



Pomona Valley ITS Project

Project Deliverable 4.1.3h **Individual Agency Report -** **Los Angeles County**

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HISTORY OF REVISIONS

INDIVIDUAL AGENCY REPORT
LOS ANGELES COUNTY

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PROJECT DESCRIPTION

The County of Los Angeles, in cooperation with the cities within the Pomona Valley, has determined that development of an Intelligent Transportation System (ITS) in the Pomona Valley would help to reduce congestion, enhance mobility, provide traveler information during non-recurring and event traffic congestion, and manage event traffic. The Pomona Valley Intelligent Transportation Systems (PVITS) project was conceived as a recommendation from the Pomona Valley Feasibility Study completed by the MTA in 1995. The ultimate objectives of the Project are to:

- Improve mobility by optimizing traffic management on arterials and freeways;
- Enhance Route 60 capacity by better coordinating freeway traffic with parallel arterials;
- Improve agency efficiency by coordinating management of operations and maintenance efforts among and between agencies; and
- Increase agency staff productivity by providing low-maintenance, high-quality communications and computational tools to assist in daily management and coordination activities.

PURPOSE OF REPORT

The Conceptual Design of the Pomona Valley ITS project includes the preparation of Individual Agency Reports that summarize each of the project's primary stakeholder's needs, objectives, and issues to consider in the planning, design, and implementation of advanced technologies for traffic control, traffic management, and traveler information systems. Seven reports similar to this one have been completed for each city in the Pomona Valley. This report is identified as an "Individual Agency Report" for the unincorporated areas of Los Angeles County that are within the study area.

There are many non-contiguous areas of unincorporated Los Angeles County located within the PVITS project study area. The largest of these areas includes the communities of Hacienda Heights, Rowland Heights, and Avocado Heights. The study area defined in this document includes a majority of these three unincorporated communities. The unincorporated areas have many characteristics of a small city – with defined travel routes, significant population levels, planned development projects and a need to manage and control the traffic/travel demands. This Individual Agency Report provides an overview of the current traffic operations and a description of the signal system within the unincorporated areas.

Information in this report is based upon stakeholder interviews with Los Angeles County, along with traffic operations signal systems data that was provided by the County. Data has also been compiled from the 1995 Pomona Valley Forum Signal Synchronization Study and stakeholder meetings.

This report includes the following sections:

- Section 1.0: Study Area Traffic Characteristics
- Section 2.0: Traffic Control System and Objectives
- Section 3.0: Next Steps

1.0 STUDY AREA TRAFFIC CHARACTERISTICS

The study area for this report is largely defined by the location of regionally significant arterials identified in the 1995 Pomona Valley Forum Signal Synchronization Study, new arterials now identified as significant by Los Angeles County, and an interest to cover areas not identified in 1995. This determination of roadway significance utilized a combination of Average Daily Traffic (ADT) levels and Level of Service (LOS) ratings, along with other factors such as roadway inclusion in the Congestion Management Program (CMP), the number of transit routes utilizing the roadway, and local agency preference.

Figure 1 in Appendix A illustrates the project study area and the regionally significant arterials located within unincorporated Los Angeles County.

1.1 Study Arterials

Table 1 provides a summary of the arterials considered as "regionally significant" within the unincorporated study area. Some of the factors that were used to define the arterials as regionally significant are also provided.

Table 1: Study Area Arterial Summary			
Street	Average Daily Traffic *	Number of Transit Routes	CMP Arterial
Regionally Significant Arterials			
Valley Boulevard	25,300 - 26,900	1	NO
Gale Avenue	11,000 – 29,000	3	NO
Colima Road	35,500 - 46,300	3	NO
Workman Mill Road	11,000 - 13,900	2	NO
7 th Avenue	14,000 - 17,000	0	NO
Hacienda Boulevard	43,000 – 51,000	1	NO
Azusa Avenue	28,000 – 48,000	2	YES
Fullerton Road	15,000 – 16,300	0	NO
Nogales Street	30,000 – 38,000	0	NO
Fairway Drive	21,500 - 40,500	0	NO
Lemon Avenue	17,000 - 17,500	0	NO
Source: Kimley-Horn and Associates, Inc. , 2001			
* Numbers are factored to 2001 current conditions from available 1995 data.			
** These north-south roadways provide access between the regionally significant roadways and the 60 freeway.			



