans (include dates, if known):

Ability to "talk" to 170's
Download timing plans to 170's

7) TCS needs/comments:

C. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☐ No ☒ (Please skip to Question C3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans				
LACODPW				

3) External control needs/comments:

D. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	86	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID	11	High ☐ ☐ ☒ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☐
Speed	☐	☐
Occupancy	☒	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒ (Please skip to Question D14)

4) Types of CCTV images:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☐
Video Still Images	☐	☐
Other:	☐	☐

5) How many displays/monitors do you have to show your CCTV images? _____

6) CCTV Camera Information:

Manufacturer	Quantity	Features/Functionality

7) Image usage/feed information:

Destination	Currently	Planned
TMC	☐	☐
Maintenance	☐	☐
Police	☐	☐
City Hall	☐	☐
Web	☐	☐
Media	☐	☐
Other Agencies ( )	☐	☐
Other ( )	☐	☐

8a) What software is used to control your CCTV system? _____

8b) Software Version: _____

8c) Is it integrated with your TCS? Yes ☐ No ☐

9a) Can your Agency receive CCTV feeds from other Agencies?
Yes ☐ No ☐

9b) If yes, which Agencies? _____

9c) Types of CCTV Images from Other Agencies:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☐
Video Still Images	☐	☐
Other:	☐	☐

10a) Can other Agencies control your CCTV cameras? Yes ☐ No ☐

10b) If yes, under what conditions/scenarios?

11) Please describe how CCTV is used in your day-to-day operations:

12) Please rate your satisfaction with your CCTV system(s): High ☐ ☐ ☐ ☐ ☐ ☐ Low

13) Describe what additional features and/or functionality you would like your CCTV system to provide:

14) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

15) Detection/surveillance needs/comments:

E. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other (modem)				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☒ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

Install interconnect cable along Valley Blvd.
Notes to above: copper used on corridors; Also installing multicell conduit on Valley and Fremont (LADOT to hook into County TMC)

F. Traveler Information

1) Please provide the following information about various traveler information systems your Agency uses:

Traveler Info System	Vendor/Model	Quantity	How Controlled	Integrated w/TCS
VMS				☐
HAT				☐
HAR				☐
Kiosk				☐
Advanced RR Warnings				☐
Internet				☐
Other:				☐

2a) Can other Agencies place messages, etc. on your Traveler Information Systems?
Yes ☐ No ☐

2b) If yes, which: _____

3) Describe any traveler information systems replacement, upgrade, or expansion plans (include dates, if known):

4) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Provides for better arterial signal coordination.

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

Provides for better arterial signal coordination.

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Timing plans for arterials.

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☒
Control traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☒
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☒
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
View detector information	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Planned event management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☐	Detector information	☒
Timing plans	☒	CCTV images	☐
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Implement coordinated timing plans, incident management, planned events, emergency operations.
Note to above: Some of the ratings are low due to lack of time of personnel

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$0
New traffic equipment	$40000
Spare parts	$20000
Maintenance Personnel	$75000
Communications	$0
Contractors	$0
Computer H/W	$0
Computer S/W	$0
	$
Total	$135000

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Arcadia

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Arcadia

2) Date: November 4, 2003

3) Participants: Phil Wray (City of Arcadia), Romero Gonzalez (City of Arcadia), Inez Yeung (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Phil Wray (City Engineer)	626.574.5488	626.447.7866	pwray@ci.arcadia.ca.us
Traffic Engineer	Romero Gonzalez (Assistant Engineer)	626.574.5486	626.447.7866	rgonzalez@ci.arcadia.ca.us
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Santa Anita Racetrack
--> Track relies more on the City for event management
--> Police very involved, take over traffic control mainly at the big events (4-5 times per year), & officers manually change signal timings (but very rarely)
Santa Anita Mall
Arboretum
--> Especially twice a year for major functions

7) Please identify the most congested roadways and intersections in your jurisdiction:

Corridors:
--> Santa Anita Ave
--> Baldwin Ave
--> Huntington Dr
--> Foothill Blvd
--> Colorado Blvd (especially during I-210 incidents)

Intersections (LOS D or E):
--> Sunset/Huntington
--> Baldwin/Duarte
--> Santa Anita/I-210 EB ramps
--> Santa Anita/Huntington
Santa Anita/Duarte

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Management Center

1) Does your Agency (plan to) operate a Traffic Management Center (TMC)?
Yes ☒ No ☐ (continue to Question 11)

2) Where is the TMC located? City Hall Engineering Division

3) Size of TMC (sq. ft.)

4) Satellite location(s) Future workstation at Police Department

5) Hours of operations 7:00 AM - 5:00 PM

6) Staff size (total and by shift)

7) Law enforcement co-location?

8) Maintenance co-location?

9) TMC Usage:

Function	Currently Use	Planned Use
Signal Monitoring/Control	☒	☒
Incident Management	☐	☒
Event Management	☐	☒
Transit Coordination	☐	☒
Emergency Operations	☐	☒
Law Enforcement	☐	☒
ITS Device Management/Control	☐	☒
Other:	☐	☐

10) Describe any TMC replacement, upgrade, or expansion plans (include dates, if known):

11) TMC needs/comments:

--> Existing TMC houses 1 outdated but operational W/S (Multisonics TCS)
--> Need for signal coordination @ future Gold Line at-grade crossings in the future (5-10 years away)

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 71

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Multisonic 820	45	
Type 170s	26	LACO 1

Comments:

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

PEEK Traffic

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Signal controller upgrades (to Type 170s)
--> Huntington Dr
--> Baldwin Ave
--> Santa Anita Ave

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 synchronization via TBC, WWV, etc:
--> Foothill Blvd
--> Colorado Blvd
--> Duarte Rd
--> Las Tunas Dr
--> Live Oak Ave
--> Baldwin Ave
--> Santa Anita Ave

7a) How are signal timing plans and/or coordination strategies initially established?

LACO DPW:
--> Established initial timings & modernized signal controllers circa 1995-98

City:
--> Maintains signals thru contract w/ PEEK Traffic
--> Significant timing changes require LACO DPW approval

7b) How are signal timing issues recognized and resolved?

--> Signals are adjusted on a case-by-case, exception basis
--> Complaints from residents (approx. 1-2 calls per day)
.--> PEEK provides monthly reports re: signal status w/ big problems involving the City Engineering Department

7c) How often are signal timing plans and/or coordination strategies updated?

As needed.

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Centralized Control

1) Does your Agency have a central traffic control system (TCS)?
Yes ☒ No ☐ (Please skip to Question B6)

2) System Information:

Vendor/Software	
Version	Multisonics

Date Implemented	1976
Hardware	
Polling Rate	

3) Number intersections connected to the central system: 0

Comments:

4) Please rate your satisfaction with your TCS High ☐ ☐ ☐ ☐ ☐ ☒ Low

5) What additional features/functionality would you like your TCS to provide?

City desires an entirely new TCS w/ all of the latest features/functionality

6) Describe any central control replacement, upgrade, or expansion plans (include dates, if known):

7) TCS needs/comments:

Multisonics TCS
--> Installed 1976
--> Intersections removed circa 1991
--> City remarked that the system was expensive and unresponsive re: upgrades to TMC, system S/W, firmware, & difficulty implementing their TOD pattern

City of Arcadia management is conservative & would need to be shown benefit of new TCS immediately
--> Show success stories in other Cities
--> Show value of integrating with larger system/program

C. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question C3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	3	I-210/Baldwin(W) I-210/Santa Anita (N) I-210/Santa Anita (S)		
LACODPW	3	Colorado/Michillinda Foothill/Michillinda, Sunset/Michillinda		
Pasadena	1	Michillinda/Orange Grove		
Monrovia (2) Temple City (1) El Monte (1)		Foothill/Fifth Huntington/Fifth Baldwin/Live Oak Lower Azusa/Durfee		

3) External control needs/comments:

City:
--> Provides funding to these Agencies to help pay for signal O&M
--> "Owns" approx. 25% of each intersections

D. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID	2	High ☒ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☒
Signal Preemption	☐	☒
Signal Priority	☐	☒
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?
Yes ☒ No ☐ (Please skip to Question D14)

4) Types of CCTV images:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☒
Video Still Images	☐	☐
Other:	☐	☐

5) How many displays/monitors do you have to show your CCTV images? _____

6) CCTV Camera Information:

Manufacturer	Quantity	Features/Functionality

7) Image usage/feed information:

Destination	Currently	Planned
TMC	☐	☒
Maintenance	☐	☐
Police	☐	☒
City Hall	☐	☐
Web	☐	☒
Media	☐	☐
Other Agencies ( )	☐	☐
Other ( )	☐	☐

8a) What software is used to control your CCTV system? _____

8b) Software Version: _____

8c) Is it integrated with your TCS? Yes ☐ No ☐

9a) Can your Agency receive CCTV feeds from other Agencies?
Yes ☐ No ☒

9b) If yes, which Agencies? _____

9c) Types of CCTV Images from Other Agencies:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☒
Video Still Images	☐	☒
Other:	☐	☐

10a) Can other Agencies control your CCTV cameras? Yes ☐ No ☒

10b) If yes, under what conditions/scenarios?

11) Please describe how CCTV is used in your day-to-day operations:

Planned:
--> View images at intersections & create timing plan adjustments (as needed)

12) Please rate your satisfaction with your CCTV system(s): High ☐ ☐ ☐ ☐ ☐ ☐ Low

13) Describe what additional features and/or functionality you would like your CCTV system to provide:

--> Typical pan, tilt, zoom (for Arcadia CCTV cameras)
--> Video "tour"/scanning

14) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

15) Detection/surveillance needs/comments:

CCTV:
--> View Caltrans I-210 Fwy cameras
--> View adjacent City corridors (Colorado Blvd in Pasadena)
--> View City major corridors and/or intersections (Foothill Blvd & Peck Rd)
--> Just want images only, not control capabilities (of other Agency CCTV cameras)

Planned CCTV Installations:
--> Foothill/Baldwin
--> Huntington/Baldwin
--> Colorado/Huntington
--> I-210/Santa Anita

VIDs:
--> Huntington/Santa Clara
--> Huntington/Santa Anita

E. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

Existing Interconnect:
--> Huntington (Michilinda to Fifth) (TWP of 23 & 18 pairs of #19 cable)
--> Live Oak(Las Tunas to Tyler) (TWP of 6 pair of #19 cable)
--> Baldwin (Camino Real to Colorado ((Conduit only)
--> Santa Anita (Huntington to Colorado (Conduit only)

--> All other signalized intersections use phone drops (various locations)
--> Several LACO WWV antennas

--> Inconsistencies, system age, and poor functionality prevent City staff from actively using these communications links to manage daily traffic operations
--> City desires to work with LACO DPW to have fiber-optic communications installed
--> City budget is major obstacle

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☒ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

TBD

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

Planned (Summer 2004)

--> Huntington (Michilinda to Fifth) (Install fiber-optic cable in existing or planned conduit)

--> Baldwin (Camino Real to Foothill) (Install fiber-optic cable in existing or planned conduit)

Santa Anita (Duarte to Foothill) (Install fiber-optic cable in existing or planned conduit)

7) Communication systems needs/comments:

F. Traveler Information

1) Please provide the following information about various traveler information systems your Agency uses:

Traveler Info System	Vendor/Model	Quantity	How Controlled	Integrated w/TCS
VMS				☐
HAT				☐
HAR				☐
Kiosk				☐
Advanced RR Warnings				☐
Internet				☐
Other:				☐

2a) Can other Agencies place messages, etc. on your Traveler Information Systems?
Yes ☐ No ☐

2b) If yes, which: _____

3) Describe any traveler information systems replacement, upgrade, or expansion plans (include dates, if known):

CMS:

--> Santa Anita/Huntington

--> Santa Anita/I-210 Fwy

--> Signs applied for as part of FHWA ITS Grant & Amber Alert program,

--> Kiosks (Mall & Track) & Intranet are TIS possibilities in the future

--> Integration with the Gold Line is also a future possibility

4) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

--> It is the goal of the SGVTF project
--> It would also be useful for pre-planned event & incident management

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

see above

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

--> Open to coordination & working with other Agencies re: recurring congestion, incidents, pre-planned events, etc.
--> Want to have signed MOUs in-place to direct policy

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐

Incident/Congestion management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	**Importance**	**Current Capability**
Monitor other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

See 1b & 3b

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$112,000
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$112,000

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

--> $112 K for PEEK Traffic
--> Additional $5 K per year for maintenance of 11 non-City signals

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

--> City does not want to be on the cutting edge
--> Benefits of TCS and/or ITS devices will have to be shown (with examples from other Cities) to City management
--> City will also need to identify O&M funding
$560,000 allocated for ITS Integration project

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

N/A

3) Please provide any additional comments regarding this project or survey:

N/A

Agency Survey – City of Azusa

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Azusa

2) Date: November 3rd, 2003

3) Participants: Lance Miller (City of Azusa), Jane White (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Lance Miller (Engineering Associate)	626.812.5284	626.334.5464	lmiller@ci.azusa.ca.us
Traffic Engineer	Nasser Abbaszadeh (City Engineer)	626.812.5261		nabbaszadeh@ci.azusa.ca.us
Maintenance	PEEK Traffic			
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Azusa Pacific University (weekdays during AM peak & early PM peak)
Citrus College (weekdays during AM peak & early PM peak)
Costco, Wholesale, etc (during PM peak)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Foothill Blvd, Citrus Ave, Alosta Ave, Azusa Ave
Foothill/Todd (Costco entrance/exit & has dual LT & RT turn bays), Foothill/Azusa, Foothill/Citrus, Alosta/Citrus, Azusa/First,
Azusa/Gladstone, Azusa/Arrow, Citrus/Gladstone, Citrus/Arrow, Cerritos/Arrow

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Lance Miller's office (next to EDP workstation)

3) Satellite location(s) No

4) Hours of operations 7:00 AM - 5:30 PM (on exception basis)

5) Law enforcement co-location? No

6) Maintenance co-location? No

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☐
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 52

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	
☒	Roadside	Type (e.g, field master, TOD, etc.):	TOD
☐	Other:	Type:	

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Type 170s (95%)		LACO DPW firmware
Type 90s (5%)		BI Trans firmware
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

--> 37 ints by PEEK Traffic
--> 8 ints by LACO DPW
--> 7 ints by Caltrans

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Azusa NB: LACO basic synchronization, 170s, WWV, LACO firmware
San Gabriel SB: VIDs, LACO basic synchronization, 170s, WWV, LACO firmware

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Foothill Blvd has been coordinated since 1998. LACO DPW funded & installed the coordinated signal operations. The City is responsible for maintaining the signals and asks LACO DPW to make timing changes. City's maintenance firm (PEEK Traffic) does not appear to be maintaining the coordination well.

7a) How are signal timing plans and/or coordination strategies initially established?

City: N/A
LACO DPW: Tier 1 synchronization

7b) How are signal timing issues recognized and resolved?

City typically receives call-ins from residents and/or Police. City staff goes to the field & puts the signal on "FREE" as a temporary solution. City then works with PEEK to resolve problem. If problem is along Foothill Blvd, City also contacts LACO DPW regarding coordination.

7c) How often are signal timing plans and/or coordination strategies updated?

Foothill Blvd: Original coordination strategies developed by LACO DPW circa 1998. For updates, City develops new timings with PEEK and requests County implementation.
Other City Streets: City develops new timings with PEEK & PEEK implements timings.

8) Signals/Controllers needs/comments (include desired signalized intersections):

City (Existing): Currently run the same timing plans 24/7 (90-second cycle)
LACO DPW (Existing): AM, Midday, PM, & FREE timing plans

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	7			
LACODPW	8			
Covina	1			
Glendora	1			

3) External control needs/comments:

Caltrans: City would like to control all of the signals currently operated by Caltrans except for those located on the I-210 on-/off-ramps. The City feels that they could provide better signal O&M than Caltrans currently does.
Covina: The City currently shares operation of shares one signal with Covina.
Glendora: The City currently shares operations of one signal with Glendora.

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	52 ints	High ☐ ☐ ☐ ☐ ☒ ☐ Low
VID	2	High ☒ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

VIDs: 2 VIDs installed:
--> San Gabriel Blvd/Sierra Madre
--> San Gabriel/Foothill Blvd

5) Detection/surveillance needs/comments:

City would like to use its detection system(s) to obtain traffic counts.

CCTV
Would like at Costco (Foothill/Todd), APU, and other major corridors/intersections:
--> Alosta/Citrus
--> Foothill/Todd
--> Azusa/Foothill
--> Citrus/1st (I-210)

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

N/A

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

N/A

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

N/A

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

N/A

7) Communication systems needs/comments:

The City does not have a communications network in place due to lack of funding to install one.

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

City web-site and cable channel.

City also sends out a monthly traffic notice with utility bills (e.g., construction, lane closures, school opening, planned detours, etc.)

2) Traveler information systems needs/comments:

City would also like to provide travel speeds along certain corridors but not provide any alternate routes except during planned construction.

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

City would also like control capabilities.

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

City would also like control capabilities.

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Everyone in the SGVTF but especially Glendora, Irwindale, Duarte, & LACO DPW.

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

All of these situations pending signed Memorandums-of-Understanding (MOUs).

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Cabinet controller replacement, accidents & knockdowns, bulb/light replacement, loop O&M, WWV coordination.

Budget:
Approx. $125-150 K but spend $200-250 K each year with budget transfers
--> 20% to Caltrans
--> 20% to LACO DPW
--> 60% to PEEK Traffic
--> $65 K to energy

Budget is usually spent after 6 months.
During a good year, the City makes approx. $100 K in capital improvements.

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

The City feels that they can provide O&M (staff & funding $$) for a TCS & ITS peripherals once capital improvements are installed.

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Baldwin Park

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Baldwin Park

2) Date: November 6, 2003

3) Participants: Inez Yeung, Jack Schneider, George Hattrup/ Arjan Idnani, David Lopez

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Arjan Idnani Eng. Mgr.	(626) 813-5255	(626) 962-2625	aidnani@baldwinpark.com
Traffic Engineer				
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:
David Lopez, Associate Engineer

6) Please identify major traffic generators (include frequency and volume, if known):
High-density residential==>mostly through traffic
industrial parks north side of town (between LA Blvd and Arrow Hwy)
June '04 - Wal-Mart opens (near Town Center - Puente/Merced/Garvey)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Ramona Bl, Puente Av, Francisquito Av, Badillo St, Arrow Hwy, Live Oak Av,
Pacific Av, Maine St and Baldwin Park Bl

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☐ No ☒ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? _____

3) Satellite location(s) _____

4) Hours of operations _____

5) Law enforcement co-location? _____

6) Maintenance co-location? _____

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☐
Incident Management	☐
Event Management	☐
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

The City does not have enough staff or funding to operate and maintain such a facility (TCS or TMC); however, would like to be able to monitor and control their signals form the City Hall.

