



## Division of Land / Environmental Review

City Hall • 200 N. Spring Street, Room 750 • Los Angeles, CA 90012



# *Volume V of V-Appendices G - H*

## **DRAFT ENVIRONMENTAL IMPACT REPORT**

### *WESTLAKE COMMUNITY PLAN AREA*

## *Bixel and Lucas Project*

*ENV-2007-5887-EIR*  
*State Clearinghouse No. 2008041049*

*Council District 1*

**THIS DOCUMENT COMPRISES THE FIRST PART OF THE ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE PROJECT DESCRIBED. THE FINAL EIR WILL COMPRISE THE SECOND AND FINAL PART.**

**Project Address:** 1102-1136 W. 6<sup>th</sup> Street, 632-636 S. Lucas Avenue, 611-629 S. Bixel Street  
Los Angeles, California 90017

**Project Description:** Holland Development, LLC (the Applicant) proposes the redevelopment of a 4.1-acre property currently improved with four multi-use buildings, carports, service bays and a paid public surface parking lot. The Project site is located along 6<sup>th</sup> Street between Lucas Avenue and S. Bixel Street, in the Westlake community of the City of Los Angeles, California. The Project proposes to demolish three of the existing on-site buildings, carports, service bays and surface parking areas to develop an irregularly-shaped mixed-use building up to ten stories tall around a landscaped Project-oriented courtyard on the podium level. The Project would also convert an existing eight-story medical office building located at the corner of 6<sup>th</sup> Street and Lucas Avenue to 42 live/work joint living & work quarter (JLWQ) units per the City's Adaptive Reuse Ordinance. The proposed mix of uses consists of up to approximately 648 dwelling units, with a minimum of 5 percent as affordable units, and 39,996 square feet or less of retail commercial space. Parking would be provided within a parking structure consisting of up to three levels above-ground and/or three subterranean levels.

**APPLICANT:**  
**Holland Development**

**PREPARED BY:**  
**Environmental Review Section**  
**Los Angeles City Planning Department**

**April 19, 2012**



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**APPENDIX G - TRAFFIC IMPACT STUDY AND SUPPLEMENTAL ANALYSIS**

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**APPENDIX G - TRAFFIC IMPACT STUDY AND SUPPLEMENTAL ANALYSIS**

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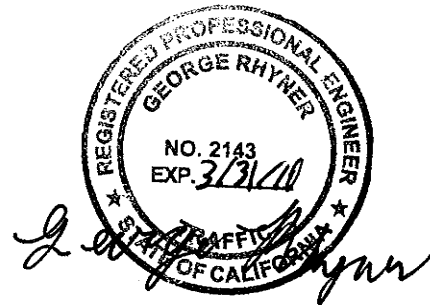
**TRAFFIC ANALYSIS FOR  
THE GOOD SAMARITAN MIXED-USE DEVELOPMENT  
CITY OF LOS ANGELES**

**Prepared for:**

**HOLLAND DEVELOPMENT**

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October 2008



## EXECUTIVE SUMMARY

This study has been prepared to determine and evaluate the possible traffic impacts attributable to the proposed Good Samaritan mixed-use project located in the Central City West area adjacent to Downtown Los Angeles. The project site is located along the south side of 6th Street, between Lucas Avenue and Bixel Street. The proposed project entails the construction of a development containing 725 apartment dwelling units and 39,999 square feet of retail uses. The existing uses on the project site, which are occupied with 20,800 square feet of medical offices; 14 units of apartment housing; 2,600 square feet of general office; and 18,250 square feet of warehouse, will be removed in conjunction with the proposed project.

Parking would be provided in accordance with the requirements of the City of Los Angeles Municipal Code (LAMC). Parking will be provided within a subterranean/above grade parking garage with at least a code compliant number of parking spaces for the proposed project. No off-site parking impacts are anticipated as a result of this project. Vehicular access to the site is currently planned via three project driveways. The three driveways will intersect the south side of 6th Street, the east side of Lucas Avenue, and the west side of Bixel Street, respectively. All three driveways will provide access to both the residential and retail portions of the proposed parking structure.

The traffic study presented herein analyzed existing (2008) and future (2012) AM and PM peak-hour traffic conditions at nineteen (19) study intersections in the vicinity of the project site. The cumulative traffic conditions attributable to 114 potential related projects in the surrounding area were incorporated in the analysis. The results of this analysis show that the proposed project, prior to mitigation, would potentially have significant impacts at five study intersections. The potentially significant impacts are at the following intersections:

1. Lucas Avenue at 6th Street
2. Lucas Avenue at Wilshire Boulevard
3. Bixel Street at 6th Street
4. Bixel Street at Wilshire Boulevard
5. Bixel Street at 7th Street

In order to reduce the project traffic impacts to a less than significant level, these intersections were closely examined to determine if any feasible improvements were available. The following mitigation measures are recommended:

Lucas Avenue at Wilshire Boulevard – Widen/restripe the Wilshire Boulevard westbound approach to the intersection to allow the installation of an exclusive right-turn lane. The westbound approach will then consist of one shared left-turn/through travel lane, one through travel lane, and one right-turn lane. In addition, the relocation of the bus zone along the north side of Wilshire Boulevard to the far side (west leg) of the intersection and/or parking restrictions may be necessary. Modify the traffic signal equipment at the intersection as necessary. This measure will mitigate the project's traffic impact to a less than significant level at this intersection.

Bixel Street at 6th Street – In conjunction with the widening required adjacent to the project site, install an exclusive right-turn lane on the 6th Street eastbound approach to the intersection. The eastbound approach will then consist of one left-turn lane, two through travel lanes, and one right-turn lane. Modify the traffic signal equipment at the intersection as necessary. This measure will mitigate the project's traffic impact to a less than significant level at this intersection.

Bixel Street at Wilshire Boulevard – Restripe the Bixel Street northbound approach to the intersection to provide an additional through travel lane. Widen/restripe the north leg of the intersection to provide two departure lanes to receive the additional

lane of through traffic along Bixel Street. The northbound approach will then consist of one left-turn lane, two through travel lanes, and one right-turn lane. In addition, parking restrictions may be necessary. Modify the traffic signal equipment at the intersection as necessary. This measure will mitigate the project's traffic impact to a less than significant level at this intersection.

Implementation of the mitigation measures recommended above would reduce the significant project traffic impacts to a less than significant level at three of the five significantly impacted study intersections.

Feasible physical mitigation measures could not be identified for the following significantly impacted intersections for the reasons indicated:

Lucas Avenue at 6th Street – Improvements to the Lucas Avenue north and south legs of this intersection were investigated which could be implemented in order to mitigate the project's traffic impact to a less than significant level. However, City of Los Angeles Department of Transportation (LADOT) staff expressed concerns about the loss of parking and possible truck turning issues associated with improving the north leg of Lucas Avenue. In addition, widening improvements to the Lucas Avenue south leg are impeded by the limitations of the existing right-of-way on the west side of the roadway and the location a historic building at the southeast corner of the intersection. Therefore, no feasible improvements were found at this intersection and a significant, unavoidable project traffic impact will remain.

Bixel Street at 7th Street – Several improvements to the Bixel Street north and south legs of this intersection were investigated in order to mitigate the project's traffic impact to a less than significant level. However, LADOT staff expressed concerns about the intersection geometry for eastbound left-turning movements and the effects that improvements could have on the queuing that occurs on Bixel Street from the Harbor Freeway southbound on-ramp. Without projects adjacent to Bixel



Street, north of 7th Street, providing additional right-of-way to utilize for improvements, no acceptable mitigation measures could be identified. Therefore, a significant, unavoidable project traffic impact will remain at this intersection.

Project traffic impacts were also analyzed for Congestion Management Program (CMP) locations. No significant project traffic impacts will occur at the CMP designated intersections or freeway monitoring locations.

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## INTRODUCTION

This study has been prepared to determine and evaluate the possible traffic impacts attributable to the proposed Good Samaritan mixed-use project located in the Central City West area adjacent to Downtown Los Angeles. The project site is located along the south side of 6th Street, between Lucas Avenue and Bixel Street. The proposed project entails the construction of a development containing 725 apartment dwelling units and 39,999 square feet of retail uses. The existing uses on the project site, which are occupied with 20,800 square feet of medical offices; 14 units of apartment housing; 2,600 square feet of general office; and 18,250 square feet of warehouse, will be removed in conjunction with the proposed project. The location of the site is shown on Figure 1, Site Vicinity Map.

Crain & Associates has been retained to assess the potential impacts of the proposed project on the surrounding roadway system. The analysis that follows was prepared in accordance with the assumptions, methodology, and procedures approved by the City of Los Angeles Department of Transportation (LADOT). This report presents the results of an analysis of existing (2008) conditions and future (2012) traffic conditions before and after completion of the project. The analysis contains a detailed evaluation of traffic conditions during the AM and PM peak hours at the following 19 study intersections:

1. Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street
2. Lucas Avenue at 3rd Street
3. Lucas Avenue at 6th Street
4. Lucas Avenue at Wilshire Boulevard
5. Bixel Street at 6th Street
6. Bixel Street at Wilshire Boulevard
7. Bixel Street at 7th Street
8. Bixel Street/SR-110 Southbound On-Ramp at 8th Street

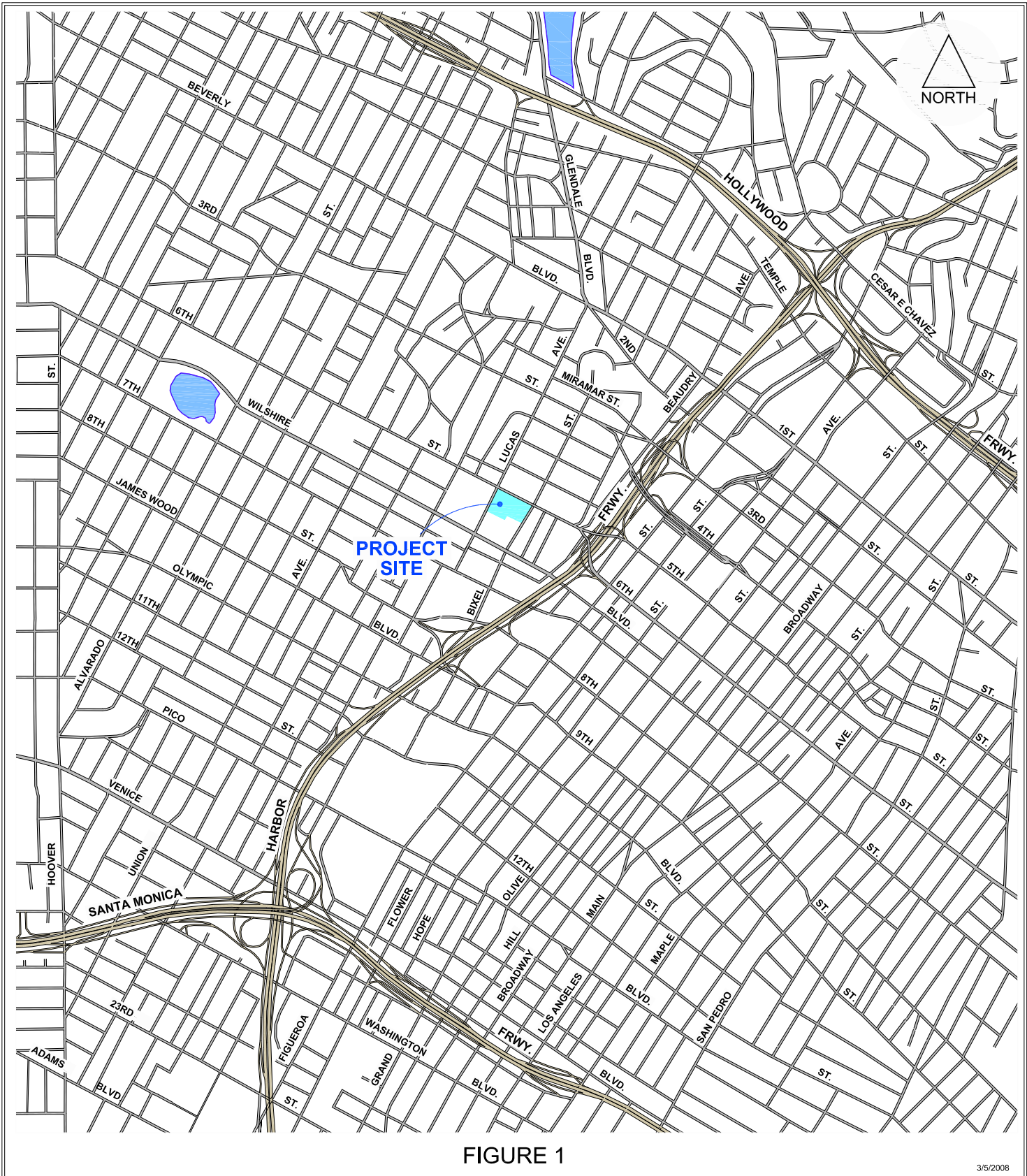


FIGURE 1

3/5/2008

FN: GOOD SAMARITIAN SITE WILSHIRE/SITEVICN

SITE VICINITY MAP

**CA CRAIN** & **ASSOCIATES**  
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9. Beaudry Avenue at 1st Street
10. Beaudry Avenue at 2nd Street
11. Beaudry Avenue at the SR-110 Southbound Off-Ramp
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14. Beaudry Avenue at Wilshire Boulevard
15. Figueroa Street at 5th Street
16. Figueroa Street at 6th Street
17. Figueroa Street at Wilshire Boulevard
18. Figueroa Street at 7th Street
19. Figueroa Street at James M. Wood Boulevard/9th Street

The locations of these study intersections relative to the project site are shown on Figure 2, Study Intersection Location Map. These locations include the key intersections located along the primary access routes to and from the site, and are those locations expected to be most directly impacted by project traffic.





## PROJECT DESCRIPTION

The project under consideration is the proposed Good Samaritan mixed-use project located in the Central City West area adjacent to Downtown Los Angeles. The project site is located along the south side of 6th Street, between Lucas Avenue and Bixel Street. The proposed project entails the construction of a development containing 725 apartment dwelling units and 39,999 square feet of retail uses. The existing uses on the project site, which are occupied with 20,800 square feet of medical offices; 14 units of apartment housing; 2,600 square feet of general office; and 18,250 square feet of warehouse, will be removed in conjunction with the proposed project. It should be noted that Bixel Street, north of Wilshire Boulevard, is designated a modified Secondary Highway and is currently being considered for reclassification to an alternative width modified Secondary Highway designation. If Bixel Street were ultimately not to be redesignated, the land area for development would decrease, in turn decreasing the number of units allowed due to density limits. However, this traffic analysis utilizes the conservative approach, assumes the redesignation occurs, and considers the maximum traffic impact. The proposed project site plan is shown on Figure 3. This traffic analysis has been completed assuming the basic layout of this site plan.

Parking would be provided in accordance with the requirements of the City of Los Angeles Municipal Code (LAMC). Parking will be provided within a subterranean/above grade parking garage with at least a code compliant number of parking spaces for the proposed project. Vehicular access to the site is currently planned via three project driveways. The three driveways will intersect the south side of 6th Street, the east side of Lucas Avenue, and the west side of Bixel Street, respectively. All three driveways will provide access to both the residential and retail portions of the proposed parking structure.



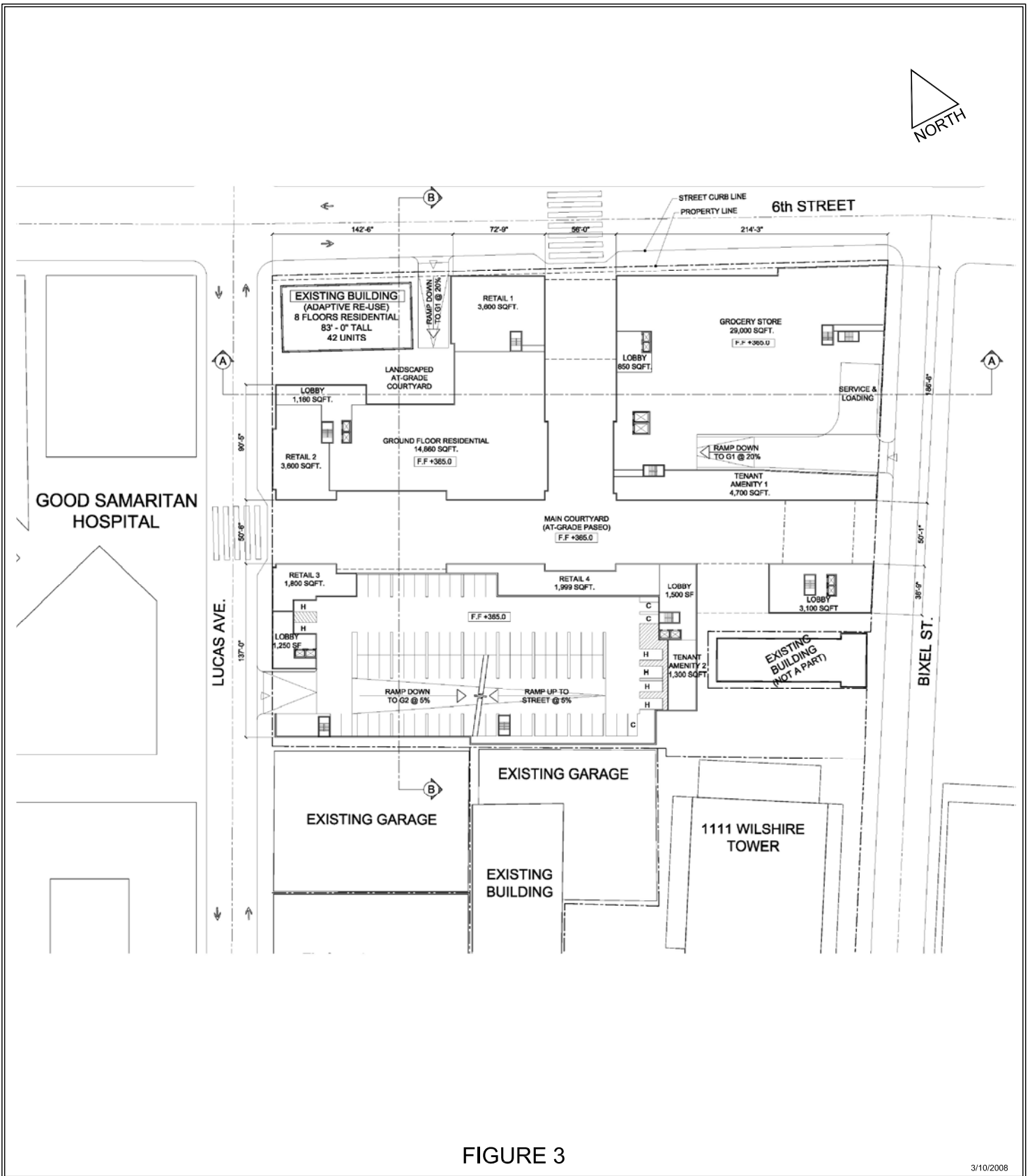


FIGURE 3

3/10/2008

FN: GOOD SAMARITAN SITE WILSHIRE SITE PLAN

### PROJECT SITE PLAN



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## ENVIRONMENTAL SETTING

The proposed project site is located along the south side of 6th Street, between Lucas Avenue and Bixel Street, within the Central City West area of Los Angeles. The area surrounding the project is primarily commercial, medical, institutional, and multi-family residential in nature, developed with the Good Samaritan Hospital, offices, schools, retail stores and high-density residential uses.

The streets and freeways within the study area are under the jurisdictions of the City of Los Angeles and the California Department of Transportation (Caltrans). The following section describes the most important existing roadway facilities in the study area.

### **Freeways**

The Harbor Freeway (SR-110) is an eight- to ten-lane facility in the vicinity of the study area, and interchanges with the Hollywood, Santa Ana and Santa Monica Freeways. It provides convenient access between the project and the greater Los Angeles metropolitan area. The Harbor Freeway begins as Interstate 110 in San Pedro to the south, becoming State Route 110 as it passes through downtown Los Angeles and continues northeasterly as the Pasadena Freeway into the City of Pasadena. The Harbor Freeway interchanges with the Hollywood Freeway and the Santa Monica Freeway approximately one mile northeast and one-and-one-half miles southwest of the project, respectively. A southbound on-ramp is provided on Bixel Street at 8th Street, and a southbound off-ramp is located on Beaudry Avenue, north of Wilshire Boulevard. A northbound on-ramp is provided on Figueroa Street at 5th Street, and a northbound off-ramp is provided on Figueroa Street at 6th Street.

The Hollywood Freeway (US-101) is one of the most important traffic-carrying facilities in the area. This freeway provides regional access throughout and beyond the Downtown Los Angeles area. In the vicinity of the project, the Hollywood Freeway

extends in a northwesterly direction and generally provides four mixed-flow lanes in each direction. The Hollywood Freeway continues to the northwest where it merges with the Golden State Freeway (I-5). To the west, US-101 becomes the Ventura Freeway and continues through the San Fernando Valley into Ventura County. To the east, the freeway changes into the Santa Ana Freeway at its interchange with the Harbor and Pasadena Freeways (SR-110), and continues to interchange with the San Bernardino Freeway and extends southerly where it merges with the Golden State Freeway (I-5). In the project vicinity, Alvarado Street provides full surface street access to and from the Hollywood Freeway.

The Santa Monica Freeway (I-10) is located approximately one and a half miles southwest of the project. It extends easterly from the City of Santa Monica through downtown Los Angeles, and continues easterly as the San Bernardino Freeway into San Bernardino and Riverside Counties. The Santa Monica Freeway provides four mainline travel lanes in each direction, with intermittent auxiliary lanes between ramp locations. The Santa Monica Freeway has a full interchange with the Harbor Freeway approximately one-and-one-half miles southwest of the project. The nearest eastbound on- and off-ramps are provided on Hoover Street, and the nearest westbound on- and off-ramps are provided on 20th Street, west of Hoover Street.

### **Streets and Highways**

1st Street is designated a Major Highway Class II, between Mission Road and Beverly Boulevard, west of Figueroa Street, and a Secondary Highway, east of Mission Road. 1st Street is located approximately one-half mile northeast of the project site and generally extends in an east-west direction. In the project vicinity, 1st Street provides two through travel lanes in each direction and left-turn channelization at major intersections.

2nd Street is designated a Major Highway Class II, between Figueroa Street and Glendale Boulevard, and a Secondary Highway, between Los Angeles Street and Figueroa Street. West of Glendale Boulevard and east of Los Angeles Street, 2nd Street extends discontinuously as a Local Street. 2nd Street is located approximately one-half mile northeast of the project site and generally extends in an east-west direction. In the project vicinity, 2nd Street provides two through travel lanes in each direction and left-turn channelization at major intersections.

3rd Street is a Secondary Highway in the project vicinity, located approximately one-quarter mile northeast of the project, and generally extends in an east-west direction. This roadway extends from Alameda Street, through Downtown Los Angeles, Westlake, Wilshire Center, Windsor Square, Hancock Park, Park La Brea, and ends in the City of Beverly Hills. East of Los Angeles River, 3rd Street extends discontinuously in the East Los Angeles area. 3rd Street is a one-way street between Alameda Street and Boylston Street, providing two to five westbound through travel lanes and left-turn channelization at major intersections (except for the short street segment between Hope Street and Grand Avenue, where 3rd Street is a two-way street and provides one eastbound through lane). Between Grand Avenue and Hill Street, 3rd Street is tunnelized. 3rd Street is a two-way street, west of Boylston Street, providing two through travel lanes in each direction and left-turn channelization at major intersections in the project vicinity. 3rd Street provides service to the Harbor Freeway northbound on- and off-ramp and southbound off-ramp.

5th Street is a Secondary Highway in the project vicinity, located approximately one-tenth mile northeast of the project site, and generally extends in an east-west direction. This roadway extends between Central Avenue and Boylston Avenue in the Downtown Los Angeles area. East of Alameda Street, 5th Street extends discontinuously in the East Los Angeles area. West of Boylston Street, 5th Street extends discontinuously

through Westlake, Wilshire Center and Windsor Square. In the Downtown Los Angeles area, 5th Street is a one-way street providing two to five westbound through travel lanes and left-turn channelization at major intersections. 5th Street provides service to the Harbor Freeway northbound on-ramp and southbound on-ramp.

6th Street is a Secondary Highway in the project vicinity, forming the northern boundary of the project site, and generally extends in an east-west direction. This roadway extends from the Los Angeles River, through Downtown Los Angeles, Westlake, Wilshire Center, Windsor Square, Hancock Park, Park La Brea, and ends at the eastern boundary of the City of Beverly Hills. East of Los Angeles River, 6th Street extends discontinuously in the East Los Angeles area. In the Downtown Los Angeles area between Beaudry Avenue and Alameda Street, 6th Street is a one-way street providing two to five eastbound through travel lanes and left-turn channelization at major intersections. West of Beaudry Avenue, 6th Street is a two-way street, providing two travel lanes in each direction and left-turn channelization at major intersections. 6th Street provides service to the Harbor Freeway northbound off-ramp and southbound off-ramp.

Wilshire Boulevard is designated a Major Highway Class II, west of Figueroa Street, and a Secondary Highway, east of Figueroa Street. Wilshire Boulevard is located one block south of the project site, and generally extends in an east-west direction. This roadway extends from Grand Avenue, through Downtown Los Angeles, Westlake, Wilshire Center, Windsor Square, Hancock, Park La Brea, Miracle Mile, Beverly Hills, Westwood, Santa Monica, and ends at Ocean Avenue. In the project vicinity, Wilshire Boulevard provides two through travel lanes in each direction and left-turn channelization at major intersections.

7th Street is a Secondary Highway in the project vicinity, located approximately one-quarter mile southwest of the project site, and generally extends in an east-west

direction. This roadway extends discontinuously from the western boundary of East Los Angeles to Soto Street as a Local Street. 7th Street is designated a Secondary Highway, starting at Soto Street and extending discontinuously through Downtown Los Angeles, Westlake, Wilshire Center, and ending at Norton Avenue. In the project vicinity, 7th Street provides two through travel lanes in each direction and left-turn channelization at major intersections.

8th Street is a Secondary Highway in the project vicinity, located approximately one-third mile southwest of the project site, and generally extends in an east-west direction. This roadway extends discontinuously as a Local Street, both east of Central Avenue (Downtown) and west of Crenshaw Boulevard (Windsor Square). 8th Street is designated a Secondary Highway, between Central Avenue and Crenshaw Boulevard, extending through Downtown Los Angeles, Koreatown, and Windsor Square. Between Santee Street and Garland Avenue, 8th Street is a one-way street providing two to five westbound through travel lanes and left-turn channelization at major intersections. 8th Street provides service to the Harbor Freeway northbound on-ramp and southbound on-ramp.

James M. Wood Boulevard/9th Street – This roadway is designated as James M. Wood Boulevard, between Western Avenue and Figueroa Street, and as 9th Street to both the east and west of this segment. James M. Wood Boulevard/9th Street is designated a Major Highway Class II, between Gladys Avenue and San Pedro Street, and a Secondary Highway, between San Pedro Street and Alvarado Street. West of San Pedro Street, this roadway extends discontinuously as a Local Street. In the Downtown Los Angeles area between Santee Street and Golden Avenue, this roadway is a one-way street providing one to four eastbound through travel lanes and left-turn channelization at major intersections. West of Golden Avenue and east of Santee Street, James M. Wood Boulevard/9th Street is a two-way street, providing one to two

travel lanes in each direction and left-turn channelization at major intersections. This roadway provides service to the Harbor Freeway northbound off-ramp and southbound off-ramp.

Lucas Avenue is designated a Major Highway Class II, north of 6th Street, and a Secondary Highway, south of 6th Street. This roadway forms the western boundary of the project site and generally extends in a north-south direction. Lucas Avenue starts at Glendale Boulevard/1st Street/2nd Street, extends southerly for approximately one mile, and ends at 7th Street. Lucas Avenue provides one through travel lane in each direction and left-turn channelization at major intersections.

Bixel Street is designated a Secondary Highway, between 3rd Street and 7th Street, and a Major Highway Class II, south of 7th Street. North of 3rd Street, this roadway extends discontinuously as a Local Street. This roadway forms the eastern boundary of the project site and generally extends in a north-south direction. Bixel Street extends southerly through the study area and ends at 8th Street, opposite the Harbor Freeway southbound on-ramp. Bixel Street provides one through travel lane in each direction and left-turn channelization at major intersections. It should be noted that Bixel Street, north of Wilshire Boulevard, is currently being considered for reclassification to a lesser-width modified Secondary Highway designation.

Beaudry Avenue starts at Figueroa Terrace, extends southerly for approximately one and a half miles, and ends at Ingraham Street. This roadway is located one-block east of the project site and generally extends in a north-south direction. Beaudry Avenue is designated a Collector Street north of Sunset Boulevard, a Major Highway Class II between Sunset Boulevard and 7th Street, and a Local Street south of 7th Street. Between 6th Street and Wilshire Boulevard, Beaudry Avenue is a one-way street southbound. North of Wilshire Boulevard and north of 3rd Street, Harbor Freeway southbound off-ramps intersect and merge with this roadway. Beaudry Avenue is a

two-way street, north of 6th Street and south of Wilshire Boulevard, providing one through travel lane in each direction and left-turn channelization at major intersections.

Figueroa Street is a Major Highway Class II, located approximately one-third mile southeast of the project site. Figueroa Street generally extends in a north-south direction, starting north of Alpine Street where it connects to the Pasadena Freeway northbound on-ramp. The roadway generally parallels the Harbor Freeway, extending through Downtown Los Angeles, South Los Angeles, Rosewood, Carson, Wilmington, and ending at Harry Bridges Boulevard. Between 3rd Street and Olympic Boulevard, Figueroa Street becomes a northbound only one-way street with four to seven travel lanes. Figueroa Street provides two to four through travel lanes in each direction north of 3rd Street, four to six northbound through travel lanes (including a transit/right-turn only lane) between 3rd Street and Olympic Boulevard, two to four through travel lanes in each direction south of Olympic Boulevard, and left-turn channelization at major intersections.

### **Existing (2008) Traffic Volumes**

Traffic volumes for existing conditions at the 19 study intersections were obtained from AM and PM peak period manual traffic counts conducted in 2006 and 2007. The AM peak hour traffic volumes were determined by counting the two-hour period from 7:00 to 9:00 AM on a typical weekday. Similarly, the PM peak hour traffic volumes were identified by counting the two-hour period from 4:00 to 6:00 PM on a typical weekday. Peak hour volumes were determined individually for each intersection based on the combined four highest-volume, consecutive 15-minute periods for all vehicular movements at the intersection. A growth factor of 1.0 percent, compounded annually, was applied to the 2006 and 2007 traffic volumes to represent existing volumes for the year 2008. Weekday AM and PM peak hour volumes at the study intersections are



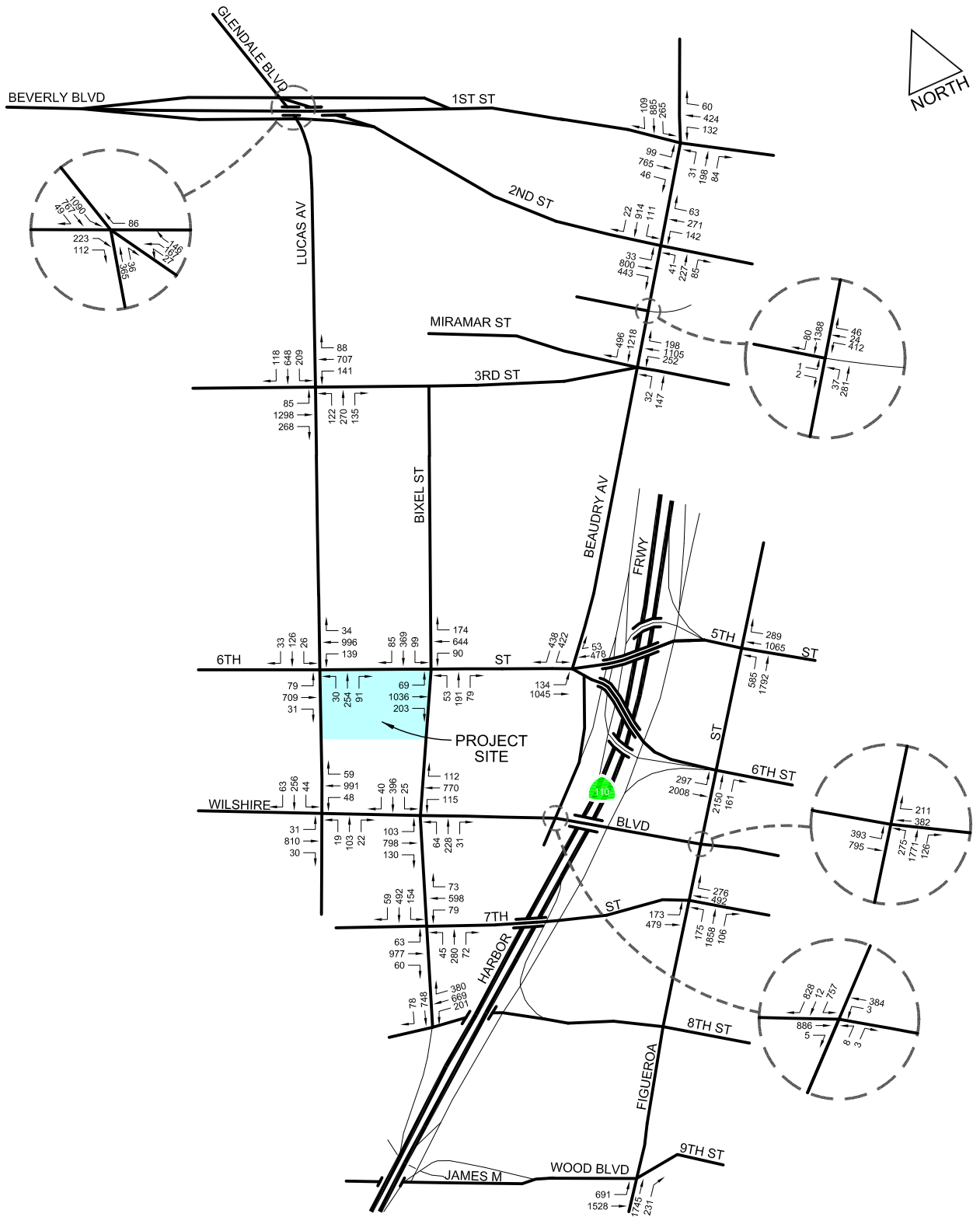


FIGURE 4(a)

3/10/2008

FN: GOOD SAMARITIAN SITE WILSHIREAM2008

EXISTING (2008) TRAFFIC VOLUMES  
AM PEAK HOUR



Transportation Planning  
Traffic Engineering  
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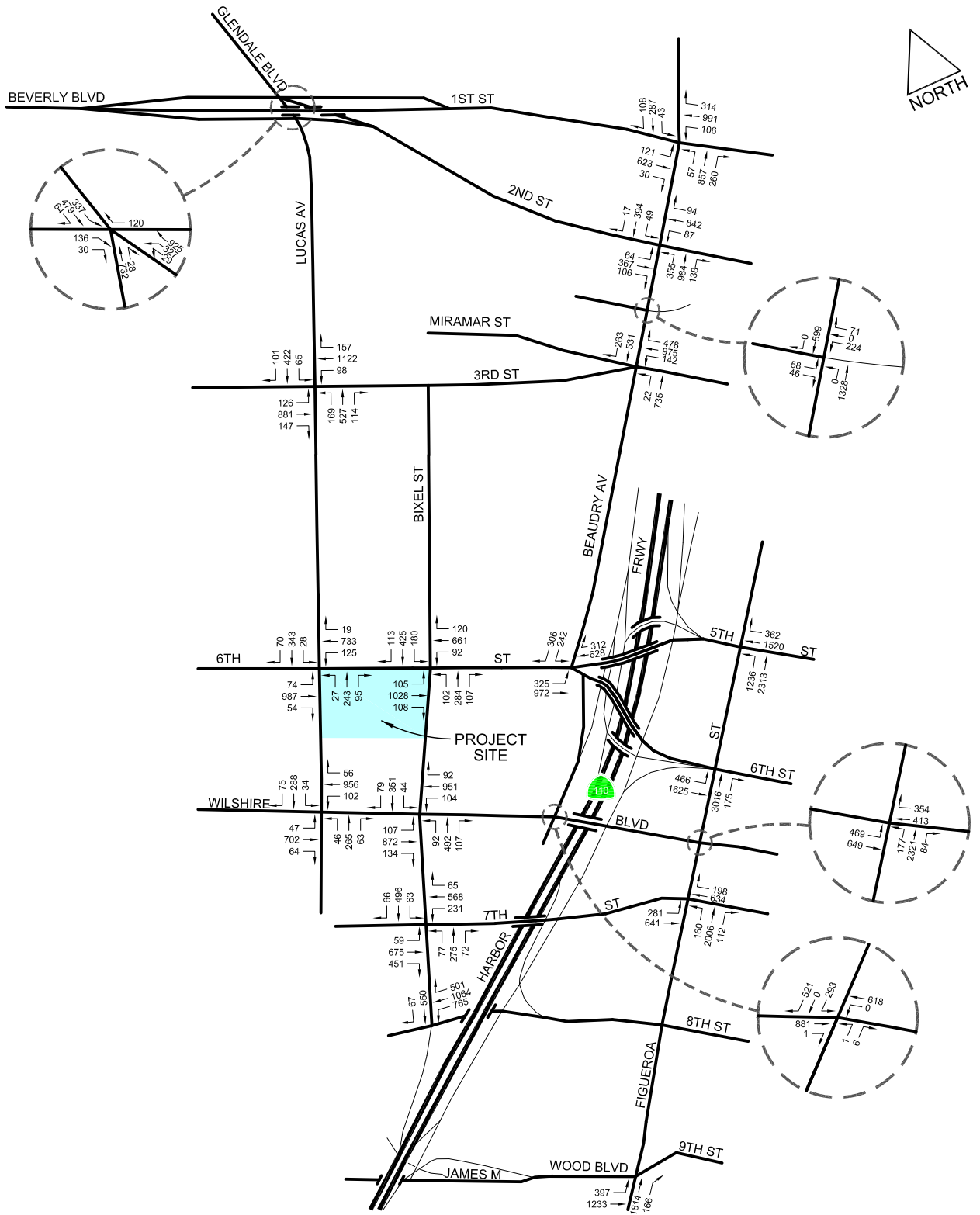


FIGURE 4(b)

3/10/2008

FN: GOOD SAMARITIAN SITE WILSHIRE/PM2008

EXISTING (2008) TRAFFIC VOLUMES  
PM PEAK HOUR



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illustrated on Figures 4(a) and 4(b), respectively. The manual intersection traffic count worksheets are provided in Appendix A. Information pertaining to intersection widths and geometrics, bus stop locations, on-street parking restrictions, and traffic signal operations were obtained from both field checks and City engineering plans.

### **Public Transit**

The project and downtown Los Angeles, in general, are well served by public transit services provided by both the Los Angeles County Metropolitan Transportation Authority (Metro) and the City of Los Angeles Department of Transportation (LADOT). In addition, Foothill Transit and the City of Santa Monica also operate local and commuter express bus service in the project vicinity. The project's proximity to 7th Street/Metro Center, approximately one-third mile southeast, will link the project to Union Station, Amtrak, Metrolink, Metro rail services and numerous bus routes operated by the Metro and LADOT. The public transit service providers and the lines serving the project are detailed below.

The Los Angeles County Metropolitan Transportation Authority (Metro) operates several bus routes on 6th Street, Wilshire Boulevard, 7th Street, Lucas Avenue, Bixel Street, Beaudry Avenue and Figueroa Street in the vicinity of the project. Lines 16/316, 18 and 53 provide service on 6th Street. Line 720 also operates on 6th Street as a part of the greater Metro Rapid service, which uses a bus signal priority system in combination with stops limited to major intersections in order to minimize travel time. Lines 20 and 487/489 travel on Wilshire Boulevard. Line 26/51/52/352 travels on 7th Street. Lines 53 and 62 travel on Beaudry Avenue. Lines 60, 62, 439, 445, 450X and 760 travel on Figueroa Street.

In addition to these bus routes, the Metro also operates the Metro Red and Blue Lines in the project vicinity. The Metro Red Line provides rail transportation through

downtown Los Angeles, the Mid-Wilshire District, and North Hollywood. The Metro Blue Line provides north-south service between downtown Los Angeles and the City of Long Beach. The Metro Red Line provides a stop at the 7th Street/Metro Center/Julian Dixon Station located at 660 South Figueroa Street, approximately one-third of a mile southeast of the project. The Metro Blue Line also provides a stop at the 7th Street/Metro Center/Julian Dixon Station. These rail lines also provide stops at Union Station, thereby linking the project to the continually expanding rail network.

