

3-15 TRAFFIC AND TRANSPORTATION

Changes Since the Draft EIS/EIR

Subsequent to the release of the Draft EIS/EIR in April 2004, the Gold Line Phase II project has undergone several updates:

Name Change: To avoid confusion expressed about the terminology used in the Draft EIS/EIR (e.g., Phase I; Phase II, Segments 1 and 2), the proposed project is referred to in the Final EIS/EIR as the Gold Line Foothill Extension.

Selection of a Locally Preferred Alternative and Updated Project Definition: Following the release of the Draft EIS/EIR, the public comment period, and input from the cities along the alignment, the Construction Authority Board approved a Locally Preferred Alternative (LPA) in August 2004. This LPA included the Triple Track Alternative (2 LRT and 1 freight track) that was defined and evaluated in the Draft EIS/EIR, a station in each city, and the location of the Maintenance and Operations Facility. Segment 1 was changed to extend eastward to Azusa. A Project Definition Report (PDR) was prepared to define refined station and parking lot locations, grade crossings and two rail grade separations, and traction power substation locations. The Final EIS/EIR and engineering work that support the Final EIS/EIR are based on the project as identified in the Final PDR (March 2005), with the following modifications. Following the PDR, the Construction Authority Board approved a Revised LPA in June 2005. Between March and August 2005, station options in Arcadia and Claremont were added.

Changes in the Discussions: To make the Final EIS/EIR more reader-friendly, the following format and text changes have been made:

Discussion of a Transportation Systems Management (TSM) Alternative has been deleted since the LPA decision in August 2004 eliminated it as a potential preferred alternative.

Discussions of the LRT Alternatives have eliminated the breakout of the two track configurations used in the Draft EIS/EIR (Double Track and Triple Track). The Final EIS/EIR reports the impacts of a modified triple track configuration (2 LRT tracks and 1 freight track with two rail grade separations) but focuses on the phasing/geographic boundaries included in the LPA decisions.

Two LRT alternatives in the Final EIS/EIR are discussed under the general heading “Build Alternatives,” and are defined as:

1. Full Build (Pasadena to Montclair) Alternative: This alternative would extend LRT service from the existing Sierra Madre Villa Station in Pasadena through the cities of Arcadia, Monrovia, Duarte, Irwindale, Azusa, Glendora, San Dimas, La Verne, Pomona, and Claremont, terminating in Montclair. The cities from Pasadena to Azusa are also referred to in the Final EIS/EIR as Segment 1. The cities from Glendora to Montclair are also referred to in the Final EIS/EIR as Segment 2. Key changes from the Draft EIS/EIR are the inclusion of Azusa in Segment 1, the elimination of the Pacific Electric right-of-way option between Claremont and Montclair, the inclusion of a 24-acre Maintenance and Operations facility in Irwindale (the site is smaller than in the Draft EIS/EIR), and the addition of two rail grade separations. Note that the Maintenance and Operations Facility is located in Segment 1 but is part of the Full Build Alternative. In other words, it would not be constructed as an element of the Build LRT to Azusa Alternative (described below). The length of the alternative is approximately 24 miles. One station (and parking) would be located in each city, except for

- Azusa, which would have two. There are two options for the station locations in Arcadia and Claremont. Segment 1 would include 2 LRT tracks throughout and 1 freight track between the Miller Brewing Company in Irwindale and the eastern boundary of Azusa. The freight track that now exists west of Miller Brewing, which serves a single customer in Monrovia, would be removed from service following relocation of that customer by the City of Monrovia. Segment 2 would include two LRT tracks throughout and 1 freight track between the eastern boundary of Azusa and Claremont. In Claremont, the single freight track joins up with the double Metrolink tracks (which are also used for freight movement) and continues through to Montclair (and beyond). This alternative also includes two railroad grade separations (in Azusa and in Pomona) so that LRT tracks would pass above the at-grade freight track. These allow the LRT and freight services to operate independently (thus eliminating the time-constrained double track option discussed in the Draft EIS/EIR). Implementation of the alternative would include relocation of the existing freight track within the rail right-of-way, but there would be no changes in the service provided to customers. The alternative includes 8 new traction power substations in Segment 2, as well as the 8 in Segment 1.
2. Build LRT to Azusa Alternative: This alternative (also referred to as Segment 1) would extend LRT service from the existing Sierra Madre Villa Station in Pasadena through the cities of Arcadia, Monrovia, Duarte, Irwindale, and to the eastern boundary of Azusa. (The main change from the Draft EIS/EIR is the inclusion of the City of Azusa.) The length of the alternative is approximately 11 miles. One station (and parking facility) would be located in each city, except for Azusa, which would have two. There are two options for the station location in Arcadia. Segment 1 would include two LRT tracks throughout and 1 freight track between the Miller Brewing Company in Irwindale and the eastern boundary of Azusa. The freight track that now exists west of Miller Brewing, which serves a single customer in Monrovia, would be removed from service following relocation of that customer by the City of Monrovia. This alternative also includes the railroad grade separation in Azusa so that LRT tracks would pass above the at-grade freight track. This allows the LRT and freight services to operate independently (thus eliminating the time-constrained double track option discussed in the Draft EIS/EIR). Implementation of the alternative would include relocation of the existing freight track within the rail right-of-way, but there would be no changes in the service provided to customers. The alternative also includes 8 new traction power substations.

As in the Draft EIS/EIR, impact forecasts use 2025 conditions, except for traffic impacts, which reflects a 2030 forecast based on the recently adopted 2004 SCAG Regional Transportation Plan. Based on input from the cities, 2005 base conditions were updated and growth factor analysis applied to 2030 forecasts.

3-15.1. Year 2005 Conditions

The 2005 transit and roadway conditions within the study area are presented in the following sections.

3-15.1.1 Transit

The Foothill Extension study area has one of the most extensive networks of bus routes in the San Gabriel Valley. The study area's transit routes generally follow a grid pattern and include many express and local routes. Six public transit agencies operate bus service in the Foothill Extension study area: the Los Angeles County Metropolitan Transportation Authority, Foothill Transit, Pasadena Area Rapid Transit System, the City of Duarte, Omnitrans, and the Riverside Transit Agency along with the Metrolink

commuter rail service. **Table 3-15.1** lists all the current Foothill Extension study area bus transit routes including the end destinations of their services, and **Figures 3-15.1 to 3-15.5** illustrate these routes.

TABLE 3-15.1		
TRANSIT ROUTES WITHIN THE FOOTHILL EXTENSION STUDY AREA		
Operator	Line(s)	Destination
Duarte	Blue	Community Connector (Duarte)
	Green	Community Connector (Duarte)
Foothill Transit	184	Duarte – Monrovia – Arcadia
	185	Azusa – West Covina – Hacienda Heights
	187/189	Claremont – Glendora – Pasadena
	190	Montclair – Pomona Fairplex – Cal Poly
	272	Duarte – Baldwin Park – West Covina
	280	Azusa – Puente Hills Mall
	281	Glendora – West Covina – Puente Hills Mall
	283/284	West Covina – Covina – San Dimas – Glendora
	291	La Verne – Pomona – South Pomona
	292/294	Claremont– Montclair – Pomona
	480/481	Montclair – West Covina – El Monte – Los Angeles
	488	Glendora – West Covina – Los Angeles
	492	Montclair – Arcadia – Los Angeles
	494	San Dimas – Glendora – Los Angeles
	498	Citrus College – LA (Express)
	499	San Dimas Park & Ride – Via Verde Park & Ride – LA (Express)
	690	Montclair – Pasadena – LA (Express)
	699	Montclair TransCenter – Fairplex P & R – Lakes P & R – LA (Express)
	851	Covina – Glendora
	855	Pomona TransCenter – Claremont
MTA	79	LA – Arcadia
	177	La Canada Flintridge – Pasadena – Arcadia – Monrovia – Duarte
	180/181	Hollywood – Glendale – Eagle Rock – Pasadena – Altadena
	264	Rosemead – San Gabriel – San Marino – Pasadena – Altadena
	266	Lakewood – Pasadena
	267	El Monte – Temple City – Arcadia – Pasadena – Altadena
	268	El Monte – Arcadia – Pasadena – Altadena – La Canada Flintridge

TABLE 3-15.1		
TRANSIT ROUTES WITHIN THE FOOTHILL EXTENSION STUDY AREA		
Operator	Line(s)	Destination
	270	Monrovia – El Monte – Whittier – Santa Fe Springs – Norwalk – Cerritos
	487	LA – San Gabriel – Rosemead – Pasadena – Sierra Madre (Express)
	489	Temple City – Rosemead Blvd. (Express)
Omnitrans	62	Montclair – Ontario – Chino
	64	Montclair – Upland – Rancho Cucamonga
	65	Montclair – Chino Hills
	66	Fontana – Foothill – Montclair
	68	Indian Hill – Montclair – Chaffey College
	70	Ontario –Creekside – Ontario Mills
	90	Montclair – Ontario – San Bernardino
RTA	204	Riverside – Montclair Transit Center
Pasadena ARTS	31/32	Community Connector (Pasadena)
	40	Community Connector (Pasadena)
	60	Community Connector (Pasadena)
Source: 2005 Duarte, MTA, Foothill Transit, Omnitrans, Pasadena ARTS, and RTA timetables.		

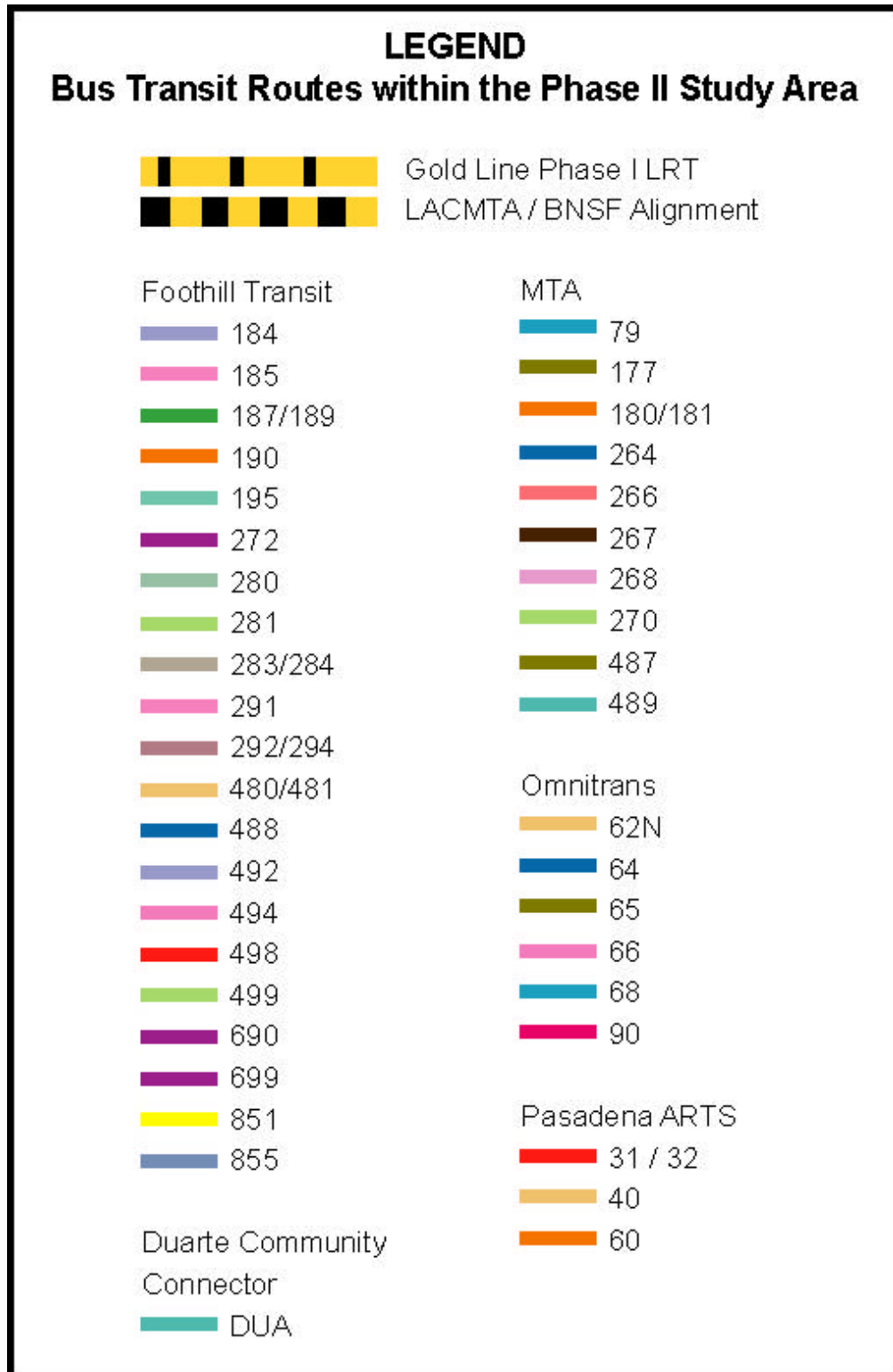


Figure 3-15.1: Legend for Figures 3-15.2 to 3-15.5

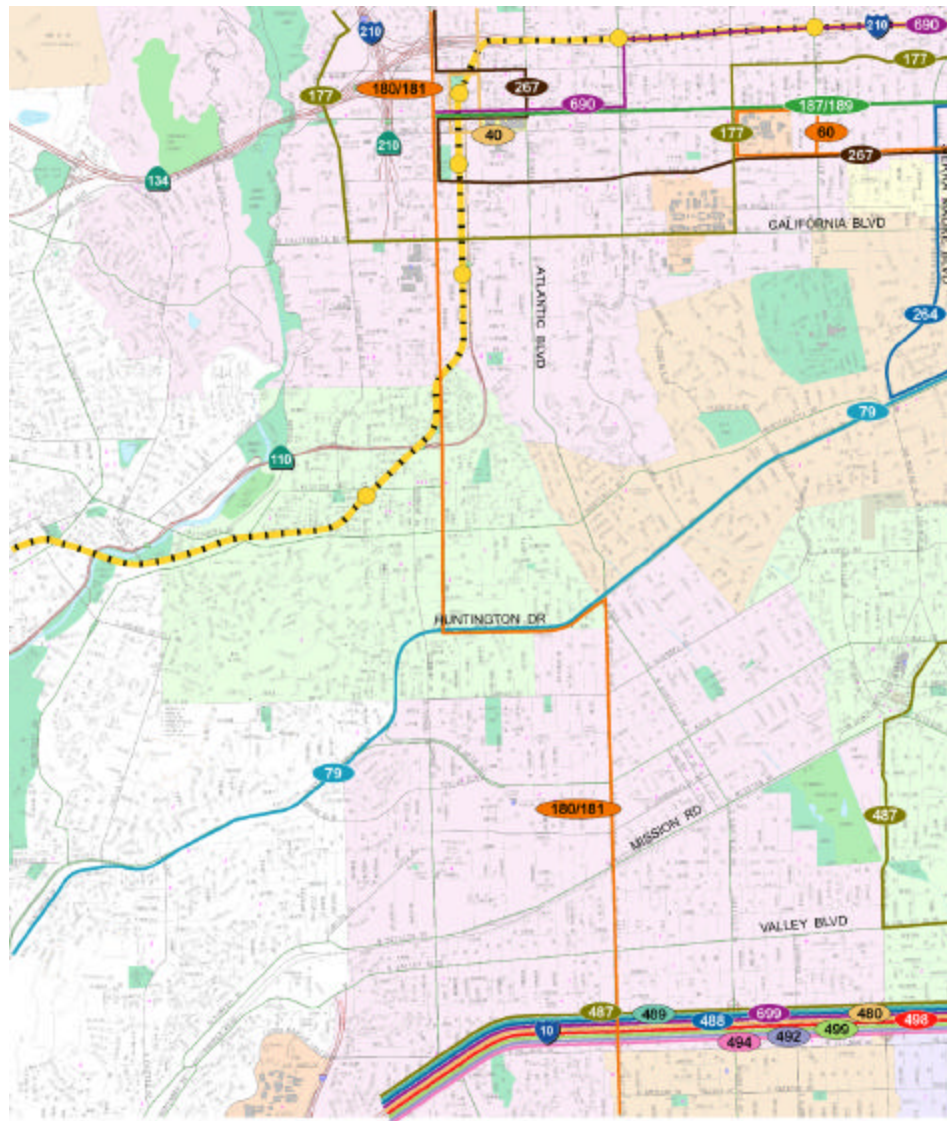


Figure 3-15.2: Transit Service, No Build Alternative, Map 1 of 4

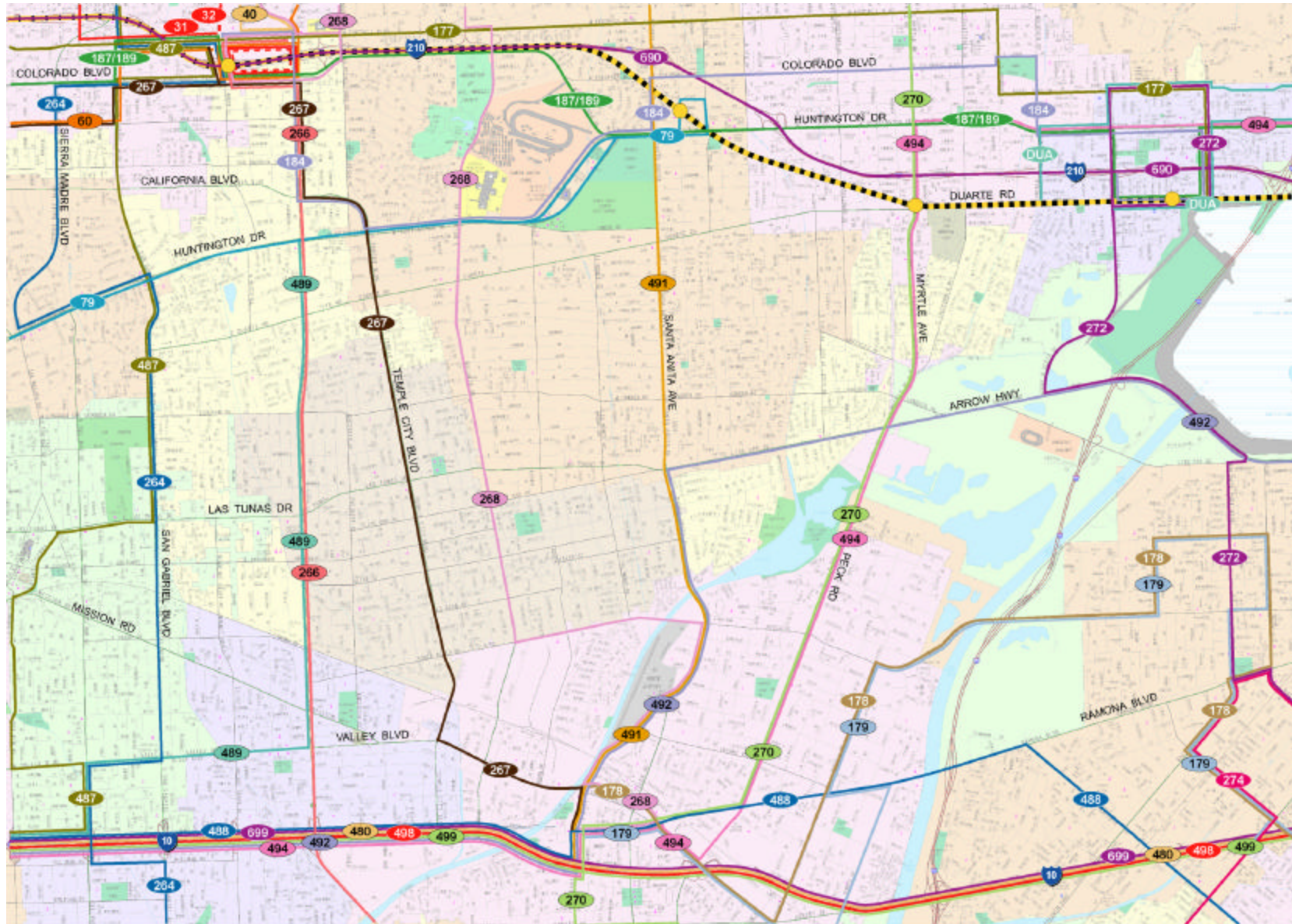


Figure 3-15.3: Transit Service, No Build Alternative, Map 2 of 4

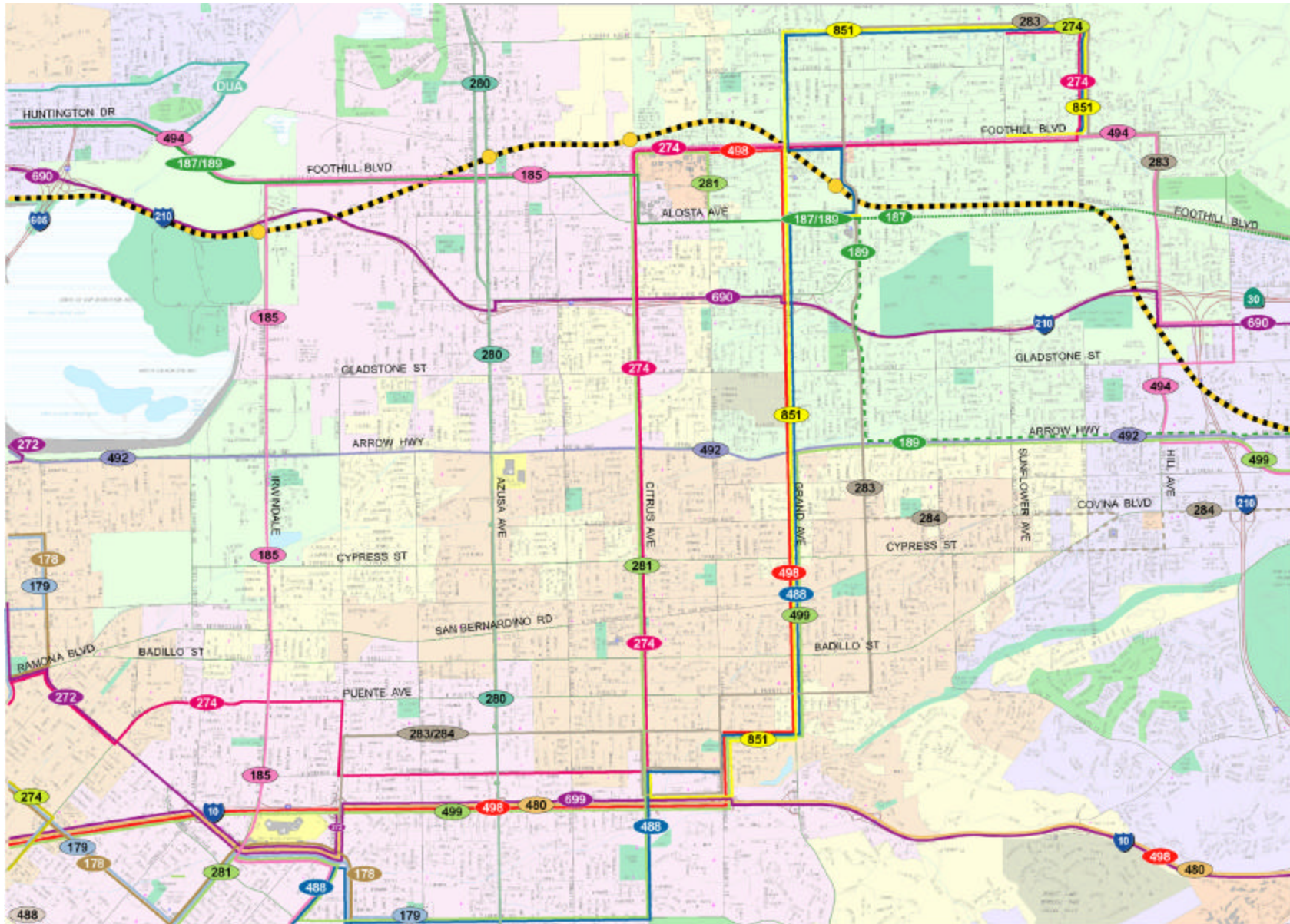


Figure 3-15.4: Transit Service, No Build Alternative, Map 3 of 4

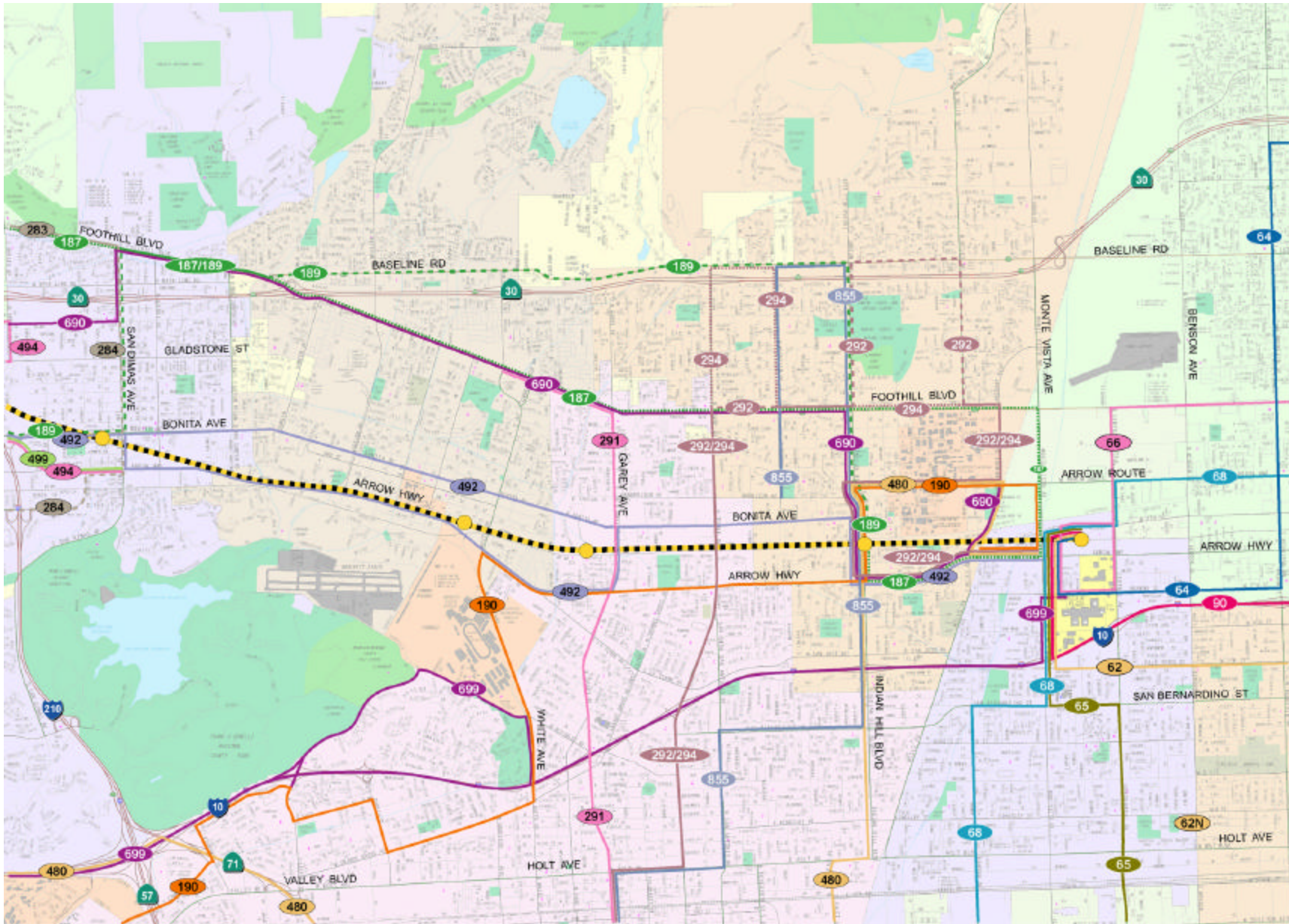


Figure 3-15.5: Transit Service, No Build Alternative, Map 4 of 4

Most of the heavily used routes are those that run in an east-west direction. These include bus routes that operate on Foothill Boulevard, Interstate 210 Freeway, Interstate 10 Freeway, Colorado Boulevard, Huntington Drive, Bonita Ave and Arrow Highway. Rosemead Boulevard and Peck Road are two north-south streets on which heavily used bus routes also operate. The predominant flow of transit passengers in the corridor is in an east-west orientation. Many of these routes experience very high ridership during peak periods. Table 3-15.2 shows the service frequency (headways) for all the bus lines in the corridor. This table illustrates the high demand for service on many of the lines, particularly on Foothill Transit lines 480/481 and 498 where headways during the morning peak period average 5 to 10 minutes. The Gold Line Phase I debuted on July 26, 2003, and provides light rail service to transit riders from Union Station in downtown Los Angeles to Pasadena.

TABLE 3-15.2 FREQUENCY OF TRANSIT SERVICE (IN MINUTES)									
Operator	Line	Days	AM Peak 6-9am	Midday 9am-3pm	PM Peak 3-7pm	Evening 7pm-11pm	Owl 11pm-6am	Hours of Service	
Duarte Transit	Blue	Weekday	60	60	60				7am-7pm
	Green	Saturday	60	60	60				8am-6pm
		Weekday	60	60	60				7am-7pm
Foothill Transit	184	Weekday	60	60	60		60		5am-6:30pm
	185	Weekday	30	30	30	30	30		5am-10:30pm
		Weekend	30	30	30	60			6am-8pm
	187	Weekday	20	20	20	20	20		4am-1am
		Weekend	30	30	30	60	60		5am-12am
	189	Weekday	60	60	60	60	60		5:30am-11pm
	190	Weekday	30	60	30	60	60	30	5am-8pm
		Weekend	60	60	60	60			6am-7:30pm
	272	Weekday	60	60	60	60	60		5am-10pm
		Weekend	60	60	60				6:30am-7pm
	280	Weekday	20	20	20	60	20		5am-11:45pm
		Weekend	30	30	30	30			6am-10:00pm
	281	Weekday	30	30	30	30	30		4am-9:30pm
		Weekend	60	60	60	60			6:30am-8pm
	283/ 284	Weekday	30	30	30	30			5:30am-8pm
		Weekend	15-45	15-45	15-45	15-45			6am-8pm
	291	Weekday	15	15	15	30	30		5am-11pm
		Weekend	30	30	30				6am-7pm
	292	Weekday	30	30	30				6am-9am&2pm-5pm
Weekend		60	60	60				6am-9am&1pm-5pm	
480/ 481	Weekday	10	15	30	30	30-60		12am-12am	
	Saturday	15	15	15	60	60		12am-12am	
	Sunday	20	20	20	60	60		12am-12am	
488	Weekday	30	60	60	60	30		4am-10pm	
	Weekend	60	60	60	60			5:30am-8:30pm	
492	Weekday	30	25	30	45	30		5am-10:30pm	
	Weekend	60	60	60				6am-7pm	
494	Weekday	30		30			EB WB	4pm-7pm 5:30am-8:30am	

TABLE 3-15.2 FREQUENCY OF TRANSIT SERVICE (IN MINUTES)									
Operator	Line	Days	AM Peak 6-9am	Midday 9am-3pm	PM Peak 3-7pm	Evening 7pm-11pm	Owl 11pm-6am	Hours of Service	
	498	Weekday	5-10	30	5-15	25	15	EB WB	2pm-8pm 5am-9: 30am
	499	Weekday	12	30	15	25	12	EB WB	2:30pm-7: 30pm 5:30am-9am
	690	Weekday	30		30	30	40	EB WB	3:30pm-7: 45pm 5am-9am
	699	Weekday	12	30	10-15	15	20	EB WB	2pm-7: 30pm 4am-9: 30am
	851	Weekday	30	40	30-60			NB SB	7am-9am&3pm-5pm 6am-8am&2pm-5pm
	855	Weekday	10-60		60				6am-9am&3pm-6pm
MTA	79	Weekday	15-20	30	15-20	45-60	60		5:30am-1am
		Saturday	30	30	30	50	60		6am-1am
		Sunday	60	40	40	50-60	60		6am-1am
	177	Weekday	50	50	50	50			6am-8pm
	180/ 181	Weekday	10-15	12-20	10-15	20-30	60		5am-5am
		Saturday	15	10-20	10-15	25-30	60		5am-5am
		Sunday	15	10-20	10-15	25-30	60		5am-5am
	264	Weekday	60	60	60	60	60		5:30am-8pm
		Saturday	60	60	60				6am-7pm
		Sunday	60	60	60				6am-7pm
	266	Weekday	20-40	40	30-40	60	40		4:30am-11pm
Saturday		50	40	40	60	60		5:30am-11pm	
Sunday		50	40	40	60	60		5:30am-10pm	
267	Weekday	30	30	30	30	30		5:30am-8: 30pm	
	Weekend	60	55	60	60			6am-8pm	
268	Weekday	30-45	60	20-30	60	45		5:30am-9pm	
	Saturday	60	60	60	60			7am-9pm	
	Sunday	60	60	60	60			7am-8pm	
270	Weekday	20-60	60	30-60	60	60		4am-9pm	
	Saturday	60	60	60	60			6am-7: 30pm	
487	Weekday	15	45	30	50	20		5am-10pm	
	Saturday	45	45	45	45			6am-9pm	
	Sunday	60	60	60	60			6am-9pm	
489	Weekday	20		20				6am-9am&3pm-7pm	
Omnitrans	62	Weekday	30	30	30	30	30		5:30am-9:30pm
		Saturday	60	60	60				6:30am-6:30pm
		Sunday	60	60	60				6:30am-6:30pm
	64	Weekday	60	60	60				6:30am-7:30pm
Saturday		60	60	60				7am-7:30pm	
Sunday		60	60	60				7am-7:30pm	

TABLE 3-15.2 FREQUENCY OF TRANSIT SERVICE (IN MINUTES)									
Operator	Line	Days	AM Peak 6-9am	Midday 9am-3pm	PM Peak 3-7pm	Evening 7pm-11pm	Owl 11pm-6am		Hours of Service
	65	Weekday	30	30	30	30	30		5am-10:30pm
		Saturday	60	60	60				6:30am-6:30pm
		Sunday	60	60	60				6:30am-5:30pm
	66	Weekday	30	30	30	30	30		5am-11pm
		Saturday	30	30	30				6:30am-7pm
Sunday		60	60	60				7am-7pm	
68	Weekday	30	30	30	60			5am-10:30pm	
	Saturday	60	60	60	60			6am-7:30pm	
	Sunday	60	60	60				7am-6:30pm	
70	Weekday	60	60	60	60			6:30am-9pm	
	Saturday	60	60	60				7am-6:30pm	
	Sunday	60	60	60				7am-6:30pm	
90	Weekday	45	45	45	60	45		5am-10:30pm	
	Saturday	45	45	45	60	45		5:30am-10:30pm	
	Sunday	60	60	60	60			7am-8pm	
RTA	204	Weekday	30		30-60		30	NB SB	4am-9am&3pm-7pm
			30		30-60		30		5am-9am&4pm-8pm
Pasadena ARTS	31/ 32	Weekday	30	30	10-30	30			6am-8pm
		Saturday		30	30	30			11am-8pm
		Sunday		30	30				11am-5pm
	40	Weekday	20-30	30	15-30	30			6am-8pm
		Saturday		30	30	30			11am-8pm
		Sunday		30	30				11am-5pm
60	Weekday	35	35	35				6am-10am & 3pm-8pm	

Source: 2005 Duarte, MTA, Foothill Transit, Omnitrans, Pasadena ARTS, and RTA timetables.

3-15.1.2 Traffic

a. Traffic Count Locations

In order to determine the existing traffic operating conditions in the Foothill Extension study area and perform traffic analysis for the future year 2030, tube counts were taken at 59 roadway segments and manual turning movement counts were conducted at 153 intersections. The jurisdictions that are represented by the traffic analysis locations include the cities of Pasadena, Arcadia, Monrovia, Duarte, Irwindale, Azusa, Glendora, San Dimas, La Verne, Pomona, and Claremont in Los Angeles County and the cities of Upland and Montclair in San Bernardino County. The roadway segment analysis was performed using average daily traffic (ADT) volumes taken from the tube counts. The intersections were analyzed using PM peak hour intersection movement volumes. The data collection effort was conducted on representative weekday (Tuesday, Wednesday, or Thursday) over a 6-week period between September and October of 2003. Additional counts were taken in April and June of 2005. Figures 3-15.6 to 3-15.21 show the tube count and intersection locations where data was collected to be used in the traffic analysis for this Final EIS/EIR.