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 56

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	_____
☒	Roadside	Type (e.g, field master, TOD, etc.):	_____
☐	Other:	Type:	_____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170E		Bi-Trans
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Signal Maintenance, Inc./Peek
LACO DPW
Caltrans

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Proposed locations:
Pacific/Big Dalton, Francisquito/Garvey, Phelan/Los Angeles/Blecker, Los Angeles/Bresee, Los Angeles/Stewart
w/Caltrans (2004): Baldwin Park/I-10, Ramona/Earl, I-10/Garvey/Puente
Major I-10 Freeway widening project will impact corridors

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☒	Traffic Responsive	☒
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Ramona Blvd, Puente Av (both LACO)

7a) How are signal timing plans and/or coordination strategies initially established?

LACO

7b) How are signal timing issues recognized and resolved?

Public complaint

7c) How often are signal timing plans and/or coordination strategies updated?

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans		I-10 and I605 Fwys		
LACODPW				

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☐ ☐ ☒ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

None at this time by City. LACO is in the process of upgrading systems on Maine, Puente and Francisquito

5) Detection/surveillance needs/comments:

Speed surveys done every 5 years (required by Police Dept.) Would like to have VID at major intersections to monitor traffic volumes and speeds.

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				all corridors
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☒ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

occupancy and signal preemption at some point

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

installation of new signals at previously discussed intersections

7) Communication systems needs/comments:

All copper communication system in field without any connections to office. Would prefer to have fiber optic comm. system instead of copper and/or would like to use wireless communications (less street impact).

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

If we are given more funding and staff time required is minimal we may be able to participate

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Irwindale, El Monte, West Covina, La Puente (County unincorporated) and Caltrans

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Sharing in #6 is read only
implemented coordinated time (w/City input) and Agency Release of Liability agreements, etc.

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$320000
Spare parts	$
Maintenance Personnel	$80000
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$400000

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Maintenance and some design

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

Cannot devote funding to TCS at this time due to budget reductions

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

Improvements may be made using programs to monitor, manage the maintenance, accidents and traffic signal operations

3) Please provide any additional comments regarding this project or survey:

Agency Survey - Caltrans

Part 1 – General Information

A. General/Admin

1) Name of Agency: California Department of Transportation (Caltrans)

2) Date: December 5, 2003

3) Participants: Yi Tsau, Allen Chen/
Jeff Pletyak, Jack Schneider, Marc Porter, George Hattrup

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Yi Tsau	213-897-0261	213-897-0894	yi_tsau@dot.ca.cov
Traffic Engineer	Bob Masuda	213-897-0223		bob_masuda@dot.ca.cov
Maintenance	Jay Rodriguez	909-629-3577	909-623-5314	jesus_rodrigues@dot.ca.cov
Planning	Jacqueline Tan	213-897-4698	213-897-0894	
Admin	Jorge Fuentes	213-897-9915	213-897-0894	jorge_fuentes@dot.ca.cov

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):

7) Please identify the most congested roadways and intersections in your jurisdiction:
Rosemead Blvd (AM/PM rushes, some weekends)
Foothill Blvd (much less congested than Rosemead)

both interconnected via twisted pair to CTNet/Quicnet

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Management Center

1) Does your Agency (plan to) operate a Traffic Management Center (TMC)?
Yes ☒ No ☐ (continue to Question 11)

2) Where is the TMC located? 120 S. Spring St. LA, CA

3) Size of TMC (sq. ft.) 13,000 sq. ft.

4) Satellite location(s) none

5) Hours of operations 24x7; signal monitoring 9x5

6) Staff size (total and by shift) 120/peak: 80

7) Law enforcement co-location? CHP

8) Maintenance co-location? Yes

9) TMC Usage:

Function	Currently Use	Planned Use
Signal Monitoring/Control	☐	☒
Incident Management	☒	☐
Event Management	☒	☐
Transit Coordination	☐	☒
Emergency Operations	☒	☐
Law Enforcement	☐	☒
ITS Device Management/Control	☒	☐
Other:	☐	☐

10) Describe any TMC replacement, upgrade, or expansion plans (include dates, if known):

new TMC in Glendale - 7/2004

11) TMC needs/comments:

Caltrans intends to operate its roadway facility in coordination with regional/local TMC, transit operations and emergency services.
Any traffic signals that are maintained and co-operated by other Agencies and are owned by the State should be available for remote monitoring and control by CTNet.
Any traffic signals that are owned by other Agencies should be available for remote monitoring by CTNet.

After move to new TMC, signal monitoring should be 24x7

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 195

1b) Type of Control:

- ☒ Central — Type (e.g, Series 2000, QuicNet IV, etc.): CTNet/Quicnet
- ☒ Roadside — Type (e.g, field master, TOD, etc.):
- ☐ Other: — Type:

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170E	12	C8v4
170	86	C8
other	99	
2070		

Comments: 1 2070 currently in district.
All numbers above are estimates based upon approx. 15% of signals in district are in the SGVTF area.

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Caltrans Maintenance

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Plans to install 20 model 2070L controllers by end of fiscal year.
Plans to add 40 locations per year to CTNet.
Capability to be Traffic Responsive not used.

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☒	Traffic Responsive	☐
Special Events	☒	Transit Priority	☐
Planned Events	☒	LRT Priority	☒
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

TOD plans

7a) How are signal timing plans and/or coordination strategies initially established?

We used turning movement counts, dimension of crosswalk, length of left-turn pockets, and distance between intersections to determine cycle length, green factor, and offset.

7b) How are signal timing issues recognized and resolved?

Periodic field review, public feedback, and remote monitoring

7c) How often are signal timing plans and/or coordination strategies updated?

Approx. once/year, or as needed

8) Signals/Controllers needs/comments (include desired signalized intersections):

2070 controllers - migrate from 170s (chipsets to be discontinued)
496 modems - controller to controller (master) for CTNet
Dial-up modems - master to TMC

B. Centralized Control

1) Does your Agency have a central traffic control system (TCS)?

Yes ☒ No ☐ (Please skip to Question B6)

2) System Information:

Vendor/Software	CTNet
Version	1.50
Date Implemented	Oct, 2000
Hardware	170E and 2070L
Polling Rate	9600 bps

3) Number intersections connected to the central system: 10 (est)

Comments: Again, based upon approx
15% of District

4) Please rate your satisfaction with your TCS High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features/functionality would you like your TCS to provide?

interface to MS SQL Server

6) Describe any central control replacement, upgrade, or expansion plans (include dates, if known):

PCH Corridor, Palmdale System and Hermosa Beach System - all 2004
Foothill

7) TCS needs/comments:

Need to update some hardware and frame relay for wireless device access (to TMC)

C. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question C3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans				
LACODPW	42 (6 est. in SGV)			
LADOT	418			
	168	other local Agencies		

3) External control needs/comments:

Other Agencies should support AB3418 messages (controller to controller standard)

D. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	99	High ☒ ☐ ☐ ☐ ☐ ☐ Low
VID	1	High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☒	☐
Speed	☒	☐
Occupancy	☒	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other: Freeway incident detection, system-wide adaptive ramp metering	☒	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐ (Please skip to Question D14)

4) Types of CCTV images:

Type	Currently Use	Planned Use
Live/Streaming Video	☒	☐
Video Still Images	☐	☐
Other:	☐	☐

5) How many displays/monitors do you have to show your CCTV images? many (all fwy)

6) CCTV Camera Information:

Manufacturer	Quantity	Features/Functionality
various		360 PTZ

7) Image usage/feed information:

Destination	Currently	Planned
TMC	☒	☒
Maintenance	☒	☒
Police	☒	☒
City Hall	☒	☒
Web	☒	☒
Media	☒	☒
Other Agencies (LADOT/MTA)	☒	☒
Other (congestion info, event info, CMS messages)	☒	☒

8a) What software is used to control your CCTV system? Caltrans protocol

8b) Software Version: n/a

8c) Is it integrated with your TCS? Yes ☐ No ☒

9a) Can your Agency receive CCTV feeds from other Agencies?
Yes ☒ No ☐

9b) If yes, which Agencies? LADOT, other Caltrans Districts

9c) Types of CCTV Images from Other Agencies:

Type	Currently Use	Planned Use
Live/Streaming Video	☒	☒
Video Still Images	☐	☐
Other:	☐	☐

10a) Can other Agencies control your CCTV cameras? Yes ☒ No ☐

10b) If yes, under what conditions/scenarios?

1. An MOU between Agencies on provisions in using CCTV
2. Owner Agency has highest priority
3. No secondary image dissemination
C2C only
Currently developing doc w/standards for CCTV, CMS, etc. usage

11) Please describe how CCTV is used in your day-to-day operations:

For verification on congestion, incident and signal operation (ramp meter)

12) Please rate your satisfaction with your CCTV system(s): High ☒ ☐ ☐ ☐ ☐ ☐ Low

13) Describe what additional features and/or functionality you would like your CCTV system to provide:

none

14) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

continuous loop replacement program for replacing aging loops

15) Detection/surveillance needs/comments:

More detectors to fill identified gaps in the roadway system (mostly freeway)
Looking into construction zone detection
System limitations restrict use of some detection technologies

E. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable	cabinet	data node	64k	signal, RMS, VDS, CMS, CCTV control
Fiber optic	data node/video node	hubs, TMC	DS1	
Radio				
Leased line	controller	TMC	64k to T1 (CCTV)	RMS, CMS, VDS, CCTV
Frame relay				
Wireless ( )				
Other (fiber optic)	Camera	video node	10mhz FM	CCTV

2) Which of the above have spare capacity and how much?

n/a

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

AB3418, AB3418E

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☒ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

Migrate to NTCIP standards with an IP-based communications network

Private Network access to wireless devices

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

CDPD to be replaced by GPRS

7) Communication systems needs/comments:

More O/M resources

Need GPRS wireless devices for each system with field master

F. Traveler Information

1) Please provide the following information about various traveler information systems your Agency uses:

Traveler Info System	Vendor/Model	Quantity	How Controlled	Integrated w/TCS
VMS	Caltrans std Model 500, 510, 520	105 (Model 500)	point-to-point from TMC	☒
HAT				☐
HAR	Caltrans standard	27	point-to-point from TMC	☐
Kiosk	PC	few at offices	point-to-point from TMC	☒
Advanced RR Warnings				☐
Internet	data available to some ISPs			☐
Other:				☐

2a) Can other Agencies place messages, etc. on your Traveler Information Systems?
Yes ☐ No ☒

2b) If yes, which: _____

3) Describe any traveler information systems replacement, upgrade, or expansion plans (include dates, if known):

Caltrans would verify other Agency's event information and disseminate

Caltrans contributes its roadway information to LA/Ventura ATIS (under MTA) and UC Berkeley's Performance Measurement System for travel information Caltrans website.

4) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☐ No ☐
1b) Why or why not?

Caltrans will coordinate its operations through TMC-to-TMC protocol. Its system will not be integrated to other's system

2a) Would your Agency participate? Yes ☒ No ☐
2b) Why or why not?

We will participate in center-to-center (peer-to-peer) operations coordination

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐
3b) Which?

Through CTNet exchange information from Caltrans regional intertie server

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Manage timing plans	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Change active timing plan	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View detector information	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Planned event management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Caltrans' TMC is a 24x7 facility, built with emergency operations capability. Caltrans does not anticipate ceding its operations to others.
Emergency operation for an event constrained to the jurisdiction of one Agency if required by law or agreement is effective.

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

COTS, h/w, communications equipment service

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

All traffic signals at freeway intersections should be remotely monitored and controlled by Caltrans.

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

For Q3, above (funding): Yes if it is Caltrans' own; no for others.

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Covina

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Covina

2) Date: November 13, 2003

3) Participants: Vince Mastrosimone, C. Hui Lai/
Jane White (DPW), Jack Schneider(TransCore), George Hattrup (MMA)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Vince Mastrosimone Dir. Public Works	626-858-7248	626-976-6084	vmastos@ci.covina.ca.us
Traffic Engineer	C. Hui Lai (Traffic Safety Eng.)	714-974-7863	714-974-1043	sahl@msn.com
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:
Mike Scott, Supervising Civil Engineer

6) Please identify major traffic generators (include frequency and volume, if known):
Wal-Mart/Theater complex/Toys R Us (Azusa)
Ikea (Barranca)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Azusa, Grand, and Barranca
Azusa/Arrow Hwy

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Engineering Dept.

3) Satellite location(s) _____

4) Hours of operations 8AM to 5PM, M-F

5) Law enforcement co-location? Workstation at PD

6) Maintenance co-location? _____

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☐
Emergency Operations	☒
Law Enforcement	☒
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

Remote access to system (for consultant)

Old field equipment -- cannot operate with TCS

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 49

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	
☒	Roadside	Type (e.g, field master, TOD, etc.):	49
☐	Other:	Type:	

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170s	46	LACO
Type 90s	2	LACO
Flasher	1	

Comments:

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Computer Services company

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

none

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

WWV on Grand Ave and Barranca (old, needs retiming)
Direct (twisted pier) interconnect on Azusa; LACO doing synch project on Azusa
Installing empty ducting (4-1" multicell) on Azusa (Jan '04)

7a) How are signal timing plans and/or coordination strategies initially established?

Mostly LACO

7b) How are signal timing issues recognized and resolved?

public comment

7c) How often are signal timing plans and/or coordination strategies updated?

none

8) Signals/Controllers needs/comments (include desired signalized intersections):

Arrow Hwy working very well.
Several 4-way stop controlled major intersections that need to be replaced by signals (e.g., Glendora/Cypress).
Ikea (Barranca/Workman); mismatched controllers causing timing/synch issues

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	0			
LACODPW	6	Grand Ave		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	49	High ☐ ☐ ☐ ☒ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

would like to implement CCTV at major intersections; maintenance of loops is an issue

5) Detection/surveillance needs/comments:

Would like TCS (e.g. Quicnet) and CCTV system at high-volume locations (e.g., Arrow/Azusa; Ikea; Azusa/Grand; Azusa/San Bernardino Rd)

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				all
Fiber optic				
Radio				WWV
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

none

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

none

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

wireless (for video and controllers)

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

none

7) Communication systems needs/comments:

fiber optic back to central location

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

none

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

would like to be able to see adjacent Agencies (esp. West Covina)

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Only LACO - emergency operations

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$10000
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$50000
Computer H/W	$
Computer S/W	$
	$
Total	$60,000

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

normal maintenance

3) Is your Agency willing to devote funding to operating a TCS?

Yes ☐ No ☐ Maybe ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

Cannot support/fund full-time staffing to project
Need remote access to system for consultant(s)

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

The city would like to have a Quicnet-type system and CCTV monitoring capability at City Hall

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Duarte

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Duarte

2) Date: November 12, 2003

3) Participants: Steve Esbenshade (City of Duarte), Jane White (LACO DPW), Chuck Dankocsik (TransCore, David Miller (TransCore), Jane,

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Steve Esbenshade (Engineering Division Manager)	626.357.7931	626.358.0018	esbenshades@accessduarte.com
Traffic Engineer				
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

Dominic Milan (City Traffic Engineer) --> works 1/2 day on Monday

6) Please identify major traffic generators (include frequency and volume, if known):
Mostly just experience commuter traffic
Huntington Dr
--> Major "pass-thru" corridor
--> Traffic patterns mimic those of the parallel I-210 Fwy
City of Hope Hospital is largest employer (located on Duarte Rd)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Corridors:
--> Huntington Dr (Bounds City limits & traffic is concentrated along this corridor)
--> Highland
--> Central
--> Duarte

Intersections:
--> Huntington/Highland
--> Mt. Olive (from I-605/I-210 interchange to Huntington)

Junior High and High School
--> Located @ Highland/Central (just south of Huntington Dr)
--> Creates congestion problems in the AM Peak

City Transit (below):
--> Has 2 fixed-routes & commuter route to transfer station
--> Buses add to congestion at some intersections
--> 2 buses running 15-16 hrs per day mainly through residential areas

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Workstation in Engineer's office

3) Satellite location(s) No

4) Hours of operations 7:30 AM - 6:00 PM, Mon-Thurs

5) Law enforcement co-location? No

6) Maintenance co-location? No

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☒
Emergency Operations	☒
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

TCS Benefits:
--> Ability to see signals, timing issues, problems/failures, detect malfunctions, etc
--> Ability to contact PEEK (maintenance firm) on a daily basis w/ TCS report
--> Ability to "know" about Huntington Dr events, traffic accidents, construction

TCS Clarifications:
--> Want their own TCS but want to be "Agency B" on someone else's TCS
--> Want bare minimum that SGVTF project has to offer (City staff do not have time for hands-on TCS monitoring and/or control)
--> Open to traffic coordination activities w/ other Agencies
--> Open to coordinating transit operations along City arterials

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 11

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Type 170s	11	

Comments:

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

--> 8 ints by PEEK Traffic
--> 4 ints by Caltrans

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

New intersections:
--> Central/Highland (MTA participating in construction due to Gold Line expansion)
--> Crestfield/Huntington
--> Mountain @ Home Depot/Wal-Mart shopping enter entrance/exit (to be shared 50/50 w/ Monrovia)

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 Synchronization
--> Huntington Dr. (August '03 timing update)
--> Buena Vista (since 1998)
--> Duarte (since 1998)
--> All signals synchronized & operate AM, Midday, PM, & FREE timing plans

Planned:
--> City open to operation of all signal timing types per #5 (above)
--> Pre-planned scenarios for peaks or incidents on I-210 (if coordinated with other Cities)
--> Transit priority a possibility

Gold Line Expansion
--> Planned station across from City of Hope
--> Multiple at-grade crossings
--> Traffic on Highland & Huntington expected to increase

7a) How are signal timing plans and/or coordination strategies initially established?

City: N/A
LACO DPW: Tier 1 synchronization (typically every 5-yrs)

7b) How are signal timing issues recognized and resolved?

--> Resident/community call-ins
--> City staff notifications
--> PEEK field service crews (on-call & monthly PM sweep/drive-thru
--> Rarely get any input from Police Dept.

7c) How often are signal timing plans and/or coordination strategies updated?

Existing:
City: N/A
LACO DPW:
--> Tier 1 synchronization (typically every 5-yrs)
--> County is responsive to City needs

Planned:
--> City would like to update timing plans based on changes in traffic patterns or new developments (residential or commercial)
--> Otherwise, update infrequently or only when LACO DPW updates

8) Signals/Controllers needs/comments (include desired signalized intersections):

City is concerned that additional O&M responsibilities that the SGVTF project may impart will likely cause them to hire a full-time Traffic Engineer. This concern causes budget issues.