LADOT also provides bus routes in the vicinity of the project. The DASH (Downtown Area Short Hop), which primarily serves downtown Los Angeles, has three lines which provide stops near the project. DASH A provides weekday service between Little Tokyo, the Arts District, Bunker Hill, the Financial District, and the project area. Near the project, DASH A operates eastbound on Wilshire Boulevard, westbound on 7th Street, and northbound and southbound on Witmer Street and Francisco Street. Stops nearest to the project are provided on Wilshire Boulevard at Bixel Street. DASH E provides service between south Downtown Los Angeles, the Jewelry District, the Fashion District, and the project area. Near the project, DASH E operates eastbound on Wilshire Boulevard, westbound on 7th Street, and northbound and southbound on Witmer Street and Francisco Street. Stops nearest to the project are provided on Wilshire Boulevard at Bixel Street. Dash F provides service between City West, the Financial District, South Park, and USC. Near the project, Dash F operates northbound on Figueroa Street, southbound on Flower Street, and eastbound and westbound on 4th Street and 3rd Street. Stops nearest to the project are provided on Figueroa Street at Wilshire Boulevard and Figueroa Street at 5th Street.

In addition to these localized public transit routes, LADOT also operates nine commuter express routes in the vicinity of the project. Routes 409, 422, 423, 430, 431, 437, 438, 448 and 534 travel northbound on Figueroa Street and southbound on Flower Street.

Stops nearest to the project are provided on Figueroa Street at Wilshire Boulevard and Figueroa and 5th Street. These commuter express routes operate on weekdays during peak commute periods.

Foothill Transit operates several bus lines near the project with service to the San Gabriel and Pomona Valley communities. Line 481 operates on Wilshire in the vicinity of the project site, while Lines 493, 497, 498, 499, and 699 operate on Figueroa Street. Lines 481, 493, 497, 498, 499, and 699 operate on weekdays only.

Santa Monica Big Blue Bus operates Line 10 daily in the vicinity of the project, providing express service between downtown Los Angeles and the City of Santa Monica. In the vicinity of the project Line 10 operates northbound on Figueroa Street and southbound on Flower Street and Grand Avenue. Stops near the project are provided on Figueroa Street at 6th Street and 7th Street.

As shown by the preceding information, the project is well served by direct access to several public transit services and routes. In addition, when transfer opportunities are considered, the project is accessible to and from the greater Los Angeles region via public transit. Thus, it is expected that some of the person trips generated by the project will utilize public transportation as the primary travel mode instead of private vehicles.

### **Analysis of Existing (2008) Traffic Conditions**

An analysis of current traffic conditions was conducted on the streets and highways serving the project area. Detailed traffic analyses of existing conditions were performed at the following 19 intersections (geometric configurations shown in Appendix B):

1. Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street
2. Lucas Avenue at 3rd Street
3. Lucas Avenue at 6th Street

4. Lucas Avenue at Wilshire Boulevard
5. Bixel Street at 6th Street
6. Bixel Street at Wilshire Boulevard
7. Bixel Street at 7th Street
8. Bixel Street/SR-110 Southbound On-Ramp at 8th Street
9. Beaudry Avenue at 1st Street
10. Beaudry Avenue at 2nd Street
11. Beaudry Avenue at the SR-110 Southbound Off-Ramp
12. Beaudry Avenue at Miramar Street/3rd Street
13. Beaudry Avenue at 5th Street/6th Street
14. Beaudry Avenue at Wilshire Boulevard
15. Figueroa Street at 5th Street
16. Figueroa Street at 6th Street
17. Figueroa Street at Wilshire Boulevard
18. Figueroa Street at 7th Street
19. Figueroa Street at James M. Wood Boulevard/9th Street

All of the signalized study intersections are currently signalized and are operating under either the City's ATSAC (Automated Traffic Surveillance and Control) System or the Adaptive Traffic Control System (ATCS). ATCS/ATSAC is a highly sophisticated computerized system that continually monitors traffic demand at signalized intersections within the system, and modifies traffic signal timing in real time to maximize capacity and decrease delay. The ATSAC signal enhancements have been recognized to increase intersection capacities by approximately seven percent at locations where it has been installed, and the upgraded ATCS system is able to increase capacity by an additional three percent for a total intersection capacity increase of ten percent. Seventeen (17) of the study intersections currently operate under only the ATSAC system, while two of the intersections operate under the upgraded ATCS system.

The methodology used in this study for the analysis and evaluation of traffic operations at each study intersection is based on procedures outlined in Circular Number 212 of the Transportation Research Board.<sup>1</sup> In the discussion of Critical Movement Analysis for signalized intersections, procedures have been developed for determining operating characteristics of an intersection in terms of the "Level of Service" provided for different levels of traffic volume and other variables, such as the number of signal phases. The term "Level of Service" (LOS) describes the quality of traffic flow. LOS grades A through C operate well. LOS D typically is the level for which a metropolitan area street system is designed. LOS E represents volumes at or near the capacity of the highway with some longstanding queues on critical approaches and fairly unstable flow. LOS F occurs when a facility is overloaded and is characterized by stop-and-go traffic with stoppages of long duration.

A determination of the LOS at an intersection, where traffic volumes are known or have been projected, can be obtained through a summation of the critical movement volumes at that intersection. Once the sum of critical movement volumes has been obtained, the values indicated in Table 1 can be used to determine the applicable LOS.

**Table 1**  
**Critical Movement Volume Ranges <sup>[1]</sup>**  
**For Determining Levels of Service**

<b>Level of Service</b>	<b>Maximum Sum of Critical Volumes (VPH)</b>		
	<b>Two Phase</b>	<b>Three Phase</b>	<b>Four or More Phases</b>
A	900	855	825
B	1,050	1,000	965
C	1,200	1,140	1,100
D	1,350	1,275	1,225
E	1,500	1,425	1,375
F	-----Not Applicable-----		

**Note**  
<sup>[1]</sup> For planning applications only, i.e., not appropriate for operations and design applications.

<sup>1</sup> Interim Materials on Highway Capacity, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.

"Capacity" represents the maximum total hourly movement volume of vehicles in the critical lanes which has a reasonable expectation of passing through an intersection under prevailing roadway and traffic conditions. For planning purposes, capacity equates to the maximum value of LOS E, as indicated in Table 1. The Critical Movement Analysis (CMA) indices used in this study were calculated by dividing the sum of critical movement volumes by the appropriate capacity value for the type of signal control present or proposed at the study intersections. Thus, the LOS corresponding to a range of CMA values is shown in Table 2.

**Table 2**  
**Level of Service**  
**As a Function of CMA Values**

<b><u>Level of Service</u></b>	<b><u>Description of Operating Characteristics</u></b>	<b><u>Range of CMA Values</u></b>
A	Uncongested operations; all vehicles clear in a single cycle.	$\leq 0.60$
B	Same as above.	$>0.60 \leq 0.70$
C	Light congestion; occasional backups on critical approaches.	$>0.70 \leq 0.80$
D	Congestion on critical approaches, but intersection functional. Vehicles required to wait through more than one cycle during short peaks. No long-standing lines formed.	$>0.80 \leq 0.90$
E	Severe congestion with some long-standing lines on critical approaches. Blockage of intersection may occur if traffic signal does not provide for protected turning movements.	$>0.90 \leq 1.00$
F	Forced flow with stoppages of long duration.	$> 1.00$

By applying this analysis procedure to the study intersections, the CMA value and the corresponding LOS for existing traffic conditions were calculated. These basic CMA calculations were adjusted, however, to account for traffic signal enhancements which are not considered in the CMA methodology. As described previously, the City's ATSAAC system has been implemented at 17 of the signalized intersections in the study



area, which LADOT has determined results in an approximate seven percent increase in capacity over locations where the system is not implemented. In addition, the City's upgraded ATCS system has been implemented at the remaining two signalized study intersections, resulting in an additional three percent for a total intersection capacity increase of ten percent. Therefore, per LADOT policy, the CMA value calculated using the standard methodology was reduced by either 0.070 or 0.100 for the 19 study intersections, in order to approximate the increase in intersection capacity resulting from the ATSAC/ATCS implementation.

The resulting intersection conditions for existing (2008) AM and PM peak hour conditions in the study area are shown in Table 3. As summarized in Table 3, 15 of the 19 study intersections are currently operating at very good levels of service (LOS A through LOS C) during both the AM and PM peak hours. During the AM peak hour, both the intersections of Lucas Avenue at 3rd Street and Beaudry Avenue at 2nd Street currently operate at LOS D. During the PM peak hour, the intersection of Bixel Street at 7th Street currently operates at LOS D and both the intersections of Beaudry Avenue at 1st Street and Beaudry Avenue at 2nd Street operate at LOS E. This high quality of traffic flow throughout the study area is primarily due to the operations of the many one-way streets in the project vicinity. One-way streets generally provide substantially more operational capacity than typical two-way streets due to the lack of many of the conflicting moves that limit green time and traffic flow at intersections of two-way streets. The CMA calculation worksheets for existing (2008) traffic conditions are provided in Appendix D.

**Table 3**  
**Critical Movement Analysis (CMA) Summary**  
**Existing (2008) Traffic Conditions**

<b>No.</b>	<b>Intersection</b>	<b>AM Peak Hour</b>		<b>PM Peak Hour</b>	
		<b>CMA</b>	<b>LOS</b>	<b>CMA</b>	<b>LOS</b>
1.	Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street	0.639	B	0.736	C
2.	Lucas Avenue at 3rd Street	0.883	D	0.728	C
3.	Lucas Avenue at 6th Street	0.593	A	0.672	B
4.	Lucas Avenue at Wilshire Boulevard	0.623	B	0.725	C
5.	Bixel Street at 6th Street	0.741	C	0.797	C
6.	Bixel Street at Wilshire Boulevard	0.579	A	0.676	B
7.	Bixel Street at 7th Street	0.725	C	0.885	D
8.	Bixel Street/SR-110 Southbound On-Ramp at 8th Street	0.403	A	0.431	A
9.	Beaudry Avenue at 1st Street	0.641	B	0.941	E
10.	Beaudry Avenue at 2nd Street	0.836	D	0.935	E
11.	Beaudry Avenue at the SR-110 Southbound Off-Ramp	0.583	A	0.517	A
12.	Beaudry Avenue at Miramar Street/3rd Street	0.768	C	0.525	A
13.	Beaudry Avenue at 5th Street/6th Street	0.559	A	0.621	B
14.	Beaudry Avenue at Wilshire Boulevard	0.597	A	0.418	A
15.	Figueroa Street at 5th Street	0.363	A	0.495	A
16.	Figueroa Street at 6th Street	0.485	A	0.564	A
17.	Figueroa Street at Wilshire Boulevard	0.525	A	0.653	B
18.	Figueroa Street at 7th Street	0.491	A	0.581	A
19.	Figueroa Street at James M. Wood Boulevard/9th Street	0.525	A	0.447	A

## PROJECT TRAFFIC

The following section describes the methodology used to determine the trip generation, distribution and assignment of traffic resulting from the proposed project. The proposed project entails the construction of a development containing 725 apartment dwelling units and 39,999 square feet of retail uses. The existing uses on the project site, which are occupied with 20,800 square feet of medical offices; 14 units of apartment housing; 2,600 square feet of general office; and 18,250 square feet of warehouse, will be removed in conjunction with the proposed project.

### **Traffic Generation**

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) Trip Generation (7th Edition, 2003) manual for similar uses as those proposed and existing were used: ITE Land Use Code (LUC) 220 – Apartment, LUC 820 – Shopping Center, LUC 720 – Medical-Dental Office Building, LUC 150 – Warehousing, and LUC 710 – General Office Building. Table 4 presents the trip generation equations used to generate the peak-hour and daily traffic volumes for the proposed project.

As the existing uses on the site will be removed to develop the proposed project, the trips generated by the existing uses are deducted to determine the net trip generation attributable to the project. Typically, the ITE trip rates are used to calculate both the project and existing use trips. As shown in Table 4, the average rates (and not the fitted curve equations) were used to estimate the trip generation for the office component of the existing site uses. Although the fitted curve equations are normally used for office developments, the average rates were used in this case due to the small amount of office space currently occupying the project site (only 2,600 square feet of office space).

**Table 4**  
**Project Trip Generation Equations and Rates <sup>[1]</sup>**

Apartment, ITE LUC 220 (trips per dwelling unit)

Daily:	$T = 6.01 (U) + 150.35$
AM Peak Hour:	$T = 0.49 (U) + 3.73$ ; I/B = 20%, O/B = 80%
PM Peak Hour:	$T = 0.55 (U) + 17.65$ ; I/B = 65%, O/B = 35%

Shopping Center, ITE LUC 820 (trips per 1,000 square feet of gross leasable area)

Daily:	$\ln (T) = 0.65 \ln (A) + 5.83$
AM Peak Hour:	$\ln (T) = 0.60 \ln (A) + 2.29$ ; I/B = 61%, O/B = 39%
PM Peak Hour:	$\ln (T) = 0.66 \ln (A) + 3.40$ ; I/B = 48%, O/B = 52%

Medical-Dental Office Bldg., ITE LUC 720 (trips per 1,000 square feet of gross floor area)

Daily:	$T = 36.13 (A)$
AM Peak Hour:	$T = 2.48 (A)$ ; I/B = 79%, O/B = 21%
PM Peak Hour:	$T = 3.72 (A)$ ; I/B = 27%, O/B = 73%

Warehousing, ITE LUC 150 (trips per 1,000 square feet of gross floor area)

Daily:	$T = 4.96 (A)$
AM Peak Hour:	$T = 0.45 (A)$ ; I/B = 82%, O/B = 18%
PM Peak Hour:	$T = 0.47 (A)$ ; I/B = 25%, O/B = 75%

Office, ITE LUC 710 (trips per 1,000 square feet of gross floor area)

Daily:	$T = 11.01 (A)$
AM Peak Hour:	$T = 1.55 (A)$ ; I/B = 88%, O/B = 12%
PM Peak Hour:	$T = 1.49 (A)$ ; I/B = 17%, O/B = 83%

Notes

Source: Institute of Transportation Engineers (ITE) Trip Generation (7th Edition, 2003) - Land Use Code (LUC) 220 Apartment, LUC 820 Shopping Center, LUC 720 Medical-Dental Office Building, LUC 150 Warehousing, and LUC 710 General Office Building.

T = Trip Ends; U = Dwelling Unit; A = Gross Leasable or Floor Area (Thousands of Square Feet);  
I/B = Inbound; O/B = Outbound.

Accordingly, the ITE Trip Generation equations provided in Table 4 were used to determine estimates of the project daily, AM and PM peak-hour trips. The equations used to calculate the project's trip generation present a conservative condition, as these equations do not account for such trip-reducing factors as multi-purpose trips, extensive transit usage and pass-by trips. These factors play a significant role in determining the actual traffic-generating characteristics of a particular project, and therefore, adjustments to the traffic generation estimates were deemed appropriate.

Trip reductions related to the proposed project are expected to occur as a result of “multi-purpose” or “internal” trips within the site. This type of trip generally occurs at integrated mixed-use developments containing a variety of uses. It is generally recognized that residents or patrons of a site will utilize other on-site uses if they are conveniently located or provide useful services or amenities, with the level of interaction dependent upon the number of residents or patrons, service providers, accessibility, and other factors. For this particular project, some of the apartment residents are expected to use the on-site retail uses, thereby reducing some of the trips the apartment and retail uses would otherwise generate.

Thus, the advantages of this mixed-use project need to be considered in order to reasonably evaluate the project’s trip-making potential. It was estimated that of the residential trips, approximately five percent would utilize the on-site retail uses. Consequently, the corresponding number of retail use trips would be from residents. This internal capture percentage has been approved by LADOT staff.

The use of public transportation is another important consideration in the evaluation of a project’s trip making potential. As noted previously in the Public Transit section of this report, the project site is well served by bus lines provided by various transit operators, as well as rail service. These transit operators provide both local and regional routes that are easily accessible to project residents, visitors, employees, and retail patrons. Significant transit use is not accounted for in the published ITE Trip Generation equations; therefore, appropriate adjustments were made to both the proposed and existing uses trip generation to account for transit usage.

“Walk-in” trips are trips that are already occurring in the project vicinity but have other nearby downtown Los Angeles attractions as their specified destinations. These trips account for “built-in” patronage and subsequent traffic reductions for both the project specifically and downtown in general. These trips are expected to continue to occur

with or without the development of the project. They are not directly site-oriented, but provide walk-in patronage from other nearby destinations, thereby reducing site vehicular trips. A twenty five percent combined transit/walk-in trip reduction was assumed for both proposed and existing uses. This transit/walk-in percentage has been approved by LADOT staff.

Trip reduction factors for the proposed project also account for the presence of “pass-by” trips. As these trips pass by the project, the specific convenient facilities provided by the project (or other factors) produce a stop at the site. Such activity is considered to be an interim stop along a trip which existed irrespective of the development of the project, and therefore vehicles making these stops are not considered to be newly generated project-related traffic. LADOT has developed a series of recommended pass-by trip reduction percentages for various development types and sizes. Based on these recommendations, it was assumed that the proposed project retail use would experience a fifty percent pass-by reduction. A summary of the baseline trip generation reduction factors is shown in Table 5.

**Table 5  
Project Trip Reduction Factors**

**Proposed Uses**

<b>Land Use</b>	<b>Internal Capture</b>	<b>Transit/Walk-In Factor</b>	<b>Pass-by Discount</b>
Apartment	5%	25%	0%
Retail	(based on Apartment use)	25%	50%

**Existing Uses**

<b>Land Use</b>	<b>Internal Capture</b>	<b>Transit/Walk-In Factor</b>	<b>Pass-by Discount</b>
Medical-Dental Office Bldg.	0%	25%	0%
Warehouse	0%	25%	0%
Apartment	0%	25%	0%
Office	0%	25%	0%

Based on the trip generation rates and trip reduction factors, projections of the amount of net new traffic to be generated by the project were derived. Table 6 summarizes the trip generation for the proposed project. As shown in Table 6, once completed and occupied, the Good Samaritan mixed-use project is anticipated to generate a total of 3,800 net new trips per day, with 230 net new vehicles per hour (VPH) during the AM peak hour and 341 net new VPH during the PM peak hour. These trip estimates were used to identify the impacts of project traffic at all but two study intersections which are immediately adjacent to the project site.

However, per LADOT policy and as a conservative procedure, trip reductions for retail pass-by activity were not applied to the project's driveways and adjacent intersections, since pass-by trips, while not new to the area roadways, will be included in the number of vehicles that enter and exit the site's driveways and adjacent intersection turning movements required for project access. The total project traffic volumes at the project driveways and site adjacent intersections were also calculated. These calculations indicate that approximately 5,120 net new trips per day, with 257 net new VPH during the AM peak hour and 462 net new VPH during the PM peak hour, would access the project driveways. This amount of new project traffic was used to estimate project traffic impacts at the immediately site adjacent intersections of Lucas Avenue at 6th Street and Bixel Street at 6th Street.

**Table 6  
Project Trip Generation**

Proposed Use	Size <sup>[1]</sup>	Daily	AM Peak Hour			PM Peak Hour		
			I/B	O/B	Total	I/B	O/B	Total
Apartment	725 du	4,510	72	287	359	270	146	416
Retail	39,999 sf	3,740	55	35	90	164	178	342
Subtotal		8,250	127	322	449	434	324	758
Less Internal Linkages Trip Adjustment								
Apartment	5%	(230)	(4)	(14)	(18)	(14)	(7)	(21)
Retail (based on Apartment)		(230)	(14)	(4)	(18)	(7)	(14)	(21)
		(460)	(18)	(18)	(36)	(21)	(21)	(42)
Less Transit/Walk Trip Adjustment								
Apartment	25%	(1,070)	(17)	(68)	(85)	(64)	(35)	(99)
Retail	25%	(880)	(10)	(8)	(18)	(39)	(41)	(80)
		(1,950)	(27)	(76)	(103)	(103)	(76)	(179)
<b>Net Proposed Driveway Trips [A]:</b>		<b>5,840</b>	<b>82</b>	<b>228</b>	<b>310</b>	<b>310</b>	<b>227</b>	<b>537</b>
Less Pass-By Trip Adjustment								
Retail	50%	(1,320)	(16)	(11)	(27)	(59)	(62)	(121)
<b>Net Proposed Trips [B]:</b>		<b>4,520</b>	<b>66</b>	<b>217</b>	<b>283</b>	<b>251</b>	<b>165</b>	<b>416</b>
<b>Existing Uses (Being Removed)</b>								
Medical-Dental Office Building	20,800 sf	750	41	11	52	21	56	77
Warehouse	18,250 sf	90	7	1	8	2	7	9
Apartment	14 du	90	1	6	7	6	3	9
Office	2,600 sf	30	4	0	4	1	3	4
Subtotal	41,664 sf	960	53	18	71	30	69	99
Less Transit/Walk Trip Adjustment								
Medical-Dental Office Building	25%	(190)	(10)	(3)	(13)	(5)	(14)	(19)
Warehouse	25%	(20)	(2)	0	(2)	0	(2)	(2)
Apartment	25%	(20)	0	(2)	(2)	(1)	(1)	(2)
Office	25%	(10)	(1)	0	(1)	0	(1)	(1)
		(240)	(13)	(5)	(18)	(6)	(18)	(24)
<b>Net Existing Driveway Trips [C]:</b>		<b>720</b>	<b>40</b>	<b>13</b>	<b>53</b>	<b>24</b>	<b>51</b>	<b>75</b>
<b>Net Existing Trips [D]:</b>		<b>720</b>	<b>40</b>	<b>13</b>	<b>53</b>	<b>24</b>	<b>51</b>	<b>75</b>
<b>Net Project Driveway Trips [A-C]:</b>		<b>5,120</b>	<b>42</b>	<b>215</b>	<b>257</b>	<b>286</b>	<b>176</b>	<b>462</b>
<b>Net Project Trips [B-D]:</b>		<b>3,800</b>	<b>26</b>	<b>204</b>	<b>230</b>	<b>227</b>	<b>114</b>	<b>341</b>

Notes:

<sup>[1]</sup> du = Dwelling Units; sf = Square Feet.



## **Trip Distribution**

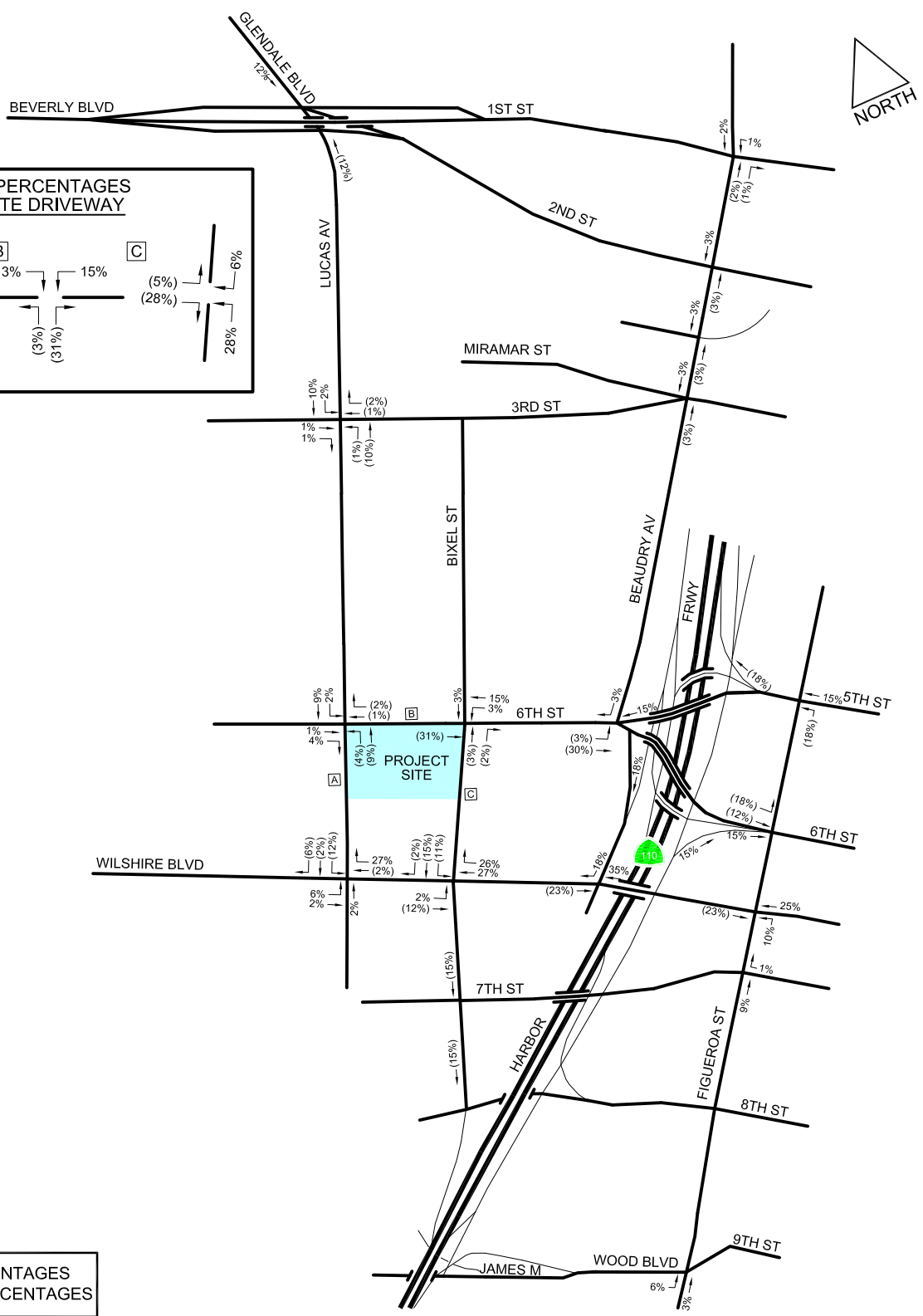
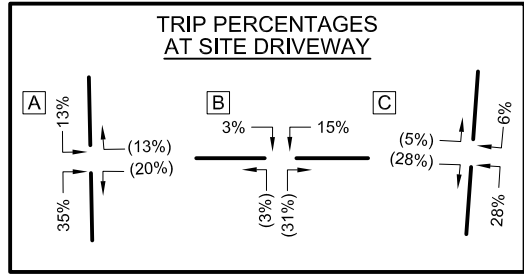
Estimation of the geographic distribution of project trips was the next step in the analytical process. The primary factors affecting the project trip distribution are the nature of the project uses, existing traffic patterns, characteristics of the surrounding roadway system, the geographic location of the project and its proximity to freeways and major travel routes, employment centers to which residents would likely be attracted, and areas from which retail employees and patrons would likely be attracted. Based on these factors, the overall project distributions were determined, and are summarized in Table 7.

**Table 7**  
**Directional Project Trip Distribution Percentages**

<b><u>Direction</u></b>	<b><u>Percentages</u></b>
North	32%
South	26%
East	27%
<u>West</u>	<u>15%</u>
Total:	100%

## **Trip Assignment**

The general distribution percentages shown in Table 7 were then disaggregated and assigned to specific routes and intersections that are expected to be used for project access. These project trip assignment percentages, approved by LADOT staff, are presented in Figure 5. Applying these inbound and outbound percentages to the net project trip generation previously shown in Table 6, net project traffic volumes at the 19 study intersections were determined for the AM and PM peak hours. The net project AM and PM traffic volumes are depicted in Figures 6(a) and 6(b), respectively.



XX% - INBOUND PERCENTAGES  
 (XX%) - OUTBOUND PERCENTAGES

FIGURE 5

3/10/2008

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PROJECT TRIP DISTRIBUTION PERCENTAGES



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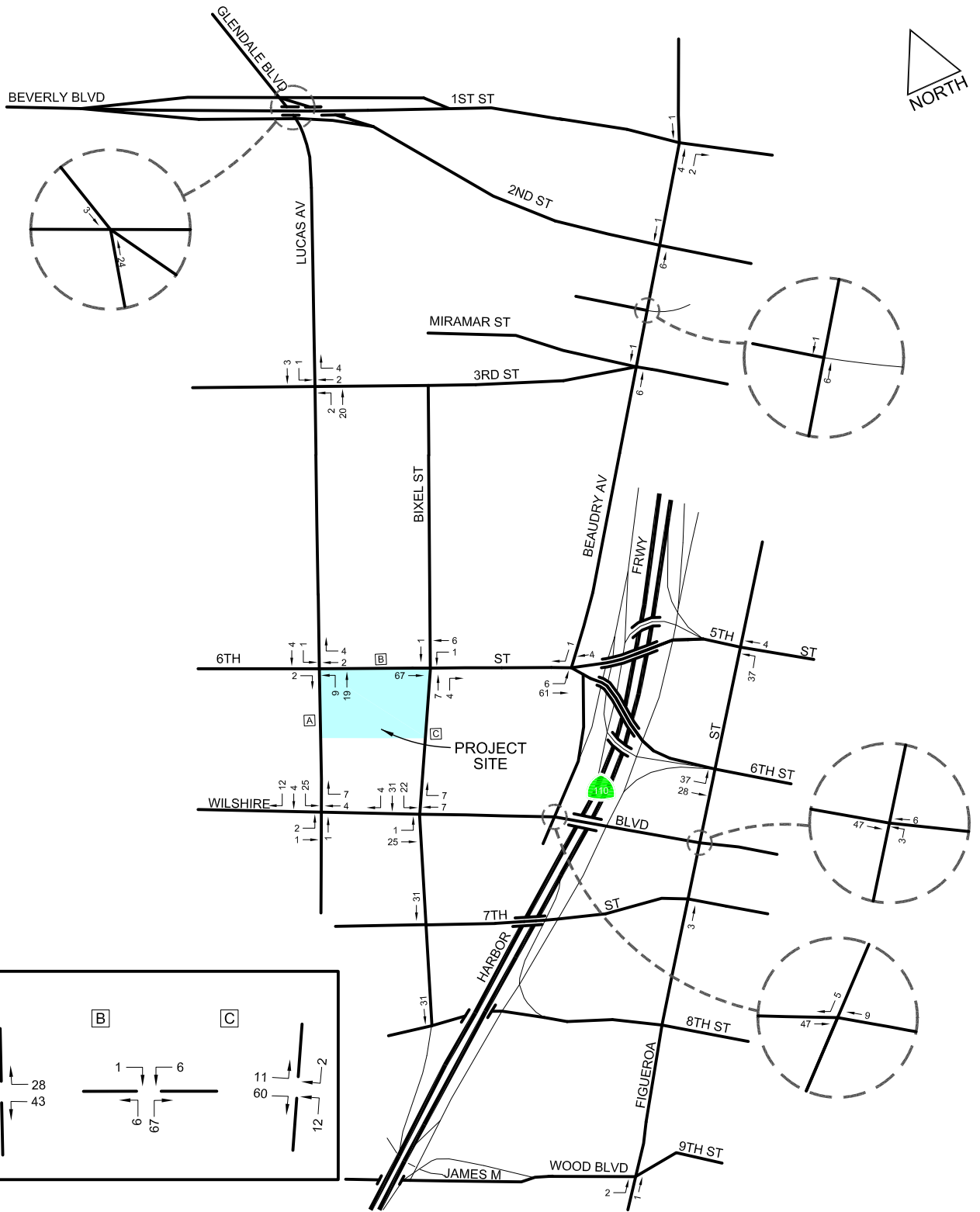


FIGURE 6(a)

3/10/2008

FN: GOOD SAMARITAN SITE WILSHIRE/AMPRJ/VOL

NET PROJECT TRAFFIC VOLUMES  
AM PEAK HOUR



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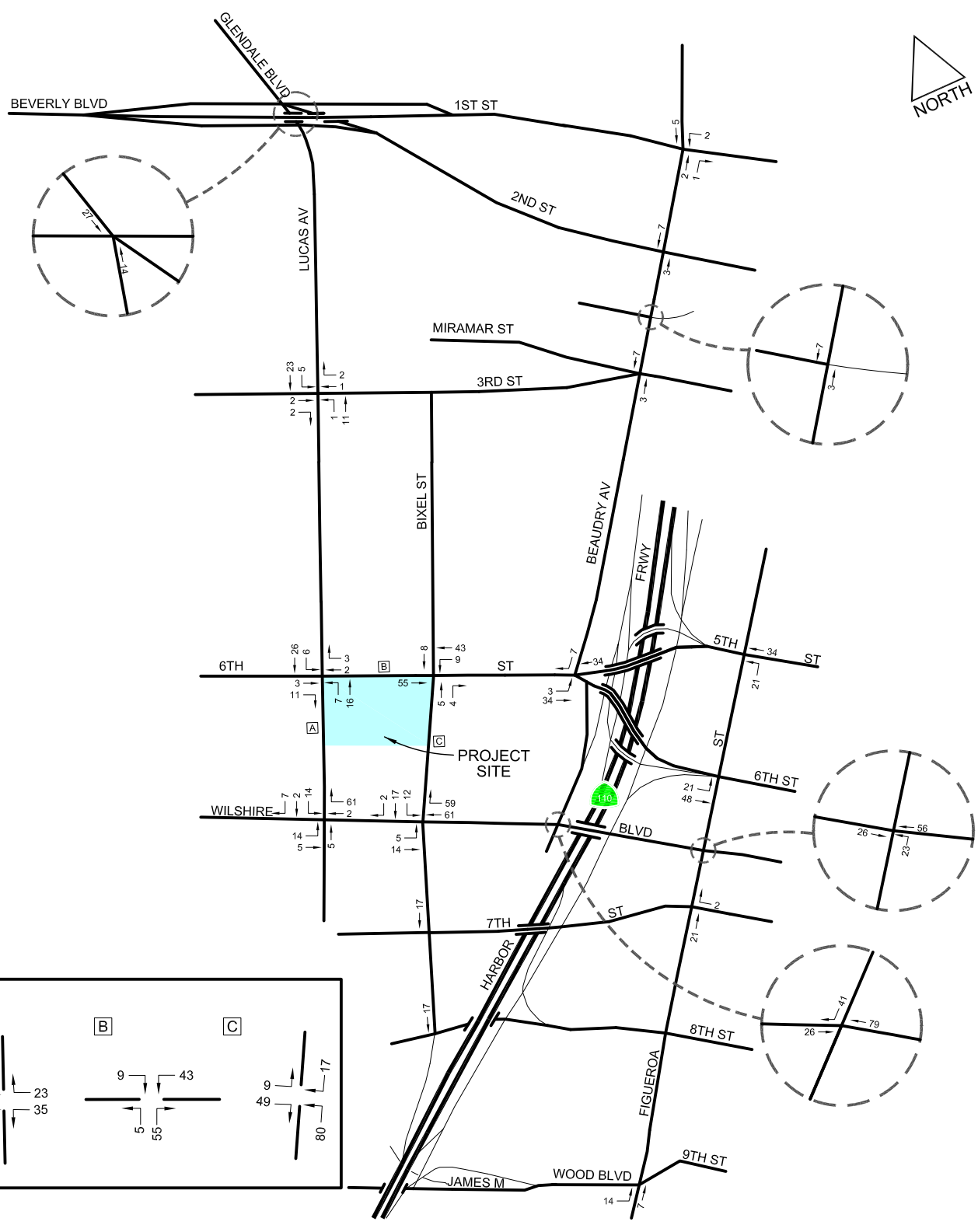


FIGURE 6(b)

3/10/2008

FN: GOOD SAMARITIAN SITE WILSHIRE/PMRJVOL

NET PROJECT TRAFFIC VOLUMES  
PM PEAK HOUR



Transportation Planning  
Traffic Engineering  
2007 Sawtelle Boulevard  
Los Angeles California 90025  
PH (310) 473 6508 F (310) 444 9771  
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## **Parking and Access**

Parking would be provided in accordance with the requirements of the City of Los Angeles Municipal Code (LAMC). Sufficient parking would be provided within a subterranean/above grade parking garage to meet the LAMC requirements for the proposed residential apartment units and retail uses. No off-site parking impacts are anticipated as a result of this project. Vehicular access to the site is currently planned via three project driveways. The three driveways will intersect the south side of 6th Street, the east side of Lucas Avenue, and the west side of Bixel Street, respectively. All three driveways will provide access to both the residential and retail portions of the proposed parking structure.

## **FUTURE TRAFFIC CONDITIONS**

There are a number of projects either under construction or planned for development in the project vicinity which may contribute to future traffic volumes in the study area. For this reason, the analysis of future traffic conditions has been expanded to include potential traffic volume increases expected to be generated by other projects that have been proposed but not yet been developed. In order to evaluate future traffic conditions in the project area, an analysis of existing (2008) traffic volumes was first conducted, as described previously. For the analysis of future conditions, an ambient traffic growth factor of 1.0 percent per year, compounded annually, was applied to the existing volumes at the 19 study intersections to develop future year (2012) baseline traffic volumes.

Although the inclusion of the annual growth factor generally accounts for area-wide traffic increases, for the purposes of providing a conservative analysis, the traffic generated by “related projects” in the study area was also added to the future baseline traffic volumes. The total future volumes, including related projects, provide the basis for the future (2012) Without Project condition. Finally, traffic expected to be generated by the project was analyzed as an incremental addition to the future (2012) Without Project condition to determine the future (2012) With Project condition.

### **Ambient Traffic Growth**

Based on an analysis of the trends in traffic growth in the downtown Los Angeles area over the last several years, as documented in the Los Angeles County Congestion Management Program (CMP), LADOT has determined that an annual traffic growth factor of 1.0 percent is reasonable. This growth factor is used to account for increases in traffic due to potential development projects not yet proposed or outside the study area. Compounded annually, the ambient traffic growth factor was applied to the

existing (2008) traffic volumes to develop the estimated baseline volumes for the future study year (2012).

### **Related Projects**

In addition to the use of the ambient growth rate, listings of potential projects located in the study area ("related projects") that might be developed within the study time frame were obtained from LADOT, the City of Los Angeles Planning Department, Los Angeles Unified School District (LAUSD), and recent studies of projects in the area. A review of the information currently available indicated that a total of 114 projects near the project site could add traffic to the study intersections.

The locations of these related projects are shown in Figure 7, and the related project descriptions and trip generation estimates are listed in Table 8. This list of cumulative projects accurately reflects the related project proposals at the time of preparation of this document. The number of trips expected to be generated by the related projects was determined by applying the appropriate trip generation rates and equations from the ITE Trip Generation manual, or were obtained from LADOT records. The ITE trip generation rates and equations are provided in Appendix C.

For the analysis of future (2012) Without Project traffic conditions, the related projects trip generation was assigned to the study area circulation system, using methodologies similar to those previously described for project trip assignment. The total related projects traffic volumes assigned to the study intersections are illustrated in Figures 8(a) and 8(b) for the AM and PM peak hours, respectively.