Transit Availability

Table 1 also indicates whether or not bus transit service is provided along the arterials. Many of the transit lines in the study area connect to Puente Hills Mall, which is located at the intersection of Azusa Avenue / Colima Road. Valley Boulevard is served by Los Angeles County MTA Line 484, which provides local/express service (via the I-10 Busway) between Pomona and downtown Los Angeles.

Gale Avenue is served by a combination of three different transit lines between 7th Avenue and Azusa Avenue:

- Foothill Transit Line 276 serves Gale Avenue between 7th Avenue and Azusa Avenue, on its route between the Cities of San Dimas, West Covina, and the Puente Hills Mall.
- Foothill Transit Line 482 serves Gale Avenue east of Hacienda Boulevard, on its route between the City of Pomona, the Puente Hills Mall, and downtown Los Angeles via the I-10 Busway.
- MTA Line 471 serves Gale Avenue between Azusa Avenue and Hacienda Boulevard, on its route between Puente Hills Mall and Whittier. East of Azusa Avenue, Gale Avenue / Walnut Drive has no transit service.

Colima Road / Golden Springs Road is also served by Foothill Transit Line 482, east of Puente Hills Mall, and two other lines. Foothill Transit Lines 493 and 495 operate as a joint express line, with differing eastern termini. Both lines serve Colima Road / Golden Spring Road during the peak commute periods from Diamond Bar to Puente Hills Mall, then utilize Azusa Avenue and the I-10 Busway to reach downtown Los Angeles:

- Foothill Transit Line 495 originates at the Diamond Bar Park-and-Ride, travels along Colima Road / Golden Springs Road to reach the Puente Hills Mall and the remainder of the route.
- Foothill Transit Line 493 originates in Phillips Ranch, then joins the route at the eastern end of Golden Springs Road.

Hacienda Boulevard is served by Foothill Transit Line 185, on its route between Hacienda Heights, West Covina, and Azusa. Azusa Avenue is utilized by Lines 493 and 495 in order to travel between the I-10 and Colima Road, but these lines do not stop on Azusa Avenue. Two local Foothill Transit lines serve stops on Azusa Avenue:

- Foothill Transit Line 280 serves Azusa Avenue between the Puente Hills Mall and the city of Azusa.
- Foothill Transit Line 486 serves Azusa Avenue between the Puente Hills Mall and Amar Road, on its route to Baldwin Park and Los Angeles.

Regional Arterial Descriptions

The following paragraphs summarize the characteristics of each of study area arterial:

East/West Arterials

Valley Boulevard: This roadway is 4 lanes in some sections and 6 lanes in other sections. It provides parallel access along the 60 freeway, through unincorporated County areas, and the City of Industry to the City of Pomona on the east, and the City of El Monte on the west. It crosses all of the major north-south roadways included in the study area. The roadway has a full-access interchange with the I-605 freeway, west of Industry.



Colima Road: This major six-lane roadway lies south of the 60 freeway, and has intersections with all of the north-south study area roadways between Grand Avenue in the City of Diamond Bar and Azusa Avenue in the Rowland Heights community of Los Angeles County. West of Rowland Heights, the roadway turns south into the Whittier area.

Gale Avenue: This four-lane roadway is located immediately north of and parallel to the 60 freeway. It provides a bypass route between the Fairway Drive and 7th Avenue interchanges of the 60 freeway. It also links with the Brea Canyon interchange of the 60 freeway via Lemon Avenue and Lycoming Street.

North/South Arterials

7th Avenue: This roadway is a study area arterial consisting of two lanes running in each direction, with raised median islands and a two-way striped left turn lane. No on-street parking is allowed on either side. The posted speed is 35 MPH.

Hacienda Boulevard: This four-lane roadway provides access within the study area between Valley Boulevard, Gale Avenue, Colima Road, and a full-access interchange with the 60 Freeway. The roadway is the next major roadway to the west of Azusa Avenue.

Azusa Avenue: This six-lane roadway is designated as a state highway (Route 39) through the middle of the study area. At the northern end, the state right-of-way has been relinquished to the City of West Covina. The roadway is fully grade-separated at its intersection with Valley Boulevard, and has a full-access interchange at the 60 freeway.

Fullerton Road: This study arterial has four lanes and a striped median within the study area. It provides access within the study area between Valley Boulevard, Gale Avenue, Colima Road, and a full-access interchange with the 60 Freeway. No parking is allowed on either side of the roadway. The posted speed limit is 35 MPH.