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	4	I-210		
LACODPW				
Monrovia	2			

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	1	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

VIDs: --> Install @ major intersections along Mt. Olive, Mountain, & Buena Vista --> Would like VIDs to "double" as CCTV surveillance

5) Detection/surveillance needs/comments:

Streets in good shape so rarely are there any problems with their loops

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

Past:
--> Used to have copper interconnect installed circa 1983 (7 wire)
--> Abandoned due to frequent "breaks" (especially between Buena Vista & Highland)

Now:
--> LACO DPW using next generation WWV (GPS-based UTB system) on Huntington

Next:
--> City will base plans on recommendations from SGVTF project

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

N/A

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

N/A

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

N/A

7) Communication systems needs/comments:

Leased Lines: --> City can not fund but will handle drops if a leased line is provided --> City already has the LACO permitting system installed (possibility to "piggyback" opportunities on this system During the interview, the City of Duarte mentioned that there is already an existing communications link between the City & LA County DPW To the extent possible, the City would like to use this link for SGVTF, rather than install new communications --> Workstation could go in server room (if necessary) --> Phone room has space for routers only

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

N/A

2) Traveler information systems needs/comments:

None now & see no real need later Potential to install "TrailBlazer" signs along Mountain and/or Buena Vista (between I-210 & Arrow Hwy)

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Coordinating through traffic along Huntington with neighboring cities.

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

see above

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Adjacent cities.

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View phase indication	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

--> Predefined scenarios
--> Diversions/alternate routing when I-210 has problems
--> Open to all types of coordinated activities w/ proper MOUs in-place
--> Would prefer that LACO DPW handle off-peak TCS operations

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$12,000
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

PEEK Traffic
--> Routine signal maintenance, communications failures, loops, etc.

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

Would like to be "Agency B" on another Agency's TCS:
--> LACO DPW
--> Monrovia

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

N/A

3) Please provide any additional comments regarding this project or survey:

--> Phone room is Achilles heel, bldng not built for computers, wireless would work well. Dedicated lease line would be ok. Line for internet, LACO line for bldng permits, new line could work with small router. Duarte has server room, w/s could go there. Ability to do it but implementation would be a key, no funds for infrastructure, lines, router, etc

Funding:
--> City willing to devote funds to TCS O&M but making it happen is another matter
--> Proposition C & A funds already go to transit
--> Gas tax goes to street personnel
--> Whatever is left is used for the traffic budget (very small & a big problem)

Agency Survey – City of El Monte

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of El Monte

2) Date: November 4, 2003

3) Participants: Kev Tcharkhoutian/
Fernando Villaluna, Jack Schneider, Marc Porter, George Hattrup

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Kev Tcharkhoutian	(626) 580-2061		
Traffic Engineer	"	"	"	"
Maintenance	Rudy Sousa	(626) 580-2250		
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Aquatic Center (Tyler/Archer) - mostly locals
MTA Bus Depot (Santa Anita)
El Monte Airport (run by County)
Flair (Business) Park

7) Please identify the most congested roadways and intersections in your jurisdiction:
Valley & Lower Azusa (I-10 bypass)
Garvey (regional), Baldwin (lesser), Lower Azusa
Johnson & Valley (City Hall) at close of business
At some locations, trains can block intersections for long periods of time - Grade separations to be built: Ramona (2004) and Baldwin (2007)

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☐ No ☒ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? _____

3) Satellite location(s) _____

4) Hours of operations _____

5) Law enforcement co-location? _____

6) Maintenance co-location? _____

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☐
Incident Management	☐
Event Management	☐
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 67

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	_____
☒	Roadside	Type (e.g, field master, TOD, etc.):	_____
☐	Other:	Type:	_____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170E	67	
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

City staff and Peek (on-call/as needed)

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Done as needed; plan to signalize: Mountain View at Elliott/Meeker; Durfee at Exline; and Durfee at Clora Pl.

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Santa Anita, Valley and Peck were upgraded and synchronized by LACDPW

7a) How are signal timing plans and/or coordination strategies initially established?

7b) How are signal timing issues recognized and resolved?

7c) How often are signal timing plans and/or coordination strategies updated?

8) Signals/Controllers needs/comments (include desired signalized intersections):

Desires signals at 5-way intersection (Mountain View/Meeker/Elliot) and 2 on Durfee (see Item 4 above). Would like to improve coordination/signal system along Garvey, Baldwin, and Lower Azusa.

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	7	Fwy offramps		
LACODPW	2	Shared w/Temple City (Baldwin/L. Azusa and L. Azusa/Arden)		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	**# of Intersections (or %)**	**Satisfaction/Effectiveness**
Inductive Loop	100	High ☐ ☐ ☐ ☐ ☐ ☐ Low
VID	new x-sections	High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	**Currently Use**	**Planned Use**
Volume	☐	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

Installing 2 Red Flag red-light photo systems (Peck/Ramona & Santa Anita/Lower Azusa.

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

All copper wire in field - no connection to office.

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

If no cost to Agency

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Wants regional planning (esp. with Cities of Rosemead and Baldwin Park)

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Notes to above: The ability/desire to monitor other ITS devices is a function of staff and budget availability.
The ratings for coordinated TCS features is slightly less than for internal, but for just 2-3 intersections beyond City boundaries.

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$100000
New traffic equipment	$5000
Spare parts	$
Maintenance Personnel	$50000
Communications	$
Contractors	$75000
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Peek - on-call maintenance
Notes to above: 2- Ops personnel, 1 Maint.
Parts and equip. - funds found as needed/possible
Comm: LACDPW

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Glendora

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Glendora

2) Date: November 5, 2003

3) Participants: George Hattrup, Jack Schneider, Inez Yeung/Chad Veinot

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Chad Veinot	(626) 852-4845	(626) 914-9053	cveinot@ci.glendora.ca.us
Traffic Engineer				
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
210 and 57 freeways (bypass)
Lone Hill (Marketplace) (lunch and weekends)/Rte 66 (AM worst)
Wal-Mart
Glendora High School (AM and afternoon rushes) -- affects Foothill

7) Please identify the most congested roadways and intersections in your jurisdiction:
Grand Ave (no coordination)
Lone Hill (S. end has coordination (at Gladstone and 210)
Rte 66 (Alosta)

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☐ No ☒ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? _____

3) Satellite location(s) _____

4) Hours of operations _____

5) Law enforcement co-location? _____

6) Maintenance co-location? _____

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☐
Incident Management	☐
Event Management	☐
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

No interest in operating TMC

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 40

1b) Type of Control:

☒	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	Econolite
☐	Roadside	Type (e.g, field master, TOD, etc.):	
☐	Other:	Type:	

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Econolite Aries	1	on Lone Hill (2 intersections) and 2 other intersections
Econolite ASC 800	1	
Traconex 390CJ	13	
Traconex Rev J 390	11	
Comments: 1 - Traconex 390 Rev S; 6 - Traconex 390 Rev J; 1 - Eagle EPAL 300; 7 - Econolite ASC 2S 2100		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Peek

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Many (75%) old signals (Type-3 poles); would like to upgrade but funding issue

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	NIC (Lone Hill)

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Fixed/TOD above is on Rte 66

7a) How are signal timing plans and/or coordination strategies initially established?

As needed (public calls)

7b) How are signal timing issues recognized and resolved?

Public calls and staff observations (Engineer drives city routes weekly)

7c) How often are signal timing plans and/or coordination strategies updated?

Rte 66 last done 1993/1994 (prior to then, updated about monthly) Lone Hill will be done more frequently Wants other Agencies involved with timing plans (particularly Caltrans, which has 2 signals in the middle of a City corridor)

8) Signals/Controllers needs/comments (include desired signalized intersections):

Plans established, but no funding (list to follow)

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	4	2@210/Lone Hill; 1@ Baseline & Grans		
LACODPW	11	7 along Arrow Hwy & 4 on Barranca		
DPW (Plan)		Sierra Madre @ Barranca		

3) External control needs/comments:

Some of the older equipment is quite old and cannot handle current volumes and don't hold coordination well.

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	**# of Intersections (or %)**	**Satisfaction/Effectiveness**
Inductive Loop	37	High ☒ ☐ ☐ ☐ ☐ ☐ Low
VID	2	High ☒ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Pedestrian Actuated	1	High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	**Currently Use**	**Planned Use**
Volume	☐	☒
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other: Actuation	☒	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

Can dial in to VIDs and view images (from one workstation) - Uses Autoscope
Lone Hill @ Market Place and Rte 66 @ Grand
Pedestrian-activated mid-block signal is at Amelia @ Country Club

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☒ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Yes for County and Caltrans but limited w/other Agencies (next signal are usually too distant for Glendora's corridors)

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Especially with Caltrans and LACO

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☒
Control traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☒
Manage timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☒
Change active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☒
View detector information	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☒

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☒ ☐ ☒ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Emergency Operations
Notes to above: TCS Feature ratings assume current staffing (1 person) and time available.
Current Capability is only for 6 intersections
City police can access controller boxes to set lights to all flash (red).

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$130000
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
only 1 person for Ops	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Peek - Routine maintenance
HCI - Traffic Engineering (on-call) - different budget about $20,000

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

Staff/Time/Budget constrained

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Irwindale

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Irwindale

2) Date: November 14, 2003

3) Participants: Kwok Tam (City of Irwindale), Jose Loera (City of Irwindale), Inez Yeung (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Kwok Tam (City Engineer)	626.430.2212	626.430.2295	ktam@ci.irwindale.ca.us
Traffic Engineer	Jose Loera (Civil Engineer Assistant)	626.430.2250	626.430.2295	jloera@ci.irwindale.ca.us
Maintenance	LACO DPW			
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:
N/A

6) Please identify major traffic generators (include frequency and volume, if known):
Ready Pac Products - 1700 employees
Charter Communications - 970 employees
Décor-Active Specialties - 800 employees
Miller Brewing Company - 750 employees

7) Please identify the most congested roadways and intersections in your jurisdiction:
Major Congested Roadways/Corridors:
--> Foothill Blvd
--> Irwindale Ave
--> Arrow Hwy
--> Live Oak Ave

Signalized Intersections (Operating at LOS E or F):
--> Foothill/Irwindale
--> Irwindale/I-210 Fwy (on/off ramps)
--> Irwindale/Arrow

Other Signalized Intersections:
--> Arrow Hwy/Live Oak
--> Arrow Hwy/I-605 Fwy (on/off-ramps)
--> Live Oak/I-605 Fwy (on/off-ramps)

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? TMC

3) Satellite location(s) TMC to be located in a new facility behind City Hall

4) Hours of operations 8:00 AM - 6:00 PM

5) Law enforcement co-location? Yes

6) Maintenance co-location? No

7) TCS Usage:

Function	**Planned Use**
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☐
Emergency Operations	☒
Law Enforcement	☒
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

There is a need to coordinate the major arterials and reduce the travel time by upgrading the existing traffic control system.

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 32

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Type 170Es	32	LACO-1R

Comments:

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

LACO DPW

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

2004 Plans:
--> 8 signalized intersections will be upgraded (Irwindale Av @ 1st St, Business Park, Gladstone, Tapia/Martinez & [with LACO] Cypress; Arrow Hwy @ Morada St & Azusa Cyn Rd)
--> 2 new signalized intersections will be added (4th St @ Arrow Hwy; Ramona Bl @ Earl Av [w/Baldwin Park])

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☒	Traffic Responsive	☐
Special Events	☒	Transit Priority	☐
Planned Events	☒	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 synchronization via TBC, WWV, etc
--> Irwindale Ave
--> Foothill Blvd
--> Arrow Hwy
--> Live Oak Ave

City would like LACO DPW to update the signal timings along these corridors in May '04

7a) How are signal timing plans and/or coordination strategies initially established?

Based on traffic circulation & demand

7b) How are signal timing issues recognized and resolved?

Based on the traffic demand, turning movements, & traffic circulation

7c) How often are signal timing plans and/or coordination strategies updated?

Signal timing plans and/or coordination are being reviewed annually or when there is a major development

8) Signals/Controllers needs/comments (include desired signalized intersections):

--> Upgrade all cabinets to 332
--> Introduce VIDs on the major arterials
--> Upgrade controllers to 2070 controller w/ GPS time base units and/or fiber optic cable.

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	6	I-210 & I- 605 on/off ramps	Since installation	N/A
LACODPW	1	Arrow Hwy @ Vincent Ave	Since installation	N/A
Baldwin Park	4	Arrow Hwy @ Rivergrade Rd, Stewart Ave, Baldwin Park Blvd, & Maine Ave.	Since installation	N/A
Monrovia	1	Foothill Transit Dwy @ Peck Rd.	Since installation	N/A

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	32	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☒
Signal Preemption	☒	☐
Signal Priority	☐	☒
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?
Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

VIDs:
--> Interested in a VIDs pilot project along major corridors & near business centers

CCTV (Planned):
--> Foothill/Irwindale
--> 1st/Irwindale
--> Arrow Hwy/Irwindale
--> All I-210 & I-605 Fwy interchanges
--> Live Oak /Speedway (Irwindale Speedway)
--> Arrow Hwy/Live Oak (East & West ends)
--> Peck/Live Oak

City is concerned w/ visibility issues for VIDs and/or CCTV due to dust from nearby mining operations

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio	Irwindale Ave, Arrow Hwy, & Live Oak Ave	w/in City Limits		
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

Less than 10%

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

N/A

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☒ Low

5) What additional features and/or functionality would you like your communications network to provide?

N/A

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

N/A

7) Communication systems needs/comments:

N/A

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

N/A

2) Traveler information systems needs/comments:

CMS (Planned):

--> Future Gold Line station on Irwindale/Foothill

--> Live Oak/Speedway (Irwindale Speedway)

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Because it will allow for a better traffic circulation on the major arterials and provide alternate routes

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

Because the City can work jointly with neighboring Cities to better manage potential traffic conflicts

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

--> Baldwin Park, Azusa, Caltrans, Arcadia, Monrovia, & other interested Agencies
--> Would want signed MOUs to direct policy

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View phase indication	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	**Importance**	**Current Capability**
Monitor other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Never

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$10000
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$30000
Communications	$10000
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$50000

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

City has an "open" task order w/ LACO DPW to provide maintenance, design & construction assistance

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of La Puente

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of La Puente

2) Date: November 12, 2003

3) Participants: Bill Woolard, Gregg Yamachika, Joe Boada/ Inez Yeung, Jack Schneider, George Hattrup

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Bill Woolard Comty. Svc. Dir.	626-855-1500	626-961-4626	
Traffic Engineer	Ray Abassi Traffic Engineer	714-940-0100 x133	714-940-0700	rabassi@aaeinc.com
Maintenance	Paul Alvarado	626-855-1500	626-961-4626	
Planning	Gregg Yamachika	626-855-1500	626-961-4626	
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Commuter through traffic
Cities of Industry and West Covina

7) Please identify the most congested roadways and intersections in your jurisdiction:
Valley Blvd, Hacienda (primary north/south - with AM/PM peaks) Blvd, Amar Road
Worst area: on Hacienda between Francisquito to Amar

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☐ No ☒ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? _____

3) Satellite location(s) _____

4) Hours of operations _____

5) Law enforcement co-location? _____

6) Maintenance co-location? _____

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☐
Incident Management	☐
Event Management	☐
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

Would like to be able to access signal and pedestrian timing information sometimes

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 11

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	_____
☒	Roadside	Type (e.g, field master, TOD, etc.):	_____
☐	Other:	Type:	_____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Comments: signal count is estimate - full info unavailable at this time		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

LA County
Need to get above info from LA County

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Signal synchronization (interconnect) project along Temple from Ardilla to Del Valle (6 intersections) - Should be complete around 1/1/04.

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☒	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

7a) How are signal timing plans and/or coordination strategies initially established?

LACO

7b) How are signal timing issues recognized and resolved?

Commuter complaints

7c) How often are signal timing plans and/or coordination strategies updated?

5 years

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans				
LACODPW				
LACO/Industry	1	Azusa Way/Valley Bl		

3) External control needs/comments:

Get info from LACO

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☐ ☐ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☒	☐
Speed	☐	☐
Occupancy	☒	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				all
Fiber optic				
Radio	Temple			3 GPS and 2 WWV
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Value includes expediting movement of Traffic through City arterials. (Generally, only to the south; too far between signals in other directions)

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

Yes, as long as there is no cost involved and if the City has local controls (advise/input) within its boundaries.

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Neighboring Cities (primarily, Industry)

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

As long as the City is allowed to participate in the approval process during various synchronization/timing and maintain local control.

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

AAE, Inc. - engineering services, traffic studies, etc.

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

Encourage use of coordinated system on a grid basis along all major arterials throughout the County

3) Please provide any additional comments regarding this project or survey:

Agency Survey – LA County DPW

Part 1 – General Information

A. General/Admin

1) Name of Agency: Los Angeles County Department of Public Works
Traffic and Lighting

2) Date: November 17, 2003

3) Participants: Jane White, Marty Amundson, Jeff Pletyak, Inez Yeung/
Chuck Dankocsik, Jack Schneider

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Jane White	626-300-4275		jwhite@ladpw.org
Traffic Engineer	Marty Amundson			
Maintenance	George Ellis Signal Maint. Supv.	626-458-1708		
Planning				
Admin	Inez Yeung	626-300-4734		iyeung@dpw.co.la.ca.us

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Note: Area of interest includes unincorporated areas in the SGV, especially in Altadena and East LA, and LACO operations in the SGV. East LA is sometimes used for R&D.
3rd St. will get Light Rail Priority, Whittier Bl will get (LADOT) Rapid Bus TPS

7) Please identify the most congested roadways and intersections in your jurisdiction:
Whittier Bl.; Altadena/Whittier; Atlantic/Beverly; Atlantic/Olympic;
Huntington/Rosemead (by Jan '05, Caltrans to cede signals on Rosemead Bl. to local Agencies); Live Oak/Myrtle/Peck; Huntington/San Gabriel;
Colorado/Rosemead;Colorado/Michelinda; Eastern/State University

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Management Center

1) Does your Agency (plan to) operate a Traffic Management Center (TMC)?
Yes ☒ No ☐ (continue to Question 11)

2) Where is the TMC located? 1st Floor Annex Bldg (900 S. Freemont)

3) Size of TMC (sq. ft.) 9000 sq. ft. (est)

4) Satellite location(s) Maintenance Yard (1540 Alcazar St., LA)

5) Hours of operations Peak-to-peak (6AM - 7PM), M-F

6) Staff size (total and by shift) As needed - 15 operators at peaks

7) Law enforcement co-location? No (CHP resp. for traffic enforcement in unincorporated areas)

8) Maintenance co-location? see #B-4, above

9) TMC Usage:

Function	Currently Use	Planned Use
Signal Monitoring/Control	☐	☒
Incident Management	☐	☒
Event Management	☐	☒
Transit Coordination	☐	☒
Emergency Operations	☐	☐
Law Enforcement	☐	☐
ITS Device Management/Control	☐	☒
Other:	☐	☐

10) Describe any TMC replacement, upgrade, or expansion plans (include dates, if known):

TMC construction begins 11/03 and TMC opens 6/04; TMC to include 15 workstations and a 2x8 array of 50" monitors.

11) TMC needs/comments:

Selected TCS vendor to be announced December '03

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 200

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170s/various		LACO-1R and some LACO-3

Comments: There will be some LACO-IV after TCS implementation and some 2070s (w/LADOT firmware) on Whittier as part of the (LADOT) Transit Priority implementation

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

LACO

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Some controllers will need upgrades of Firmware and CPUs (to HC-11).
170E controllers to be upgraded to 170ATC (from McCain or Safetran)

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

IY to provide list/map

7a) How are signal timing plans and/or coordination strategies initially established?