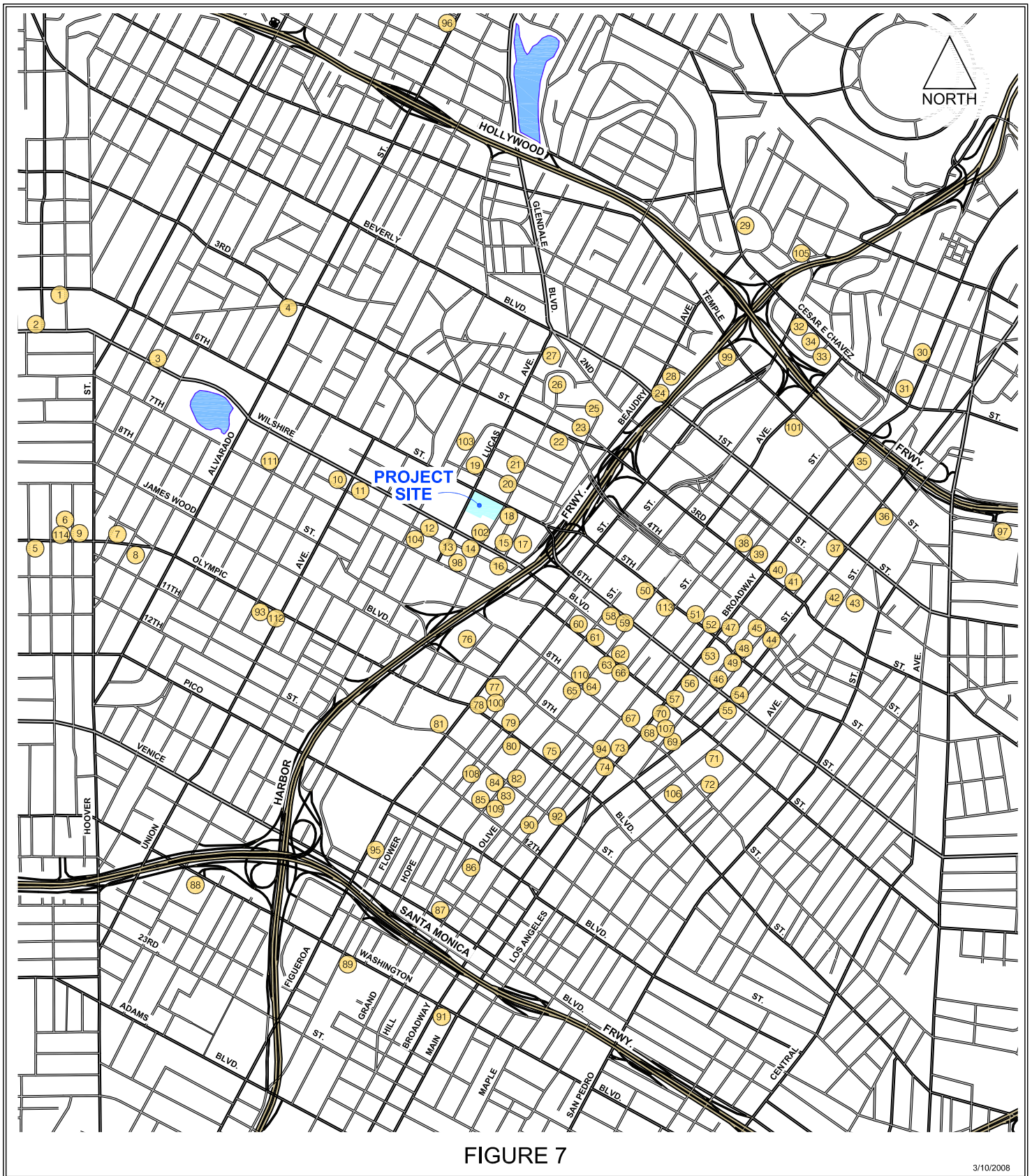


FIGURE 7

3/10/2008

FN: GOOD SAMARITAN SITE WILSHIRE/RELP/PROJIS

RELATED PROJECTS LOCATION MAP



Transportation Planning  
Traffic Engineering  
&  
**ASSOCIATES**  
2007 Sawtelle Boulevard  
Los Angeles California 90025  
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**Table 8  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
1.	2950 6th Street	7,500 sf	Retail	332	5	4	9	9	11	20
		277 du	Condominium	1,623	21	101	122	96	48	144
		80 rm	Hotel	654	27	18	45	25	22	47
		13,000 sf	Restaurant	<u>1,653</u>	<u>78</u>	<u>72</u>	<u>150</u>	<u>87</u>	<u>55</u>	<u>142</u>
				4,262	131	195	326	217	136	353
2.	3033 Wilshire Boulevard	190 du	Condominium	1,113	14	70	84	66	33	99
		5,540 sf	Retail	<u>246</u>	<u>4</u>	<u>3</u>	<u>7</u>	<u>7</u>	<u>8</u>	<u>15</u>
				1,359	18	73	91	73	41	114
3.	2525 Wilshire Boulevard	118 du	Condominium	691	9	43	52	41	20	61
		3,000 sf	Retail	<u>133</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>4</u>	<u>4</u>	<u>8</u>
				824	11	45	56	45	24	69
4.	2100 3rd Street	24,075 sf	Medical Office	870	47	13	60	24	66	90
5.	2580 Olympic Boulevard	23,501 sf	Retail	1,042	17	11	28	28	36	64
6.	981 Arapahoe Street	60 du	Condominium	352	4	22	26	21	10	31
		6,000 sf	Retail	<u>266</u>	<u>4</u>	<u>3</u>	<u>7</u>	<u>7</u>	<u>9</u>	<u>16</u>
				618	8	25	33	28	19	47
7.	2323 Olympic Boulevard	87 du	Condominium	510	6	32	38	30	15	45
		70,231 sf	Retail	<u>5,397</u>	<u>77</u>	<u>50</u>	<u>127</u>	<u>238</u>	<u>258</u>	<u>496</u>
				5,907	83	82	165	268	273	541
8.	2222 Olympic Boulevard	28,800 sf	Bank	4,507	59	58	117	478	477	955
9.	2515 Olympic Boulevard	25,880 sf	Auto Sale	863	39	14	53	27	41	68
10.	1610 W 7th Street	46 du	Apartment	309	5	18	23	19	10	29
11.	650 S Union Avenue <sup>[1]</sup>	1,521 st	Central Los Angeles New Middle School #1	(870)	132	254	386	119	109	228
12.	1234 Wilshire Boulevard	12,500 sf	Retail	554	9	6	15	15	19	34
		210 du	Apartment	<u>1,411</u>	<u>21</u>	<u>86</u>	<u>107</u>	<u>85</u>	<u>45</u>	<u>130</u>
				1,965	30	92	122	100	64	164
13.	662 Lucas Avenue	311 du	Condominium	1,822	23	114	137	109	53	162

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
14.	1100 Wilshire Boulevard	14,000 sf	Retail	620	10	7	17	17	21	38
		228 du	Condominium	<u>1,336</u>	<u>17</u>	<u>83</u>	<u>100</u>	<u>80</u>	<u>39</u>	<u>119</u>
				1,956	27	90	117	97	60	157
15.	1027 Wilshire Boulevard	4,728 sf	Retail	210	4	2	6	6	7	13
		402 du	Condominium	<u>2,356</u>	<u>30</u>	<u>147</u>	<u>177</u>	<u>140</u>	<u>69</u>	<u>209</u>
				2,566	34	149	183	146	76	222
16.	1010 Wilshire Boulevard	250 du	Condominium	1,465	19	91	110	87	43	130
17.	616 Saint Paul Street	10,000 sf	Commercial	443	7	5	12	12	15	27
		330 du	Apartment	<u>2,218</u>	<u>34</u>	<u>134</u>	<u>168</u>	<u>133</u>	<u>72</u>	<u>205</u>
				2,661	41	139	180	145	87	232
18.	1076 6th Street	20,000 sf	Retail	886	14	10	24	24	30	54
		600 du	Apartment	<u>4,032</u>	<u>61</u>	<u>245</u>	<u>306</u>	<u>242</u>	<u>130</u>	<u>372</u>
				4,918	75	255	330	266	160	426
19.	474 S Hartford Avenue <sup>[2]</sup>	380 st	Gratts New Primary School	527	109	47	156	48	58	106
20.	5th Street and Bixel Street	249,300 sf	Sound Stages and Production Support	1,738	202	27	229	29	215	244
21.	1311 5th Street	7,037 sf	Retail	312	5	3	8	8	11	19
		130 du	Condominium	<u>762</u>	<u>10</u>	<u>47</u>	<u>57</u>	<u>46</u>	<u>22</u>	<u>68</u>
				1,074	15	50	65	54	33	87
22.	1234 3rd Street	7,740 sf	Retail	343	5	4	9	9	12	21
		363 du	Apartment	<u>2,439</u>	<u>37</u>	<u>148</u>	<u>185</u>	<u>146</u>	<u>79</u>	<u>225</u>
				2,782	42	152	194	155	91	246
23.	1207 3rd Street	50,000 sf	Commercial	4,328	63	40	103	190	206	396
		330 du	Apartment	<u>2,218</u>	<u>34</u>	<u>134</u>	<u>168</u>	<u>133</u>	<u>72</u>	<u>205</u>
				6,546	97	174	271	323	278	601
24.	110 Beaudry Avenue	5,000 sf	Retail	222	4	2	6	6	8	14
		200 du	Apartment	<u>1,344</u>	<u>20</u>	<u>82</u>	<u>102</u>	<u>81</u>	<u>43</u>	<u>124</u>
				1,566	24	84	108	87	51	138
25.	1201 Miramar Street	500 st	High School	855	141	64	205	33	37	70

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
26.	260 S Bixel Street <sup>[3]</sup>	1,701 st	Central Los Angeles Area New High School #10	2,909	272	170	442	112	126	238
27.	1304 2nd Street	300 du	Apartment	2,016	31	122	153	121	65	186
28.	1030 Mignonette Street <sup>[4]</sup>	5,000 sf	<u>Beaudry Avenue Residential</u> Retail	1,570	19	81	100	91	53	144
		204 du	Apartment							
29.	1111 Sunset Boulevard	71 du	Apartment	477	7	29	36	29	15	44
30.	711 N Broadway	65 du	Apartment	437	7	26	33	26	14	40
31.	Cesar E. Chavez Avenue and Broadway <sup>[5]</sup>		<u>Chinatown Gateway</u>	2,665	40	112	152	145	102	247
		280 du	Condominium							
		22,000 sf	Retail							
32.	550 Figueroa Street	30,000 sf	Retail	3,105	46	30	76	136	147	283
		600 du	Apartment	<u>4,032</u>	<u>61</u>	<u>245</u>	<u>306</u>	<u>242</u>	<u>130</u>	<u>372</u>
				7,137	107	275	382	378	277	655
33.	500 Bunker Hill Avenue	17,000 sf	Supermarket	1,738	34	21	55	91	87	178
		4,200 sf	Retail	<u>186</u>	<u>3</u>	<u>2</u>	<u>5</u>	<u>5</u>	<u>6</u>	<u>11</u>
				1,924	37	23	60	96	93	189
34.	Cesar E Chavez Av. and Bunker Hill Av.	272 du	Condominium	1,594	20	100	120	94	47	141
		6,431 sf	Retail	285	5	3	8	7	10	17
		8,000 sf	Restaurant	<u>1,017</u>	<u>48</u>	<u>44</u>	<u>92</u>	<u>53</u>	<u>34</u>	<u>87</u>
				2,896	73	147	220	154	91	245
35.	211 Temple Street	1,660 emp	Hall of Justice Building	19,837	1,422	271	1,693	2,347	824	3,171
36.	Los Angeles Street and Temple Street	179,000 sf	Jail	9,110	859	442	1,301	146	375	521
37.	1st Street and Main Street	500,000 sf	Police HQ Facility Plan	34,465	2,470	470	2,940	188	417	605
38.	249-259 S Broadway	40 du	Condominium	234	3	15	18	14	7	21
39.	250 Hill Street	2,800 sf	Retail	124	2	1	3	4	4	8
		9,200 sf	Restaurant	1,170	55	51	106	61	39	100
		56,200 sf	Health Club	1,851	29	39	68	116	112	228
		330 du	Condominium	<u>1,934</u>	<u>25</u>	<u>120</u>	<u>145</u>	<u>115</u>	<u>57</u>	<u>172</u>
				5,079	111	211	322	296	212	508

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
40.	242 S Broadway	37 du	Apartment	249	4	15	19	15	8	23
41.	257 Spring Street	18,000 sf	Retail	2,228	34	22	56	97	105	202
		50 du	Condominium	<u>293</u>	<u>4</u>	<u>18</u>	<u>22</u>	<u>17</u>	<u>9</u>	<u>26</u>
				2,521	38	40	78	114	114	228
42.	221 Los Angeles Street	300 du	Condominium	1,758	22	110	132	105	51	156
		3,400 sf	Retail	<u>151</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>9</u>
				1,909	24	112	136	109	56	165
43.	200 Los Angeles Street	50,000 sf	Retail	4,328	63	40	103	190	206	396
		570 du	Condominium	3,340	43	208	251	198	98	296
		280 du	Apartment	<u>1,882</u>	<u>29</u>	<u>114</u>	<u>143</u>	<u>113</u>	<u>61</u>	<u>174</u>
				9,550	135	362	497	501	365	866
44.	400 Main Street	5,265 sf	Restaurant and Bar	669	32	29	61	35	22	57
45.	416 S Spring Street	66 du	Condominium	387	5	24	29	23	11	34
46.	548 S Spring Street	157 du	Apartment	1,055	16	64	80	63	34	97
47.	424-426 S Broadway	54 du	Apartment	363	6	22	28	21	12	33
48.	458 S Spring Street	209 du	Apartment	1,404	21	86	107	85	45	130
49.	510 S Spring Street	153 du	Apartment	1,028	16	62	78	62	33	95
50.	506 S Grand Avenue	140 du	Condominium	820	11	51	62	49	24	73
51.	411 W 5th Street	74 du	Apartment	497	8	30	38	30	16	46
52.	315-317 W 5th Street	84 du	Apartment	564	9	34	43	34	18	52
53.	540 S Broadway	143 du	Apartment	961	15	58	73	58	31	89
54.	101-131 E 6th Street <sup>[16]</sup>		<u>Santa Fe Lofts Project</u>	530	9	1	10	30	16	46
		8,927 sf	Retail							
		11,018 sf	Restaurant							
		132 du	Apartment							

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
55.	610 Main Street	726 sf	Retail	32	1	0	1	1	1	2
		13,921 sf	Restaurant	1,770	83	77	160	93	59	152
		726 sf	Pool/Lounge/Event Center	32	1	-	1	1	1	2
				1,834	85	77	162	95	61	156
56.	620 S Main Street	35 du	Apartment	235	4	14	18	14	8	22
57.	219-225 W 7th Street	73 du	Apartment	491	7	30	37	29	16	45
58.	630 W 6th Street	90 du	Apartment	605	9	37	46	36	20	56
59.	609 S Grand Avenue	99 du	Apartment	665	10	40	50	40	21	61
60.	655 S Hope Street	90 du	Apartment	605	9	37	46	36	20	56
61.	727 W 7th Street	221 du	Condominium	1,295	16	81	97	77	38	115
62.	515 7th Street	8,891 sf	Quality Restaurant	800	6	1	7	45	22	67
		7,668 sf	Bar	690	51	11	62	57	30	87
				1,490	57	12	69	102	52	154
63.	520 W 7th Street, 700-708 S Grand Avenue	76 du	Condominium	445	6	27	33	27	13	40
64.	8th Street and Grand Avenue	34,061 sf	Retail	3,372	50	32	82	148	160	308
		10,000 sf	Restaurant	1,272	60	55	115	66	43	109
		875 du	Condominium	5,128	65	320	385	305	150	455
				9,772	175	407	582	519	353	872
65.	801-803 S Grand Avenue	132 du	Condominium	774	10	48	58	46	23	69
66.	500-518 W 7th Street	55 du	Apartment	370	6	22	28	22	12	34
67.	760 S Hill Street	91 du	Apartment	612	9	37	46	36	20	56
68.	756 S Broadway	46 du	Apartment	309	5	18	23	19	10	29
69.	756 S Spring Street	46 du	Apartment	309	5	18	23	19	10	29
70.	740 S Broadway	12,500 sf	Dance Hall	412	6	9	15	26	25	51
71.	738-750 S Los Angeles Street	308 du	Apartment	2,070	31	126	157	124	67	191
72.	315-317 E 8th Street	64 du	Condominium	375	5	23	28	22	11	33
73.	849 S Broadway	147 du	Condominium	861	11	54	65	51	25	76

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
74.	901-909 S Broadway	82 du	Apartment	551	8	34	42	33	18	51
75.	409 W Olympic Boulevard	78 du	Apartment	524	8	32	40	31	17	48
76.	8th Street and San Francisco Street <sup>[6]</sup>		<u>Metropolis</u>	8,010	307	318	625	386	512	898
		836 du	Condominium							
		988,225 sf	Office							
		480 rm	Hotel							
		46,000 sf	Retail							
77.	900 Figueroa Street	27,000 sf	Retail	2,900	43	28	71	127	137	264
		629 du	Condominium	<u>3,686</u>	<u>47</u>	<u>230</u>	<u>277</u>	<u>219</u>	<u>108</u>	<u>327</u>
				6,586	90	258	348	346	245	591
78.	948 Figueroa Street	7,500 sf	Retail	1,261	20	13	33	54	59	113
		156 du	Apartment	<u>1,048</u>	<u>16</u>	<u>64</u>	<u>80</u>	<u>63</u>	<u>34</u>	<u>97</u>
				2,309	36	77	113	117	93	210
79.	605 W Olympic Boulevard	7,142 sf	Quality Restaurant/Night Club	642	48	10	58	36	17	53
80.	1000 S Hope Street	116 du	Apartment	780	12	47	59	47	25	72
81.	Figueroa Street and 11th Street <sup>[7]</sup>		<u>Staples Entertainment Center</u>							
		1,800 rm	Hotel	14,706	615	393	1,008	277	245	522
		7,000 se	Live Theater	12,320	56	14	70	63	63	126
		195,000 sf	Entertainment	17,540	95	63	158	121	71	98
		265,000 sf	Restaurants	23,837	129	86	215	586	289	875
		385,000 sf	Retail	16,311	214	137	351	373	404	777
		125,000 sf	Health Club	4,116	64	87	151	212	136	348
		165,000 sf	General Office	1,962	246	34	280	40	198	238
		135,000 sf	Medical Office	4,878	264	71	335	93	250	343
		800 du	Residential	<u>3,360</u>	<u>60</u>	<u>180</u>	<u>240</u>	<u>116</u>	<u>74</u>	<u>190</u>
				99,030	1,743	1,065	2,808	1,881	1,731	3,612
82.	1058 Grand Avenue	3,472 sf	Retail	154	2	2	4	4	5	9
		128 du	Condominium	<u>750</u>	<u>10</u>	<u>46</u>	<u>56</u>	<u>45</u>	<u>22</u>	<u>67</u>
				904	12	48	60	49	27	76

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
83.	330 W 11th Street	66 du	Condominium	387	5	24	29	23	11	34
84.	1111 Grand Avenue	417 du	Condominium	2,444	31	152	183	145	72	217
		15,000 sf	Retail	<u>1,979</u>	<u>31</u>	<u>19</u>	<u>50</u>	<u>86</u>	<u>93</u>	<u>179</u>
				4,423	62	171	233	231	165	396
85.	1155 Grand Avenue	17,500 sf	Retail	776	13	8	21	21	26	47
		374 du	Condominium	<u>2,192</u>	<u>28</u>	<u>137</u>	<u>165</u>	<u>130</u>	<u>64</u>	<u>194</u>
				2,968	41	145	186	151	90	241
86.	1301 Olive Street	105 du	Condominium	615	8	38	46	37	18	55
		4,500 sf	Retail	<u>199</u>	<u>3</u>	<u>2</u>	<u>5</u>	<u>5</u>	<u>7</u>	<u>12</u>
				814	11	40	51	42	25	67
87.	1530 Olive Street	31,655 sf	Clinic	1,144	62	17	79	32	86	118
88.	902 Washington Boulevard	160 du	Condominium	938	12	58	70	56	27	83
89.	400 Washington Boulevard <sup>[8]</sup>	n/a	LA Trade Tech College	n/a	380	83	463	101	741	842
90.	1115 S Hill Street	172 du	Condominium	1,008	13	63	76	60	29	89
		6,850 sf	Retail	<u>304</u>	<u>5</u>	<u>3</u>	<u>8</u>	<u>8</u>	<u>11</u>	<u>19</u>
				1,312	18	66	84	68	40	108
91.	1933 Broadway <sup>[9]</sup>	285,000 sf	LA Mart	----- nominal -----						
92.	12th Street and Broadway <sup>[10]</sup>		<u>Herald Examiner</u>	5,416	137	211	348	280	268	548
		575 du	Condominium							
		39,610 sf	Shopping Center							
		39,725 sf	Office							
93.	1630 Olympic Boulevard	5,432 sf	Office	142	16	2	18	14	71	85
		7,168 sf	Uniform Sales Store	<u>476</u>	<u>6</u>	<u>1</u>	<u>7</u>	<u>14</u>	<u>13</u>	<u>27</u>
				618	22	3	25	28	84	112
94.	9th Street and Hill Street <sup>[11]</sup>	267 du	<u>Eastern Tower</u> Condominium	1,140	14	56	70	64	38	102
		5,520 sf	Retail							
95.	1360 & 1500 Figueroa Street <sup>[15]</sup>	518 du	<u>1360 and 1500 Figueroa Street</u> Condominium	1,641	13	108	121	92	57	149
		9,073 sf	Retail							

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
96.	Alvarado Street and Santa Ynez Street	875 st	LAUSD Cen. Reg. Elementary School #14	1,129	202	166	368	110	135	245
97.	Commercial Street and Hewitt Street	2 ac	Bus Maintenance & Inspection Facility	104	12	3	15	3	12	15
98.	1135 7th Street	7,037 sf	Retail	312	5	3	8	8	11	19
		130 du	Condominium	<u>762</u>	<u>10</u>	<u>47</u>	<u>57</u>	<u>46</u>	<u>22</u>	<u>68</u>
				1,074	15	50	65	54	33	87
99.	Fremont Avenue and Temple Street	30,000 sf	Retail	3,105	46	30	76	136	147	283
		600 du	Apartment	<u>4,032</u>	<u>61</u>	<u>245</u>	<u>306</u>	<u>242</u>	<u>130</u>	<u>372</u>
				7,137	107	275	382	378	277	655
100.	939 Flower Street	95,700 sf	FIDM Campus Expansion	2,631	212	74	286	141	102	243
		112 du	Apartment	<u>753</u>	<u>11</u>	<u>46</u>	<u>57</u>	<u>45</u>	<u>24</u>	<u>69</u>
				3,384	223	120	343	186	126	312
101.	Grand Av., btw Cesar Chavez Av. And 5th St. <sup>[12]</sup>		<u>The Grand Avenue Project</u>							
		1,648 du	Condominium	5,235	82	347	429	285	175	460
		412 du	Apartment	969	17	53	70	50	32	82
		275 rm	Hotel	764	59	38	97	58	52	110
		681,000 sf	Office	4,491	585	72	657	91	519	610
		53,000 sf	Supermarket	2,438	54	34	88	123	118	241
		225,250 sf	Retail	5,181	100	63	163	308	334	642
		67,000 sf	Restaurant	3,013	13	13	26	158	78	236
		250 se	Event Facility	252	-	-	-	11	3	14
		50,000 sf	Health Club	<u>626</u>	<u>9</u>	<u>12</u>	<u>21</u>	<u>36</u>	<u>33</u>	<u>69</u>
				22,969	919	632	1,551	1,120	1,344	2,464
102.	Wilshire Boulevard and Bixel Street <sup>[13]</sup>		<u>Wilshire &amp; Bixel Mixed-Use Project</u>	2,790	55	124	179	149	92	241
		420 du	Condominium							
		140 rm	Hotel							
		7,500 sf	Quality Restaurant							
103.	456 S Witmer Street	39 du	Condominium	229	3	14	17	13	7	20
104.	7th Street and Witmer Street	186 du	Condominium	1,090	14	68	82	65	32	97
		6,200 sf	Retail	<u>275</u>	<u>4</u>	<u>3</u>	<u>7</u>	<u>7</u>	<u>10</u>	<u>17</u>
				1,365	18	71	89	72	42	114



**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

Map No.	Location (Address)	Size Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
105.	855 Figueroa Terrace	102 du	Condominium	598	8	37	45	36	17	53
106.	819 Santee Street	96 du	Condominium	563	7	35	42	34	16	50
		7,800 sf	Retail	<u>346</u>	<u>5</u>	<u>4</u>	<u>9</u>	<u>9</u>	<u>12</u>	<u>21</u>
				909	12	39	51	43	28	71
107.	745 S Spring Street	247 du	Condominium	1,447	19	90	109	86	42	128
		10,675 sf	Retail	<u>473</u>	<u>8</u>	<u>5</u>	<u>13</u>	<u>13</u>	<u>16</u>	<u>29</u>
				1,920	27	95	122	99	58	157
108.	1133 S Hope Street	159 du	Condominium	932	12	58	70	56	27	83
		6,827 sf	Restaurant	<u>868</u>	<u>41</u>	<u>38</u>	<u>79</u>	<u>46</u>	<u>29</u>	<u>75</u>
				1,800	53	96	149	102	56	158
109.	1150 S Grand Avenue	351 du	Condominium	2,057	26	128	154	123	60	183
		12,500 sf	Retail	554	9	6	15	15	19	34
		12,500 sf	Restaurant	<u>1,589</u>	<u>75</u>	<u>69</u>	<u>144</u>	<u>84</u>	<u>53</u>	<u>137</u>
				4,200	110	203	313	222	132	354
110.	609 W 8th Street	30,000 sf	Retail	3,105	46	30	76	136	147	283
		225 du	Condominium	1,319	17	82	99	78	39	117
		200 rm	Hotel	1,634	68	44	112	63	55	118
		32,000 sf	Restaurant	<u>2,878</u>	<u>212</u>	<u>47</u>	<u>259</u>	<u>161</u>	<u>79</u>	<u>240</u>
				8,936	343	203	546	438	320	758
111.	1901 W 7th Street <sup>[14]</sup>		<u>MacArthur Park/Alvarado Metro Mixed-Use Project</u>	1,504	28	62	90	77	56	133
		172 du	Apartment							
		32,850 sf	Retail							
112.	1600 W Olympic Boulevard	8 vfp	Gasoline/Service Station with Mini-Market	1,302	40	40	80	54	53	107
113.	501 S Olive Street	900 du	Condominium	5,274	67	329	396	314	154	468
		19,000 sf	Retail	842	14	9	23	22	29	51
		19,200 sf	Restaurant	<u>2,441</u>	<u>115</u>	<u>106</u>	<u>221</u>	<u>128</u>	<u>82</u>	<u>210</u>
				8,557	196	444	640	464	265	729

**Table 8 (continued)  
Related Project Descriptions & Trip Generation**

<b>Map No.</b>	<b>Location (Address)</b>	<b>Size Unit</b>	<b>Description</b>	<b>Daily</b>	<b>AM Peak Hour</b>			<b>PM Peak Hour</b>		
					<b>In</b>	<b>Out</b>	<b>Total</b>	<b>In</b>	<b>Out</b>	<b>Total</b>
114.	991 Arapahoe Street	46 du	Condominium	270	3	17	20	16	8	24

Notes:

Units: sf = Square Feet; du = Dwelling Units; rm = Rooms; st = Students; emp = Employees; se = Seats; ac = Acres; vfp = Vehicle Fueling Positions.

Sources:

- [1] Central Los Angeles Area New Middle School #1 EIR, The Planning Center, June 2002.
- [2] Final Mitigated Negative Declaration and Initial Study for: New Gratts Primary Center & Early Childhood Education Center, The Planning Center, January 2005.
- [3] Central Los Angeles Area New High School #10 Draft EIR, Katz, Okitsu & Associates, February 2002.
- [4] Traffic Impact Report for the Proposed Broadstone Los Angeles Mixed-Use Development on the Southeast Corner of Beaudry Avenue and Mignonette Street, Crain & Associates, October 2004.
- [5] Traffic Analysis for a Proposed Mixed-Use Development on Cesar E. Chavez Avenue between Broadway and Hill Street in the Chinatown Community of Los Angeles, Crain & Associates, August 2006.
- [6] Traffic Analysis for Proposed Santa Fe Lofts Project at 101 - 131 East 6th Street, City of Los Angeles, Crain & Associates, July 2006.
- [7] Traffic Impact Study and Parking Analysis for the Metropolis Mixed-Use project, Crain & Associates, August 2007.
- [8] L.A. Entertainment District EIR Traffic Study, The Mobility Group with Kaku Associates, January 2001.
- [9] From LADOT database.
- [10] Traffic and Parking Impact Study for the proposed Suites at the LA Mart, Crain & Associates, August 2001.
- [11] Traffic Analysis for the Herald Examiner Mixed-Use Project, City of Los Angeles, Crain & Associates, December 2005.
- [12] Traffic Analysis for Proposed Mixed-Use Project at the Northeast Corner of 9th Street and Hill Street, Crain & Associates, May 2006.
- [13] Traffic Impact Study for Residential Condominium Project at 1360 & 1500 Figueroa Street, City of Los Angeles, Crain & Associates, May 2006.
- [14] Grand Avenue Project EIR Traffic Study, The Mobility Group, May 2006.
- [15] Traffic Analysis for the Wilshire & Bixel Mixed-Use Project, Crain & Associates, June 2006.
- [16] Revised Traffic Impact Study for MacArthur Park/Alvarado Metro Mixed-Use Project, Crain & Associates, April 2007.

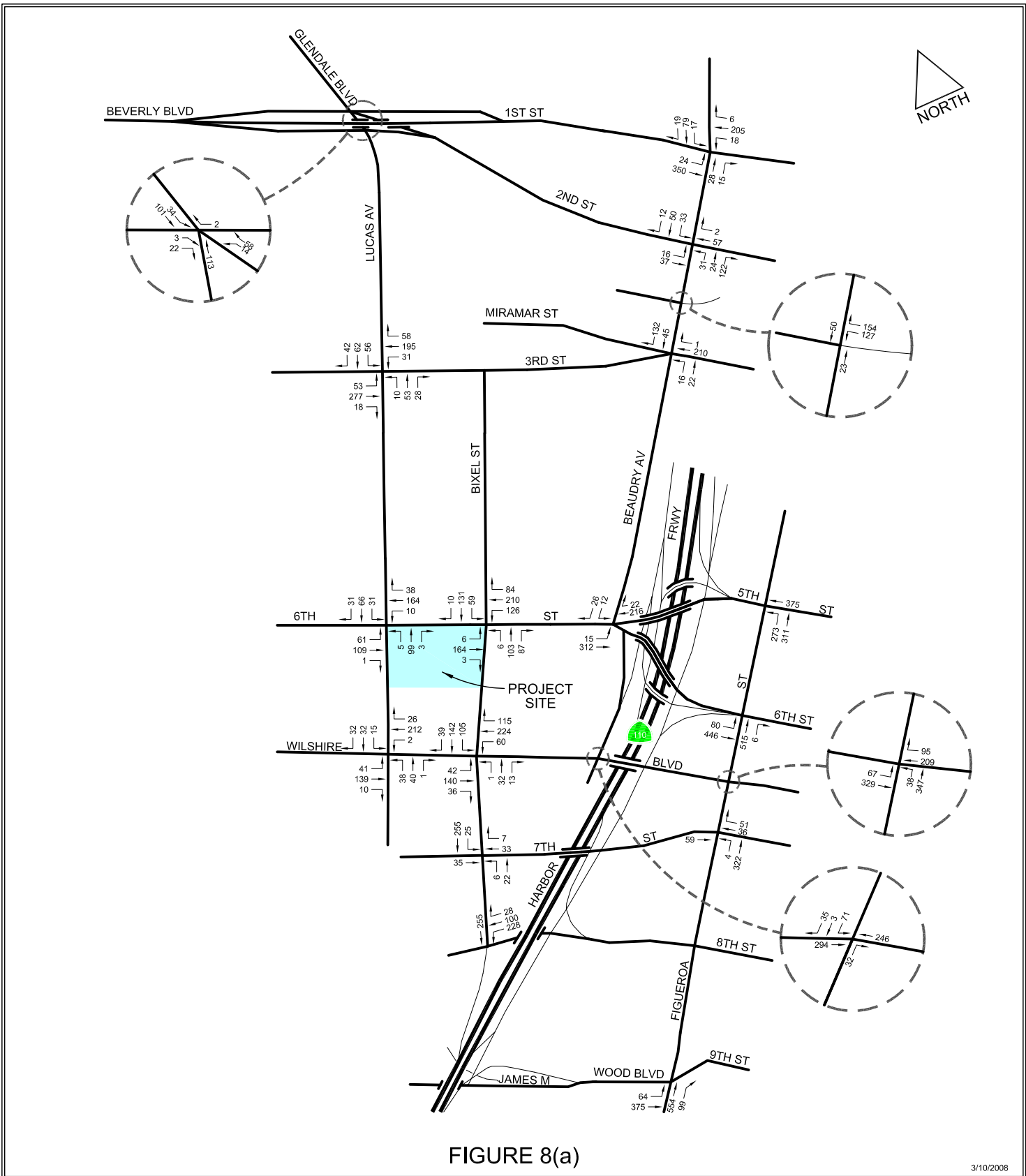


FIGURE 8(a)

3/10/2008

FN: GOOD SAMARITIAN SITE WILSHIRE/AMRELPRJ

TOTAL RELATED PROJECTS TRAFFIC VOLUMES  
AM PEAK HOUR



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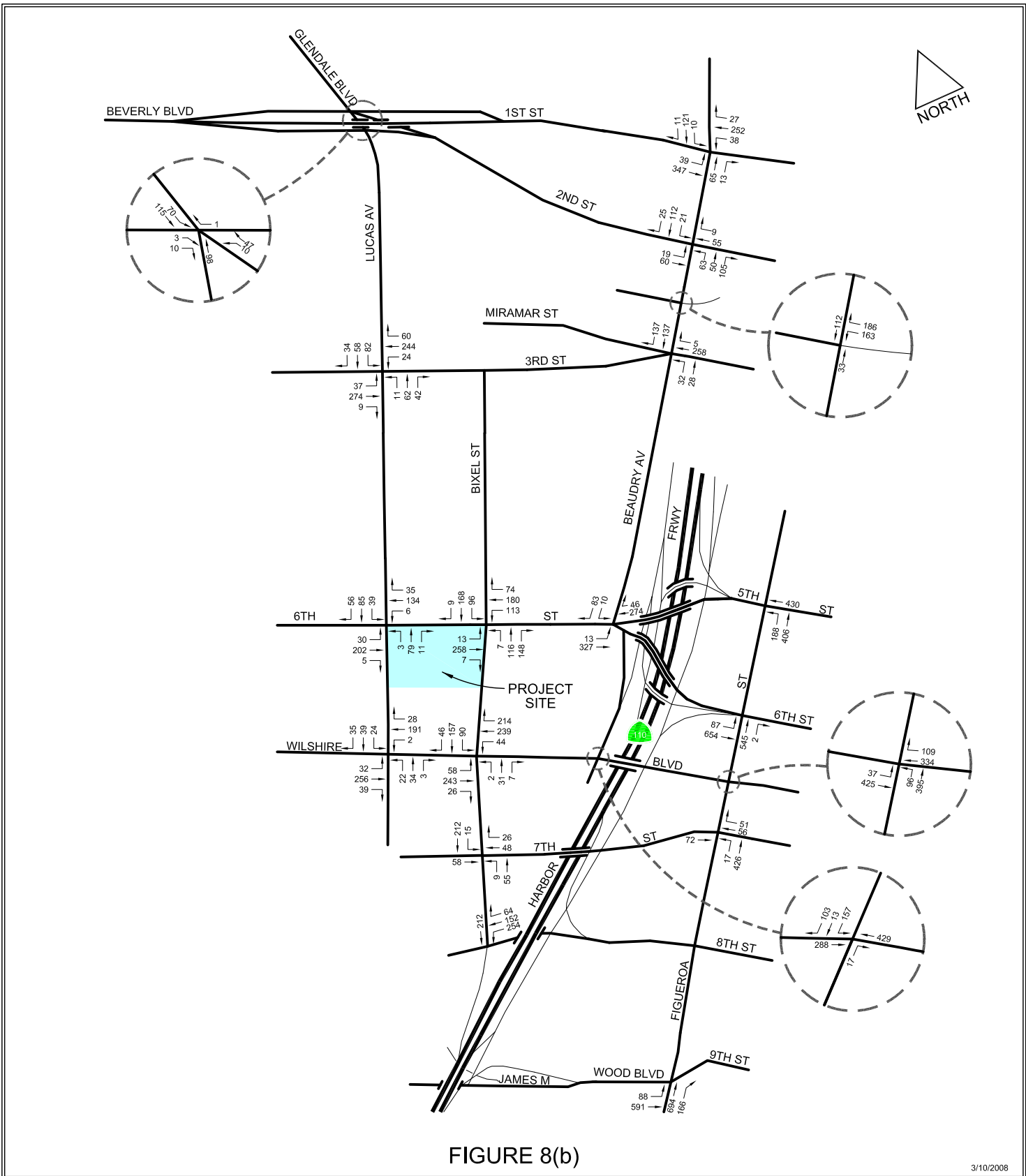


FIGURE 8(b)

3/10/2008

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TOTAL RELATED PROJECTS TRAFFIC VOLUMES  
PM PEAK HOUR



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## **Highway System Improvements**

In order to accurately forecast future traffic conditions in the project area, an investigation into anticipated transportation improvements to the street system serving the project vicinity was also conducted. A review of the City of Los Angeles Capital Improvement Program (CIP) 2004/05 – 2006/07, the City of Los Angeles Bureau of Engineering street improvement master schedule, and Caltrans Projects in the Los Angeles area revealed that no improvement projects are scheduled for implementation that would significantly affect the transportation system in the study area.

The Figueroa Corridor Economic Development Strategy is a planned improvement in the general project vicinity. Currently, Figueroa Street operates as a one-way northbound arterial in the study area, and is a counter couplet to southbound Flower Street. The proposed improvement would convert Figueroa Street, south of 9th Street, to a two-way facility and provide three lanes in each direction. Left-turn channelization would be provided at major intersections only. The purpose of this improvement would be to revitalize Figueroa Street so that it would function more effectively as a local street in the surrounding area and as a regional route in the Los Angeles area.

No widening or improvements have been assumed for Bixel Street, between Wilshire Boulevard and 6th Street. This segment of roadway is designated a modified Secondary Highway in the Central City West Specific Plan; however a reclassification to an alternate width modified Secondary Highway designation is currently being considered.

The future improvements described above will most likely not be constructed before the project build out year (2012). However, LADOT staff has confirmed that funding has been secured for the upgrade of all City traffic signals to the combined ATSAC/ATCS system. The system-wide upgrade is expected to be completed by July 2011.

Therefore, the analysis of the future (2012) traffic conditions assumed ATCS traffic signal upgrades at the 17 study intersections that currently operate on the ATSAC system. These improvements are also illustrated in Appendix B.

### **Analysis of Future (2012) Traffic Conditions**

The analysis of future traffic conditions at the study intersections was performed using the same analysis procedures described previously in this report. For the analysis of future project traffic impacts, the current roadway system's geometric characteristics were assumed to prevail. The aforementioned ATCS signal operation upgrades were assumed for the 17 study intersections currently running on the ATSAC system.

As described earlier, future (2012) baseline traffic volumes for the Without Project condition were determined by combining area ambient traffic growth with the total related projects traffic volumes. The Future (2012) Without Project traffic volumes are illustrated in Figures 9(a) and 9(b) for the AM and PM peak hours, respectively.

Traffic volumes generated by the project, as determined earlier, were then added to these baseline volumes to develop the Future (2012) With Project condition to determine traffic impacts directly attributable to the project. Morning and evening peak hour traffic volumes are shown in Figures 10(a) and 10(b), respectively.

The results of the analysis of future traffic conditions at the study intersections are summarized in Table 9. The CMA calculation worksheets for future conditions are included in Appendix D. As shown in Table 9, 12 of the 19 study intersections will continue to operate at good levels of service (LOS A through D) under future year (2012) conditions, both with and without project. Traffic conditions at 7 of the 19 study intersections will deteriorate to LOS E or F during the AM peak hour, the PM peak hour, or both.