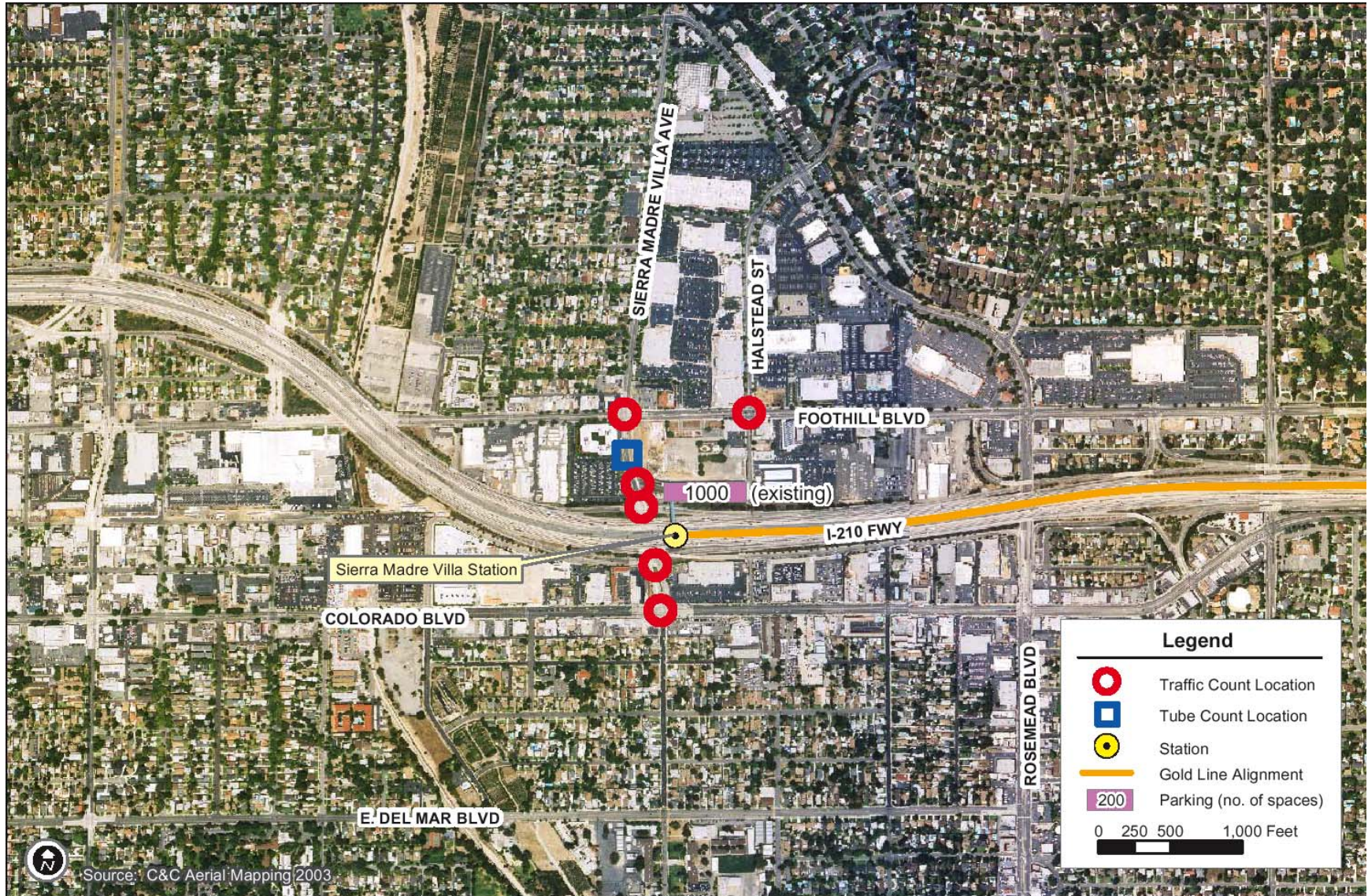


Figure 3-15.6: Traffic Count Locations – Pasadena



Figure 3-15.7: Traffic Count Locations – Arcadia

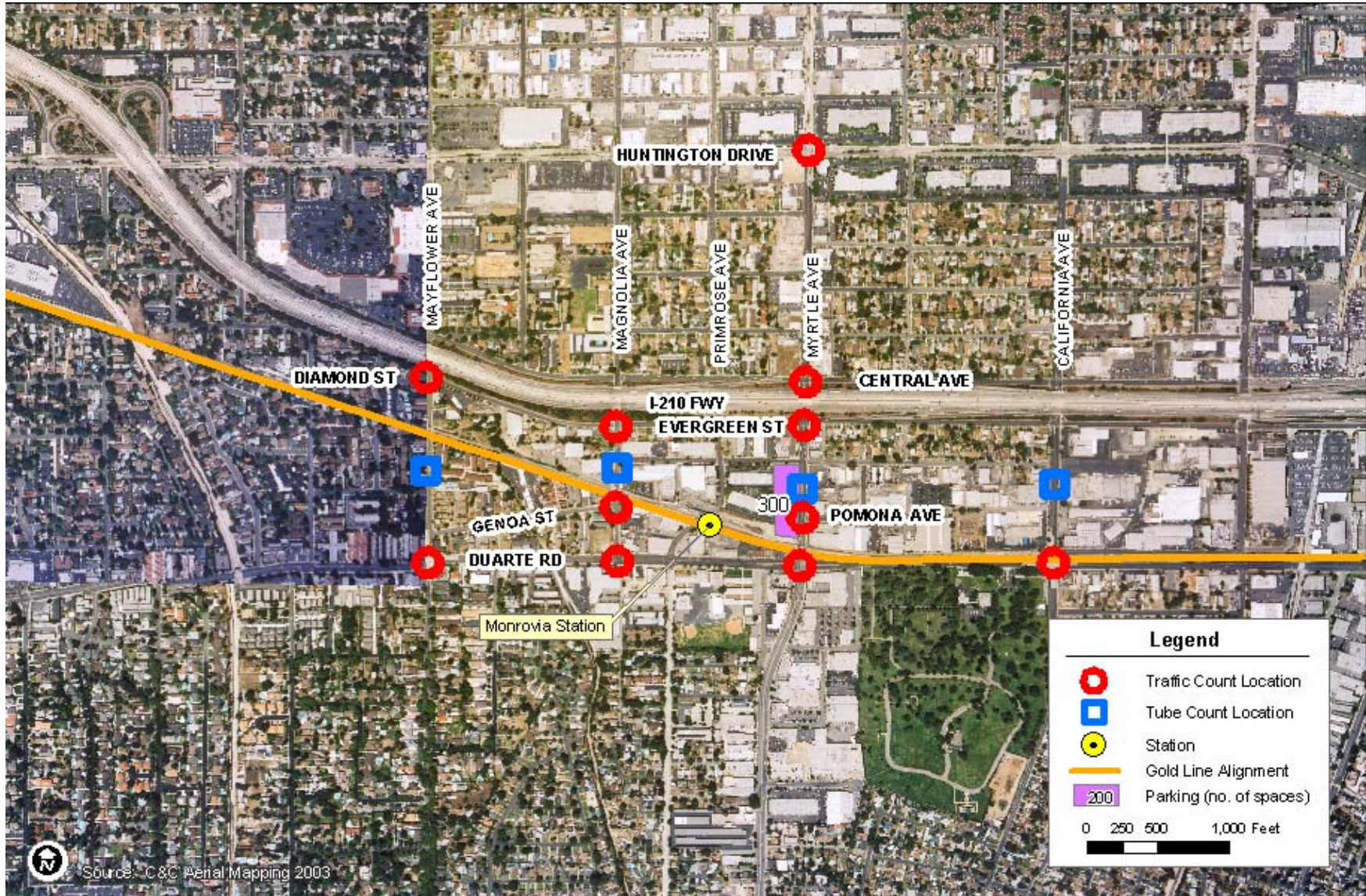


Figure 3-15.8: Traffic Count Locations – Monrovia



Figure 3-15.9: Traffic Count Locations – Duarte

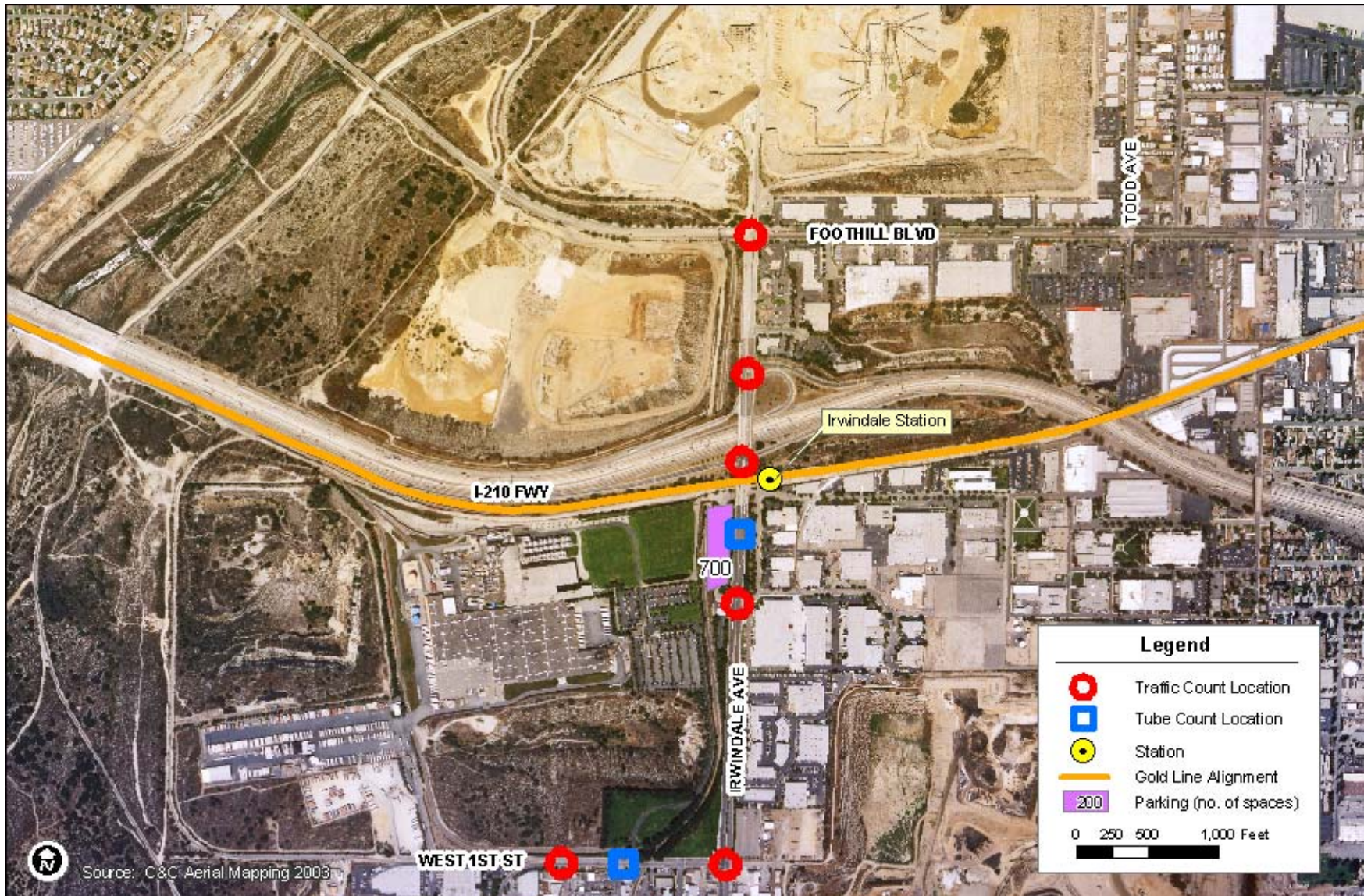


Figure 3-15.10: Traffic Count Locations – Irwindale



Figure 3-15.11: Traffic Count Locations – Azusa

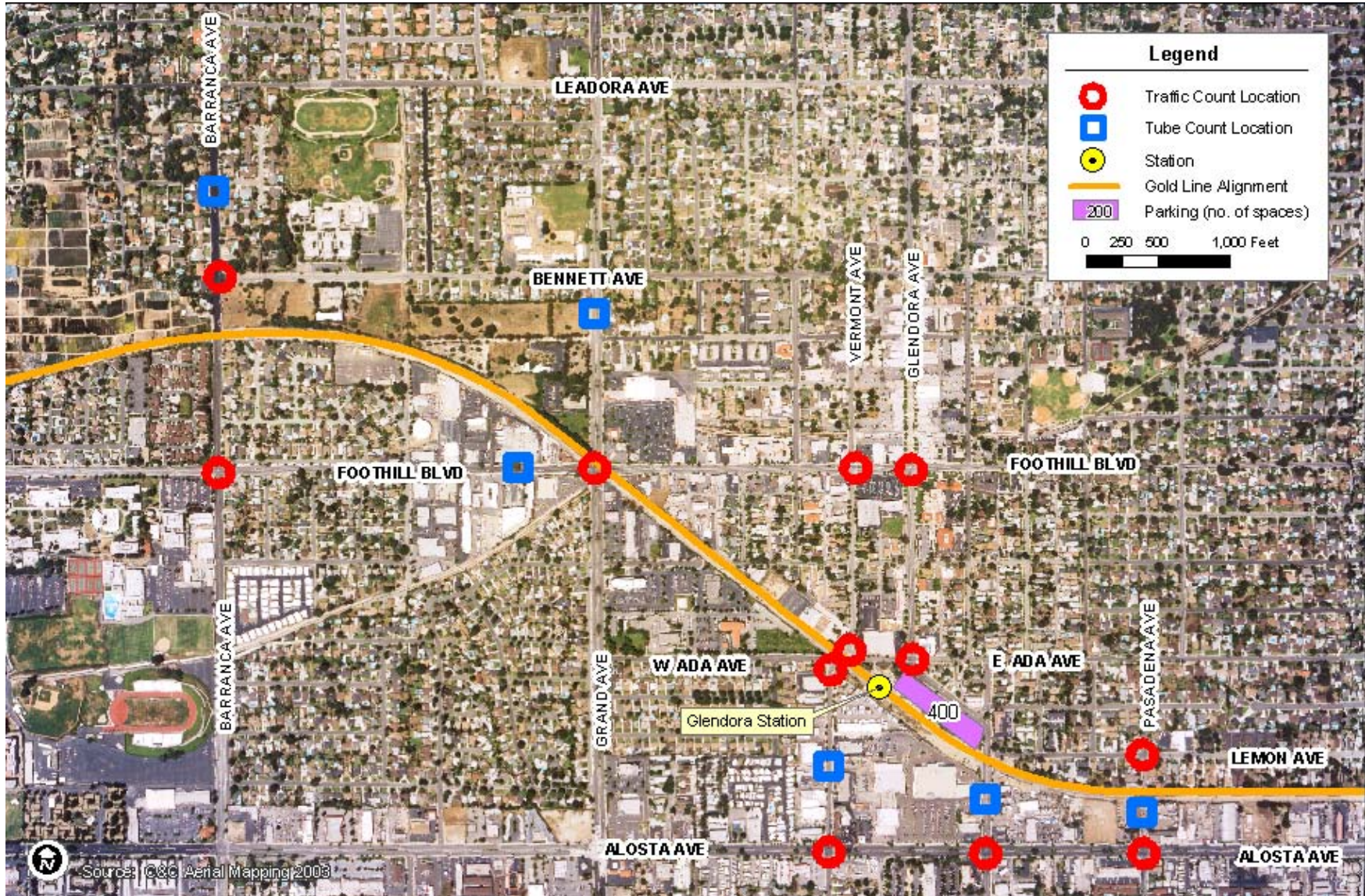


Figure 3-15.12: Traffic Count Locations – Glendora (1 of 4)



Figure 3-15.13: Traffic Count Locations – Glendora (2 of 4)

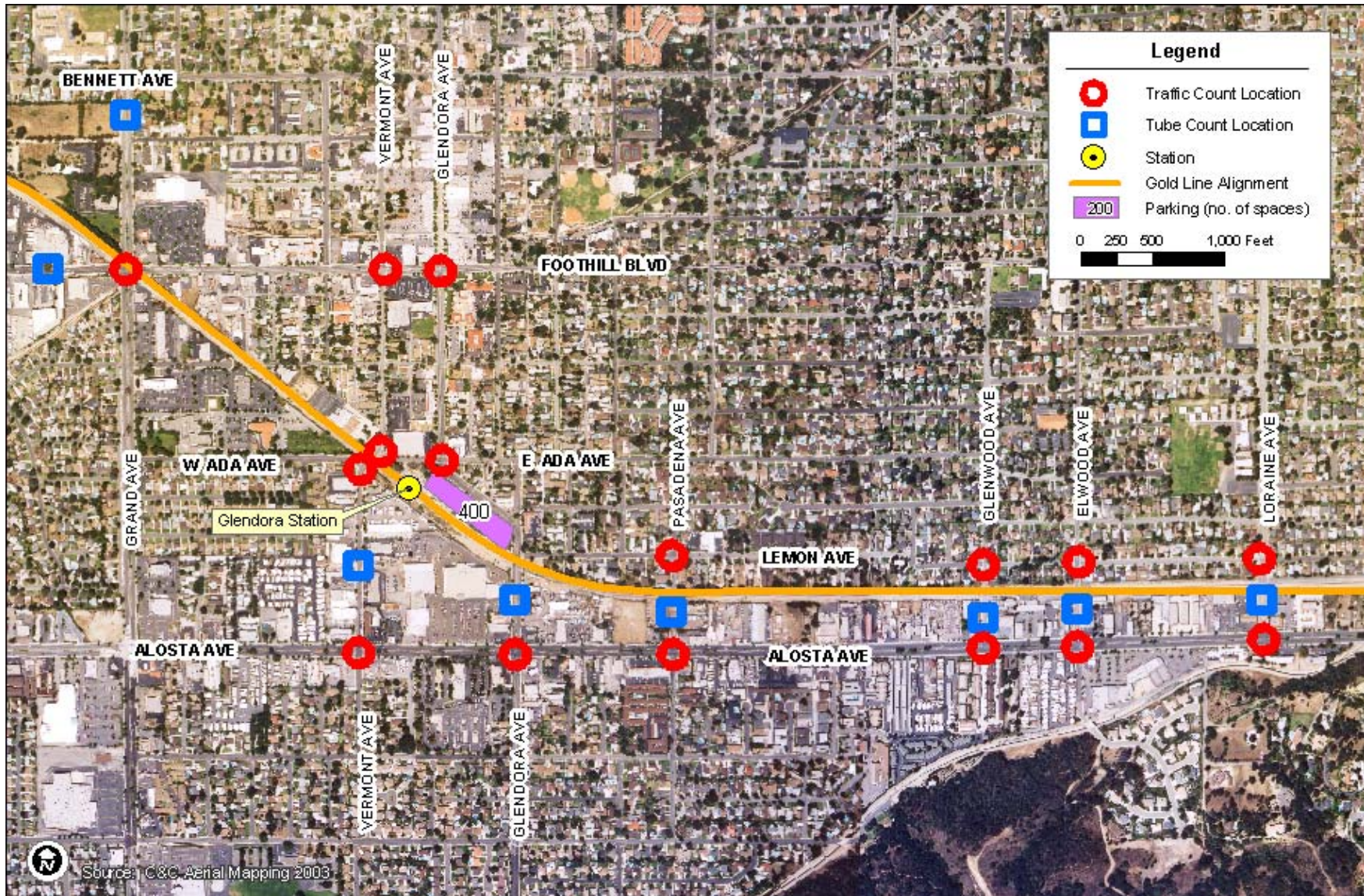


Figure 3-15.14: Traffic Count Locations – Glendora (3 of 4)

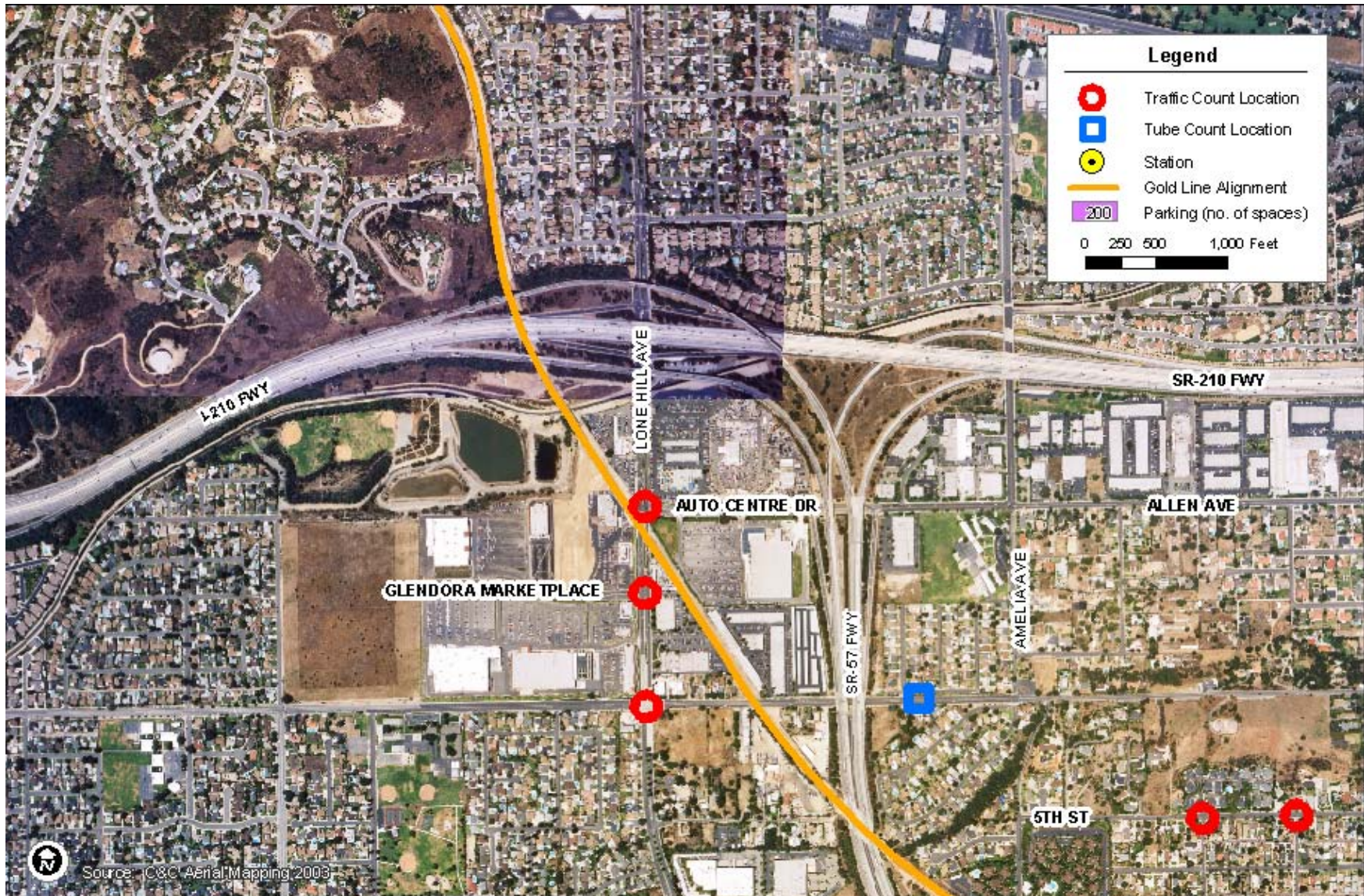


Figure 3-15.15: Traffic Count Locations –Glendora (4 of 4)



Figure 3-15.16: Traffic Count Locations – San Dimas (1 of 2)

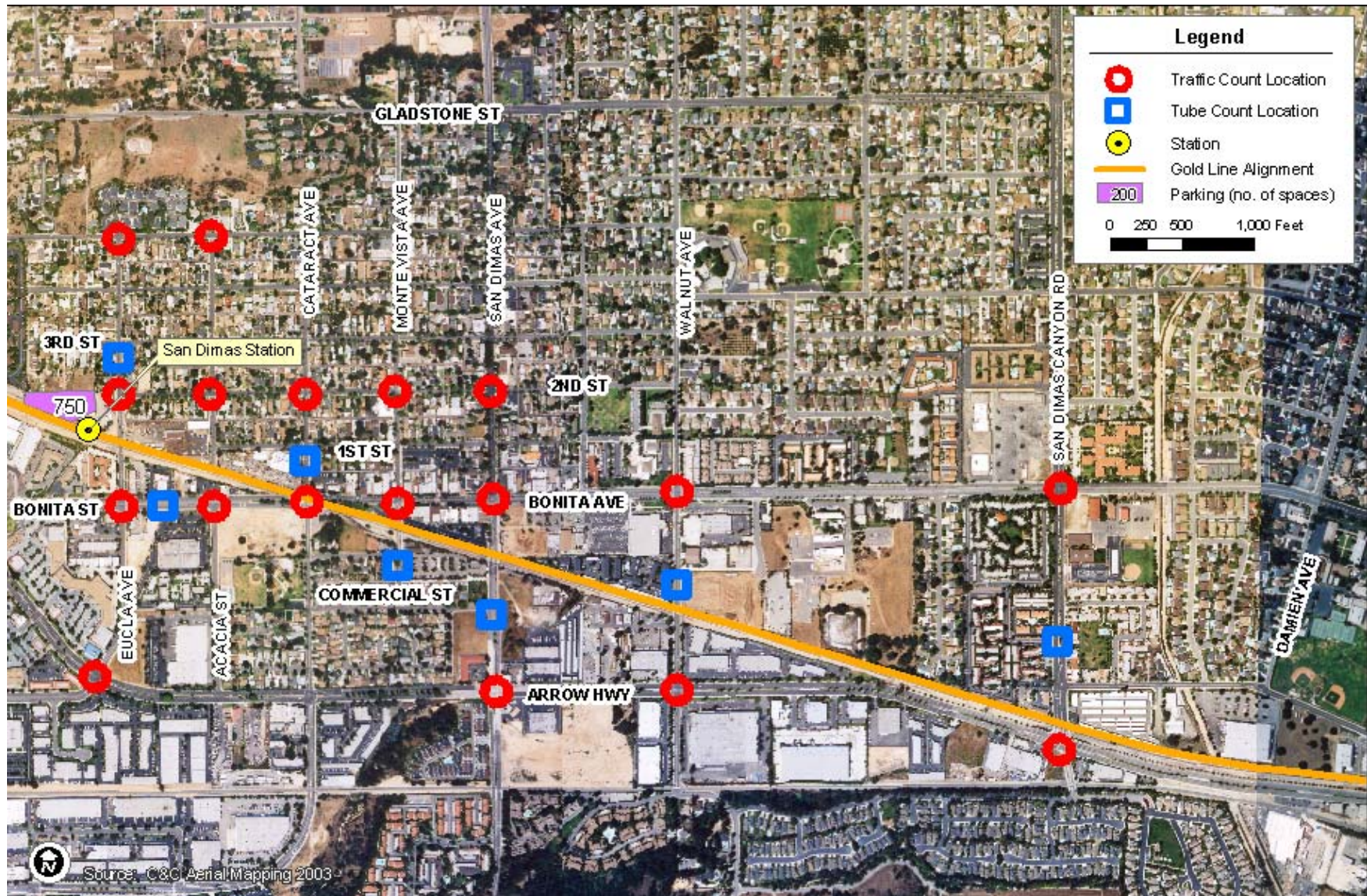


Figure 3-15.17: Traffic Count Locations – San Dimas (2 of 2)



Figure 3-15.18: Traffic Count Locations – La Verne

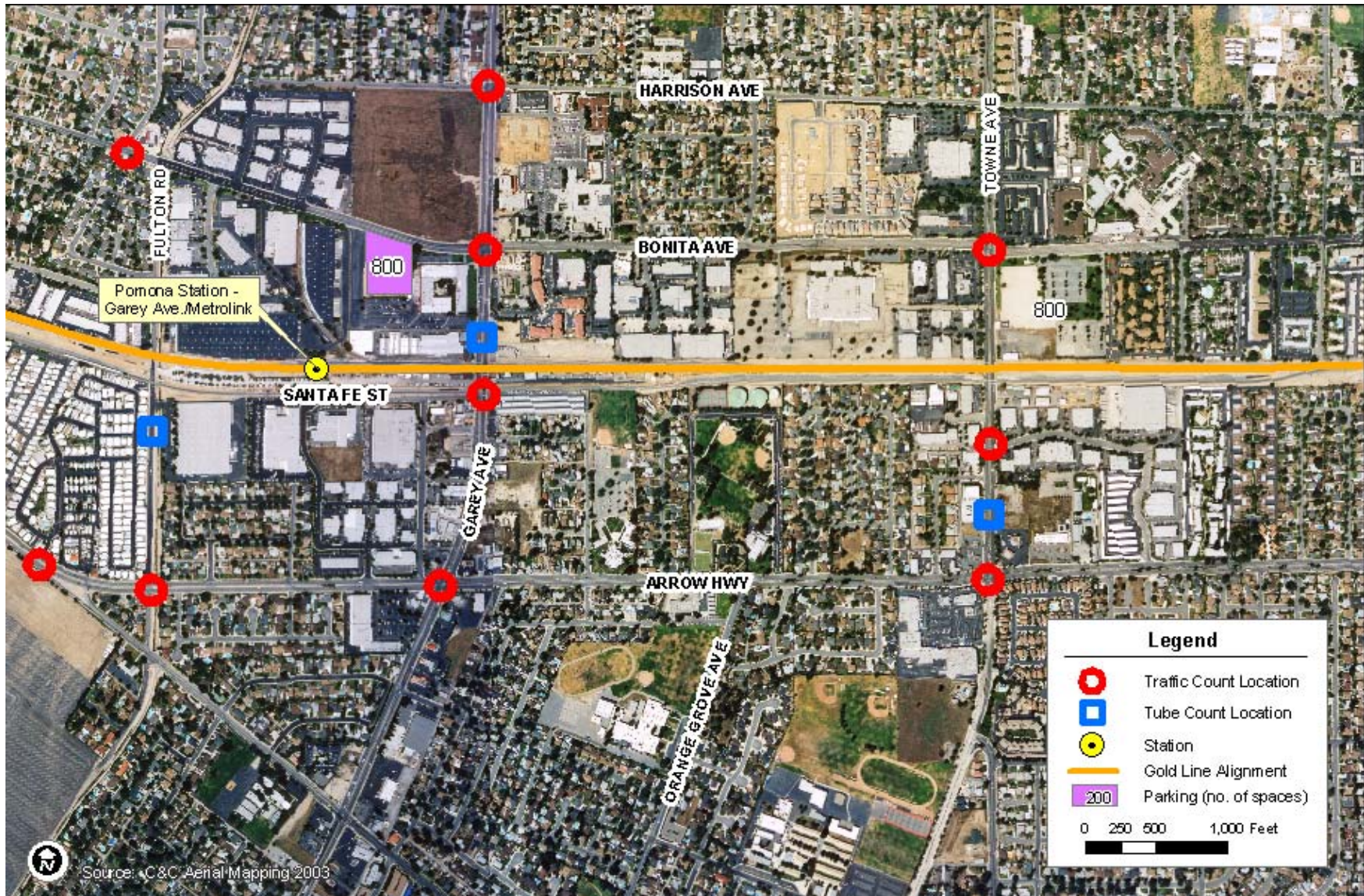


Figure 3-15.19: Traffic Count Locations – Pomona

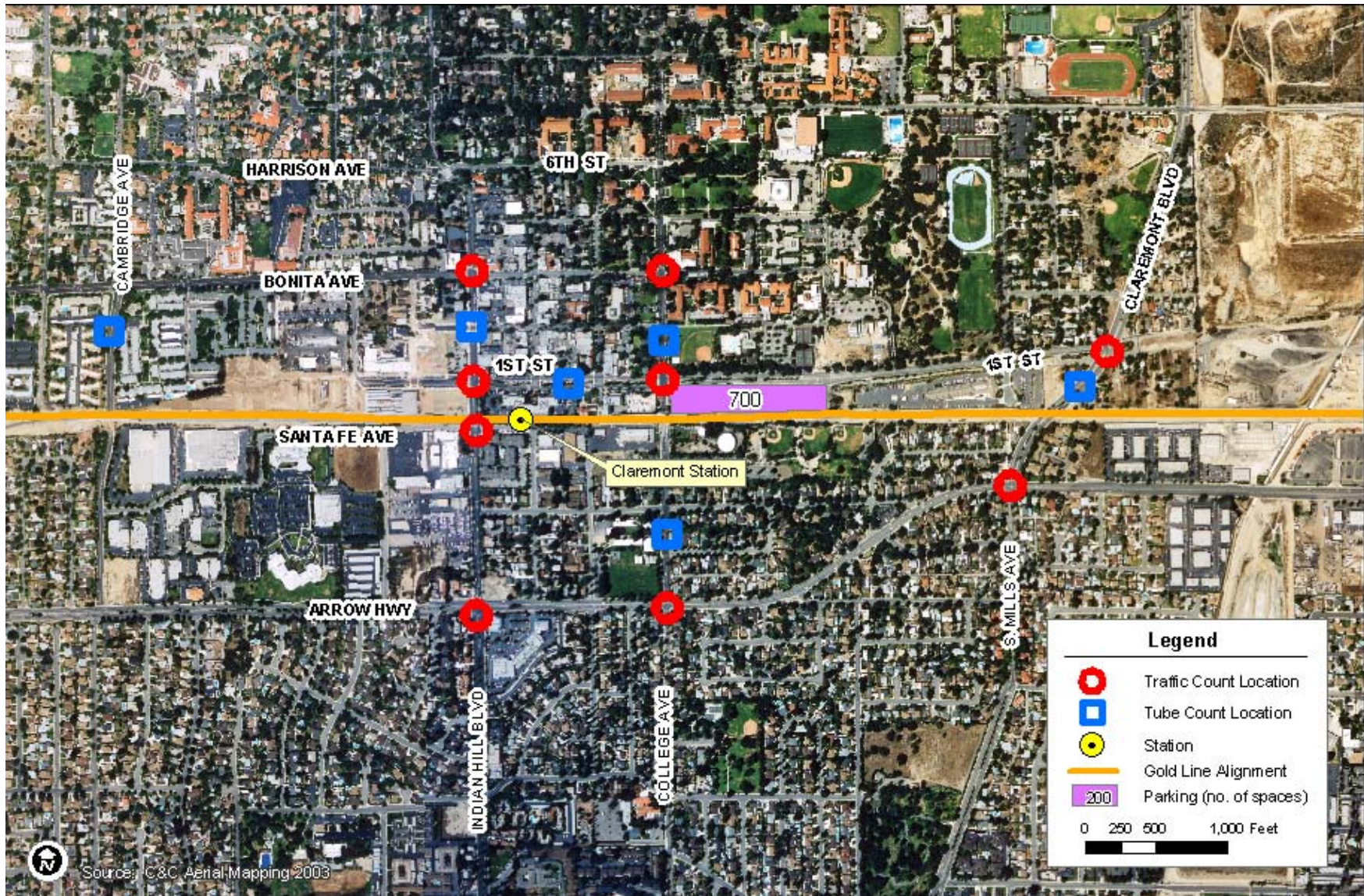


Figure 3-15.20: Traffic Count Locations – Claremont

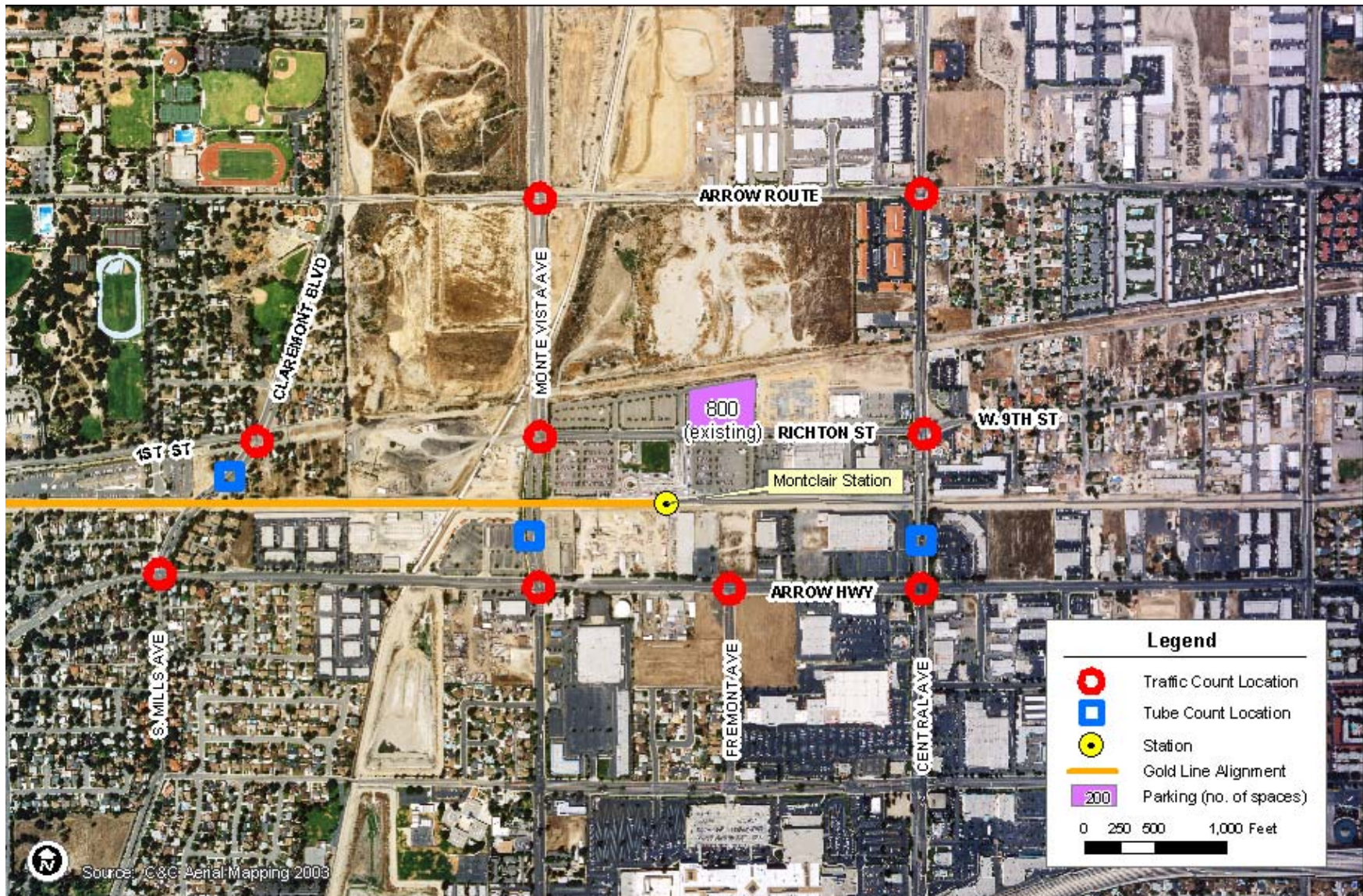


Figure 3-15.21: Traffic Count Locations – Montclair

Of these count locations, 4 roadway segments are either on the border or traverse two cities and 13 intersections are located on the boundary of two or more cities. For the purpose of expediting this analysis, each segment and each intersection was assigned to one analysis jurisdiction. The multi-jurisdictional intersections and their assigned analysis jurisdictions are identified in Table 3-15.3.