Synchro software

7b) How are signal timing issues recognized and resolved?

Public and local Agency notification; Traffic engineers periodically check hardware

7c) How often are signal timing plans and/or coordination strategies updated?

As needed After TMC/TCS implemented, periodic reviews (every 3 years); also signal retiming will be done from TMC.

8) Signals/Controllers needs/comments (include desired signalized intersections):

Future types of timing plans include Pre-planned Scenarios, Planned Events, Transit Priority, LRT Priority and possibly Traffic Responsive

B. Centralized Control

1) Does your Agency have a central traffic control system (TCS)?
Yes ☐ No ☒ (Please skip to Question B6)

2) System Information:

Vendor/Software	
Version	
Date Implemented	
Hardware	
Polling Rate	

3) Number intersections connected to the central system:

Comments:

4) Please rate your satisfaction with your TCS High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features/functionality would you like your TCS to provide?

6) Describe any central control replacement, upgrade, or expansion plans (include dates, if known):

December '03 announcement of TCS vendor

7) TCS needs/comments:

C. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question C3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	10	Rosemead Bl, Atlantic/60 Fwy		'04 (est)
LACODPW				
LADOT	6	Indiana		

3) External control needs/comments:

D. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☒ ☐ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
VIDs at bridge deck: I10 on-ramp and Eastern/State U	2	High ☐ ☐ ☒ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☒	☒
Signal Preemption	☐	☐
Signal Priority	☐	☒
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐ (Please skip to Question D14)

4) Types of CCTV images:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☒
Video Still Images	☐	☒
Other: hybrid	☐	☒

5) How many displays/monitors do you have to show your CCTV images? _____

6) CCTV Camera Information:

Manufacturer	Quantity	Features/Functionality

7) Image usage/feed information:

Destination	Currently	Planned
TMC	☐	☒
Maintenance	☐	☒
Police	☐	☐
City Hall	☐	☐
Web	☐	☒
Media	☐	☐
Other Agencies (via IEN)	☐	☒
Other ( )	☐	☐

8a) What software is used to control your CCTV system? _____

8b) Software Version: _____

8c) Is it integrated with your TCS? Yes ☒ No ☐

9a) Can your Agency receive CCTV feeds from other Agencies?
Yes ☒ No ☐

9b) If yes, which Agencies? All participating Agencies

9c) Types of CCTV Images from Other Agencies:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☐
Video Still Images	☐	☐
Other:	☐	☐

10a) Can other Agencies control your CCTV cameras? Yes ☒ No ☐

10b) If yes, under what conditions/scenarios?

Agency agreements in place and IEN

11) Please describe how CCTV is used in your day-to-day operations:

12) Please rate your satisfaction with your CCTV system(s): High ☐ ☐ ☐ ☐ ☐ ☐ Low

13) Describe what additional features and/or functionality you would like your CCTV system to provide:

14) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

CCTV on 3rd St. Light Rail every 1/2 mile

15) Detection/surveillance needs/comments:

VIDs are improving steadily, but there are still problems with direct sunlight, reactiveness of the software and camera range (max 300 ft. from VID); using hybrid for advanced detection (VID for advanced detection and loops at the intersection)

E. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable	signal	signal		all signal-signal WWV
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

standards not yet mature enough to utilize

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☒ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

3rd St. interconnect is currently copper, but a multi-cell fiber-optic conduit is being installed. All technologies will be considered for each project and selected on a cost/benefit basis, both Agency-owned and/or leased

7) Communication systems needs/comments:

Many of the interconnects are very old and needs replacement. As road construction is done by various Agencies, LACO requests that conduit be installed (e.g., Fair Oaks/Huntington/Freemont????)

F. Traveler Information

1) Please provide the following information about various traveler information systems your Agency uses:

Traveler Info System	Vendor/Model	Quantity	How Controlled	Integrated w/TCS
VMS				☐
HAT				☐
HAR				☐
Kiosk				☐
Advanced RR Warnings				☐
Internet				☐
Other:				☐

2a) Can other Agencies place messages, etc. on your Traveler Information Systems?
Yes ☐ No ☐

2b) If yes, which: _____

3) Describe any traveler information systems replacement, upgrade, or expansion plans (include dates, if known):

South Bay (15) and Gateway Cities (4) to install CMS (6/05)

4) Traveler information systems needs/comments:

Control of RWIS and CMS in snowy regions may be brought into TMC at some point

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐
1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

Change other Agencies' active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Incident related events (that effect County signals)

Generally, Agencies will rely on County to take control of their signals in specified situations (part of Agency agreements to be developed)

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Monrovia

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Monrovia

2) Date: November 6, 2003

3) Participants: Doug Benash (City of Monrovia), Don Barker (City of Monrovia), Fernando Villaluna (LACO DPW), Chuck Dankocsik (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Doug Benash	626.932.5547	626.932.5559	dbenash@ci.monrovia.ca.us
Traffic Engineer	Don Barker			
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Downtown
I-210/Myrtle (Hi-tech development area)
Hungtington Blvd
--> East of Myrtle (business complexes)
--> West of Myrtle (commercial/retail area, shopping malls, etc.)
Mt Sierra College

7) Please identify the most congested roadways and intersections in your jurisdiction:
Corridors:
--> Huntington
--> Mountain
--> Myrtle

--> Only 3 Freeeway and 6 arterial crossings over the San Gabriel River (in which this physical/natural constraint seems to be a major indicator of congested corridors).
--> Monrovia would like to talk with other Agencies regarding SGV river crossings to maximize throughput

Intersections:
--> Huntington/Myrtle (Left turn movements both directions)
--> Huntington/I-210 (Caltrans queue detection at top of ramp then cut free)

Huntington:
--> Most intersections operate @ LOS D
--> Heavy AM peak westbound & PM peak eastbound

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Engineer's desk

3) Satellite location(s) N/A

4) Hours of operations 7:00 AM -5:00 PM

5) Law enforcement co-location? N/A

6) Maintenance co-location? N/A

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☐
Event Management	☒
Transit Coordination	☒
Emergency Operations	☒
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

--> Would prefer to operate a TCS as "Agency B" on another Agency's TCS
--> If not, would operate their own centralized TCS
--> Would like the TCS to automatically generate a "maintenance report" on a daily basis to better focus O&M efforts (e.g., communications, detection, etc.)
--> Do not have staff to do hands-on daily operations
--> When an incident occurs on I-210, City would like Caltrans to give up control of the signals on the interchanges (Huntington, Mountain, & Foothill)

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 37

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware

Comments:
Signals:
--> Of 37 signalized ints, 3 are "flasher-only"

EMS Pre-Emption (Monrovia E-Views):
--> Along Huntington between Myrtle & I-210 for Police & Fire Depts.
--> Installed a 4' x 4' sign that warns drivers of situation and direction from which EMS is coming

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

LA Signal

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Transit Village:
--> Located @ Myrtle/Duarte (operations expected Nov '04)
--> For bus layovers
--> Express shuttles to Gold Line Station (Sierra Madre Villa Station)
--> NTP on Transit Village in 4-6 months (April 04)
--> New signal for entry/exit

Gold Line (Phase 2):
--> Station to be located @ Myrtle
--> May need LRT Coordination

Myrtle:
--> Install interconnect in 2005
--> Transit Priority System (TPS) movements/coordination along Myrtle

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 synchronization via TBC, WWV, etc.:
--> Mountain
--> Foothill
--> Huntington

Traffic Responsive/Adaptive (Planned)
--> Mountain
--> Myrtle

LRT Priority
--> Gold Line (as necessary)

7a) How are signal timing plans and/or coordination strategies initially established?

--> LACO DPW established initital timings circa 1991
--> City has been trying to get LACO DPW to update these timings for the past 2-3 years

7b) How are signal timing issues recognized and resolved?

Exceptions/complaint based (e.g., resident call-ins, City staff observations, etc.)

7c) How often are signal timing plans and/or coordination strategies updated?

--> Lack of City staff to do re-timing --> City has no current policy re: timing update sin-effect --> City would like to update signal timings every 3 years

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	8	I-210/Huntington (EB & WB) Myrtle/Central Myrtle/Evergreen California/Central California/Evergreen Mountain/Central Mountain/Evergreen		
LACODPW	1	Live Oak/Peck (Myrtle)		
Duarte	1	Mountain/Huntington		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	**# of Intersections (or %)**	**Satisfaction/Effectiveness**
Inductive Loop	100	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	**Currently Use**	**Planned Use**
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☒
Signal Preemption	☒	☒
Signal Priority	☐	☒
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

VIDs:
--> Would like VIDs but need cost/benefit analysis

CCTV:
--> Transit Village (Myrtle/Duarte)
--> Myrtle corridor
--> Mountain corridor

5) Detection/surveillance needs/comments:

Loops:
--> Approx. 5-10% of loops down per day

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	**From**	**To**	**Bandwidth**	**ITS Devices Supported**
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

N/A

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

Development Area (on Mountain south of I-210)

--> Meeting w/ Duarte to discuss

--> Potential interconnect, conduit, etc. along Myrtle and/or Mountain corridors

--> Need Caltrans coordination at I-210 interchanges

7) Communication systems needs/comments:

N/A

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

N/A

2) Traveler information systems needs/comments:

Portable VMS: --> For events, construction, and heavy congestion City Internet Website: --> Provide real-time traffic conditions (e.g., video images, speed, travel time, etc.) along Mountain, Myrtle, & I-210 interchanges Kiosks --> Located @ Transit Village, downtown, & Cal/Huntington.

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View detector information	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Planned event management	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

--> Willing to cede control to LACO DPW per MOUs
--> Want Agencies to look at the Regional "big picture" re: SGV River Crossings
--> Also, after hours operations, major incidents, & issues re: Regional movement of traffic

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$32
Spare parts	$
Maintenance Personnel	$29.8 K
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$61

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

LA Signal
--> Complete traffic signal maintenance operations (e.g., controllers, loops, lights, comms, etc.).

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

--> Understaned the O&M role re: TCS if LACO DPW & MTA pay for CIP
--> However, getting the City to fund O&M is approx. 0%

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

City Transit:
--> Oprates a local dial-a-rie operating south of Duarte
--> There is also a fixed route trolly in Od Towne operating on Myrtle & Huntington
--> Foothill Transit and MTA also operate transit in area

Agency Survey – City of Montebello

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Montebello

2) Date: November 5, 2003

3) Participants: Inez Yeung, Jack Schneider, George Hattrup/Mike Ho

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Michael Ho	(323) 887-1471	(323) 887-1464	mho@cityofmontebello.com
Traffic Engineer				
Maintenance	Michelle Haro			
Planning	Tonya Pace			
Admin	Richard Torres			

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Town Center (Paramount/Montebello)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Via Campo/Garfield, Montebello/Paramount, Beverly/Montebello, Whittier/Garfield
Washington/Greenwood, Beverly/Garfield
Beverly, Whittier, Washington, Montebello and Paramount Blvds
Telegraph Rd, Via Campo, Garfield Ave

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Separate Room

3) Satellite location(s) _____

4) Hours of operations 7:30AM 0 5:30 PM M-Th

5) Law enforcement co-location? No

6) Maintenance co-location? No

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☒
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

hardwire at each signalized intersection

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 78

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	_____
☒	Roadside	Type (e.g, field master, TOD, etc.):	_____
☐	Other:	Type:	_____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170s		
Comments: See inventory sheet		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Peek (re-bid Jan., 2004)

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

All by LACO:
Washington Blvd., Beverly Blvd, Whittier Blvd

7a) How are signal timing plans and/or coordination strategies initially established?

LACO DPW

7b) How are signal timing issues recognized and resolved?

Public complaint/Field investigation by Traffic Engineer

7c) How often are signal timing plans and/or coordination strategies updated?

8) Signals/Controllers needs/comments (include desired signalized intersections):

Would like VIDs on major arterials (at 67 intersections - see below) Replacement of old cabinets to type 332

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	3	2@SR60/Paramount Markland?/Via Campo		
LACODPW	3	Potero/Arroyo, Arroyo/Paramount, Lincoln/San Gabriel		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	77	High ☐ ☐ ☐ ☒ ☐ ☐ Low
VID	1	High ☒ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Future: VID	68	High ☐ ☐ ☐ ☐ ☐ ☐ Low
Future: Loop	10	High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☒
Signal Preemption	☐	☒
Signal Priority	☐	☒
Other:	☐	☒

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

May try using VIDs as source for CCTV

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				all
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

All copper wire communication system in field - no connection to office. Would like to control signals from office.

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Would like CMS on Beverly Blvd at City limits to indicate traffic conditions towards LA and 605

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

The City would like to know the travel time along major arterials

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

All major arterials

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Incident management, Emergency operations, off hours

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
will send later	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Maintenance and upgrades

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

Priority 1: Beverly Whittier and Washington Blvds (w/LA, Pico Rivera and Commerce)
Priority 2: timing on Greenwood and Montebello Blvd (w/ Monterey Park and Commerce)

3) Please provide any additional comments regarding this project or survey:

The city is in full support

Agency Survey – City of Monterey Park

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Monterey Park

2) Date: November 6, 2003

3) Participants: Inez Yeung, Jack Schneider, George Hattrup/ Ronald Merry, Elias Saykali, Stephen Hilton

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Ronald Merry Dir. Dpw/City Eng.	(626) 307-1323	(626) 307-2500	rmerry@montereypark.ca.gov
Traffic Engineer	Stephen Hilton Traffic Consult.	(626) 307-1323	(626) 307-2500	shitlon@montereypark.ca.gov
Maintenance	Jerry Walker Street Maint. Supv.	(626) 307-1490	(626) 280-6775	jwalker@montereypark.ca.gov
Planning	Ray Hamada Mgr. Community Dev.	(626) 307-1463	(626) 288-2457	rhamada@montereypark.ca.gov
Admin	Christina Garcia	(626) 307-1320	(626) 307-2500	cgarcia@montereypark.ca.gov

5) Please identify other City Agencies/personnel that we should contact:
Traffic Signal Maintenance contractor - Computer system Services

6) Please identify major traffic generators (include frequency and volume, if known):
The City of Monterey Park is predominantly a residential community and therefore has no major traffic generators

7) Please identify the most congested roadways and intersections in your jurisdiction:
Atlantic Blvd, Garfield, and Garvey Avenues
Atlantic/Hellman, Atlantic/Emerson, Atlantic/Garvey, Atlantic/Floral, Atlantic/Riggin, Atlantic/First, Garfield/Hellman, Garfield/Emmerson, Garfield/Garvey, Garfield/Pomona Garvey/Corporate Center, Garvey/Alhambra, Garvey/New, Pomona/Wilcox

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Traffic conultant's desk (Eng. Dept.)

3) Satellite location(s)

4) Hours of operations 7:30AM - 5:30PM

5) Law enforcement co-location? Traffic Sgt.'s office (upstairs)

6) Maintenance co-location? City Yard Maint. Facility

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☒
Emergency Operations	☒
Law Enforcement	☒
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

unknown at this time

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 65

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	
☒	Roadside	Type (e.g, field master, TOD, etc.):	
☐	Other:	Type:	

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Econolite 8200		
170 (State)	5	
Econolite 2100	5+	
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

CSC (July 2004 rebid)

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

6 non-primary corridor intersections to be upgraded to 8200s

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	Actuated

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Time-based coordination on Garfield
Time-based on Atlantic
(controllers w/WWV are accurate)

7a) How are signal timing plans and/or coordination strategies initially established?

LACO

7b) How are signal timing issues recognized and resolved?

Public or staff

7c) How often are signal timing plans and/or coordination strategies updated?

As needed

8) Signals/Controllers needs/comments (include desired signalized intersections):

Would like to see coordinated/common time controller & roadside clock/timing

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	4	Fwy (10 & 60) ramps		
LACODPW	6			
Alhambra	2			

3) External control needs/comments:

Other Agency's costs seem to be higher

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	63	High ☐ ☐ ☒ ☐ ☐ ☐ Low
VID	2	High ☒ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other: Detection	☒	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

No budget for migration
Loops are high maintenance
All new intersections to be VIDs
Uses VIDs for Pedestrian Warnings (e.g., driveways, etc.)

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				all
Fiber optic				
Radio				for WWV clock
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

Info from field devices

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

none

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Primarily emergency operations and off-hours

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$contract
New traffic equipment	$25000
Spare parts	$
Maintenance Personnel	$0
Communications	$
Contractors	$75000
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

All maintenance

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Would like to get a demo of TCS (CD, video) as part of a project outreach
Concern: How will TCS be used within Agency?
SH to send signal map, John Hill (LACO) to provide other as-builts

Agency Survey – City of Pasadena

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Pasadena

2) Date: November 5, 2003

3) Participants: Bahman Janka (City of Pasadena), Norman Baculinao (City of Pasadena), Victor Koo (City of Pasadena), Fernando Villaluna (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Bahman Janka	626-744.4610	626.744.4757	bjanka@ci.pasadena.ca.us
Traffic Engineer	Norman Baculinao	626.744.4263	626.396.7561	nbaculinao@ci.pasadena.ca.us
Maintenance	Victor Koo	626.744.4703	626.744.4757	vkoo@ci.pasadena.ca.us
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Old Town
Rose Bowl - Possible NFL Expansion/UCLA 6 home games
Post Rose Parade at Victory Park (Sierra Madre Bl), 60,000 people
Other venues, 400+ events per year, 100+ require detours and event management
Civic Center expansion, JPL, Caltech, Schools

7) Please identify the most congested roadways and intersections in your jurisdiction:
Lake Avenue, Orange Grove, Pasadena, Fair Oaks, Arroyo, Del Mar, California, Washington, San Gabriel, Rosemead
Intersections - Walnut/Lake, Lake/Corson, CA/Fair Oaks, Walnut/Hill, Sierra Madre/Villa, Walnut/Foothill

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Management Center

1) Does your Agency (plan to) operate a Traffic Management Center (TMC)?
Yes ☒ No ☐ (continue to Question 11)

2) Where is the TMC located? City Hall

3) Size of TMC (sq. ft.) 1000

4) Satellite location(s) Maintenance yard

5) Hours of operations 7-5 and weekends for special events

6) Staff size (total and by shift) 2

7) Law enforcement co-location? no

8) Maintenance co-location? Maintenance yard

9) TMC Usage:

Function	Currently Use	Planned Use
Signal Monitoring/Control	☒	☒
Incident Management	☐	☒
Event Management	☒	☐
Transit Coordination	☐	☒
Emergency Operations	☒	☒
Law Enforcement	☐	☐
ITS Device Management/Control	☒	☒
Other:	☐	☐

10) Describe any TMC replacement, upgrade, or expansion plans (include dates, if known):
Transit Coordination desired but not funded. Re-design TMC 3 years from June 04 move.

11) TMC needs/comments:

Future center needs to be bigger.