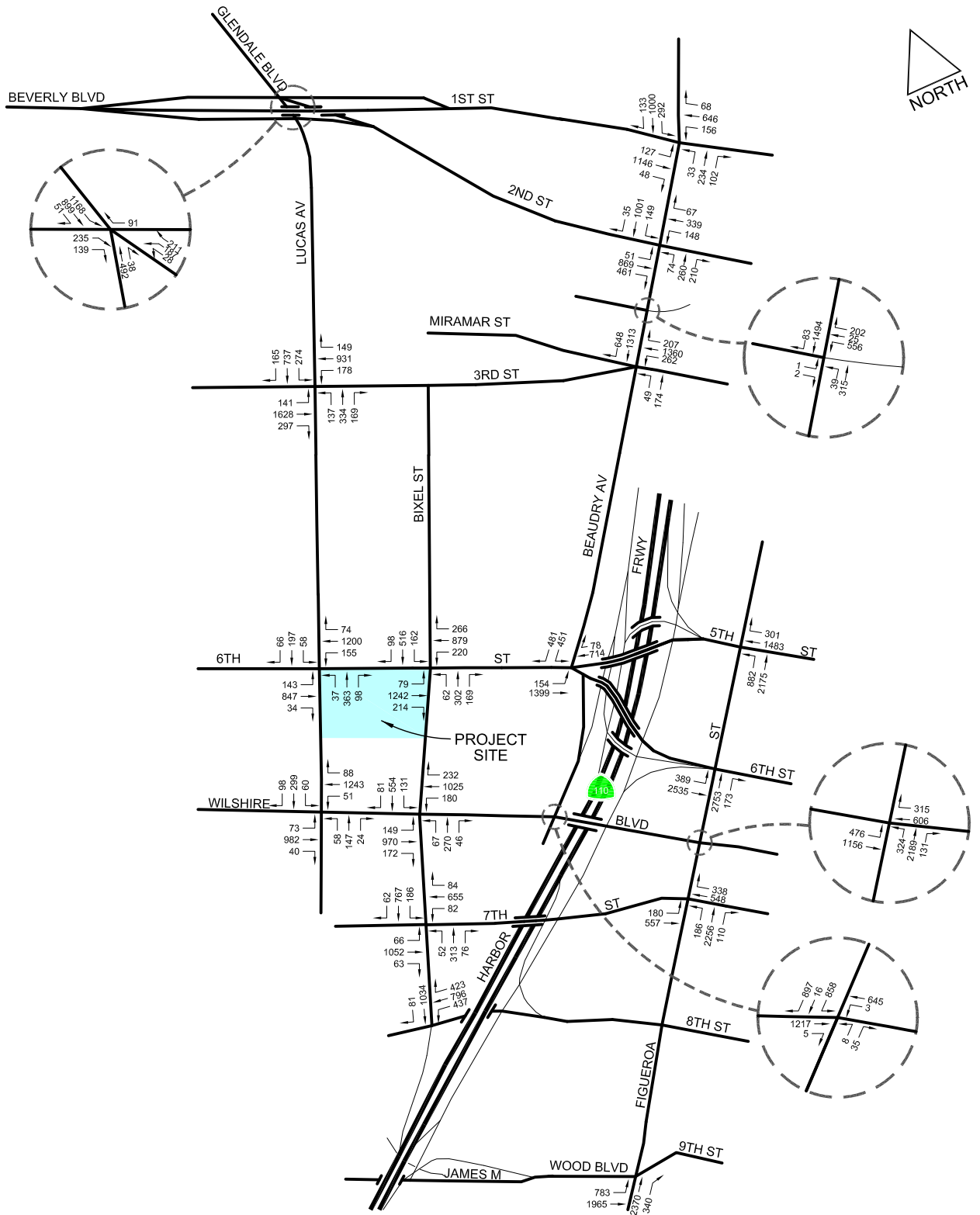


FIGURE 9(a)

3/10/2008

FN: GOOD SAMARITAN SITE WILSHIRE/AM2012WO

FUTURE (2012) WITHOUT PROJECT TRAFFIC VOLUMES  
AM PEAK HOUR



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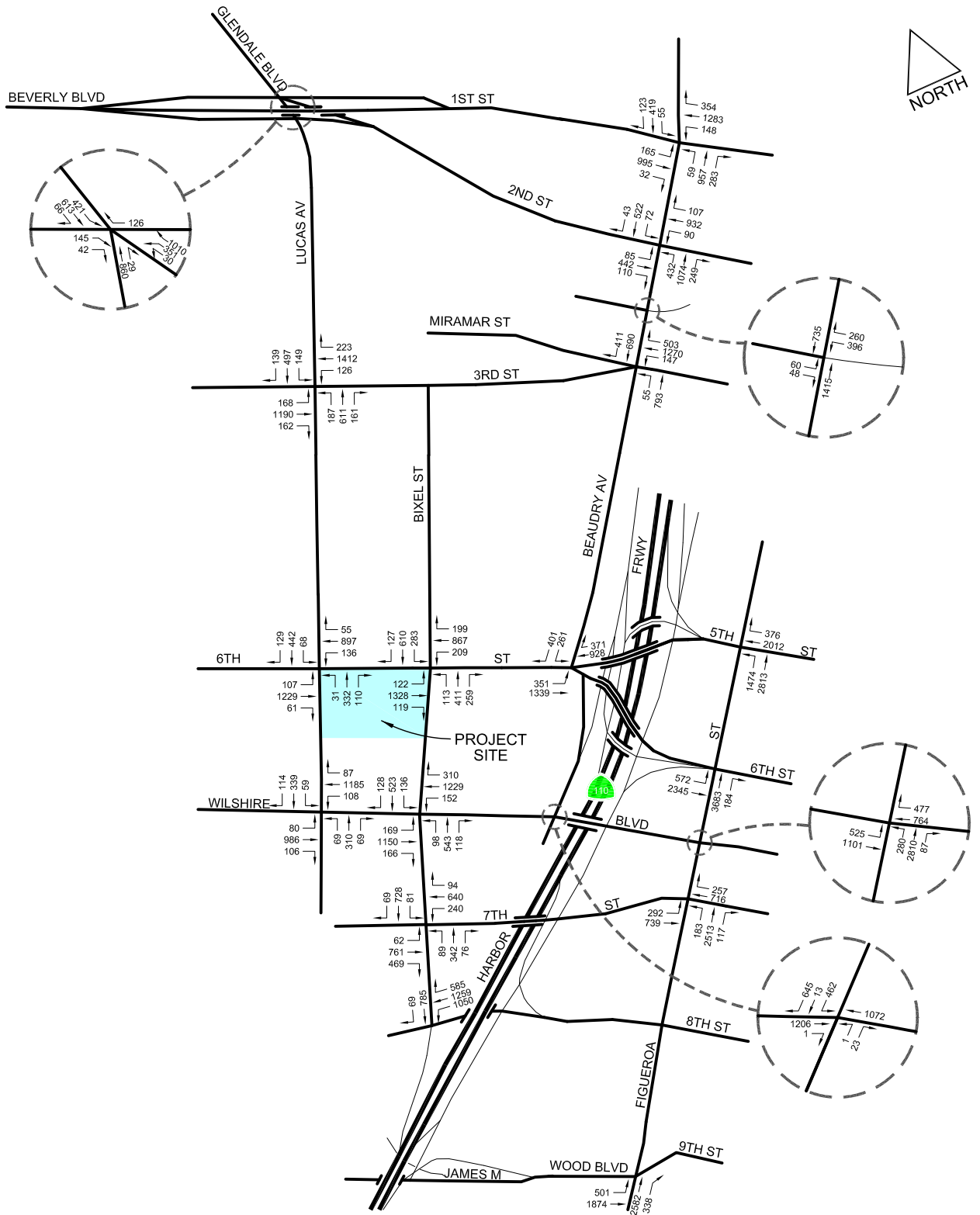


FIGURE 9(b)

3/10/2008

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FUTURE (2012) WITHOUT PROJECT TRAFFIC VOLUMES  
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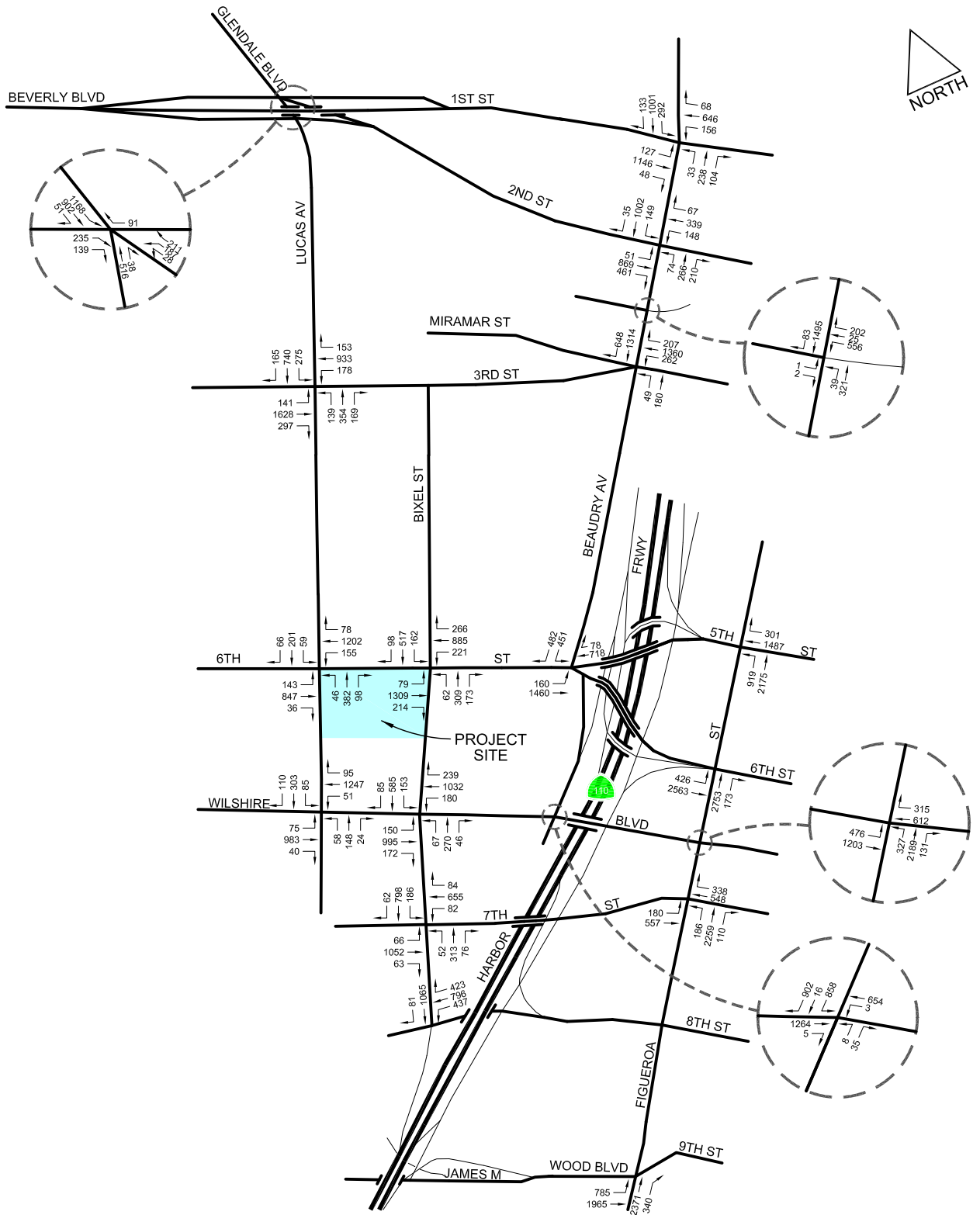


FIGURE 10(a)

3/10/2008

FN: GOOD SAMARITIAN SITE WILSHIRE/AM2012WP

FUTURE (2012) WITH PROJECT TRAFFIC VOLUMES  
AM PEAK HOUR



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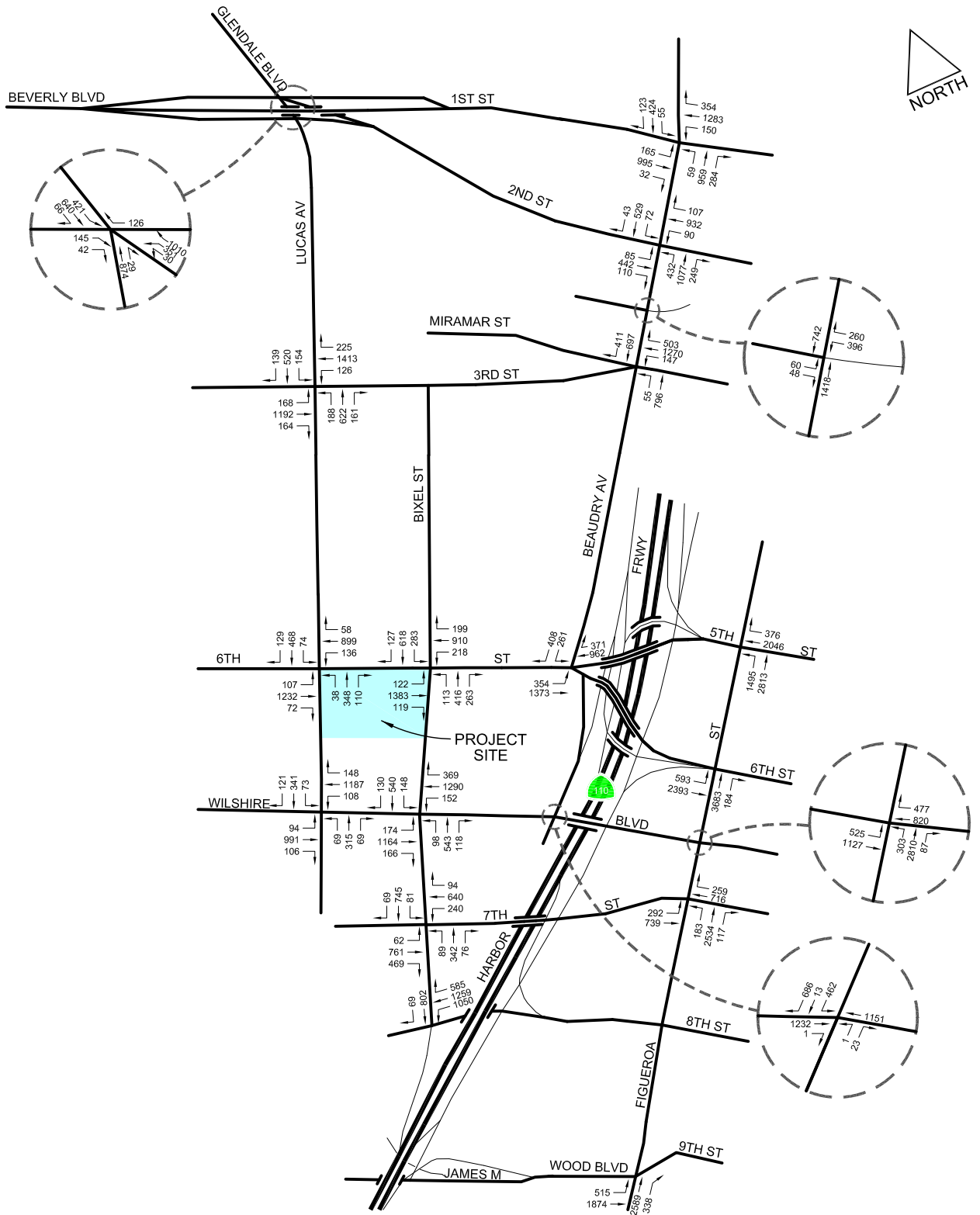


FIGURE 10(b)

3/10/2008

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FUTURE (2012) WITH PROJECT TRAFFIC VOLUMES  
PM PEAK HOUR



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**Table 9**  
**Critical Movement Analysis (CMA) Summary**  
**Future (2012) Without and With Project Traffic Conditions**

No.	Intersection	Peak Hour	Without Project		With Project		
			CMA	LOS	CMA	LOS	Impact
1.	Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street	AM	0.718	C	0.720	C	0.002
		PM	0.819	D	0.838	D	0.019
2.	Lucas Avenue at 3rd Street	AM	1.052	F	1.054	F	0.002
		PM	0.894	D	0.903	E	0.009
3.	Lucas Avenue at 6th Street	AM	0.791	C	0.812	D	0.021 *
		PM	0.867	D	0.898	D	0.031 *
4.	Lucas Avenue at Wilshire Boulevard	AM	0.823	D	0.855	D	0.032 *
		PM	0.961	E	1.008	F	0.047 *
5.	Bixel Street at 6th Street	AM	0.983	E	1.007	F	0.024 *
		PM	1.157	F	1.187	F	0.030 *
6.	Bixel Street at Wilshire Boulevard	AM	0.757	C	0.787	C	0.030
		PM	0.875	D	0.907	E	0.032 *
7.	Bixel Street at 7th Street	AM	0.914	E	0.935	E	0.021 *
		PM	1.061	F	1.072	F	0.011 *
8.	Bixel Street/SR-110 Southbound On-Ramp at 8th Street	AM	0.527	A	0.537	A	0.010
		PM	0.571	A	0.577	A	0.006
9.	Beaudry Avenue at at 1st Street	AM	0.801	D	0.802	D	0.001
		PM	1.113	F	1.114	F	0.001
10.	Beaudry Avenue at at 2nd Street	AM	0.953	E	0.955	E	0.002
		PM	1.199	F	1.205	F	0.006
11.	Beaudry Avenue at the SR-110 Southbound Off-Ramp	AM	0.639	B	0.639	B	0.000
		PM	0.585	A	0.586	A	0.001
12.	Beaudry Avenue at Miramar Street/3rd Street	AM	0.888	D	0.889	D	0.001
		PM	0.620	B	0.621	B	0.001
13.	Beaudry Avenue at 5th Street/6th Street	AM	0.667	B	0.687	B	0.020
		PM	0.741	C	0.754	C	0.013
14.	Beaudry Avenue at Wilshire Boulevard	AM	0.742	C	0.757	C	0.015
		PM	0.595	A	0.616	B	0.021
15.	Figueroa Street at 5th Street	AM	0.433	A	0.433	A	0.000
		PM	0.596	A	0.599	A	0.003
16.	Figueroa Street at 6th Street	AM	0.605	B	0.609	B	0.004
		PM	0.715	C	0.723	C	0.008
17.	Figueroa Street at Wilshire Boulevard	AM	0.677	B	0.694	B	0.017
		PM	0.839	D	0.855	D	0.016
18.	Figueroa Street at 7th Street	AM	0.565	A	0.565	A	0.000
		PM	0.659	B	0.662	B	0.003
19.	Figueroa Street at James M. Wood Boulevard/9th Street	AM	0.719	C	0.719	C	0.000
		PM	0.703	C	0.707	C	0.004

\* Indicates a significant project impact, prior to mitigation.

## **Impact Significance Criteria**

LADOT defines a significant traffic impact attributable to a project based on a “stepped scale”, with intersections at high volume-to-capacity ratios being more sensitive to additional traffic than those operating with more available capacity. According to LADOT policy, a significant impact is identified as an increase in the CMA value, due to project-related traffic, of 0.010 or more when the final (with project) Level of Service is E or F, a CMA increase of 0.020 or more when the final Level of Service is LOS D, or an increase of 0.040 or more at LOS C. No significant impacts are deemed to occur at LOS A or B, as these operating conditions exhibit sufficient surplus capacities to accommodate large traffic increases with little effect on traffic delays. These criteria are summarized in Table 10.

**Table 10**  
**LADOT Criteria for Significant Traffic Impact**

<b><u>LOS</u></b>	<b><u>Final CMA Value</u></b>	<b><u>Project-Related Increase in CMA Value</u></b>
C	> 0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Based on these criteria and as shown previously in Table 10, the project is anticipated to significantly impact five of the 19 study intersections during the AM peak hour, the PM peak hour, or both. The significantly impacted intersections are:

1. Lucas Avenue at 6th Street
2. Lucas Avenue at Wilshire Boulevard
3. Bixel Street at 6th Street
4. Bixel Street at Wilshire Boulevard
5. Bixel Street at 7th Street

## **Impacts on Regional Transportation System**

To address the increasing public concern that traffic congestion was impacting the quality of life and economic vitality of the State of California, Proposition 111 enacted the Congestion Management Program (CMP) in 1990. The intent of the CMP is to provide the analytical basis for transportation decisions through the State Transportation Improvement Program (STIP) process. A countywide approach has been established by the Metropolitan Transportation Authority (Metro), the local CMP agency, designating a highway network that includes all state highways and principal arterials within the County. The Level of Service at each CMP monitoring station is supervised by local jurisdictions in order to implement the statutory requirements of the CMP. If Level of Service standards deteriorate, then local jurisdictions must prepare a deficiency plan to meet conformance standards outlined in the countywide plan.

The local CMP requires that all CMP monitoring intersections be analyzed where a project would likely add 50 or more trips AM or PM peak-hour trips. The nearest such intersections are Wilshire Boulevard at Alvarado Street (1 mile west of project site), Sunset Boulevard at Alvarado Street (2 miles north), Alameda Street at Washington Boulevard (2.5 miles southwest), Wilshire Boulevard at Western Avenue (3 miles west), and 9th Street at Western Avenue (3 miles west). A review of the project trip distribution and net project traffic additions to the study vicinity shows that the proposed project will not add 50 or more trips to any of these CMP intersections.

In addition, any CMP freeway monitoring segment where a project is expected to add 150 or more AM or PM peak-hour trips in either direction is to be analyzed. The nearest CMP freeway monitoring segments are the Santa Monica Freeway (I-10) at Budlong Avenue, the Santa Ana Freeway (US-101) north of Vignes Street, and the Harbor Freeway (SR-110) both south of the Hollywood Freeway and at Alpine Street. Based

on the project trip distribution pattern described earlier in this report, the project is not expected to add 150 or more directional trips to any of these freeway monitoring segments. Therefore, no significant project impact to any CMP freeway monitoring location is forecast and no additional freeway analysis is necessary.

## MITIGATION MEASURES

Nineteen intersections were analyzed in this study. The proposed project is anticipated to have potentially significant traffic impacts at five of these locations:

1. Lucas Avenue at 6th Street
2. Lucas Avenue at Wilshire Boulevard
3. Bixel Street at 6th Street
4. Bixel Street at Wilshire Boulevard
5. Bixel Street at 7th Street

In order to reduce the project traffic impacts to less than a level of significance, these intersections were closely examined to determine if any feasible improvements were available. The following mitigation measures are recommended (conceptual plans are provided in Appendix E):

Lucas Avenue at Wilshire Boulevard – Widen/restripe the Wilshire Boulevard westbound approach to the intersection to allow the installation of an exclusive right-turn lane. The westbound approach will then consist of one shared left-turn/through travel lane, one through travel lane, and one right-turn lane. In addition, the relocation of the bus zone along the north side of Wilshire Boulevard to the far side (west leg) of the intersection and/or parking restrictions may be necessary. Modify the traffic signal equipment at the intersection as necessary. This measure will mitigate the project's traffic impact to a less than significant level at this intersection.

Bixel Street at 6th Street – In conjunction with the widening required adjacent to the project site, install an exclusive right-turn lane on the 6th Street eastbound approach to the intersection. The eastbound approach will then consist of one left-turn lane, two through travel lanes, and one right-turn lane. Modify the traffic signal equipment

at the intersection as necessary. This measure will mitigate the project's traffic impact to a less than significant level at this intersection.

Bixel Street at Wilshire Boulevard – Restripe the Bixel Street northbound approach to the intersection to provide an additional through travel lane. Widen/restripe the north leg of the intersection to provide two departure lanes to receive the additional lane of through traffic along Bixel Street. The northbound approach will then consist of one left-turn lane, two through travel lanes, and one right-turn lane. In addition, parking restrictions may be necessary. Modify the traffic signal equipment at the intersection as necessary. This measure will mitigate the project's traffic impact to a less than significant level at this intersection.

The results of the implementation of the above mitigation measures are summarized in Table 11 below. As shown in this table, implementation of the mitigation measures identified above would reduce the project traffic impacts to a less than significant level at three of the five significantly impacted study intersections.

Feasible physical mitigation measures could not be identified for the following significantly impacted intersections for the reasons indicated:

Lucas Avenue at 6th Street – Improvements to the Lucas Avenue north and south legs of this intersection were investigated which could be implemented in order to mitigate the project's traffic impact to a less than significant level. However, City of Los Angeles Department of Transportation (LADOT) staff expressed concerns about the loss of parking and possible truck turning issues associated with improving the north leg of Lucas Avenue. In addition, widening improvements to the Lucas Avenue south leg are impeded by the limitations of the existing right-of-way on the west side of the roadway and the location a historic building at the southeast corner



of the intersection. Therefore, no feasible improvements were found at this intersection and a significant, unavoidable project traffic impact will remain.

Bixel Street at 7th Street – Several improvements to the Bixel Street north and south legs of this intersection were investigated in order to mitigate the project's traffic impact to a less than significant level. However, LADOT staff expressed concerns about the intersection geometry for eastbound left-turning movements and the effects that improvements could have on the queuing that occurs on Bixel Street from the Harbor Freeway southbound on-ramp. Without projects adjacent to Bixel Street, north of 7th Street, providing additional right-of-way to utilize for improvements, no acceptable mitigation measures could be identified. Therefore, a significant, unavoidable project traffic impact will remain at this intersection.

**Table 11**  
**Critical Movement Analysis (CMA) Summary**  
**Future (2012) Traffic Conditions - Without and With Mitigation**

No.	Intersection	Peak Hour	Without Project		With Project			With Project Plus Mitigation		
			CMA	LOS	CMA	LOS	Impact	CMA	LOS	Impact
3	Lucas Avenue at 6th Street	AM	0.791	C	0.812	D	0.021 *	0.812	D	0.021 *
		PM	0.867	D	0.898	D	0.031 *	0.898	D	0.031 *
4	Lucas Avenue at Wilshire Boulevard	AM	0.823	D	0.855	D	0.032 *	0.823	D	0.000
		PM	0.961	E	1.008	F	0.047 *	0.959	E	-0.002
5	Bixel Street at 6th Street	AM	0.983	E	1.007	F	0.024 *	0.935	E	-0.048
		PM	1.157	F	1.187	F	0.030 *	1.148	F	-0.009
6	Bixel Street at Wilshire Boulevard	AM	0.757	C	0.787	C	0.030	0.787	C	0.030
		PM	0.875	D	0.907	E	0.032 *	0.871	D	-0.004
7	Bixel Street at 7th Street	AM	0.914	E	0.935	E	0.021 *	0.935	E	0.021 *
		PM	1.061	F	1.072	F	0.011 *	1.072	F	0.011 *

\* Project traffic impact considered significant.

**APPENDIX A**  
**TRAFFIC COUNT DATA SHEETS**

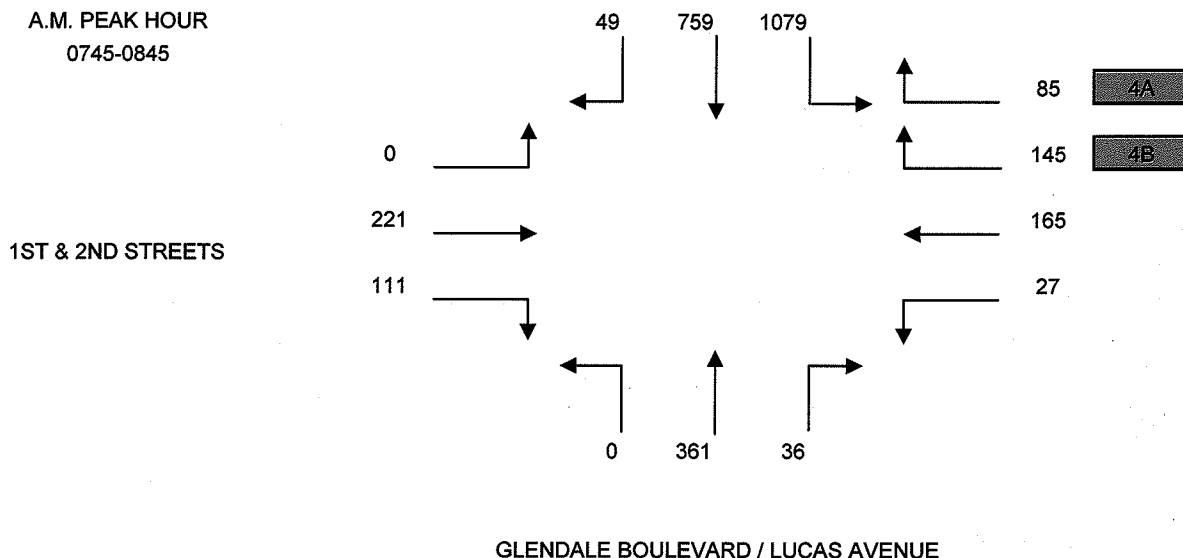
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S: GLENDALE BOULEVARD / LUCAS AVENUE  
 E/W: 1ST & 2ND STREETS  
 FILE NUMBER: 1-AM

15 MINUTE TOTALS	1	2	3	4A	4B	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	18	155	231	17	34	32	10	11	59	0	15	30	0
715-730	19	180	244	19	36	35	12	11	62	0	20	49	0
730-745	11	162	214	20	25	33	12	9	71	0	22	59	0
745-800	12	180	275	24	39	43	9	10	91	0	25	53	0
800-815	15	198	258	28	48	48	6	7	94	0	35	49	0
815-830	12	186	285	20	31	35	5	8	96	0	31	69	0
830-845	10	195	261	13	27	39	7	11	80	0	20	50	0
845-900	14	187	266	10	34	40	4	13	72	0	14	43	0

1 HOUR TOTALS	1	2	3	4A	4B	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	60	677	964	80	134	143	43	41	283	0	82	191	0	2698
715-815	57	720	991	91	148	159	39	37	318	0	102	210	0	2872
730-830	50	726	1032	92	143	159	32	34	352	0	113	230	0	2963
745-845	49	759	1079	85	145	165	27	36	361	0	111	221	0	3038
800-900	51	766	1070	71	140	162	22	39	342	0	100	211	0	2974

A.M. PEAK HOUR  
0745-0845



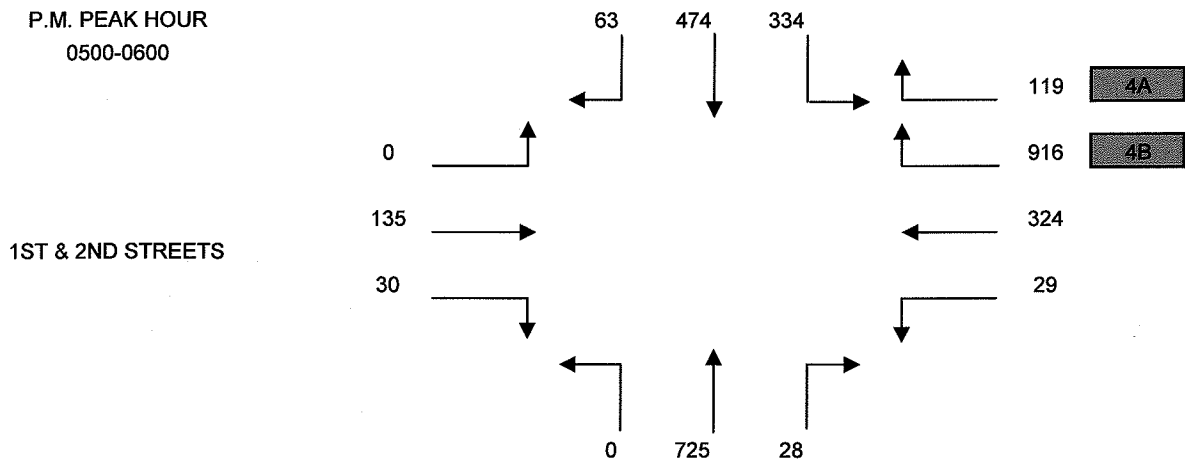
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S: GLENDALE BOULEVARD / LUCAS AVENUE  
 E/W: 1ST & 2ND STREETS  
 FILE NUMBER: 1-PM

15 MINUTE TOTALS	1	2	3	4A	4B	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	11	93	61	20	151	51	3	6	130	0	8	29	0
415-430	17	101	84	27	198	72	4	9	155	0	8	31	0
430-445	13	113	106	25	201	65	5	8	181	0	10	29	0
445-500	10	107	82	39	224	71	4	6	190	0	7	35	0
500-515	12	119	97	28	222	60	7	8	165	0	9	32	0
515-530	18	116	70	26	235	85	10	7	173	0	9	38	0
530-545	15	124	85	32	231	86	5	6	196	0	6	36	0
545-600	18	115	82	33	228	93	7	7	191	0	6	29	0

1 HOUR TOTALS	1	2	3	4A	4B	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	51	414	333	111	774	259	16	29	656	0	33	124	0	2800
415-515	52	440	369	119	845	268	20	31	691	0	34	127	0	2996
430-530	53	455	355	118	882	281	26	29	709	0	35	134	0	3077
445-545	55	466	334	125	912	302	26	27	724	0	31	141	0	3143
500-600	63	474	334	119	916	324	29	28	725	0	30	135	0	3177

P.M. PEAK HOUR  
0500-0600



GLENDALE BOULEVARD / LUCAS AVENUE

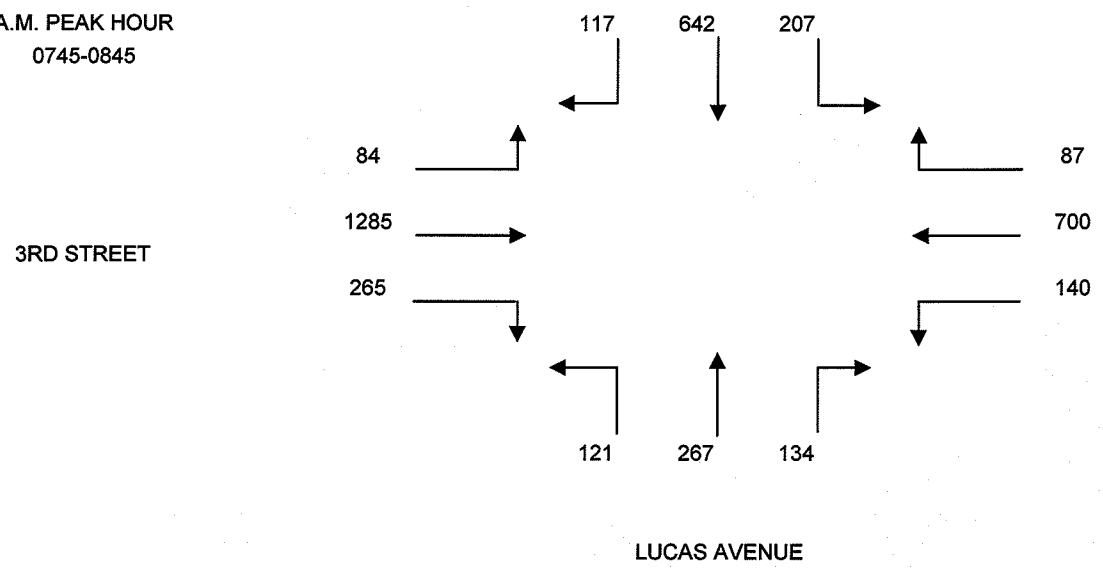
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S LUCAS AVENUE  
 E/W 3RD STREET  
 FILE NUMBER: 2-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	18	126	38	11	161	12	16	31	19	20	200	16
715-730	27	124	46	19	179	24	20	41	24	33	236	22
730-745	30	144	44	17	159	36	26	50	20	49	284	22
745-800	34	159	52	21	166	33	29	69	28	58	301	23
800-815	27	174	48	20	179	34	39	64	31	77	303	18
815-830	29	151	53	22	187	40	39	67	34	76	333	20
830-845	27	158	54	24	168	33	27	67	28	54	348	23
845-900	29	149	44	19	159	28	23	61	29	42	364	19

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	109	553	180	68	665	105	91	191	91	160	1021	83	3317
715-815	118	601	190	77	683	127	114	224	103	217	1124	85	3663
730-830	120	628	197	80	691	143	133	250	113	260	1221	83	3919
745-845	117	642	207	87	700	140	134	267	121	265	1285	84	4049
800-900	112	632	199	85	693	135	128	259	122	249	1348	80	4042

A.M. PEAK HOUR  
0745-0845



# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

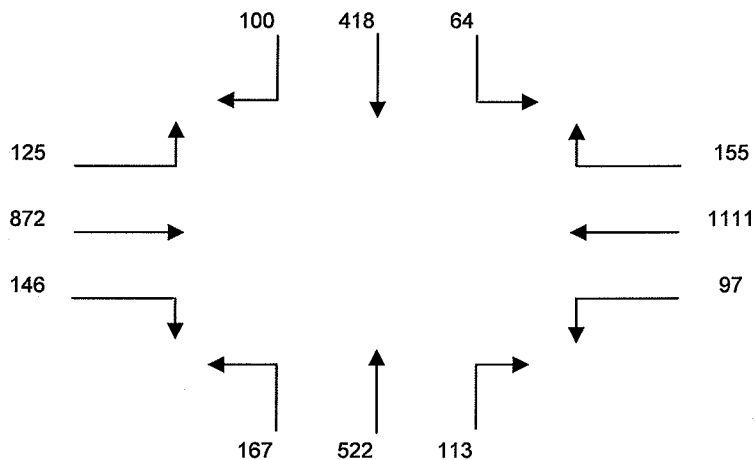
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S LUCAS AVENUE  
 E/W 3RD STREET  
 FILE NUMBER: 2-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	16	79	13	23	189	15	19	132	31	22	141	15
415-430	18	101	16	29	218	17	15	121	24	27	156	21
430-445	22	93	18	34	234	20	21	144	33	39	198	25
445-500	23	91	16	38	255	27	22	125	38	35	222	22
500-515	22	101	15	44	264	26	28	132	44	38	204	31
515-530	24	108	19	39	284	25	26	129	45	29	211	34
530-545	26	105	14	35	288	24	35	134	39	38	222	29
545-600	28	104	16	37	275	22	24	127	39	41	235	31

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	79	364	63	124	896	79	77	522	126	123	717	83	3253
415-515	85	386	65	145	971	90	86	522	139	139	780	99	3507
430-530	91	393	68	155	1037	98	97	530	160	141	835	112	3717
445-545	95	405	64	156	1091	102	111	520	166	140	859	116	3825
500-600	100	418	64	155	1111	97	113	522	167	146	872	125	3890

P.M. PEAK HOUR  
0500-0600

3RD STREET



LUCAS AVENUE

Counts Unlimited Inc.  
 25286 Jaclyn Avenue  
 Moreno Valley, CA 92557  
 951-485-7934

City of Los Angeles  
 N/S: Lucas Avenue  
 E/W: 6th Street  
 Weather: Sunny

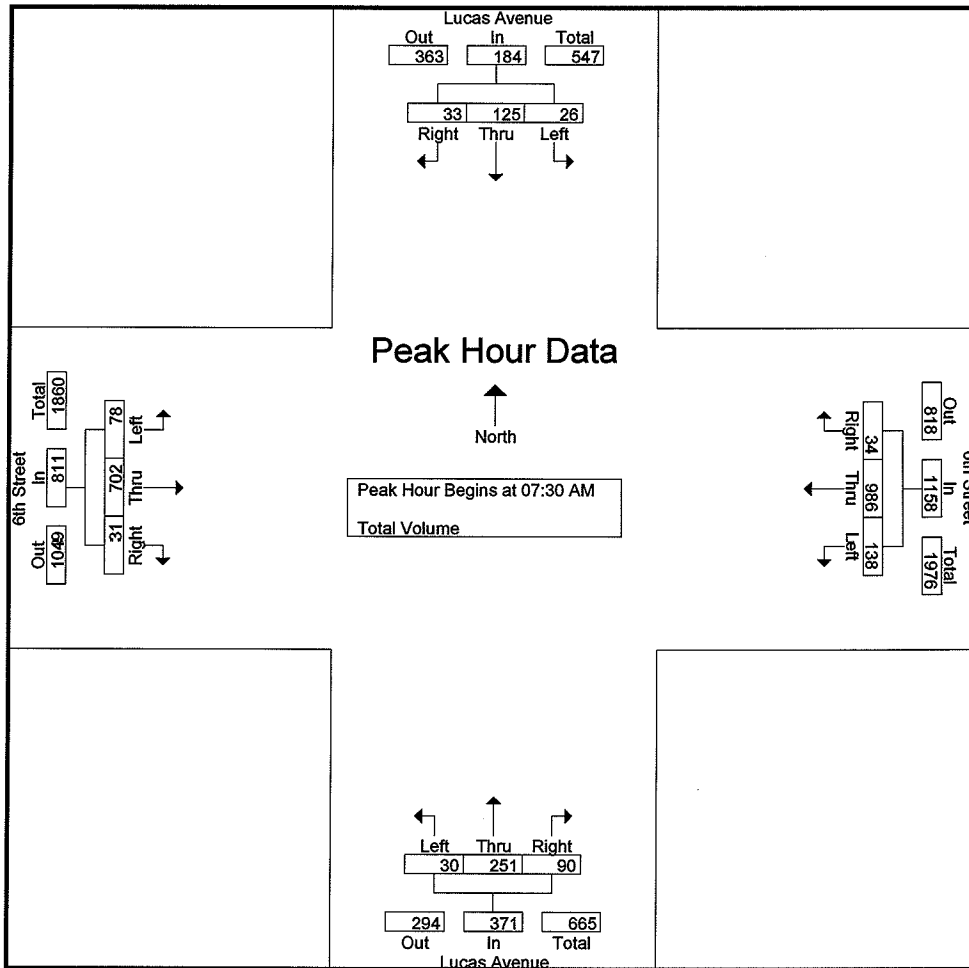
File Name : LALU6AM  
 Site Code : 16645658  
 Start Date : 10/30/2007  
 Page No : 1

Groups Printed- Total Volume

Start Time	Lucas Avenue Southbound				6th Street Westbound				Lucas Avenue Northbound				6th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
07:00 AM	4	23	2	29	11	184	9	204	5	58	19	82	8	161	6	175	490
07:15 AM	1	19	3	23	15	189	5	209	10	58	24	92	9	175	7	191	515
07:30 AM	8	22	5	35	34	216	10	260	8	69	24	101	12	170	7	189	585
07:45 AM	4	41	6	51	31	293	8	332	9	58	28	95	15	179	8	202	680
Total	17	105	16	138	91	882	32	1005	32	243	95	370	44	685	28	757	2270
08:00 AM	7	46	11	64	49	234	7	290	6	66	20	92	21	186	9	216	662
08:15 AM	7	16	11	34	24	243	9	276	7	58	18	83	30	167	7	204	597
08:30 AM	2	31	9	42	19	240	5	264	8	71	20	99	16	156	8	180	585
08:45 AM	2	35	15	52	18	224	10	252	11	66	17	94	8	122	3	133	531
Total	18	128	46	192	110	941	31	1082	32	261	75	368	75	631	27	733	2375
Grand Total	35	233	62	330	201	1823	63	2087	64	504	170	738	119	1316	55	1490	4645
Apprch %	10.6	70.6	18.8		9.6	87.4	3		8.7	68.3	23		8	88.3	3.7		
Total %	0.8	5	1.3	7.1	4.3	39.2	1.4	44.9	1.4	10.9	3.7	15.9	2.6	28.3	1.2	32.1	

Start Time	Lucas Avenue Southbound				6th Street Westbound				Lucas Avenue Northbound				6th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	8	22	5	35	34	216	10	260	8	69	24	101	12	170	7	189	585
07:45 AM	4	41	6	51	31	293	8	332	9	58	28	95	15	179	8	202	680
08:00 AM	7	46	11	64	49	234	7	290	6	66	20	92	21	186	9	216	662
08:15 AM	7	16	11	34	24	243	9	276	7	58	18	83	30	167	7	204	597
Total Volume	26	125	33	184	138	986	34	1158	30	251	90	371	78	702	31	811	2524
% App. Total	14.1	67.9	17.9		11.9	85.1	2.9		8.1	67.7	24.3		9.6	86.6	3.8		
PHF	.813	.679	.750	.719	.704	.841	.850	.872	.833	.909	.804	.918	.650	.944	.861	.939	.928





Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				07:15 AM				07:30 AM			
+0 mins.	7	46	11	64	31	293	8	332	10	58	24	92	12	170	7	189
+15 mins.	7	16	11	34	49	234	7	290	8	69	24	101	15	179	8	202
+30 mins.	2	31	9	42	24	243	9	276	9	58	28	95	21	186	9	216
+45 mins.	2	35	15	52	19	240	5	264	6	66	20	92	30	167	7	204
Total Volume	18	128	46	192	123	1010	29	1162	33	251	96	380	78	702	31	811
% App. Total	9.4	66.7	24		10.6	86.9	2.5		8.7	66.1	25.3		9.6	86.6	3.8	
PHF	.643	.696	.767	.750	.628	.862	.806	.875	.825	.909	.857	.941	.650	.944	.861	.939

Counts Unlimited Inc.  
 25286 Jaclyn Avenue  
 Moreno Valley, CA 92557  
 951-485-7934

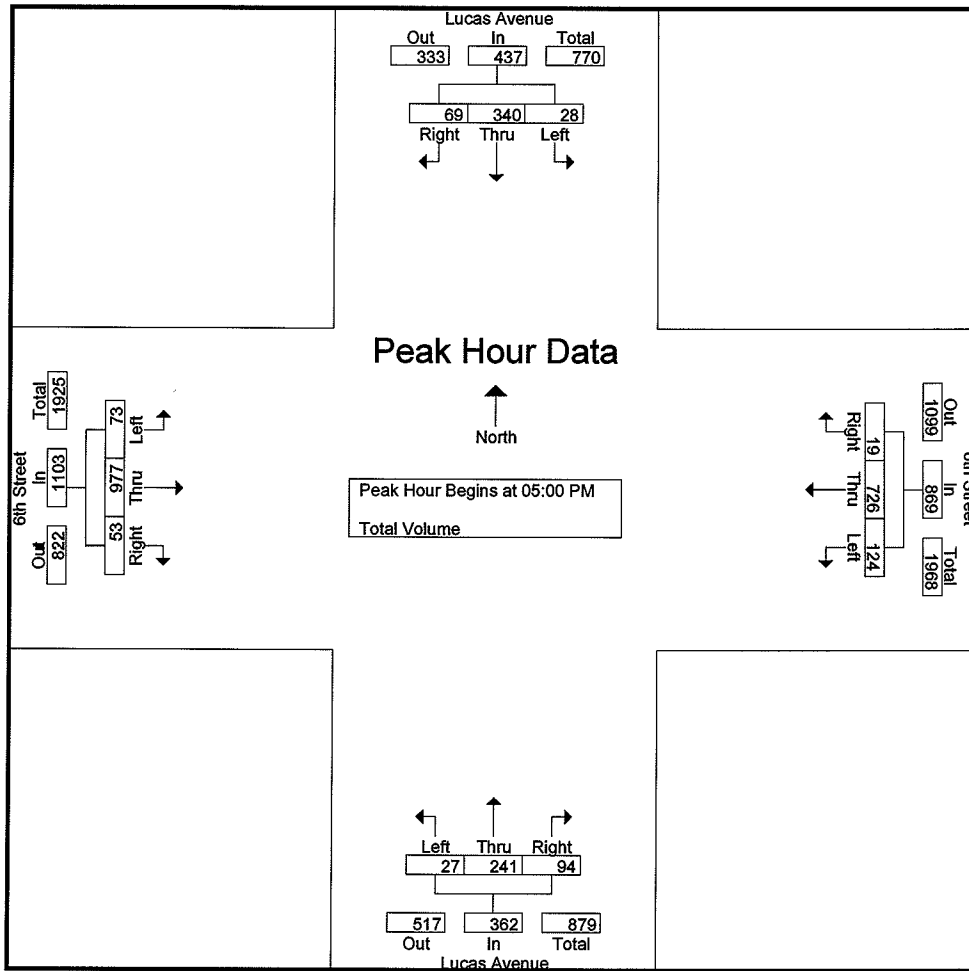
City of Los Angeles  
 N/S: Lucas Avenue  
 E/W: 6th Street  
 Weather: Sunny

File Name : LALU6PM  
 Site Code : 16645658  
 Start Date : 10/30/2007  
 Page No : 1

Groups Printed- Total Volume

Start Time	Lucas Avenue Southbound				6th Street Westbound				Lucas Avenue Northbound				6th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Factor	1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		1.0	1.0	1.0		
03:45 PM	6	50	13	69	25	173	16	214	6	54	15	75	14	123	16	153	511
Total	6	50	13	69	25	173	16	214	6	54	15	75	14	123	16	153	511
04:00 PM	8	71	16	95	47	189	4	240	10	48	23	81	11	162	11	184	600
04:15 PM	14	72	15	101	33	191	4	228	3	55	16	74	11	157	9	177	580
04:30 PM	7	67	18	92	40	203	8	251	7	63	21	91	14	176	18	208	642
04:45 PM	7	70	12	89	43	212	4	259	10	57	27	94	14	183	10	207	649
Total	36	280	61	377	163	795	20	978	30	223	87	340	50	678	48	776	2471
05:00 PM	6	92	27	125	36	186	3	225	9	67	21	97	18	231	20	269	716
05:15 PM	8	76	13	97	29	182	4	215	7	59	25	91	23	263	12	298	701
05:30 PM	3	73	18	94	30	190	7	227	5	59	23	87	19	247	10	276	684
05:45 PM	11	99	11	121	29	168	5	202	6	56	25	87	13	236	11	260	670
Total	28	340	69	437	124	726	19	869	27	241	94	362	73	977	53	1103	2771
Grand Total	70	670	143	883	312	1694	55	2061	63	518	196	777	137	1778	117	2032	5753
Apprch %	7.9	75.9	16.2		15.1	82.2	2.7		8.1	66.7	25.2		6.7	87.5	5.8		
Total %	1.2	11.6	2.5	15.3	5.4	29.4	1	35.8	1.1	9	3.4	13.5	2.4	30.9	2	35.3	

Start Time	Lucas Avenue Southbound				6th Street Westbound				Lucas Avenue Northbound				6th Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 03:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	6	92	27	125	36	186	3	225	9	67	21	97	18	231	20	269	716
05:15 PM	8	76	13	97	29	182	4	215	7	59	25	91	23	263	12	298	701
05:30 PM	3	73	18	94	30	190	7	227	5	59	23	87	19	247	10	276	684
05:45 PM	11	99	11	121	29	168	5	202	6	56	25	87	13	236	11	260	670
Total Volume	28	340	69	437	124	726	19	869	27	241	94	362	73	977	53	1103	2771
% App. Total	6.4	77.8	15.8		14.3	83.5	2.2		7.5	66.6	26		6.6	88.6	4.8		
PHF	.636	.859	.639	.874	.861	.955	.679	.957	.750	.899	.940	.933	.793	.929	.663	.925	.968



**Peak Hour Analysis From 03:45 PM to 05:45 PM - Peak 1 of 1**

Peak Hour for Each Approach Begins at:

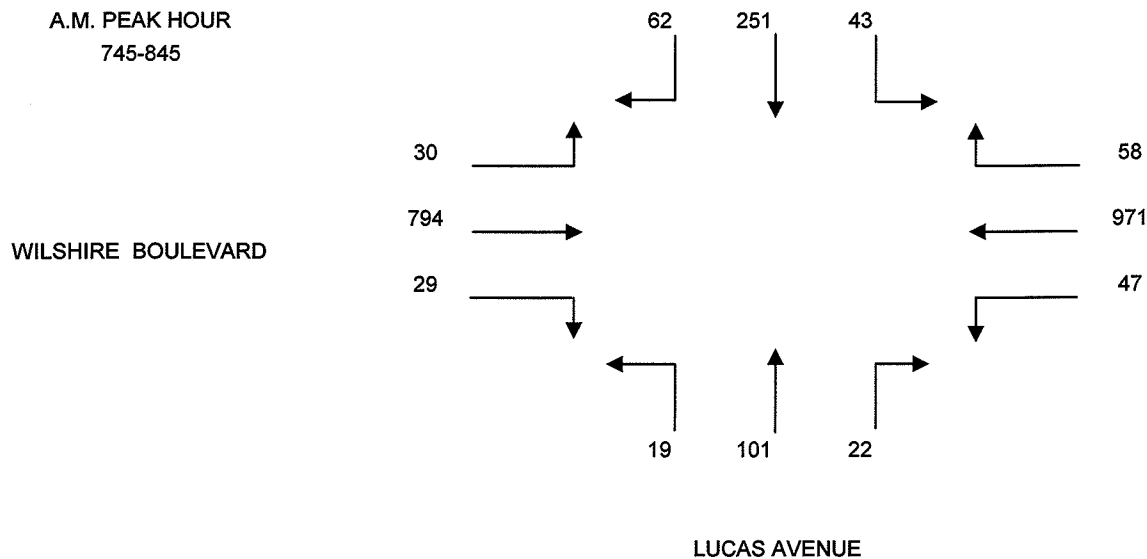
	05:00 PM				04:00 PM				04:30 PM				05:00 PM			
+0 mins.	6	92	27	125	47	189	4	240	7	63	21	91	18	231	20	269
+15 mins.	8	76	13	97	33	191	4	228	10	57	27	94	23	263	12	298
+30 mins.	3	73	18	94	40	203	8	251	9	67	21	97	19	247	10	276
+45 mins.	11	99	11	121	43	212	4	259	7	59	25	91	13	236	11	260
Total Volume	28	340	69	437	163	795	20	978	33	246	94	373	73	977	53	1103
% App. Total	6.4	77.8	15.8		16.7	81.3	2		8.8	66	25.2		6.6	88.6	4.8	
PHF	.636	.859	.639	.874	.867	.938	.625	.944	.825	.918	.870	.961	.793	.929	.663	.925

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S LUCAS AVENUE  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 2-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	5	33	5	6	205	10	5	21	6	4	150	6
715-730	10	53	6	11	230	10	3	16	4	4	155	4
730-745	11	53	7	10	246	9	4	16	5	8	167	4
745-800	16	61	12	13	257	8	6	22	6	7	190	7
800-815	17	69	13	14	249	12	5	28	3	10	224	11
815-830	13	63	11	15	237	11	7	23	6	5	204	6
830-845	16	58	7	16	228	16	4	28	4	7	176	6
845-900	10	49	10	18	217	12	7	16	2	9	197	4

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	42	200	30	40	938	37	18	75	21	23	662	21	2107
715-815	54	236	38	48	982	39	18	82	18	29	736	26	2306
730-830	57	246	43	52	989	40	22	89	20	30	785	28	2401
745-845	62	251	43	58	971	47	22	101	19	29	794	30	2427
800-900	56	239	41	63	931	51	23	95	15	31	801	27	2373



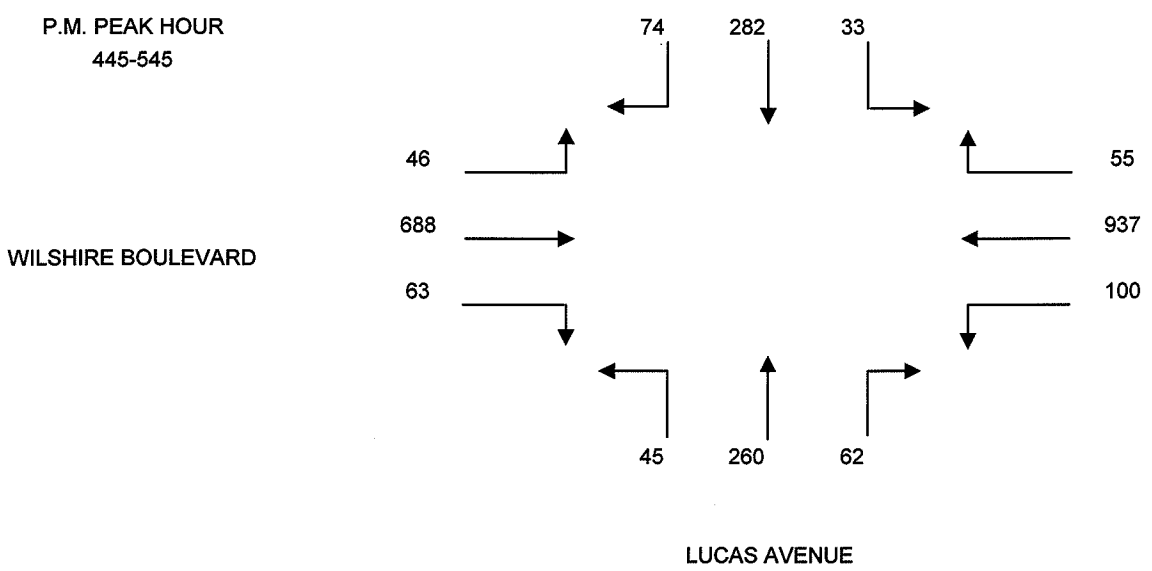
THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S LUCAS AVENUE  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 2-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	20	68	7	10	155	28	21	64	15	14	197	11
415-430	26	42	5	19	176	21	14	57	13	15	207	7
430-445	27	60	5	13	188	35	24	60	8	13	175	6
445-500	21	66	8	15	197	20	18	61	12	13	160	10
500-515	19	75	14	13	220	28	12	82	16	16	180	13
515-530	21	74	7	12	240	25	20	67	10	19	174	11
530-545	13	67	4	15	280	27	12	50	7	15	174	12
545-600	10	45	5	13	263	21	14	30	11	15	162	10

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	94	236	25	57	716	104	77	242	48	55	739	34	2427
415-515	93	243	32	60	781	104	68	260	49	57	722	36	2505
430-530	88	275	34	53	845	108	74	270	46	61	689	40	2583
445-545	74	282	33	55	937	100	62	260	45	63	688	46	2645
500-600	63	261	30	53	1003	101	58	229	44	65	690	46	2643



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BIXEL STREET  
 E/W 6TH STREET  
 FILE NUMBER: 3-AM

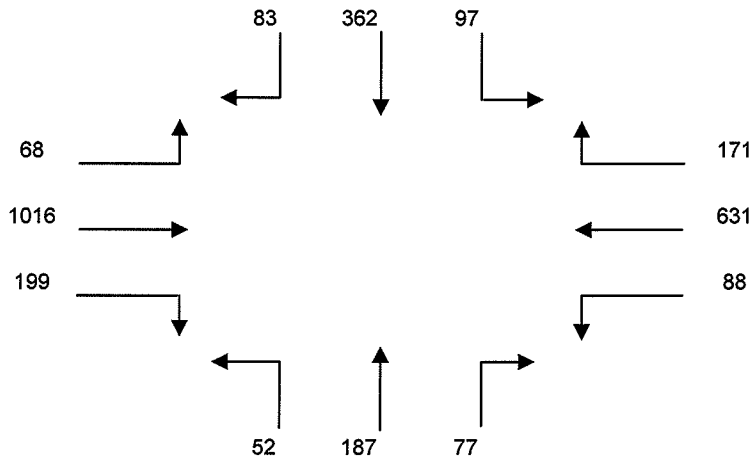
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	10	61	21	37	151	27	13	29	5	47	191	11
715-730	14	72	36	53	147	39	11	39	7	49	206	15
730-745	15	81	39	54	161	29	13	34	11	49	221	13
745-800	17	99	30	50	172	27	16	44	15	53	239	15
800-815	22	103	28	36	157	20	19	44	11	59	255	21
815-830	25	80	20	41	148	20	20	53	15	47	265	15
830-845	19	80	19	44	154	21	22	46	11	40	257	17
845-900	19	71	19	32	156	22	14	46	11	39	205	11

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	56	313	126	194	631	122	53	146	38	198	857	54	2788
715-815	68	355	133	193	637	115	59	161	44	210	921	64	2960
730-830	79	363	117	181	638	96	68	175	52	208	980	64	3021
745-845	83	362	97	171	631	88	77	187	52	199	1016	68	3031
800-900	85	334	86	153	615	83	75	189	48	185	982	64	2899

A.M. PEAK HOUR  
745-845

6TH STREET

BIXEL STREET



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BIXEL STREET  
 E/W 6TH STREET  
 FILE NUMBER: 3-PM

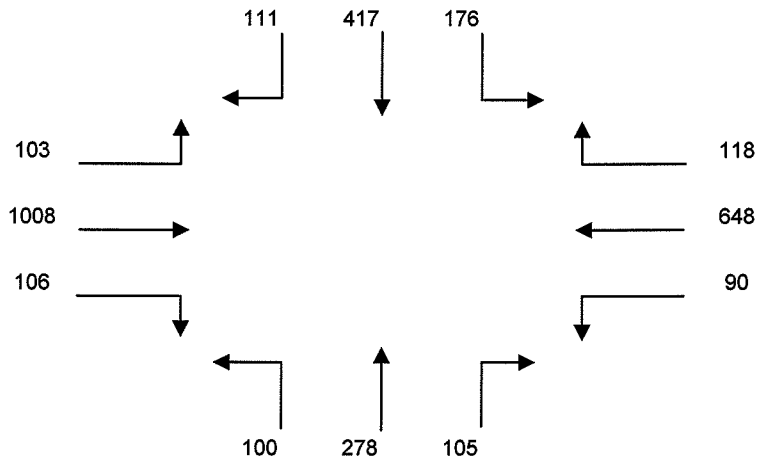
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	20	89	41	24	131	17	22	60	19	21	224	20
415-430	21	93	45	26	146	21	24	71	22	25	236	15
430-445	22	102	39	24	154	22	21	59	24	22	246	24
445-500	25	111	46	22	165	19	31	66	25	25	251	25
500-515	27	99	36	31	173	23	22	68	25	24	258	27
515-530	33	102	48	33	167	23	25	71	28	27	249	29
530-545	26	105	46	32	143	25	27	73	22	30	250	22
545-600	29	95	44	35	151	21	22	68	27	26	239	31

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	88	395	171	96	596	79	98	256	90	93	957	84	3003
415-515	95	405	166	103	638	85	98	264	96	96	991	91	3128
430-530	107	414	169	110	659	87	99	264	102	98	1004	105	3218
445-545	111	417	176	118	648	90	105	278	100	106	1008	103	3260
500-600	115	401	174	131	634	92	96	280	102	107	996	109	3237

P.M. PEAK HOUR  
445-545

6TH STREET

BIXEL STREET



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

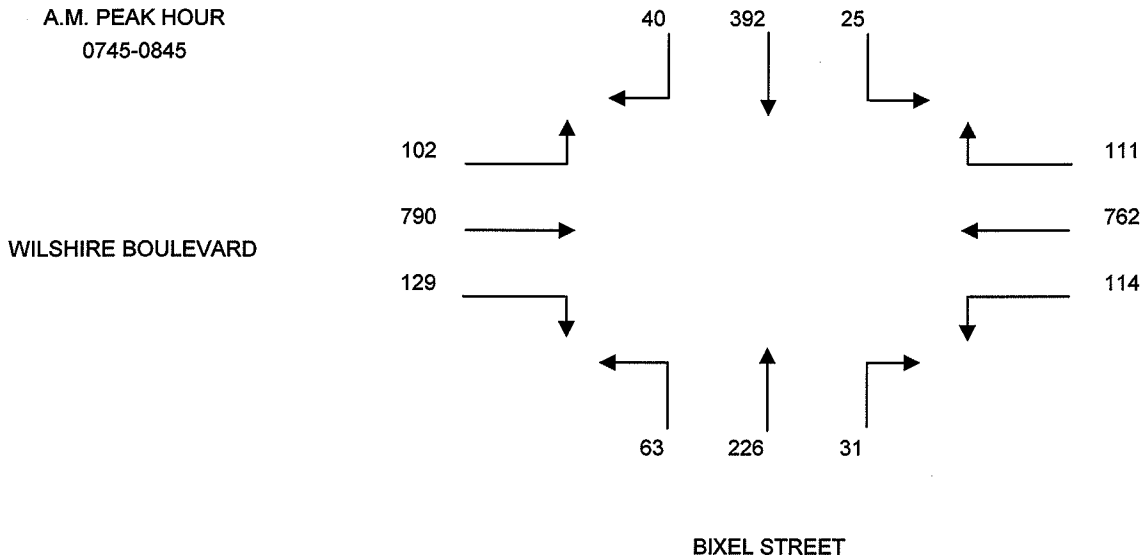
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BIXEL STREET  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 3-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	7	70	4	16	145	35	8	28	10	24	139	13
715-730	11	82	6	19	189	25	10	31	10	25	155	19
730-745	10	104	5	22	172	20	11	48	16	32	160	20
745-800	9	91	3	24	199	32	6	49	19	39	190	24
800-815	11	108	7	33	188	26	7	51	17	34	216	25
815-830	12	90	5	27	194	25	10	63	14	26	214	27
830-845	8	103	10	27	181	31	8	63	13	30	170	26
845-900	5	90	8	20	182	28	7	55	10	27	167	20

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	37	347	18	81	705	112	35	156	55	120	644	76	2386
715-815	41	385	21	98	748	103	34	179	62	130	721	88	2610
730-830	42	393	20	106	753	103	34	211	66	131	780	96	2735
745-845	40	392	25	111	762	114	31	226	63	129	790	102	2785
800-900	36	391	30	107	745	110	32	232	54	117	767	98	2719

A.M. PEAK HOUR  
0745-0845



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978



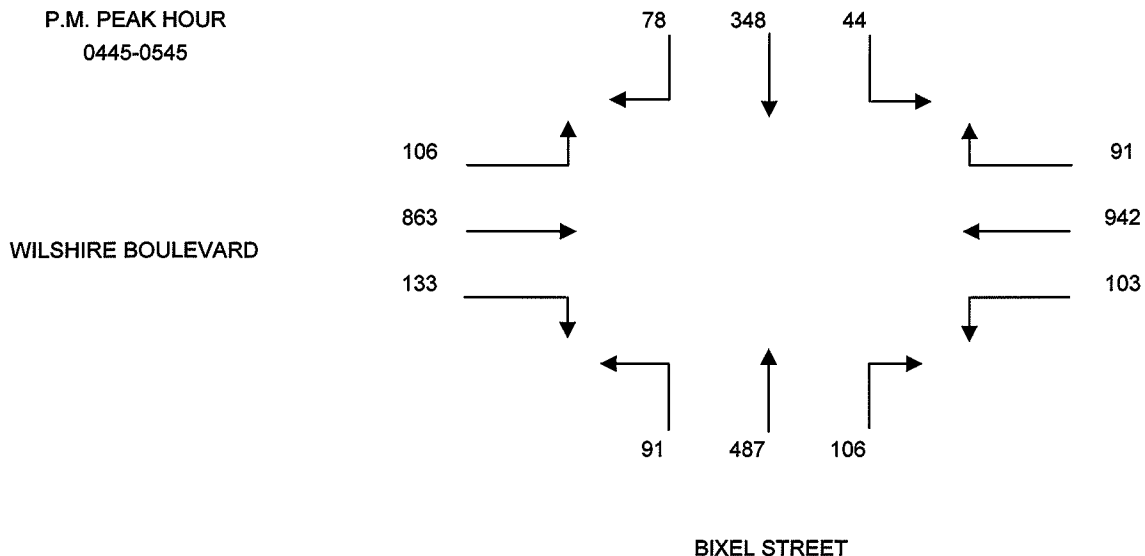
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BIXEL STREET  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 3-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	15	71	10	16	178	25	17	67	17	27	164	20
415-430	20	89	9	22	198	33	22	72	22	33	185	26
430-445	18	80	11	25	194	23	26	88	16	30	190	24
445-500	18	102	12	21	194	34	21	118	21	26	238	34
500-515	25	95	10	24	236	20	28	130	21	34	194	23
515-530	18	75	9	22	232	27	30	115	20	40	231	21
530-545	17	76	13	24	280	22	27	124	29	33	200	28
545-600	16	69	10	17	289	16	26	117	26	41	186	22

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	71	342	42	84	764	115	86	345	76	116	777	104	2922
415-515	81	366	42	92	822	110	97	408	80	123	807	107	3135
430-530	79	352	42	92	856	104	105	451	78	130	853	102	3244
445-545	78	348	44	91	942	103	106	487	91	133	863	106	3392
500-600	76	315	42	87	1037	85	111	486	96	148	811	94	3388

P.M. PEAK HOUR  
0445-0545



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BIXEL STREET  
 E/W 7TH STREET  
 FILE NUMBER: 4-AM

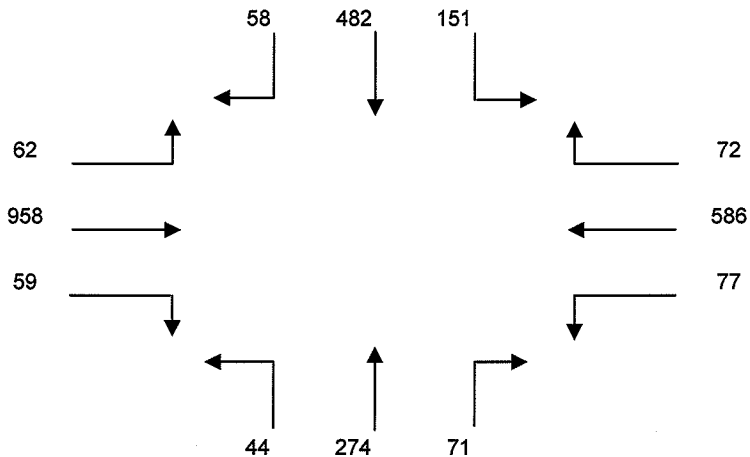
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	9	89	31	7	76	14	4	36	5	5	136	11
715-730	11	93	42	5	116	13	7	41	4	11	149	11
730-745	11	121	36	6	122	15	6	50	6	12	179	13
745-800	14	133	36	10	142	20	10	76	10	12	222	15
800-815	19	122	43	16	144	22	16	80	11	17	247	19
815-830	12	111	33	19	154	16	23	59	10	18	255	13
830-845	13	116	39	27	146	19	22	59	13	12	234	15
845-900	14	102	39	27	136	20	16	54	14	14	223	17

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	45	436	145	28	456	62	27	203	25	40	686	50	2203
715-815	55	469	157	37	524	70	39	247	31	52	797	58	2536
730-830	56	487	148	51	562	73	55	265	37	59	903	60	2756
745-845	58	482	151	72	586	77	71	274	44	59	958	62	2894
800-900	58	451	154	89	580	77	77	252	48	61	959	64	2870

A.M. PEAK HOUR  
745-845

7TH STREET

BIXEL STREET



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BIXEL STREET  
 E/W 7TH STREET  
 FILE NUMBER: 4-PM

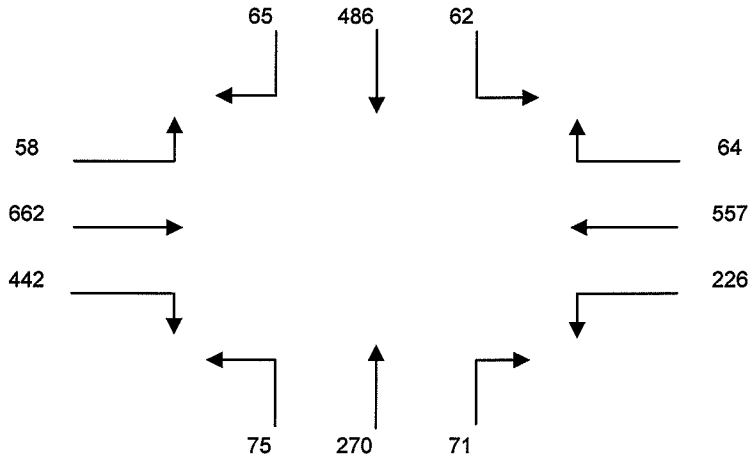
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	12	112	8	9	119	29	11	36	12	66	129	6
415-430	14	121	9	11	116	33	13	41	11	76	136	11
430-445	14	122	11	15	126	39	15	55	16	103	131	15
445-500	13	131	15	13	137	41	15	75	17	104	148	11
500-515	13	122	13	20	147	59	22	68	21	111	168	17
515-530	18	119	19	19	131	62	17	78	15	115	177	15
530-545	21	114	15	12	142	64	17	49	22	112	169	15
545-600	15	102	15	15	132	49	20	44	27	112	152	10

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	53	486	43	48	498	142	54	207	56	349	544	43	2523
415-515	54	496	48	59	526	172	65	239	65	394	583	54	2755
430-530	58	494	58	67	541	201	69	276	69	433	624	58	2948
445-545	65	486	62	64	557	226	71	270	75	442	662	58	3038
500-600	67	457	62	66	552	234	76	239	85	450	666	57	3011

P.M. PEAK HOUR  
445-545

7TH STREET

BIXEL STREET



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

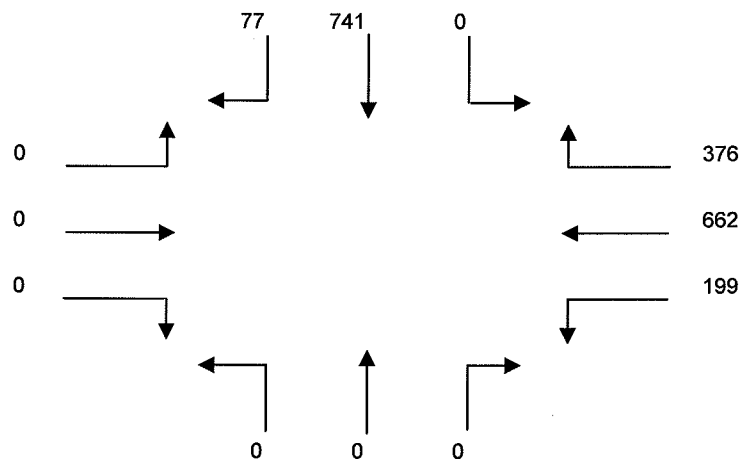
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: TUESDAY, OCTOBER 02, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BIXEL STREET / SR - 110 SB ON RAMP  
 E/W 8TH STREET  
 FILE NUMBER: 12-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	16	168	0	62	141	35	0	0	0	0	0	0
715-730	14	202	0	62	134	42	0	0	0	0	0	0
730-745	18	199	0	70	163	39	0	0	0	0	0	0
745-800	18	201	0	89	158	52	0	0	0	0	0	0
800-815	22	191	0	92	190	36	0	0	0	0	0	0
815-830	22	169	0	92	159	56	0	0	0	0	0	0
830-845	15	180	0	103	155	55	0	0	0	0	0	0
845-900	21	139	0	85	142	37	0	0	0	0	0	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	66	770	0	283	596	168	0	0	0	0	0	0	1883
715-815	72	793	0	313	645	169	0	0	0	0	0	0	1992
730-830	80	760	0	343	670	183	0	0	0	0	0	0	2036
745-845	77	741	0	376	662	199	0	0	0	0	0	0	2055
800-900	80	679	0	372	646	184	0	0	0	0	0	0	1961

A.M. PEAK HOUR  
0745-0845

8TH STREET



BIXEL STREET / SR - 110 SB ON RAMP

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

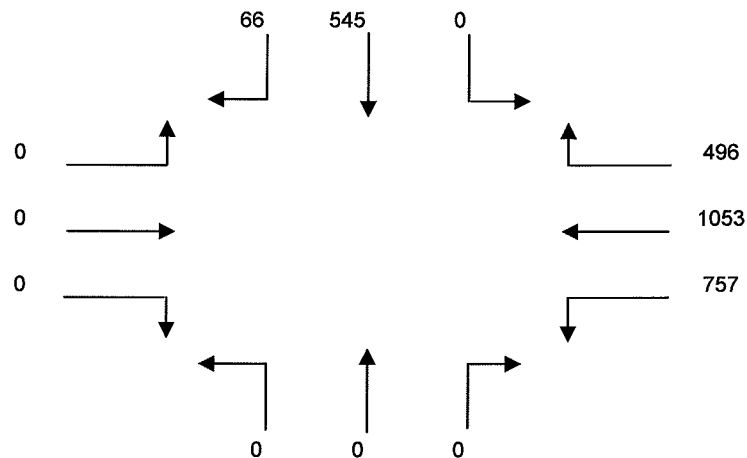
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: TUESDAY, OCTOBER 02, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BIXEL STREET / SR-110 SB ON RAMP  
 E/W 8TH STREET  
 FILE NUMBER: 12-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	15	155	0	50	165	186	0	0	0	0	0	0
415-430	23	147	0	64	185	185	0	0	0	0	0	0
430-445	22	148	0	83	208	187	0	0	0	0	0	0
445-500	20	180	0	100	227	187	0	0	0	0	0	0
500-515	22	153	0	99	239	206	0	0	0	0	0	0
515-530	14	130	0	129	253	187	0	0	0	0	0	0
530-545	13	121	0	133	271	180	0	0	0	0	0	0
545-600	17	141	0	135	290	184	0	0	0	0	0	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	80	630	0	297	785	745	0	0	0	0	0	0	2537
415-515	87	628	0	346	859	765	0	0	0	0	0	0	2685
430-530	78	611	0	411	927	767	0	0	0	0	0	0	2794
445-545	69	584	0	461	990	760	0	0	0	0	0	0	2864
500-600	66	545	0	496	1053	757	0	0	0	0	0	0	2917

P.M. PEAK HOUR  
0500-0600

8TH STREET



BIXEL STREET / SR-110 SB ON RAMP

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W 1ST STREET  
 FILE NUMBER: 4-AM

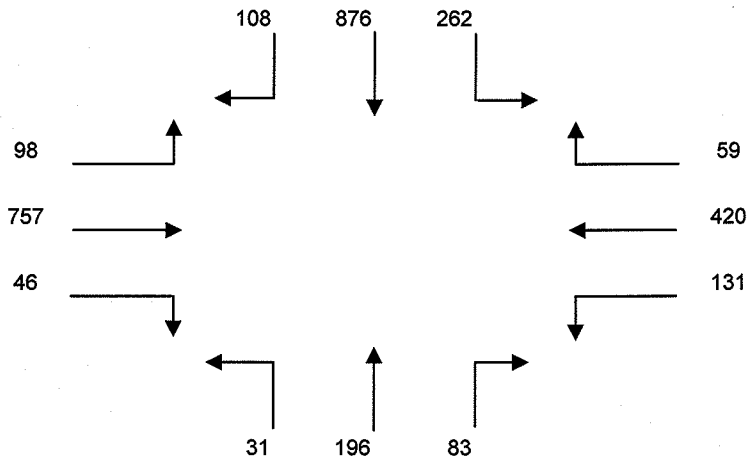
15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	26	164	49	13	86	28	23	47	10	9	110	13
715-730	38	198	53	11	96	27	17	52	10	9	124	21
730-745	28	205	67	18	105	34	19	49	9	10	135	32
745-800	26	226	43	10	114	39	22	59	8	12	206	29
800-815	28	235	68	12	106	30	25	49	7	10	211	23
815-830	26	210	84	19	95	28	17	39	7	14	205	14
830-845	21	192	91	10	112	20	24	34	5	9	169	10
845-900	28	207	94	11	89	31	25	40	4	7	160	9

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
TOTALS	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	118	793	212	52	401	128	81	207	37	40	575	95	2739
715-815	120	864	231	51	421	130	83	209	34	41	676	105	2965
730-830	108	876	262	59	420	131	83	196	31	46	757	98	3067
745-845	101	863	286	51	427	117	88	181	27	45	791	76	3053
800-900	103	844	337	52	402	109	91	162	23	40	745	56	2964

A.M. PEAK HOUR  
0730-0830

1ST STREET

BEAUDRY AVENUE



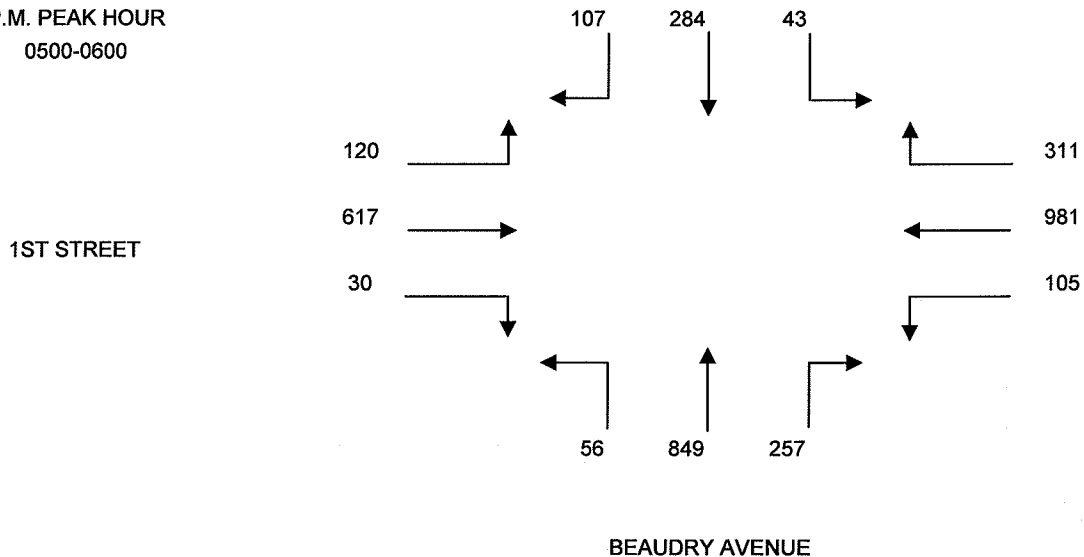
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W 1ST STREET  
 FILE NUMBER: 4-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	15	50	11	45	145	21	42	140	10	6	111	30
415-430	20	59	13	69	155	25	49	155	19	9	115	34
430-445	23	82	8	76	158	24	57	196	20	9	141	31
445-500	25	81	8	54	184	26	41	190	15	5	138	31
500-515	22	71	10	78	224	25	63	201	14	6	124	39
515-530	29	69	11	98	268	31	62	225	10	5	153	29
530-545	25	84	13	70	222	29	77	232	16	9	178	23
545-600	31	60	9	65	267	20	55	191	16	10	162	29

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	83	272	40	244	642	96	189	681	64	29	505	126	2971
415-515	90	293	39	277	721	100	210	742	68	29	518	135	3222
430-530	99	303	37	306	834	106	223	812	59	25	556	130	3490
445-545	101	305	42	300	898	111	243	848	55	25	593	122	3643
500-600	107	284	43	311	981	105	257	849	56	30	617	120	3760

P.M. PEAK HOUR  
0500-0600



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W 2ND STREET  
 FILE NUMBER: 5-AM

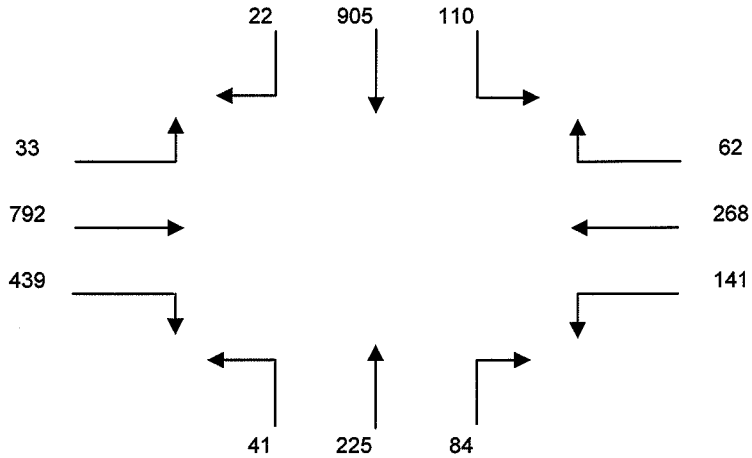
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	3	179	32	18	44	13	14	59	14	102	174	5
715-730	5	203	22	21	50	20	13	59	13	89	170	5
730-745	4	238	23	17	60	29	17	49	10	108	205	9
745-800	7	208	21	19	76	43	23	57	12	99	187	11
800-815	4	248	32	14	67	32	20	60	9	116	192	8
815-830	7	211	34	12	65	37	24	59	10	116	208	5
830-845	8	199	27	10	47	30	17	35	10	102	218	9
845-900	9	176	28	16	60	24	19	48	10	115	195	6

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	19	828	98	75	230	105	67	224	49	398	736	30	2859
715-815	20	897	98	71	253	124	73	225	44	412	754	33	3004
730-830	22	905	110	62	268	141	84	225	41	439	792	33	3122
745-845	26	866	114	55	255	142	84	211	41	433	805	33	3065
800-900	28	834	121	52	239	123	80	202	39	449	813	28	3008