Mountain Avenue between Duarte Road and Evergreen Street – This segment runs between the City of Monrovia on the west and the City of Duarte on the east. For the purpose of this analysis, the assigned jurisdiction for this segment is Duarte.

Irwindale Avenue between Foothill Boulevard and Gladstone Street – This segment traverses the City of Irwindale on the northern end from Foothill Boulevard to First Street and traverses the City of Azusa on the southern end from First Street to Gladstone Street. For the purpose of this analysis, the assigned jurisdiction for this segment is Irwindale.

First Street between Western Terminus and Irwindale Avenue – This segment runs between the City of Irwindale on the north and the City of Azusa on the south. For the purpose of this analysis, the assigned jurisdiction for this segment is Irwindale.

Fulton Road between Bonita Avenue and Arrow Highway (including Metrolink Driveway) – This segment runs between the City of La Verne on the west and the City of Pomona on the east. For the purpose of this analysis, the assigned jurisdiction for this segment is Pomona.

TABLE 3-15.3 INTERSECTIONS LOCATED BETWEEN TWO JURISDICTIONS				
N/S Street	E/W Street	West City	East City	Analysis Jurisdiction
Mountain Ave	Central Ave	Monrovia	Duarte	Duarte
Mountain Ave	Evergreen Ave	Monrovia	Duarte	Duarte
Mountain Ave	Hamilton Rd	Monrovia	Duarte	Duarte
Mountain Ave	Duarte Rd	Monrovia	Duarte	Duarte
Irwindale Ave	First St	Irwindale	Azusa	Irwindale
Irwindale Ave	Gladstone St	Irwindale	Azusa	Irwindale
Lone Hill Ave	Gladstone St	Glendora	San Dimas	San Dimas
San Dimas Cyn Rd	Bonita Ave	San Dimas	La Verne	San Dimas
San Dimas Cyn Rd	Arrow Hwy	San Dimas	La Verne	San Dimas
La Verne Ave	Arrow Hwy	La Verne	Pomona	La Verne
Fulton Rd	Bonita Ave	La Verne	Pomona	Pomona
Fulton Rd	Arrow Hwy	La Verne	Pomona	Pomona
Claremont Blvd	First St	Claremont	Montclair/Upland	Claremont

Source: Parsons Brinckerhoff, 2005

b. Year 2005 Conditions Roadway Segment Analysis

In September and October of 2003, November of 2004, and April of 2005, average daily traffic (ADT) counts were taken at 59 roadway segments within the Foothill Extension Corridor. In 2004, ADT counts were taken at 2 roadway segments in Arcadia; First Avenue, between Huntington Drive and Colorado Boulevard; and Huntington Drive, east of First Avenue. In 2005, ADT counts were taken at 2 roadway

segments in Claremont: College Avenue, east of Metrolink Driveway, and First Street, between Indian Hill Boulevard and College Avenue; and at one roadway segment in Pomona: Fulton Road, between College Park and Green Street. The 24-hour manual tube counts at the 59 roadway segment locations were collected on a representative weekday to determine existing daily traffic operations. Seven of the roadway segments under consideration travel in the east-west direction and the remaining segments travel in the north-south direction.

Each roadway segment was analyzed to determine daily traffic operations and level of service. Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum acceptable level of service in urban areas. The definition of each level of service is shown in Table 3-15.4.

TABLE 3-15.4 ROADWAY SEGMENT LEVEL OF SERVICE DEFINITIONS		
Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. Free flow, light volumes
B	0.601 - 0.700	VERY GOOD. Free to stable flow, light to moderate volumes
C	0.701 - 0.800	GOOD. Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.801 - 0.900	FAIR. Approaches unstable flow, moderate to heavy volumes, limited freedom to maneuver
E	0.901 - 1.000	POOR. Extremely unstable flow, heavy volumes, maneuverability and psychological comfort extremely poor
F	>1.000	FAILURE. Forced or breakdown conditions, slow speeds, tremendous delays with continuously increasing queue lengths

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

The existing conditions analysis was performed for the 59 study segments. For the purpose of this analysis, roadway segment counts done in 2003 and 2004 were adjusted to reflect 2005 conditions with growth factors agreed upon by each of the cities. The results of the analysis showed two roadway segments experiencing an existing LOS F traffic operating condition. These segments are located on Santa Anita Avenue between Huntington Drive and Colorado Boulevard and Irwindale Avenue between Foothill Boulevard and Gladstone Street. Four roadway segments experienced an existing LOS D condition. These segments are Mayflower Avenue between Duarte Road and Diamond Street, South Lone Hill Avenue between Gladstone Street and Auto Centre Drive, North Towne Avenue between Arrow Highway and Bonita Avenue, and Central Avenue between Richton Street and Arrow Highway. The remaining roadway segments exhibit levels of service conditions of A, B, and C traffic operations. Table 3-15.5 shows capacities, volumes, volume-to-capacity ratios and corresponding levels of service for each roadway segment location analyzed in the Foothill Extension study area. Roadway segments operating at LOS E and F are highlighted in the table by bold italics.

TABLE 3-15.5 2005 CONDITIONS ROADWAY SEGMENT ADT ANALYSIS						
Roadway Segment	Between	And	Capacity	Volume	V/C ¹	LOS ²
City of Pasadena						
Sierra Madre Villa Ave	Foothill Blvd	Colorado Blvd	32,000 ³	22,444	0.70	C
City of Arcadia						
N First Ave	Huntington Dr	Colorado Blvd	24,000 ⁴	10,938	0.46	A
Santa Anita Ave	Huntington Dr	Colorado Blvd	32,000	35,524	1.11	F
Santa Clara St	Santa Anita Ave	N Second Ave	12,000	7,494	0.62	B
Huntington Dr	E of N First Ave	---	48,000	25,625	.53	A
Colorado Blvd	E of Santa Anita Ave	---	32,000	11,513	0.36	A
City of Monrovia						
California Ave	Duarte Rd	Evergreen Ave	16,000	10,763	0.67	B
Myrtle Ave	Duarte Rd	Evergreen Ave	32,000	24,206	0.76	C
Magnolia Ave	Duarte Rd	Evergreen Ave	12,000	6,332	0.53	A
Mayflower Ave	Duarte Rd	Diamond St	16,000	14,091	0.88	D
City of Duarte						
Highland Ave	Duarte Rd	Evergreen St	32,000	8,446	0.26	A
Buena Vista St	Duarte Rd	Evergreen St	32,000	16,162	0.51	A
Mountain Ave	Duarte Rd	Evergreen St	32,000	14,035	0.47	A
City of Irwindale						
Irwindale Ave	Foothill Blvd	Gladstone St	32,000	35,094	1.10	F
W First St	Western Terminus	Irwindale Ave	12,000	7,519	0.63	B
City of Azusa						
N Citrus Ave	E Foothill Blvd	W Foothill Blvd	32,000	10,906	0.34	A
N Palm Dr	N of E Foothill Blvd	---	12,000	1,279	0.11	A
N Pasadena Ave	E Foothill Blvd	E Ninth St	12,000	5,269	0.44	A
N Soldano Ave	E Foothill Blvd	E Ninth St	12,000	932	0.08	A
N Dalton Ave	E Foothill Blvd	E Ninth St	12,000	1,563	0.13	A
N Alameda Ave	E Foothill Blvd	E Ninth St	12,000	2,834	0.24	A
N Azusa Ave	Foothill Blvd	Ninth St	48,000	9,630	0.20	A
N San Gabriel Ave	Foothill Blvd	Ninth St	16,000	10,180	0.66	B
N Virginia Ave	S of W Foothill Blvd	---	12,000	5,659	0.47	A
City of Glendora						
S Lone Hill Ave	W Gladstone St	Auto Centre Dr	32,000	25,603	0.80	D
S Loraine Ave	Route 66	E Lemon Ave	16,000	10,523	0.66	B
S Elwood Ave	Route 66	E Lemon Ave	12,000	2,075	0.17	A
S Glenwood Ave	Route 66	E Lemon Ave	12,000	2,155	0.18	A
S Pasadena Ave	Route 66	E Lemon Ave	12,000	2,443	0.20	A
S Glendora Ave	Route 66	Foothill Blvd	32,000	16,895	0.53	A
S Vermont Ave	Route 66	W Foothill Blvd	12,000	3,853	0.32	A
Grand Ave	Route 66	W Leadora Ave	32,000	9,118	0.29	A
Foothill Blvd	Barranca Ave	Glendora Ave	16,000	11,500	0.72	C
N Barranca Ave	W Foothill Blvd	W Leadora Ave	12,000	7,489	0.62	B

**TABLE 3-15.5
2005 CONDITIONS ROADWAY SEGMENT ADT ANALYSIS**

Roadway Segment	Between	And	Capacity	Volume	V/C ¹	LOS ²
City of San Dimas						
San Dimas Canyon Rd	Arrow Hwy	Bonita Ave	32,000	9,026	0.28	A
Walnut Ave	E Arrow Hwy	E Bonita Ave	16,000	4,951	0.31	A
San Dimas Ave	Arrow Hwy	Bonita Ave	32,000	8,358	0.26	A
Monte Vista Ave	Commercial St	Bonita Ave	12,000	509	0.04	A
Cataract Ave	Arrow Hwy	First St	12,000	3,082	0.26	A
Bonita Ave	Eucla Ave	San Dimas Ave	32,000	15,895	0.50	A
Eucla Ave	Bonita Ave	Third St	12,000	3,142	0.26	A
W Gladstone St	Lone Hill Ave	Amelia Ave	32,000	10,937	0.34	A
City of La Verne						
White Ave	Arrow Hwy	Third St	32,000	18,660	0.58	A
E St	Arrow Hwy	Third St	16,000	5,813	0.36	A
D St	Arrow Hwy	Third St	12,000	6,346	0.53	A
A St	Arrow Hwy	Third St	12,000	1,150	0.10	A
Wheeler Ave	Arrow Hwy	Third St	32,000	9,120	0.28	A
City of Pomona						
N Towne Ave	Arrow Hwy	Bonita Ave	32,000	27,143	0.85	D
N Garey Ave	Arrow Hwy	Bonita Ave	32,000	22,359	0.70	B
Fulton Rd	Metrolink Driveway	----	16,000	2,328	0.15	A
Fulton Rd	Arrow Hwy	Bonita Ave	16,000	2,162	0.14	A
City of Claremont						
S Mills Ave/Claremont Blvd	Arrow Hwy	E First St	32,000	8,668	0.27	A
Indian Hill Blvd	Arrow Hwy	Bonita Ave	32,000	20,541	0.64	B
College Ave	E Arrow Hwy	W Bonita Ave	12,000	6,182	0.52	A
College Ave	Green St	----	12,000	5,580	0.47	A
Cambridge Ave	W Arrow Hwy	Bonita Ave	12,000	4,432	0.37	A
First St	Indian Hill Blvd	College Ave	24,000	6,743	0.28	A
City of Montclair						
Monte Vista Ave	Richton St	Arrow Hwy	32,000	19,125	0.60	A
Central Ave	Richton St	Arrow Hwy	32,000	27,789	0.87	D
1 Volume/Capacity Ratio 2 Level of Service 3 Capacity of 32,000 assumes 1,600 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1. 4 Capacity of 24,000 assumes 1,200 vehicles per hour per lane multiplied by number of lanes, divided by a k-factor of 0.1.						
Sources: City of Pasadena, Wiltec, Parsons Brinckerhoff, 2005.						

c. Year 2005 Conditions Intersection Peak Hour Traffic Analysis

Turning movement counts were collected at 153 intersections in the Foothill Extension study area in order to assess the existing peak hour traffic conditions within the study area. The chosen intersections are located both along the proposed LRT alignment and along adjacent streets. The evening peak hour was identified as the critical time period for an assessment of existing conditions because, in general, it represents the worst-case conditions. Peak hour traffic count data for the six intersections located in Pasadena were provided by the City of Pasadena. All other traffic count data were collected from field counts.

Each study intersection was analyzed to determine peak hour operations and level of service. For intersections, the levels of service definitions are presented in Tables 3-15.6 and 3-15.7 for signalized and unsignalized (stop-controlled) intersections, respectively.

TABLE 3-15.6 SIGNALIZED LEVEL OF SERVICE DEFINITIONS		
Level of Service	Volume/Capacity Ratio	Definition
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase are fully used.
B	0.601 - 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 - 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 - 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 - 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	>1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, Circular No. 212, Interim Materials on Highway Capacity, 1980.

TABLE 3-15.7 UNSIGNALIZED LEVEL OF SERVICE DEFINITIONS	
Level of Service	Average Vehicle Delay (in seconds)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0
Source: Transportation Research Board, Highway Capacity Manual, Special Report 209, 2000.	

The TRAFFIX software, developed by Dowling Associates, was utilized to analyze peak hour intersection traffic operating conditions. For signalized intersections, the analysis was performed using the Circular 212 Planning method, outlined by the Transportation Research Board (TRB) in 1980. The four-way and two-way stop-controlled intersection analysis techniques published in the 2000 Highway Capacity Manual (HCM) were used to analyze the unsignalized intersections.

The intersection analysis resulted in 15 of the 153 locations operating at LOS E or worse. These intersection locations are listed in Table 3-15.8. The remaining 138 intersections currently operate at LOS D or better during the PM peak hour. The results of the existing PM peak hour traffic operations and corresponding level of service at each of the study intersections are presented in Table 3-15.9. The detailed 2005 conditions level of service worksheets can be found in Appendix B of the Technical Report.

TABLE 3-15.8 INTERSECTIONS CURRENTLY OPERATING AT LOS E OR F		
Intersection	Jurisdiction	Control Type
Sierra Madre Villa Ave and Foothill Blvd	Pasadena	Signalized
Sierra Madre Villa Ave and Colorado Blvd	Pasadena	Signalized
Santa Anita Ave and Huntington Dr	Arcadia	Signalized
Myrtle Ave and Central Ave	Monrovia	Signalized
Myrtle Ave and Huntington Dr	Monrovia	Signalized
Mountain Ave and Evergreen St	Duarte	Signalized
Irwindale Ave and Foothill Blvd	Irwindale	Signalized
Dalton Ave and Foothill Blvd	Azusa	2-Way Stop
Glenwood Ave and Route 66	Glendora	2-Way Stop
White Ave and Second St	La Verne	2-Way Stop
White Ave and First St	La Verne	2-Way Stop
La Verne Ave and Arrow Hwy	La Verne	2-Way Stop
Towne Ave and Town Center Dr	Pomona	2-Way Stop
Indian Hill Blvd and Santa Fe St	Claremont	2-Way Stop
Source: Parsons Brinckerhoff, 2005		

**TABLE 3-15.9
2005 INTERSECTION LEVEL OF SERVICE ANALYSIS**

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Sierra Madre Villa Ave	Foothill Blvd	Pasadena	0.993	E
Sierra Madre Villa Ave	GL Parking Garage	Pasadena	14.9	B
Sierra Madre Villa Ave	WB I-210 Fwy	Pasadena	0.518	A
Sierra Madre Villa Ave	EB I-210 Fwy	Pasadena	0.469	A
Sierra Madre Villa Ave	Colorado Blvd	Pasadena	1.508	F
Foothill Blvd	Halstead St	Pasadena	0.676	B
Santa Anita Ave	Colorado Blvd	Arcadia	0.723	C
Santa Anita Ave	La Porte St	Arcadia	14.8	B
Santa Anita Ave	Santa Clara St	Arcadia	0.733	C
First Ave	Colorado Blvd	Arcadia	0.676	B
First Ave	Santa Clara St	Arcadia	25.6	D
First Ave	Huntington Dr	Arcadia	0.769	C
Santa Anita Ave	Huntington Dr	Arcadia	0.969	E
Second Ave	Colorado Blvd	Arcadia	18.2	C
Second Ave	Santa Clara St	Arcadia	0.397	A
Second Ave	Huntington Dr	Arcadia	0.879	D
Mayflower Ave	Diamond St	Monrovia	19.8	C
Mayflower Ave	Duarte Rd	Monrovia	0.616	B
Magnolia Ave	Evergreen Ave	Monrovia	20.1	C
Magnolia Ave	Genoa St	Monrovia	11.0	B
Magnolia Ave	Duarte Rd	Monrovia	0.494	A
Myrtle Ave	Central Ave (210 WB)	Monrovia	0.978	E
Myrtle Ave	Evergreen Ave (210 EB)	Monrovia	0.858	D
Myrtle Ave	Duarte Rd	Monrovia	0.739	C
California Ave	Duarte Rd	Monrovia	0.694	B
Myrtle Ave	Huntington Dr	Monrovia	0.936	E
Myrtle Ave	Pomona Ave	Monrovia	21.0	C
Mountain Ave	Central Ave	Duarte	0.762	C
Mountain Ave	Evergreen St	Duarte	0.922	E
Mountain Ave	Hamilton Rd	Duarte	20.8	C
Mountain Ave	Duarte Rd	Duarte	0.619	B
Buena Vista St	Three Ranch Rd	Duarte	19.7	C
Buena Vista St	Duarte Rd	Duarte	0.571	A
Duncannon Ave	Central Ave	Duarte	12.0	B
City of Hope Dwy	Duarte Rd	Duarte	18.0	C
Highland Ave	Central Ave	Duarte	25.2	D
Highland Ave	Evergreen St	Duarte	16.6	C
Highland Ave	Business Center Dr	Duarte	15.5	C
Irwindale Ave	Foothill Blvd	Irwindale	1.223	F
Irwindale Ave	WB I-210 Fwy	Irwindale	0.526	A
Irwindale Ave	EB I-210 Fwy	Irwindale	0.873	D
Irwindale Ave	Montoya St	Irwindale	10.9	B
Irwindale Ave	First St	Irwindale	0.578	A
Irwindale Ave	Gladstone St	Irwindale	0.720	C
Virginia Ave	Foothill Blvd	Azusa	0.579	A

**TABLE 3-15.9
2005 INTERSECTION LEVEL OF SERVICE ANALYSIS**

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Virginia Ave	Sixth St	Azusa	11.2	B
San Gabriel Ave	Ninth St	Azusa	0.235	A
San Gabriel Ave	Foothill Blvd	Azusa	0.626	B
Azusa Ave	Ninth St	Azusa	20.1	C
Azusa Ave	Santa Fe Ave	Azusa	14.4	B
Azusa Ave	Foothill Blvd	Azusa	0.667	B
Alameda Ave	Ninth St	Azusa	11.3	B
Alameda Ave	Santa Fe Ave	Azusa	9.0	A
Alameda Ave	Foothill Blvd	Azusa	0.535	A
Dalton Ave	Ninth St	Azusa	10.4	B
Dalton Ave	Foothill Blvd	Azusa	72.8	F
Soldano Ave	Ninth St	Azusa	9.5	A
Soldano Ave	Foothill Blvd	Azusa	27.1	D
Pasadena Ave	Ninth St	Azusa	8.5	A
Pasadena Ave	Foothill Blvd	Azusa	0.620	B
Palm Dr	Foothill Blvd	Azusa	16.4	C
Citrus Ave	Foothill Blvd	Azusa	0.629	B
Citrus Ave	Alosta Ave	Azusa	0.846	D
Barranca Ave	Bennett Ave	Glendora	11.5	B
Barranca Ave	Foothill Blvd	Glendora	0.401	A
Grand Ave	Foothill Blvd	Glendora	0.624	B
Vermont Ave	Ada Ave	Glendora	10.6	B
Vermont Ave	Route 66	Glendora	0.446	A
Vermont Ave	Foothill Blvd	Glendora	0.409	A
Vermont Ave	Ada Ave	Glendora	11.6	B
Glendora Ave	Foothill Blvd	Glendora	0.606	B
Glendora Ave	Ada Ave	Glendora	12.3	B
Glendora Ave	Route 66	Glendora	0.831	D
Pasadena Ave	Lemon Ave	Glendora	7.4	A
Pasadena Ave	Route 66	Glendora	0.620	B
Glenwood Ave	Lemon Ave	Glendora	10.0	B
Glenwood Ave	Route 66	Glendora	72.3	F
Elwood Ave	Lemon Ave	Glendora	9.8	A
Elwood Ave	Route 66	Glendora	0.575	A
Lorraine Ave	Lemon Ave	Glendora	15.7	C
Lorraine Ave	Route 66	Glendora	0.562	A
Lone Hill Ave	Auto Centre Dr	Glendora	0.788	C
Barranca Ave	Sierra Madre Ave	Glendora	14.6	B
Glendora Ave	Sierra Madre Ave	Glendora	17.8	C
Lone Hill Ave	Glendora Marketplace	Glendora	0.458	A
Lone Hill Ave	Gladstone St	San Dimas	0.557	A
SR-57 SB	Arrow Hwy	San Dimas	0.684	B
SR-57 NB	Arrow Hwy & Bonita Ave	San Dimas	0.714	C
Eucla Ave	Fifth St	San Dimas	8.0	A
Eucla Ave	Second St	San Dimas	9.4	A

**TABLE 3-15.9
2005 INTERSECTION LEVEL OF SERVICE ANALYSIS**

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Eucla Ave	Bonita Ave	San Dimas	0.356	A
Eucla Ave	Arrow Hwy	San Dimas	0.574	A
Acacia St	Fifth St	San Dimas	8.9	A
Acacia St	Second St	San Dimas	9.0	A
Acacia St	Bonita Ave	San Dimas	18.3	C
Cataract Ave	Second St	San Dimas	9.3	A
Cataract Ave	Bonita Ave	San Dimas	19.9	C
Monte Vista Ave	Second St	San Dimas	9.4	A
Monte Vista Ave	Bonita Ave	San Dimas	24.3	C
San Dimas Ave	Second St	San Dimas	16.4	C
San Dimas Ave	Bonita Ave	San Dimas	0.618	B
San Dimas Ave	Arrow Hwy	San Dimas	0.676	B
Walnut Ave	Bonita Ave	San Dimas	0.528	A
Walnut Ave	Arrow Hwy	San Dimas	0.545	A
San Dimas Canyon Rd	Bonita Ave	San Dimas	0.382	A
San Dimas Canyon Rd	Arrow Hwy	San Dimas	0.513	A
Wheeler Ave	Third St	La Verne	15.1	C
Wheeler Ave	Arrow Hwy	La Verne	0.564	A
A St	Third St	La Verne	9.9	A
A St	First St	La Verne	9.2	A
A St	Arrow Hwy	La Verne	64.8	F
D St	Third St	La Verne	11.1	B
D St	First St	La Verne	10.4	B
D St	Arrow Hwy	La Verne	0.382	A
D St	Bonita Ave	La Verne	0.717	C
E St	Third St	La Verne	10.4	B
E St	Second St	La Verne	12.1	B
E St	First St	La Verne	10.6	B
E St	Arrow Hwy	La Verne	0.588	A
White Ave	Third St	La Verne	30.3	D
White Ave	Second St	La Verne	41.1	E
White Ave	First St	La Verne	38.3	E
White Ave	Sierra Way	La Verne	14.3	B
White Ave	Arrow Hwy	La Verne	0.845	D
White Ave	Foothill Blvd	La Verne	0.791	C
White Ave	Bonita Ave	La Verne	0.819	D
White Ave	McKinley Ave	La Verne	0.308	A
La Verne Ave	Arrow Hwy	La Verne	69.9	F
Fulton Rd	Bonita Ave	Pomona	28.9	D
Fulton Rd	Arrow Hwy	Pomona	22.1	C
Garey Ave	Bonita Ave	Pomona	0.528	A
Garey Ave	Santa Fe St	Pomona	12.7	B
Garey Ave	Arrow Hwy	Pomona	0.619	B
Towne Ave	Bonita Ave	Pomona	0.513	A
Towne Ave	Towne Center Dr	Pomona	40.0	E

TABLE 3-15.9 2005 INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Towne Ave	Arrow Hwy	Pomona	0.786	C
Garey Ave	Harrison Ave	Pomona	0.352	A
Indian Hill Blvd	Bonita Ave	Claremont	0.639	B
Indian Hill Blvd	First St	Claremont	0.616	B
Indian Hill Blvd	Santa Fe St	Claremont	37.6	E
Indian Hill Blvd	Arrow Hwy	Claremont	0.680	B
College Ave	Bonita Ave	Claremont	11.1	B
College Ave	First St	Claremont	13.3	B
College Ave	Arrow Hwy	Claremont	0.471	A
Claremont Blvd	First St	Claremont	0.267	A
Mills/Claremont	Arrow Hwy	Claremont	0.530	A
Monte Vista Ave	Arrow Route	Montclair	0.458	A
Monte Vista Ave	Richton St	Montclair	0.355	A
Monte Vista Ave	Arrow Hwy	Montclair	0.698	B
Fremont Ave	Arrow Hwy	Montclair	0.362	A
Central Ave	Arrow Route	Montclair	0.607	B
Central Ave	Richton St / W 9th St	Montclair	0.476	A
Central Ave	Arrow Hwy	Montclair	0.638	B

Source: Parsons Brinckerhoff, 2005

3-15.2. Environmental Impacts

3-15.2.1 Evaluation Methodology

The evaluation methodology used to determine the impacts on transit and traffic operations due to the proposed Gold Line Foothill Extension alignment consisted of the development of future year 2030 transit and traffic forecasts using the SCAG travel demand forecasting model and socioeconomic data, followed by performing LOS analyses utilizing the same procedures used in developing the existing traffic operating conditions. Consequently, the Circular 212 Planning method was used to determine PM peak hour LOS operations for signalized intersections and the 2000 Highway Capacity Manual method was used for unsignalized intersections (two-way and four-way stop control). Similar to the existing conditions analysis, the TRAFFIX software was used for performing the LOS analysis. Intersection locations were deemed to be impacted by the proposed LRT project if the difference between the Build and No Build conditions is greater than a predetermined threshold. This threshold is identified in the following section.

3-15.2.2 Impact Criteria

The impact methodology used to determine adverse or significant impacts at the study intersections, due to the proposed Gold Line Foothill Extension project, consists of identifying the change in delay (for unsignalized intersections) or volume-to-capacity ratio (for signalized intersections) between the No Build and Build conditions. Since the LRT alignment passes through several jurisdictions, an impact criterion that is uniform and can be applied across all the jurisdictions was selected. Consequently, the

significant impact criteria utilized in this comparison was based on the Traffic Impact Analysis (TIA) guidelines set forth in the 2004 Congestion Management Program (CMP) for Los Angeles County.

Based on the CMP, a signalized intersection is considered to be adversely or significantly impacted if the resulting LOS is E or F and the change in V/C ratio from the No Build condition is greater than 0.020. An unsignalized intersection is considered to be adversely or significantly impacted if the resulting LOS is E or F and the change in Delay from the No Build condition is greater than 2 percent. These impact criteria are summarized in Table 3-15.10 and will be used under both NEPA and CEQA.

TABLE 3-15.10 LOS ANGELES COUNTY CMP INTERSECTION CRITERIA	
Intersection V/C Ratio or Delay with Project Traffic	Significant Increase in V/C Ratio or Delay
V/C Ratio = 0.901 or greater (signalized)	> 0.020
Delay = 35.1 veh./sec. or greater (unsignalized)	> 2%
Source: Congestion Management Program for Los Angeles County, Traffic Impact Analysis Guidelines, 2004.	

a. NEPA Impact Criteria

The criteria used to determine adverse effects under NEPA is presented in the previous section and summarized in Table 3-15.10.

b. CEQA Impact Criteria

The criteria used to determine adverse effects under CEQA is presented in the previous section and summarized in Table 3-15.10.

3-15.2.3 Construction Period Impacts

a. No Build Alternative

The No Build Alternative includes all highway and transit projects and operations that the region and MTA expect to be in place by the year 2030. These transportation projects were identified earlier in Section 2-3.1.1 and are accounted for in the travel demand forecasting model. No construction due to the Gold Line Foothill Extension project is anticipated for the No Build Alternative; consequently, there are no project related construction period impacts due to the Gold Line Foothill Extension project.

Phase I

The Cities Affected and the Effects

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Line Foothill Extension project.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Effects

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Line Foothill Extension project.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Effects

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Line Foothill Extension project.

b. Full Build (Pasadena to Montclair) Alternative

During construction of the Gold Line Foothill Extension LRT triple track configuration, it may be necessary for traffic lanes to be temporarily closed. Generally, lane closures would take place at night in order to minimize traffic disruptions. Construction activities that entail the relocation of utilities and the construction of trackways and stations would require the temporary closure of lanes at roadways with at-grade crossings. Three types of grade crossing configurations were identified; mid-block locations, locations adjacent to an intersection and locations where the tracks diagonally cross the intersection. With temporary lane closures occurring during the night, it is anticipated that construction impacts will be minimal at the mid-block and adjacent intersection locations. Since these lane closures are expected to take place during the night hours and outside the AM and PM peak commuting periods, there will be no impacts to both transit and traffic. Intersection operating conditions would remain at acceptable service levels because of the low traffic volumes that travel during the night. In addition, during the lane closures detour routes would be identified and clearly signed. However, at the four locations where the tracks diagonally cross the intersection, full closure of the intersection during the night hours is expected. At these select locations, impacts during construction would be considered adverse/significant and would require the development of mitigation measures.

Phase I

The Cities Affected and the Effects

During construction of the project, the Gold Line Phase I will continue to operate under normal conditions. Consequently, no construction is anticipated along this segment and there are no construction period impacts.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Effects

As noted earlier, it is anticipated that temporary lane closures would take place during the night hours when traffic volumes are substantially lower than the AM and PM peak periods. Some bus routes may require re-routing and stops may be temporarily relocated. In addition, detour routes may be implemented and clearly signed to temporarily divert traffic flow away from the closure area. There is one location in Arcadia where the tracks diagonally cross the intersection at First Avenue/Santa Clara Street. During construction, this intersection would be closed at night and transit and traffic would be re-routed to bypass the closure. Since traffic volumes are low during the night hours, it is anticipated that this adverse/significant impact can be mitigated by diverting traffic and clearly signing the detour route.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Effects

It is anticipated that temporary lane closures would take place during the night hours when traffic volumes are substantially lower than the AM and PM peak periods. Some bus routes may require re-routing and stops may be temporarily relocated. In addition, detour routes may be implemented and clearly signed to temporarily divert traffic flow away from the closure area. The tracks diagonally cross the intersection at a total of three locations: two in Glendora and one in San Dimas. The Glendora intersections are at Grand Avenue/Foothill Boulevard and at Lone Hill Avenue/Auto Centre Drive. The San Dimas intersection is at Cataract Avenue/Bonita Avenue. During construction, these three intersections would be closed at night and transit and traffic would be re-routed to bypass the closure. Since traffic volumes are low during the night hours, it is anticipated that this adverse/significant impact can be mitigated by diverting traffic and clearly signing the detour route.

c. Build LRT to Azusa Alternative

The construction period impacts are the same as the construction period impacts on the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative.

Phase I

The Cities Affected and the Effects

During construction of the project, the Gold Line Phase I will continue to operate under normal conditions. Consequently, no construction is anticipated along this segment and there are no construction period impacts.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Effects

As noted earlier, it is anticipated that temporary lane closures would take place during the night hours when traffic volumes are substantially lower than the AM and PM peak periods. Some bus routes may

require re-routing and stops may be temporarily relocated. In addition, detour routes may be implemented and clearly signed to temporarily divert traffic flow away from the closure area. There is one location in Arcadia where the tracks diagonally cross the intersection at First Avenue/Santa Clara Street. During construction, this intersection would be closed at night and transit and traffic would be re-routed to bypass the closure. Since traffic volumes are low during the night hours, it is anticipated that this adverse/significant impact can be mitigated by diverting traffic and clearly signing the detour route.

Gold Line Foothill Extension, Segment 2

□ The Cities Affected and the Effects

There are no construction period impacts to Segment 2 for this alternative.

Summary of Impacts for Full Build (Pasadena to Montclair) Alternative

Adverse/significant construction period impacts for both transit and traffic are anticipated at four intersection locations, three intersections in Glendora, and one in San Dimas. The three Glendora intersections are at Grand Avenue/Foothill Boulevard, Vermont Avenue/Ada Avenue and Lone Hill Avenue/Auto Centre Drive. The San Dimas intersection is at Cataract Avenue/Bonita Avenue.

Summary of Impacts for Build LRT to Azusa Alternative

Adverse/significant construction period impacts for both transit and traffic are anticipated at one intersection located in Arcadia. The Arcadia intersection is at First Avenue/Santa Clara Street.

3-15.2.4 Long-Term Impacts

a. No Build Alternative

Transit

For transit, the No Build Alternative provides no significant improvement in services in the Foothill Extension study area. As the population grows, the demand for transit service provision and service reliability will increase. Without the introduction of premium transit service in the Foothill Extension, such as a light rail system, transit service performance will likely decrease due to increased traffic congestion. This is likely to make travel via transit a less attractive option for San Gabriel Valley patrons. For those transit patrons that have no other travel options, travel times will increase and transit usage will be less convenient. In other words, if significant improvements in transit service are not provided, those that rely on the public transit system will be significantly affected.

Traffic Operations

For traffic operations, year 2030 traffic forecasts were developed so that potential changes with the proposed LRT system can be evaluated and compared to the No Build condition. The following paragraphs present the development of growth factors and the resulting traffic operations for the No Build condition.

The year 2030 No Build conditions were discussed with representatives of the project team and SCAG. The study area was analyzed based upon: historical traffic data, potential population and employment

growth within the 13 cities of the study area, and the long-range traffic projections from the modeling efforts as part of this study. This assessment resulted in the determination that the No Build future traffic projections would be developed by factoring the existing peak hour traffic data with a growth factor developed for each city. The growth factor represents the growth rate for each city based on population annual growth and half the rate of the employment annual growth, accumulated from 2005 to 2030. The total growth factor and the annual growth rates are provided in Table 3-15.11.

The growth factors were applied to each of the 153 study intersections according to their jurisdiction. With one exception, the 2030 volumes for the No Build condition at the intersection of Lone Hill Avenue and Auto Centre Drive in the City of Glendora was determined with additional information from two other new major developments planned and approved in the area. It was agreed upon by Glendora City officials and the Construction Authority, that for this particular intersection, the 2005 data would be grown to 2006 at a 0.65% annual rate and then the Diamond Ridge Project Only and Costco Project Only volumes would be added. The 0.65% annual growth rate came from the City of Glendora. Once a set of 2006 with Projects turn volumes was determined, a 0.65% annual growth rate was used for 24 years to reach the year 2030 No Build without LRT turn volumes. Based on this approach, the overall intersection growth comes to 1.57% annually with the turn movements that are impacted by these new developments (Diamond Ridge and Costco) reaching 2.04% annual growth.

TABLE 3-15.11 YEAR 2030 NO BUILD GROWTH FACTORS		
City	Combined Annual Growth	Combined Accumulated Growth 2005 to 2030
Pasadena	1.20%	34.61%
Arcadia	1.19%	34.41%
Monrovia	0.75%	20.54%
Duarte	0.75%	20.54%
Irwindale	2.00%	64.06%
Azusa	1.29%	37.73%
Glendora	0.92%	25.79%
San Dimas	1.06%	30.02%
La Verne	1.11%	31.71%
Pomona	1.25%	36.53%
Claremont	0.98%	27.69%
Montclair	1.33%	39.21%
Upland	1.47%	43.95%
Study Area	1.18%	34.37%
Sources: SCAG 2005; Arcadia annual growth factor provided by the City of Arcadia's Draft Transportation Plan Update Study		

The future No Build conditions were analyzed and the resulting operating conditions and corresponding levels of service are provided in Table 3-15.12. As noted earlier, this analysis includes all highway and transit projects and operations that the region and MTA expect to be in place by the year 2030. These transportation projects were identified earlier in Chapter 2, Section 2-2.1.1 and are accounted for in the travel demand forecasting model that was used to develop the growth factors.

Two intersections, one in Arcadia and one in Glendora, are slated for modification. Therefore, the 2030 No Build configuration and operation for these intersections differ slightly from the 2005 condition. The Arcadia intersection of Santa Clara Avenue and First Street is unsignalized in 2005 and will be signalized

by the City sometime before 2030. The Glendora intersection at Lone Hill Avenue and Auto Centre Drive will be modified per the recommendation of the Diamond Ridge Project Final EIS/EIR. This intersection is anticipated to add a third northbound through lane along with a northbound right turn overlap signal phase and a second westbound right turn lane sometime in 2006, which is the anticipated project opening year.