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 308

1b) Type of Control:

- ☒ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☐ Roadside — Type (e.g, field master, TOD, etc.): _____
- ☒ Other: — Type: BiTran — 18

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170	290	BiTran
2070	18	BiTran
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

City staff, 8 total city techs, 3 are signal techs

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

There are three concepts: 1.) keep existing two types and upgrade, migrate to one or the other and upgrade, or replace with third that does both.

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☒	Traffic Responsive	☐
Special Events	☒	Transit Priority	☐
Planned Events	☒	LRT Priority	☒
		Other (please specify)	Bitrans-LRT and TOD

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Everything is grid/network coordination, crossing arterials coordinated - Some corridors get extra detection, longer cycle lengths such as Lake Ave., Paseo, and Gold Line.

7a) How are signal timing plans and/or coordination strategies initially established?

Synchro in house, consultants provide also

7b) How are signal timing issues recognized and resolved?

Check Series 2000 and QuickNet system. Reactive, respond to complaints.

7c) How often are signal timing plans and/or coordination strategies updated?

Mobility Corridor, 50-60k per year, so they look at 2-3 corridors per year, but no actual policy, city chooses corridors, initially budget was for capital improvements and is now used on signal timing.

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Centralized Control

1) Does your Agency have a central traffic control system (TCS)?

Yes ☒ No ☐ (Please skip to Question B6)

2) System Information:

Vendor/Software	
Version	
Date Implemented	
Hardware	
Polling Rate	

3) Number intersections connected to the central system:

4) Please rate your satisfaction with your TCS High ☒ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features/functionality would you like your TCS to provide?

More user friendly. Easier programming for special events. We would like to have a system with an adaptive capability. Alerts to incidents, flagging, automatic. Internet access, displays volumes, speeds. Being able to run transit priority. Operate various systems under one umbrella, signal controllers, VID, CCTV, LRT, etc.

6) Describe any central control replacement, upgrade, or expansion plans (include dates, if known):

TMC will be in trailer for three years during seismic retrofit. TMC will be redesigned for 2007 move-in to city hall basement.

7) TCS needs/comments:

Comments: Not PC based, can't network in, usability issue, performance is high, no complaints, doing everything they wish.

C. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question C3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	16	Various		
LACODPW	6	Various		
Sierra Madre(operated by Pasadena)	2	Sierra Madre/ Michillinda		
South Pasadena & La Canada	4	Various		

3) External control needs/comments:

D. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	288	High ☐ ☒ ☒ ☐ ☐ ☐ Low
VID	17	High ☐ ☒ ☐ ☐ ☐ ☐ Low
Microwave	4	High ☐ ☒ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Fair Oaks	25	High ☐ ☐ ☐ ☐ ☐ ☐ Low
All new are VID	18	High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☒	☐
Speed	☒	☐
Occupancy	☒	☐
Signal Preemption	☒	☐
Signal Priority	☐	☒
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐ (Please skip to Question D14)

4) Types of CCTV images:

Type	Currently Use	Planned Use
Live/Streaming Video	☒	☐
Video Still Images	☐	☐
Other:	☐	☐

5) How many displays/monitors do you have to show your CCTV images? 5

6) CCTV Camera Information:

Manufacturer	Quantity	Features/Functionality
Cohu	10	Live/Streaming/Still Images

7) Image usage/feed information:

Destination	Currently	Planned
TMC	☒	☐
Maintenance	☐	☒
Police	☒	☐
City Hall	☐	☐
Web	☐	☒
Media	☐	☐
Other Agencies ( )	☐	☐
Other ( )	☐	☐

8a) What software is used to control your CCTV system? _____

8b) Software Version: _____

8c) Is it integrated with your TCS? Yes ☐ No ☒

9a) Can your Agency receive CCTV feeds from other Agencies?
Yes ☐ No ☒

9b) If yes, which Agencies? _____

9c) Types of CCTV Images from Other Agencies:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☐
Video Still Images	☐	☐
Other:	☐	☐

10a) Can other Agencies control your CCTV cameras? Yes ☐ No ☒

10b) If yes, under what conditions/scenarios?

11) Please describe how CCTV is used in your day-to-day operations:

Observe arterials (e.g., flow, usage, back-ups, etc.) - peak direction plan checking, verifying signal timing, light rail operations such as gate timings, even more useful in special events and coordinating with police and Rose Bowl, outbound event plans, provides proactive approach.

12) Please rate your satisfaction with your CCTV system(s): High ☒ ☐ ☐ ☐ ☐ ☐ Low

13) Describe what additional features and/or functionality you would like your CCTV system to provide:

Night visibility, better zoom, 10-yr old cameras

14) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

Fair Oaks - 18, Grant for replacing all existing 10yr old camera's, local CIP

15) Detection/surveillance needs/comments:

E. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

DAG (Design Advisory Group) - Fiber backbone (710 mitigation projects) 2.5 million for fiber optic, 2-3 years for construction - Adding 18 CCTVs and limited VID, less than 10

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

City has copper cable city wide and fiber optic for CCTV. The Fair Oaks project will include communication for CMS, VID, CCTV, and TCS 2070's possibly in the future. A citywide communication backbone is planned, $2-5 million, construction in June 2006. Standards include NTCIP and C2C. City is keeping up with technology. The Fair Oaks project will support VID and CCTV video.

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☒ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

Fiber for future potential

F. Traveler Information

1) Please provide the following information about various traveler information systems your Agency uses:

Traveler Info System	Vendor/Model	Quantity	How Controlled	Integrated w/TCS
VMS				☒
HAT				☐
HAR				☐
Kiosk				☐
Advanced RR Warnings				☐
Internet				☐
Other:				☐

2a) Can other Agencies place messages, etc. on your Traveler Information Systems?
Yes ☐ No ☒

2b) If yes, which: _____

3) Describe any traveler information systems replacement, upgrade, or expansion plans (include dates, if known):

New CMS at Arroyo Parkway at Glenarm St northbound. Three systems planned on Fair Oaks and some in other places

4) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐
1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Jurisdictions whose event generator(s) can or already impact traffic along multi-jurisdictional arterials.

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	**Importance**	**Current Capability**
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Control other ITS devices	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Planned event management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☒

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Under no circumstances

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$ 150
New traffic equipment	$ 15
Spare parts	$ 10
Maintenance Personnel	$ 800
Communications	$ 12
Contractors	$ 25
Computer H/W	$ 5
Computer S/W	$ 5
	$
Total	$ 1,012

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Fiber Optic Communications

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Rosemead

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Rosemead

2) Date: November 12, 2003

3) Participants: Ken Rukavina, Joanne Itagaki, Ken Hanson/ Inez Yeung, Jack Schneider, George Hattrup

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Ken Rukavina C.E.	(626)569-2151	(626) 307-9218	
Traffic Engineer	Joanna Itagaki (Wildan)			
Maintenance	Ken Hansen (Wildan)			
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:
Contract city: Wildan

6) Please identify major traffic generators (include frequency and volume, if known):
South side of town: SC Edison, Countrywide, Panda Express (HQ)
Wal-Mart (2005) (Walnut Grove/Rush), Montebello Town Center
North side of town: Rosemead Square (Rosemead/Marshall), Rosemead HS(Rosemead/Mission)
Through traffic on Valley, Garvey (AM/PM peaks) and Rosemead (weekend peak)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Rosemead/Valley, Garvey/Walnut Grove, Garvey/San Gabriel,
Walnut Grove/San Gabriel, Marshall/Rosemead, Mission/Rosemead

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? City Engineer's office

3) Satellite location(s) Wildan (City of Industry)

4) Hours of operations 7AM to 6PM M-Th

5) Law enforcement co-location?

6) Maintenance co-location?

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☐
Event Management	☒
Transit Coordination	☐
Emergency Operations	☒
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

Lack of personnel for full-time; just for monitoring/events

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 51

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	_____
☒	Roadside	Type (e.g, field master, TOD, etc.):	_____
☐	Other:	Type:	_____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
predominantly 170s		LACO-1, Bitrans
Type 90 Multisonics		
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

PEEK

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

About 30 old controllers being replaced w/170s and new pedestrian push buttons (2004) sometimes get notices from PEEK that a controller is too old (to handle UPS/power fluctuations) or can't be fixed

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Garvey, Valley, Del Mar, Temple City Bl - LACO; San Gabriel
Mission and Rosemead are in progress

7a) How are signal timing plans and/or coordination strategies initially established?

LACO w/ City review

7b) How are signal timing issues recognized and resolved?

public complaint

7c) How often are signal timing plans and/or coordination strategies updated?

LACO needs to review timing plans along corridors (due to time/age and local modifications)

8) Signals/Controllers needs/comments (include desired signalized intersections):

Exit on E10/Walnut Grove (on Hellman) needs signal (would like to use an existing controller [Caltrans]100 ft away)

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	10			
LACODPW	2			
Monterey Park	2			
other	2			

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	**# of Intersections (or %)**	**Satisfaction/Effectiveness**
Inductive Loop	100	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	**Currently Use**	**Planned Use**
Volume	☐	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other: Detection	☒	☒

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

City Council member is very anti-CCTV, but would like to use for incident management at aforementioned intersections

Would like to implement Red Light Cameras

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable	Klingerman	Rush		interconnects on Walnut Grove
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless (WWV)				LACO Synchs
Other ( )				

2) Which of the above have spare capacity and how much?

Empty conduit on Valley (Rosemead to Charlotte)

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

back to central location

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

to cover operations when not staffed (esp. incident management)

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Off hours, emergency management (only to LACO)

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$5000
New traffic equipment	$100000
Spare parts	$
Maintenance Personnel	$156000
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

new signals, maintenance and some operations

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Would recommend, but unknown if council will approve funds for operating TCS; See a lot of value to doing so/participating

Long term solution to traffic problems: subway on Valley Blvd.

Agency Survey – City of San Dimas

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of San Dimas

2) Date: November 7, 2003

3) Participants: Jane White, Jack Schneider, George Hattrup/ Krishna Patel, John Campbell

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Krishna Patel, D.P.W.	(909) 394-6245	(909) 394-6249	kpatel@ci.san-dimas.ca.us
Traffic Engineer	Warren Siecke (Contract)			
Maintenance	John G. Campbell, P.W. Maint. Super.	(909) 394-6270	(909) 394-1271	jcampbell@ci.san-dimas.ca.us
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Covina Blvd/Terrace Drive businesses, 57 and 210 freeways (offramps and as Fwy bypass
to Covina Bl and Arrow Hwy)
Future: Costco may be built that may become a traffic gen.

7) Please identify the most congested roadways and intersections in your jurisdiction:
Arrow Hwy/Bonita, Arrow Hwy/S. 57 Fwy, Arrow Hwy/Cataract

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? City Hall Engineering Div.

3) Satellite location(s) Maintenance Yard

4) Hours of operations 8AM to 5PM M-F

5) Law enforcement co-location? Pone Express Court (new LACO Sheriff Station)

6) Maintenance co-location? See #3, above

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

Equipment required to effectively operate the various systems (CCTV, controllers, CMS & other systems) in the field

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 33

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	
☒	Roadside	Type (e.g, field master, TOD, etc.):	
☒	Other:	Type: 170 Field Masters	Arrow/Rennell Badillo/Cypress

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170	33	LACO (various revs) & some Caltrans
Comments: 50% upgraded to 170E		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Computer Service Company

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

No major upgrade programs planned. Annual replacement of 2 to 4 170 controllers with 170E controllers

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☐	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	LACO time-space timing

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Time based: Foothill Bl, San Dimas Av, sections of Arrow Hwy (other sections are on interconnect [City projects]), Covina Bl, Lone Hill Ave and Badillo on interconnect

7a) How are signal timing plans and/or coordination strategies initially established?

Coordinated roadways are prepared by LACO and reviewed by City. All others are prepared through City Traffic Engineering Services

7b) How are signal timing issues recognized and resolved?

Identified by Maintenance staff and reviewed. Public input is reviewed by a City Traffic Committee and recommendations are proposed. Also, monthly preventative maintenance and quarterly inspections (by CSC)

7c) How often are signal timing plans and/or coordination strategies updated?

As need is identified, adjacent projects after traffic counts indicate a need for change

8) Signals/Controllers needs/comments (include desired signalized intersections):

Need to review proposed signal plans (internal to City)

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	8	3@Arrow/57; 2@ Covina/57, San Dimas/210, Via Verde/57		
LACODPW	1	Arrow/Valley Ctr		
City of La Verne	1	Arrow/San Dimas Canyon		
City of Glendora	1	Gladstone/Lone Hill		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	33	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID	2	High ☐ ☒ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☒
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other: detection	☒	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☒ No ☐

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

As part of PV ITS , 2 locations were recommended for CCTV (Arrow/Bonita and San Dimas/210); Would also like Lone Hill/Gladstone (Glendora), Arrow Hwy between Lone Hill and 210, and Covina/57

5) Detection/surveillance needs/comments:

Current VID intersections are w/3cameras

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				all/interconnect
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

All copper is 12-pair; only using 2

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

Needs are somewhat dictated by the needs of the plans of the ITS

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

none

2) Traveler information systems needs/comments:

no specific needs

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Traffic observation and management, monitor system operations for maintenance needs, and special event/emergency management needs.

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

Operational cost and maintenance are factors

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

As-needed

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☐
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Implement pre-approved timing plans primarily for emergency situations, but also for planned special events. Primary concern would be to take into account local impact of any timing plan implementation.
Off-hours.

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$5000
New traffic equipment	$10000
Spare parts	$20000
Maintenance Personnel	$30000
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$65000

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Routine and extraordinary maintenance and some improvement projects

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of San Gabriel

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of San Gabriel

2) Date: November 4, 2003

3) Participants: Bruce Mattern (City of San Gabriel), Ed Sheets (City of San Gabriel), Inez Yeung (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Bruce Mattern (City Engineer)	626.308.800 Ext. 715	626.458.2830	bmattern@sgch.org
Traffic Engineer				
Maintenance	Ed Sheets (Maintenance Foreman)	626.308.2825 Ext 222	626.458.9840	esheets@sgpw.org
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Existing:
--> San Gabriel Valley Medical Center (Santa Anita/Las Tunas)

Planned:
--> Hilton Hotel (Valley/Marley) (Opening 2004)
--> Grand Mission (San Gabriel Blvd Development Area) (2007-09)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Corridors:
--> Las Tunas Dr
--> Valley Blvd
--> San Gabriel Blvd
--> Del Mar Ave
--> Mission Rd

Intersections:
--> Las Tunas/San Gabriel
--> San Gabriel/Mission
--> San Gabriel/Valley
--> Valley/Del Mar
--> Del Mar/Las Tunas
--> Broadway/Walnut Grove,
--> New/Valley

Alameda Corridor East (ACE)
--> Passes through San Gabriel @ 4 ints
--> Existing at grade crossings @ Del Mar, Mission/Junipero, San Gabriel, & Ramon/Mission
--> Planned grade separation (ACE trains below grade)
--> Approx. 20 trains per day (possibly 40 in future)
--> Trains can back up traffic 15 minutes

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? City Yard

3) Satellite location(s) City Hall

4) Hours of operations 8:00 AM - 5:00 PM

5) Law enforcement co-location? Police Station

6) Maintenance co-location? City Yard

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☐
Emergency Operations	☒
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

--> City would like their own TCS
--> Fire Department would like emergency vehicle pre-empton capabilities

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 34

1b) Type of Control:

☐ Central Type (e.g, Series 2000, QuicNet IV, etc.): _____
☒ Roadside Type (e.g, field master, TOD, etc.): TOD
☐ Other: Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Type 170s (Safetran/McCain)	31	LACO 1R
Type 170s (Safetrain/McCain)	3	LACO 3
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

City Maintenance staff

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO Tier 1 synchronization via TBC, WWV, etc.
--> Valley
--> San Gabriel
--> Las Tunas
--> Mission

7a) How are signal timing plans and/or coordination strategies initially established?

LACO DPW:
--> Develops initial timings & coordination (late 1980s)

City
--> Does O&M

7b) How are signal timing issues recognized and resolved?

--> Police call-ins
--> Resident call-ins
--> City maintenance staff (observations via daily drive around)

7c) How often are signal timing plans and/or coordination strategies updated?

Never updated:
--> Las Tunas
--> San Gabriel

Updated 1993:
--> Mission
--> Valley

--> City would like to update timings every 3 years

8) Signals/Controllers needs/comments (include desired signalized intersections):

--> City petitions LACO DPW for re-timings/approval
--> City can perform minor tweaks for construction or equipment failure

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	2	San Gabriel/I-10 Del Mar/I-10		
LACODPW	2	San Gabriel/Longden Del Mar/Longden		
Alhambra	1	New/Valley		
Rosemead	1	Delta/Valley		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	32	High ☐ ☐ ☒ ☐ ☐ ☐ Low
VID	2	High ☒ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☒	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

Inductive Loops:
--> Need loop upgrades

VIDs:
--> 2 VIDs located @ San Gabriel/Scott & Valley/Abbott
--> Would prefer to go to all VIDs

CCTV:
--> Would like to view other Agencies' CCTV images

Transit Priority:
--> City is willing to discuss w/ Montebello and MTA

Emergency Vehicle Pre-Emption:
--> Fire department has pre-emption at 2 intersections near station
--> Use push button inside the station to activate

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

N/A

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

N/A

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

N/A

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

N/A

7) Communication systems needs/comments:

N/A

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

Electronic Arrow Boards --> City makes Contractors responsible to provide during construction

2) Traveler information systems needs/comments:

Portable CMS & roadway speeds via Internet website: --> Mission Festivals (3-4 times per year) --> Chinese New Year celebration --> Valley Blvd

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

View only: --> Allow City to monitor neighboring Cities' for any traffic problems --> Allow City to change timing plans to better facilitate traffic flow thru San Gabriel

2a) Would your Agency participate? Yes ☐ No ☐

2b) Why or why not?

View-only

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Yes (especially along Valley Blvd)

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
View other Agencies' detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

--> Only in an absolute emergency
--> Only when City staff are physically NOT there/available

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$10 K to $15 K
Maintenance Personnel	$
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

3) Is your Agency willing to devote funding to operating a TCS?

Yes ☐ No ☐ Maybe ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

Funding:
--> Traffic Engineering has very low funding
--> Not enough money to replace loops
--> No line item budget.
--> Put in requests for capital improvement projects for special funding
--> Staff would like a TCS but need City approval before committing O&M resources/funds.