A.M. PEAK HOUR  
0730-0830

2ND STREET

BEAUDRY AVENUE





# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

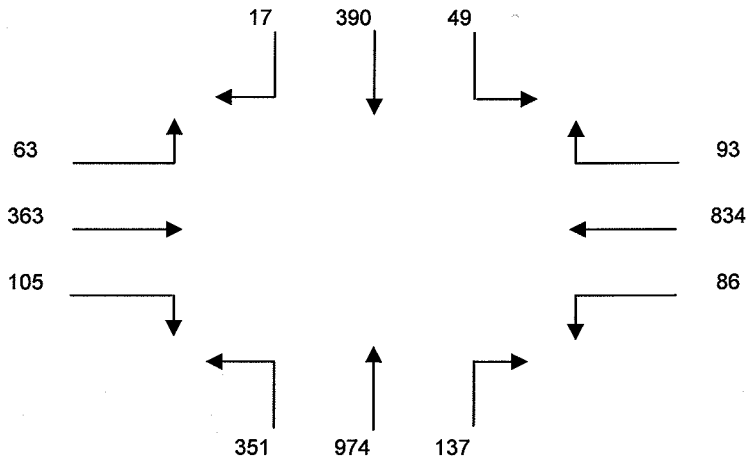
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W 2ND STREET  
 FILE NUMBER: 5-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	6	59	15	10	150	17	28	168	67	18	73	16
415-430	5	89	13	15	166	23	30	197	89	18	94	18
430-445	4	72	14	23	165	15	30	213	87	24	97	10
445-500	5	103	19	22	167	20	47	212	86	25	108	14
500-515	3	98	13	21	196	20	31	237	97	29	96	13
515-530	4	100	10	29	250	27	34	275	77	29	85	17
530-545	5	89	7	21	221	19	25	250	91	22	74	19
545-600	4	83	10	15	223	13	33	234	59	22	85	16

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	20	323	61	70	648	75	135	790	329	85	372	58	2966
415-515	17	362	59	81	694	78	138	859	359	96	395	55	3193
430-530	16	373	56	95	778	82	142	937	347	107	386	54	3373
445-545	17	390	49	93	834	86	137	974	351	105	363	63	3462
500-600	16	370	40	86	890	79	123	996	324	102	340	65	3431

P.M. PEAK HOUR  
0445-0545

2ND STREET



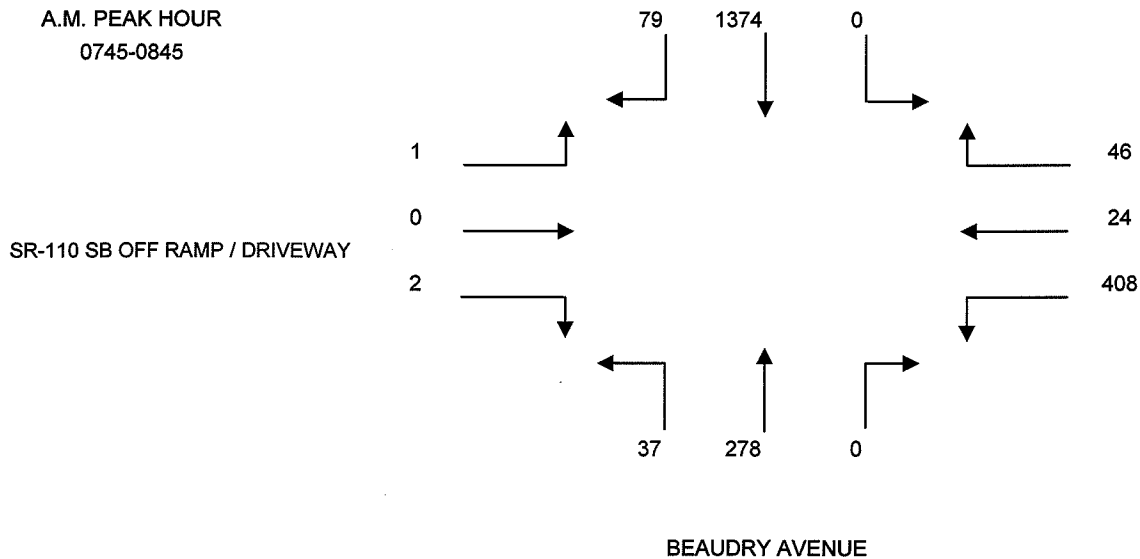
BEAUDRY AVENUE

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W SR-110 SB OFF RAMP / DRIVEWAY  
 FILE NUMBER: 6-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	18	251	0	17	4	83	0	71	7	0	0	0
715-730	16	307	0	12	2	79	0	62	9	0	0	0
730-745	20	351	0	15	2	63	0	70	7	0	0	0
745-800	26	361	0	10	5	88	0	75	12	1	0	0
800-815	17	350	0	11	8	93	0	75	9	0	0	0
815-830	19	330	0	10	4	96	0	75	9	0	0	1
830-845	17	333	0	15	7	131	0	53	7	1	0	0
845-900	14	313	0	17	5	104	0	71	3	1	0	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	80	1270	0	54	13	313	0	278	35	1	0	0	2044
715-815	79	1369	0	48	17	323	0	282	37	1	0	0	2156
730-830	82	1392	0	46	19	340	0	295	37	1	0	1	2213
745-845	79	1374	0	46	24	408	0	278	37	2	0	1	2249
800-900	67	1326	0	53	24	424	0	274	28	2	0	1	2199



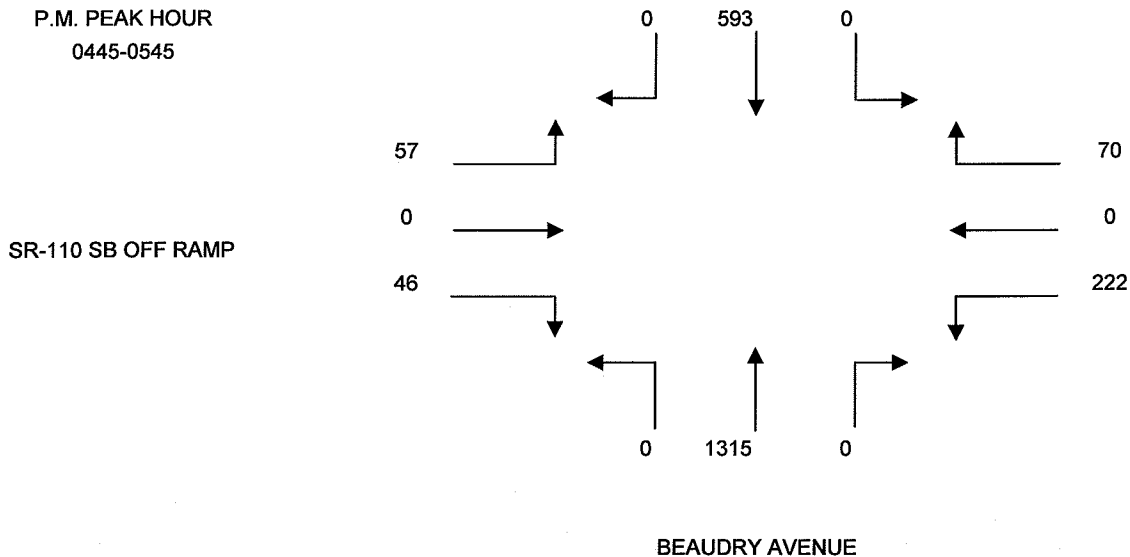
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W SR-110 SB OFF RAMP  
 FILE NUMBER: 6-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	118	0	20	0	47	0	260	0	11	0	14
415-430	0	102	0	27	0	55	0	242	0	8	0	10
430-445	0	128	0	20	0	40	0	291	0	16	0	19
445-500	0	146	0	22	0	72	0	340	0	13	0	12
500-515	0	175	0	17	0	57	0	300	0	19	0	22
515-530	0	121	0	19	0	41	0	356	0	11	0	21
530-545	0	151	0	12	0	52	0	319	0	3	0	2
545-600	0	120	0	14	0	47	0	345	0	0	0	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	0	494	0	89	0	214	0	1133	0	48	0	55	2033
415-515	0	551	0	86	0	224	0	1173	0	56	0	63	2153
430-530	0	570	0	78	0	210	0	1287	0	59	0	74	2278
445-545	0	593	0	70	0	222	0	1315	0	46	0	57	2303
500-600	0	567	0	62	0	197	0	1320	0	33	0	45	2224

P.M. PEAK HOUR  
0445-0545



# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W 3RD STREET / MIRAMAR STREET  
 FILE NUMBER: 7-AM

15 MINUTE TOTALS	1A	1B	2	4	5A	5B	6	8	9A	9B
	SBRT	SBRT			WBTH	WBTH			NBLT	NBLT
	TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST

700-715	11	80	241	51	31	209	55	29	2	5
715-730	11	103	277	52	36	259	51	32	4	3
730-745	16	129	285	48	50	233	69	44	3	5
745-800	9	109	303	50	35	219	63	30	2	8
800-815	10	99	329	44	31	220	64	38	1	5
815-830	6	101	316	44	24	194	49	36	0	5
830-845	4	115	347	58	20	219	69	52	0	9
845-900	2	88	337	30	10	191	67	49	2	5

1 HOUR TOTALS	1A	1B	2	4	5A	5B	6	8	9A	9B	TOTALS
	SBRT	SBRT			WBTH	WBTH			NBLT	NBLT	
	TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST	

700-800	47	421	1106	201	152	920	238	135	11	21	3252
715-815	46	440	1194	194	152	931	247	144	10	21	3379
730-830	41	438	1233	186	140	866	245	148	6	23	3326
745-845	29	424	1295	196	110	852	245	156	3	27	3337
800-900	22	403	1329	176	85	824	249	175	3	24	3290

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W 3RD STREET / MIRAMAR STREET  
 FILE NUMBER: 7-PM

15 MINUTE TOTALS	1A	1B	2	4	5A	5B	6	8	9A	9B
	SBRT	SBRT			WBTH	WBTH			NBLT	NBLT
	TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST
400-415	3	61	122	126	7	231	24	134	0	8
415-430	4	47	111	125	9	185	34	153	0	9
430-445	5	49	127	126	9	181	30	155	1	7
445-500	5	64	160	114	6	223	35	167	0	7
500-515	6	54	127	114	10	189	35	175	0	4
515-530	8	63	123	117	7	261	35	204	0	4
530-545	5	53	111	124	3	254	34	175	1	6
545-600	2	56	103	110	3	276	22	162	0	4

1 HOUR TOTALS	1A	1B	2	4	5A	5B	6	8	9A	9B	TOTALS
	SBRT	SBRT			WBTH	WBTH			NBLT	NBLT	
	TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST			TO MIRAMAR	TO 3RD ST	
400-500	17	221	520	491	31	820	123	609	1	31	2864
415-515	20	214	525	479	34	778	134	650	1	27	2862
430-530	24	230	537	471	32	854	135	701	1	22	3007
445-545	24	234	521	469	26	927	139	721	1	21	3083
500-600	21	226	464	465	23	980	126	716	1	18	3040

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

**CLIENT:** CRAIN & ASSOCIATES  
**PROJECT:** WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
**DATE:** TUESDAY, JANUARY 31, 2006  
**PERIOD:** 07:00 AM TO 09:00 AM  
**INTERSECTION:** N/S BEAUDRY AVENUE  
**E/W:** 5TH & 6TH STREETS  
**FILE NUMBER:** 5-AM

15 MINUTE TOTALS	6A										6B									
	TO BEAUDRY 6TH ST					TO 6TH ST					TO BEAUDRY 6TH ST					TO 6TH ST				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
700-715	98	23	33	8	132	0	0	0	0	0	1	223	20	20	20	20	20	20	20	20
715-730	106	32	41	14	127	0	0	0	0	0	0	242	29	29	29	29	29	29	29	29
730-745	136	36	44	12	135	1	0	0	0	0	0	249	32	32	32	32	32	32	32	32
745-800	124	51	46	10	113	0	1	0	0	0	0	255	27	27	27	27	27	27	27	27
800-815	114	32	74	12	121	0	1	0	0	0	0	243	28	28	28	28	28	28	28	28
815-830	119	48	43	18	121	0	0	0	0	0	0	262	26	26	26	26	26	26	26	26
830-845	100	52	63	13	110	0	0	1	0	0	0	263	39	39	39	39	39	39	39	39
845-900	96	38	64	9	116	0	0	0	0	0	0	241	38	38	38	38	38	38	38	38
1 HOUR TOTALS																				
700-800	464	142	164	44	507	1	1	0	0	0	2	969	108	108	108	108	108	108	108	108
715-815	480	151	205	48	496	1	2	1	0	0	5	989	116	116	116	116	116	116	116	116
730-830	493	167	207	52	490	1	2	1	0	0	10	1009	113	113	113	113	113	113	113	113
745-845	457	183	226	53	465	0	2	2	0	0	13	1023	120	120	120	120	120	120	120	120
800-900	429	170	244	52	468	0	1	2	0	0	15	1009	131	131	131	131	131	131	131	131

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

**CLIENT:** CRAIN & ASSOCIATES  
**PROJECT:** WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
**DATE:** TUESDAY, JANUARY 31, 2006  
**PERIOD:** 04:00 PM TO 06:00 PM  
**INTERSECTION:** N/S BEAUDRY AVENUE  
 E/W 5TH & 6TH STREETS  
**FILE NUMBER:** 5-PM

15 MINUTE TOTALS	1		4		5		7		8		9		10		11		12	
	SBRT	TO BEAUDRY 6TH ST	WBRT	WBTH	6		TO BEAUDRY 6TH ST		NBTH		NBLT		EBRT		EBTH		EBLT	
					SBTH	SBLT	WBLT	WBLT	NBTH	NBLT	EBRT	EBTH	EBLT					
400-415	64	25	41	44	141	0	1	0	0	0	0	0	0	5	228	65		
415-430	51	20	26	51	129	0	0	0	0	0	0	0	4	238	58			
430-445	57	21	44	74	142	0	0	1	0	0	0	0	5	208	78			
445-500	69	21	38	66	126	0	2	1	0	0	0	0	4	222	78			
500-515	75	21	44	78	158	0	0	1	0	0	0	0	4	225	81			
515-530	89	35	33	82	175	0	0	0	0	0	0	0	5	236	76			
530-545	67	20	25	80	155	0	0	2	0	0	0	0	5	252	84			
545-600	63	22	28	62	125	0	0	0	0	0	0	0	4	232	71			

1 HOUR TOTALS	1		4		5		7		8		9		10		11		12	
	SBRT	TO BEAUDRY 6TH ST	WBRT	WBTH	6		TO BEAUDRY 6TH ST		NBTH		NBLT		EBRT		EBTH		EBLT	
					SBTH	SBLT	WBLT	WBLT	NBTH	NBLT	EBRT	EBTH	EBLT					
400-500	241	87	149	235	538	0	3	2	0	0	0	0	18	896	279	2448		
415-515	252	83	152	269	555	0	2	3	0	0	0	0	17	893	295	2521		
430-530	290	98	159	300	601	0	2	3	0	0	0	0	18	891	313	2675		
445-545	300	97	140	306	614	0	2	4	0	0	0	0	18	935	319	2735		
500-600	294	98	130	302	613	0	0	3	0	0	0	0	18	945	312	2715		

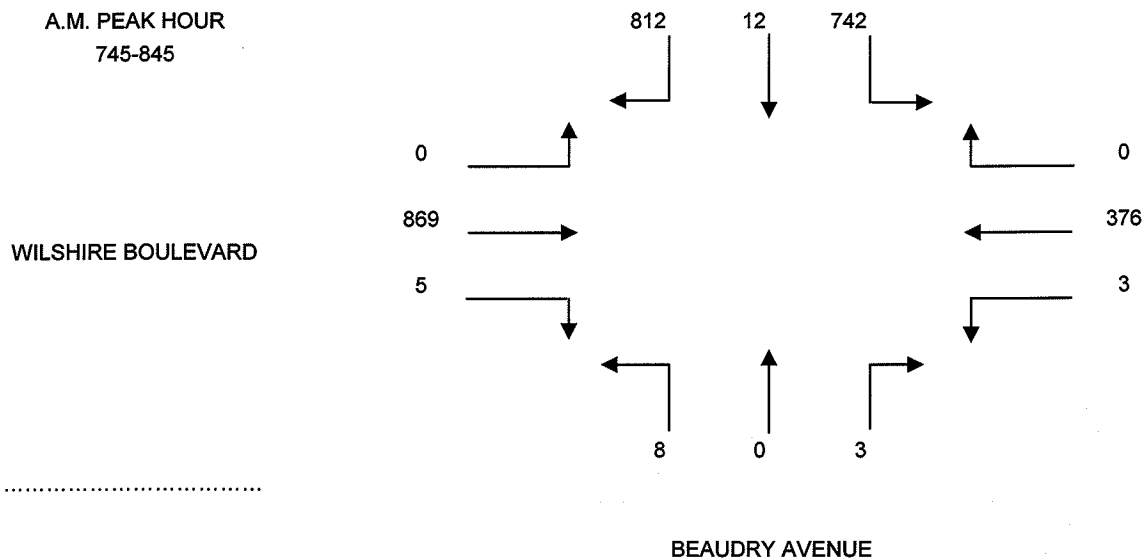
THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 6-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	157	1	136	0	100	1	0	0	0	1	146	0
715-730	157	0	161	0	83	1	1	0	1	3	158	0
730-745	174	0	169	0	102	1	1	0	3	1	197	0
745-800	196	2	199	0	88	1	0	0	2	2	207	0
800-815	288	2	186	0	104	0	0	0	0	1	216	0
815-830	168	4	186	0	93	0	1	0	4	1	227	0
830-845	160	4	171	0	91	2	2	0	2	1	219	0
845-900	161	1	168	0	97	0	0	0	1	1	187	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	684	3	665	0	373	4	2	0	6	7	708	0	2452
715-815	815	4	715	0	377	3	2	0	6	7	778	0	2707
730-830	826	8	740	0	387	2	2	0	9	5	847	0	2826
745-845	812	12	742	0	376	3	3	0	8	5	869	0	2830
800-900	777	11	711	0	385	2	3	0	7	4	849	0	2749



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

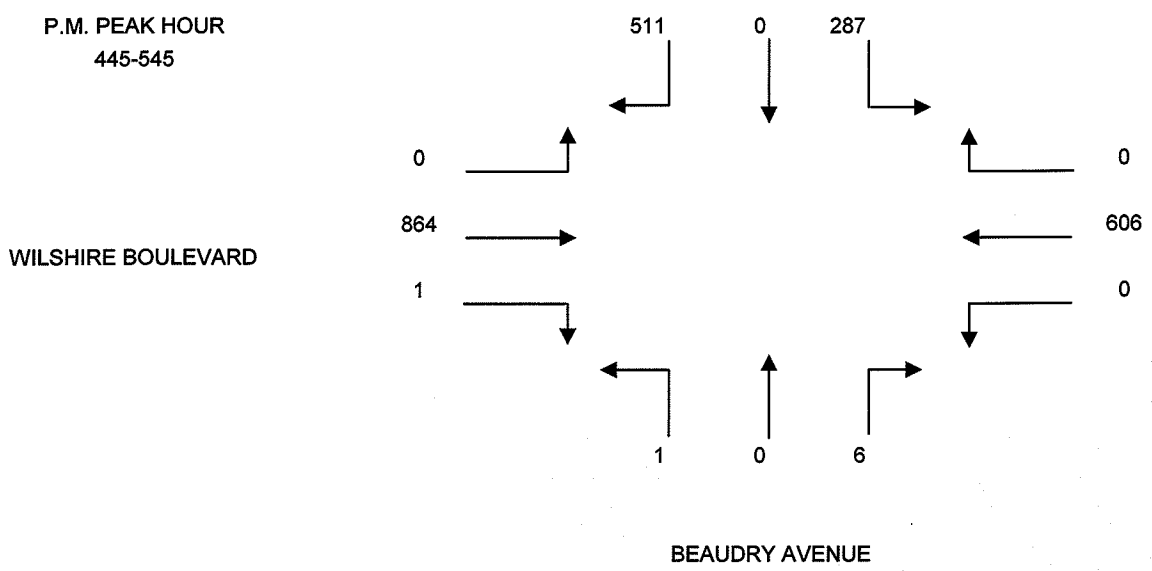


# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: WILSHIRE & BIXEL MIXED USE DEVELOPMENT PROJECT - LOS ANGELES  
 DATE: TUESDAY, JANUARY 31, 2006  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S BEAUDRY AVENUE  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 6-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	88	0	78	0	119	1	0	0	0	1	189	0
415-430	96	0	57	0	146	1	0	0	0	0	199	0
430-445	120	3	78	0	149	0	3	0	2	1	203	0
445-500	127	0	72	0	141	0	2	0	0	0	221	0
500-515	110	0	65	0	137	0	1	0	1	1	212	0
515-530	137	0	97	0	159	0	1	0	0	0	212	0
530-545	137	0	53	0	169	0	2	0	0	0	219	0
545-600	122	2	76	0	158	1	0	0	0	1	202	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	431	3	285	0	555	2	5	0	2	2	812	0	2097
415-515	453	3	272	0	573	1	6	0	3	2	835	0	2148
430-530	494	3	312	0	586	0	7	0	3	2	848	0	2255
445-545	511	0	287	0	606	0	6	0	1	1	864	0	2276
500-600	506	2	291	0	623	1	4	0	1	2	845	0	2275



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W 5TH STREET  
 FILE NUMBER: 7-AM

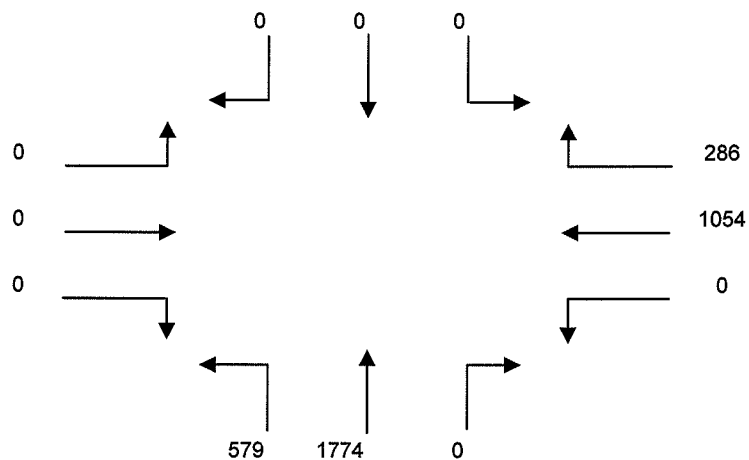
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	30	216	0	0	341	123	0	0	0
715-730	0	0	0	50	235	0	0	380	155	0	0	0
730-745	0	0	0	59	243	0	0	435	128	0	0	0
745-800	0	0	0	51	270	0	0	459	143	0	0	0
800-815	0	0	0	55	259	0	0	441	137	0	0	0
815-830	0	0	0	73	279	0	0	446	151	0	0	0
830-845	0	0	0	107	246	0	0	428	148	0	0	0
845-900	0	0	0	76	277	0	0	419	145	0	0	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	0	0	0	190	964	0	0	1615	549	0	0	0	3318
715-815	0	0	0	215	1007	0	0	1715	563	0	0	0	3500
730-830	0	0	0	238	1051	0	0	1781	559	0	0	0	3629
745-845	0	0	0	286	1054	0	0	1774	579	0	0	0	3693
800-900	0	0	0	311	1061	0	0	1734	581	0	0	0	3687

A.M. PEAK HOUR  
0745-0845

5TH STREET

FIGUEROA STREET



# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W 5TH STREET  
 FILE NUMBER: 7-PM

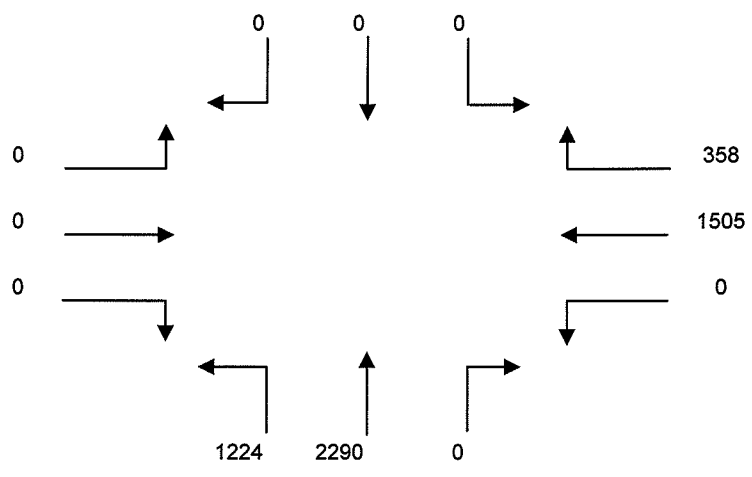
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	0	0	86	307	0	0	552	287	0	0	0
415-430	0	0	0	105	355	0	0	585	261	0	0	0
430-445	0	0	0	85	410	0	0	576	301	0	0	0
445-500	0	0	0	87	381	0	0	549	324	0	0	0
500-515	0	0	0	88	362	0	0	582	317	0	0	0
515-530	0	0	0	98	352	0	0	583	282	0	0	0
530-545	0	0	0	85	345	0	0	566	290	0	0	0
545-600	0	0	0	95	365	0	0	572	271	0	0	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	0	0	0	363	1453	0	0	2262	1173	0	0	0	5251
415-515	0	0	0	365	1508	0	0	2292	1203	0	0	0	5368
430-530	0	0	0	358	1505	0	0	2290	1224	0	0	0	5377
445-545	0	0	0	358	1440	0	0	2280	1213	0	0	0	5291
500-600	0	0	0	366	1424	0	0	2303	1160	0	0	0	5253

P.M. PEAK HOUR  
0430-0530

5TH STREET

FIGUEROA STREET



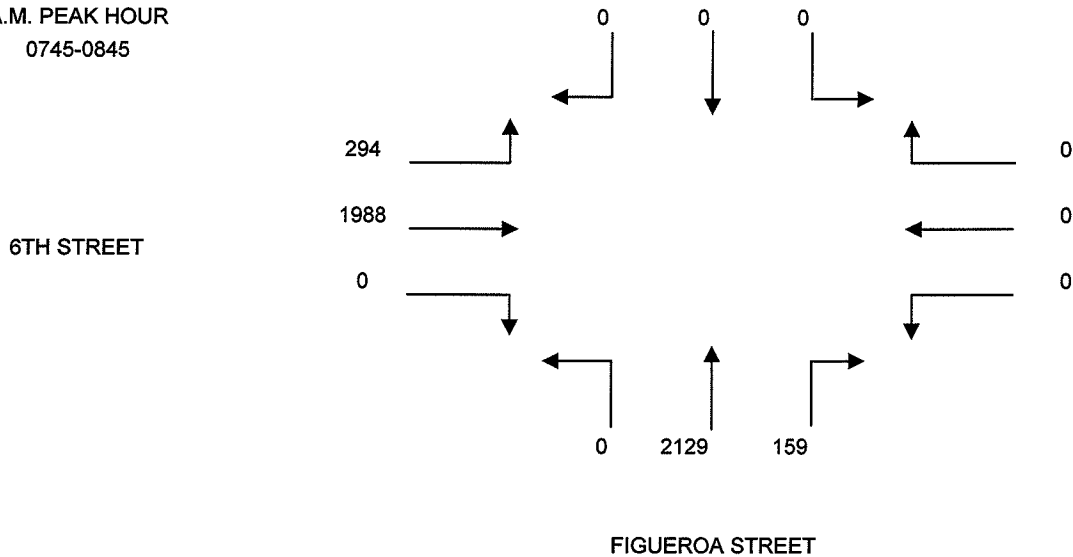
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W 6TH STREET  
 FILE NUMBER: 8-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	0	0	0	25	430	0	0	320	47
715-730	0	0	0	0	0	0	36	473	0	0	360	62
730-745	0	0	0	0	0	0	42	503	0	0	432	59
745-800	0	0	0	0	0	0	33	554	0	0	500	73
800-815	0	0	0	0	0	0	42	545	0	0	496	82
815-830	0	0	0	0	0	0	35	512	0	0	480	60
830-845	0	0	0	0	0	0	49	518	0	0	512	79
845-900	0	0	0	0	0	0	42	480	0	0	539	86

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	0	0	0	0	0	0	136	1960	0	0	1612	241	3949
715-815	0	0	0	0	0	0	153	2075	0	0	1788	276	4292
730-830	0	0	0	0	0	0	152	2114	0	0	1908	274	4448
745-845	0	0	0	0	0	0	159	2129	0	0	1988	294	4570
800-900	0	0	0	0	0	0	168	2055	0	0	2027	307	4557

A.M. PEAK HOUR  
0745-0845



# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

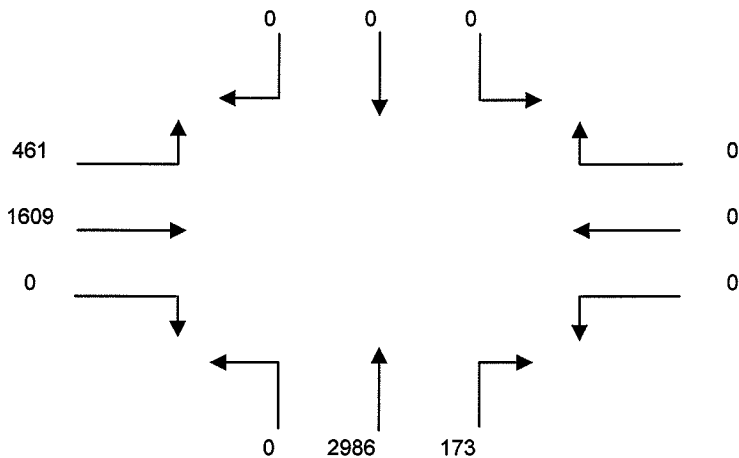
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W 6TH STREET  
 FILE NUMBER: 8-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	0	0	0	0	0	35	740	0	0	399	129
415-430	0	0	0	0	0	0	38	727	0	0	370	118
430-445	0	0	0	0	0	0	34	716	0	0	464	109
445-500	0	0	0	0	0	0	46	732	0	0	399	112
500-515	0	0	0	0	0	0	53	777	0	0	345	123
515-530	0	0	0	0	0	0	40	761	0	0	401	117
530-545	0	0	0	0	0	0	34	718	0	0	412	98
545-600	0	0	0	0	0	0	32	720	0	0	424	99

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	0	0	0	0	0	0	153	2915	0	0	1632	468	5168
415-515	0	0	0	0	0	0	171	2952	0	0	1578	462	5163
430-530	0	0	0	0	0	0	173	2986	0	0	1609	461	5229
445-545	0	0	0	0	0	0	173	2988	0	0	1557	450	5168
500-600	0	0	0	0	0	0	159	2976	0	0	1582	437	5154

P.M. PEAK HOUR  
0430-0530

6TH STREET



FIGUEROA STREET

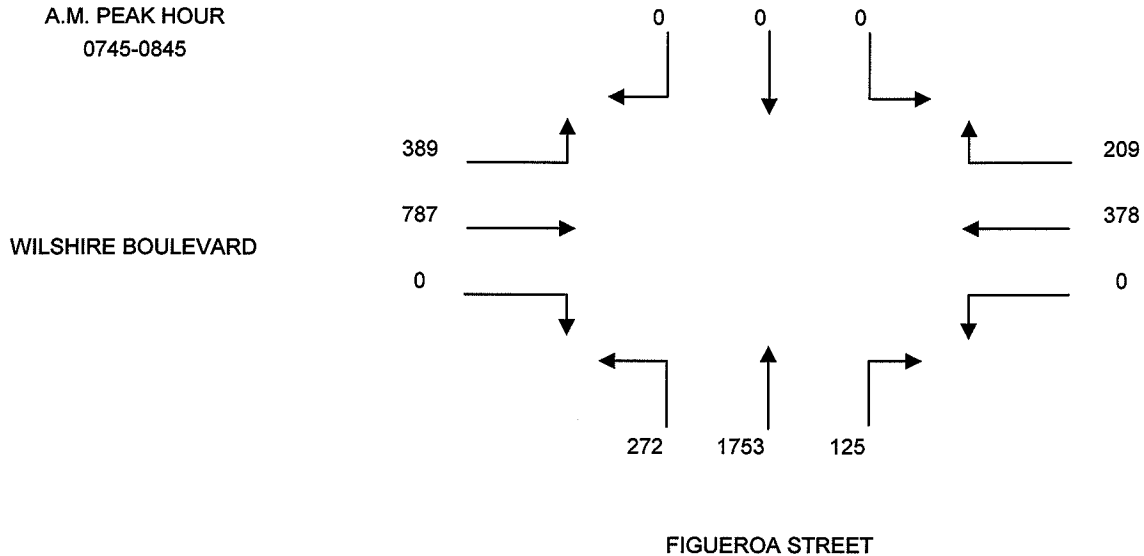
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 9-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	37	71	0	18	348	48	0	119	68
715-730	0	0	0	43	93	0	24	404	69	0	160	82
730-745	0	0	0	41	87	0	26	431	60	0	175	90
745-800	0	0	0	53	90	0	32	455	72	0	199	95
800-815	0	0	0	54	100	0	37	433	83	0	205	99
815-830	0	0	0	61	101	0	30	429	63	0	183	108
830-845	0	0	0	41	87	0	26	436	54	0	200	87
845-900	0	0	0	52	89	0	30	402	47	0	193	89

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	0	0	0	174	341	0	100	1638	249	0	653	335	3490
715-815	0	0	0	191	370	0	119	1723	284	0	739	366	3792
730-830	0	0	0	209	378	0	125	1748	278	0	762	392	3892
745-845	0	0	0	209	378	0	125	1753	272	0	787	389	3913
800-900	0	0	0	208	377	0	123	1700	247	0	781	383	3819

A.M. PEAK HOUR  
0745-0845



THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 9-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	0	0	67	95	0	21	542	45	0	152	110
415-430	0	0	0	70	115	0	27	560	42	0	141	102
430-445	0	0	0	87	90	0	21	579	58	0	151	118
445-500	0	0	0	111	114	0	25	581	36	0	166	112
500-515	0	0	0	82	95	0	20	570	37	0	152	113
515-530	0	0	0	70	110	0	17	568	44	0	174	121
530-545	0	0	0	85	87	0	22	547	60	0	154	139
545-600	0	0	0	76	94	0	27	562	41	0	170	154

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	0	0	0	335	414	0	94	2262	181	0	610	442	4338
415-515	0	0	0	350	414	0	93	2290	173	0	610	445	4375
430-530	0	0	0	350	409	0	83	2298	175	0	643	464	4422
445-545	0	0	0	348	406	0	84	2266	177	0	646	485	4412
500-600	0	0	0	313	386	0	86	2247	182	0	650	527	4391

P.M. PEAK HOUR  
0430-0530



# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

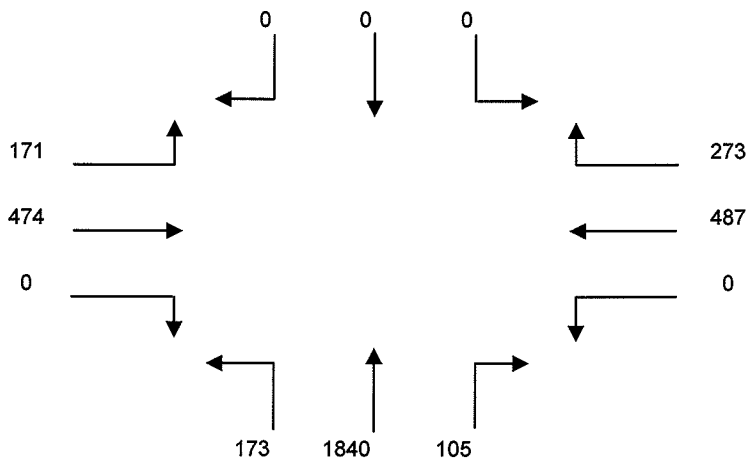
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W 7TH STREET  
 FILE NUMBER: 10-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	32	74	0	16	356	46	0	63	32
715-730	0	0	0	38	93	0	16	427	30	0	78	35
730-745	0	0	0	59	131	0	21	448	38	0	110	45
745-800	0	0	0	72	124	0	22	488	48	0	121	39
800-815	0	0	0	84	131	0	38	441	39	0	130	44
815-830	0	0	0	58	101	0	24	463	48	0	113	43
830-845	0	0	0	46	97	0	36	454	39	0	80	35
845-900	0	0	0	58	95	0	39	430	42	0	116	41

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	0	0	0	201	422	0	75	1719	162	0	372	151	3102
715-815	0	0	0	253	479	0	97	1804	155	0	439	163	3390
730-830	0	0	0	273	487	0	105	1840	173	0	474	171	3523
745-845	0	0	0	260	453	0	120	1846	174	0	444	161	3458
800-900	0	0	0	246	424	0	137	1788	168	0	439	163	3365

A.M. PEAK HOUR  
0730-0830

7TH STREET



FIGUEROA STREET

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978



# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

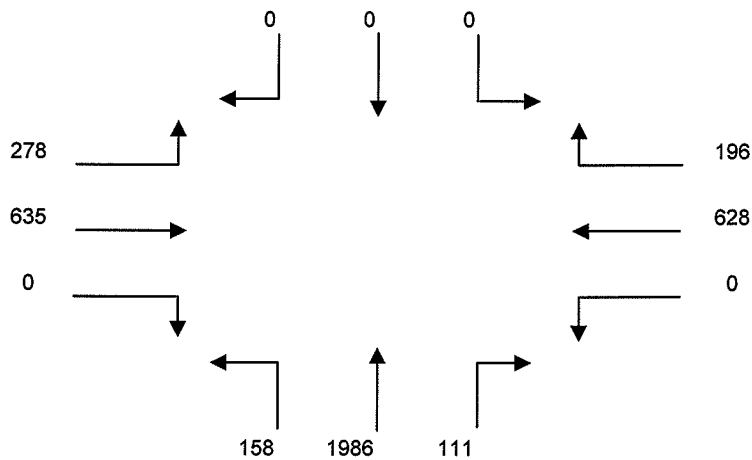
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W 7TH STREET  
 FILE NUMBER: 10-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	0	0	40	119	0	40	453	32	0	149	62
415-430	0	0	0	47	116	0	31	510	27	0	101	51
430-445	0	0	0	41	130	0	37	511	23	0	111	64
445-500	0	0	0	54	157	0	30	471	39	0	141	69
500-515	0	0	0	39	160	0	20	515	35	0	166	80
515-530	0	0	0	53	145	0	31	484	47	0	165	75
530-545	0	0	0	50	166	0	30	516	37	0	163	54
545-600	0	0	0	49	157	0	31	477	26	0	126	51

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	0	0	0	182	522	0	138	1945	121	0	502	246	3656
415-515	0	0	0	181	563	0	118	2007	124	0	519	264	3776
430-530	0	0	0	187	592	0	118	1981	144	0	583	288	3893
445-545	0	0	0	196	628	0	111	1986	158	0	635	278	3992
500-600	0	0	0	191	628	0	112	1992	145	0	620	260	3948

P.M. PEAK HOUR  
0445-0545

7TH STREET



FIGUEROA STREET

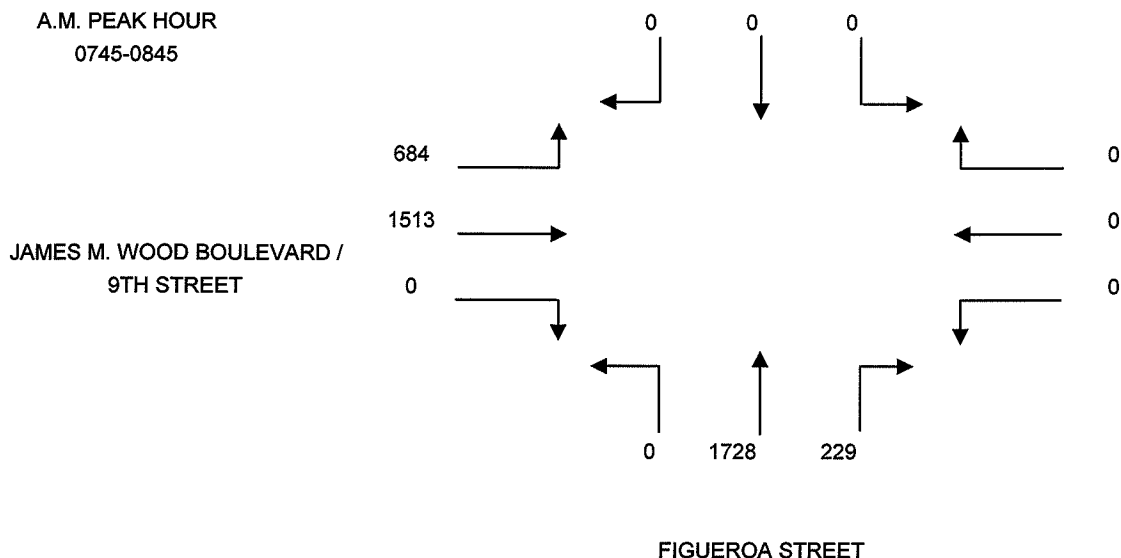
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 07:00 AM TO 09:00 AM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W JAMES M. WOOD BOULEVARD / 9TH STREET  
 FILE NUMBER: 11-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-715	0	0	0	0	0	0	30	317	0	0	237	139
715-730	0	0	0	0	0	0	28	385	0	0	283	150
730-745	0	0	0	0	0	0	37	421	0	0	359	165
745-800	0	0	0	0	0	0	63	444	0	0	400	177
800-815	0	0	0	0	0	0	48	429	0	0	372	189
815-830	0	0	0	0	0	0	51	432	0	0	385	157
830-845	0	0	0	0	0	0	67	423	0	0	356	161
845-900	0	0	0	0	0	0	46	407	0	0	338	185