Nogales Street: This four-lane roadway provides access within the study area between Valley Boulevard, Gale Avenue, Colima Road, and a full-access interchange with the 60 Freeway. It contains a raised median island, and no parking is allowed. There is an at-grade railroad crossing north of Gale Avenue. Nogales Street has a posted speed limit of 35 MPH.

Fairway Drive: This roadway provides access within the study area between Valley Boulevard, Gale Avenue, Colima Road, and the 60 Freeway. Within the corridor it is a four-lane roadway with raised medians and double yellow striped medians. Limited parking is allowed on the street. The posted speed limit is 40 MPH. The roadway name transitions into Brea Canyon Cutoff, south of Colima Road.

1.2 Traffic Congestion

Figure 2 in Appendix A provides the Average Daily Traffic levels at selected locations on the study area arterials, and the Level of Service (LOS) at some of the study area intersections. **Figure 3** in Appendix A illustrates congested roadway segments and intersections based upon traffic data and information gained from stakeholder coordination meetings.

Traffic counts were conducted at selected locations within the study area in order to obtain updated Level of Service (LOS) data. Within this report, congestion is defined as consistently poor LOS levels, during typical peak commute times, periods of heavy special event traffic flows, and long periods of delay at



railroad at-grade crossings. **Table 2** indicates the LOS of selected intersections within the study area. Unacceptable service levels are indicated in bold.

Table 2 : 2001 Level of Service (LOS) of Selected Intersections		
Intersection	AM Peak LOS	PM Peak LOS
Fullerton Road / Valley Boulevard	E	D
Grand Avenue / Valley Blvd.	C	C
Valley Boulevard / Seventh Avenue	F	F
Seventh Avenue / Gale Avenue	F	F
Hacienda Boulevard / Gale Avenue	D	F
Fullerton Road / Colima Road	C	E
Azusa Avenue / Colima Road	C	C

*LOS values are based upon intersection turn movement counts conducted during the week of June 25, 2001.
Data was analyzed utilizing the 1997 Highway Capacity Manual method.*

2.0 TRAFFIC CONTROL SYSTEM AND OBJECTIVES

An overview of the existing and planned roadway and traffic control system is provided in the following paragraphs. This control system represents the core infrastructure from which an ITS system can be developed.

Existing System

Figure 4 in Appendix A indicates the existing traffic signal control equipment locations on the study area arterials. **Appendix B** provides a list of the locations of these traffic signals.

Agency Objectives for the PVITS Project

Los Angeles County has two roles in this Pomona Valley Forum project. The agency acts as the contract administrator and provide oversight for the project and its direction on a regional level, and the County operates and maintains traffic signals in unincorporated areas in the subregion and for the Cities of Industry and Walnut. As such, the County has two stakeholder roles. The latter perspective, as one of the local agencies with signal operation and maintenance responsibilities, is described here. The regional perspective is described in the following section.

Agency Objectives for the an Automated Traffic Management System (ATMS)

- The County would like a central traffic control system, currently being selected for the entire county, to centrally monitor and operate the traffic signals on regionally significant arterials in the unincorporated areas in the Pomona Valley Forum as well as in the City of Industry, whose signals the County operates and maintains.



- The County has plans to staff the County Transportation Management Center (TMC), to be located in the City of Alhambra, which will monitor and control the operations of their signals in the Pomona Valley Forum.
- The County would like to share data with other agencies within the Forum for improved traffic signal coordination on regionally significant arterials. Data would be collected for the purposes of identifying problem areas and developing new timing plans.
- The County is not interested in relinquishing control of its signals.

Agency Objectives for an Automated Traveler Information System (ATMS) and Communications

- The County would like to provide the general public and public agencies with pre-trip and en-route information on roadway traffic conditions through devices such as Dynamic Message Signs (DMS), Highway Advisory Radio (HAR), the Internet, kiosks, and in-vehicle navigation devices.
- The County would like to improve traffic signal interconnect on all of the regionally significant arterials in the unincorporated areas for improved traffic signal coordination and remote monitoring and timing plan implementation.

3.0 NEXT STEPS

The information summarized within this document has been utilized to formulate the Stakeholders and Operational Objectives Report (Deliverable 4.1.2). This document provides a project-wide evaluation of stakeholder needs and wishes, and provide a basis for the Requirements Analysis under Task 5 of this project. The Stakeholders and Operational Objectives Report provides the following analyses of PVITS project implementation, from information summarized in the Individual City Reports:

- Anticipated benefits to stakeholders
- Potential cost implications to stakeholders
- Potential impacts on local agency staffing and operation
- Potential impacts on local agency management and maintenance costs

Deliverables from the Addendum Report, Route 60 Feasibility Study, and the Fairplex Traffic Management Plan efforts will also be incorporated into the Requirements Analysis task deliverables, and into other subsequent tasks, such as the Concept of Operations and Alternatives Analysis.