A review of the results presented in the table below indicates that under the No Build Alternative, 105 intersections will continue to operate at LOS D or better in 2030. The 48 intersections that are projected to operate at LOS E or F are highlighted in the table by bold italics. Of these highlighted intersections, 6 of them are unsignalized, 2-way stopped controlled intersections that will experience average delays of 200 seconds per vehicle or greater. This means that vehicles approaching these intersections from the minor streets will not find adequate gaps to perform their maneuver in a timely manner. There are no known plans for improvement on these intersections. Therefore, it is recommended that the jurisdictions of these intersections signalize them; these intersections are presented in Table 3-15.13 and Figures 3-15.22 to 3-15.33. The detailed level of service worksheets for this alternative can be found in Appendix C of the Transportation Technical Report.

TABLE 3-15.12 YEAR 2030 NO BUILD INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
<i>Sierra Madre Villa Ave</i>	<i>Foothill Blvd</i>	<i>Pasadena</i>	<i>1.336</i>	<i>F</i>
Sierra Madre Villa Ave	GL Parking Garage	Pasadena	22.0	C
Sierra Madre Villa Ave	WB I-210 Fwy	Pasadena	0.697	B
Sierra Madre Villa Ave	EB I-210 Fwy	Pasadena	0.631	B
<i>Sierra Madre Villa Ave</i>	<i>Colorado Blvd</i>	<i>Pasadena</i>	<i>1.684</i>	<i>F</i>
<i>Foothill Blvd</i>	<i>Halstead St</i>	<i>Pasadena</i>	<i>0.909</i>	<i>E</i>
<i>Santa Anita Ave</i>	<i>Colorado Blvd</i>	<i>Arcadia</i>	<i>0.972</i>	<i>E</i>
Santa Anita Ave	La Porte St	Arcadia	20.1	C
<i>Santa Anita Ave</i>	<i>Santa Clara St</i>	<i>Arcadia</i>	<i>0.986</i>	<i>E</i>
<i>First Ave</i>	<i>Colorado Blvd</i>	<i>Arcadia</i>	<i>0.909</i>	<i>E</i>
First Ave	Santa Clara St	Arcadia	0.659	B
<i>First Ave</i>	<i>Huntington Dr</i>	<i>Arcadia</i>	<i>1.033</i>	<i>F</i>
<i>Santa Anita Ave</i>	<i>Huntington Dr</i>	<i>Arcadia</i>	<i>1.304</i>	<i>F</i>
<i>Second Ave</i>	<i>Colorado Blvd</i>	<i>Arcadia</i>	<i>49.3</i>	<i>E</i>
Second Ave	Santa Clara St	Arcadia	0.535	A
<i>Second Ave</i>	<i>Huntington Dr</i>	<i>Arcadia</i>	<i>1.182</i>	<i>F</i>
Mayflower Ave	Diamond St	Monrovia	33.3	D
Mayflower Ave	Duarte Rd	Monrovia	0.743	C
Magnolia Ave	Evergreen Ave	Monrovia	29.3	D
Magnolia Ave	Genoa St	Monrovia	11.9	B
Magnolia Ave	Duarte Rd	Monrovia	0.596	A
<i>Myrtle Ave</i>	<i>Central Ave (210 WB)</i>	<i>Monrovia</i>	<i>1.179</i>	<i>F</i>
<i>Myrtle Ave</i>	<i>Evergreen Ave (210 EB)</i>	<i>Monrovia</i>	<i>1.035</i>	<i>F</i>
Myrtle Ave	Duarte Rd	Monrovia	0.892	D
California Ave	Duarte Rd	Monrovia	0.836	D
<i>Myrtle Ave</i>	<i>Huntington Dr</i>	<i>Monrovia</i>	<i>1.129</i>	<i>F</i>
<i>Myrtle Ave</i>	<i>Pomona Ave</i>	<i>Monrovia</i>	<i>35.0</i>	<i>E</i>
<i>Mountain Ave</i>	<i>Central Ave</i>	<i>Duarte</i>	<i>0.918</i>	<i>E</i>

**TABLE 3-15.12
YEAR 2030 NO BUILD INTERSECTION LEVEL OF SERVICE ANALYSIS**

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Mountain Ave	Evergreen St	Duarte	1.111	F
Mountain Ave	Hamilton Rd	Duarte	33.9	D
Mountain Ave	Duarte Rd	Duarte	0.746	C
Buena Vista St	Three Ranch Rd	Duarte	28.2	D
Buena Vista St	Duarte Rd	Duarte	0.689	B
Duncannon Ave	Central Ave	Duarte	13.3	B
City of Hope Dwy	Duarte Rd	Duarte	26.3	D
Highland Ave	Central Ave	Duarte	59.4	F
Highland Ave	Evergreen St	Duarte	21.1	C
Highland Ave	Business Center Dr	Duarte	19.5	C
Irwindale Ave	Foothill Blvd	Irwindale	2.007	F
Irwindale Ave	WB I-210 Fwy	Irwindale	0.863	D
Irwindale Ave	EB I-210 Fwy	Irwindale	1.432	F
Irwindale Ave	Montoya St	Irwindale	14.0	B
Irwindale Ave	First St	Irwindale	0.948	E
Irwindale Ave	Gladstone St	Irwindale	1.181	F
Virginia Ave	Foothill Blvd	Azusa	0.798	C
Virginia Ave	Sixth St	Azusa	12.8	B
San Gabriel Ave	Ninth St	Azusa	0.323	A
San Gabriel Ave	Foothill Blvd	Azusa	0.863	D
Azusa Ave	Ninth St	Azusa	53.4	F
Azusa Ave	Santa Fe Ave	Azusa	18.7	C
Azusa Ave	Foothill Blvd	Azusa	0.919	E
Alameda Ave	Ninth St	Azusa	13.3	B
Alameda Ave	Santa Fe Ave	Azusa	9.3	A
Alameda Ave	Foothill Blvd	Azusa	0.735	C
Dalton Ave	Ninth St	Azusa	11.4	B
Dalton Ave	Foothill Blvd	Azusa	999.9	F
Soldano Ave	Ninth St	Azusa	10.1	B
Soldano Ave	Foothill Blvd	Azusa	111.5	F
Pasadena Ave	Ninth St	Azusa	9.5	A
Pasadena Ave	Foothill Blvd	Azusa	0.853	D
Palm Dr	Foothill Blvd	Azusa	39.1	E
Citrus Ave	Foothill Blvd	Azusa	0.867	D
Citrus Ave	Alosta Ave	Azusa	1.165	F
Barranca Ave	Bennett Ave	Glendora	12.9	B
Barranca Ave	Foothill Blvd	Glendora	0.505	A
Grand Ave	Foothill Blvd	Glendora	0.785	C
Vermont Ave	Ada Ave	Glendora	11.6	B
Vermont Ave	Route 66	Glendora	0.561	A
Vermont Ave	Foothill Blvd	Glendora	0.515	A
Vermont Ave	Ada Ave	Glendora	13.5	B
Glendora Ave	Foothill Blvd	Glendora	0.761	C
Glendora Ave	Ada Ave	Glendora	16.4	C
Glendora Ave	Route 66	Glendora	1.045	F

TABLE 3-15.12 YEAR 2030 NO BUILD INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Pasadena Ave	Lemon Ave	Glendora	7.6	A
Pasadena Ave	Route 66	Glendora	0.781	C
Glenwood Ave	Lemon Ave	Glendora	10.5	B
Glenwood Ave	Route 66	Glendora	688.0	F
Elwood Ave	Lemon Ave	Glendora	10.3	B
Elwood Ave	Route 66	Glendora	0.724	C
Loraine Ave	Lemon Ave	Glendora	19.8	C
Loraine Ave	Route 66	Glendora	0.706	C
Lone Hill Ave	Auto Centre Dr	Glendora	0.823	D
Barranca Ave	Sierra Madre Ave	Glendora	18.9	C
Glendora Ave	Sierra Madre Ave	Glendora	39.3	E
Lone Hill Ave	Glendora Marketplace	Glendora	0.576	A
Lone Hill Ave	Gladstone St	San Dimas	0.725	C
SR-57 SB	Arrow Hwy	San Dimas	0.891	D
SR-57 NB	Arrow Hwy & Bonita Ave	San Dimas	0.931	E
Eucla Ave	Fifth St	San Dimas	8.3	A
Eucla Ave	Second St	San Dimas	9.7	A
Eucla Ave	Bonita Ave	San Dimas	0.464	A
Eucla Ave	Arrow Hwy	San Dimas	0.747	C
Acacia St	Fifth St	San Dimas	9.0	A
Acacia St	Second St	San Dimas	9.0	A
Acacia St	Bonita Ave	San Dimas	33.1	D
Cataract Ave	Second St	San Dimas	9.5	A
Cataract Ave	Bonita Ave	San Dimas	53.2	F
Monte Vista Ave	Second St	San Dimas	9.6	A
Monte Vista Ave	Bonita Ave	San Dimas	46.3	E
San Dimas Ave	Second St	San Dimas	22.9	C
San Dimas Ave	Bonita Ave	San Dimas	0.805	D
San Dimas Ave	Arrow Hwy	San Dimas	0.882	D
Walnut Ave	Bonita Ave	San Dimas	0.687	B
Walnut Ave	Arrow Hwy	San Dimas	0.718	C
San Dimas Canyon Rd	Bonita Ave	San Dimas	0.509	A
San Dimas Canyon Rd	Arrow Hwy	San Dimas	0.667	B
Wheeler Ave	Third St	La Verne	23.6	C
Wheeler Ave	Arrow Hwy	La Verne	0.742	C
A St	Third St	La Verne	10.4	B
A St	First St	La Verne	9.4	A
A St	Arrow Hwy	La Verne	439.0	F
D St	Third St	La Verne	15.9	C
D St	First St	La Verne	11.4	B
D St	Arrow Hwy	La Verne	0.503	A
D St	Bonita Ave	La Verne	0.945	E
E St	Third St	La Verne	12.9	B
E St	Second St	La Verne	14.0	B
E St	First St	La Verne	11.6	B

**TABLE 3-15.12
YEAR 2030 NO BUILD INTERSECTION LEVEL OF SERVICE ANALYSIS**

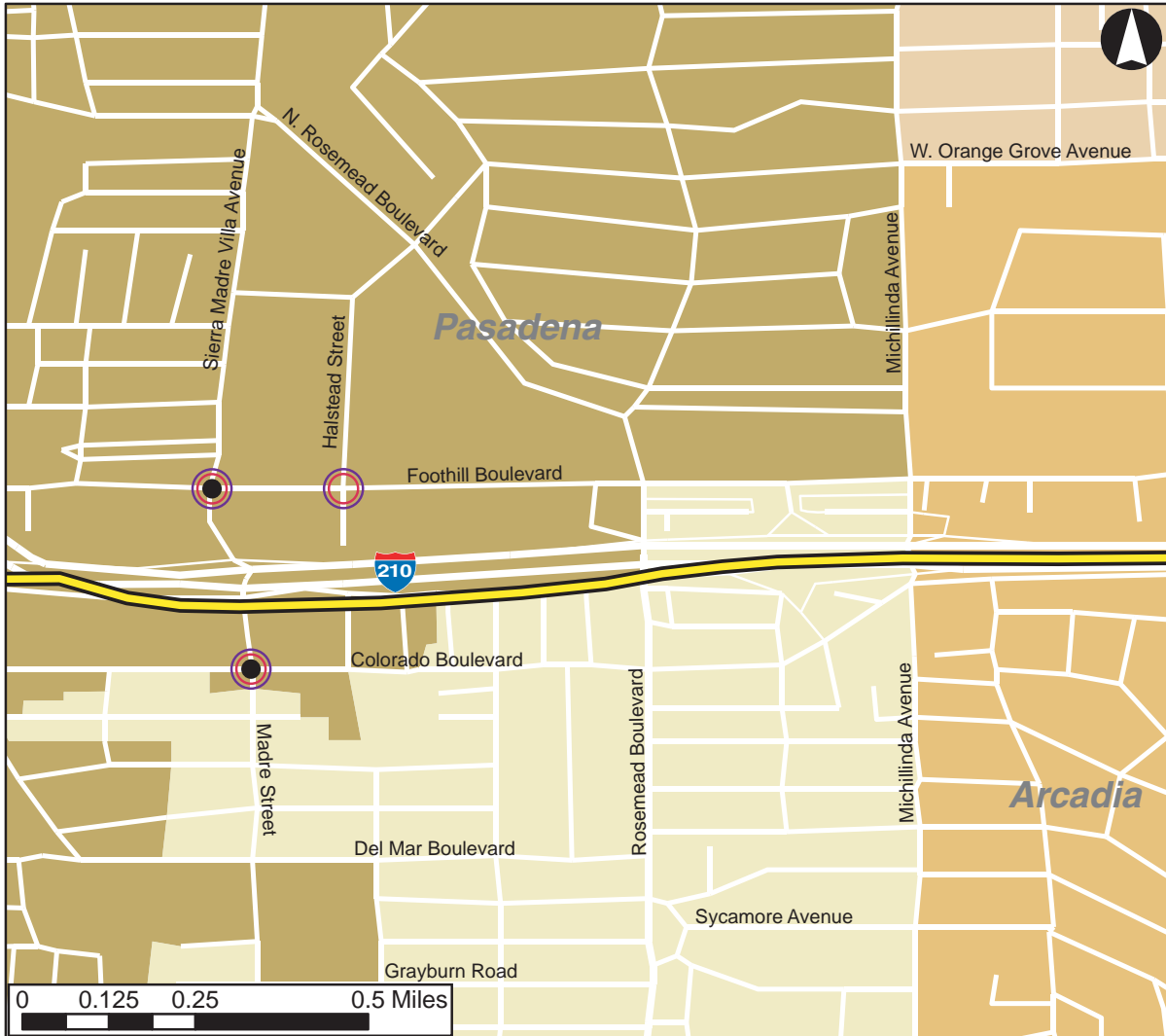
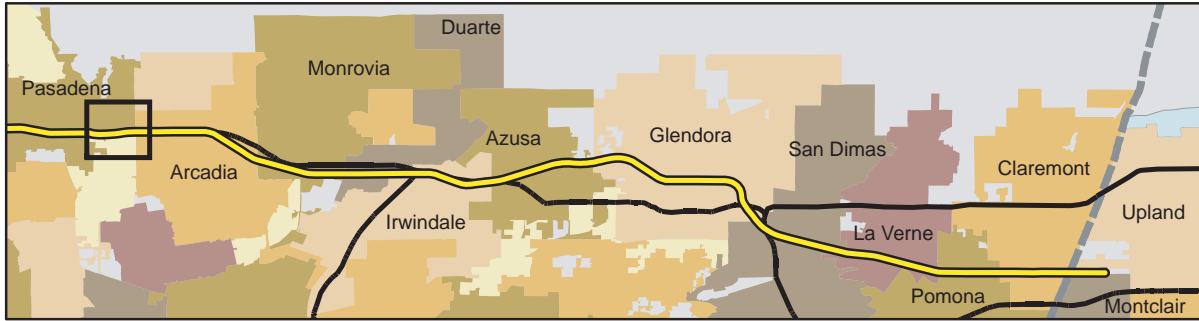
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
E St	Arrow Hwy	La Verne	0.775	C
White Ave	Third St	La Verne	69.8	F
White Ave	Second St	La Verne	127.2	F
White Ave	First St	La Verne	191.3	F
White Ave	Sierra Way	La Verne	19.9	C
White Ave	Arrow Hwy	La Verne	1.112	F
White Ave	Foothill Blvd	La Verne	1.043	F
White Ave	Bonita Ave	La Verne	1.078	F
White Ave	McKinley Ave	La Verne	0.405	A
La Verne Ave	Arrow Hwy	La Verne	466.7	F
Fulton Rd	Bonita Ave	Pomona	124.6	F
Fulton Rd	Arrow Hwy	Pomona	48.8	E
Garey Ave	Bonita Ave	Pomona	0.721	C
Garey Ave	Santa Fe St	Pomona	17.7	C
Garey Ave	Arrow Hwy	Pomona	0.843	D
Towne Ave	Bonita Ave	Pomona	0.700	B
Towne Ave	Towne Center Dr	Pomona	209.4	F
Towne Ave	Arrow Hwy	Pomona	1.071	F
Garey Ave	Harrison Ave	Pomona	0.489	A
Indian Hill Blvd	Bonita Ave	Claremont	0.817	D
Indian Hill Blvd	First St	Claremont	0.787	C
Indian Hill Blvd	Santa Fe St	Claremont	203.5	F
Indian Hill Blvd	Arrow Hwy	Claremont	0.869	D
College Ave	Bonita Ave	Claremont	13.9	B
College Ave	First St	Claremont	21.0	C
College Ave	Arrow Hwy	Claremont	0.601	B
Claremont Blvd	First St	Claremont	0.341	A
Mills/Claremont	Arrow Hwy	Claremont	0.677	B
Monte Vista Ave	Arrow Route	Montclair	0.637	B
Monte Vista Ave	Richton St	Montclair	0.494	A
Monte Vista Ave	Arrow Hwy	Montclair	0.972	E
Fremont Ave	Arrow Hwy	Montclair	0.502	A
Central Ave	Arrow Route	Montclair	0.845	D
Central Ave	Richton St / W 9th St	Montclair	0.662	B
Central Ave	Arrow Hwy	Montclair	0.888	D

Source: Parsons Brinckerhoff, 2005

**TABLE 3-15.13
YEAR 2030 NO BUILD INTERSECTIONS RECOMMENDED FOR SIGNALIZATION**

Intersection	Jurisdiction	Delay (sec/veh)
Dalton Ave and Foothill Blvd	Azusa	999.9
Glenwood Ave and Route 66	Glendora	688.0
A St and Arrow Hwy	La Verne	439.0

La Verne Ave and Arrow Hwy	La Verne	466.7
Towne Ave and Town Center Dr	Pomona	209.4
Source: Parsons Brinckerhoff, 2005		



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

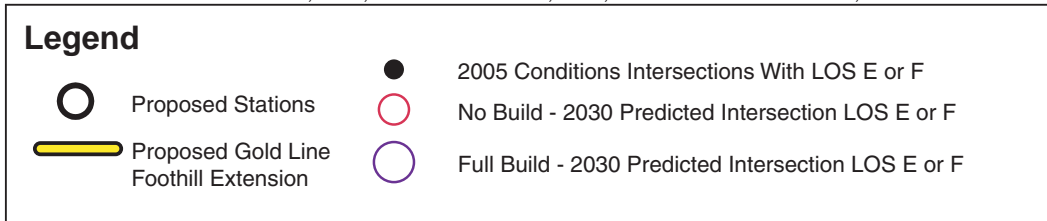
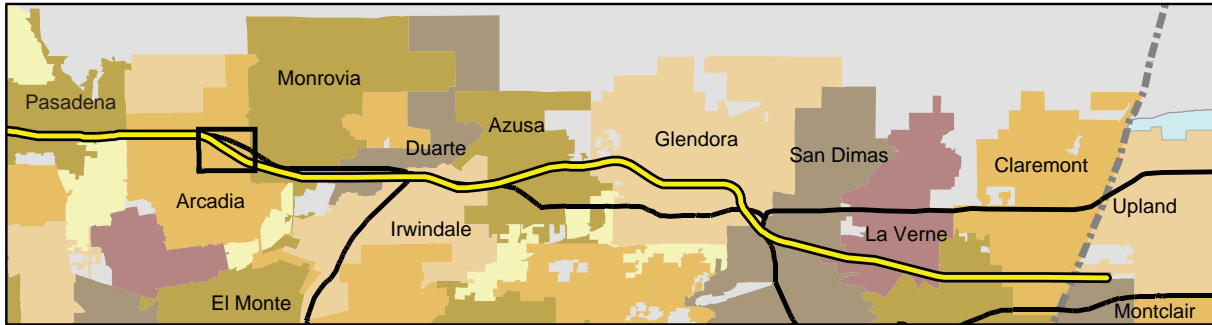


Figure 3-15.22: Intersection Level of Service Analysis - Pasadena



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

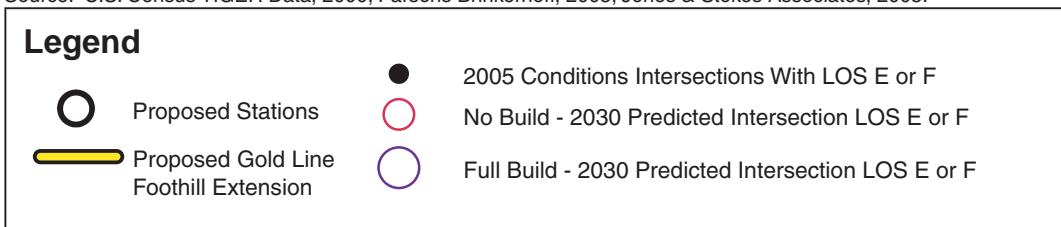
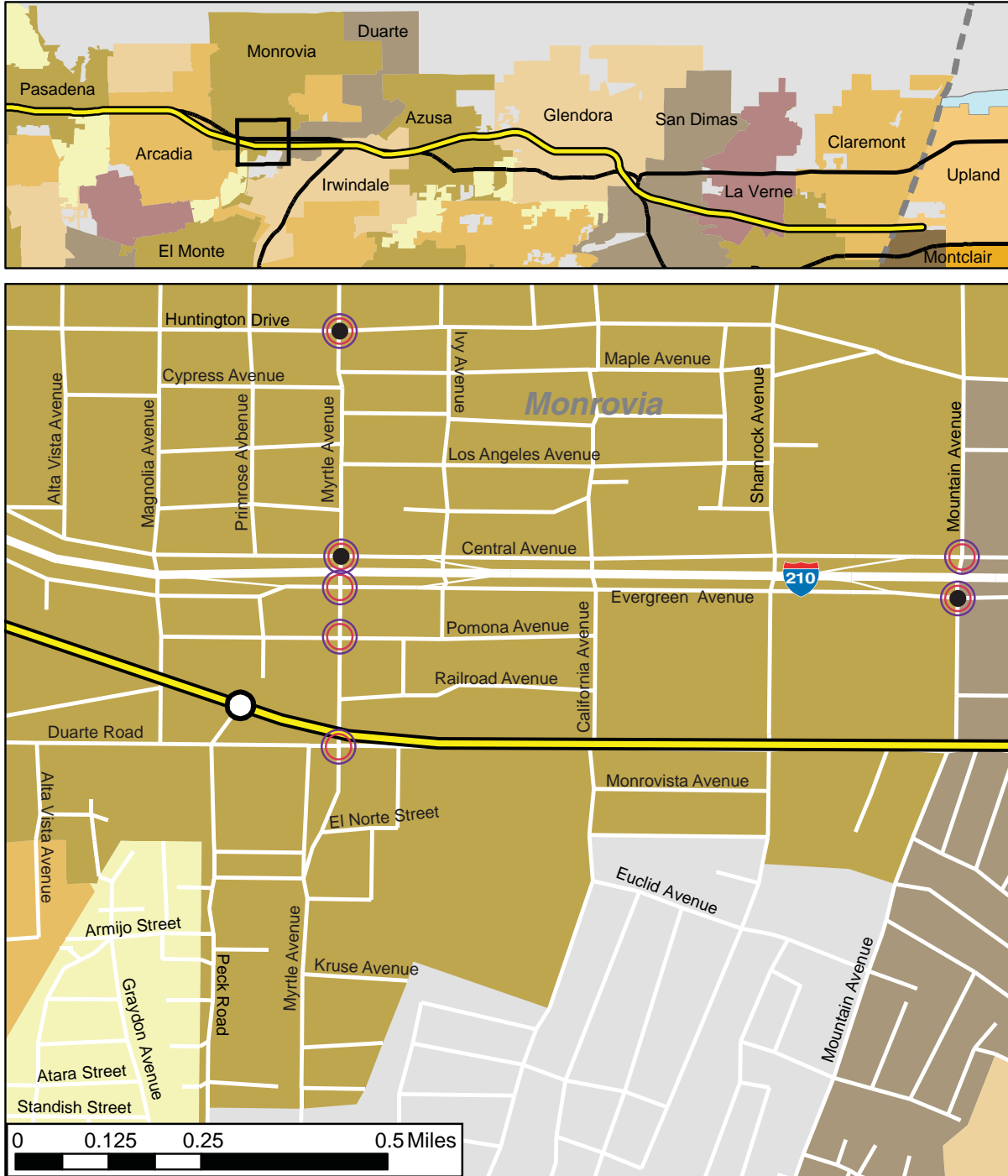


Figure 3-15.23: Intersection Level of Service Analysis - Arcadia



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

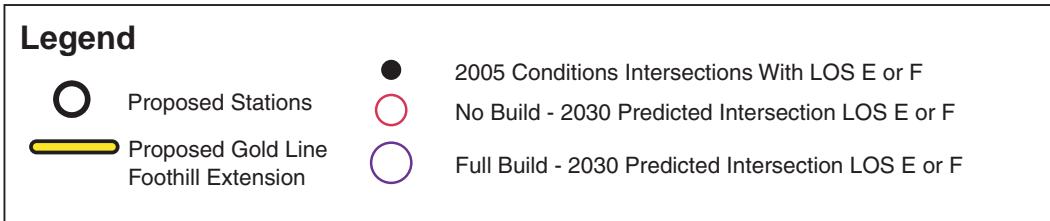
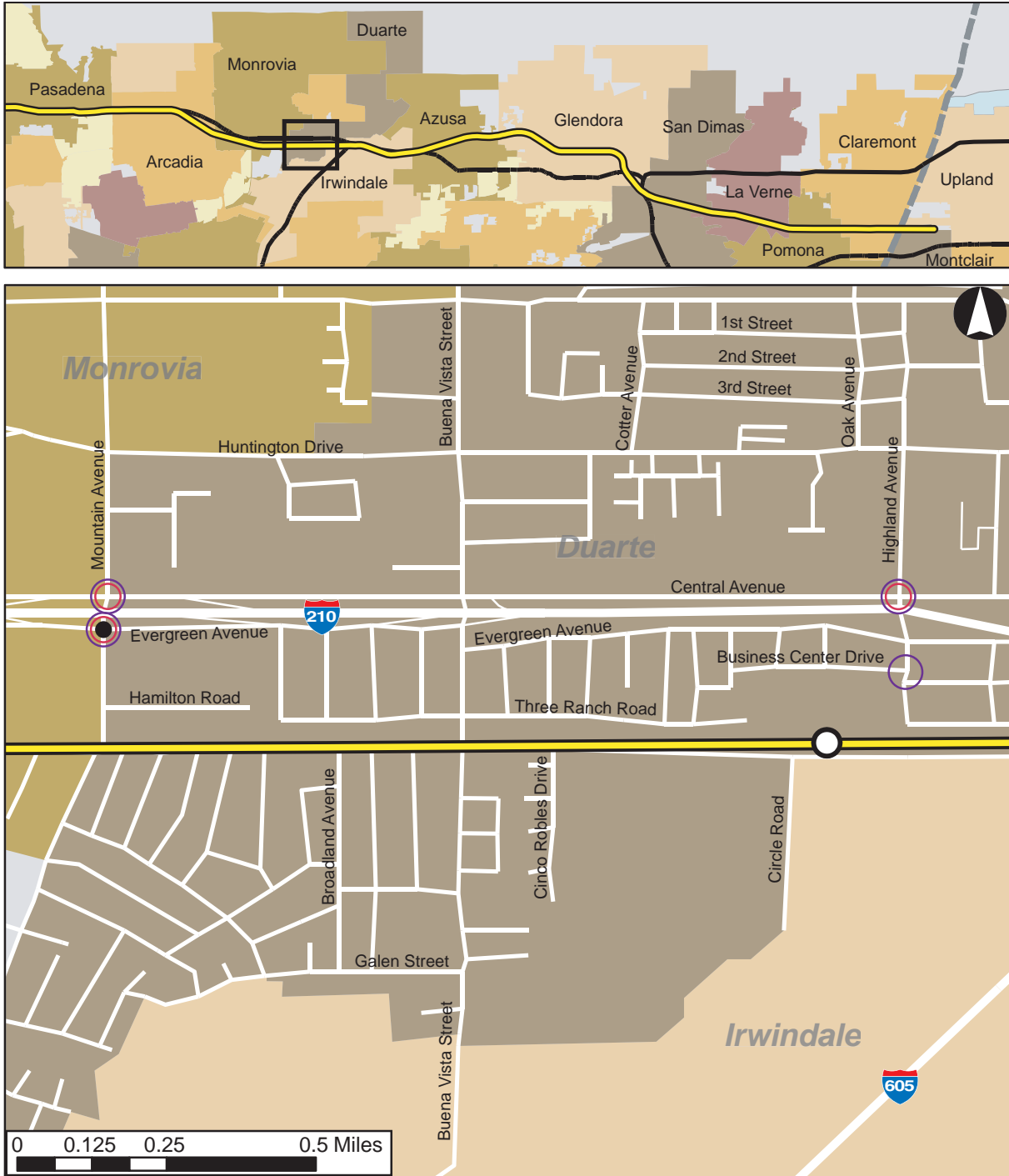
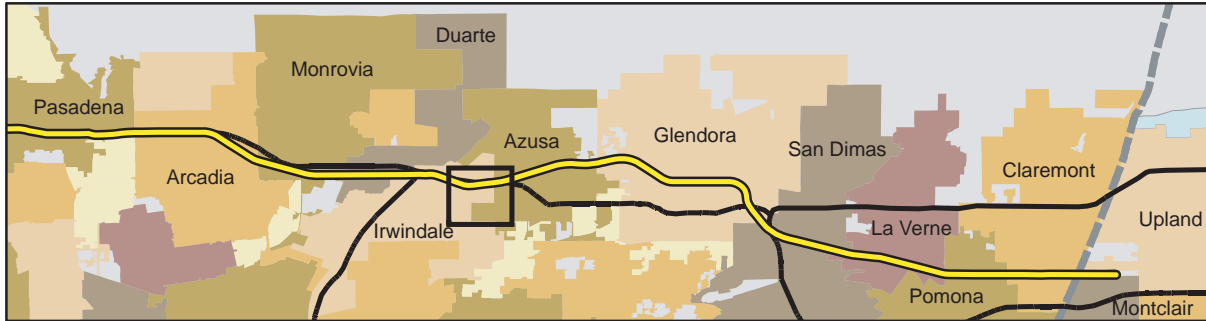


Figure 3-15.24: Intersection Level of Service Analysis - Monrovia



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

Figure 3-15.25: Intersection Level of Service Analysis - Duarte



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

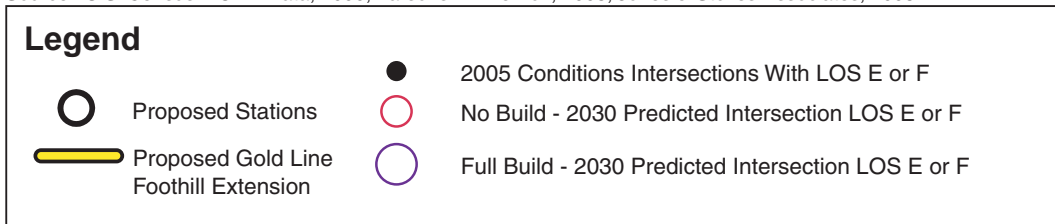
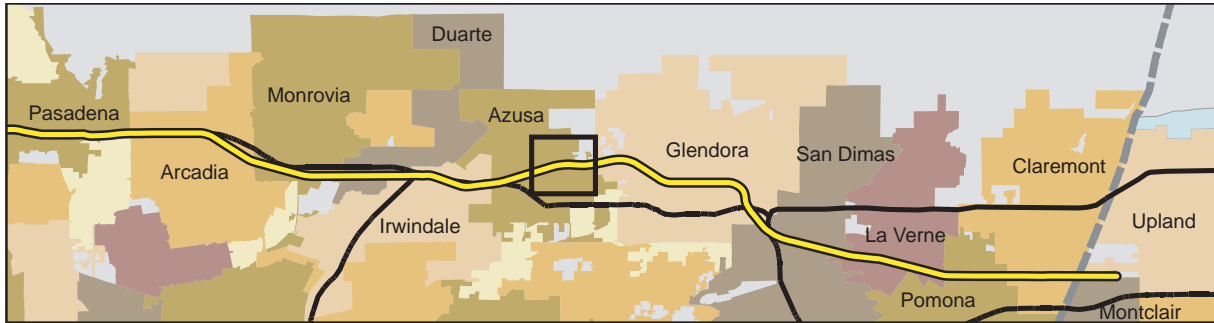


Figure 3-15.26: Intersection Level of Service Analysis - Irwindale



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

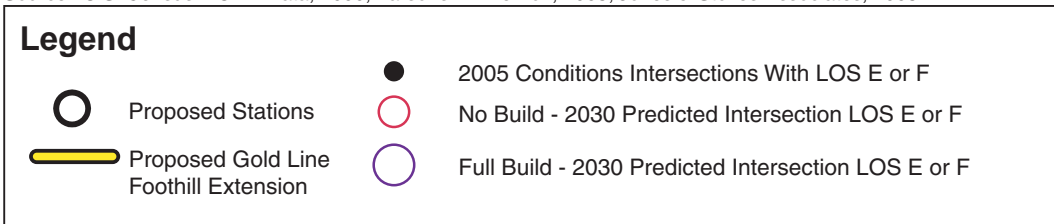
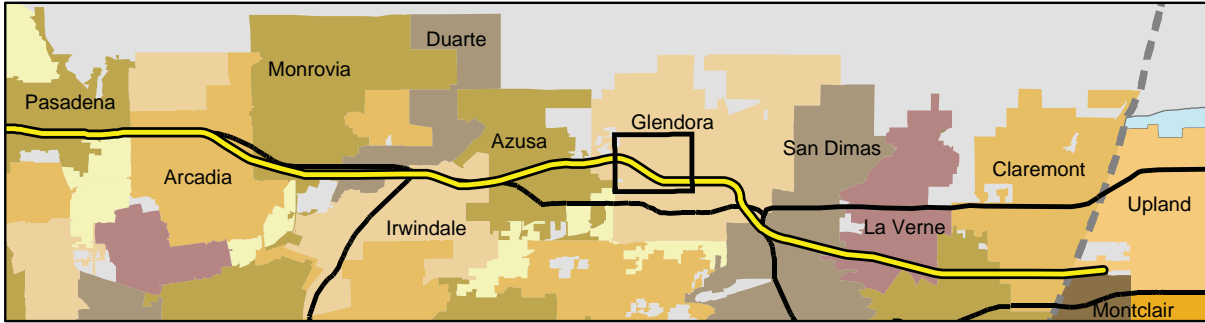


Figure 3-15.27: Intersection Level of Service Analysis - Azusa



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

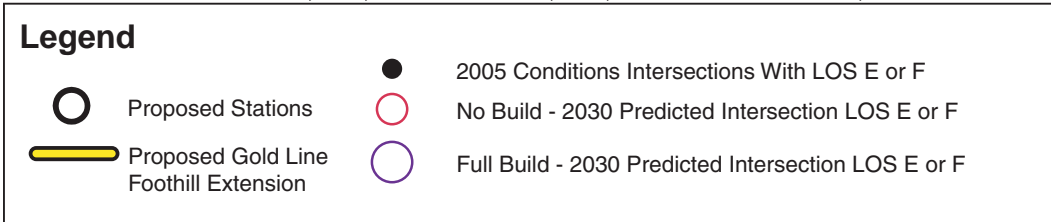
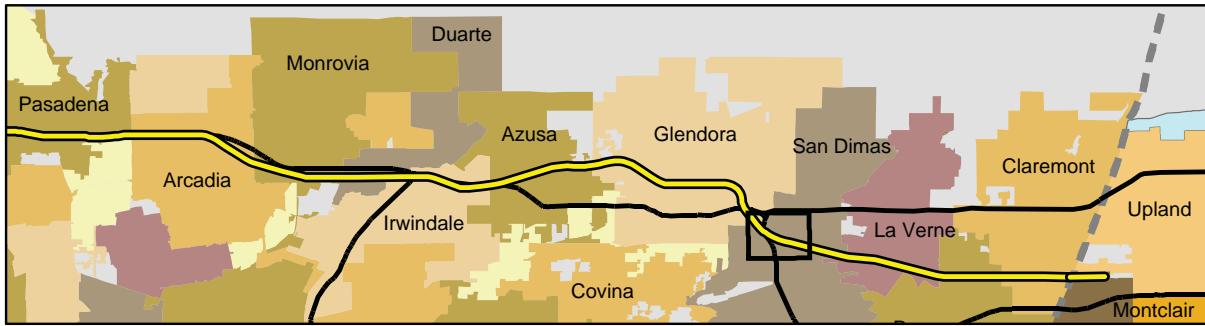