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
700-800	0	0	0	0	0	0	158	1567	0	0	1279	631	3635
715-815	0	0	0	0	0	0	176	1679	0	0	1414	681	3950
730-830	0	0	0	0	0	0	199	1726	0	0	1516	688	4129
745-845	0	0	0	0	0	0	229	1728	0	0	1513	684	4154
800-900	0	0	0	0	0	0	212	1691	0	0	1451	692	4046

A.M. PEAK HOUR  
0745-0845



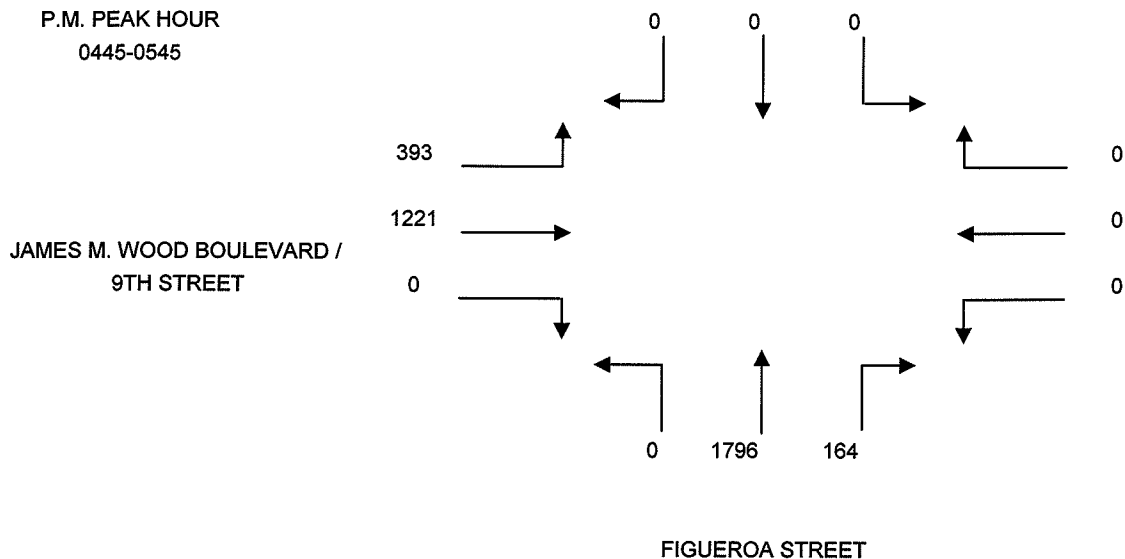
THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

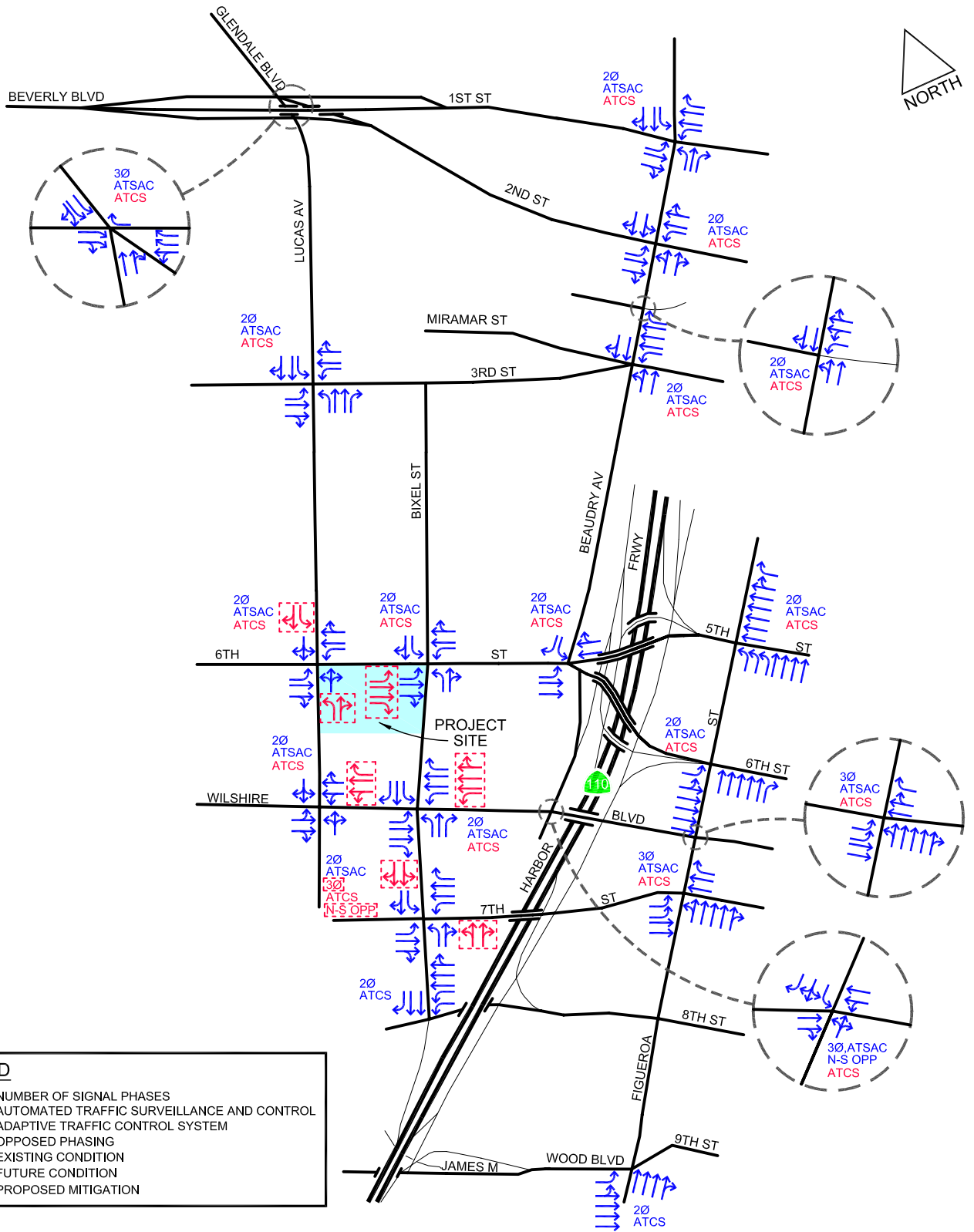
CLIENT: CRAIN & ASSOCIATES  
 PROJECT: GOOD SAMARITAN HOSPITAL MIXED-USE STUDY - LOS ANGELES  
 DATE: THURSDAY, SEPTEMBER 20, 2007  
 PERIOD: 04:00 PM TO 06:00 PM  
 INTERSECTION N/S FIGUEROA STREET  
 E/W JAMES M. WOOD BOULEVARD / 9TH STREET  
 FILE NUMBER: 11-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
400-415	0	0	0	0	0	0	33	415	0	0	270	78
415-430	0	0	0	0	0	0	40	435	0	0	291	89
430-445	0	0	0	0	0	0	54	455	0	0	264	100
445-500	0	0	0	0	0	0	33	462	0	0	297	85
500-515	0	0	0	0	0	0	46	460	0	0	295	90
515-530	0	0	0	0	0	0	39	423	0	0	317	107
530-545	0	0	0	0	0	0	46	451	0	0	312	111
545-600	0	0	0	0	0	0	39	433	0	0	277	104

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
400-500	0	0	0	0	0	0	160	1767	0	0	1122	352	3401
415-515	0	0	0	0	0	0	173	1812	0	0	1147	364	3496
430-530	0	0	0	0	0	0	172	1800	0	0	1173	382	3527
445-545	0	0	0	0	0	0	164	1796	0	0	1221	393	3574
500-600	0	0	0	0	0	0	170	1767	0	0	1201	412	3550



**APPENDIX B**  
**STUDY INTERSECTION GEOMETRICS AND**  
**TRAFFIC CONTROL OPERATIONS**



APPENDIX B

07/08/2008

FN: GOOD SAMARITIAN SITE WILSHIRE LANE-CONFIG

STUDY INTERSECTION GEOMETRICS  
AND TRAFFIC CONTROL OPERATIONS



Transportation Planning  
Traffic Engineering  
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**APPENDIX C**  
**RELATED PROJECT TRIP GENERATION RATES AND EQUATIONS**

## Appendix C Related Projects Trip Generation Rates and Equations

### General Light Industrial (per 1,000 sf) – LUC 110

Daily:	T = 6.97 (A)
AM Peak Hour:	T = 0.92 (A); I/B = 88%, O/B = 12%
PM Peak Hour:	T = 0.98 (A); I/B = 12%, O/B = 88%

### Warehouse (per 1,000 sf) – LUC 150

Daily:	T = 4.96 (A)
AM Peak Hour:	T = 0.45 (A); I/B = 82%, O/B = 18%
PM Peak Hour:	T = 0.47 (A); I/B = 25%, O/B = 75%

### Apartment (per dwelling unit) – LUC 220

Daily:	T = 6.72 (D)
AM Peak Hour:	T = 0.51 (D); I/B = 20%; O/B = 80%
PM Peak Hour:	T = 0.62 (D); I/B = 65%; O/B = 35%

### High-Rise Apartment (per dwelling unit) – LUC 222

Daily:	T = 4.20 (D)
AM Peak Hour:	T = 0.30 (D); I/B = 25%; O/B = 75%
PM Peak Hour:	T = 0.35 (D); I/B = 61%; O/B = 39%

### Residential Condominium/Townhouse (per dwelling unit) – LUC 230

Daily:	T = 5.86 (D)
AM Peak Hour:	T = 0.44 (D); I/B = 17%; O/B = 83%
PM Peak Hour:	T = 0.52 (D); I/B = 67%; O/B = 33%

### Hotel (per room) – LUC 310

Daily:	T = 8.17 (R)
AM Peak Hour:	T = 0.56 (R); I/B = 61%, O/B = 39%
PM Peak Hour:	T = 0.59 (R); I/B = 53%, O/B = 47%

### Movie Theater without Matinee (per seat) – LUC 443

Daily:	T = 1.76 (St)
AM Peak Hour <sup>[1]</sup> :	T = 0.01 (St); I/B = 80%, O/B = 20%
PM Peak Hour:	T = 0.32 (St); I/B = 94%, O/B = 6%

### Health/Fitness Club (per 1,000 sf) – LUC 492

Daily:	T = 32.93 (A)
AM Peak Hour:	T = 1.21 (A); I/B = 42%, O/B = 58%
PM Peak Hour:	T = 4.05 (A); I/B = 51%, O/B = 49%

### Elementary School (per student) – LUC 520

Daily:	T = 1.29 (S)
AM Peak Hour:	T = 0.42 (S); I/B = 55%, O/B = 45%
PM Peak Hour:	T = 0.28 (S); I/B = 45%, O/B = 55%

**Appendix C (continued)**  
**Related Projects Trip Generation Rates and Equations**

High School (per student) – LUC 530

Daily:	$T = 1.71 (S)$
AM Peak Hour:	$T = 0.41 (S)$ ; I/B = 69%, O/B = 31%
PM Peak Hour:	$T = 0.14 (S)$ ; I/B = 47%, O/B = 53%

Junior/Community College (per student) – LUC 540

Daily:	$T = 1.20 (S)$
AM Peak Hour:	$T = 0.12 (S)$ ; I/B = 82%, O/B = 18%
PM Peak Hour:	$T = 0.12 (S)$ ; I/B = 64%, O/B = 36%

Prison (per 1,000 sf) – LUC 571

Daily:	$T = N/A (A)$
AM Peak Hour:	$T = 7.27 (A)$ ; I/B = 66%, O/B = 34%
PM Peak Hour:	$T = 2.91 (A)$ ; I/B = 28%, O/B = 72%

General Office Building (per 1,000 sf) – LUC 710

Daily:	$\ln(T) = 0.77 \ln(A) + 3.65$
AM Peak Hour:	$\ln(T) = 0.80 \ln(A) + 1.55$ ; I/B = 88%, O/B = 12%
PM Peak Hour:	$T = 1.12 (A) + 78.81$ ; I/B = 17%, O/B = 83%

Medical-Dental Office Building (per 1,000 sf) – LUC 720

Daily:	$T = 36.13 (A)$
AM Peak Hour:	$T = 2.48 (A)$ ; I/B = 79%, O/B = 21%
PM Peak Hour:	$T = 3.72 (A)$ ; I/B = 27%, O/B = 73%

Government Office Building (per 1,000 sf) – LUC 730

Daily:	$T = 68.93 (A)$
AM Peak Hour:	$T = 5.88 (A)$ ; I/B = 84%, O/B = 16%
PM Peak Hour:	$T = 1.21 (A)$ ; I/B = 31%, O/B = 69%

Government Office Building (per employee) – LUC 730

Daily:	$T = 11.95 (E)$
AM Peak Hour:	$T = 1.02 (E)$ ; I/B = 84%, O/B = 16%
PM Peak Hour:	$T = 1.91 (E)$ ; I/B = 74%, O/B = 26%

Specialty Retail (per 1,000 sf) – LUC 814

Daily:	$T = 44.32 (A)$
AM Peak Hour:*	$T = 1.2 (A)$ ; I/B = 60%, O/B = 40%
PM Peak Hour:	$T = 2.71 (A)$ ; I/B = 44%, O/B = 56%

Shopping Center (per 1,000 sf) – LUC 820

Daily:	$\ln(T) = 0.65 \ln(A) + 5.83$
AM Peak Hour:	$\ln(T) = 0.60 \ln(A) + 2.29$ ; I/B = 61%, O/B = 39%
PM Peak Hour:	$\ln(T) = 0.66 \ln(A) + 3.40$ ; I/B = 48%, O/B = 52%



**Appendix C (continued)**  
**Related Projects Trip Generation Rates and Equations**

New Car Sales (per 1,000 sf) – LUC 841

Daily: T = 33.34 (A)  
AM Peak Hour: T = 2.05 (A); I/B = 74%, O/B = 26%  
PM Peak Hour: T = 2.64 (A); I/B = 39%, O/B = 61%

Supermarket (per 1,000 sf) – LUC 850

Daily: T = 102.24 (A)  
AM Peak Hour: T = 3.25 (A); I/B = 61%, O/B = 39%  
PM Peak Hour: T = 10.45 (A); I/B = 51%, O/B = 49%

Apparel Store (per 1,000 sf) – LUC 870

Daily: T = 66.40 (A)  
AM Peak Hour: T = 1.00 (A); I/B = 80%, O/B = 20%  
PM Peak Hour: T = 3.83 (A); I/B = 50%, O/B = 50%

Walk-in Bank (per 1,000 sf) – LUC 911

Daily: T = 156.48 (A)  
AM Peak Hour: T = 21.49 (A); I/B = 50%, O/B = 50%  
PM Peak Hour: T = 42.02 (A); I/B = 50%, O/B = 50%

Quality Restaurant (per 1,000 sf) – LUC 931

Daily: T = 89.95 (A)  
AM Peak Hour: T = 0.81 (A); I/B = 82%, O/B = 18%  
PM Peak Hour: T = 7.49 (A); I/B = 67%, O/B = 33%

High-Turnover (Sit-Down) Restaurant (per 1,000 sf) – LUC 932

Daily: T = 127.15 (A)  
AM Peak Hour: T = 11.52 (A); I/B = 52%, O/B = 48%  
PM Peak Hour: T = 10.92 (A); I/B = 61%, O/B = 39%

Fast-Food Restaurant with Drive-Through Window (per 1,000 sf) – LUC 934

Daily: T = 496.12 (A)  
AM Peak Hour: T = 53.11 (A); I/B = 51%, O/B = 49%  
PM Peak Hour: T = 34.64 (A); I/B = 52%, O/B = 48%

Drinking Place (per 1,000 sf) – LUC 936

Daily<sup>[2]</sup>: T = 89.95 (A)  
AM Peak Hour<sup>[2]</sup>: T = 0.81 (A); I/B = 82%, O/B = 18%  
PM Peak Hour: T = 11.34 (A); I/B = 66%, O/B = 34%

Gas/Service Station w/Convenience Market (per vehicle fueling position) – LUC 945

Daily: T = 162.78 (V)  
AM Peak Hour: T = 10.06 (V); I/B = 50%, O/B = 50%  
PM Peak Hour: T = 13.38 (V); I/B = 50%, O/B = 50%

## Appendix C (continued)

### Related Projects Trip Generation Rates and Equations

Where:

T	= trip ends	A	= building area in 1,000's of square feet
I/B	= inbound	D	= dwelling unit
O/B	= outbound	E	= employee
		R	= room
		S	= student
		St	= seat
		V	= vehicle fueling position

Notes:

- [1] AM peak hour inbound and outbound percentages not available; assumed 80% inbound and 20% outbound percentages.
- [2] Daily and AM peak hour rates not available; assumed quality restaurant rates.

Sources:

- Trip Generation, 7th Edition, Institute of Transportation Engineers, Washington D.C., 2003.
- \* San Diego Traffic Generators, San Diego Association of Governments (SANDAG), 2002.

**APPENDIX D**  
**CMA CALCULATION WORKSHEETS**

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	27	167	318	0
EASTBOUND	0	223	112	0
NORTHBOUND	0	365	36	0
SOUTHBOUND	1090	767	49	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	0	0	2	0	3
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	194	N/A	N/A	159
EASTBOUND	N/A	N/A	168	168	N/A	N/A
NORTHBOUND	N/A	N/A	200	200	N/A	N/A
SOUTHBOUND	599	N/A	N/A	816	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 195  
 NORTH-SOUTH CRITICAL VOLUMES ..... 816  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1011  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.639  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	141	707	88	0
EASTBOUND	85	1298	268	0
NORTHBOUND	122	270	65	70
SOUTHBOUND	209	648	118	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	141	N/A	398	398	N/A	N/A
EASTBOUND	85	N/A	783	783	N/A	N/A
NORTHBOUND	122	N/A	135	N/A	65	N/A
SOUTHBOUND	209	N/A	383	383	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 924  
 NORTH-SOUTH CRITICAL VOLUMES ..... 505  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1429  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.883  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	139	996	34	0
EASTBOUND	79	709	31	0
NORTHBOUND	30	254	91	0
SOUTHBOUND	26	126	33	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	139	N/A	515	515	N/A	N/A
EASTBOUND	79	N/A	370	370	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	375
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	185

EAST-WEST CRITICAL VOLUMES ..... 594  
 NORTH-SOUTH CRITICAL VOLUMES ..... 401  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 995  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.593  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
DATE: 7/8/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	48	991	59	0
EASTBOUND	31	810	30	0
NORTHBOUND	19	103	22	0
SOUTHBOUND	44	256	63	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	472	N/A	626	N/A	N/A
EASTBOUND	N/A	370	N/A	502	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	144
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	363

EAST-WEST CRITICAL VOLUMES ..... 657  
 NORTH-SOUTH CRITICAL VOLUMES ..... 382  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1039  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.623  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	90	644	174	0
EASTBOUND	69	1036	203	0
NORTHBOUND	53	191	79	0
SOUTHBOUND	99	369	85	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	90	N/A	409	409	N/A	N/A
EASTBOUND	69	N/A	620	620	N/A	N/A
NORTHBOUND	53	N/A	N/A	270	N/A	N/A
SOUTHBOUND	99	N/A	N/A	454	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 710  
 NORTH-SOUTH CRITICAL VOLUMES ..... 507  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1217  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.741  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	115	770	0	112
EASTBOUND	103	798	98	32
NORTHBOUND	64	228	0	31
SOUTHBOUND	25	396	0	40

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	115	N/A	385	N/A	0
EASTBOUND	103	N/A	399	N/A	98	N/A
NORTHBOUND	64	N/A	228	N/A	0	N/A
SOUTHBOUND	25	N/A	396	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES ..... 514  
 NORTH-SOUTH CRITICAL VOLUMES ..... 460  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 974  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.579  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	79	598	0	73
EASTBOUND	63	977	60	0
NORTHBOUND	45	280	72	0
SOUTHBOUND	154	492	59	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	79	N/A	299	N/A	0	N/A
EASTBOUND	63	N/A	518	518	N/A	N/A
NORTHBOUND	45	N/A	N/A	352	N/A	N/A
SOUTHBOUND	154	N/A	N/A	551	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 597  
 NORTH-SOUTH CRITICAL VOLUMES ..... 596  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1193  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.725  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	201	669	380	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	748	78	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	111	N/A	334	N/A	380	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	374	N/A	78	N/A

EAST-WEST CRITICAL VOLUMES ..... 380  
 NORTH-SOUTH CRITICAL VOLUMES ..... 374  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 754  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.403  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	132	424	0	60
EASTBOUND	99	765	46	0
NORTHBOUND	31	198	18	66
SOUTHBOUND	265	885	109	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	132	N/A	212	N/A	0	N/A
EASTBOUND	99	N/A	406	406	N/A	N/A
NORTHBOUND	31	N/A	198	N/A	18	N/A
SOUTHBOUND	265	N/A	497	497	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 538  
 NORTH-SOUTH CRITICAL VOLUMES ..... 528  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1066  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.641  
 LEVEL OF SERVICE ..... B

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 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	142	271	63	0
EASTBOUND	33	800	443	0
NORTHBOUND	41	227	85	0
SOUTHBOUND	111	914	22	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	142	N/A	167	167	N/A
EASTBOUND	33	N/A	622	622	N/A	N/A
NORTHBOUND	N/A	101	N/A	252	N/A	N/A
SOUTHBOUND	N/A	492	N/A	554	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 764  
 NORTH-SOUTH CRITICAL VOLUMES ..... 595  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1359  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.836  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	412	24	46	0
EASTBOUND	1	0	2	0
NORTHBOUND	37	281	0	0
SOUTHBOUND	0	1388	80	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	206	N/A	N/A	70	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	3
NORTHBOUND	N/A	66	252	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	734	734	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 209  
 NORTH-SOUTH CRITICAL VOLUMES ..... 771  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 980  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.583  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	252	1105	0	198
EASTBOUND	0	0	0	0
NORTHBOUND	32	147	0	0
SOUTHBOUND	0	1218	496	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	252	N/A	368	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	32	N/A	147	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	857	857	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 368  
 NORTH-SOUTH CRITICAL VOLUMES ..... 889  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1257  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.768  
 LEVEL OF SERVICE ..... C

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 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	478	53	0
EASTBOUND	134	1045	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	422	0	310	128

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	134	N/A	522	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	422	N/A	N/A	N/A	310	N/A

EAST-WEST CRITICAL VOLUMES .....	522
NORTH-SOUTH CRITICAL VOLUMES .....	422
	-----
THE SUM OF CRITICAL VOLUMES .....	944
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.559
LEVEL OF SERVICE .....	A

-----  
\* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	3	384	0	0
EASTBOUND	0	886	5	0
NORTHBOUND	8	0	3	0
SOUTHBOUND	757	12	703	125

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	188	198	N/A	N/A	N/A
EASTBOUND	N/A	N/A	446	446	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	11
SOUTHBOUND	491	N/A	N/A	N/A	491	491

EAST-WEST CRITICAL VOLUMES ..... 448  
 NORTH-SOUTH CRITICAL VOLUMES ..... 502  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 950  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.597  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1065	289	0
EASTBOUND	0	0	0	0
NORTHBOUND	585	1792	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	5	1	1	0	7
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	193	193	193	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	214	N/A	448	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

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EAST-WEST CRITICAL VOLUMES ..... 193
NORTH-SOUTH CRITICAL VOLUMES ..... 448
-----
THE SUM OF CRITICAL VOLUMES ..... 641

NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2*

CMA VALUE ..... 0.363

LEVEL OF SERVICE ..... A
  
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-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	297	2008	0	0
NORTHBOUND	0	2150	161	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	297	N/A	402	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	430	N/A	161	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 402  
 NORTH-SOUTH CRITICAL VOLUMES ..... 430  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 832  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.485  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	382	211	0
EASTBOUND	393	795	0	0
NORTHBOUND	275	1771	126	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	1	1	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	198	198	198
EASTBOUND	216	N/A	398	N/A	N/A	N/A
NORTHBOUND	N/A	434	434	434	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	414
NORTH-SOUTH CRITICAL VOLUMES .....	434
	-----
THE SUM OF CRITICAL VOLUMES .....	848
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	3*
CMA VALUE .....	0.525
LEVEL OF SERVICE .....	A

-----  
\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	492	276	0
EASTBOUND	173	479	0	0
NORTHBOUND	175	1858	106	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	2	0	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	246	N/A	276	N/A
EASTBOUND	95	N/A	240	N/A	N/A	N/A
NORTHBOUND	N/A	428	428	428	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 371  
 NORTH-SOUTH CRITICAL VOLUMES ..... 428  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 799  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.491  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	691	1528	0	0
NORTHBOUND	0	1745	231	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	N/A	N/A	N/A
EASTBOUND	444	444	444	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	494	494	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 444  
 NORTH-SOUTH CRITICAL VOLUMES ..... 494  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 938  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.525  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	29	327	1166	0
EASTBOUND	0	136	30	0
NORTHBOUND	0	732	28	0
SOUTHBOUND	337	479	64	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R		TOTAL LANES
	ONLY	SHARED		SHARED	ONLY	SHARED	SHARED	
WESTBOUND	0	1	0	0	2	0	3	
EASTBOUND	0	0	1	1	0	0	2	
NORTHBOUND	0	0	1	1	0	0	2	
SOUTHBOUND	2	0	0	1	0	0	3	

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	356	N/A	N/A	583
EASTBOUND	N/A	N/A	83	83	N/A	N/A
NORTHBOUND	N/A	N/A	380	380	N/A	N/A
SOUTHBOUND	185	N/A	N/A	543	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 583  
 NORTH-SOUTH CRITICAL VOLUMES ..... 565  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1148  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.736  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	98	1122	157	0
EASTBOUND	126	881	147	0
NORTHBOUND	169	527	0	114
SOUTHBOUND	65	422	101	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	98	N/A	640	640	N/A
EASTBOUND	126	N/A	514	514	N/A	N/A
NORTHBOUND	169	N/A	264	N/A	0	N/A
SOUTHBOUND	65	N/A	262	262	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 766  
 NORTH-SOUTH CRITICAL VOLUMES ..... 431  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1197  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.728  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	125	733	19	0
EASTBOUND	74	987	54	0
NORTHBOUND	27	243	95	0
SOUTHBOUND	28	343	70	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	125	N/A	376	376	N/A
EASTBOUND	74	N/A	520	520	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	365
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	441

EAST-WEST CRITICAL VOLUMES ..... 645  
 NORTH-SOUTH CRITICAL VOLUMES ..... 468  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1113  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.672  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
DATE: 7/8/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	102	956	56	0
EASTBOUND	47	702	64	0
NORTHBOUND	46	265	63	0
SOUTHBOUND	34	288	75	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	413	N/A	702	N/A	N/A
EASTBOUND	N/A	311	N/A	502	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	374
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	397

EAST-WEST CRITICAL VOLUMES ..... 749  
 NORTH-SOUTH CRITICAL VOLUMES ..... 443  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1192  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.725  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	92	661	120	0
EASTBOUND	105	1028	108	0
NORTHBOUND	102	284	107	0
SOUTHBOUND	180	425	113	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	92	N/A	390	390	N/A
EASTBOUND	105	N/A	568	568	N/A	N/A
NORTHBOUND	102	N/A	N/A	391	N/A	N/A
SOUTHBOUND	180	N/A	N/A	538	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 660  
 NORTH-SOUTH CRITICAL VOLUMES ..... 640  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1300  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.797  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	104	951	70	22
EASTBOUND	107	872	42	92
NORTHBOUND	92	492	33	74
SOUTHBOUND	44	351	25	54

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	107	N/A	436	N/A	42	N/A
NORTHBOUND	92	N/A	492	N/A	33	N/A
SOUTHBOUND	44	N/A	351	N/A	25	N/A

EAST-WEST CRITICAL VOLUMES ..... 583  
 NORTH-SOUTH CRITICAL VOLUMES ..... 536  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1119  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.676  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	231	568	0	65
EASTBOUND	59	675	451	0
NORTHBOUND	77	275	72	0
SOUTHBOUND	63	496	66	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	231	N/A	284	N/A	0	N/A
EASTBOUND	59	N/A	563	563	N/A	N/A
NORTHBOUND	77	N/A	N/A	347	N/A	N/A
SOUTHBOUND	63	N/A	N/A	562	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 794  
 NORTH-SOUTH CRITICAL VOLUMES ..... 639  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1433  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.885  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	765	1064	501	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	550	67	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	421	N/A	522	522	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	275	N/A	67	N/A

EAST-WEST CRITICAL VOLUMES ..... 522  
 NORTH-SOUTH CRITICAL VOLUMES ..... 275  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 797  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.431  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	106	991	292	22
EASTBOUND	121	623	30	0
NORTHBOUND	57	857	114	146
SOUTHBOUND	43	287	108	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	106	N/A	496	N/A	292	N/A
EASTBOUND	121	N/A	326	326	N/A	N/A
NORTHBOUND	57	N/A	857	N/A	114	N/A
SOUTHBOUND	43	N/A	198	198	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 617  
 NORTH-SOUTH CRITICAL VOLUMES ..... 900  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1517  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.941  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	87	842	94	0
EASTBOUND	64	367	106	0
NORTHBOUND	355	984	138	0
SOUTHBOUND	49	394	17	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	87	N/A	468	468	N/A
EASTBOUND	64	N/A	236	236	N/A	N/A
NORTHBOUND	N/A	551	N/A	926	N/A	N/A
SOUTHBOUND	N/A	117	N/A	343	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 532  
 NORTH-SOUTH CRITICAL VOLUMES ..... 975  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1507  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.935  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	224	0	71	0
EASTBOUND	58	0	46	0
NORTHBOUND	0	1328	0	0
SOUTHBOUND	0	599	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	112	N/A	N/A	71	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	104
NORTHBOUND	N/A	664	664	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	300	300	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	216
NORTH-SOUTH CRITICAL VOLUMES .....	664
	-----
THE SUM OF CRITICAL VOLUMES .....	880
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.517
LEVEL OF SERVICE .....	A

-----  
\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	142	972	474	4
EASTBOUND	0	0	0	0
NORTHBOUND	22	735	0	0
SOUTHBOUND	0	531	263	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	142	N/A	324	N/A	474	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	346	411	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	397	397	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 474  
 NORTH-SOUTH CRITICAL VOLUMES ..... 419  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 893  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.525  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	628	312	0
EASTBOUND	325	972	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	242	0	144	162

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	1	1	0	0	2
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	470	470	N/A
EASTBOUND	325	N/A	486	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	242	N/A	N/A	N/A	144	N/A

EAST-WEST CRITICAL VOLUMES ..... 795  
 NORTH-SOUTH CRITICAL VOLUMES ..... 242  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1037  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.621  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	618	0	0
EASTBOUND	0	881	1	0
NORTHBOUND	1	0	6	0
SOUTHBOUND	293	0	455	66

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	309	309	N/A	N/A	N/A
EASTBOUND	N/A	N/A	441	441	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	7
SOUTHBOUND	249	N/A	N/A	N/A	249	249

EAST-WEST CRITICAL VOLUMES ..... 440  
 NORTH-SOUTH CRITICAL VOLUMES ..... 256  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 696  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.418  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1520	362	0
EASTBOUND	0	0	0	0
NORTHBOUND	1236	2313	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	5	1	1	0	7
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	269	269	269	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	453	N/A	578	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 269  
 NORTH-SOUTH CRITICAL VOLUMES ..... 578  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 847  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.495  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	466	1625	0	0
NORTHBOUND	0	3016	175	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	348	348	348	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	603	N/A	175	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 348  
 NORTH-SOUTH CRITICAL VOLUMES ..... 603  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 951  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.564  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	413	354	0
EASTBOUND	469	649	0	0
NORTHBOUND	177	2321	84	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	1	1	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	256	256	256	N/A
EASTBOUND	258	N/A	324	N/A	N/A	N/A
NORTHBOUND	N/A	516	516	516	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 514  
 NORTH-SOUTH CRITICAL VOLUMES ..... 516  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1030  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.653  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	634	198	0
EASTBOUND	281	641	0	0
NORTHBOUND	160	2006	112	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	2	0	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	317	N/A	198
EASTBOUND	155	N/A	320	N/A	N/A	N/A
NORTHBOUND	N/A	456	456	456	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 472  
 NORTH-SOUTH CRITICAL VOLUMES ..... 456  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 928  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.581  
 LEVEL OF SERVICE ..... A

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 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 3/10/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008)

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	397	1233	0	0
NORTHBOUND	0	1814	166	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	N/A	N/A	N/A
EASTBOUND	326	326	326	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	495	495	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 326  
 NORTH-SOUTH CRITICAL VOLUMES ..... 495  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 821  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.447  
 LEVEL OF SERVICE ..... A

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	28	187	393	0
EASTBOUND	0	235	139	0
NORTHBOUND	0	492	38	0
SOUTHBOUND	1168	899	51	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	0	1	0	0	2	0	3
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	215	N/A	N/A	196	N/A
EASTBOUND	N/A	N/A	187	187	N/A	N/A
NORTHBOUND	N/A	N/A	265	265	N/A	N/A
SOUTHBOUND	642	N/A	N/A	950	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 215  
 NORTH-SOUTH CRITICAL VOLUMES ..... 950  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1165  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.718  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	178	931	149	0
EASTBOUND	141	1628	297	0
NORTHBOUND	137	334	80	89
SOUTHBOUND	274	737	165	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	178	N/A	540	540	N/A	N/A
EASTBOUND	141	N/A	962	962	N/A	N/A
NORTHBOUND	137	N/A	167	N/A	80	N/A
SOUTHBOUND	274	N/A	451	451	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 1140  
 NORTH-SOUTH CRITICAL VOLUMES ..... 588  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1728  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.052  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	155	1200	74	0
EASTBOUND	143	847	34	0
NORTHBOUND	37	363	98	0
SOUTHBOUND	58	197	66	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	155	N/A	637	637	N/A	N/A
EASTBOUND	143	N/A	440	440	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	498
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	321

EAST-WEST CRITICAL VOLUMES ..... 780  
 NORTH-SOUTH CRITICAL VOLUMES ..... 556  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1336  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.791  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
 DATE: 7/8/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	51	1243	88	0
EASTBOUND	73	982	40	0
NORTHBOUND	58	147	24	0
SOUTHBOUND	60	299	98	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	586	N/A	796	N/A	N/A
EASTBOUND	N/A	365	N/A	730	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	229
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	457

EAST-WEST CRITICAL VOLUMES ..... 869  
 NORTH-SOUTH CRITICAL VOLUMES ..... 515  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1384  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.823  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	220	879	266	0
EASTBOUND	79	1242	214	0
NORTHBOUND	62	302	169	0
SOUTHBOUND	162	516	98	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	220	N/A	572	572	N/A	N/A
EASTBOUND	79	N/A	728	728	N/A	N/A
NORTHBOUND	62	N/A	N/A	471	N/A	N/A
SOUTHBOUND	162	N/A	N/A	614	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 948  
 NORTH-SOUTH CRITICAL VOLUMES ..... 676  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1624  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.983  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	180	1025	56	176
EASTBOUND	149	970	138	34
NORTHBOUND	67	270	0	46
SOUTHBOUND	131	554	5	76

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	149	N/A	485	N/A	138	N/A
NORTHBOUND	67	N/A	270	N/A	0	N/A
SOUTHBOUND	131	N/A	554	N/A	5	N/A

EAST-WEST CRITICAL VOLUMES ..... 665  
 NORTH-SOUTH CRITICAL VOLUMES ..... 621  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1286  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.757  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	82	655	0	84
EASTBOUND	66	1052	63	0
NORTHBOUND	52	313	76	0
SOUTHBOUND	186	767	62	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	82	N/A	328	N/A	0	N/A
EASTBOUND	66	N/A	558	558	N/A	N/A
NORTHBOUND	52	N/A	N/A	389	N/A	N/A
SOUTHBOUND	186	N/A	N/A	829	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 640  
 NORTH-SOUTH CRITICAL VOLUMES ..... 881  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1521  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.914  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	437	796	423	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	1034	81	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	240	N/A	398	N/A	423	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	517	N/A	81	N/A

EAST-WEST CRITICAL VOLUMES ..... 423  
 NORTH-SOUTH CRITICAL VOLUMES ..... 517  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 940  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.527  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	156	646	0	68
EASTBOUND	127	1146	48	0
NORTHBOUND	33	234	24	78
SOUTHBOUND	292	1000	133	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	127	N/A	597	597	N/A	N/A
NORTHBOUND	33	N/A	234	N/A	24	N/A
SOUTHBOUND	292	N/A	566	566	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 753  
 NORTH-SOUTH CRITICAL VOLUMES ..... 599  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1352  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.801  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	148	339	67	0
EASTBOUND	51	869	461	0
NORTHBOUND	74	260	210	0
SOUTHBOUND	149	1001	35	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	148	N/A	203	203	N/A	N/A
EASTBOUND	51	N/A	665	665	N/A	N/A
NORTHBOUND	N/A	117	N/A	426	N/A	N/A
SOUTHBOUND	N/A	492	N/A	693	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 813  
 NORTH-SOUTH CRITICAL VOLUMES ..... 767  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1580  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.953  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	556	25	202	0
EASTBOUND	1	0	2	0
NORTHBOUND	39	315	0	0
SOUTHBOUND	0	1494	83	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	278	N/A	N/A	227	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	3
NORTHBOUND	N/A	80	274	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	788	788	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 281  
 NORTH-SOUTH CRITICAL VOLUMES ..... 827  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1108  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.639  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	262	1360	0	207
EASTBOUND	0	0	0	0
NORTHBOUND	49	174	0	0
SOUTHBOUND	0	1313	648	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	262	N/A	453	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	49	N/A	174	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	980	980	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 453  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1029  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1482  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.888  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	714	78	0
EASTBOUND	154	1399	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	451	0	329	152

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	154	N/A	700	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	451	N/A	N/A	N/A	329	N/A

EAST-WEST CRITICAL VOLUMES ..... 700  
 NORTH-SOUTH CRITICAL VOLUMES ..... 451  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1151  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.667  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	3	645	0	0
EASTBOUND	0	1217	5	0
NORTHBOUND	8	0	35	0
SOUTHBOUND	858	16	756	141

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	316	332	N/A	N/A
EASTBOUND	N/A	N/A	611	611	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	43
SOUTHBOUND	543	N/A	N/A	N/A	543	543

EAST-WEST CRITICAL VOLUMES ..... 614  
 NORTH-SOUTH CRITICAL VOLUMES ..... 586  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1200  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.742  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1483	301	0
EASTBOUND	0	0	0	0
NORTHBOUND	882	2175	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	5	1	1	0	7
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	255	255	255	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	323	N/A	544	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	255
NORTH-SOUTH CRITICAL VOLUMES .....	544
	-----
THE SUM OF CRITICAL VOLUMES .....	799
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.433
LEVEL OF SERVICE .....	A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	389	2535	0	0
NORTHBOUND	0	2753	173	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	389	N/A	507	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	551	N/A	173	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 507  
 NORTH-SOUTH CRITICAL VOLUMES ..... 551  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1058  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.605  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	606	315	0
EASTBOUND	476	1156	0	0
NORTHBOUND	324	2189	131	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	262	N/A	578	N/A	N/A	N/A
NORTHBOUND	N/A	529	529	529	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 578  
 NORTH-SOUTH CRITICAL VOLUMES ..... 529  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1107  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.677  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	548	338	0
EASTBOUND	180	557	0	0
NORTHBOUND	186	2256	110	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	99	N/A	278	N/A	N/A	N/A
NORTHBOUND	N/A	510	510	510	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 437  
 NORTH-SOUTH CRITICAL VOLUMES ..... 510  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 947  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.565  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	783	1965	0	0
NORTHBOUND	0	2370	340	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	550	550	550	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	678	678	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 550  
 NORTH-SOUTH CRITICAL VOLUMES ..... 678  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1228  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.719  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	30	351	1262	0
EASTBOUND	0	145	42	0
NORTHBOUND	0	860	29	0
SOUTHBOUND	421	613	66	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	94	94	N/A	N/A
NORTHBOUND	N/A	N/A	444	444	N/A	N/A
SOUTHBOUND	232	N/A	N/A	679	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 631  
 NORTH-SOUTH CRITICAL VOLUMES ..... 679  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1310  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.819  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	126	1412	223	0
EASTBOUND	168	1190	162	0
NORTHBOUND	187	611	6	155
SOUTHBOUND	149	497	139	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	126	N/A	818	818	N/A	N/A
EASTBOUND	168	N/A	676	676	N/A	N/A
NORTHBOUND	187	N/A	306	N/A	6	N/A
SOUTHBOUND	149	N/A	318	318	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 986  
 NORTH-SOUTH CRITICAL VOLUMES ..... 505  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1491  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.894  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	136	897	55	0
EASTBOUND	107	1229	61	0
NORTHBOUND	31	332	110	0
SOUTHBOUND	68	442	129	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	136	N/A	476	476	N/A	N/A
EASTBOUND	107	N/A	645	645	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	473
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	639