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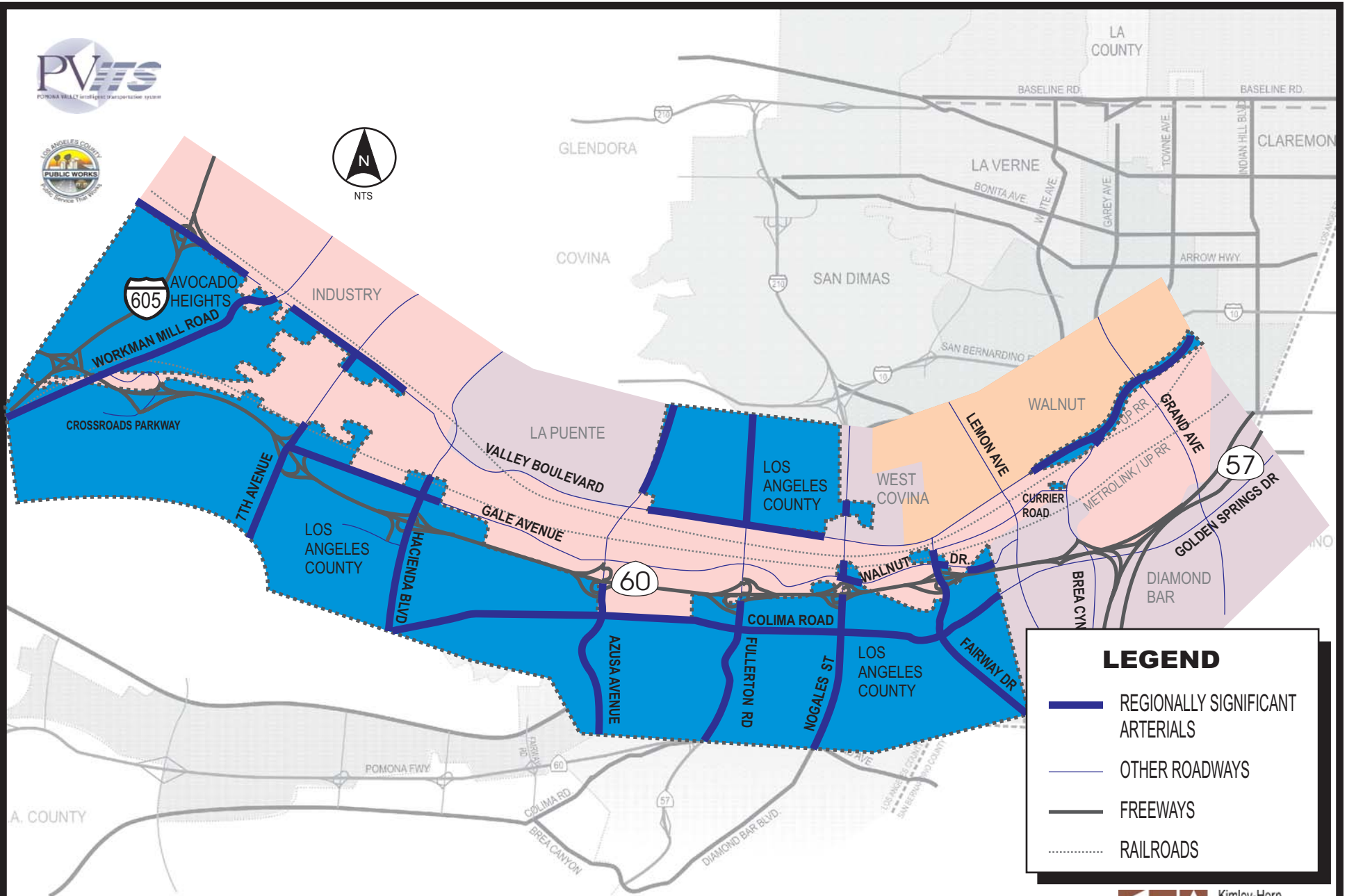
Appendix A

Figure 1: Regionally Significant Arterials

Figure 2: Average Daily Traffic and Level of Service (LOS)