Figure 3-15.28: Intersection Level of Service Analysis - Glendora



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

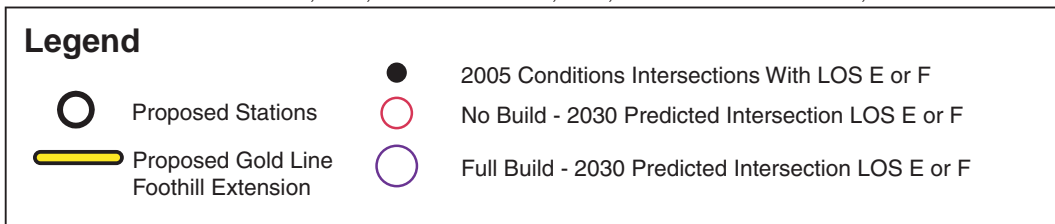
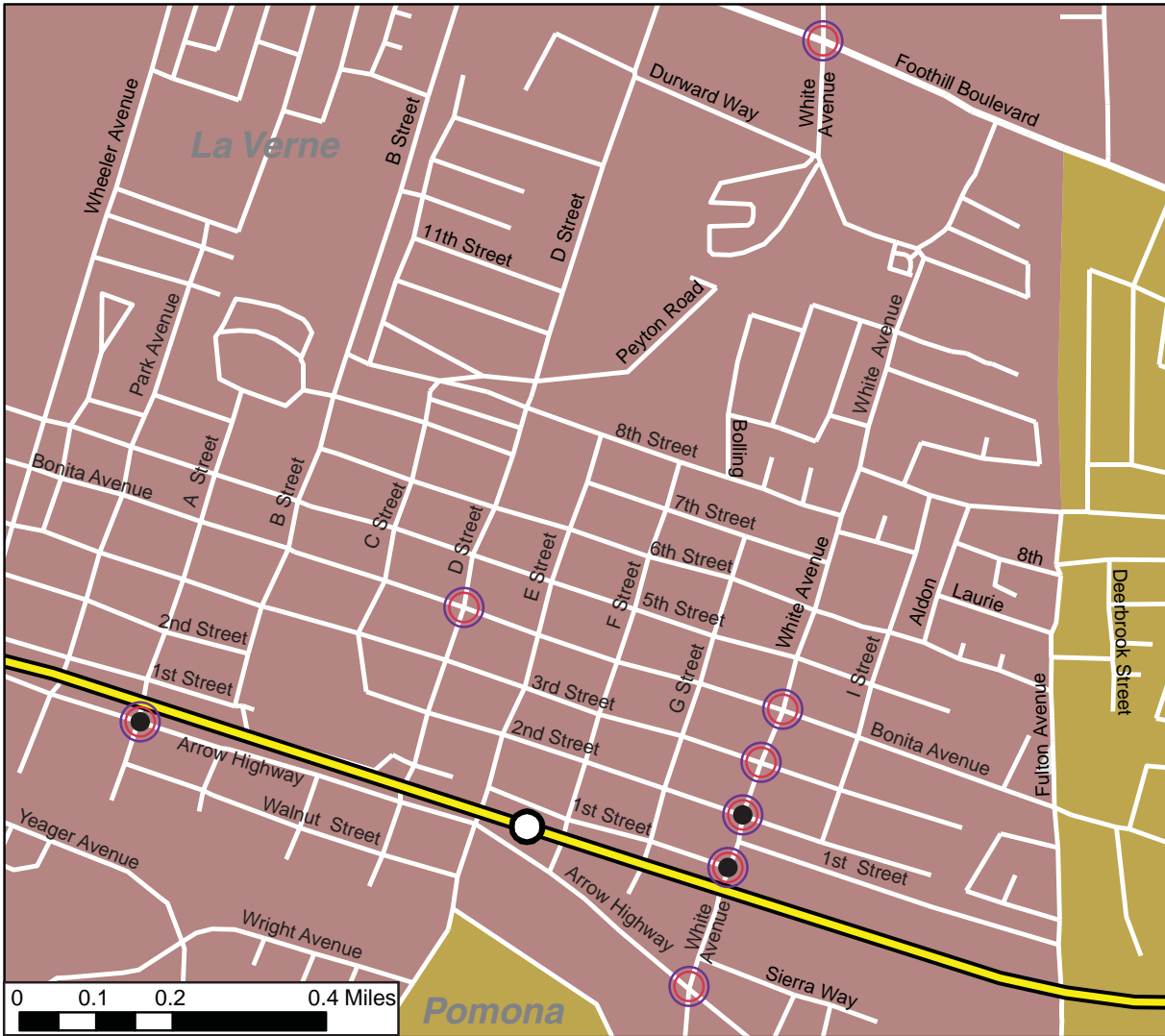
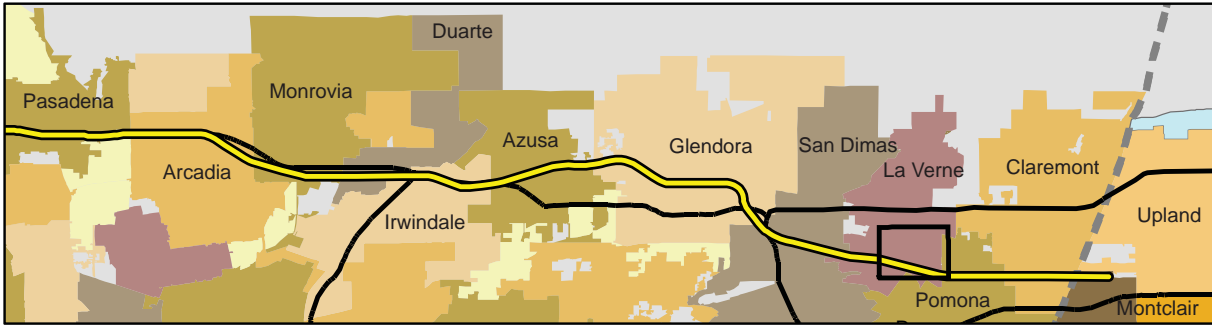


Figure 3-15.29: Intersection Level of Service Analysis - San Dimas



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

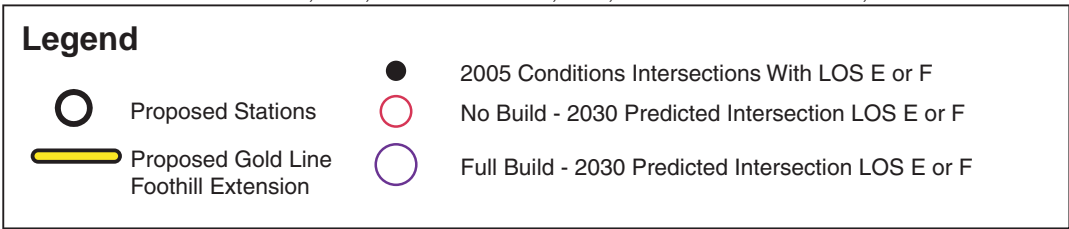
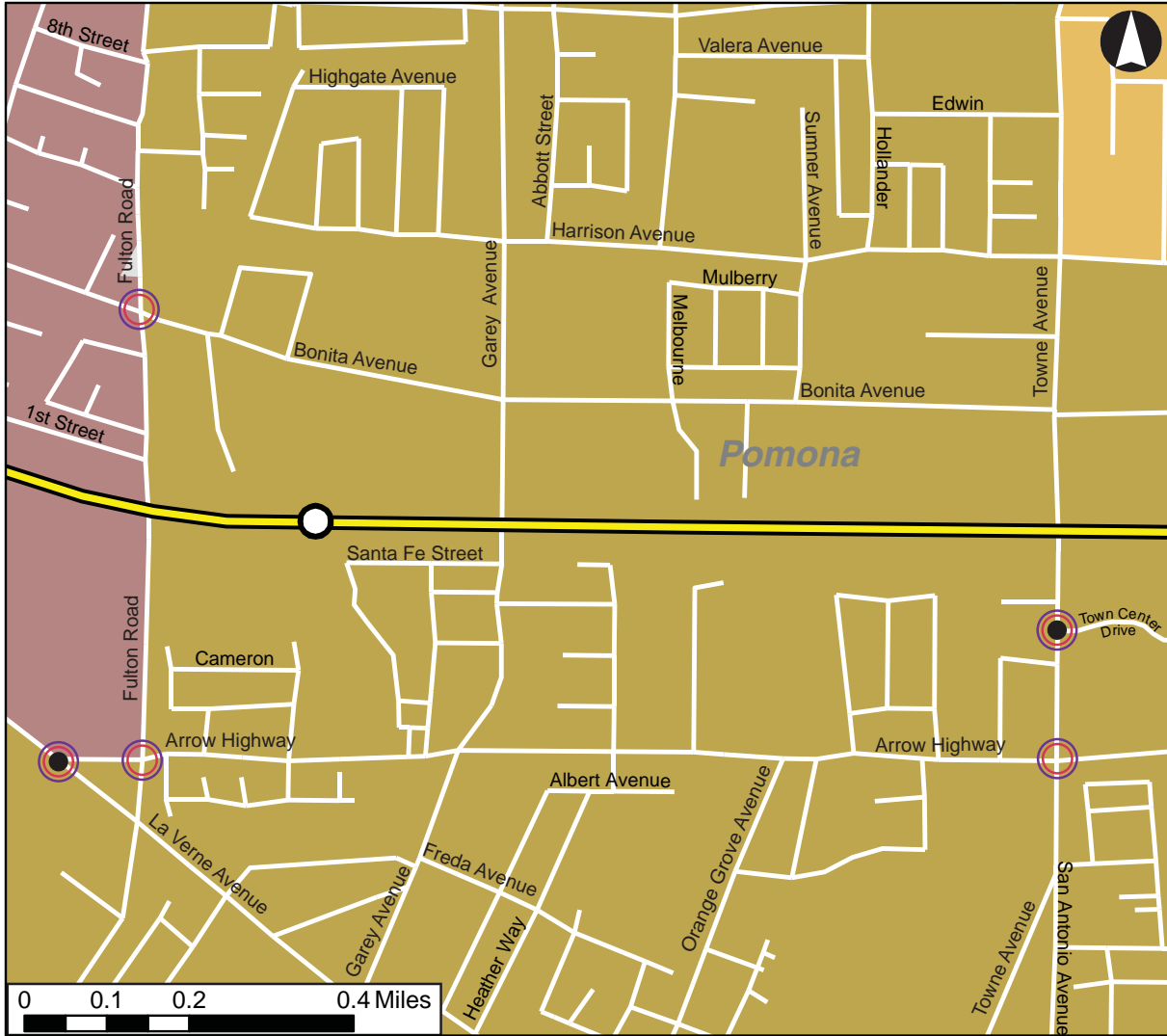
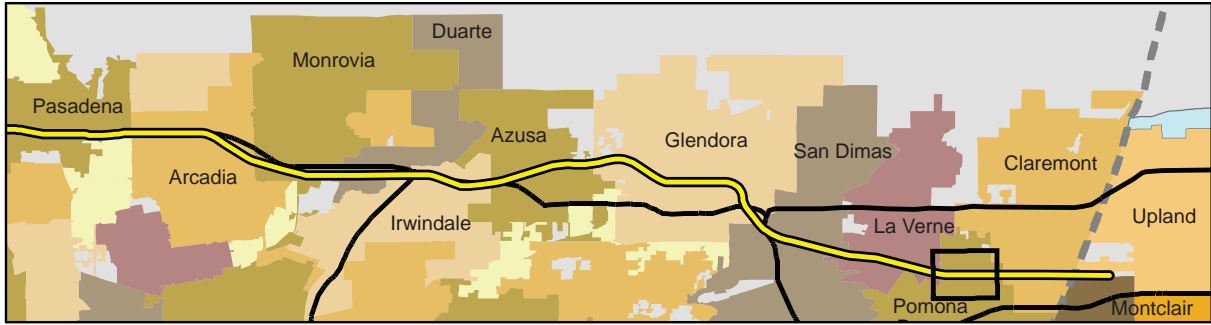


Figure 3-15.30: Intersection Level of Service Analysis - La Verne



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

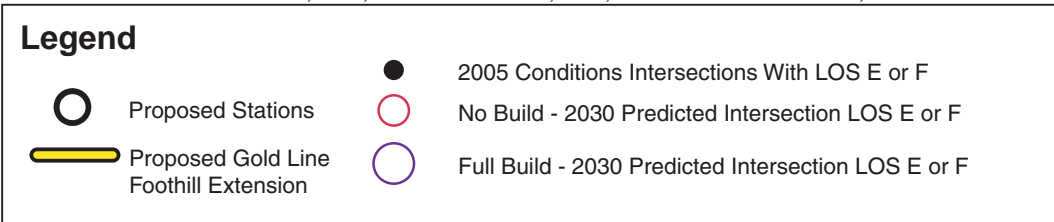
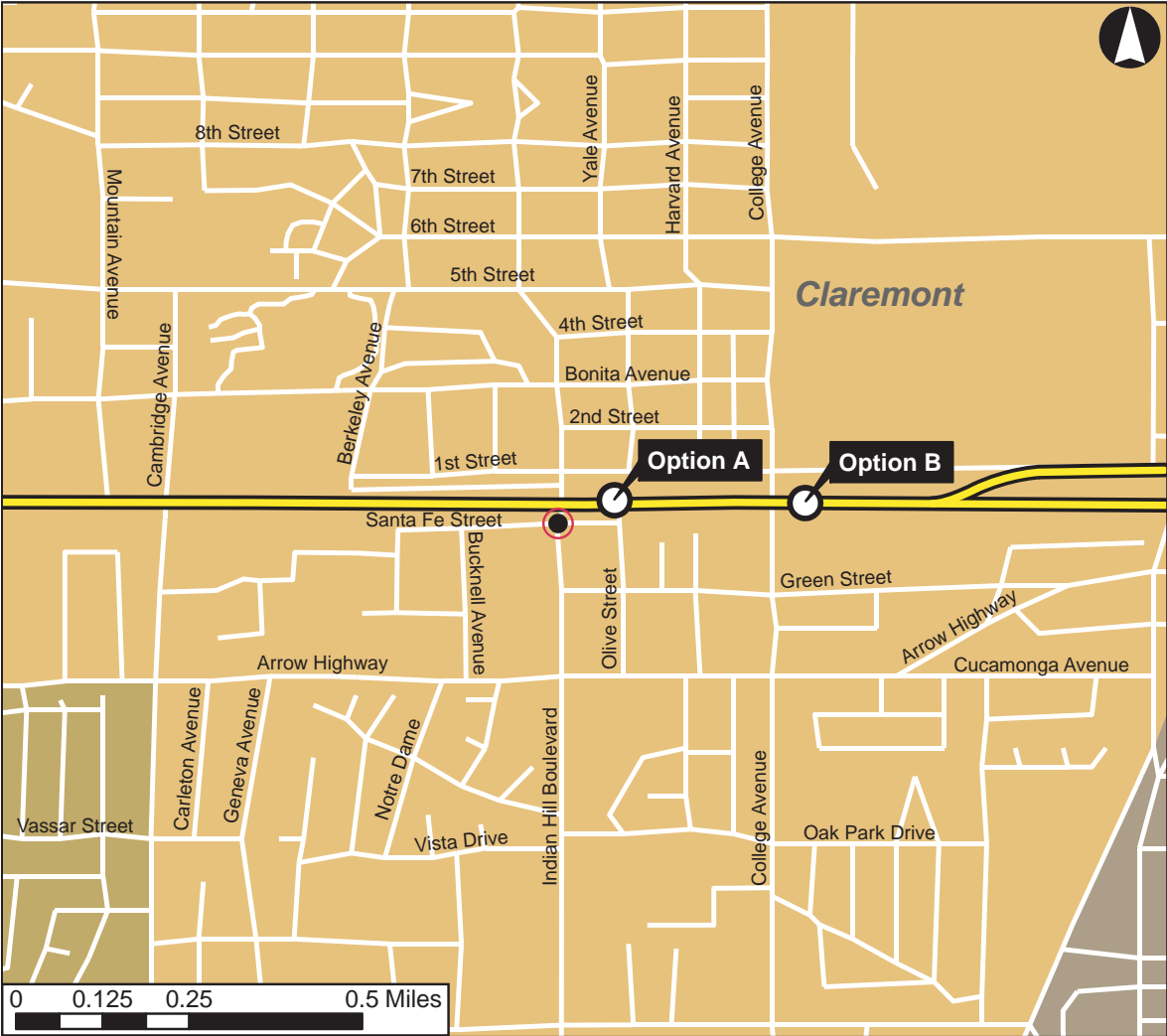
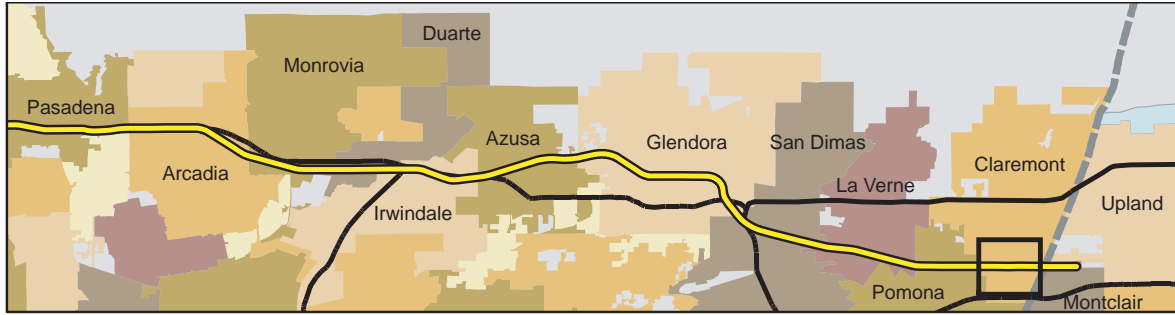


Figure 3-15.31: Intersection Level of Service Analysis - Pomona



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

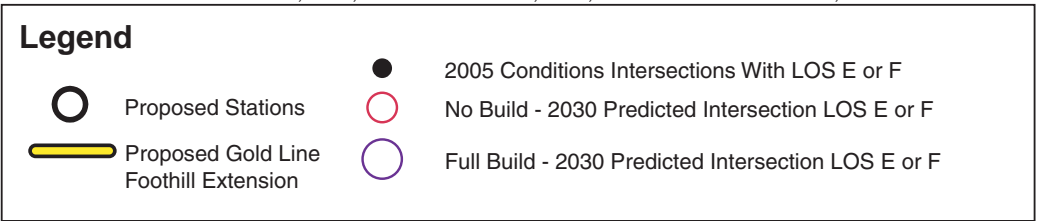
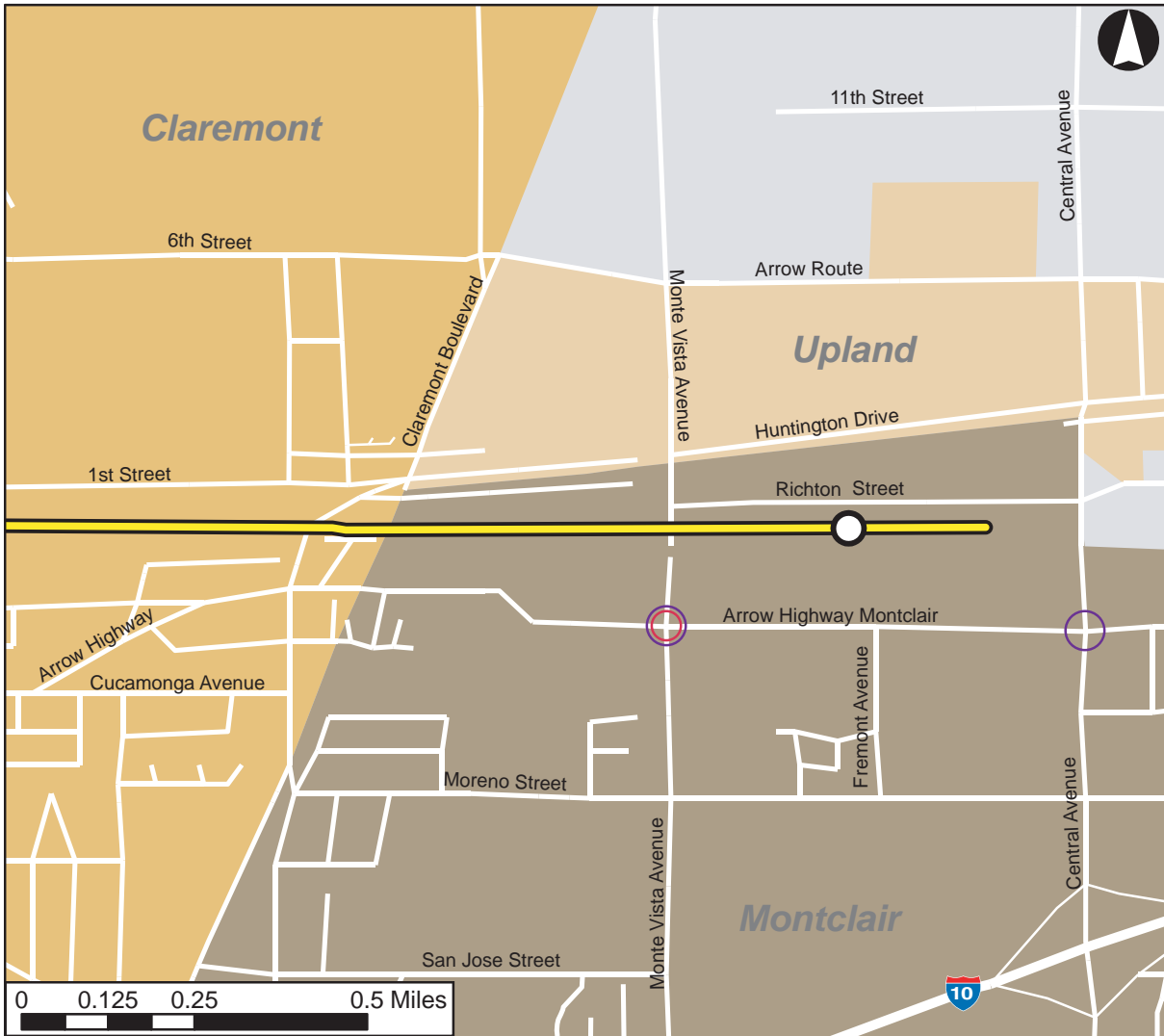
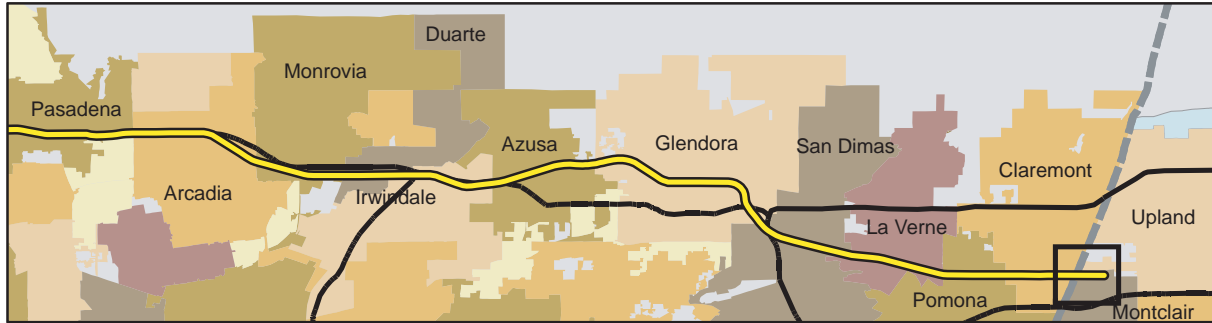


Figure 3-15.32: Intersection Level of Service Analysis - Claremont



Source: U.S. Census TIGER Data, 2000; Parsons Brinkerhoff, 2005; Jones & Stokes Associates, 2005.

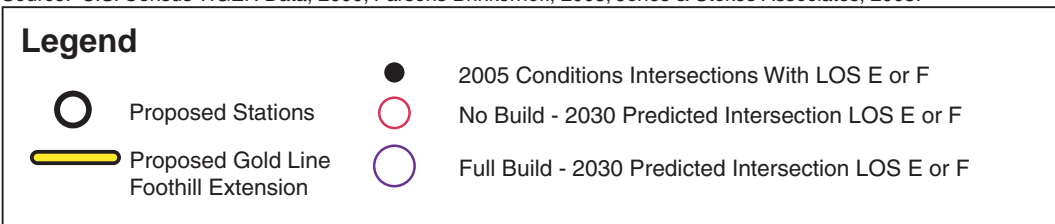


Figure 3-15.33: Intersection Level of Service Analysis - Montclair

Phase I

The Cities Affected and the Effects

No long term impacts due to the Gold Line Foothill Extension are expected for the No Build Alternative.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Effects

No long term impacts due to the Gold Line Foothill Extension are expected for the No Build Alternative.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Effects

No long term impacts due to the Gold Line Foothill Extension are expected for the No Build Alternative.

b. Full Build (Pasadena to Montclair) Alternative

Transit

Regional Transit Access and Connectivity

Implementation of the Full Build (Pasadena to Montclair) Alternative would result in an increase in the provision of transit service. There would be the introduction of a premium service that would serve the region and provide improved service reliability and a decrease in travel times for transit patrons. Forecast data indicate that transit ridership would increase in this segment of the corridor with the introduction of the improved service.

The introduction of a light rail system into the Foothill Extension study area would provide passengers with greater access to regional transit opportunities and would provide for improved regional transit connectivity. Transfers could be made at Union Station to a variety of different transit alternatives. The Foothill Extension Light Rail system will provide continuing service to Union Station in downtown Los Angeles and extending to the Pomona/Atlantic Station in East Los Angeles. Transfers can be made to the Metro Red Line at Union Station with its subway service to Wilshire Center and North Hollywood. The Long Beach Blue Line can also be accessed via the Red Line at the 7th/Metro Center station in downtown Los Angeles, and the Green Line to Norwalk and Redondo Beach is accessible via the Long Beach Blue Line. Dozens of local and express bus lines converge at Union Station, and several transit providers service Union Station, including Santa Monica's Big Blue Bus, LADOT, Foothill Transit, Torrance Transit, Santa Clarita Transit, and the Antelope Valley Transportation Authority. Metrolink commuter rail service is also available for regional travel to Ventura, San Bernardino, Riverside, Orange, and San Diego counties as well as to northern Los Angeles County. Amtrak rail service can also be accessed at Union Station for long-distance travel to other cities in California and the nation.

In order to enhance transit connectivity in the Full Build (Pasadena to Montclair) Alternative, the frequencies of several bus service routes in the No Build Alternative were increased. Table 3-15.14

presents the proposed changes to the headways for select routes to enhance bus service in the Full Build (Pasadena to Montclair) Alternative. Consequently, transit impacts on regional access and connectivity as a result of the Full Build (Pasadena to Montclair) Alternative are expected to be beneficial.

Route	Description	No Build		Full Build (Pasadena to Montclair)	
		Peak	Off-Peak	Peak	Off-Peak
MTA 177	La Canada Flintridge/Arcadia/Duarte	30	60	20	40
MTA 188	Fair Oaks/Colorado Blvd./Duarte Rd.	45	60	20	40
Foothill 184	Duarte/Monrovia/Arcadia/Pasadena	60	60	30	30
Foothill 187	Claremont/Montclair/Pasadena	30	60	30	40
Foothill 189	Claremont/Montclair/Pasadena	30	60	30	40
Foothill 690 (Express)	Montclair – Express Service to Pasadena via 210 Freeway Corridor	30	0	20	30

Source: Parsons Brinckerhoff, 2005

□ **Bus Route Interface**

In order to maintain connectivity with other transit operators and bus services within the corridor, it is important that proposed stations are well served by existing and proposed bus routes. The proposed transit operating plan for the Full Build (Pasadena to Montclair) Alternative offers a connection of existing bus lines at each station location. At three station locations, it is proposed that certain bus lines be considered for rerouting in order to provide improved access to the light rail system. Rerouting considerations would follow the typical bus route changes process for MTA, Foothill Transit and Omnitrans, including a public review period and comment process and input from members of the Bus Riders Union.

The following routes currently stop in the vicinity of Montclair, however, in conjunction with the LRT system they would need to be extended to reach the Montclair station.

- Foothill Transit Line 292, Pomona/Claremont College/Montclair shuttle

According to Federal Transit Administration regulations and guidelines for entities that receive federal transit funding, a public hearing must be offered for a change in fare structure or for service changes that affect more than 25 percent of the revenue or route-miles for a given transit line. CEQA requires that impacts be measured against criteria for significance and that all significant impacts be addressed and/or mitigated. The above bus route modifications constitute a less than significant impact and require no mitigation. Table 3-15.15 shows the interface of bus lines at each station along the alignment of the Full Build (Pasadena to Montclair) Alternative.

**TABLE 3-15.15
BUS ROUTE INTERFACE AT LRT STATIONS**

Station	Operator	Line	Destinations
Pasadena-Sierra Madre Villa/ Foothill	Foothill	184	Duarte – Arcadia
		187/189	Claremont – Pasadena
	MTA	177	La Canada Flintridge – Duarte
		180/181	Hollywood – Altadena
		264	Rosemead – Altadena
		266	Lakewood – Pasadena
		267	El Monte – Altadena
		268	El Monte – La Canada Flintridge
	Pasadena	31/32	Community Connector (Pasadena)
		40	Community Connector (Pasadena)
60		Community Connector (Pasadena)	
Arcadia-First Ave/ Santa Clara St	Foothill	184	Duarte – Arcadia
		187/189	Claremont – Pasadena
	MTA	79	LA – Arcadia
Monrovia-Myrtle Ave/ Railroad Ave/ Duarte Rd	Foothill	494	San Dimas – Los Angeles
	MTA	177	La Canada Flintridge – Duarte
		264	Rosemead – Altadena
		270	Monrovia – Cerritos
Duarte-Hope Dr/ Duarte Rd/ Three Ranch Road	Duarte	Blue	Community Connector (Duarte)
		Green	Community Connector (Duarte)
	Foothill	184	Duarte – Arcadia
		187/189	Claremont – Pasadena
		272	Duarte – West Covina
		494	San Dimas – Los Angeles
	MTA	177	La Canada Flintridge – Duarte
		264	Rosemead – Altadena
Irwindale-N Irwindale Ave/ Montoya St	Foothill	185	Azusa – Hacienda Heights
Azusa/Alameda-Azusa Ave/ Alameda Ave/ Railroad	Foothill	185	Azusa – Hacienda Heights
		187/189	Claremont – Pasadena
		280	Azusa – Puente Hills Mall
		494	San Dimas – Los Angeles
Azusa/Citrus-Citrus/Railroad	Foothill	281	Glendora – Puente Hills Mall
		488	Glendora – Los Angeles
		498	Citrus College – LA (Express)
Glendora-Glendora Ave/ Ada Ave/ Walnut Ave/ Vermont Ave	Foothill	187/189	Claremont – Pasadena
		283	West Covina – Glendora
		488	Glendora – Los Angeles
		494	San Dimas – Los Angeles
		851	Covina – Glendora
San Dimas-N Monte Vista Ave/ N Cataract Ave/ Bonita Ave	Foothill	284	West Covina – Glendora
		492	Montclair – Arcadia – Los Angeles
		494	San Dimas – Los Angeles
La Verne-White/Railroad	Foothill	190	Montclair – Cal Poly
		492	Montclair – Los Angeles

**TABLE 3-15.15
BUS ROUTE INTERFACE AT LRT STATIONS**

Station	Operator	Line	Destinations
Pomona- Garey Ave/ W Santa Fe St	Foothill	190	Montclair – Cal Poly
		291	La Verne – South Pomona
	Metrolink	San Bernardino	Los Angeles – San Bernardino
Claremont- Harvard Ave/ Railroad/ Spring St	Foothill	187/189	Claremont – Pasadena
		190	Montclair – Cal Poly
		292/294	Claremont– Pomona
		480/481	Montclair – Los Angeles
		492	Montclair – Los Angeles
		690	Montclair – Los Angeles (Express)
	855	Pomona TransCenter – Claremont	
	Metrolink	San Bernardino	Los Angeles – San Bernardino
Montclair- Montclair Center (north of Metrolink Station)	Foothill	187/189	Claremont – Pasadena
		292/294	Claremont– Montclair – Pomona
		480/481	Montclair – Los Angeles
		492	Montclair – Los Angeles
		690	Montclair – Los Angeles (Express)
		699	Montclair – Los Angeles (Express)
	Omnitrans	65	Montclair – Chino Hills
		66	Fontana – Montclair
		68	Indian Hill – Chaffey College
		70	Ontario-Creekside-Ontario Mills
		90	Montclair – San Bernardino
RTA	204	Riverside-Montclair Transit Center	
Metrolink	San Bernardino	Los Angeles – San Bernardino	

Sources: 2005 Duarte, MTA, Foothill Transit, Omnitrans, and Pasadena ARTS timetables; Parsons Brinckerhoff.

Bus Operation Impacts

Generally speaking, bus stop locations will remain in the current locations under the Full Build (Pasadena to Montclair) Alternative. Some stops may be relocated in order to better interface with the LRT stations. Bus stops will be located close to the street corner where there is access to the station entrance at station locations.

Metrolink Operation Impacts

The Full Build (Pasadena to Montclair) Alternative would overlap with a short segment of the Metrolink San Bernardino Line from Pomona to Montclair. The LRT system would run along the same right of way as the Metrolink but LRT trains would operate on separate tracks and utilize separate platforms from the Metrolink commuter trains. The freight track would merge with the Metrolink track resulting in two LRT tracks and two Metrolink / freight tracks.

LRT Patronage Forecasts

Table 3-15.16 shows the projected daily passenger boardings at each station based on the results of the transportation travel demand model for the Full Build (Pasadena to Montclair) Alternative. The highest number of passengers boarding the Foothill Extension system is at the terminal station in Montclair, with

the next highest being at Irwindale. The stations with the highest patronage have the greatest number of connecting transit services. The highest concentration of boardings occurs during the peak periods as people utilize the system on their trips to and from their places of employment. Total boardings for the Foothill Extension LRT system are projected to be 17,611 passengers per day by the year 2025. Combined boardings for the Gold Line Phase I and its extension to Montclair, the Gold Line Foothill Extension, are expected to be 78,679 passengers per day by the year 2025.

TABLE 3-15.16			
FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE			
DAILY LRT BOARDINGS BY STATION			
Station	Peak	Off-Peak	Total Daily
Arcadia	1,532	320	1,852
Monrovia	1,336	257	1,593
Duarte	1,073	242	1,315
Irwindale	1,852	314	2,166
Azusa / Alameda	883	235	1,117
Azusa / Citrus	617	148	765
Glendora	1,001	219	1,220
San Dimas	829	170	999
La Verne	710	209	918
Pomona	1,094	296	1,390
Claremont	1,464	526	1,990
Montclair	1,636	650	2,286
Total Foothill Extension Segment 1 & 2 Daily Boardings			17,611
Eastside, Phase I and Foothill Extension Segment 1 & 2 Combined Daily Boardings			78,679

Source: Parsons Brinckerhoff, 2005

□ Effects on the Gold Line Phase I

From a transit perspective, the extension of the Gold Line Foothill Extension project is expected to increase ridership at stations along Phase I. The number of daily boardings is presented in Table 3-15.17. As shown in the table, the effect of the Foothill Extension project is noticeable at Union Station and minimal at most of the other stations along the Phase I corridor. In addition, total daily boardings at the Sierra Madre Villa Station in Pasadena are expected to decrease because it is no longer the line terminus and patrons can continue further east. These changes in boardings at the Phase I stations due to the Foothill Extension projects are not expected to result in any negative impacts.

**TABLE 3-15.17
CHANGE IN PHASE I DAILY BOARDINGS BY STATION
DUE TO THE FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE**

Station	Peak	Off-Peak	Total Daily
Union Station	750	274	1,024
Chinatown	21	10	31
Lincoln Heights/Cypress Park	44	1	44
Heritage Square/Arroyo	41	6	47
Southwest Museum	12	5	16
Highland Park	62	15	77
Mission	38	10	47
Fillmore	61	11	72
Del Mar	113	23	136
Memorial Park	179	60	239
Lake	153	39	192
Allen	59	-28	31
Sierra Madre Villa	-268	14	-254

Source: Parsons Brinckerhoff, 2003

Traffic Operations

❑ Shifts in Traffic Patterns

Adjustments to traffic flow patterns due to the proposed LRT project were determined by utilizing projections from the transportation model developed for this study. The year 2030 No Build and the Full Build (Pasadena to Montclair) peak period model data were compared to determine the effects of the proposed project on traffic flow and circulation patterns. The PM peak period link data from the No Build and Full Build (Pasadena to Montclair) travel demand model outputs were utilized in this analysis. The results of the percent change comparison between the year 2030 traffic forecasts for the Full Build (Pasadena to Montclair) Alternative versus the year 2030 traffic forecasts for the No Build Alternative are presented in Table 3-15.18, which shows the percent change in traffic volumes due to changes in circulation patterns.

The overall shifts in traffic identified above, were applied to the year 2030 No Build PM peak hour turning movement volumes in order to develop the future PM peak hour turning movement traffic projections for the Full Build (Pasadena to Montclair) Alternative at each of the 153 study intersections.

**TABLE 3-15.18
PERCENTAGE CHANGE IN TRAFFIC VOLUMES FOR THE
FULL BUILD (PASADENA TO MONTCLAIR) FROM THE NO BUILD ALTERNATIVE BY
CITY**

City	Percent Change from No Build 2005 to 2030
Pasadena	-0.246%
Arcadia	-0.622%
Monrovia	-0.175%
Duarte	-0.965%
Irwindale	-0.677%
Azusa	-0.536%
Glendora	-0.328%
San Dimas	-0.317%
La Verne	-0.162%
Pomona	-0.038%
Claremont	-0.253%
Montclair	-0.232%

Source: Parsons Brinckerhoff, 2005

❑ Intersection Traffic Service

The future PM peak hour traffic volumes at the 153 study intersections were determined based upon the anticipated shifts in traffic patterns identified in the previous section. However, due to the fact that intersections surrounding the stations will experience increased vehicular activity because of the proposed parking, the turning movement volumes were adjusted to reflect this condition. Trips generated to and from the parking area at each station were determined and distributed along the roadway network to reflect station access conditions. The station access analysis assumed a parking occupancy of approximately 95%, and a concentration of 65% of parking patrons leaving within the PM peak hour. In addition, it was assumed that 10% of those vehicles accessing the station were kiss-and-ride patrons. A total of 8,150 parking spaces distributed among the 13 stations will be provided to serve the Gold Line Foothill Extension LRT system. Table 3-15.19 show the number of parking spaces allocated at each station.