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

City feels that Caltrans wants to "push" traffic onto Valley and Garvey based on congestion

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of San Marino

Part 1 – General Information

A. General/Admin

1) Name of Agency: San Marino

2) Date: November 12, 2003

3) Participants: Chuck Richey (City of San Marino), Jane White (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	John Alderson (Public Works Director)	626.943.2648	626.943.2650	jalderson@cityofsanmarino.org
Traffic Engineer	Erik Zandvliet (Willdan)	562.908.6254	562.695.2120	ezandvliet@willdan.com
Maintenance	Linda McNeil	PEEK Traffic		
Planning	Chuck Richey	626.943.2651	626.943.2654	crichey@cityofsanmarino.org
Admin				

5) Please identify other City Agencies/personnel that we should contact:
--> Traffic Engineer - Erik Zandvliet (Willdan)
--> Traffic Commission - Monthly Meetings
--> Chief of Police - Ariel Ferris

6) Please identify major traffic generators (include frequency and volume, if known):
--> Valentine School (1650 Huntington)
--> Carver School (3100 Huntington)
--> San Marino High School (2701 Huntington)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Corridors:
--> Huntington
--> Los Robles
--> Sierra Madre

Intersections:
--> Huntington/Los Robles
--> Huntington/San Marino
--> Huntington/Oak Knoll
--> Huntington/Grenada

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☐ No ☒ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? City Engineers Desk Workstation

3) Satellite location(s) No

4) Hours of operations 6:30 AM - 5:00 PM

5) Law enforcement co-location? PD W/S (located in same compound as City)

6) Maintenance co-location? No

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☐
Emergency Operations	☒
Law Enforcement	☒
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

--> Want limited capability to adjust signal timings
--> Want to be "Agency B" on another Agency's TCS
--> Would like system status reports re: signal/communications equipment on a daily basis to focus PEEK's O&M activities

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 18

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Type 170s		LACO-1

Comments: Also use EV for A-B-C opticom

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

PEEK Traffic

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Add pre-emption devices to three signals on Los Robles Avenue

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 synchronization via TBC, WWV, etc.:
--> Huntington

7a) How are signal timing plans and/or coordination strategies initially established?

--> No set process
--> Whenever LACO DPW updates them

7b) How are signal timing issues recognized and resolved?

--> Resident call-ins
--> Police Dept. observations
--> City staff then take issues to Traffic Commission for resolution

7c) How often are signal timing plans and/or coordination strategies updated?

--> Would prefer a pro-active approach
--> Would like to update timings every 3-5 years

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans				
LACODPW	4	Huntington/San Gabriel San Gabriel/Duarte Huntington/Los Robles (Garfield) Huntington/Atlantic		
Alhambra	1	Huntington/Grenada		
Pasadena	1	San Gabriel/California		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☒	☒
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☒	☒
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?
Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

CCTV (Planned) --> Huntington/San Marino --> Los Robles/Monterey

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

N/A

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

N/A

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☒ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

N/A

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

N/A

7) Communication systems needs/comments:

--> Prefer land line communications --> Open to wireless communications

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

N/A

2) Traveler information systems needs/comments:

N/A

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

--> This would only be of assistance because it would help Regional traffic flow
--> City is not large enough to become involved in this on our own

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

City would cooperate in any way they could

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

--> City would cooperate in any way they could
--> City anticipates resistance from residents living along Los Robles

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Manage timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Change active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Planned event management	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Incident/Congestion management	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Emergency operations	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

--> Will cooperate as City and/or Traffic Commission politics allow
--> Would want Traffic Commission to be involved in the development of pre-approved timing policies

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$50 K
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$28.4 K
Computer H/W	$
Computer S/W	$
	$
Total	$78.4 K

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Traffic signal maintenance services (communications failure, loop issues, etc.)

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

--> There is great skepticism concerning traffic control on the part of some residents
--> The Public Works Director is not involved, PEEK does everything
--> City Engineer is willing to monitor and adjust timing with training

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

N/A

3) Please provide any additional comments regarding this project or survey:

N/A

Agency Survey – City of South El Monte

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of South El Monte

2) Date: November 12, 2003

3) Participants: George Envall/
Fernando Villaluna, Jack Schneider, George Hattrup

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary				
Traffic Engineer	George Envall	(626) 579-5640	(626) 579-2409	genvall@soelmonte.org
Maintenance				
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:

6) Please identify major traffic generators (include frequency and volume, if known):
Mostly through traffic on Peck Rd., Santa Anita and Garvey Ave
605 Fwy
Shopping center to be built at Santa Anita/Merced

7) Please identify the most congested roadways and intersections in your jurisdiction:
Santa Anita, Peck, Rosemead
Rosemead/Garvey, Peck/Durfee
Garvey Ave is poor during AM and PM Peaks
Bridge on Garvey (over the Rio Hondo in Rosemead)

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☐ No ☒ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? _____

3) Satellite location(s) _____

4) Hours of operations _____

5) Law enforcement co-location? _____

6) Maintenance co-location? _____

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☐
Incident Management	☐
Event Management	☐
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

small city, one person shop, lack of available space
might like to monitor a couple of intersections, however (Peck/Durfee, Rosemead/Garvey)

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 22

1b) Type of Control:

☐	Central	Type (e.g, Series 2000, QuicNet IV, etc.):	
☒	Roadside	Type (e.g, field master, TOD, etc.):	TOD
☐	Other:	Type:	

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
170	3	
Comments: on Peck, Santa Anita and Garvey; all by LACO, TOD		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

State of CA, Signal Maintenance, Inc.

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Rosemead synchronization project (LACO); Rush/Rosemead and Garvey/Rosemead

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Peck Road, Santa Anita Ave through South El Monte; Garvey Ave from Lee Ave to Protero Ave - Interconnect by LACO

7a) How are signal timing plans and/or coordination strategies initially established?

LACO

7b) How are signal timing issues recognized and resolved?

public reports, cite personnel; forwarded to LACO

7c) How often are signal timing plans and/or coordination strategies updated?

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	5	Peck./Durfee, Durfee/605 [entrance/exit], Santa Anita/Fawcett/Merced, Rosemead/Rush, Rosemead/Garvey		
LACODPW	0			

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☒ ☐ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☐	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

5) Detection/surveillance needs/comments:

Would like CCTV at Rosemead/Garvey and Durfee/Peck

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable	All			all
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☒ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

7) Communication systems needs/comments:

Currently all copper wire in field with no connection to office.

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

2) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

In future, little need at present

2a) Would your Agency participate? Yes ☐ No ☒

2b) Why or why not?

MONEY
(yes, if fully funded by LACO)

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Rosemead, El Monte, Caltrans

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	**Importance**	**Current Capability**
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☐	Detector information	☐
Timing plans	☐	CCTV images	☐
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$
Communications	$
Contractors	$52000
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Signal Maintenance and timing coordination (agreements with SMI and LA County

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☒

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

No real current need for TCS capabilities. Happy with the current arrangement with LA County. Would not be interested in any upgrades that would require expenditures by the City.

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of South Pasadena

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of South Pasadena

2) Date: November 5, 2003

3) Participants: Albert Carbon (City of South Pasadena), Steve Moronez (City of South Pasadena), Fernando Villaluna (LACO DPW), Chuck Dankocsik (TransCore), David Miller (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Albert Carbon (Director Of Public Works)	626.403.7242	626.403.7241	acarbon@ci.south-pasadena.ca.us
Traffic Engineer				
Maintenance	Steve Moronez (Facility Maintenance Supervisor)	626.403.7379	626.403.7371	smoronez@ci.south-pasadena.ca.us
Planning	Peek Traffic	714.563.4000	714.563.3178	
Admin				

5) Please identify other City Agencies/personnel that we should contact:
Police Department Dispatch
Public Works Department

6) Please identify major traffic generators (include frequency and volume, if known):
Commuter Traffic
--> From Pasadena to LA
--> From San Marino to LA
Schools
Downtown Area
Future park n' ride for Gold Line @ Mission/Meridian (142 spaces)

7) Please identify the most congested roadways and intersections in your jurisdiction:
Corridors:
--> Mission
--> Orange Grove
--> Fair Oaks
--> Huntington

Intersections:
--> Fair Oaks/Huntington
--> Huntington/Fremont
--> Fair Oaks/CA SR 110 Fwy (State & Grevelia)
--> Fair Oaks/Mission
--> Mission/Meridian
--> Fremont/Mission
--> Fremont/Monterey
-->Fremont/Columbia
--> Monterey/Pasadena @ CA SR 110 Fwy interchange

8) Does your City operate its own transit or (para-)transit? Yes ☐ No ☒

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Public Works Department

3) Satellite location(s)

4) Hours of operations 7:00 AM - 5:00 PM

5) Law enforcement co-location? Police Department

6) Maintenance co-location? Service Facilities/Public Works

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☒
Event Management	☒
Transit Coordination	☐

Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☐
Other:	☐

8) TCS needs/comments:

Remote monitoring & corridor management with other Agencies is desired

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 36

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware

Comments:
--> Type 170s (City direction & LACO DPW along Fair Oaks, Huntington, & Fremont)
--> NEMA 2000 (5: Monterey Rd @ Diamond, Meridian, Via Del Rey, Indiana and Mission Rd @ Grand Av)
--> Type 2070s (new Fair Oaks project)

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

--> PEEK Traffic
--> City does minor repairs
--> Katz, Okitsu & Associates (KOA) provides signal timings

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

I-710/Fair Oaks Project:
--> Type 2070s
--> Fiber-optic communications from Columbia to City limits
--> Includes interconnect, signal timings & coordination, permissive left turns, inductive loops, VIDs, etc.
--> Huntington/Fair Oaks will have dual left turn bays

Controller Replacements (to Type 170s)
--> Replace signal controllers and cabinet on Monterey Rd at four (4) locations
--> Same on Mission at two (2) locations
--> Average one (1) controller replacement per year

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☒
Pre-planned Scenarios	☐	Traffic Responsive	☒
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☒
		Other (please specify)	LACO

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 synchronization via TBC, WWV, etc:
--> Fremont (Alhambra to Mission)
-->Fair Oaks (Huntington to Columbia)
--> Huntington (Fremont to Fletcher)

--> Mission/Garfield is fixed time
--> All others signalized intersections are TOD (that are not LACO Tier 1)
--> Looking for signal & controller upgrades& signal coordination on Monterey/Mission so City can interface with LA and Pasadena

7a) How are signal timing plans and/or coordination strategies initially established?

--> No established procedure

Gold Line:
--> 2002: KOA updated timings @ 26 ints
--> 2004-05: KOA to do post-timing analysis

7b) How are signal timing issues recognized and resolved?

--> Complaints from commuters
--> City staff observe/check during daily drive around
--> Issues reviewed by Traffic Engineer, resolved by City maintenance staff, or call-in to PEEK for assistance.

7c) How often are signal timing plans and/or coordination strategies updated?

--> No policy in-place
--> Updates performed on an as-needed basis

8) Signals/Controllers needs/comments (include desired signalized intersections):

New Signalized Intersections:
--> CA SR110 Fwy/Orange Grove
--> Orange Grove/Monterey
--> Garfield/Monterey

--> CA SR 110 Fwy/Fair Oaks interchange will be re-configured

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	2	Fremont/Columbia Fair Oaks/CA SR 110		
LACODPW	1	Atlantic/Huntington		
Alhambra	2	Alhambra/Atlantic Alhambra/Fremont		
Pasadena	2	Orange Grove/Columbia Fair Oaks/Columbia		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	99	High ☐ ☐ ☐ ☒ ☐ ☐ Low
VID	1	High ☐ ☐ ☒ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☒	☒
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☒	☒
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

VIDs on Fair Oaks as part of I-710 Mitigation Funds (2004-05)

5) Detection/surveillance needs/comments:

City wants to improve detection capabilities system-wide

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

N/A

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

N/A

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☒ Low

5) What additional features and/or functionality would you like your communications network to provide?

N/A

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

I-710/Fair Oaks Project:

--> Fiber-optic communications from Columbia to City limits

--> Includes interconnect, signal timings & coordination, permissive left turns, inductive loops, VIDs, etc.

7) Communication systems needs/comments:

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

N/A

2) Traveler information systems needs/comments:

N/A

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

Corridor management and improved traffic flow

2a) Would your Agency participate? Yes ☒ No ☐

2b) Why or why not?

Congestion elimination/reduction

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

Pasadena, City of Los Angeles, Alhambra, San Marino, & LACO DPW

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐
View detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Emergency operations	High ☒ ☐ ☐ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

--> None
--> However, open to dialogue to develop MOUs/policy

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$500
Maintenance Personnel	$
Communications	$

Contractors	$60 K
Computer H/W	$
Computer S/W	$
Electricity	$43 K
Total	$103.5 K

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Contract for signal maintenance services (communications, loops, controllers, etc.)

3) Is your Agency willing to devote funding to operating a TCS? Yes ☐ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

--> City answer to "Is your Agency willing to devote funds to operating a TCS?" is MAYBE
--> City willing to discuss funding options w/ County & MTA
--> City's Prop C funds are already dedicated to Senior Dial-A-Ride program

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of Temple City

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of Temple City

2) Date: November 7, 2003

3) Participants: Janice Stroud (City of Temple City), Patrick Lang (TransTech - City Traffic Engineer), Inez Yeung (LACO DPW), Chuck Dankocsik (TransCore)

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Janice Stroud (Director Of Public Services)	626.285.2171	626.309.9352	jstroud@ci.temple-city.ca.us
Traffic Engineer	Patrick Lang (Transtech - City Traffic Engineer)	626.285-2171.	626.309.9352	patricklang@earthlink.net
Maintenance	Signal Maintenance	714.563.4091	714.563.3178	
Planning				
Admin				

5) Please identify other City Agencies/personnel that we should contact:
LACO DPW

6) Please identify major traffic generators (include frequency and volume, if known):
--> Commuter Traffic
--> Downtown Traffic
--> Las Tunas retail traffic
--> Potential retail at Rosemead/Las Tunas in the future

7) Please identify the most congested roadways and intersections in your jurisdiction:
Corridors:
--> Las Tunas Dr
--> Rosemead Ave
--> Temple City Blvd

--> Baldwin Ave

Intersections:
--> Rosemead/Las Tunas

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Control System

1) Does your Agency want to operate a Traffic Control System (TCS)?
Yes ☒ No ☐ (continue to Question B8)

2) Where would the TCS be located (e.g., Engineer's desk, separate room, TMC, etc.)? Workstation in a corner office

3) Satellite location(s) N/A

4) Hours of operations 7:00 AM - 5:00 PM

5) Law enforcement co-location? N/A

6) Maintenance co-location? N/A

7) TCS Usage:

Function	Planned Use
Signal Monitoring/Control	☒
Incident Management	☐
Event Management	☒
Transit Coordination	☐
Emergency Operations	☐
Law Enforcement	☐
ITS Device Management/Control	☒
Other:	☐

8) TCS needs/comments:

City wants the "bare minimum" that the SGVTF project has to offer:
--> Want to be "Agency B" on another Agency's TCS
--> Monitoring capabilities only
--> Possibly make minor timing changes
--> Perhaps even pre-planned scenarios for City events that occurs 3x per year where Police Dept. currently barricade streets (Lights on Temple City, Camellia Parade, 5K Run)

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 28

1b) Type of Control:

- ☐ Central — Type (e.g, Series 2000, QuicNet IV, etc.): _____
- ☒ Roadside — Type (e.g, field master, TOD, etc.): TOD
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Type 170s		
Comments:		

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

Signal Maintenance (PEEK Traffic)

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Potential Early Deployment Opportunity:
--> Roadway project on Baldwin (January 2004)
--> Investigate possibility to install loops, advanced loops, VIDs, etc.
--> Dependent on funding

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☒	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☐
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

LACO DPW Tier 1 synchronization via TBC, WWV, etc.
--> Temple City Blvd
--> Las Tunas

Fixed TOD Coordination
--> Baldwin Ave
--> Lower Azusa.

Future Operations:
--> Pre-planned, special events, & planned events
--> Possibly adaptive & traffic responsive (if TCS has capabilities)
--> Willing to work with MTA re: transit (depending on funding)

7a) How are signal timing plans and/or coordination strategies initially established?

--> LACO DPW established initial timings circa 1998
--> Perhaps PEEK has made minor tweaks (& maybe that's where the problems are)

7b) How are signal timing issues recognized and resolved?

Exceptions-based:
--> Resident call-ins/complaints
--> Observations by City staff & PEEK
--> Based on conducted traffic studies

7c) How often are signal timing plans and/or coordination strategies updated?

--> No policy at this time
--> Future policy would be to re-time signals every 3-years

8) Signals/Controllers needs/comments (include desired signalized intersections):

Las Tunas
--> Not running coordinated since August 2003
--> LACO DPW to fix ASAP

B. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question B3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans		All of Rosemead/CA SR 19		
LACODPW				
Arcadia	1	Temple City/El Camino Real		
El Monte	1	Baldwin/Lower Azusa		

3) External control needs/comments:

C. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☐ ☒ ☐ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☐	☒
Speed	☐	☒
Occupancy	☐	☒
Signal Preemption	☐	☒
Signal Priority	☒	☒
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒

4) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

CCTV:
--> Planned use in the future along major corridors & intersections (listed on Pg 1)
--> Would like TCS W/S to be integrated with CCTV

VIDs:
--> Planned use of VIDs in future along major corridors & intersections (listed on Pg 1)
--> Useful for incident management
--> Enhanced ease-of-use/O&M re: roadway projects

5) Detection/surveillance needs/comments:

D. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other ( )				

2) Which of the above have spare capacity and how much?

Possibly interconnect along Las Tunas (copper/TWP)

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

Would go along with County and Regional direction as per SGVTF

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

--> Want communications network to support CCTV --> Open to wireless communications (but concerned about potential interference issue)

7) Communication systems needs/comments:

E. Traveler Information

1) Describe any traveler information systems (e.g., CMS, HAR, etc.) replacement, upgrade, or expansion plans (include dates, if known):

Not likely in near future

2) Traveler information systems needs/comments:

Open to ideas for far future.

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐

1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☒

2b) Why or why not?

--> More of a "MAYBE" --> Would like to possibly participate but concerned from a resource point-of-view (e.g., staff, funding, space, etc.)

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐

3b) Which?