Figure 3: Traffic Congestion Locations

Figure 4: Traffic Signal and Control Equipment Locations



LEGEND





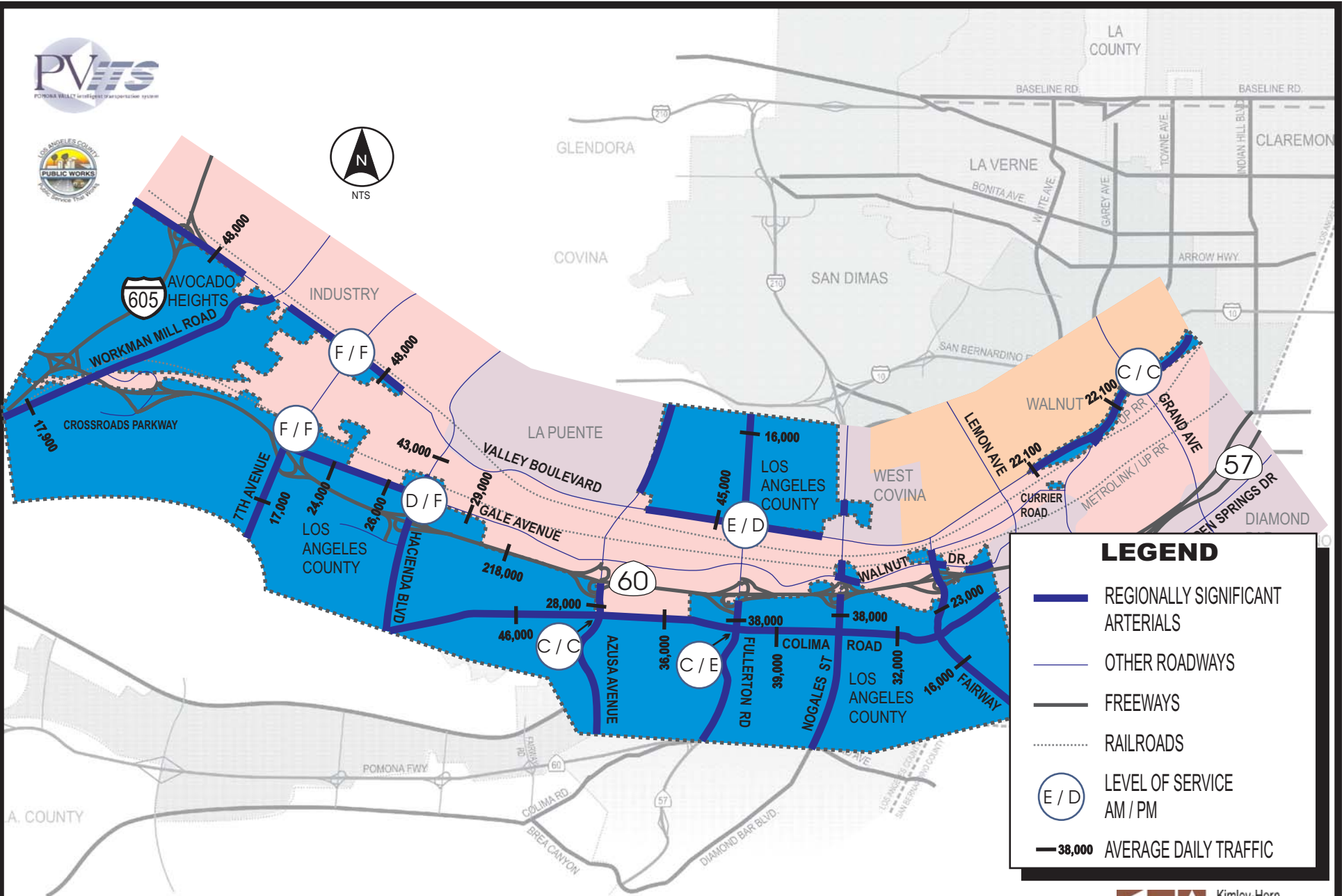
-  REGIONALLY SIGNIFICANT ARTERIALS
-  OTHER ROADWAYS
-  FREEWAYS
-  RAILROADS