TABLE 3-19 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE PARKING SPACE PROVISIONS BY STATION		
City	Parking Location(s)	Gold Line Stalls
Pasadena	Existing Structure	1,000
Arcadia	Structure at northwest corner of Front St. and Santa Clara St.	800
Monrovia	City is in process of building 300 surface spaces at SW corner of E. Pomona Ave. and S. Myrtle Ave. A future transit-oriented development on this site will include 600 parking spaces for transit patrons	600
Duarte	N of E. Duarte Road, on vacant lot south of Business Center Drive.	250
Irwindale	East of Irwindale Ave and north of Montoya Street frontage road	700
Azusa/Alameda	N of tracks, between Alameda and Azusa Avenues, surface parking.	400
Azusa/Citrus	N of tracks, W of Citrus Avenue, structure in conjunction with transit oriented development	350
Glendora	N of tracks, E of S. Vermont Ave., on trapezoidal plot of land where a future transit-oriented development will provide 400 parking spaces for transit patrons	400
San Dimas	Parking structure at 2.9 acre Henkle & McCoy property at NW corner of Eucla & Railroad ROW	750
La Verne	Fairplex land, Surface lot	600
Pomona	3 level parking structure at vacant lot W of Garey, S of Bonita	800
Claremont	Structure built on the existing Metrolink surface parking lot E of College Ave. and N of ROW.	700
Montclair	Utilize existing parking at transit center, no structure.	800
Total		8,150
Source: Parsons Brinckerhoff, 2005		

In addition, four intersections (First Avenue/Santa Clara Street, Foothill Boulevard/Grand Avenue, Lone Hill Avenue/Auto Centre Drive, and Cataract Avenue/Bonita Avenue) are configured such that the LRT tracks cross the intersection diagonally. At these locations, traffic signals would be required and existing signals would require modification. An exclusive signal phase for the LRT would be necessary where all other traffic movements are stopped. At these locations, the analysis incorporated a capacity reduction factor to reflect the time required by the LRT signal phase. The LRT's capacity reduction factor was determined to be equivalent to a V/C of 0.15 for signalized intersections or 15% increase to the total delay in seconds for unsignalized intersections. This amount was added to the V/C ratio and equates to approximately 200 to 225 passenger cars added to the critical movement. This factor was based upon the following assumptions:

- Operation of 2-car trains at 10-minute headway per direction (train length is assumed to be approximately 180 feet).
- A maximum operating speed of 55 miles per hour.
- An average diagonal cross-street width of about 150 feet.

Future traffic operations were evaluated by incorporating the volumes, roadway geometrics, type of control and signal phasing, where applicable using the TRAFFIX software. The resulting intersection operations and LOS under the Full Build (Pasadena to Montclair) Alternative are presented in Table 3-

15.20. Detailed worksheets are attached in Appendix D of the Foothill Extension Transportation Technical Report. As indicated in the table, 101 intersections are anticipated to operate at LOS D or better and the remaining 52 intersections would operate at LOS E or F.

☐ Summary of Improvements as Part of the Project

The following traffic improvements would be implemented as part of this project and are included in the analysis of the 2030 Full Build (Pasadena to Montclair) Alternative. These improvements are not required for mitigation of significant impacts.

Duarte

- City of Hope Driveway and Duarte Road – Signalization of this intersection is proposed as part of the implementation of this project.

Irwindale

- Irwindale Avenue and Adelante Street – Signalization and reconfiguration of this intersection into a four way intersection is proposed as part of the implementation of this project.

San Dimas

- Cataract Avenue and Bonita Avenue – Per the recommendation of the Milestone 2 Grade Crossing Analysis, the signalization of this intersection is proposed as part of the implementation of this project.

La Verne

- Arrow Highway and the Entrance of the Fairplex Parking Lot – Provide a mid-block signal and pedestrian crosswalk.

Claremont

- Indian Hill Boulevard and Santa Fe Street – Reconfigure the layout of this intersection. Place a north/south barrier along Indian Hill Boulevard to prevent through traffic on Santa Fe Street. Close off entry into the east leg of Santa Fe Street from southbound Indian Hill Boulevard. Prohibit left turns on the northbound and southbound approaches on Indian Hill Boulevard to Santa Fe Street. Remove all striping for the westbound approach on Santa Fe Street. Make a mandatory right turn for the eastbound approach on Santa Fe Street and provide a right turn pocket for the northbound approach on Indian Hill Boulevard.

TABLE 3-15.20 YEAR 2030 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Sierra Madre Villa Ave	Foothill Blvd	Pasadena	1.333	F
Sierra Madre Villa Ave	GL Parking Garage	Pasadena	21.9	C
Sierra Madre Villa Ave	WB I-210 Fwy	Pasadena	0.695	B
Sierra Madre Villa Ave	EB I-210 Fwy	Pasadena	0.630	B
Sierra Madre Villa Ave	Colorado Blvd	Pasadena	1.680	F
Foothill Blvd	Halstead St	Pasadena	0.907	E
Santa Anita Ave	Colorado Blvd	Arcadia	0.995	E
Santa Anita Ave	La Porte St	Arcadia	21.7	C
Santa Anita Ave	Santa Clara St	Arcadia	1.134	F
First Ave	Colorado Blvd	Arcadia	0.921	E
First Ave	Santa Clara St	Arcadia	0.890	D
First Ave	Huntington Dr	Arcadia	1.039	F
Santa Anita Ave	Huntington Dr	Arcadia	1.317	F
Second Ave	Colorado Blvd	Arcadia	50.0	E
Second Ave	Santa Clara St	Arcadia	0.582	A
Second Ave	Huntington Dr	Arcadia	1.181	F
Mayflower Ave	Diamond St	Monrovia	32.5	D
Mayflower Ave	Duarte Rd	Monrovia	0.753	C
Magnolia Ave	Evergreen Ave	Monrovia	29.1	D
Magnolia Ave	Genoa St	Monrovia	12.0	B
Magnolia Ave	Duarte Rd	Monrovia	0.619	B
Myrtle Ave	Central Ave (210 WB)	Monrovia	1.194	F
Myrtle Ave	Evergreen Ave (210 EB)	Monrovia	1.055	F
Myrtle Ave	Duarte Rd	Monrovia	0.964	E
California Ave	Duarte Rd	Monrovia	0.859	D
Myrtle Ave	Huntington Dr	Monrovia	1.130	F
Myrtle Ave	Pomona Ave	Monrovia	80.0	F
Mountain Ave	Central Ave	Duarte	0.909	E
Mountain Ave	Evergreen St	Duarte	1.102	F
Mountain Ave	Hamilton Rd	Duarte	33.2	D
Mountain Ave	Duarte Rd	Duarte	0.741	C
Buena Vista St	Three Ranch Rd	Duarte	28.4	D
Buena Vista St	Duarte Rd	Duarte	0.694	B
Duncannon Ave	Central Ave	Duarte	13.4	B
City of Hope Dwy	Duarte Rd	Duarte	7.7/0.344	A
Highland Ave	Central Ave	Duarte	81.4	F
Highland Ave	Evergreen St	Duarte	23.5	C
Highland Ave	Business Center Dr	Duarte	36.6	E
Irwindale Ave	Foothill Blvd	Irwindale	2.040	F
Irwindale Ave	WB I-210 Fwy	Irwindale	0.857	D
Irwindale Ave	EB I-210 Fwy	Irwindale	1.485	F
Irwindale Ave	Montoya St	Irwindale	95.2	F
Irwindale Ave	First St	Irwindale	1.024	F
Irwindale Ave	Gladstone St	Irwindale	1.207	F

TABLE 3-15.20 YEAR 2030 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Virginia Ave	Foothill Blvd	Azusa	0.794	C
Virginia Ave	Sixth St	Azusa	12.7	B
San Gabriel Ave	Ninth St	Azusa	0.340	A
San Gabriel Ave	Foothill Blvd	Azusa	0.862	D
Azusa Ave	Ninth St	Azusa	260.2	F
Azusa Ave	Santa Fe Ave	Azusa	18.7	C
Azusa Ave	Foothill Blvd	Azusa	0.916	E
Alameda Ave	Ninth St	Azusa	15.1	C
Alameda Ave	Santa Fe Ave	Azusa	9.4	A
Alameda Ave	Foothill Blvd	Azusa	0.741	C
Dalton Ave	Ninth St	Azusa	12.2	B
Dalton Ave	Foothill Blvd	Azusa	999.9	F
Soldano Ave	Ninth St	Azusa	10.4	B
Soldano Ave	Foothill Blvd	Azusa	110.8	F
Pasadena Ave	Ninth St	Azusa	9.8	A
Pasadena Ave	Foothill Blvd	Azusa	0.854	D
Palm Dr	Foothill Blvd	Azusa	38.4	E
Citrus Ave	Foothill Blvd	Azusa	0.866	D
Citrus Ave	Alosta Ave	Azusa	1.159	F
Barranca Ave	Bennett Ave	Glendora	12.9	B
Barranca Ave	Foothill Blvd	Glendora	0.509	A
Grand Ave	Foothill Blvd	Glendora	0.946	E
Vermont Ave	Ada Ave	Glendora	11.8	B
Vermont Ave	Route 66	Glendora	0.564	A
Vermont Ave	Foothill Blvd	Glendora	0.516	A
Vermont Ave	Ada Ave	Glendora	14.6	B
Glendora Ave	Foothill Blvd	Glendora	0.793	C
Glendora Ave	Ada Ave	Glendora	19.1	C
Glendora Ave	Route 66	Glendora	1.071	F
Pasadena Ave	Lemon Ave	Glendora	7.6	A
Pasadena Ave	Route 66	Glendora	0.792	C
Glenwood Ave	Lemon Ave	Glendora	10.5	B
Glenwood Ave	Route 66	Glendora	736.4	F
Elwood Ave	Lemon Ave	Glendora	10.3	B
Elwood Ave	Route 66	Glendora	0.734	C
Lorraine Ave	Lemon Ave	Glendora	19.8	C
Lorraine Ave	Route 66	Glendora	0.707	C
Lone Hill Ave	Auto Centre Dr	Glendora	0.820	D
Barranca Ave	Sierra Madre Ave	Glendora	18.8	C
Glendora Ave	Sierra Madre Ave	Glendora	39.3	E
Lone Hill Ave	Glendora Marketplace	Glendora	0.574	A
Lone Hill Ave	Gladstone St	San Dimas	0.732	C
SR-57 SB	Arrow Hwy	San Dimas	0.893	D
SR-57 NB	Arrow Hwy & Bonita Ave	San Dimas	0.979	E

TABLE 3-15.20 YEAR 2030 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Eucla Ave	Fifth St	San Dimas	8.8	A
Eucla Ave	Second St	San Dimas	11.2	B
Eucla Ave	Bonita Ave	San Dimas	0.571	A
Eucla Ave	Arrow Hwy	San Dimas	0.753	C
Acacia St	Fifth St	San Dimas	9.3	A
Acacia St	Second St	San Dimas	9.6	A
Acacia St	Bonita Ave	San Dimas	39.5	E
Cataract Ave	Second St	San Dimas	10.0	B
Cataract Ave	Bonita Ave	San Dimas	14.4/0.618	B
Monte Vista Ave	Second St	San Dimas	9.7	A
Monte Vista Ave	Bonita Ave	San Dimas	51.8	F
San Dimas Ave	Second St	San Dimas	26.8	D
San Dimas Ave	Bonita Ave	San Dimas	0.807	D
San Dimas Ave	Arrow Hwy	San Dimas	0.880	D
Walnut Ave	Bonita Ave	San Dimas	0.700	B
Walnut Ave	Arrow Hwy	San Dimas	0.718	C
San Dimas Canyon Rd	Bonita Ave	San Dimas	0.511	A
San Dimas Canyon Rd	Arrow Hwy	San Dimas	0.665	B
Wheeler Ave	Third St	La Verne	26.3	D
Wheeler Ave	Arrow Hwy	La Verne	0.767	C
A St	Third St	La Verne	10.5	B
A St	First St	La Verne	9.4	A
A St	Arrow Hwy	La Verne	609.6	F
D St	Third St	La Verne	17.2	C
D St	First St	La Verne	11.5	B
D St	Arrow Hwy	La Verne	0.542	A
D St	Bonita Ave	La Verne	0.959	E
E St	Third St	La Verne	13.3	B
E St	Second St	La Verne	14.4	B
E St	First St	La Verne	11.8	B
E St	Arrow Hwy	La Verne	0.788	C
White Ave	Third St	La Verne	68.7	F
White Ave	Second St	La Verne	140.0	F
White Ave	First St	La Verne	217.7	F
White Ave	Sierra Way	La Verne	20.7	C
White Ave	Arrow Hwy	La Verne	1.151	F
White Ave	Foothill Blvd	La Verne	1.041	F
White Ave	Bonita Ave	La Verne	1.097	F
White Ave	McKinley Ave	La Verne	0.405	A
La Verne Ave	Arrow Hwy	La Verne	464.0	F
Fulton Rd	Bonita Ave	Pomona	191.2	F
Fulton Rd	Arrow Hwy	Pomona	49.2	E
Garey Ave	Bonita Ave	Pomona	0.824	D
Garey Ave	Santa Fe St	Pomona	19.2	C

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Garey Ave	Arrow Hwy	Pomona	0.866	D
Towne Ave	Bonita Ave	Pomona	0.702	C
<i>Towne Ave</i>	<i>Towne Center Dr</i>	<i>Pomona</i>	<i>214.7</i>	<i>F</i>
<i>Towne Ave</i>	<i>Arrow Hwy</i>	<i>Pomona</i>	<i>1.078</i>	<i>F</i>
Garey Ave	Harrison Ave	Pomona	0.493	A
Indian Hill Blvd	Bonita Ave	Claremont	0.833	D
Indian Hill Blvd	First St	Claremont	0.815	D
Indian Hill Blvd	Santa Fe St	Claremont	14.4	B
Indian Hill Blvd	Arrow Hwy	Claremont	0.879	D
College Ave	Bonita Ave	Claremont	15.8	C
College Ave	First St	Claremont	27.8	D
College Ave	Arrow Hwy	Claremont	0.637	B
Claremont Blvd	First St	Claremont	0.414	A
Mills/Claremont	Arrow Hwy	Claremont	0.696	B
Monte Vista Ave	Arrow Route	Montclair	0.659	B
Monte Vista Ave	Richton St	Montclair	0.621	B
<i>Monte Vista Ave</i>	<i>Arrow Hwy</i>	<i>Montclair</i>	<i>1.017</i>	<i>F</i>
Fremont Ave	Arrow Hwy	Montclair	0.506	A
Central Ave	Arrow Route	Montclair	0.866	D
Central Ave	Richton St / W 9th St	Montclair	0.744	C
<i>Central Ave</i>	<i>Arrow Hwy</i>	<i>Montclair</i>	<i>0.912</i>	<i>E</i>

Source: Parsons Brinckerhoff, 2005

□ Summary of Impacts

Using the threshold criteria presented earlier in Table 3-15.12, the future intersection operating conditions under the Full Build Alternative were compared with the No Build to identify adversely/significantly impacted locations. A summary of the impacted and non-impacted intersections is presented in Table 3-15.21. The intersections that are projected to be impacted are highlighted in the table by bold italics. In cases where the intersection is not projected to be impacted but will experience intersection operations at a LOS of E or F in a certain scenario, only the V/C Ratio and the LOS of that scenario is highlighted by bold italics.

As seen in Table 3-15.21, a total of 27 intersections are anticipated to be adversely/significantly impacted due to the Gold Line prior to any mitigation measures. Although the mitigation measures proposed for all 27 impacted locations result in no residual impacts due to the project, it should be noted that several locations are projected to operate at a volume-to-capacity ratio (V/C) of 1.3 or higher in the year 2030 No Build condition. Generally, a V/C of 1.3 or higher is an extremely poor level of service and would need to be addressed by improving intersection operations prior to reaching this level of congestion. Since it is difficult to validate impacts at these extreme levels of congestion, it is recommended that the affected jurisdictions improve these congested intersections prior to implementation of this project.

**TABLE 3-15.21
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE FULL BUILD (PASADENA TO MONTCLAIR) AND NO BUILD ALTERNATIVES**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Sierra Madre Villa Ave	Foothill Blvd	Pasadena	1.336	F	1.333	F	-0.003	NO
Sierra Madre Villa Ave	GL Parking Garage	Pasadena	22.0	C	21.9	C	-0.1	NO
Sierra Madre Villa Ave	WB I-210 Fwy	Pasadena	0.697	B	0.695	B	-0.002	NO
Sierra Madre Villa Ave	EB I-210 Fwy	Pasadena	0.631	B	0.630	B	-0.001	NO
Sierra Madre Villa Ave	Colorado Blvd	Pasadena	1.684	F	1.680	F	-0.004	NO
Foothill Blvd	Halstead St	Pasadena	0.909	E	0.907	E	-0.002	NO
Santa Anita Ave	Colorado Blvd	Arcadia	0.972	E	0.995	E	0.023	YES
Santa Anita Ave	La Porte St	Arcadia	20.1	C	21.7	C	1.6	NO
Santa Anita Ave	Santa Clara St	Arcadia	0.986	E	1.134	F	0.148	YES
First Ave	Colorado Blvd	Arcadia	0.909	E	0.921	E	0.012	NO
First Ave	Santa Clara St	Arcadia	0.659	B	0.890	D	0.231	NO
First Ave	Huntington Dr	Arcadia	1.033	F	1.039	F	0.006	NO
Santa Anita Ave	Huntington Dr	Arcadia	1.304	F	1.317	F	0.013	NO
Second Ave	Colorado Blvd	Arcadia	49.3	E	50.0	E	0.7	NO
Second Ave	Santa Clara St	Arcadia	0.535	A	0.582	A	0.047	NO
Second Ave	Huntington Dr	Arcadia	1.182	F	1.181	F	-0.001	NO
Mayflower Ave	Diamond St	Monrovia	33.3	D	32.5	D	-0.8	NO
Mayflower Ave	Duarte Rd	Monrovia	0.743	C	0.753	C	0.010	NO
Magnolia Ave	Evergreen Ave	Monrovia	29.3	D	29.1	D	-0.2	NO
Magnolia Ave	Genoa St	Monrovia	11.9	B	12.0	B	0.1	NO
Magnolia Ave	Duarte Rd	Monrovia	0.596	A	0.619	B	0.023	NO
Myrtle Ave	Central Ave (210 WB)	Monrovia	1.179	F	1.194	F	0.015	NO
Myrtle Ave	Evergreen Ave (210 EB)	Monrovia	1.035	F	1.055	F	0.020	YES
Myrtle Ave	Duarte Rd	Monrovia	0.892	D	0.964	E	0.072	YES
California Ave	Duarte Rd	Monrovia	0.836	D	0.859	D	0.023	NO
Myrtle Ave	Huntington Dr	Monrovia	1.129	F	1.130	F	0.001	NO
Myrtle Ave	Pomona Ave	Monrovia	35.0	E	80.0	F	45.0	YES
Mountain Ave	Central Ave	Duarte	0.918	E	0.909	E	-0.009	NO
Mountain Ave	Evergreen St	Duarte	1.111	F	1.102	F	-0.009	NO

**TABLE 3-15.21
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE FULL BUILD (PASADENA TO MONTCLAIR) AND NO BUILD ALTERNATIVES**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Mountain Ave	Hamilton Rd	Duarte	33.9	D	33.2	D	-0.7	NO
Mountain Ave	Duarte Rd	Duarte	0.746	C	0.741	C	-0.005	NO
Buena Vista St	Three Ranch Rd	Duarte	28.2	D	28.4	D	0.2	NO
Buena Vista St	Duarte Rd	Duarte	0.689	B	0.694	B	0.005	NO
Duncannon Ave	Central Ave	Duarte	13.3	B	13.4	B	0.1	NO
City of Hope Dwy	Duarte Rd	Duarte	26.3	D	7.7/0.344	A	-18.6	NO
Highland Ave	Central Ave	Duarte	59.4	F	81.4	F	22.0	YES
Highland Ave	Evergreen St	Duarte	21.1	C	23.5	C	2.4	NO
Highland Ave	Business Center Dr	Duarte	19.5	C	36.6	E	17.1	YES
Irwindale Ave	Foothill Blvd	Irwindale	2.007	F	2.040	F	0.033	YES
Irwindale Ave	WB I-210 Fwy	Irwindale	0.863	D	0.857	D	-0.006	NO
Irwindale Ave	EB I-210 Fwy	Irwindale	1.432	F	1.485	F	0.053	YES
Irwindale Ave	Montoya St	Irwindale	14.0	B	95.2	F	81.2	YES
Irwindale Ave	First St	Irwindale	0.948	E	1.024	F	0.076	YES
Irwindale Ave	Gladstone St	Irwindale	1.181	F	1.207	F	0.026	YES
Virginia Ave	Foothill Blvd	Azusa	0.798	C	0.794	C	-0.004	NO
Virginia Ave	Sixth St	Azusa	12.8	B	12.7	B	-0.1	NO
San Gabriel Ave	Ninth St	Azusa	0.323	A	0.340	A	0.017	NO
San Gabriel Ave	Foothill Blvd	Azusa	0.863	D	0.862	D	-0.001	NO
Azusa Ave	Ninth St	Azusa	53.4	F	260.2	F	206.8	YES
Azusa Ave	Santa Fe Ave	Azusa	18.7	C	18.7	C	0.0	NO
Azusa Ave	Foothill Blvd	Azusa	0.919	E	0.916	E	-0.003	NO
Alameda Ave	Ninth St	Azusa	13.3	B	15.1	C	1.8	NO
Alameda Ave	Santa Fe Ave	Azusa	9.3	A	9.4	A	0.1	NO
Alameda Ave	Foothill Blvd	Azusa	0.735	C	0.741	C	0.006	NO
Dalton Ave	Ninth St	Azusa	11.4	B	12.2	B	0.8	NO
Dalton Ave	Foothill Blvd	Azusa	999.9	F	999.9	F	0.0	NO
Soldano Ave	Ninth St	Azusa	10.1	B	10.4	B	0.3	NO
Soldano Ave	Foothill Blvd	Azusa	111.5	F	110.8	F	-0.7	NO

**TABLE 3-15.21
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE FULL BUILD (PASADENA TO MONTCLAIR) AND NO BUILD ALTERNATIVES**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Pasadena Ave	Ninth St	Azusa	9.5	A	9.8	A	0.3	NO
Pasadena Ave	Foothill Blvd	Azusa	0.853	D	0.854	D	0.001	NO
Palm Dr	Foothill Blvd	Azusa	39.1	E	38.4	E	-0.7	NO
Citrus Ave	Foothill Blvd	Azusa	0.867	D	0.866	D	-0.001	NO
Citrus Ave	Alosta Ave	Azusa	1.165	F	1.159	F	-0.006	NO
Barranca Ave	Bennett Ave	Glendora	12.9	B	12.9	B	0.0	NO
Barranca Ave	Foothill Blvd	Glendora	0.505	A	0.509	A	0.004	NO
Grand Ave	Foothill Blvd	Glendora	0.785	C	0.946	E	0.161	YES
Vermont Ave	Ada Ave	Glendora	11.6	B	11.8	B	0.2	NO
Vermont Ave	Route 66	Glendora	0.561	A	0.564	A	0.003	NO
Vermont Ave	Foothill Blvd	Glendora	0.515	A	0.516	A	0.001	NO
Vermont Ave	Ada Ave	Glendora	13.5	B	14.6	B	1.1	NO
Glendora Ave	Foothill Blvd	Glendora	0.761	C	0.793	C	0.032	NO
Glendora Ave	Ada Ave	Glendora	16.4	C	19.1	C	2.7	NO
Glendora Ave	Route 66	Glendora	1.045	F	1.071	F	0.026	YES
Pasadena Ave	Lemon Ave	Glendora	7.6	A	7.6	A	0.0	NO
Pasadena Ave	Route 66	Glendora	0.781	C	0.792	C	0.011	NO
Glenwood Ave	Lemon Ave	Glendora	10.5	B	10.5	B	0.0	NO
Glenwood Ave	Route 66	Glendora	688.0	F	736.4	F	48.4	YES
Elwood Ave	Lemon Ave	Glendora	10.3	B	10.3	B	0.0	NO
Elwood Ave	Route 66	Glendora	0.724	C	0.734	C	0.010	NO
Loraine Ave	Lemon Ave	Glendora	19.8	C	19.8	C	0.0	NO
Loraine Ave	Route 66	Glendora	0.706	C	0.707	C	0.001	NO
Lone Hill Ave	Auto Centre Dr	Glendora	0.823	D	0.820	D	-0.003	NO
Barranca Ave	Sierra Madre Ave	Glendora	18.9	C	18.8	C	-0.1	NO
Glendora Ave	Sierra Madre Ave	Glendora	39.3	E	39.3	E	0.0	NO
Lone Hill Ave	Glendora Marketplace	Glendora	0.576	A	0.574	A	-0.002	NO
Lone Hill Ave	Gladstone St	San Dimas	0.725	C	0.732	C	0.007	NO
SR-57 SB	Arrow Hwy	San Dimas	0.891	D	0.893	D	0.002	NO

**TABLE 3-15.21
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE FULL BUILD (PASADENA TO MONTCLAIR) AND NO BUILD ALTERNATIVES**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
SR-57 NB	Arrow Hwy & Bonita Ave	San Dimas	0.931	E	0.979	E	0.048	YES
Eucla Ave	Fifth St	San Dimas	8.3	A	8.8	A	0.5	NO
Eucla Ave	Second St	San Dimas	9.7	A	11.2	B	1.5	NO
Eucla Ave	Bonita Ave	San Dimas	0.464	A	0.571	A	0.107	NO
Eucla Ave	Arrow Hwy	San Dimas	0.747	C	0.753	C	0.006	NO
Acacia St	Fifth St	San Dimas	9.0	A	9.3	A	0.3	NO
Acacia St	Second St	San Dimas	9.0	A	9.6	A	0.6	NO
Acacia St	Bonita Ave	San Dimas	33.1	D	39.5	E	6.4	YES
Cataract Ave	Second St	San Dimas	9.5	A	10.0	B	0.5	NO
Cataract Ave	Bonita Ave	San Dimas	53.2	F	14.4/0.618	B	-38.8	NO
Monte Vista Ave	Second St	San Dimas	9.6	A	9.7	A	0.1	NO
Monte Vista Ave	Bonita Ave	San Dimas	46.3	E	51.8	F	5.5	YES
San Dimas Ave	Second St	San Dimas	22.9	C	26.8	D	3.9	NO
San Dimas Ave	Bonita Ave	San Dimas	0.805	D	0.807	D	0.002	NO
San Dimas Ave	Arrow Hwy	San Dimas	0.882	D	0.880	D	-0.002	NO
Walnut Ave	Bonita Ave	San Dimas	0.687	B	0.700	B	0.013	NO
Walnut Ave	Arrow Hwy	San Dimas	0.718	C	0.718	C	0.000	NO
San Dimas Canyon Rd	Bonita Ave	San Dimas	0.509	A	0.511	A	0.002	NO
San Dimas Canyon Rd	Arrow Hwy	San Dimas	0.667	B	0.665	B	-0.002	NO
Wheeler Ave	Third St	La Verne	23.6	C	26.3	D	2.7	NO
Wheeler Ave	Arrow Hwy	La Verne	0.742	C	0.767	C	0.025	NO
A St	Third St	La Verne	10.4	B	10.5	B	0.1	NO
A St	First St	La Verne	9.4	A	9.4	A	0.0	NO
A St	Arrow Hwy	La Verne	439.0	F	609.6	F	170.6	YES
D St	Third St	La Verne	15.9	C	17.2	C	1.3	NO
D St	First St	La Verne	11.4	B	11.5	B	0.1	NO
D St	Arrow Hwy	La Verne	0.503	A	0.542	A	0.039	NO
D St	Bonita Ave	La Verne	0.945	E	0.959	E	0.014	NO
E St	Third St	La Verne	12.9	B	13.3	B	0.4	NO

**TABLE 3-15.21
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE FULL BUILD (PASADENA TO MONTCLAIR) AND NO BUILD ALTERNATIVES**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
E St	Second St	La Verne	14.0	B	14.4	B	0.4	NO
E St	First St	La Verne	11.6	B	11.8	B	0.2	NO
E St	Arrow Hwy	La Verne	0.775	C	0.788	C	0.013	NO
White Ave	Third St	La Verne	69.8	F	68.7	F	-1.1	NO
White Ave	Second St	La Verne	127.2	F	140.0	F	12.8	YES
White Ave	First St	La Verne	191.3	F	217.7	F	26.4	YES
White Ave	Sierra Way	La Verne	19.9	C	20.7	C	0.8	NO
White Ave	Arrow Hwy	La Verne	1.112	F	1.151	F	0.039	YES
White Ave	Foothill Blvd	La Verne	1.043	F	1.041	F	-0.002	NO
White Ave	Bonita Ave	La Verne	1.078	F	1.097	F	0.019	NO
White Ave	McKinley Ave	La Verne	0.405	A	0.405	A	0.000	NO
La Verne Ave	Arrow Hwy	La Verne	466.7	F	464.0	F	-2.7	NO
Fulton Rd	Bonita Ave	Pomona	124.6	F	191.2	F	66.6	YES
Fulton Rd	Arrow Hwy	Pomona	48.8	E	49.2	E	0.4	NO
Garey Ave	Bonita Ave	Pomona	0.721	C	0.824	D	0.103	NO
Garey Ave	Santa Fe St	Pomona	17.7	C	19.2	C	1.5	NO
Garey Ave	Arrow Hwy	Pomona	0.843	D	0.866	D	0.023	NO
Towne Ave	Bonita Ave	Pomona	0.700	B	0.702	C	0.002	NO
Towne Ave	Towne Center Dr	Pomona	209.4	F	214.7	F	5.3	YES
Towne Ave	Arrow Hwy	Pomona	1.071	F	1.078	F	0.007	NO
Garey Ave	Harrison Ave	Pomona	0.489	A	0.493	A	0.004	NO
Indian Hill Blvd	Bonita Ave	Claremont	0.817	D	0.833	D	0.016	NO
Indian Hill Blvd	First St	Claremont	0.787	C	0.815	D	0.028	NO
Indian Hill Blvd	Santa Fe St	Claremont	203.5	F	14.4	B	-189.1	NO
Indian Hill Blvd	Arrow Hwy	Claremont	0.869	D	0.879	D	0.010	NO
College Ave	Bonita Ave	Claremont	13.9	B	15.8	C	1.9	NO
College Ave	First St	Claremont	21.0	C	27.8	D	6.8	NO
College Ave	Arrow Hwy	Claremont	0.601	B	0.637	B	0.036	NO
Claremont Blvd	First St	Claremont	0.341	A	0.414	A	0.073	NO

**TABLE 3-15.21
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE FULL BUILD (PASADENA TO MONTCLAIR) AND NO BUILD ALTERNATIVES**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Mills/Claremont	Arrow Hwy	Claremont	0.677	B	0.696	B	0.019	NO
Monte Vista Ave	Arrow Route	Montclair	0.637	B	0.659	B	0.022	NO
Monte Vista Ave	Richton St	Montclair	0.494	A	0.621	B	0.127	NO
Monte Vista Ave	Arrow Hwy	Montclair	0.972	E	1.017	F	0.045	YES
Fremont Ave	Arrow Hwy	Montclair	0.502	A	0.506	A	0.004	NO
Central Ave	Arrow Route	Montclair	0.845	D	0.866	D	0.021	NO
Central Ave	Richton St / W 9th St	Montclair	0.662	B	0.744	C	0.082	NO
Central Ave	Arrow Hwy	Montclair	0.888	D	0.912	E	0.024	YES

Source: Parsons Brinckerhoff, 2005

□ **Grade Crossings**

The Grade Crossing Policy for Light Rail Transit was adopted by the MTA in December 2003. In 2004, the Gold Line Authority Board, JPA, and TAC adopted the policy for use on the Foothill Extension project. The MTA Grade Crossing Policy for Light Rail Transit is intended to provide a structured process for the evaluation of potential grade separations versus at-grade operation along light rail lines. The purpose of the policy is to provide a process that addresses all of the principal concerns and clarifies the trade-offs involved in grade separation decisions.

The policy includes up to three sequential phases of review and three corresponding Milestones that would take place before arriving at a final decision on a crossing treatment.

- Milestone 1, the Initial Screening, is a preliminary, planning level assessment of the crossings based on roadway volumes and train frequencies. The results of this screening are identified as “At Grade Should be Feasible,” “Possible At Grade Operation,” and “Grade Separation Usually Required.”
- Milestone 2, Detailed Analysis, is a detailed operational evaluation of the intersections in the latter two groups. This evaluation takes into account peak period, movement-by-movement analysis of roadway traffic in conjunction with an assessment of potential impacts to rail operations due to priority control. Each intersection is reviewed for safety issues and operational trade-offs between roadway and rail operations. The result is a preliminary determination of locations that may be operated at-grade versus grade separated.
- Milestone 3, Verification, takes place if grade separations are identified during the previous analyses. This step includes consensus-building on the design solution, preliminary engineering studies, cost estimates for alternatives, and simulation modeling to validate traffic volumes and rail operations.

The final decision on a crossing configuration for an intersection is based upon the preceding technical analysis, engineering studies, and consensus-building. The California Public Utilities Commission must approve each grade crossing application, and other third party agreements and requirements must also be met.

Of the 40 proposed grade crossings, the Milestone 1 screening indicated that there were no grade crossings where grade separation would usually be required and there were 29 crossings where operation should be feasible at grade. With respect to the 11 remaining locations, 5 were clearly exceeding the threshold 1 & 2 line therefore requiring a Milestone 2 analysis to confirm “possible at grade operation” and the remaining six were straddling the threshold between “at grade operation should be feasible” and “possible at grade operation”. Therefore, a total of 11 crossings were analyzed using the Milestone 2 procedures to verify whether operation at grade would be possible. Table 3-15.22 presents the grade crossing location by city where Milestone 1 and Milestone 2 analysis was conducted.

TABLE 3-15.22 GOLD LINE FOOTHILL EXTENSION GRADE CROSSING LOCATIONS STUDIED IN MILESTONE 1 AND 2 ANALYSES		
City	All Grade Crossing Locations on Foothill Extension	"Possible At-Grade Operation" Crossing
	<i>(Milestone 1 Report)</i>	<i>(Milestone 2 Report)</i>
Arcadia	Santa Anita Avenue First Avenue / Santa Clara Street	Santa Anita Avenue First Avenue / Santa Clara Street
Monrovia	Mayflower Avenue Magnolia Avenue Myrtle Avenue California Avenue Mountain Avenue*	Myrtle Avenue
Duarte	Buena Vista Street Highland Avenue	
Irwindale	None	
Azusa	San Gabriel Avenue, Rte. 39 Azusa Avenue, Rte. 39 Dalton Avenue Pasadena Avenue	
Glendora	Barranca Avenue Grand Avenue / Foothill Boulevard Vermont Avenue / Ada Avenue Glendora Avenue Pasadena Avenue Glenwood Avenue Elwood Avenue Lorraine Avenue Lone Hill Avenue / Auto Centre Drive	Grand Avenue / Foothill Boulevard Lone Hill Avenue / Auto Centre Drive
San Dimas	Gladstone Street Eucla Street Cataract Avenue / Bonita Avenue Monte Vista Avenue San Dimas Avenue Walnut Avenue San Dimas Canyon Road	Gladstone Street Cataract Avenue / Bonita Avenue San Dimas Avenue
La Verne	Wheeler Avenue A Street D Street E Street White Avenue Fulton Road**	White Avenue
Pomona	Garey Avenue	Garey Avenue
Claremont	Cambridge Avenue Indian Hill Boulevard College Avenue Claremont Boulevard / Mills Avenue	Indian Hill Boulevard
Montclair	None	
*also located in Duarte **also located in Pomona		
Source: Korve Engineering; Parsons Brinckerhoff, 2005		

Detailed Analysis Reports (Milestone 2 Analysis) were completed for each crossing identified in the “Possible At-Grade Operation” region, as well as those that were in the border line region between the “At Grade Should be Feasible” category and the “Possible At-Grade Operation” category. Utilizing several checks on rail operations, traffic operations, and safety, feasible mitigations and crossing treatments for these 11 crossings were identified. Table 3-15.23 outlines the treatments that would allow these crossings to be operable at grade. The full text of the treatments is available in the Milestone 2 Reports, located in Appendix F. The treatments as identified in the grade crossing analysis will be correlated with the proposed mitigations from the traffic analysis to create a comprehensive plan for each crossing and intersection.

Appendix F of the August 2005 Transportation Technical Report presents a Grade Crossing Initial Screening Evaluations (Milestone 1 Analysis) for the project, and a Detailed Analysis Reports (Milestone 2 Analysis) for each grade crossing identified.