--> More of a "MAYBE" --> Want written policies & signed MOUs re: development of pre-planned scenarios

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Manage timing plans	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	Importance	Current Capability
Monitor other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' phase indication	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' timing plans	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' detector information	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
View other Agencies' planned events	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☐ ☒ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☐
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Only during an emergency

For Part 3, #6 (above):
--> Potential to share CCTV images depending upon MOUs

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$
New traffic equipment	$
Spare parts	$
Maintenance Personnel	$28 K
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

--> Timing plans by LACO DPW
--> Everything else by Signal Maintenance /PEEK (e.g., poles, lighting, communications, loops, controllers)

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

For Part 4, #3 (above):
--> Funding for TCS dependent on City Council
--> Current Council seems open to considering technology based solutions

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Agency Survey – City of West Covina

Part 1 – General Information

A. General/Admin

1) Name of Agency: City of West Covina

2) Date: November 5, 2003

3) Participants: Inez Yeung, Jack Schneider, George Hattrup/Miguel Hernandez

4) Agency Contacts	Name/Title	Phone	Fax	e-mail
Primary	Shannon A. Yauchzee, Public Works Director	(626) 939-8425	(626) 939-8660	shannon.yauchzee@westcov.org
Traffic Engineer	Shannon A. Yauchzee			
Maintenance	Fred Salce	(626) 939-8458	(626) 939-8631	
Planning	Jeff Anderson, Senior Planner	(626) 939-8422	(626) 939-8667	jeff.anderson.westcov.org
Admin				

5) Please identify other City Agencies/personnel that we should contact:
Miguel Hernandez, (626) 939-8731

6) Please identify major traffic generators (include frequency and volume, if known):
Eastland Shopping Center/IKEA
Westfield Shopping Town
I-10 Freeway
DMV

7) Please identify the most congested roadways and intersections in your jurisdiction:
Roadways: Azusa Avenue, Amar Road, Barranca Ave, Sunset Ave.
Intersections: Azusa Ave./Amar Rd., Amar Rd./Nogales St., Nogales St./Valley Blvd.,
Sunset Ave./West Covina Pkwy., Sunset Ave./Cameron Ave., Vincent Ave./Lakes Dr.
Barranca Ave./North Garvey Ave.,

8) Does your City operate its own transit or (para-)transit? Yes ☒ No ☐

B. Traffic Management Center

1) Does your Agency (plan to) operate a Traffic Management Center (TMC)?
Yes ☐ No ☒ (continue to Question 11)

2) Where is the TMC located? _____

3) Size of TMC (sq. ft.) _____

4) Satellite location(s) _____

5) Hours of operations _____

6) Staff size (total and by shift) _____

7) Law enforcement co-location? _____

8) Maintenance co-location? _____

9) TMC Usage:

Function	Currently Use	Planned Use
Signal Monitoring/Control	☐	☐
Incident Management	☐	☐
Event Management	☐	☐
Transit Coordination	☐	☐
Emergency Operations	☐	☐
Law Enforcement	☐	☐
ITS Device Management/Control	☐	☐
Other:	☐	☐

10) Describe any TMC replacement, upgrade, or expansion plans (include dates, if known):

11) TMC needs/comments:

Part 2 – Agency Infrastructure

Please provide copies of any infrastructure maps you may have (e.g., communications network layout, signalized intersection locations, CCTV locations, CMS locations, etc.).

A. Traffic Signals/Controllers

(If a map with signalized intersections in not available, please provide a list of signalized intersections and the type of vehicle detection used at the intersection.)

1a) Number of signalized intersections: 112

1b) Type of Control:

- ☒ Central — Type (e.g, Series 2000, QuicNet IV, etc.): VMS 330
- ☐ Roadside — Type (e.g, field master, TOD, etc.): _____
- ☐ Other: — Type: _____

2) Traffic Signal Controllers:

Type/Manufacturer	Quantity	Software/Firmware
Multisonics	83	820A
Econolite on LACO synchronized Corridors	As synched (planned)	

Comments: 29 intersections are shared intersections with CALTRANS, Los Angeles County, and City of Covina and are equipped with 170 type controls
Since upgrading controllers not working well. Also, lack of training.

3) Who maintains your roadside equipment (e.g., signals, controllers, etc.)?

82 signals are maintained by City staff and the remainder are maintained by either CALTRANS, Los Angeles County, or City of Covina

4) Describe any signal/controller replacement, upgrade, or expansion plans (include dates, if known):

Los Angeles is currently in the design phase to coordinate specific corridors with the San Gabriel Valley. The streets in West Covina included are Azusa Ave., Amar Rd., Sunset Ave., Valinda Ave., West Covina Pkwy., and Grand Ave.
Amar Rd - 2004

5) Please check all signal timing/timing plans in use:

Fixed Pattern/TOD	☐	Adaptive	☐
Pre-planned Scenarios	☐	Traffic Responsive	☒
Special Events	☐	Transit Priority	☐
Planned Events	☐	LRT Priority	☐
		Other (please specify)	_____

6) Please provide the type and location for any signal synchronization/coordination (e.g., time-based coordination along Foothill Blvd., etc.) in use:

Azusa Avenue: Pacific Avenue/West Covina Pkwy/Valinda Avenue: Vincent Avenue/Glendora: Sunset Avenue: Lark Ellen Avenue: Amar Road:

7a) How are signal timing plans and/or coordination strategies initially established?

Don't Know

7b) How are signal timing issues recognized and resolved?

complaints and/or observations

7c) How often are signal timing plans and/or coordination strategies updated?

Try not to change very often

8) Signals/Controllers needs/comments (include desired signalized intersections):

B. Centralized Control

1) Does your Agency have a central traffic control system (TCS)?
Yes ☒ No ☐ (Please skip to Question B6)

2) System Information:

Vendor/Software	Multisonics
Version	ver 4 service pack 5
Date Implemented	03-01-99
Hardware	pent 1
Polling Rate	

3) Number intersections connected to the central system:

Comments: 63 intersection are connected but 24 are currently malfunctioning

4) Please rate your satisfaction with your TCS High ☐ ☐ ☐ ☐ ☐ ☒ Low

5) What additional features/functionality would you like your TCS to provide?

6) Describe any central control replacement, upgrade, or expansion plans (include dates, if known):

7) TCS needs/comments:

Lack of training and documentation. Not working very well.

C. Other Agency Control

1) Are any signals/intersections in your jurisdiction operated by, or under joint jurisdiction with another Agency (e.g., Caltrans operates some signals along SR 110/Arroyo Parkway in Pasadena, etc.)?

Yes ☒ No ☐ (Please skip to Question C3)

2) Intersections/signals operated by other Agencies:

Agency	Number of Intersections	Locations/ Description	Starting (Year)	Ending (Year)
Caltrans	15			
LACODPW	11			
City of Covina	4			
City of Walnut	3	Intersections on Nogales		

3) External control needs/comments:

D. Vehicle Detection/Surveillance

Please provide copies of any traffic volume maps you may have. Also, if a map with detection and surveillance devices is not available, please provide a list of locations and the type(s) of installed devices.

1) Detection systems in use

Type	# of Intersections (or %)	Satisfaction/Effectiveness
Inductive Loop	100	High ☐ ☐ ☒ ☐ ☐ ☐ Low
VID		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Microwave		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Radar		High ☐ ☐ ☐ ☐ ☐ ☐ Low
Acoustic		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low
		High ☐ ☐ ☐ ☐ ☐ ☐ Low

2) Detector Information Usage:

Parameter	Currently Use	Planned Use
Volume	☒	☐
Speed	☐	☐
Occupancy	☐	☐
Signal Preemption	☒	☐
Signal Priority	☐	☐
Other:	☐	☐

3) Does your Agency utilize (or plan to) CCTV?

Yes ☐ No ☒ (Please skip to Question D14)

4) Types of CCTV images:

Type	Currently Use	Planned Use
Live/Streaming Video	☐	☐
Video Still Images	☐	☐
Other:	☐	☐

5) How many displays/monitors do you have to show your CCTV images? _____

6) CCTV Camera Information:

Manufacturer	Quantity	Features/Functionality

7) Image usage/feed information:

Destination	Currently	Planned
TMC	☐	☐
Maintenance	☐	☐
Police	☐	☐
City Hall	☐	☐
Web	☐	☐

Media	☐	☐
Other Agencies ( )	☐	☐
Other ( )	☐	☐

8a) What software is used to control your CCTV system? _____

8b) Software Version: _____

8c) Is it integrated with your TCS? Yes ☐ No ☐

9a) Can your Agency receive CCTV feeds from other Agencies?
Yes ☐ No ☐

9b) If yes, which Agencies? _____

9c) Types of CCTV Images from Other Agencies:

Type	**Currently Use**	**Planned Use**
Live/Streaming Video	☐	☐
Video Still Images	☐	☐
Other:	☐	☐

10a) Can other Agencies control your CCTV cameras? Yes ☐ No ☐

10b) If yes, under what conditions/scenarios?

11) Please describe how CCTV is used in your day-to-day operations:

12) Please rate your satisfaction with your CCTV system(s): High ☐ ☐ ☐ ☐ ☐ ☐ Low

13) Describe what additional features and/or functionality you would like your CCTV system to provide:

14) Describe any detection/surveillance replacement, upgrade, or expansion plans (include dates, if known):

Not Known

15) Detection/surveillance needs/comments:

Note: Signal preemption is for Fire on major arterials Would like to install video detection at major intersections. (As part of LACO synchronization?).

E. Communication Systems

1) Please indicate the types of communications methods used for traffic management and video surveillance, and where each type operates (e.g., from controller to TMC, roadside equipment, etc.)

Type	From	To	Bandwidth	ITS Devices Supported
Copper cable				
Fiber optic				
Radio				
Leased line				
Frame relay				
Wireless ( )				
Other (Strobe for preemption)				

2) Which of the above have spare capacity and how much?

3) Please describe any communications standards in place (e.g., NTCIP, C2C, etc.):

4) Please rate your satisfaction with your communications infrastructure: High ☐ ☐ ☐ ☐ ☐ ☐ Low

5) What additional features and/or functionality would you like your communications network to provide?

6) Describe any communication systems replacement, upgrade, or expansion plans (include dates, if known):

Plans to expand system to allow all non-connected controllers to TCS (via copper) - funding issue

7) Communication systems needs/comments:

All copper

F. Traveler Information

1) Please provide the following information about various traveler information systems your Agency uses:

Traveler Info System	Vendor/Model	Quantity	How Controlled	Integrated w/TCS
VMS				☐
HAT				☐
HAR				☐
Kiosk				☐
Advanced RR Warnings				☐
Internet				☐
Other:				☐

2a) Can other Agencies place messages, etc. on your Traveler Information Systems?
Yes ☐ No ☐

2b) If yes, which: _____

3) Describe any traveler information systems replacement, upgrade, or expansion plans (include dates, if known):

4) Traveler information systems needs/comments:

Part 3 – Agency Coordination

One of the major objectives of this project is the implementation of an integrated traffic control system (TCS) for participating Agencies. The TCS will allow these Agencies to manage their traffic signals and other ITS equipment as well as monitoring those of other Agencies.

1a) Would this be of value to your Agency? Yes ☒ No ☐
1b) Why or why not?

2a) Would your Agency participate? Yes ☒ No ☐
2b) Why or why not?

3a) Would you coordinate timing plans with other jurisdictions? Yes ☒ No ☐
3b) Which?

4) Please rate the importance of the following TCS functions (intra-Agency/internal):

Potential TCS Feature	Importance	Current Capability
Monitor traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Monitor other ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Manage timing plans	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Change active timing plan	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Planned event management	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Incident/Congestion management	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Emergency operations	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐

5) Please rate the importance of the following TCS functions (inter-Agency/coordinated):

Potential TCS Feature	**Importance**	**Current Capability**
Monitor other Agencies' traffic signals	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Control other Agencies' traffic signals	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
Monitor other Agencies' ITS devices (CCTV, CMS, HAR, etc.)	High ☐ ☐ ☒ ☐ ☐ ☐ Low	☐
Control other Agencies' ITS devices	High ☐ ☐ ☐ ☒ ☐ ☐ Low	☐
View other Agencies' phase indication	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' timing plans	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Change other Agencies' active timing plan	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
View other Agencies' detector information	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
View other Agencies' planned events	High ☐ ☒ ☐ ☐ ☐ ☐ Low	☐
Cede control of my traffic operations to another Agency	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐
Cede control of my traffic operations to other Agencies	High ☐ ☐ ☐ ☐ ☒ ☐ Low	☐

6) What information are you willing to share with other Agencies?

Phase indication	☒	Detector information	☒
Timing plans	☒	CCTV images	☒
Other:	☐	Other:	☐

7) Under what circumstances would you be willing to cede control of you traffic signals (e.g., implement coordinated timing plans, planned events, off-peak hours, emergency operations, never, etc.)?

Emergency operations

Part 4 – Financial

1) What is your Agency's total annual budget for the following items?

Item	Budget Amount
Operations Personnel	$190000
New traffic equipment	$100000
Spare parts	$18000
Maintenance Personnel	$62800
Communications	$
Contractors	$
Computer H/W	$
Computer S/W	$
	$
Total	$370,800

2) If using "outside" contractors or Agencies, for what types of service(s) are you paying?

Contractors are used to rewire intersections and install new detectors. Consultants are used to prepare signals plans and timing

3) Is your Agency willing to devote funding to operating a TCS? Yes ☒ No ☐

Part 5 – Final Comments

1) Please provide any additional comments regarding your Agency's traffic operations:

2) Please provide any additional comments regarding coordinated traffic and incident management within your jurisdiction (e.g., where it works well, where it is needed, what could help, etc.):

3) Please provide any additional comments regarding this project or survey:

Good project/concept. Cities will have to work together.

SGVTF Transit: Foothill Transit

Participants:

Montebello Bus:	Doran Barnes (323-887-4637)
TransCore:	Chuck Dankocsik, Jack Schneider
Phone Interview Date:	November 14, 2003

General Service Info:

- About 55,000 riders/weekday (17 million/year)
- Service area for 21 Cities in the San Gabriel and Pomona Valleys; North of the 210; South of the 60; LA County line to the East and Downtown LA to the West
- Major routes are mostly east/west, including the El Monte Busway (on the I-10), Foothill/Huntington, Arrow Highway, Amar Road and Colima/Golden Springs; Major north/south route: Azusa Ave (from Puente Hills to Azusa)
- Major Destinations include Downtown LA (about 40% of ridership), El Monte Transit Station (primary hub), CSULA
- 306 fixed-route bus fleet (255 in service at peak hours)
- 900 employees (including contract)

Service Issues:

- Road congestion on major routes causes delays (e.g., Valley Blvd, Puente Hills Mall, Azusa/Colima, etc.)
- Too many and mis- or un-timed signals
- Extra (unscheduled) service and adding running time to schedules to attempt mitigate delays
- No process in place to notify Agency in case of planned construction/closures (Caltrans provides some notification, but not always timely)
- Need better coordination with the Gold Line (both existing and future extension)

ITS/Systems:

- Website shows schedules and has links to MTA and SCAG for trip planning and regional schedules
- Route data is sent to the MTA
- Currently doing analysis on implementing AVL and real running time tracking (potential implementation in 2005)
- Held informal discussions with Cities regarding signal priority
- Farebox software (GFI) had problems following recent upgrade since resolved and working properly (both technical and procedural)
- Looking into integrating farebox system with upcoming AVL system to provide improved route and ridership information
- May migrate to County-wide farebox system (which may also change the way inter-Agency transfers are collected and paid)

SGVTF Transit: Montebello Bus

Participants:

Montebello Bus:	Manny Thomas, Operations Manager (323-887-4637)
	Allan Pollock, Director of Transportation
TransCore:	Chuck Dankocsik, Jack Schneider

Phone Interview Date: November 10, 2003

General Service Info

- About 900,000 riders per month
- Major Routes/Corridors: Whittier and Beverly Blvds (E/W), Garfield Ave and Montebello Blvd (N/S)
- Major Destinations: Downtown LA, Gold Line Station (Pasadena), Whittier, ELAC
- Boundary Areas: San Marino/Pasadena, Whittier, Montebello, Alhambra, Downtown LA
- 54 busses/day (at peak hours)
- 235 employees
- Schedules/routes are re-evaluated 3 times/year

Service Issues

- Routes: Beverly Blvd (to Downtown), Whittier Blvd, Washington Blvd (mostly Downtown), Garfield (Gateway Cities) – PM peak hours worst; 20-30 minute delays per line
- Intersections: Garfield and Whittier, Beverly, and Washington; I-10/Bandini; San Gabriel/I-10
- Extra (unscheduled) service to Downtown and performing analyses on other routes to determine ways mitigate delays
- No process in place to notify Agency in case of planned construction/closures outside of the City of Montebello (also notified re: filming in the City of LA)

ITS/Systems

- Website shows schedules and allows trip planning for fixed routes for Montebello Bus and has links to MTA for regional trip planning and schedules
- Route data is sent to the MTA (files sent electronically, but no automation)
- Currently doing analysis on implementing AVL (potential implementation in 2005)
- Held informal discussions with Cities regarding signal priority (cross-jurisdictional issues)
- Considering Kiosk and transportation pass vending at new transit plaza (at Montebello and Whittier Blvds.)
- Use ATMS primarily for determining need for route deviations

Agency Needs & Objectives

- Implement AVL for fleet
- Signal priority on key routes
- Implement information and ticketing kiosks at key locations
- Improved construction/closure information
- Regional ATMS to determine need for Route deviation
- Improved route/schedule integration with MTA

Potential Early Deployment Opportunities

- Improve process of obtaining construction/closure information
- Ticketing kiosk pilot

APPENDIX E – ITS ARCHITECTURE REPORTS (TURBO)

The following reports are customized versions of the Turbo Architecture Stakeholders and Inventory reports. Each report shows only the existing inventory elements within the SGVTF ITS Architecture.

For a more thorough discussion of the components of the National ITS Architecture please visit the US DOT's ITS Architecture website at: http://www.its.dot.gov/arch/arch.htm.

E.1 STAKEHOLDERS REPORT

The following customized Turbo Architecture Stakeholders Report presents a list of all of the identified stakeholders for this project and shows their *existing* ITS inventory elements.