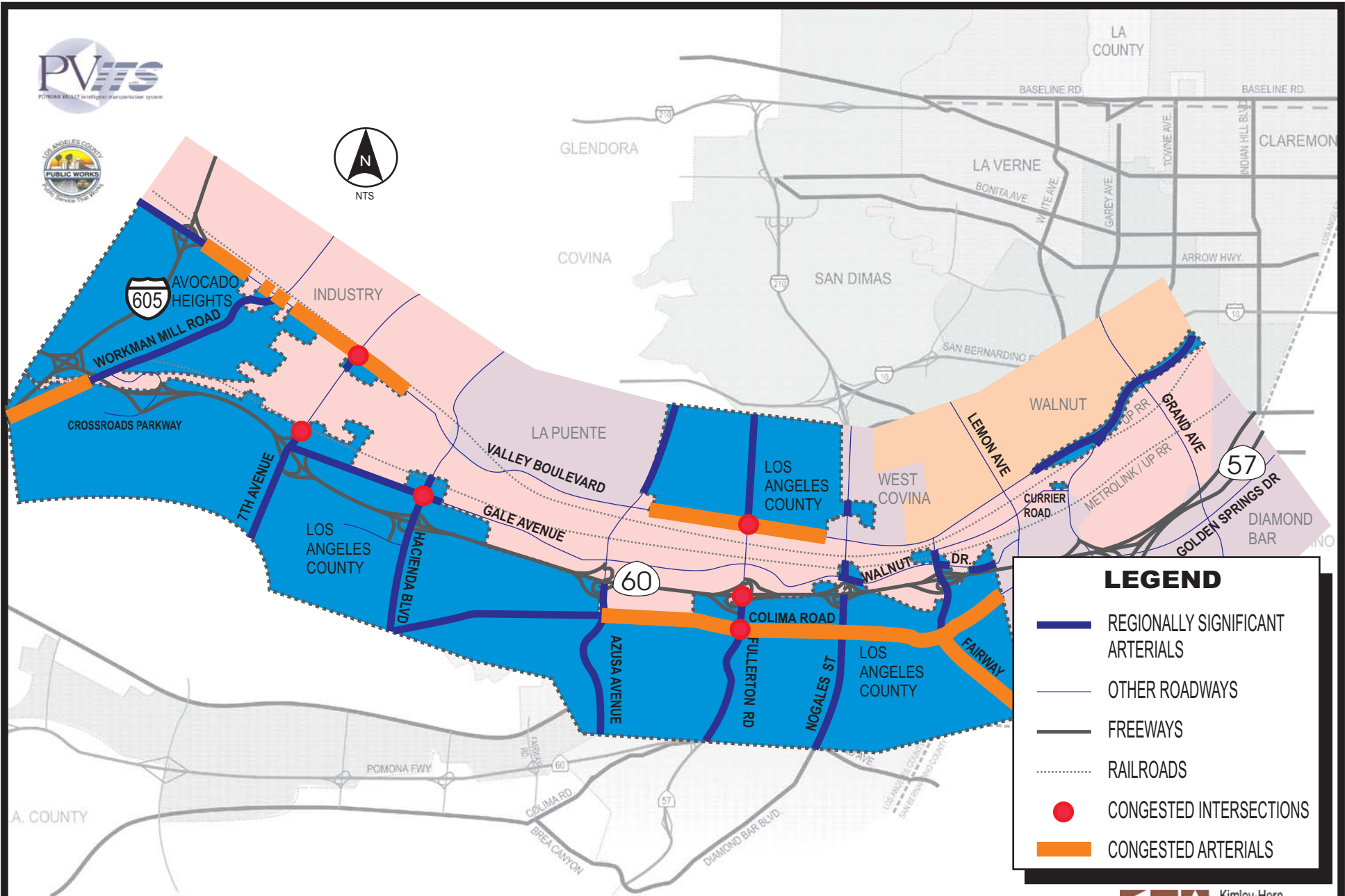
FIGURE 1 - REGIONALLY SIGNIFICANT ROADWAYS



LEGEND

- REGIONALLY SIGNIFICANT ARTERIALS
- OTHER ROADWAYS
- FREEWAYS
- RAILROADS
- LEVEL OF SERVICE AM / PM
- 38,000 AVERAGE DAILY TRAFFIC