TABLE 3-15.23 RESULTS FROM MILESTONE 2 ANALYSIS		
City	Grade Crossing	Recommended Treatment for At-Grade Operation
Arcadia	Santa Anita Avenue	Four quadrant gates to supplement existing medians. Provide pedestrian gates. Provide active “DO NOT STOP ON TRACKS” overhead warning sign on northbound lanes activated by queue length detectors.
Arcadia	First Avenue / Santa Clara Street	Four quadrant gates. Provide traffic signal (if City does not install signal first). Prohibit right turn on red. Provide pedestrian gates.
Monrovia	Myrtle Avenue	Four quadrant gates. Provide pedestrian gates. Provide pre-emption of the traffic signal. Provide pre-signal. Consider queue length detection and traffic signal interconnect between Duarte Avenue and Evergreen Ave. Include traffic signal provisions to address queues. Add no right turn on red sign
Glendora	Grand Avenue / Foothill Boulevard	Provide four quadrant gates. Provide pedestrian gates. Revise pedestrian channelization to improve control movements. Provide pre-emption of the traffic signal. Consider use of narrow median along Foothill Boulevard. Incorporate provisions to ban right-turn-on-red.

**TABLE 3-15.23
RESULTS FROM MILESTONE 2 ANALYSIS**

City	Grade Crossing	Recommended Treatment for At-Grade Operation
Glendora	Lone Hill Avenue / Auto Centre Drive	Provide four quadrant gates. Provide pre-emption of the Auto Centre traffic signal. Incorporate traffic signal provisions to address the influence zone and crossing gate spillback queues including coordination with commercial driveway intersection and installation of queue length detectors, cross-hatch the crossing zone, and possible pre-signal on northbound approach. Modify Auto Centre approach to improve capacity of intersection.
San Dimas	Gladstone Street	Four quadrant gates to supplement existing medians. Provide pedestrian gates.
San Dimas	Cataract Avenue / Bonita Avenue	Four quadrant gates. Provide traffic signal. Prohibit right turn on red. Provide pedestrian gates.
San Dimas	San Dimas Avenue	Provide medians or 4 quad gates. Provide pedestrian gates.
La Verne	White Avenue	Four quadrant gates. Provide pedestrian gates. Modify intersection timing at White Ave. / Arrow Highway. Check turning movements at commercial driveway, southwest of grade crossing.
Pomona	Garey Avenue	Four quadrant gates. Address gate timing issues with dual sets of tracks. Provide pedestrian gates. Evaluate whether medians could be extended. Per CPUC preliminary field diagnostic review, improve street lighting at crossing
Claremont	Indian Hill Boulevard	Four quadrant gates. Provide pedestrian gates. Provide pre-emption of the traffic signal at 1 st Street. Provide do not block the intersection signs at 1 st Street Consider use of narrow median north of crossing. Develop design to prohibit eastbound left turns from west leg of Santa Fe Avenue Provide right-of-way fencing in vicinity of crossing

Source: Korve Engineering; Parsons Brinckerhoff, 2005

Phase I

The Cities Affected and the Effects

From a transit perspective, the extension of the Gold Line Foothill Extension project is expected to increase ridership at stations along Phase I. The number of daily boardings is presented in Table 3-15.24. As shown in the table, the effect of the Foothill Extension project is noticeable at Union Station and minimal at most of the other stations along the Phase I corridor. In addition, total daily boardings at the Sierra Madre Villa Station in Pasadena are expected to decrease because it is no longer the line terminus and patrons can continue further east. These changes in boardings at the Phase I stations due to the Foothill Extension projects are not expected to result in any negative impacts.

TABLE 3-15.24			
CHANGE IN PHASE I DAILY BOARDINGS BY STATION			
DUE TO THE FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE			
Station	Peak	Off-Peak	Total Daily
Union Station	750	274	1,024
Chinatown	21	10	31
Lincoln Heights/Cypress Park	44	1	44
Heritage Square/Arroyo	41	6	47
Southwest Museum	12	5	16
Highland Park	62	15	77
Mission	38	10	47
Fillmore	61	11	72
Del Mar	113	23	136
Memorial Park	179	60	239
Lake	153	39	192
Allen	59	-28	31
Sierra Madre Villa	-268	14	-254

Source: Parsons Brinckerhoff, 2003

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Effects

The Full Build (Pasadena to Montclair) Alternative will result in adverse/significant impacts at 2 intersections in Arcadia, 3 intersections in Monrovia, 2 intersections in Duarte, 5 intersections in Irwindale, and 1 intersection in Azusa. The specific impacts are discussed in the previous section. Proposed mitigation measures are presented in Section 3-15.3.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Effects

The Full Build (Pasadena to Montclair) Alternative will result in adverse/significant impacts at 3 intersections in Glendora, 3 intersections in San Dimas, 4 intersections in La Verne, 2 intersections in Pomona, and 2 intersections in Montclair. The specific impacts are discussed in the previous section. Proposed mitigation measures are presented in Section 3-15.3.

c. Build LRT to Azusa Alternative

Transit

For the most part, the transit impacts are the same as the impacts on the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the transit impacts are the same as the No Build Alternative.

Regional Transit Access and Connectivity

If the Build LRT to Azusa Alternative is implemented, an increase in the provision of transit service would occur. There would be the introduction of a premium service that would be regionally serving and provide improved service reliability and a decrease in travel times for transit patrons. Forecast data indicate that transit ridership would increase in this segment of the corridor with the introduction of the improved service.

The introduction of a light rail system into the Foothill Extension study area would provide passengers with greater access to regional transit opportunities and would provide for improved regional transit connectivity. Transfers could be made at Union Station to a variety of different transit alternatives. The Foothill Extension Light Rail system will provide continuing service to Union Station in downtown Los Angeles and to the Pomona/Atlantic Station in East Los Angeles. Transfers can be made to the Metro Red Line at Union Station with its subway service to Wilshire Center and North Hollywood. The Long Beach Blue Line can also be accessed via the Red Line at the 7th/Metro Center station in Downtown Los Angeles, and the Green Line to Norwalk and Redondo Beach is accessible via the Long Beach Blue Line. Dozens of local and express bus lines converge at Union Station, and several transit providers service Union Station, including Santa Monica's Big Blue Bus, LADOT, Foothill Transit, Torrance Transit, Santa Clarita Transit, and the Antelope Valley Transportation Authority. Metrolink commuter rail service is also available for regional travel to Ventura, San Bernardino, Riverside, Orange, and San Diego counties as well as to northern Los Angeles County. Amtrak rail service can also be accessed at Union Station for long-distance travel to other cities in California and the nation. Impacts on regional transit access and connectivity as a result of the LRT Build Alternative are beneficial.

Bus Route Interface

The Build LRT to Azusa Alternative would not overlap with any bus routes or Metrolink routes. There are no changes from Foothill Extension Segment 1 of the Full Build (Pasadena to Montclair) Alternative. East of Azusa the bus routes would remain the same as the No Build Alternative.

Bus Operation Impacts

There are no changes from Foothill Extension Segment 1 of the Full Build (Pasadena to Montclair) Alternative. East of Azusa the bus routes would remain the same as the No Build Alternative.

Metrolink Operation Impacts

There are no changes from Foothill Extension Segment 1 of the Full Build (Pasadena to Montclair) Alternative. East of Azusa the bus routes would remain the same as the No Build Alternative.

❑ LRT Patronage Forecasts

Table 3-15.25 shows the projected passenger boardings at each station based on transportation travel demand model results for the Build LRT to Azusa Alternative. The highest number of passengers boarding the system is at the station in Irwindale, with the next highest being at Arcadia. The stations with the highest patronage have the greatest number of connecting transit services. The highest concentration of boardings occurs during the peak periods as people utilize the system on their trips to and from their places of employment. Total boardings for the Build LRT to Azusa Alternative are projected to be 9,004 passengers per day by the year 2025. Combined boardings for the Gold Line Phase I and its extension to Azusa, are expected to be 69,320 passengers per day by the year 2025.

Station	Peak	Off-Peak	Total Daily
Arcadia	1,450	297	1,747
Monrovia	1,261	239	1,500
Duarte	1,005	226	1,231
Irwindale	1,677	291	1,968
Azusa / Alameda	1,158	304	1,462
Azusa / Citrus	880	216	1,096
Total Foothill Extension , Segment 1 Daily Boardings			9,004
Eastside, Phase I and Foothill Extension Segment 1 Combined Daily Boardings			69,320

Source: Parsons Brinckerhoff, 2005

Build LRT to Azusa Alternative Traffic Operations

The Build LRT to Azusa Alternative extends the existing Gold Line Phase I an additional 11.3 miles from the Sierra Madre Villa Station in Pasadena to Azusa.

❑ Shifts in Traffic Patterns

Adjustments to traffic flow patterns due to the proposed LRT project were determined by utilizing projections from the transportation model developed for this study. The year 2030 No Build and Build LRT to Azusa Alternative peak period model data were compared to determine the effects of the proposed project on traffic flow and circulation patterns. The PM peak period link data from each model output were utilized in this analysis. The results of the comparison between the year 2030 traffic forecasts for the No Build Alternative and the Build LRT to Azusa Alternative analysis are presented in Table 3-15.26, which shows the percent change in traffic patterns. It should be noted that the Build LRT to Azusa Alternative reduces traffic volumes on almost all streets in the study area of Segment 1 from the No Build Alternative due to the introduction of a new transit service.

**TABLE 3-15.26
PERCENT CHANGE IN TRAFFIC PATTERNS FOR THE BUILD LRT TO AZUSA
ALTERNATIVE FROM THE NO BUILD ALTERNATIVE BY CITY**

City	Percent Change from No Build 2005 to 2030
Pasadena	-0.246%
Arcadia	-0.622%
Monrovia	-0.175%
Duarte	-0.965%
Irwindale	-0.677%
Azusa	-0.536%

Source: Parsons Brinckerhoff, 2005

The overall shifts in traffic identified above were applied to the year 2030 No Build PM peak hour turning movement volumes in order to develop the future PM peak hour turning movement traffic projections for the Build LRT to Azusa Alternative at each of the 63 study intersections.

□ Intersection Traffic Service

The future PM peak hour traffic volumes at the 64 study intersections were determined based upon the anticipated shifts in traffic patterns identified above and took into consideration station parking access. The future traffic operations were evaluated by incorporating the volumes, roadway geometrics, type of control and signal phasing, where applicable, using the TRAFFIX software. The resulting intersection operations and level of service are presented in Table 3-15.27. As indicated in the table, 30 intersections are anticipated to operate at LOS D or better and the remaining intersections would operate at LOS E or F.

**TABLE 3-15.27
YEAR 2030 BUILD LRT TO AZUSA ALTERNATIVE
INTERSECTION LEVEL OF SERVICE ANALYSIS**

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Sierra Madre Villa Ave	Foothill Blvd	Pasadena	1.333	F
Sierra Madre Villa Ave	GL Parking Garage	Pasadena	21.9	C
Sierra Madre Villa Ave	WB I-210 Fwy	Pasadena	0.695	B
Sierra Madre Villa Ave	EB I-210 Fwy	Pasadena	0.630	B
Sierra Madre Villa Ave	Colorado Blvd	Pasadena	1.680	F
Foothill Blvd	Halstead St	Pasadena	0.907	E
Santa Anita Ave	Colorado Blvd	Arcadia	0.995	E
Santa Anita Ave	La Porte St	Arcadia	21.7	C
Santa Anita Ave	Santa Clara St	Arcadia	1.134	F
First Ave	Colorado Blvd	Arcadia	0.921	E
First Ave	Santa Clara St	Arcadia	0.890	D
First Ave	Huntington Dr	Arcadia	1.039	F
Santa Anita Ave	Huntington Dr	Arcadia	1.317	F
Second Ave	Colorado Blvd	Arcadia	50.0	E
Second Ave	Santa Clara St	Arcadia	0.582	A
Second Ave	Huntington Dr	Arcadia	1.181	F

**TABLE 3-15.27
YEAR 2030 BUILD LRT TO AZUSA ALTERNATIVE
INTERSECTION LEVEL OF SERVICE ANALYSIS**

N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
Mayflower Ave	Diamond St	Monrovia	32.5	D
Mayflower Ave	Duarte Rd	Monrovia	0.753	C
Magnolia Ave	Evergreen Ave	Monrovia	29.1	D
Magnolia Ave	Genoa St	Monrovia	12.0	B
Magnolia Ave	Duarte Rd	Monrovia	0.619	B
Myrtle Ave	Central Ave (210 WB)	Monrovia	1.194	F
Myrtle Ave	Evergreen Ave (210 EB)	Monrovia	1.055	F
Myrtle Ave	Duarte Rd	Monrovia	0.964	E
California Ave	Duarte Rd	Monrovia	0.859	D
Myrtle Ave	Huntington Dr	Monrovia	1.130	F
Myrtle Ave	Pomona Ave	Monrovia	80.0	F
Mountain Ave	Central Ave	Duarte	0.909	E
Mountain Ave	Evergreen St	Duarte	1.102	F
Mountain Ave	Hamilton Rd	Duarte	33.2	D
Mountain Ave	Duarte Rd	Duarte	0.741	C
Buena Vista St	Three Ranch Rd	Duarte	28.4	D
Buena Vista St	Duarte Rd	Duarte	0.694	B
Duncannon Ave	Central Ave	Duarte	13.4	B
City of Hope Dwy	Duarte Rd	Duarte	7.7/0.344	A
Highland Ave	Central Ave	Duarte	81.4	F
Highland Ave	Evergreen St	Duarte	23.5	C
Highland Ave	Business Center Dr	Duarte	36.6	E
Irwindale Ave	Foothill Blvd	Irwindale	2.040	F
Irwindale Ave	WB I-210 Fwy	Irwindale	0.857	D
Irwindale Ave	EB I-210 Fwy	Irwindale	1.485	F
Irwindale Ave	Montoya St	Irwindale	95.2	F
Irwindale Ave	First St	Irwindale	1.024	F
Irwindale Ave	Gladstone St	Irwindale	1.207	F
Virginia Ave	Foothill Blvd	Azusa	0.794	C
Virginia Ave	Sixth St	Azusa	12.7	B
San Gabriel Ave	Ninth St	Azusa	0.340	A
San Gabriel Ave	Foothill Blvd	Azusa	0.862	D
Azusa Ave	Ninth St	Azusa	260.2	F
Azusa Ave	Santa Fe Ave	Azusa	18.7	C
Azusa Ave	Foothill Blvd	Azusa	0.916	E
Alameda Ave	Ninth St	Azusa	15.1	C
Alameda Ave	Santa Fe Ave	Azusa	9.4	A
Alameda Ave	Foothill Blvd	Azusa	0.741	C
Dalton Ave	Ninth St	Azusa	12.2	B
Dalton Ave	Foothill Blvd	Azusa	999.9	F
Soldano Ave	Ninth St	Azusa	10.4	B
Soldano Ave	Foothill Blvd	Azusa	110.8	F
Pasadena Ave	Ninth St	Azusa	9.8	A
Pasadena Ave	Foothill Blvd	Azusa	0.854	D

TABLE 3-15.27 YEAR 2030 BUILD LRT TO AZUSA ALTERNATIVE INTERSECTION LEVEL OF SERVICE ANALYSIS				
N/S Street	E/W Street	Jurisdiction	Traffic Conditions	
			V/C or Delay	LOS
<i>Palm Dr</i>	<i>Foothill Blvd</i>	<i>Azusa</i>	<i>38.4</i>	<i>E</i>
Citrus Ave	Foothill Blvd	Azusa	0.866	D
<i>Citrus Ave</i>	<i>Alosta Ave</i>	<i>Azusa</i>	<i>1.159</i>	<i>F</i>

Source: Parsons Brinckerhoff, 2005

Using the thresholds presented earlier in Table 3-15.10, the future intersection operating conditions under the Build LRT to Azusa Alternative were compared with the No Build to identify adversely/significantly impacted locations. As shown in Table 3-15.28, a total of 13 study intersections are anticipated to be adversely/significantly impacted prior to any mitigation measures. Also, it should be noted that due to the proposed LRT project, traffic operations at 22 intersections are expected to improve. The intersections that are projected to be impacted are highlighted in the table by bold italics. In cases where the intersection is not projected to be impacted but will experience intersection operations at a LOS of E or F in a certain scenario, only the V/C Ratio and the LOS of that scenario is highlighted by bold italics.

**TABLE 3-15.28
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE BUILD LRT TO AZUSA ALTERNATIVE AND NO BUILD ALTERNATIVE**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Sierra Madre Villa Ave	Foothill Blvd	Pasadena	1.336	F	1.333	F	-0.003	NO
Sierra Madre Villa Ave	GL Parking Garage	Pasadena	22.0	C	21.9	C	-0.1	NO
Sierra Madre Villa Ave	WB I-210 Fwy	Pasadena	0.697	B	0.695	B	-0.002	NO
Sierra Madre Villa Ave	EB I-210 Fwy	Pasadena	0.631	B	0.630	B	-0.001	NO
Sierra Madre Villa Ave	Colorado Blvd	Pasadena	1.684	F	1.680	F	-0.004	NO
Foothill Blvd	Halstead St	Pasadena	0.909	E	0.907	E	-0.002	NO
Santa Anita Ave	Colorado Blvd	Arcadia	0.972	E	0.995	E	0.023	YES
Santa Anita Ave	La Porte St	Arcadia	20.1	C	21.7	C	1.6	NO
Santa Anita Ave	Santa Clara St	Arcadia	0.986	E	1.134	F	0.148	YES
First Ave	Colorado Blvd	Arcadia	0.909	E	0.921	E	0.012	NO
First Ave	Santa Clara St	Arcadia	0.659	B	0.890	D	0.231	NO
First Ave	Huntington Dr	Arcadia	1.033	F	1.039	F	0.006	NO
Santa Anita Ave	Huntington Dr	Arcadia	1.304	F	1.317	F	0.013	NO
Second Ave	Colorado Blvd	Arcadia	49.3	E	50.0	E	0.7	NO
Second Ave	Santa Clara St	Arcadia	0.535	A	0.582	A	0.047	NO
Second Ave	Huntington Dr	Arcadia	1.182	F	1.181	F	-0.001	NO
Mayflower Ave	Diamond St	Monrovia	33.3	D	32.5	D	-0.8	NO
Mayflower Ave	Duarte Rd	Monrovia	0.743	C	0.753	C	0.010	NO
Magnolia Ave	Evergreen Ave	Monrovia	29.3	D	29.1	D	-0.2	NO
Magnolia Ave	Genoa St	Monrovia	11.9	B	12.0	B	0.1	NO
Magnolia Ave	Duarte Rd	Monrovia	0.596	A	0.619	B	0.023	NO
Myrtle Ave	Central Ave (210 WB)	Monrovia	1.179	F	1.194	F	0.015	NO
Myrtle Ave	Evergreen Ave (210 EB)	Monrovia	1.035	F	1.055	F	0.020	YES
Myrtle Ave	Duarte Rd	Monrovia	0.892	D	0.964	E	0.072	YES
California Ave	Duarte Rd	Monrovia	0.836	D	0.859	D	0.023	NO
Myrtle Ave	Huntington Dr	Monrovia	1.129	F	1.130	F	0.001	NO
Myrtle Ave	Pomona Ave	Monrovia	35.0	E	80.0	F	45.0	YES
Mountain Ave	Central Ave	Duarte	0.918	E	0.909	E	-0.009	NO
Mountain Ave	Evergreen St	Duarte	1.111	F	1.102	F	-0.009	NO

**TABLE 3-15.28
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE BUILD LRT TO AZUSA ALTERNATIVE AND NO BUILD ALTERNATIVE**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Mountain Ave	Hamilton Rd	Duarte	33.9	D	33.2	D	-0.7	NO
Mountain Ave	Duarte Rd	Duarte	0.746	C	0.741	C	-0.005	NO
Buena Vista St	Three Ranch Rd	Duarte	28.2	D	28.4	D	0.2	NO
Buena Vista St	Duarte Rd	Duarte	0.689	B	0.694	B	0.005	NO
Duncannon Ave	Central Ave	Duarte	13.3	B	13.4	B	0.1	NO
City of Hope Dwy	Duarte Rd	Duarte	26.3	D	7.7/0.344	A	-18.6	NO
Highland Ave	Central Ave	Duarte	59.4	F	81.4	F	22.0	YES
Highland Ave	Evergreen St	Duarte	21.1	C	23.5	C	2.4	NO
Highland Ave	Business Center Dr	Duarte	19.5	C	36.6	E	17.1	YES
Irwindale Ave	Foothill Blvd	Irwindale	2.007	F	2.040	F	0.033	YES
Irwindale Ave	WB I-210 Fwy	Irwindale	0.863	D	0.857	D	-0.006	NO
Irwindale Ave	EB I-210 Fwy	Irwindale	1.432	F	1.485	F	0.053	YES
Irwindale Ave	Montoya St	Irwindale	14.0	B	95.2	F	81.2	YES
Irwindale Ave	First St	Irwindale	0.948	E	1.024	F	0.076	YES
Irwindale Ave	Gladstone St	Irwindale	1.181	F	1.207	F	0.026	YES
Virginia Ave	Foothill Blvd	Azusa	0.798	C	0.794	C	-0.004	NO
Virginia Ave	Sixth St	Azusa	12.8	B	12.7	B	-0.1	NO
San Gabriel Ave	Ninth St	Azusa	0.323	A	0.340	A	0.017	NO
San Gabriel Ave	Foothill Blvd	Azusa	0.863	D	0.862	D	-0.001	NO
Azusa Ave	Ninth St	Azusa	53.4	F	260.2	F	206.8	YES
Azusa Ave	Santa Fe Ave	Azusa	18.7	C	18.7	C	0.0	NO
Azusa Ave	Foothill Blvd	Azusa	0.919	E	0.916	E	-0.003	NO
Alameda Ave	Ninth St	Azusa	13.3	B	15.1	C	1.8	NO
Alameda Ave	Santa Fe Ave	Azusa	9.3	A	9.4	A	0.1	NO
Alameda Ave	Foothill Blvd	Azusa	0.735	C	0.741	C	0.006	NO
Dalton Ave	Ninth St	Azusa	11.4	B	12.2	B	0.8	NO
Dalton Ave	Foothill Blvd	Azusa	999.9	F	999.9	F	0.0	NO
Soldano Ave	Ninth St	Azusa	10.1	B	10.4	B	0.3	NO
Soldano Ave	Foothill Blvd	Azusa	111.5	F	110.8	F	-0.7	NO

**TABLE 3-15.28
SUMMARY OF INTERSECTION IMPACTS
COMPARISON BETWEEN THE BUILD LRT TO AZUSA ALTERNATIVE AND NO BUILD ALTERNATIVE**

N/S Street	E/W Street	Jurisdiction	2030 No Build		2030 Build		Change in V/C or Delay	Significant Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
Pasadena Ave	Ninth St	Azusa	9.5	A	9.8	A	0.3	NO
Pasadena Ave	Foothill Blvd	Azusa	0.853	D	0.854	D	0.001	NO
Palm Dr	Foothill Blvd	Azusa	39.1	E	38.4	E	-0.7	NO
Citrus Ave	Foothill Blvd	Azusa	0.867	D	0.866	D	-0.001	NO
Citrus Ave	Alosta Ave	Azusa	1.165	F	1.159	F	-0.006	NO
Irwindale Ave	Foothill Blvd	Irwindale	2.007	F	2.059	F	0.052	NO

Source: Parsons Brinckerhoff, 2005

3-15.2.5 Cumulative Impacts

The Southern California Association of Governments' (SCAG) 2004 Regional Transportation Plan (RTP) Final Program EIR is the most applicable certified planning document that provides a regional cumulative impact assessment for transportation improvements (including the proposed project) through the year 2030. SCAG's analysis of the 2004 RTP concludes that cumulative traffic and transportation impacts will be significant due to the regional increase in vehicle miles traveled (VMT). Methodology for the traffic analysis of the proposed project included using the SCAG travel demand forecasting model and, as demonstrated in this chapter, the proposed project would result in a decrease in VMT when compared to the No-Build Alternative in the year 2030. Thus, the proposed project would not contribute to the significant cumulative impact identified by SCAG in the RTP EIR.

~~Cumulative impacts for both transit and traffic operations are the same as the long term impacts presented in detail previously in Section 3-15.2.4. This is because the growth factors used are based on the 2030 SCAG socio-economic data, which are assumed to incorporate cumulative projects.~~

3-15.2.6 Impacts Addressed by Regulatory Compliance

a. Construction Period Impacts

Impacts that would arise from construction of any of the alternatives were identified in Section 3-15.2.3, above. Elimination or reduction of these construction period impacts would occur through two steps, as follows: (1) Compliance with local, state or federal regulations or permits that have been developed by agencies to manage construction impacts, to meet legally established environmental impact criteria or thresholds, and/or to ensure that actions occurring under agency approvals or permits are in compliance with laws and policies. (2) Implementation of the proposed alternatives with additional construction period mitigation measures defined in Section 3-15.3.1. Following is a discussion of the construction period impacts for each of the alternatives that would be addressed by the first step, regulatory compliance.

No Build Alternative

Phase I

The Cities Affected and the Results of Regulatory Compliance

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Foothill Extension to be addressed by regulatory compliance.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Results of Regulatory Compliance

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Foothill Extension to be addressed by regulatory compliance.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Results of Regulatory Compliance

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Foothill Extension to be addressed by regulatory compliance.

Summary of Impacts for No Build Alternative Addressed by Regulatory Compliance

No Gold Line Foothill Extension construction is anticipated for the No Build Alternative; consequently, there are no construction period impacts due to the Gold Foothill Extension to be addressed by regulatory compliance.

Full Build (Pasadena to Montclair) Alternative

Construction period impacts can be minimized by complying with local requirements such as providing advance notice to riders when buses are to be re-routed and stops are to be temporarily placed out of service or relocated. In order to comply with local requirements, communities adjacent to the project will fully informed of all construction activities, potential lane closures and its duration and diversion routes. Other requirements set forth in the County's worksite traffic control plans will also be followed.

Phase I

The Cities Affected and the Results of Regulatory Compliance

During construction, the Gold Line Phase I will operate under normal conditions. There are no construction period impacts to be addressed by regulatory compliance.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Results of Regulatory Compliance

As noted earlier compliance with local, state and federal regulations will be adhered to, however, impacts will remain the same as those discussed in Section 3-15.2.3b.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Results of Regulatory Compliance

As noted earlier compliance with local, state and federal regulations will be adhered to, however, impacts will remain the same as those discussed in Section 3-15.2.3b.

Summary of Construction Period Impacts for Full Build (Pasadena to Montclair) Alternative, Addressed by Regulatory Compliance

Compliance with local, state and federal regulations will be adhered to, however, impacts will remain the same as those discussed in Section 3-15.2.3b.

Build LRT to Azusa Alternative

For the most part, the construction period impacts are the same as the impacts on the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the impacts are the same as the No Build Alternative.

Summary of Construction Period Impacts for Build LRT to Azusa Alternative, Addressed by Regulatory Compliance

Compliance with local, state and federal regulations will be adhered to; however, impacts will remain the same as those discussed in Section 3-15.2.3c.

b. Long Term Impacts

Long term impacts associated with of the alternatives were identified in Section 3-15.2.4, above. Elimination or reduction of these long-term impacts would occur through two steps, as follows: (1) Compliance with local, state or federal regulations or permits that have been developed by agencies to manage construction impacts, to meet legally established environmental impact criteria or thresholds, and/or to ensure that actions occurring under agency approvals or permits are in compliance with laws and policies. (2) Implementation of the proposed alternatives with additional mitigation measures defined in Section 3-15.3.2. Following is a discussion of the long term impacts for each of the alternatives that would be addressed by the first step, regulatory compliance.

No Build Alternative

Phase I

The Cities Affected and the Results of Regulatory Compliance

No construction is anticipated for the No Build Alternative; consequently, there are no long term impacts to be addressed by regulatory compliance.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Results of Regulatory Compliance

No construction is anticipated for the No Build Alternative; consequently, there are no long term impacts to be addressed by regulatory compliance.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Results of Regulatory Compliance

No construction is anticipated for the No Build Alternative; consequently, there are no long term impacts to be addressed by regulatory compliance.

Summary of Long Term Impacts for No Build Alternative Addressed by Regulatory Compliance

No construction is anticipated for the No Build Alternative; consequently, there are no long term impacts to be addressed by regulatory compliance.

Full Build (Pasadena to Montclair) Alternative

Phase I

The Cities Affected and the Results of Regulatory Compliance

There are no long term impacts to be addressed by regulatory compliance.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Results of Regulatory Compliance

Compliance with local, state and federal regulations will be adhered to; however, long term impacts will remain the same as those discussed in Section 3-15.2.4b.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Results of Regulatory Compliance

Compliance with local, state and federal regulations will be adhered to; however, long term impacts will remain the same as those discussed in Section 3-15.2.4b.

Summary of Long Term Impacts for Full Build (Pasadena to Montclair) Alternative Addressed by Regulatory Compliance

Compliance with local, state and federal regulations will be adhered to; however, long term impacts will remain the same as those discussed in Section 3-15.2.4b.

Build LRT to Azusa Alternative

For the most part, the long term impacts are the same as the impacts on the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the impacts are the same as the No Build Alternative.

Summary of Long Term Impacts for Build LRT to Azusa Alternative
Addressed by Regulatory Compliance

Compliance with local, state and federal regulations will be adhered to, however, long term impacts will remain the same as those discussed in Section 3-15.2.4c.

3-15.3. Mitigation

3-15.3.1 Construction Period Mitigation Measures

Section 3-15.2.6a identified construction period impacts for which compliance with local, state, and federal regulations, permits, or similar types of requirements would eliminate or reduce such impacts. The following sections identify ~~potential~~ mitigation measures that would need to be implemented in order to address any remainder impacts (i.e., impacts that would still exist after regulatory compliance). The combination of regulatory compliance and these construction period mitigation measures would result in the reduction of construction period impacts to levels that would be not adverse under NEPA and less than significant under CEQA.

a. No Build Alternative

The No Build Alternative does not require construction period mitigation measures because no construction is anticipated due to the Gold Line Foothill Extension.

b. Full Build (Pasadena to Montclair) Alternative Construction Period Mitigation

Transit

Bus lines that would be affected by lane closures due to construction activities would continue to operate where feasible in the remaining traffic lanes. During the night hours when temporary lane closures are anticipated, bus lines would be re-routed to adjacent streets in a manner that minimizes the inconvenience to bus passengers. If a block is closed that includes a bus stop, the bus stop would be temporarily relocated to the portion of the street segment that is still open to bus service. Before any significant re-routing changes are made as result of the construction of the Gold Line Foothill Extension corridor project, fliers will be provided on buses at least two weeks in advance notifying riders of route modifications. In addition, hoods will be placed over bus-stop signs, also notifying riders of what modifications have been made to the bus route.

A community affairs entity will be established to administer a construction impact mitigation program for the benefit of the community. The program will keep the community informed of all construction activities, with special emphasis for activities that affect the public. The program will also create a hotline number for a direct connection to staff familiar with the community and the project. This entity will offer individual consultation for residents, facilities, and businesses for remedies appropriate to the impacts. It will identify community/business needs prior to and during the construction period through the use of surveys and community meetings. In addition, field offices will be opened at particular locations and will contain information regarding recent construction activities.

Traffic Operations

During final design, site and street specific Worksite Traffic Control Plans will be developed in cooperation with the appropriate departments of transportation in each city and with Los Angeles County to accommodate required pedestrian and traffic movements. To the extent practical, traffic lanes will be maintained in both directions, particularly during periods of peak traffic operations. Access to homes and businesses will be maintained throughout the construction period. To the extent feasible lane closures are anticipated to take place during the night hours.

Designated haul routes for trucks will be identified during final design. These routes will be situated to minimize noise, vibration, and other possible impacts. Following completion of the Gold Line Foothill Extension, if slight physical damage to the haul route roads is found, the road will be treated as deemed necessary.

After the implementation of the aforementioned mitigation measures and conducting closures during the night hours, construction period impacts would be reduced to less than adverse/less than significant.

Phase I

The Cities Affected and Proposed Measures

During construction of the project, the Gold Line Phase I will continue to operate under normal conditions. Consequently, no construction is anticipated along this segment and no construction period mitigation measures are required.

Gold Line Foothill Extension, Segment 1

The Cities Affected and Proposed Measures

Proposed mitigation measures are outlined above.

Gold Line Foothill Extension, Segment 2

The Cities Affected and Proposed Measures

Proposed mitigation measures are outlined above.

Summary of Construction Period Mitigation Measures for Full Build (Pasadena to Montclair) Alternative

Proposed mitigation measures are outlined above.

c. Build LRT to Azusa Alternative

The construction period mitigation measures are the same as the measures in the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the mitigation measures are the same as the No Build Alternative.

Summary of Construction Period Mitigation Measures for Build LRT to Azusa Alternative

Proposed mitigation measures are outlined above in Segment 1 of the Full Build (Pasadena to Montclair) Alternative.

3-15.3.2 Long Term Mitigation

Section 3-15.2.6 identified long term impacts for which compliance with local, state and federal regulations, permits, or similar types of requirements would eliminate or reduce such impacts. The following sections identify ~~potential~~ mitigation measures that would need to be implemented in order to address any remainder impacts (i.e., impacts that would still exist after regulatory compliance). In most cases, the combination of regulatory compliance and these mitigation measures would result in the reduction of long term impacts to levels that would be not adverse under NEPA and less than significant under CEQA.

a. No Build Alternative

The No Build Alternative does not require long term mitigation measures because no construction due to this project is anticipated.

b. Full Build (Pasadena to Montclair) Alternative

System-Wide Operational Improvements

A number of intersections will be signalized as part of the mitigation measures. It is recommended that system-wide operational improvements be made on intersections in progression. The following arterials will be set up for system-wide coordination and synchronization.

- Myrtle Avenue – Monrovia
- Duarte Road – Monrovia and Duarte
- Route 66 – Glendora
- Bonita Avenue – San Dimas
- Arrow Highway – San Dimas and La Verne
- White Avenue – La Verne

The intersections where significant traffic impacts are anticipated were evaluated to determine ~~potential~~ mitigation measures. The following modifications were considered:

- Modifications to intersection geometrics. This improvement was primarily limited to within the existing pavement width, if feasible.
- Changes to signal operations to improve efficiency.
- Signalization of selected two- and four-way stop-controlled intersections.

Phase I

☐ The Cities Affected and Proposed Measures

There are no long term impacts in Phase 1. Therefore, there are no long term mitigation measures in Phase 1.

Gold Line Foothill Extension, Segment 1

☐ The Cities Affected and Proposed Measures

Within this segment, a total of 13 intersections are adversely/significantly impacted. Based upon the mitigation measures considered to be feasible, the following improvements are proposed.

Arcadia

- Santa Anita Avenue and Colorado Boulevard – Add a second left turn lane to the southbound approach on Santa Anita Avenue. This will provide two exclusive left turn lanes, two through lanes and one exclusive right turn lane. Adequate right of way is available to accommodate the mitigation.
- Santa Anita Avenue and Santa Clara Street – Reconfigure the eastbound approach on Santa Clara Street to provide two exclusive left turn lanes and one shared through/right turn lane. In addition, convert the east/west signal operation from a split phase to a protected left turn phase. This mitigation can be accommodated within the existing right of way.

Monrovia

- Myrtle Avenue and Evergreen Avenue (210 EB) – Add a new exclusive left turn lane to the southbound approach by removing the north leg median barrier and re-striping the southbound approach to provide two exclusive left turn lanes and two through lanes. Adequate right of way is available to accommodate mitigation.
- Myrtle Avenue and Duarte Road – Add a new exclusive right turn lane to the southbound approach by removing the north leg median barrier and re-striping the southbound approach to provide one exclusive left turn lane, two through lanes, and one exclusive right turn lane. Adequate right of way is available to accommodate mitigations.
- Myrtle Avenue and Pomona Avenue – Signalization of this intersection is proposed.

Duarte

- Highland Avenue and Central Avenue – Signalization of this intersection is proposed.
- Highland Avenue and Business Center Drive – Signalization of this intersection is proposed.

Irwindale

- Irwindale Avenue and Foothill Boulevard – Provide an overlap right turn signal phase accompanied by a right turn arrow indication for the eastbound approach on Foothill Boulevard. This right turn overlap phase would operate during the northbound signal phase.
- Irwindale Avenue and I-210 Eastbound Ramps – Add a new exclusive left turn lane to the southbound approach by re-stripping and utilizing the area available adjacent to the curb to provide two exclusive left turn lanes and two through lanes. Adequate right of way is available to accommodate mitigations.
- Irwindale Avenue and Montoya Street – Signalization of this intersection is proposed.
- Irwindale Avenue and W First Street – Add a new southbound through lane by re-stripping the southbound approach to provide one exclusive left turn lane, three through lanes, and one exclusive right turn lane. Re-stripe the departure leg to provide three through traffic lanes. Adequate right of way is available to accommodate mitigations.
- Irwindale Avenue and Gladstone Street – Reconfigure the eastbound approach to convert the exclusive left turn lane to a shared left turn/through lane. Also, convert the eastbound shared right turn/through lane to an exclusive right turn lane. These will provide one shared left turn/through lane, one through lane, and one exclusive right turn lane on the eastbound approach. Within the existing right of way, realign the departure leg to match the shift in through lanes.