SGVTF Stakeholders Report

Caltrans D7
- Associated Element: Caltrans D7 Signal System (CT-NET)
- Associated Element: Caltrans D7 Intertie Server (FMS)

City of Alhambra
- Associated Element: Alhambra TCS
- Associated Element: Alhambra VDS

City of Arcadia
- Associated Element: Arcadia TCS
- Associated Element: Arcadia IEN LCCS
- Associated Element: Arcadia VDS
- Associated Element: Arcadia EDP W/S
- Associated Element: Arcadia CCTV
- Associated Element: Arcadia Signal System

City of Azusa
- Associated Element: Azusa Signal System
- Associated Element: Azusa IEN LCCS
- Associated Element: Azusa EDP W/S
- Associated Element: Azusa VDS
- Associated Element: Azusa TCS

City of Baldwin Park
- Associated Element: Baldwin Park IEN W/S
- Associated Element: Baldwin Park VDS
- Associated Element: Baldwin Park EDP W/S
- Associated Element: Baldwin Park Signal System

City of Covina
- Associated Element: Covina VDS
- Associated Element: Covina Signal System

City of Duarte
- Associated Element: Duarte IEN LCCS
- Associated Element: Duarte TCS
- Associated Element: Duarte Signal System
- Associated Element: Duarte VDS

City of El Monte
- Associated Element: El Monte VDS
- Associated Element: El Monte Signal System

City of Glendora
- Associated Element: Glendora VDS
- Associated Element: Glendora EDP W/S
- Associated Element: Glendora TCS
- Associated Element: Glendora IEN LCCS

City of Irwindale
- Associated Element: Irwindale IEN W/S
- Associated Element: Irwindale Signal System
- Associated Element: Irwindale VDS

City of La Puente
- Associated Element: La Puente VDS
- Associated Element: La Puente Signal System

City of Monrovia
- Associated Element: Monrovia VDS
- Associated Element: Monrovia IEN LCCS
- Associated Element: Monrovia E-Views (Pilot)
- Associated Element: Monrovia Signal System
- Associated Element: Monrovia EDP W/S
- Associated Element: Monrovia TCS

City of Montebello
- Associated Element: Montebello VDS
- Associated Element: Montebello Signal System

City of Monterey Park
- Associated Element: Monterey Park Signal System
- Associated Element: Monterey Park VDS

City of Pasadena
- Associated Element: Pasadena EDP W/S
- Associated Element: Pasadena CMS
- Associated Element: Pasadena LRT TCS
- Associated Element: Pasadena IEN LCCS
- Associated Element: Pasadena CCTV
- Associated Element: Pasadena VDS
- Associated Element: Pasadena TCS

City of Rosemead
- Associated Element: Rosemead Signal System
- Associated Element: Rosemead VDS

City of San Dimas
- Associated Element: San Dimas EDP W/S
- Associated Element: San Dimas TCS
- Associated Element: San Dimas IEN LCCS
- Associated Element: San Dimas Signal System
- Associated Element: San Dimas VDS

City of San Gabriel
- Associated Element: San Gabriel Signal System
- Associated Element: San Gabriel VDS

City of San Marino
- Associated Element: San Marino Signal System
- Associated Element: San Marino VDS

City of South El Monte
- Associated Element: South El Monte Signal System
- Associated Element: South El Monte VDS

City of South Pasadena
- Associated Element: South Pasadena VDS
- Associated Element: South Pasadena Signal System

City of Temple City
- Associated Element: Temple City Signal System
- Associated Element: Temple City VDS

City of West Covina
- Associated Element: West Covina VDS
- Associated Element: West Covina TCS

LACO DPW

Associated Element: LACO I-710/Atlantic Blvd. IEN Corridor Server
Associated Element: LACO SGV EDP Intranet Server
Associated Element: LACO IEN W/S
Associated Element: LACO I-105 IEN Corridor Server
Associated Element: LACO SGV IEN Corridor Server
Associated Element: LACO IEN LCCS
Associated Element: LACO TCS
Associated Element: LACO VDS
Associated Element: LACO I-5/Telegraph Road IEN Corridor Server
Associated Element: LACO El Segundo ATIS
Associated Element: LACO Signal System
Associated Element: LACO Regional IEN Server
Associated Element: LACO South Bay IEN Corridor Server
Associated Element: LACO Pomona Valley IEN Corridor Server
Associated Element: LACO West SGV IEN Corridor Server

LADOT

Associated Element: LADOT CMS
Associated Element: LADOT CCTV
Associated Element: LADOT ATSAC/ATCS
Associated Element: LADOT Rapid Bus/TPS
Associated Element: LADOT IEN Corridor Server
Associated Element: LADOT IEN LCCS
Associated Element: LADOT VDS

MTA

Associated Element: MTA IEN W/S
Associated Element: Metro Rapid Buses
Associated Element: Metro Rapid Bus Station/Stop

E.2 INVENTORY REPORT

The following customized Turbo Architecture Inventory Report presents a list and description of the identified *existing* ITS inventory elements in the SGVTF. The subsystem mapping refers to a predefined building block of the National ITS Architecture that describes what general functionality and communications that this element can provide.

SGVTF ITS Inventory Report

Alhambra TCS

Associated Stakeholder: City of Alhambra

Description: Econolite Aries V1.51 (18 intersections currently connected/19 more 3Q04); 97 total signalized intersections. Controllers: 73 NEMA/Econolite, 23 170/LACO-1R, 3 170/LACO-3; 2 Field Masters; 45 RCTB. Running Fixed Pattern/TOD and Special Event timing plans.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Alhambra VDS

Associated Stakeholder: City of Alhambra

Description: Vehicle detection system (86 inductive loops, 11 VIDs)

Mapped to Entity: Roadway Subsystem

Arcadia EDP W/S

Associated Stakeholder: City of Arcadia

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

Arcadia Signal System

Associated Stakeholder: City of Arcadia

Description: 71 signalized intersections w/45- Multisonic 820 and 36- 170 (LACO-1) controllers running TOD timing plans. Shared intersections (3@ Caltrans, LACO; 1- Pasadena; 2- Monrovia, Temple City, El Monte)
Note: Multisonics VMS 330 w/WWV clock synchronization disconnected about 2000.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Arcadia VDS

Associated Stakeholder: City of Arcadia

Description: Vehicle detection system (all inductive loops plus 2 VIDs)

Mapped to Entity: Roadway Subsystem

Azusa EDP W/S

Associated Stakeholder: City of Azusa

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

Azusa Signal System

Associated Stakeholder: City of Azusa

Description: 52 signalized intersections. Mostly 170 controllers w/LACO firmware (some Type 90s running BiTrans). WWV RTCBs running fixed pattern/TOD timing plans. Shared intersections (Caltrans 7; LACO 8)

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Azusa VDS

Associated Stakeholder: City of Azusa

Description: Vehicle detection system (52 loops, 3 VIDs)

Mapped to Entity: Roadway Subsystem

Baldwin Park EDP W/S

Associated Stakeholder: City of Baldwin Park

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

Baldwin Park Signal System

Associated Stakeholder: City of Baldwin Park

Description: 56 signalized intersections; 170E controllers w/BiTrans firmware running fixed pattern/TOD, pre-planned scenarios and traffic responsive timing plans.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Baldwin Park VDS

Associated Stakeholder: City of Baldwin Park

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

Caltrans D7 Intertie Server (FMS)

Associated Stakeholder: Caltrans D7

Description: Infrastructure to facilitate inter-operation of various Caltrans systems (e.g., District TCSs). Also includes LA/Ventura ATIS Server, IMAJINE, TravelTip, etc. FMS operates and maintains freeway ramp metering and roadside devices on state and interstate highways and provides I-210 data for SGV EDP Intranet Server and some loop data to Pasadena.

Mapped to Entity: Archived Data Management Subsystem

Mapped to Entity: Information Service Provider

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Caltrans D7 Signal System (CT-NET)

Associated Stakeholder: Caltrans D7

Description: Caltrans D7's in-house signal system for arterials/highways. 170 C8 Master controllers. 3 intersections (of 37).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Covina Signal System

Associated Stakeholder: City of Covina

Description: 49 signalized intersections; 46 170 and 2 Type 90 controllers w/LACO firmware (and 1 flasher) running fixed pattern/TOD timing plans. WWV on Grand and Barranca. 6 intersection on Grand shared w/LACO.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Covina VDS

Associated Stakeholder: City of Covina

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

Duarte Signal System

Associated Stakeholder: City of Duarte

Description: 11 signalized intersections w/170 controllers running fixed pattern/TOD timing plans. Shared intersections (Caltrans 4, Monrovia 2)

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Duarte VDS

Associated Stakeholder: City of Duarte

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

El Monte Signal System

Associated Stakeholder: City of El Monte

Description: 67 signalized intersections w/170E controllers running fixed pattern/TOD timing plans. Shared intersections (7 Caltrans; 2 LACO).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

El Monte VDS

Associated Stakeholder: City of El Monte

Description: Vehicle detection system (all inductive loop)

Mapped to Entity: Roadway Subsystem

Glendora EDP W/S

Associated Stakeholder: City of Glendora

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

Glendora TCS

Associated Stakeholder: City of Glendora

Description: 40 signalized intersections; Econolite Aries system controlling 4 intersections; 31 Traconex 390, 1 Eagle EPAL 300, 8 Econolite ASC controllers running fixed pattern/TOD and NIC timing plans. Shared intersections (Caltrans 4, LACO 11).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Glendora VDS

Associated Stakeholder: City of Glendora

Description: Vehicle detection system (1 pedestrian activated, 2 VIDs, 37 inductive loops).

Mapped to Entity: Roadway Subsystem

Irwindale Signal System

Associated Stakeholder: City of Irwindale

Description: 170 controllers w/LACO firmware. WWV RCTB. (15) Arrow Hwy intersections shared with Baldwin Park, maintained by Irwindale/LACO DPW. (Note: extracted from Baldwin Park data.)

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Irwindale VDS

Associated Stakeholder: City of Irwindale

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

La Puente Signal System

Associated Stakeholder: City of La Puente

Description: 11 signalized intersections running fixed pattern/TOD and pre-planned scenario timing plans.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

La Puente VDS

Associated Stakeholder: City of La Puente

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

LACO IEN W/S

Associated Stakeholder: LACO DPW

Description: LACO's workstations (2) for interjurisdictional traffic data access via IEN (Located in Alhambra). One of these workstations also serves as LACO's EDP W/S.

Mapped to Entity: Traffic Management

LACO SGV EDP Intranet Server

Associated Stakeholder: LACO DPW

Description: San Gabriel Valley Early Deployment Project Intranet. Intranet site for Agencies attached to the IEN that publishes I-210 freeway congestion data (from Caltrans) and other (IEN-related) documents.

Mapped to Entity: Information Service Provider

Mapped to Entity: Traffic Management

LACO SGV IEN Corridor Server

Associated Stakeholder: LACO DPW

Description: Information Exchange Network Server for the San Gabriel Valley corridor. Facilitates the exchange of real-time arterial traffic information between potentially disparate TCS's, and limited signal control between participating Agencies in the corridor. Also provides incident and planned event tracking to allow Agencies to share incident, planned events and construction activities. Data repository and archival services for the corridor traffic data. Server to be housed at the LACO TMC.

Mapped to Entity: Archived Data Management Subsystem

Mapped to Entity: Information Service Provider

Mapped to Entity: Traffic Management

Mapped to Entity: Transit Management

LACO Signal System

Associated Stakeholder: LACO DPW

Description: 170 Controllers w/LACO-1R and -3 firmware. (LACO-4, to communicate with TCS, is in development.)

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

LACO VDS

Associated Stakeholder: LACO DPW

Description: Vehicle detection system (virtually all inductive loops with a few VIDs and even less radar (none in SGV)

Mapped to Entity: Roadway Subsystem

LADOT ATSAC/ATCS

Associated Stakeholder: LADOT

Description: City of Los Angeles Automated Traffic Surveillance and Control System. In-house, PC-based system controlling all traffic signals in the City of Los Angeles (approx 4,400). Upgraded with Adaptive Traffic Control Software.

Mapped to Entity: Information Service Provider

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Mapped to Entity: Transit Management

LADOT CCTV

Associated Stakeholder: LADOT

Description: LADOT CCTV for traffic monitoring (about 150)

Mapped to Entity: Roadway Subsystem

LADOT CMS

Associated Stakeholder: LADOT

Description: LADOT CMS equipment

Mapped to Entity: Roadway Subsystem

LADOT Rapid Bus/TPS

Associated Stakeholder: LADOT

Description: Transit Priority System. System to manage Rapid Bus traffic signal preemption requests based upon bus location, schedule, etc.

Mapped to Entity: Traffic Management

Mapped to Entity: Transit Management

LADOT VDS

Associated Stakeholder: LADOT

Description: Vehicle detection system (virtually all inductive loop, some old magnetometers, custom Rapid Bus detectors).

Mapped to Entity: Roadway Subsystem

Metro Rapid Bus Station/Stop

Associated Stakeholder: MTA

Description: Special Metro Rapid bus stops equipped with various transit info dissemination devices (e.g., kiosks).

Mapped to Entity: Information Service Provider

Mapped to Entity: Remote Traveler Support

Metro Rapid Buses

Associated Stakeholder: MTA

Description: Commuter buses with basic AVL and traffic signal prioritization request functionality. Several fixed routes currently in operation in LA (City).

Mapped to Entity: Transit Vehicle Subsystem

Mapped to Entity: Vehicle

Monrovia EDP W/S

Associated Stakeholder: City of Monrovia

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

Monrovia E-Views (Pilot)

Associated Stakeholder: City of Monrovia

Description: Emergency Vehicle Early Warning System. Activated by transponders in 20 police and 10 fire vehicles and works at several intersections along Huntington Bl. Changes warning signs and traffic signals as emergency vehicle approaches.

Mapped to Entity: Emergency Vehicle Subsystem

Mapped to Entity: Roadway Subsystem

Monrovia Signal System

Associated Stakeholder: City of Monrovia

Description: 34 signalized intersections w/170 controllers w/LACO-1 (or 1R) firmware. Shared intersections w/Caltrans, LACO, Duarte, and Arcadia.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Monrovia VDS

Associated Stakeholder: City of Monrovia

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

Montebello Signal System

Associated Stakeholder: City of Montebello

Description: 78 signalized intersections w/mostly 170 controllers (2 Econolite) w/LACO-1/1R/3, BiTrans and Singer firmware, running fixed pattern/TOD timing plans. Shared intersections (3 Caltrans, 3 LACO).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Montebello VDS

Associated Stakeholder: City of Montebello

Description: Vehicle detection system (77 inductive loops, 1 VID)

Mapped to Entity: Roadway Subsystem

Monterey Park Signal System

Associated Stakeholder: City of Monterey Park

Description: 65 signalized intersections w/Econolite 8200 and State 170 controllers running fixed pattern/TOD and actuated timing plans. Shared intersections (Caltrans 4, LACO 6, Alhambra 2).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Monterey Park VDS

Associated Stakeholder: City of Monterey Park

Description: Vehicle detection system (63 inductive loops, 3 VIDs)

Mapped to Entity: Roadway Subsystem

MTA IEN W/S

Associated Stakeholder: MTA

Description: MTA's workstation for interjurisdictional traffic data access via IEN (Located in downtown LA).

Mapped to Entity: Traffic Management

Pasadena CCTV

Associated Stakeholder: City of Pasadena

Description: 10 CCTV throughout City.

Mapped to Entity: Roadway Subsystem

Pasadena CMS

Associated Stakeholder: City of Pasadena

Description: 9 CMS (6 fixed/3 mobile) throughout the City

Mapped to Entity: Roadway Subsystem

Pasadena EDP W/S

Associated Stakeholder: City of Pasadena

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

Pasadena IEN LCCS

Associated Stakeholder: City of Pasadena

Description: Pasadena's Local City Control Site workstation for interjurisdictional traffic data access and control via IEN and CDI.

Mapped to Entity: Archived Data Management Subsystem

Mapped to Entity: Traffic Management

Pasadena LRT TCS

Associated Stakeholder: City of Pasadena

Description: BiTrans QuicNet IV TCS to operate signals located at 18 MTA LRT (Gold Line) crossings with 2070 BiTrans controllers running BiTrans LRT and TOD timing plans. An IEN CDI for this TCS is planned for 2004.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Mapped to Entity: Transit Management

Pasadena TCS

Associated Stakeholder: City of Pasadena

Description: TransCore Series 2000 TCS's managing 290 signalized intersections 290- 170 BiTrans 222 Pasadena firmware (some LACO-IV 170 firmware) controllers running fixed pattern/TOD, pre-planned scenario, special/planned event timing plans. Shared intersections (Caltrans 16, LACO 6, Sierra Madre 2, South Pasadena and La Canada 4). Also controls some Caltrans signals (intertie with LA Caltrans TMC).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Pasadena VDS

Associated Stakeholder: City of Pasadena

Description: Vehicle detection system (288 inductive loops and 17 VIDs, 4 microwave. (All new installations to be VIDs)

Mapped to Entity: Roadway Subsystem

Rosemead Signal System

Associated Stakeholder: City of Rosemead

Description: 51 signalized intersections w/170 (LACO-1 and BiTrans) and Multisonics Type 90 controllers running fixed pattern/TOD timing plans. Shared intersections (Caltrans 10, LACO 2, Monterey Park 2, Other 2).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Rosemead VDS

Associated Stakeholder: City of Rosemead

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

San Dimas EDP W/S

Associated Stakeholder: City of San Dimas

Description: Access to Early Deployment Project intranet (I-210 Freeway data from Caltrans)

Mapped to Entity: Traffic Management

San Dimas Signal System

Associated Stakeholder: City of San Dimas

Description: 33 signalized intersections w/170 (50% 170E) controllers and mostly LACO (some Caltrans) firmware running LACO time-space timing (2-170s are Field masters). Shared intersections (8 Caltrans, 1@ LACO, Glendora, La Verne).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

San Dimas VDS

Associated Stakeholder: City of San Dimas

Description: Vehicle detection system (all inductive loops, 3 VIDs)

Mapped to Entity: Roadway Subsystem

San Gabriel Signal System

Associated Stakeholder: City of San Gabriel

Description: 34 signalized intersections w/McCain 170 controllers (31 LACO-1R, 3 LACO-3) running TOD timing plans. Shared intersections (LACO 2, Caltrans 2, and 1@ Alhambra and Rosemead). Signal preemption for FD at 2 intersections via button at station.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

San Gabriel VDS

Associated Stakeholder: City of San Gabriel

Description: Vehicle detection system (32 inductive loops, 2 VIDs)

Mapped to Entity: Roadway Subsystem

San Marino Signal System

Associated Stakeholder: City of San Marino

Description: 18 signalized intersections w/17- 170 (LACO) and 1- Micro Delta 1070/6800 (LACO-1) controllers running TOD timing plan. (EV for A-B-C Opticom) Shared intersections (LACO 3, Alhambra 2, Pasadena 1).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

San Marino VDS

Associated Stakeholder: City of San Marino

Description: Vehicle detection system (all inductive loop)

Mapped to Entity: Roadway Subsystem

South El Monte Signal System

Associated Stakeholder: City of South El Monte

Description: 22 signalized intersections w/3 170 controllers running TOD timing. 5 intersections are shared w/Caltrans.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

South El Monte VDS

Associated Stakeholder: City of South El Monte

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

South Pasadena Signal System

Associated Stakeholder: City of South Pasadena

Description: 36 signalized intersections w/mostly 170 controllers (LACO firmware on Huntington, Fair Oaks and Freemont, non NEMA on Monterey) running fixed pattern/TOD timing plans. Shared intersections (Caltrans 2, LACO 1, Alhambra 2, Pasadena 2)

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

South Pasadena VDS

Associated Stakeholder: City of South Pasadena

Description: Vehicle detection system (all inductive loops, 1 VID planned)

Mapped to Entity: Roadway Subsystem

Temple City Signal System

Associated Stakeholder: City of Temple City

Description: 28 signalized intersections w/170 controllers running fixed pattern/TOD timing plans. Shared intersections (1@ Caltrans, Arcadia, and El Monte).

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

Temple City VDS

Associated Stakeholder: City of Temple City

Description: Vehicle detection system (all inductive loops)

Mapped to Entity: Roadway Subsystem

West Covina TCS

Associated Stakeholder: City of West Covina

Description: Multisoncis VMS 330 (V4SP5) connected to 63 (of 112) signalized intersections (24 of which are malfunctioning) w/Multisonics controllers w/820A firmware (Econolite controllers on LACO synchronized corridors) running traffic responsive time plans. Shared intersections: Caltrans (15), LACO(11), and Covina (4) and Walnut (3) w/170 controllers.

Mapped to Entity: Roadway Subsystem

Mapped to Entity: Traffic Management

West Covina VDS

Associated Stakeholder: City of West Covina

Description: Vehicle detection system (all inductive loop). Signal preemption at major intersections.

Mapped to Entity: Emergency Management

Mapped to Entity: Roadway Subsystem