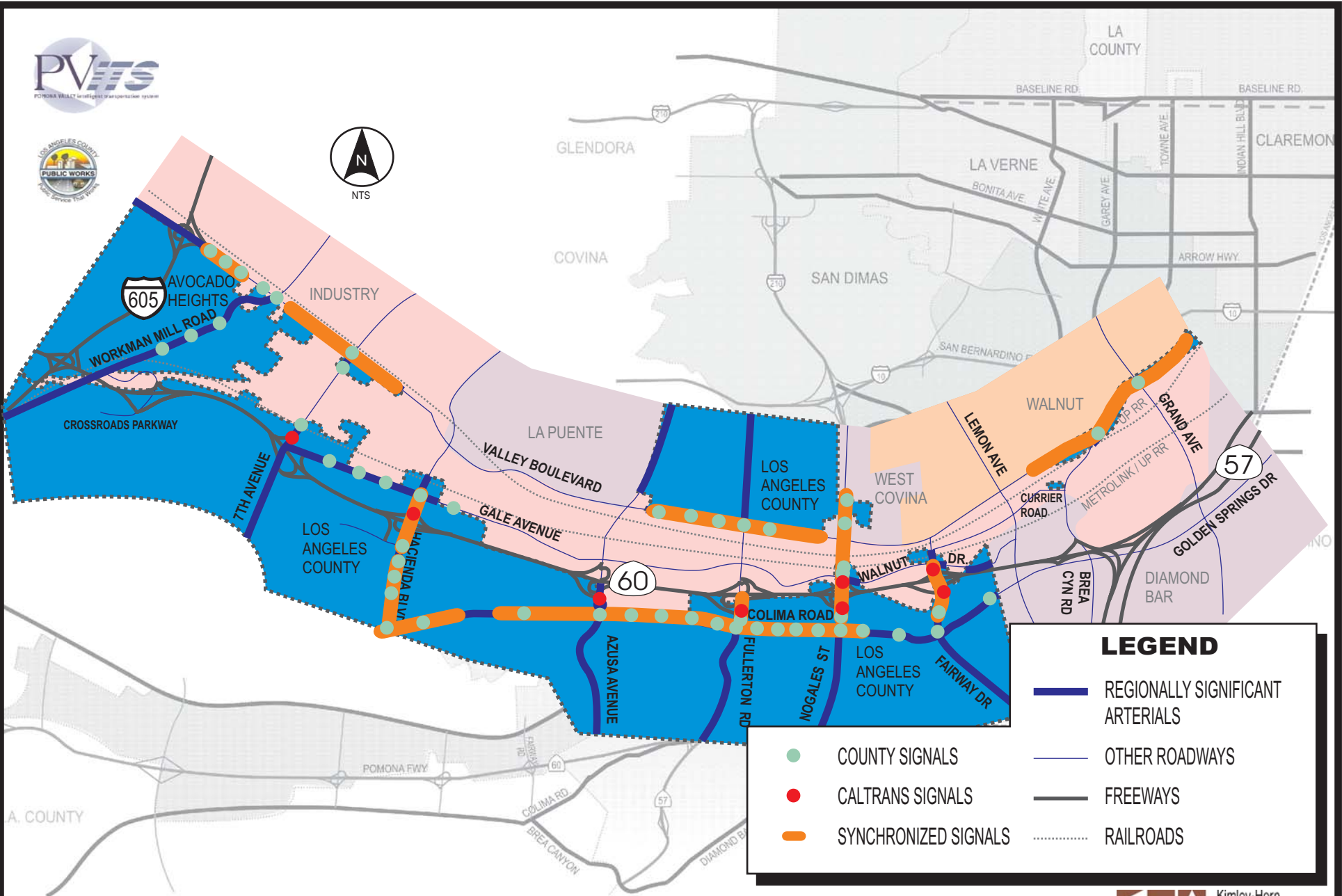
FIGURE 2 - AVERAGE DAILY TRAFFIC VOLUMES AND LOS



LEGEND

- REGIONALLY SIGNIFICANT ARTERIALS
- OTHER ROADWAYS
- FREEWAYS
- RAILROADS
- CONGESTED INTERSECTIONS
- CONGESTED ARTERIALS

FIGURE 3 - TRAFFIC CONGESTED AREAS



LEGEND

- REGIONALLY SIGNIFICANT ARTERIALS
- OTHER ROADWAYS
- FREEWAYS
- RAILROADS
- COUNTY SIGNALS
- CALTRANS SIGNALS
- SYNCHRONIZED SIGNALS