Azusa

- Azusa Avenue and Ninth Street – Signalization of this intersection is proposed.

Gold Line Foothill Extension, Segment 2

❑ The Cities Affected and Proposed Measures

Within this segment, a total of 14 intersections are adversely/significantly impacted. Based upon the mitigation measures considered to be feasible, the following improvements are proposed:

Glendora

- Grand Avenue and Foothill Boulevard – Convert the westbound through lane to a shared left through lane to provide one exclusive left turn lane, one shared left turn/through lane, and one shared right turn/through lane. In addition, convert the east/west signal phasing to a split phase operation. The mitigation can be accommodated within existing right of way.
- Glendora Avenue and West Route 66 – Provide an overlap right turn signal phase accompanied by a right turn arrow indication for the northbound approach on Glendora Avenue. This right turn overlap phase would operate during the westbound protected left turn signal phase.
- Glenwood Avenue and West Route 66 – Signalization of this intersection is proposed.

San Dimas

- SR-57 NB Ramps/Bonita Avenue and Arrow Highway – Re-stripe the eastbound approach to provide one exclusive left turn lane, one through lane, one shared right turn/through lane, and one

exclusive right turn lane. No re-striping of the departure leg is required. Adequate right of way is available to accommodate the mitigation.

- Acacia Street and Bonita Avenue – Signalization of this intersection is proposed.
- Monte Vista Avenue and Bonita Avenue – Signalization of this intersection is proposed.

La Verne

- A Street and Arrow Highway – Signalization of this intersection is proposed.
- White Avenue and Second Street – Signalization of this intersection is proposed. In addition, stripe the northbound and southbound approaches to provide one shared left turn/through lane and one shared right turn/through lane for each approach. Re-stripe the departure legs to provide two through lanes. Adequate right of way is available to accommodate mitigation.
- White Avenue and First Street – Signalization of this intersection is proposed. In addition, re-stripe the northbound approach to provide one exclusive left turn lane, two through lanes and one exclusive right turn lane. Re-stripe the departure leg to provide two through lanes. Adequate right of way is available to accommodate mitigation.
- White Avenue and Arrow Highway – Re-stripe the northbound approach, within the existing right of way to provide one exclusive left turn lane, two through lanes, and one exclusive right turn lane.

Pomona

- Fulton Road and Bonita Avenue – Signalization of this intersection is proposed.
- Towne Avenue and Town Center Drive – Signalization of this intersection is proposed.

Montclair

- Monte Vista Avenue and Arrow Highway – Add a new exclusive right turn lane to the eastbound approach. Re-stripe the eastbound approach to provide two exclusive left turn lanes, two through lanes, and one exclusive right turn lane. Adequate right of way is available to accommodate mitigations.
- Central Avenue and Arrow Highway - Add a new southbound through lane by removing the median barrier on the north and south legs. Re-stripe the southbound approach to provide one exclusive left turn lane, three through lanes and one exclusive right turn lane. Adequate right of way is available to accommodate mitigation.

c. Build LRT to Azusa Alternative

The long term mitigation measures are the same as the measures in the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the mitigations are the same as the No Build Alternative.

Summary of Long Term Mitigation Measures for Full Build (Pasadena to Montclair) Alternative

Proposed long term mitigation measures are outlined and discussed in the previous section. These improvements apply to the Full Build (Pasadena to Montclair) Alternative. Figures 3-15.34 to 3-15.44 show the locations of proposed mitigation measures.

Summary of Long Term Mitigation Measures for Build LRT to Azusa Alternative

Proposed long term mitigation measures for the Build LRT to Azusa Alternative is the same as those previously outlined and described the Foothill Extension Segment 1 section. Figures 3-15.34 to 3-15.38 show the locations of proposed mitigation measures.



Figure 3-15.34: Mitigation Measures – Arcadia

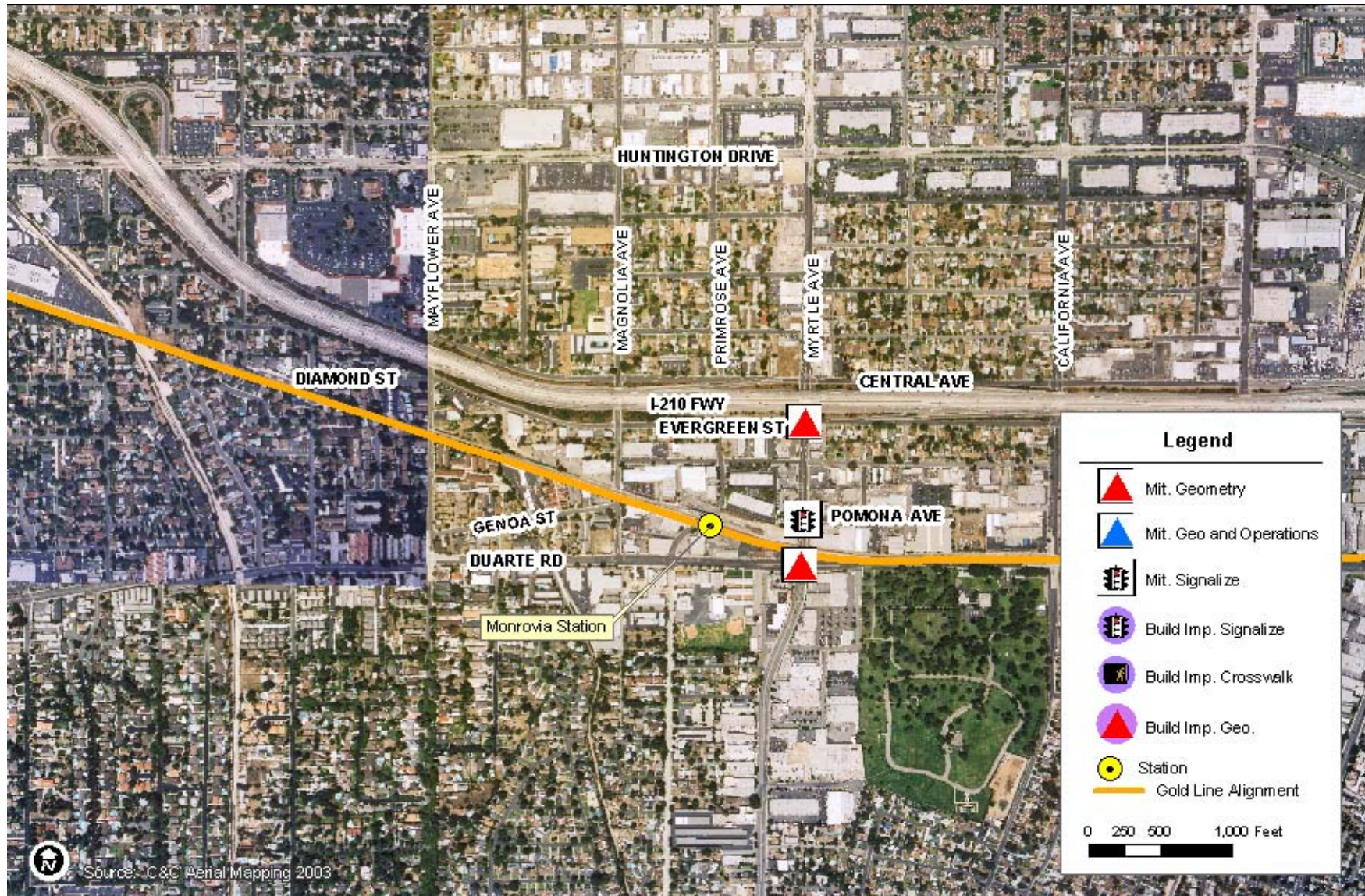


Figure 3-15.35: Mitigation Measures – Monrovia



Figure 3-15.36: Mitigation Measures – Duarte

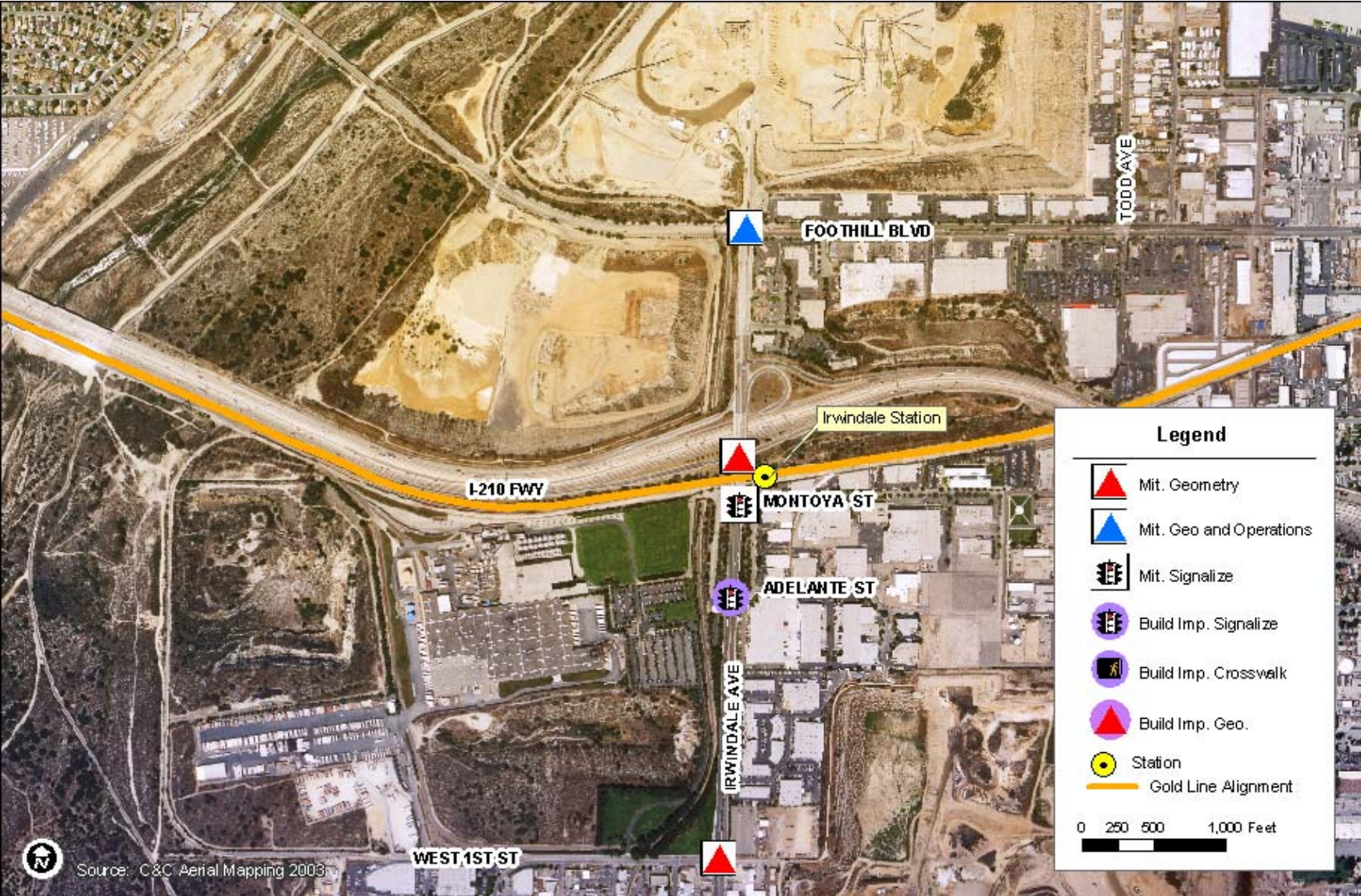


Figure 3-15.37: Mitigation Measures – Irwindale

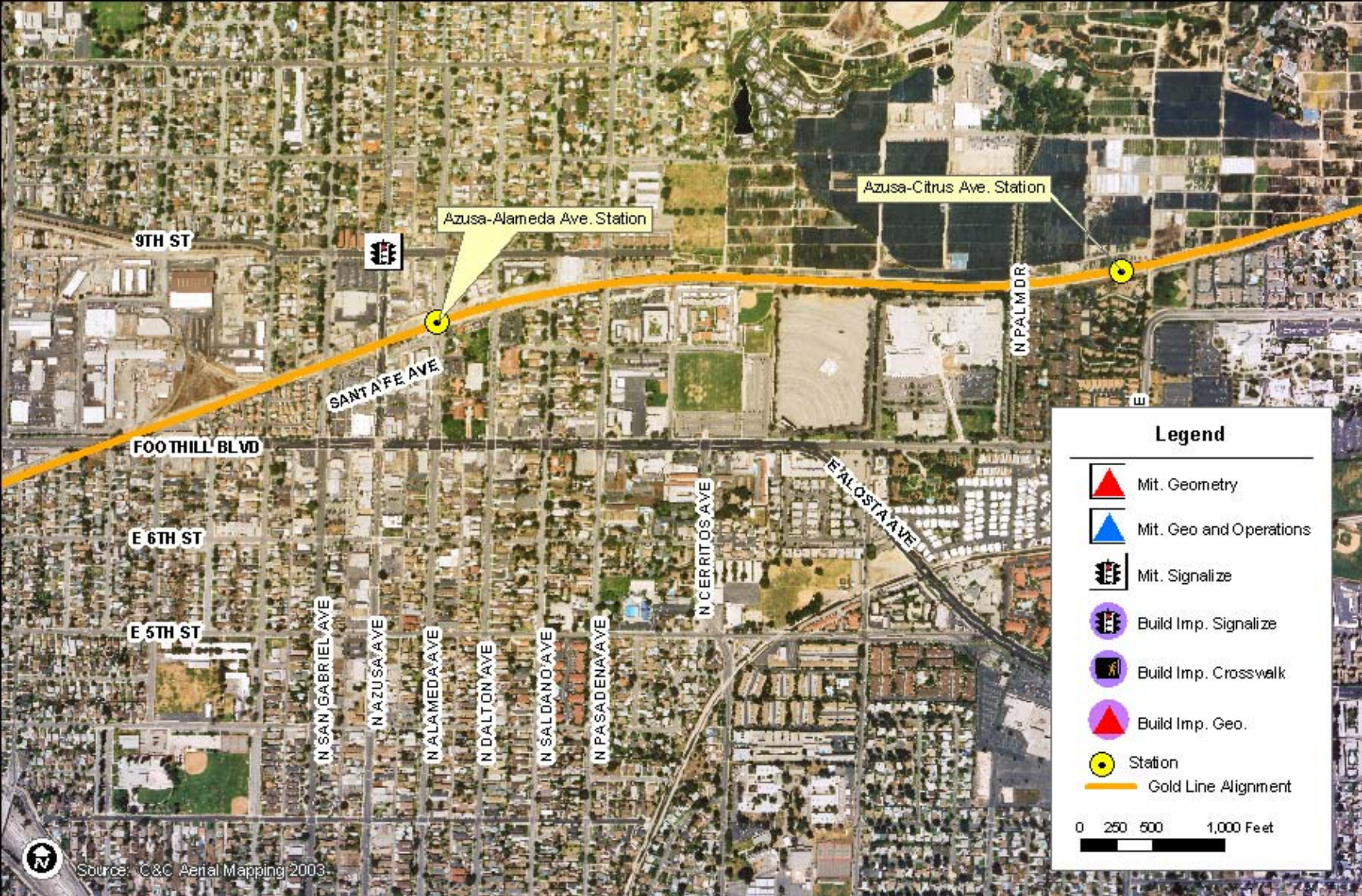


Figure 3-15.38: Mitigation Measures – Azusa



Figure 3-15.39: Mitigation Measures – Glendora

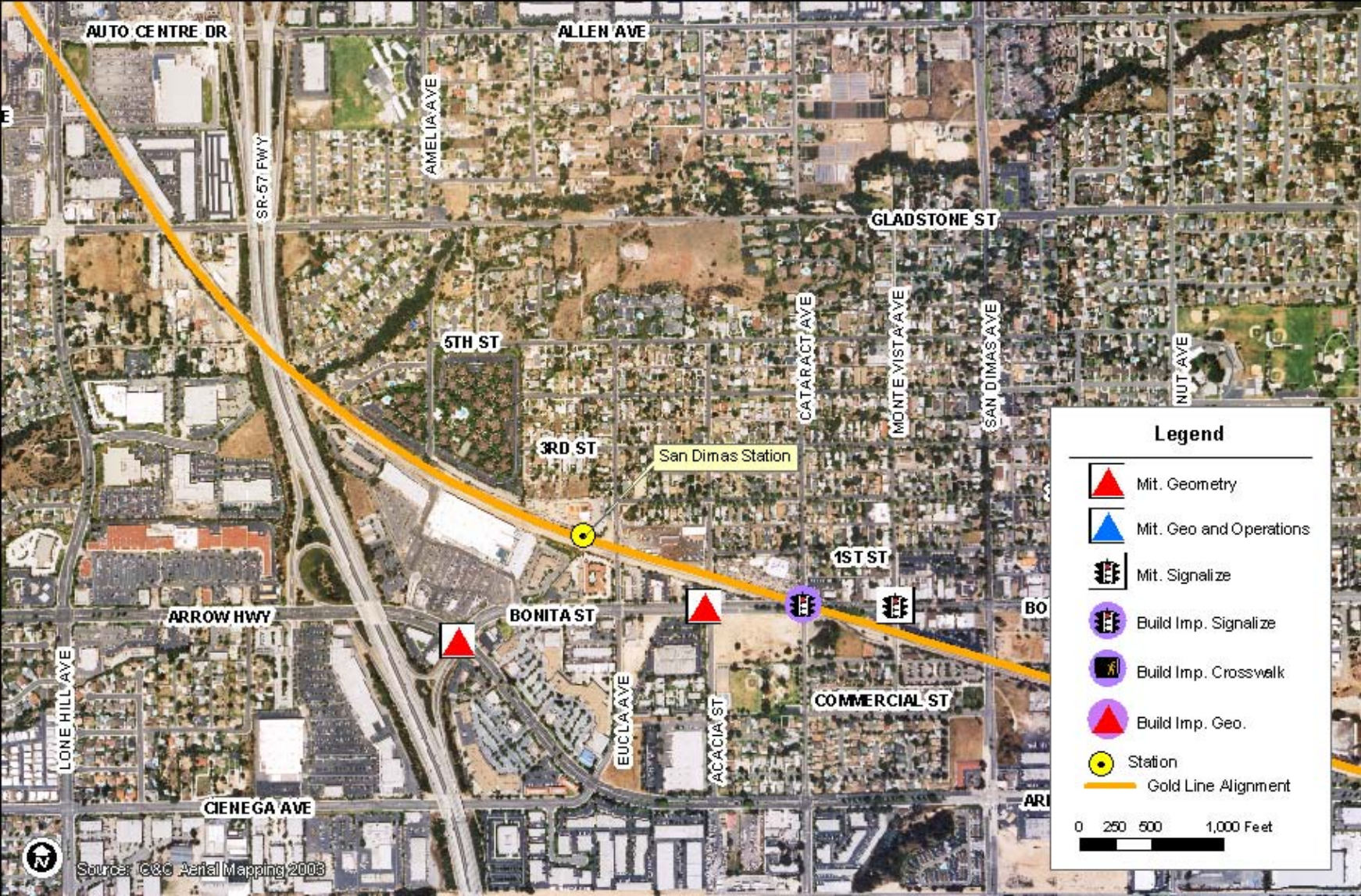


Figure 3-15.40: Mitigation Measures – San Dimas

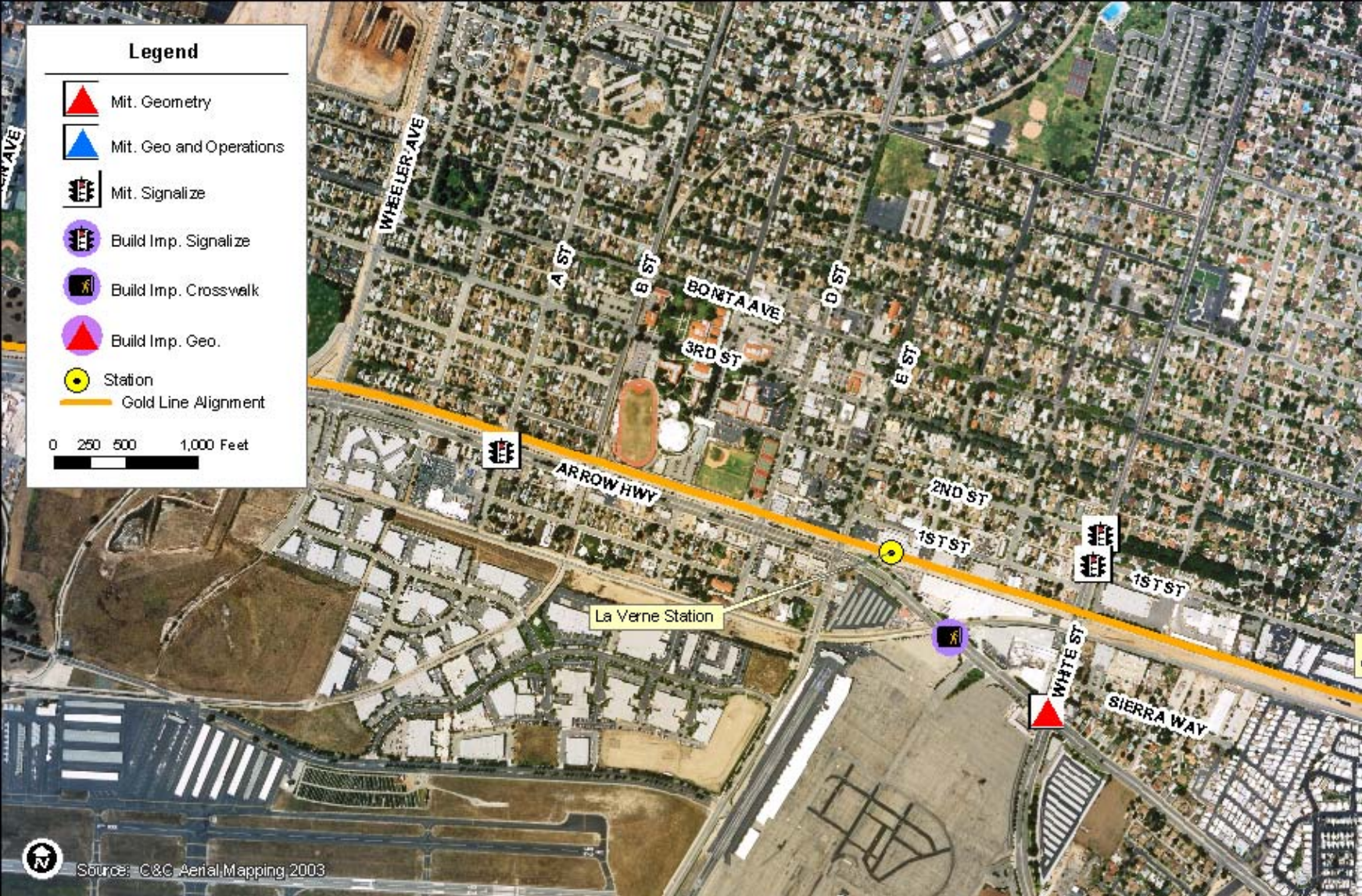


Figure 3-15.41: Mitigation Measures – La Verne



Figure 3-15.42: Mitigation Measures – Pomona

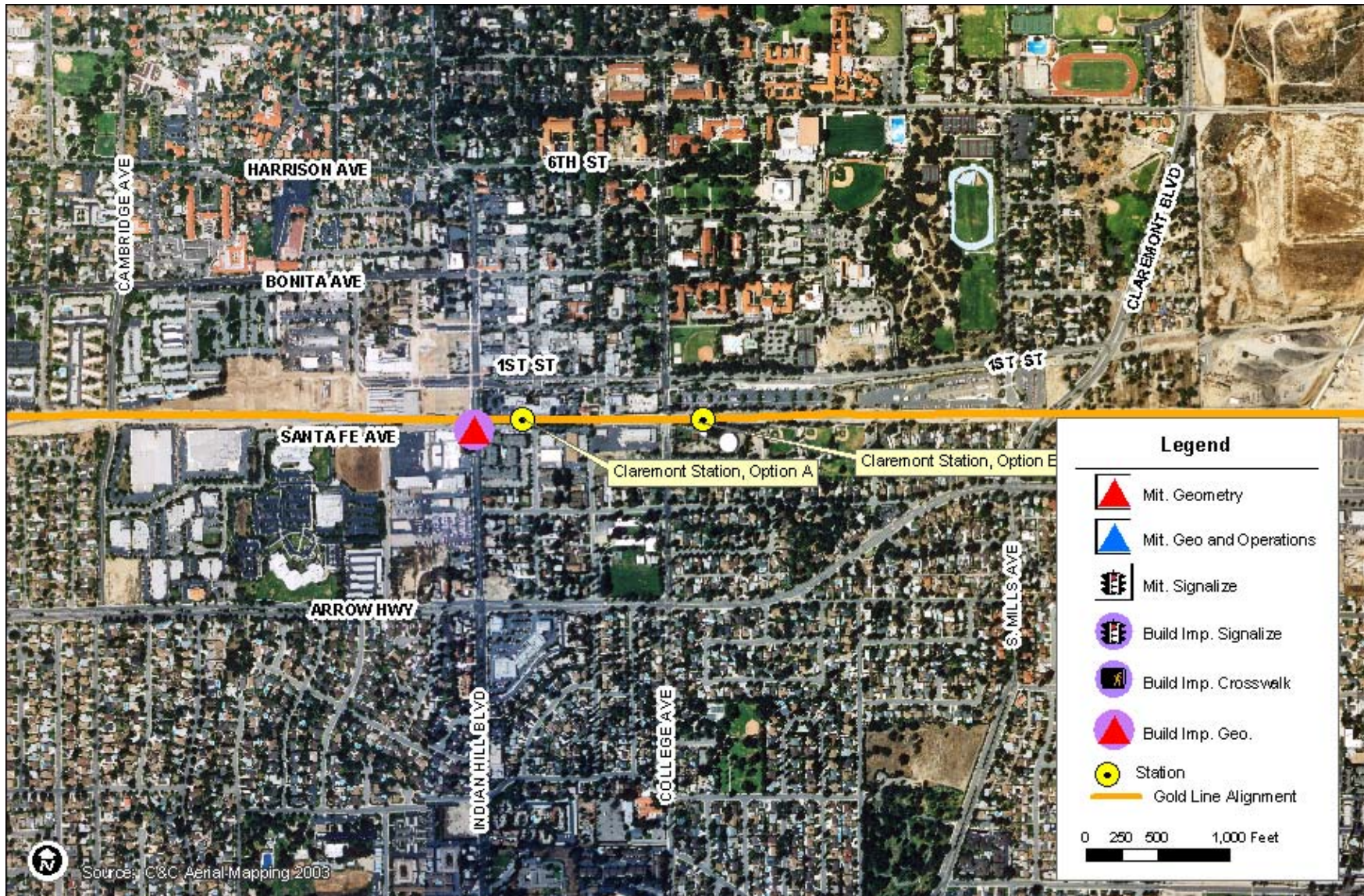


Figure 3-15.43: Mitigation Measures –Claremont



Figure 3-15.44: Mitigation Measures – Montclair

3-15.4. Impact Results with Mitigation

The following sections report the result of complying with regulatory requirements and proposed mitigation measures. The intent of this section is to summarize where identified impacts have been eliminated or reduced to less than adverse/less than significant levels, or whether there may be remainder impacts.

3-15.4.1 Construction Period

Construction period impacts would be eliminated or reduced to less than adverse/less than significant levels by complying with the local, state, and/or federal regulatory requirements and/or permits identified in Section 3-15.2.6a, and the additional measures to mitigate impacts identified in Section 3-15.3.1. As a result of these two conditions, construction period impacts would be not adverse under NEPA and not significant under CEQA.

a. No Build Alternative

No construction period impacts and construction period mitigation measures were identified for the No Build Alternative. Therefore, the construction period impacts for the No Build Alternative would not change from the level of impact initially identified.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Results of Construction Period Mitigation Measures

No construction period impacts and construction period mitigation measures were identified for the No Build Alternative. Therefore, the construction period impacts for the No Build Alternative would not change from the level of impact initially identified.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Results of Construction Period Mitigation Measures

No construction period impacts and construction period mitigation measures were identified for the No Build Alternative. Therefore, the construction period impacts for the No Build Alternative would not change from the level of impact initially identified.

The TSM Alternative was eliminated from consideration by selection of an LPA (see Chapter 2, Section 2.2.4.1).

b. Full Build (Pasadena to Montclair) Alternative

Phase I

The Cities Affected and the Results of Construction Period Mitigation Measures

Construction impacts for the Full Build (Pasadena to Montclair) Alternative would not change from the level of impact initially identified since no mitigation measures would be required or implemented.

Gold Line Foothill Extension, Segment 1

The Cities Affected and the Results of Construction Period Mitigation Measures

Construction impacts for the Full Build (Pasadena to Montclair) Alternative would not change from the level of impact initially identified since no mitigation measures would be required or implemented.

Gold Line Foothill Extension, Segment 2

The Cities Affected and the Results of Construction Period Mitigation Measures

Construction impacts for the Full Build (Pasadena to Montclair) Alternative would not change from the level of impact initially identified since no mitigation measures would be required or implemented.

The LRT Double Track Configuration was eliminated from consideration by selection of an LPA (See Chapter 2, Section 2.2.4.1)

Summary of Results of Construction Period Mitigation Measures for Full Build (Pasadena to Montclair) Alternative

Construction impacts for the Full Build (Pasadena to Montclair) Alternative would not change from the level of impact initially identified since no mitigation measures would be required or implemented.

c. Build LRT to Azusa Alternative

The results of the construction period mitigations are the same as the results in the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the results are the same as the No Build Alternative.

Summary of Results of Construction Period Mitigation Measures for Build LRT to Azusa Alternative

Construction impacts for the Build LRT to Azusa Alternative would not change from the level of impact initially identified since no mitigation measures would be required or implemented.

3-15.4.2 Long Term

Long term impacts would be reduced to less than adverse/less than significant levels by complying with the local, state, and/or federal regulatory requirements and/or permits identified in Section 3-15.2.6b, and the additional measures to mitigate impacts identified in Section 3-15.3.2. As a result of these two conditions, long term impacts would be not adverse under NEPA and not significant under CEQA.

a. No Build Alternative

No long term impacts due to the Gold Line Foothill Extension were identified for the No Build Alternative. Therefore, the long term impacts for the No Build Alternative would not change from the level of impact initially identified.

b. Full Build (Pasadena to Montclair) Alternative

Phase I

☐ The Cities Affected and the Results of Long Term Mitigation Measures

Long term impacts for the Full Build (Pasadena to Montclair) Alternative would not change from the level of impact initially identified since no mitigation measures would be required or implemented.

Gold Line Foothill Extension, Segment 1

☐ The Cities Affected and the Results of Long Term Mitigation Measures

The results of the intersection traffic level of service analysis with the mitigation measures are provided in Table 3-15.29. There are no residual impacts at any of these intersections.

TABLE 3-15.29 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE MITIGATED INTERSECTION LEVEL OF SERVICE ANALYSIS, SEGMENT 1					
N/S Street	E/W Street	Jurisdiction	V/C	LOS	Residual Impact
<i>Santa Anita Ave</i>	<i>Colorado Blvd</i>	<i>Arcadia</i>	<i>0.928</i>	<i>E</i>	<i>NO</i>
<i>Santa Anita Ave</i>	<i>Santa Clara St</i>	<i>Arcadia</i>	<i>0.984</i>	<i>E</i>	<i>NO</i>
<i>Myrtle Ave</i>	<i>Evergreen Ave</i>	<i>Monrovia</i>	<i>0.905</i>	<i>E</i>	<i>NO</i>
Myrtle Ave	Duarte Rd	Monrovia	0.859	D	NO
Myrtle Ave	Pomona Ave	Monrovia	0.800	D	NO
Highland Ave	Central Ave	Duarte	0.679	B	NO
Highland Ave	Business Center	Duarte	0.487	A	NO
<i>Irwindale Ave</i>	<i>Foothill Blvd</i>	<i>Irwindale</i>	<i>1.958</i>	<i>F</i>	<i>NO</i>
<i>Irwindale Ave</i>	<i>210 EB Ramp</i>	<i>Irwindale</i>	<i>1.342</i>	<i>F</i>	<i>NO</i>
Irwindale Ave	Montoya St	Irwindale	0.467	A	NO

TABLE 3-15.29 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE MITIGATED INTERSECTION LEVEL OF SERVICE ANALYSIS, SEGMENT 1					
N/S Street	E/W Street	Jurisdiction	V/C	LOS	Residual Impact
Irwindale Ave	First St	Irwindale	0.834	D	NO
Irwindale Ave	Gladstone St	Irwindale	1.186	F	NO
Azusa Ave	Ninth St	Azusa	0.531	A	NO

Source: Parsons Brinckerhoff, 2005

Gold Line Foothill Extension, Segment 2

□ The Cities Affected and the Results of Long Term Mitigation Measures

The results of the intersection traffic level of service analysis with the mitigation measures are provided in Table 3-15.30. There are no residual impacts at any of these intersections.

TABLE 3-15.30 FULL BUILD (PASADENA TO MONTCLAIR) ALTERNATIVE MITIGATED INTERSECTION LEVEL OF SERVICE ANALYSIS, SEGMENT 2					
N/S Street	E/W Street	Jurisdiction	V/C	LOS	Residual Impact
Grand Ave	W Foothill Blvd	Glendora	0.885	D	NO
Glendora Ave	Route 66	Glendora	0.941	E	NO
Glenwood Ave	Route 66	Glendora	0.665	B	NO
SR-57 NB	Arrow Hwy & Bonita Ave	San Dimas	0.911	E	NO
Acacia Ave	Bonita Ave	San Dimas	0.410	A	NO
Monte Vista Ave	Bonita Ave	San Dimas	0.736	C	NO
A St	Arrow Hwy	La Verne	0.440	A	NO
White Ave	Second St	La Verne	0.519	A	NO
White Ave	First St	La Verne	0.675	B	NO
White Ave	Arrow Hwy	La Verne	1.066	F	NO
Fulton Rd	Bonita Ave	Pomona	0.641	B	NO
Towne Ave	Town Center Dr	Pomona	0.582	A	NO
Monte Vista Ave	Arrow Hwy	Montclair	0.909	E	NO
Central Ave	Arrow Hwy	Montclair	0.874	D	NO

Source: Parsons Brinckerhoff, 2005

The Double Track Configuration was eliminated from consideration by selection of an LPA (see Chapter 2, Section 2.2.4.1).

Summary of Results of Long Term Mitigation Measures for Full Build
(Pasadena to Montclair) Alternative

Results of the intersection operating conditions after implementation of the proposed long term mitigation measures are outlined and discussed in the previous section. In summary, no traffic impacts were found to be significant after mitigation.

c. Build LRT to Azusa Alternative

For the most part, the results of the long term mitigations are the same as the results in the Foothill Extension Segment 1 from Pasadena to Azusa in the Full Build (Pasadena to Montclair) Alternative. In the areas east of Azusa, the results are the same as the No Build Alternative.

Summary of Results of Long Term Period Mitigation Measures for Build LRT
to Azusa Alternative

Results of the intersection operating conditions after implementation of the proposed long term mitigation measures for the Build LRT to Azusa Alternative may vary slightly from those previously outlined and described in the Foothill Extension Segment 1 section. These results are presented in Table 3-15.31. There are no residual impacts on any intersections. All impacted intersections identified in Section 3-15.2.4 were mitigated to a level that is less than significant under both NEPA and CEQA guidelines for mitigations. Consequently, no traffic impacts were found to be significant after mitigation.

TABLE 3-15.31 BUILD LRT TO AZUSA ALTERNATIVE MITIGATED INTERSECTION LEVEL OF SERVICE ANALYSIS					
N/S Street	E/W Street	Jurisdiction	V/C	LOS	Residual Impact
<i>Santa Anita Ave</i>	<i>Colorado Blvd</i>	<i>Arcadia</i>	<i>0.928</i>	<i>E</i>	<i>NO</i>
<i>Santa Anita Ave</i>	<i>Santa Clara St</i>	<i>Arcadia</i>	<i>0.984</i>	<i>E</i>	<i>NO</i>
<i>Myrtle Ave</i>	<i>Evergreen Ave</i>	<i>Monrovia</i>	<i>0.905</i>	<i>E</i>	<i>NO</i>
Myrtle Ave	Duarte Rd	Monrovia	0.859	D	NO
Myrtle Ave	Pomona Ave	Monrovia	0.800	D	NO
Highland Ave	Central Ave	Duarte	0.679	B	NO
Highland Ave	Business Center	Duarte	0.487	A	NO
<i>Irwindale Ave</i>	<i>Foothill Blvd</i>	<i>Irwindale</i>	<i>1.958</i>	<i>F</i>	<i>NO</i>
<i>Irwindale Ave</i>	<i>210 EB Ramp</i>	<i>Irwindale</i>	<i>1.342</i>	<i>F</i>	<i>NO</i>
Irwindale Ave	Montoya St	Irwindale	0.467	A	NO
Irwindale Ave	First St	Irwindale	0.834	D	NO
<i>Irwindale Ave</i>	<i>Gladstone St</i>	<i>Irwindale</i>	<i>1.186</i>	<i>F</i>	<i>NO</i>
Azusa Ave	Ninth St	Azusa	0.531	A	NO

Source: Parsons Brinckerhoff, 2005

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