FIGURE 4 - TRAFFIC SIGNAL LOCATIONS



Appendix B

TRAFFIC SIGNAL EQUIPMENT ON REGIONAL ARTERIALS WITHIN LOS ANGELES COUNTY	
Signalized Intersection	Ownership
7 th Avenue / 60 Fwy WB On Ramp	Caltrans
7 th Avenue / Clark Avenue	City of Industry & L.A. County
7 th Avenue / Proctor Avenue	City of Industry & L.A. County
Azusa Avenue / Pepperbrook Way	City of Industry & L.A. County
Azusa Avenue / 60 Fwy EB Ramps	Caltrans
Colima Road / Albatross Road	City of Industry & L.A. County
Colima Road / Azusa Avenue	City of Industry & L.A. County
Colima Road / Stimson Avenue	L.A. County
Colima Road / Halliburton Road	L.A. County
Colima Road / Batson Avenue	L.A. County
Colima Road / Desire Avenue	L.A. County
Colima Road / Fullerton Road	L.A. County
Colima Road / Jellick Avenue	L.A. County
Colima Road / Larkvane Road	L.A. County
Colima Road / Nausika Avenue	L.A. County
Colima Road / Otterbein Avenue	L.A. County
Colima Road / Paso Real Avenue	L.A. County
Colima Road / Stoner Creek Road	City of Industry & L.A. County
Colima Road / Walnut Hall Road	City of Industry & L.A. County
Colima Road / Fairway Drive	L.A. County
Colima Road / Walnut Leaf Drive	L.A. County
Fairway Road / 60 Fwy WB Ramps	Caltrans
Fairway Road / 60 Fwy EB Ramps	Caltrans
Fairway Road / Walnut Drive	City of Industry & L.A. County
Fullerton Road / 60 Fwy EB Off-Ramp	Caltrans
Fullerton Road / Los Palacios Drive	L.A. County
Gale Avenue / (East of) Angelcrest Drive	City of Industry & L.A. County
Gale Avenue / Coiner Court	City of Industry & L.A. County
Gale Avenue / Kwis Avenue	City of Industry & L.A. County
Gale Avenue / Ninth Avenue	L.A. County
Gale Avenue / Stimson Avenue **	City of Industry & L.A. County
Gale Avenue / Turnbull Canyon Road	City of Industry & L.A. County
Hacienda Boulevard / Stafford Street **	City of Industry & L.A. County
Hacienda Boulevard / 60 Fwy WB Ramps	Caltrans
Hacienda Boulevard / Three Palms Street (SR 60)	L.A. County
* Phase information on all signals was not available for all signals, as of the printing of this document. Information will be updated for inclusion in the Signal Synchronization Study Addendum Update.	
All controllers in this Table are Type-170, unless noted with asterisks:	
** Signal SST controller	
*** Signal utilizes EC controller	
- Phasing information for this intersection was not determined at the time this report was prepared.	



TRAFFIC SIGNAL EQUIPMENT ON REGIONAL ARTERIALS WITHIN LOS ANGELES COUNTY	
Signalized Intersection	Ownership
Hacienda Boulevard / Colima Road	L.A. County
Hacienda Boulevard / Gale Avenue	L.A. County
Hacienda Boulevard / Tetley Street	L.A. County
Hacienda Boulevard / Halliburton Road	L.A. County
Nogales Street / Colima Road	L.A. County
Nogales Street / Daisetta Street	L.A. County
Nogales Street / Gale Avenue / Walnut Drive	City of Industry & L.A. County
Nogales Street / La Puente Road	L.A. County & City of La Puente
Nogales Street / 60 Fwy WB Ramps	Caltrans
Nogales Street / 60 Fwy EB Ramps	Caltrans
Nogales Street / Northam Street	L.A. County
Valley Boulevard / Brea Canyon Road	City of Industry & L.A. County
Valley Boulevard / Covina Boulevard	City of Industry & L.A. County
Valley Boulevard / Grand Avenue	L.A. County
Valley Boulevard / Fullerton Road	City of Industry & L.A. County
Valley Boulevard / La Seda Road	City of Industry & L.A. County
Valley Boulevard / Orange Avenue	City of Industry & L.A. County
Valley Boulevard / San Angelo Avenue	City of Industry & L.A. County
Valley Boulevard / Sunset Avenue-7 th Avenue	City of Industry & L.A. County
Valley Boulevard / Turnbull Canyon Road	City of Industry & L.A. County
Valley Boulevard / Workman Mill Road/Puente Ave	City of Industry & L.A. County
Valley Boulevard / 2 nd Avenue / Vineland Avenue	City of Industry & L.A. County
Valley Boulevard / Yorbita Road	City of Industry & L.A. County
Workman Mill Road / Crossroads Parkway	L.A. County
Workman Mill Road / Don Julian Road	L.A. County
* Phase information on all signals was not available for all signals, as of the printing of this document. Information will be updated for inclusion in the Signal Synchronization Study Update.	
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