EAST-WEST CRITICAL VOLUMES ..... 781  
 NORTH-SOUTH CRITICAL VOLUMES ..... 670  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1451  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.867  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
DATE: 7/8/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	108	1185	87	0
EASTBOUND	80	986	106	0
NORTHBOUND	69	310	69	0
SOUTHBOUND	59	339	114	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	449	N/A	931	N/A	N/A
EASTBOUND	N/A	386	N/A	786	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	448
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	512

EAST-WEST CRITICAL VOLUMES ..... 1011  
 NORTH-SOUTH CRITICAL VOLUMES ..... 581  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1592  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.961  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	209	867	199	0
EASTBOUND	122	1328	119	0
NORTHBOUND	113	411	259	0
SOUTHBOUND	283	610	127	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	209	N/A	533	533	N/A
EASTBOUND	122	N/A	724	724	N/A	N/A
NORTHBOUND	113	N/A	N/A	670	N/A	N/A
SOUTHBOUND	283	N/A	N/A	737	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 933  
 NORTH-SOUTH CRITICAL VOLUMES ..... 953  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1886  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.157  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	152	1229	242	68
EASTBOUND	169	1150	88	78
NORTHBOUND	98	543	14	104
SOUTHBOUND	136	523	44	84

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	152	N/A	614	N/A	242	N/A
EASTBOUND	169	N/A	575	N/A	88	N/A
NORTHBOUND	98	N/A	543	N/A	14	N/A
SOUTHBOUND	136	N/A	523	N/A	44	N/A

EAST-WEST CRITICAL VOLUMES ..... 783  
 NORTH-SOUTH CRITICAL VOLUMES ..... 679  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1462  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.875  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	240	640	0	94
EASTBOUND	62	761	469	0
NORTHBOUND	89	342	76	0
SOUTHBOUND	81	728	69	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	62	N/A	615	615	N/A	N/A
NORTHBOUND	89	N/A	N/A	418	N/A	N/A
SOUTHBOUND	81	N/A	N/A	797	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 855  
 NORTH-SOUTH CRITICAL VOLUMES ..... 886  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1741  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 1.061  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	1050	1259	585	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	785	69	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	578	N/A	615	615	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	392	N/A	69	N/A

EAST-WEST CRITICAL VOLUMES ..... 615  
 NORTH-SOUTH CRITICAL VOLUMES ..... 392  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1007  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.571  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	148	1283	326	28
EASTBOUND	165	995	32	0
NORTHBOUND	59	957	137	146
SOUTHBOUND	55	419	123	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	148	N/A	642	N/A	326	N/A
EASTBOUND	165	N/A	514	514	N/A	N/A
NORTHBOUND	59	N/A	957	N/A	137	N/A
SOUTHBOUND	55	N/A	271	271	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 807  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1012  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1819  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.113  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	90	932	107	0
EASTBOUND	85	442	110	0
NORTHBOUND	432	1074	249	0
SOUTHBOUND	72	522	43	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	90	N/A	520	520	N/A	N/A
EASTBOUND	85	N/A	276	276	N/A	N/A
NORTHBOUND	N/A	483	N/A	1272	N/A	N/A
SOUTHBOUND	N/A	138	N/A	498	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 605  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1344  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1949  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 1.199  
 LEVEL OF SERVICE ..... F

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	396	0	260	0
EASTBOUND	60	0	48	0
NORTHBOUND	0	1415	0	0
SOUTHBOUND	0	735	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	198	198	N/A	N/A	260	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	108
NORTHBOUND	N/A	708	708	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	368	368	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	320
NORTH-SOUTH CRITICAL VOLUMES .....	708
	-----
THE SUM OF CRITICAL VOLUMES .....	1028
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.585
LEVEL OF SERVICE .....	A

-----  
\* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	147	1270	475	28
EASTBOUND	0	0	0	0
NORTHBOUND	55	793	0	0
SOUTHBOUND	0	690	411	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	147	N/A	423	N/A	475	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	300	548	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	550	550	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 475  
 NORTH-SOUTH CRITICAL VOLUMES ..... 605  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1080  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.620  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	928	371	0
EASTBOUND	351	1339	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	261	0	225	176

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	0	0	1	1	0	0	2
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	650	650	N/A	N/A
EASTBOUND	351	N/A	670	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	261	N/A	N/A	N/A	225	N/A

EAST-WEST CRITICAL VOLUMES ..... 1001  
 NORTH-SOUTH CRITICAL VOLUMES ..... 261  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1262  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.741  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1072	0	0
EASTBOUND	0	1206	1	0
NORTHBOUND	1	0	23	0
SOUTHBOUND	462	13	611	34

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	536	536	N/A	N/A
EASTBOUND	N/A	N/A	604	604	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	24
SOUTHBOUND	362	N/A	N/A	N/A	362	362

EAST-WEST CRITICAL VOLUMES ..... 604  
 NORTH-SOUTH CRITICAL VOLUMES ..... 386  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 990  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.595  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2012	376	0
EASTBOUND	0	0	0	0
NORTHBOUND	1474	2813	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	540	N/A	703	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 341  
 NORTH-SOUTH CRITICAL VOLUMES ..... 703  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1044  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.596  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	572	2345	0	0
NORTHBOUND	0	3683	184	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	486	486	486	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	737	N/A	184	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 486  
 NORTH-SOUTH CRITICAL VOLUMES ..... 737  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1223  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.715  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	764	477	0
EASTBOUND	525	1101	0	0
NORTHBOUND	280	2810	87	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	1	1	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	414	414	414	N/A
EASTBOUND	289	N/A	550	N/A	N/A	N/A
NORTHBOUND	N/A	635	635	635	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 703  
 NORTH-SOUTH CRITICAL VOLUMES ..... 635  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1338  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.839  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	716	257	0
EASTBOUND	292	739	0	0
NORTHBOUND	183	2513	117	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	2	0	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	358	N/A	257	N/A
EASTBOUND	161	N/A	370	N/A	N/A	N/A
NORTHBOUND	N/A	563	563	563	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 519  
 NORTH-SOUTH CRITICAL VOLUMES ..... 563  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1082  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.659  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITHOUT PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	501	1874	0	0
NORTHBOUND	0	2582	338	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	475	475	475	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	730	730	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 475  
 NORTH-SOUTH CRITICAL VOLUMES ..... 730  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1205  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.703  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	28	187	393	0
EASTBOUND	0	235	139	0
NORTHBOUND	0	516	38	0
SOUTHBOUND	1168	902	51	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	0	2	0	3
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	215	N/A	N/A	196	N/A
EASTBOUND	N/A	N/A	187	187	N/A	N/A
NORTHBOUND	N/A	N/A	277	277	N/A	N/A
SOUTHBOUND	642	N/A	N/A	953	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 215  
 NORTH-SOUTH CRITICAL VOLUMES ..... 953  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1168  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.720  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	178	933	153	0
EASTBOUND	141	1628	297	0
NORTHBOUND	139	354	80	89
SOUTHBOUND	275	740	165	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	178	N/A	543	543	N/A	N/A
EASTBOUND	141	N/A	962	962	N/A	N/A
NORTHBOUND	139	N/A	177	N/A	80	N/A
SOUTHBOUND	275	N/A	452	452	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 1140  
 NORTH-SOUTH CRITICAL VOLUMES ..... 591  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1731  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.054  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	155	1202	78	0
EASTBOUND	143	847	36	0
NORTHBOUND	46	382	98	0
SOUTHBOUND	59	201	66	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	155	N/A	640	640	N/A	N/A
EASTBOUND	143	N/A	442	442	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	526
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	326

EAST-WEST CRITICAL VOLUMES ..... 783  
 NORTH-SOUTH CRITICAL VOLUMES ..... 585  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1368  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.812  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
DATE: 7/8/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	51	1247	95	0
EASTBOUND	75	983	40	0
NORTHBOUND	58	148	24	0
SOUTHBOUND	85	303	110	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	592	N/A	802	N/A
EASTBOUND	N/A	362	N/A	736	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	230
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	498

EAST-WEST CRITICAL VOLUMES ..... 877  
 NORTH-SOUTH CRITICAL VOLUMES ..... 556  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1433  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.855  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	221	885	266	0
EASTBOUND	79	1309	214	0
NORTHBOUND	62	309	173	0
SOUTHBOUND	162	517	98	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	221	N/A	576	576	N/A	N/A
EASTBOUND	79	N/A	762	762	N/A	N/A
NORTHBOUND	62	N/A	N/A	482	N/A	N/A
SOUTHBOUND	162	N/A	N/A	615	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 983  
 NORTH-SOUTH CRITICAL VOLUMES ..... 677  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1660  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 1.007  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	180	1032	48	191
EASTBOUND	150	995	138	34
NORTHBOUND	67	270	0	46
SOUTHBOUND	153	585	4	81

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	150	N/A	498	N/A	138	N/A
NORTHBOUND	67	N/A	270	N/A	0	N/A
SOUTHBOUND	153	N/A	585	N/A	4	N/A

EAST-WEST CRITICAL VOLUMES ..... 678  
 NORTH-SOUTH CRITICAL VOLUMES ..... 652  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1330  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.787  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	82	655	0	84
EASTBOUND	66	1052	63	0
NORTHBOUND	52	313	76	0
SOUTHBOUND	186	798	62	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	82	N/A	328	N/A	0	N/A
EASTBOUND	66	N/A	558	558	N/A	N/A
NORTHBOUND	52	N/A	N/A	389	N/A	N/A
SOUTHBOUND	186	N/A	N/A	860	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 640  
 NORTH-SOUTH CRITICAL VOLUMES ..... 912  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1552  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.935  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	437	796	423	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	1065	81	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	240	N/A	398	N/A	423	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	532	N/A	81	N/A

EAST-WEST CRITICAL VOLUMES ..... 423  
 NORTH-SOUTH CRITICAL VOLUMES ..... 532  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 955  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.537  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	156	646	0	68
EASTBOUND	127	1146	48	0
NORTHBOUND	33	238	26	78
SOUTHBOUND	292	1001	133	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	127	N/A	597	597	N/A	N/A
NORTHBOUND	33	N/A	238	N/A	26	N/A
SOUTHBOUND	292	N/A	567	567	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 753  
 NORTH-SOUTH CRITICAL VOLUMES ..... 600  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1353  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.802  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	148	339	67	0
EASTBOUND	51	869	461	0
NORTHBOUND	74	266	210	0
SOUTHBOUND	149	1002	35	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	148	N/A	203	203	N/A	N/A
EASTBOUND	51	N/A	665	665	N/A	N/A
NORTHBOUND	N/A	120	N/A	430	N/A	N/A
SOUTHBOUND	N/A	490	N/A	696	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 813  
 NORTH-SOUTH CRITICAL VOLUMES ..... 770  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1583  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.955  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	556	25	202	0
EASTBOUND	1	0	2	0
NORTHBOUND	39	321	0	0
SOUTHBOUND	0	1495	83	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	278	N/A	N/A	227	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	3
NORTHBOUND	N/A	82	278	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	789	789	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 281  
 NORTH-SOUTH CRITICAL VOLUMES ..... 828  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1109  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.639  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	262	1360	0	207
EASTBOUND	0	0	0	0
NORTHBOUND	49	180	0	0
SOUTHBOUND	0	1314	648	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	262	N/A	453	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	49	N/A	180	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	981	981	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 453  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1030  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1483  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.889  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	718	78	0
EASTBOUND	160	1460	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	451	0	316	166

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	160	N/A	730	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	451	N/A	N/A	N/A	316	N/A

EAST-WEST CRITICAL VOLUMES ..... 730  
 NORTH-SOUTH CRITICAL VOLUMES ..... 451  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1181  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.687  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	3	654	0	0
EASTBOUND	0	1264	5	0
NORTHBOUND	8	0	35	0
SOUTHBOUND	858	16	752	150

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	321	336	N/A	N/A	N/A
EASTBOUND	N/A	N/A	634	634	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	43
SOUTHBOUND	542	N/A	N/A	N/A	542	542

EAST-WEST CRITICAL VOLUMES ..... 636  
 NORTH-SOUTH CRITICAL VOLUMES ..... 585  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1221  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.757  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1487	301	0
EASTBOUND	0	0	0	0
NORTHBOUND	919	2175	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	5	1	1	0	7
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	255	255	255	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	337	N/A	544	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 255  
 NORTH-SOUTH CRITICAL VOLUMES ..... 544  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 799  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.433  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	426	2563	0	0
NORTHBOUND	0	2753	173	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	426	N/A	513	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	551	N/A	173	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 513  
 NORTH-SOUTH CRITICAL VOLUMES ..... 551  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1064  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.609  
 LEVEL OF SERVICE ..... B

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	612	315	0
EASTBOUND	476	1203	0	0
NORTHBOUND	327	2189	131	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	1	1	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	309	309	309	N/A
EASTBOUND	262	N/A	602	N/A	N/A	N/A
NORTHBOUND	N/A	529	529	529	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 602  
 NORTH-SOUTH CRITICAL VOLUMES ..... 529  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1131  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.694  
  
 LEVEL OF SERVICE ..... B

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 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	548	338	0
EASTBOUND	180	557	0	0
NORTHBOUND	186	2259	110	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	2	0	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	274	N/A	338	N/A
EASTBOUND	99	N/A	278	N/A	N/A	N/A
NORTHBOUND	N/A	511	511	511	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 437  
 NORTH-SOUTH CRITICAL VOLUMES ..... 511  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 948  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.565  
  
 LEVEL OF SERVICE ..... A

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	785	1965	0	0
NORTHBOUND	0	2371	340	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	550	550	550	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	678	678	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 550  
 NORTH-SOUTH CRITICAL VOLUMES ..... 678  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1228  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.719  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	30	351	1262	0
EASTBOUND	0	145	42	0
NORTHBOUND	0	874	29	0
SOUTHBOUND	421	640	66	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	0	0	2	0	3
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	381	N/A	N/A	631
EASTBOUND	N/A	N/A	94	94	N/A	N/A
NORTHBOUND	N/A	N/A	452	452	N/A	N/A
SOUTHBOUND	232	N/A	N/A	706	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 631  
 NORTH-SOUTH CRITICAL VOLUMES ..... 706  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1337  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.838  
 LEVEL OF SERVICE ..... D

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	126	1413	225	0
EASTBOUND	168	1192	164	0
NORTHBOUND	188	622	7	154
SOUTHBOUND	154	520	139	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	126	N/A	819	819	N/A	N/A
EASTBOUND	168	N/A	678	678	N/A	N/A
NORTHBOUND	188	N/A	311	N/A	7	N/A
SOUTHBOUND	154	N/A	330	330	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 987  
 NORTH-SOUTH CRITICAL VOLUMES ..... 518  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1505  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.903  
  
 LEVEL OF SERVICE ..... E

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	136	899	58	0
EASTBOUND	107	1232	72	0
NORTHBOUND	38	348	110	0
SOUTHBOUND	74	468	129	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	136	N/A	478	478	N/A	N/A
EASTBOUND	107	N/A	652	652	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	496
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	671

EAST-WEST CRITICAL VOLUMES ..... 788  
 NORTH-SOUTH CRITICAL VOLUMES ..... 709  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1497  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.898  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
 DATE: 7/8/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	108	1187	148	0
EASTBOUND	94	991	106	0
NORTHBOUND	69	315	69	0
SOUTHBOUND	73	341	121	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	479	N/A	964	N/A
EASTBOUND	N/A	360	N/A	830	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	453
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	535

EAST-WEST CRITICAL VOLUMES ..... 1058  
 NORTH-SOUTH CRITICAL VOLUMES ..... 604  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1662  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 1.008  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	218	910	199	0
EASTBOUND	122	1383	119	0
NORTHBOUND	113	416	263	0
SOUTHBOUND	283	618	127	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	218	N/A	554	554	N/A
EASTBOUND	122	N/A	751	751	N/A	N/A
NORTHBOUND	113	N/A	N/A	679	N/A	N/A
SOUTHBOUND	283	N/A	N/A	745	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 969  
 NORTH-SOUTH CRITICAL VOLUMES ..... 962  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1931  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.187  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	152	1290	295	74
EASTBOUND	174	1164	90	76
NORTHBOUND	98	543	0	118
SOUTHBOUND	148	540	43	87

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	152	N/A	645	N/A	295	N/A
EASTBOUND	174	N/A	582	N/A	90	N/A
NORTHBOUND	98	N/A	543	N/A	0	N/A
SOUTHBOUND	148	N/A	540	N/A	43	N/A

EAST-WEST CRITICAL VOLUMES ..... 819  
 NORTH-SOUTH CRITICAL VOLUMES ..... 691  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1510  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.907  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	240	640	0	94
EASTBOUND	62	761	469	0
NORTHBOUND	89	342	76	0
SOUTHBOUND	81	745	69	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	240	N/A	320	N/A	0	N/A
EASTBOUND	62	N/A	615	615	N/A	N/A
NORTHBOUND	89	N/A	N/A	418	N/A	N/A
SOUTHBOUND	81	N/A	N/A	814	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 855  
 NORTH-SOUTH CRITICAL VOLUMES ..... 903  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1758  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.072  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	1050	1259	585	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	802	69	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	578	N/A	615	615	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	401	N/A	69	N/A

EAST-WEST CRITICAL VOLUMES ..... 615  
 NORTH-SOUTH CRITICAL VOLUMES ..... 401  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1016  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.577  
 LEVEL OF SERVICE ..... A

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	150	1283	326	28
EASTBOUND	165	995	32	0
NORTHBOUND	59	959	138	146
SOUTHBOUND	55	424	123	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	165	N/A	514	514	N/A	N/A
NORTHBOUND	59	N/A	959	N/A	138	N/A
SOUTHBOUND	55	N/A	274	274	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 807  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1014  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1821  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.114  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	90	932	107	0
EASTBOUND	85	442	110	0
NORTHBOUND	432	1077	249	0
SOUTHBOUND	72	529	43	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	90	N/A	520	520	N/A	N/A
EASTBOUND	85	N/A	276	276	N/A	N/A
NORTHBOUND	N/A	477	N/A	1281	N/A	N/A
SOUTHBOUND	N/A	142	N/A	502	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 605  
 NORTH-SOUTH CRITICAL VOLUMES ..... 1353  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1958  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.205  
  
 LEVEL OF SERVICE ..... F

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 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	396	0	260	0
EASTBOUND	60	0	48	0
NORTHBOUND	0	1418	0	0
SOUTHBOUND	0	742	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	198	198	N/A	N/A	260	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	108
NORTHBOUND	N/A	709	709	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	371	371	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	320
NORTH-SOUTH CRITICAL VOLUMES .....	709
	-----
THE SUM OF CRITICAL VOLUMES .....	1029
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.586
LEVEL OF SERVICE .....	A

-----  
\* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	147	1270	473	30
EASTBOUND	0	0	0	0
NORTHBOUND	55	796	0	0
SOUTHBOUND	0	697	411	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	147	N/A	423	N/A	473	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	301	550	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	554	554	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 473  
 NORTH-SOUTH CRITICAL VOLUMES ..... 609  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1082  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.621  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	962	371	0
EASTBOUND	354	1373	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	261	0	231	177

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	354	N/A	686	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	261	N/A	N/A	N/A	231	N/A

EAST-WEST CRITICAL VOLUMES ..... 1020  
 NORTH-SOUTH CRITICAL VOLUMES ..... 261  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1281  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.754  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1151	0	0
EASTBOUND	0	1232	1	0
NORTHBOUND	1	0	23	0
SOUTHBOUND	462	13	666	20

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	576	576	N/A	N/A
EASTBOUND	N/A	N/A	616	616	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	24
SOUTHBOUND	380	N/A	N/A	N/A	380	380

EAST-WEST CRITICAL VOLUMES ..... 616  
 NORTH-SOUTH CRITICAL VOLUMES ..... 404  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1020  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.616  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

Northbound and Southbound approaches have opposed signal phases.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	2046	376	0
EASTBOUND	0	0	0	0
NORTHBOUND	1495	2813	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	548	N/A	703	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 346  
 NORTH-SOUTH CRITICAL VOLUMES ..... 703  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1049  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.599  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	593	2393	0	0
NORTHBOUND	0	3683	184	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	498	498	498	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	737	N/A	184	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 498  
 NORTH-SOUTH CRITICAL VOLUMES ..... 737  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1235  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.723  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	820	477	0
EASTBOUND	525	1127	0	0
NORTHBOUND	303	2810	87	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	289	N/A	564	N/A	N/A	N/A
NORTHBOUND	N/A	640	640	640	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 721  
 NORTH-SOUTH CRITICAL VOLUMES ..... 640  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1361  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.855  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	716	259	0
EASTBOUND	292	739	0	0
NORTHBOUND	183	2534	117	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	2	0	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	358	N/A	259	N/A
EASTBOUND	161	N/A	370	N/A	N/A	N/A
NORTHBOUND	N/A	567	567	567	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 519  
 NORTH-SOUTH CRITICAL VOLUMES ..... 567  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1086  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.662  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 3/3/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	515	1874	0	0
NORTHBOUND	0	2589	338	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	478	478	478	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	732	732	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 478  
 NORTH-SOUTH CRITICAL VOLUMES ..... 732  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1210  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.707  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
 DATE: 10/22/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT + MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	51	1247	0	95
EASTBOUND	75	983	40	0
NORTHBOUND	58	148	24	0
SOUTHBOUND	85	303	110	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	1	0	3
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	544	754	N/A	0	N/A
EASTBOUND	N/A	362	N/A	736	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	230
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	498

EAST-WEST CRITICAL VOLUMES ..... 829  
 NORTH-SOUTH CRITICAL VOLUMES ..... 556  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1385  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.823  
  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 10/22/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT + MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	221	885	266	0
EASTBOUND	79	1309	183	31
NORTHBOUND	62	309	173	0
SOUTHBOUND	162	517	98	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	221	N/A	576	576	N/A	N/A
EASTBOUND	79	N/A	654	N/A	183	N/A
NORTHBOUND	62	N/A	N/A	482	N/A	N/A
SOUTHBOUND	162	N/A	N/A	615	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 875  
 NORTH-SOUTH CRITICAL VOLUMES ..... 677  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1552  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.935  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
DATE: 10/22/2008 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: FUTURE (2012) WITH PROJECT + MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	180	1032	0	239
EASTBOUND	150	995	138	34
NORTHBOUND	67	270	0	46
SOUTHBOUND	153	585	4	81

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	180	N/A	516	N/A	0	N/A
EASTBOUND	150	N/A	498	N/A	138	N/A
NORTHBOUND	67	N/A	135	N/A	0	N/A
SOUTHBOUND	153	N/A	585	N/A	4	N/A

EAST-WEST CRITICAL VOLUMES ..... 678  
 NORTH-SOUTH CRITICAL VOLUMES ..... 652  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1330  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.787  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATCS Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
 DATE: 10/22/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT + MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	108	1187	72	76
EASTBOUND	94	991	106	0
NORTHBOUND	69	315	69	0
SOUTHBOUND	73	341	121	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	1	0	3
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	405	890	N/A	72	N/A
EASTBOUND	N/A	360	N/A	830	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	453
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	535

EAST-WEST CRITICAL VOLUMES ..... 984  
 NORTH-SOUTH CRITICAL VOLUMES ..... 604  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1588  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.959  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 10/22/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT + MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	218	910	199	0
EASTBOUND	122	1383	11	108
NORTHBOUND	113	416	263	0
SOUTHBOUND	283	618	127	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	218	N/A	554	554	N/A	N/A
EASTBOUND	122	N/A	692	N/A	11	N/A
NORTHBOUND	113	N/A	N/A	679	N/A	N/A
SOUTHBOUND	283	N/A	N/A	745	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 910  
 NORTH-SOUTH CRITICAL VOLUMES ..... 962  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1872  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 1.148  
  
 LEVEL OF SERVICE ..... F

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
 DATE: 10/22/2008 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: FUTURE (2012) WITH PROJECT + MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	152	1290	186	183
EASTBOUND	174	1164	117	49
NORTHBOUND	98	543	0	118
SOUTHBOUND	148	540	43	87

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	0	1	0	3

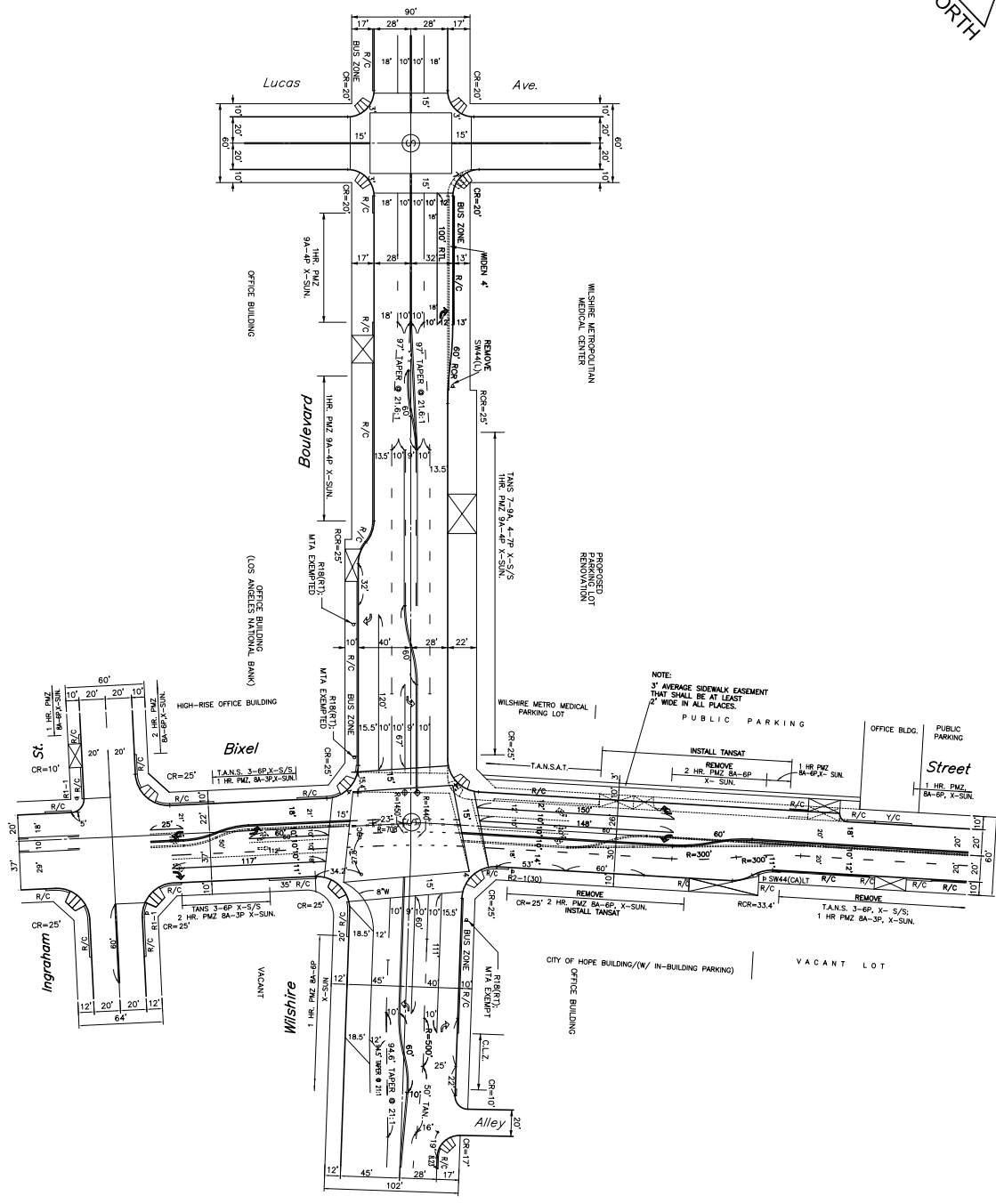
\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	152	N/A	645	N/A	186
EASTBOUND	174	N/A	582	N/A	117	N/A
NORTHBOUND	98	N/A	272	N/A	0	N/A
SOUTHBOUND	148	N/A	540	N/A	43	N/A

EAST-WEST CRITICAL VOLUMES ..... 819  
 NORTH-SOUTH CRITICAL VOLUMES ..... 638  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1457  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.871  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

**APPENDIX E**  
**CONCEPTUAL TRAFFIC MITIGATION PLANS**



11/10/2008

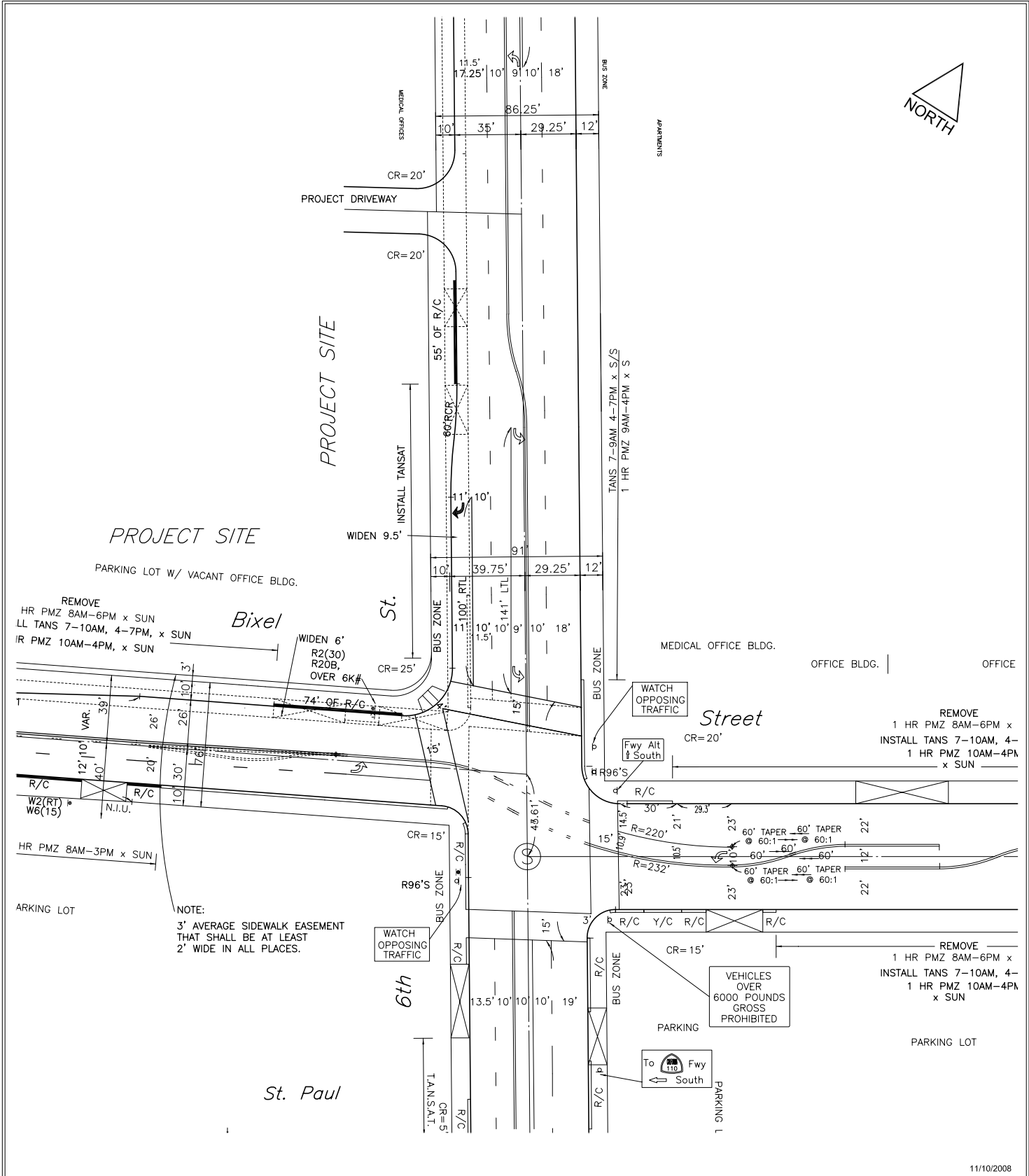
FN: GOOD SAMARITAN SITE WILSHIRE/CONCEPT-WILSHIRE-BIXEL-LUCAS-11-10-08

# CONCEPTUAL STRIPING PLAN LUCAS AVENUE AND WILSHIRE BOULEVARD BIXEL STREET AND WILSHIRE BOULEVARD

**CA CRAIN**  
 &  
**ASSOCIATES**

Transportation Planning  
 Traffic Engineering

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 Los Angeles California 90025  
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[www.crainandassociates.com](http://www.crainandassociates.com)



11/10/2008

FN: GOOD SAMARITIAN SITE WILSHIRE/CONCEPT PLANS/CONCEPT-BIXEL-6TH-11-10-08

# CONCEPTUAL STRIPING PLAN BIXEL STREET AND 6TH STREET

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**CITY OF LOS ANGELES**  
INTER-DEPARTMENTAL CORRESPONDENCE

1136 W 6<sup>th</sup> St  
DOT Case No. CEN 07-4520

Date: November 13, 2008

To: Jimmy Liao, City Planner  
Department of City Planning

From: Tomas Carranza, Senior Transportation Engineer  
Department of Transportation

Subject: **TRAFFIC IMPACT STUDY FOR THE PROPOSED GOOD SAMARITAN MIXED-USE DEVELOPMENT LOCATED AT 1136 WEST 6<sup>TH</sup> STREET (ENV-2007-5887-EIR)**

The Department of Transportation (DOT) has reviewed the traffic study, prepared by Crain & Associates, dated March 2008, and the latest revised traffic analysis, dated October 2008, for the proposed mixed-use development located at 1136 West 6<sup>th</sup> Street within the Central City West Specific Plan (CCWSP). The traffic study included the analysis of 19 intersections and determined that five of the study intersections would be significantly impacted by project-related traffic, as noted in Attachment 1. The traffic study adequately summarized project-related traffic impacts on the surrounding community.

## **DISCUSSION AND FINDINGS**

### **A. Project Description**

The proposed project involves the construction of a mixed-used development with 725 apartment units and 39,999 square-feet of retail uses located along the south side of 6<sup>th</sup> Street between Lucas Avenue and Bixel Street - east of the Good Samaritan Hospital. The existing uses, which include 20,800 square-feet of medical offices, 14 apartment units, 2,600 square-feet of general office, and 18,250 square-feet of warehouse space, will be removed.

The project proposes to provide parking within a parking garage with both subterranean and above-grade levels. The study indicated that the code-compliant number of parking spaces, at a minimum, will be provided for the project. Access to the parking garage is proposed via three two-way driveways: one on 6<sup>th</sup> Street, one on Lucas Avenue, and one on Bixel Street. The conceptual site plan is illustrated in Attachment 2. The project is expected to be completed by 2012.

### **B. Trip Generation**

The project is expected to generate approximately 3,800 net new daily trips, 230 net trips in the a.m. peak hour and 341 net trips in the p.m. peak hour (see Attachment 3).



C. Significant Traffic Impacts

The proposed project is expected to result in significant traffic impacts at the following intersections:

1. Lucas Avenue and 6<sup>th</sup> Street
2. Bixel Street and 7<sup>th</sup> Street
3. Lucas Avenue and Wilshire Boulevard
4. Bixel Street and Wilshire Boulevard
5. Bixel Street and 6<sup>th</sup> Street

## PROJECT REQUIREMENTS

A. Unmitigated Impacts

Due to right-of-way constraints, geometric design limitations, and potential secondary adverse impacts, no feasible and effective traffic mitigations were developed to reduce the project-related traffic impacts to a level of insignificance at two of the impacted intersections. Therefore, the impact at the following intersections would remain significant and unmitigated:

### **Lucas Avenue and 6<sup>th</sup> Street**

The traffic study proposed to improve the north and south legs of Lucas Avenue to provide additional turn lanes at each approach. However, on the north leg, this would result in loss of on-street parking and substandard lane widths that may not provide sufficient clearance and turning radius for trucks. Also, the physical improvement on the south leg is limited by the existing right-of-way on the west side of the roadway due to the historical building at the southeast corner of the intersection. Therefore, the project impact at this intersection would remain significant and unmitigated.

### **Bixel Street and 7<sup>th</sup> Street**

The project proposed to improve the northbound and southbound approaches on Bixel Street to provide additional approach lanes. However, meaningful traffic flow improvements at this intersection are limited along the west side of Bixel Street due to right-of-way constraints and the substandard geometry of the intersection. The proposed improvements could have the secondary adverse impact of additional delays and longer queues on Bixel Street and the Harbor Freeway southbound on-ramp. Therefore, the project impact at this intersection would remain significant and unmitigated.

B. Intersection Improvements

The following traffic mitigation proposals are acceptable to DOT:

### **Lucas Avenue and Wilshire Boulevard**

The project proposes to widen and restripe the westbound approach on Wilshire Boulevard in order to provide a right-turn lane (see Attachment 4). Overall, the westbound approach would provide a shared left-turn/through lane, a through lane, and a right-turn lane. This improvement may require that the bus zone along the north side of Wilshire Boulevard be relocated to the far side (west leg) of the intersection and/or parking restrictions to be imposed. Also, modifications and/or upgrades to the traffic

signal equipment may be necessary. This improvement would mitigate the project's traffic impact at this intersection to a level of insignificance.

#### **Bixel Street and Wilshire Boulevard**

The project proposes to widen Bixel Street north of Wilshire Boulevard and to restripe the northbound approach in order to accommodate an additional northbound through travel lane. The additional northbound lane, which would be carried through to 6<sup>th</sup> Street (see Attachment 4), would require the loss of on-street parking along the east side of Bixel Street between 6<sup>th</sup> Street and Wilshire Boulevard. Based on future traffic demands projected along this roadway, which includes traffic from this and other proposed developments, it is expected that the additional through lane would be beneficial to traffic flow.

However, to defer the loss of parking until traffic demands warrant the second northbound through lane, this mitigation measure should be implemented in two phases. First, to satisfy their mitigation requirement, the applicant should widen Bixel Street, as illustrated in the attached drawing, and modify or upgrade the traffic signal equipment as necessary. Then, on-street parking along the east side of Bixel Street between 6<sup>th</sup> Street and Wilshire Boulevard would be restricted and the roadway would be restriped to provide a second northbound through lane. However, this second step would not be considered until traffic demands reveal the need for added roadway capacity. Should the second step be pursued, the loss of on-street parking along this segment is expected to be temporary, as the ultimate roadway dimension of Bixel Street would accommodate two lanes in each direction and on-street parking.

#### **Bixel Street and 6<sup>th</sup> Street**

The project proposes to widen and restripe 6<sup>th</sup> Street in order to accommodate an eastbound right-turn lane at this intersection (see Attachment 5). Overall, the eastbound approach would be configured to provide one left-turn lane, two through lanes and a right-turn lane on 6<sup>th</sup> Street. Modifications and/or upgrades to the existing traffic signal equipment may be necessary. This improvement would mitigate the project's traffic impact at this intersection to a level of insignificance.

#### **C. Traffic Signal Upgrades**

As indicated above, the project is expected to result in significant traffic impacts at five study intersections. DOT has identified a need to upgrade the traffic signal equipment and hardware at two of the impacted intersections. These upgrades include a traffic signal controller upgrade, additional roadway sensor loops, and the installation of a closed-circuit television (CCTV) camera. Collectively, these enhancements provide for enhanced and real-time operation of the traffic signal timing, and allow DOT to provide instant adjustments to the signal's timing parameters to respond to real time traffic flow demands. Also, the strategic placement of a CCTV camera affords DOT with the ability to monitor vehicles and buses, and respond instantly to incidents that cause excessive delays.

Therefore, DOT recommends that the applicant be required to:

- upgrade the traffic signal controller from a 170 to a 2070 at the intersection of 7<sup>th</sup> Street and Bixel Street
- install a CCTV camera including the necessary video fiber at the intersection of 7<sup>th</sup> Street and Bixel Street
- install system loops on all approaches at the intersection of 6<sup>th</sup> Street and Bixel Street

Since the traffic benefit assigned to these signal system upgrades was not included in the impact analysis, it is worth noting that the project impacts “after mitigation” summarized for these intersections in the traffic study may be over-stated. Also, given that the project results in adverse and unavoidable traffic impacts and that the applicant is likely to pursue a statement of overriding considerations, these traffic signal upgrades would be considered when balancing the project benefits against adverse environmental impacts.

D. Highway Dedication and Street Widening Requirements

Highway dedication and widening may be required along the streets that front the proposed project. The project site includes property frontage along 6<sup>th</sup> Street, Lucas Avenue, and Bixel Street. DOT recommends specific highway dedication and street widening requirements along Bixel Street (as described below). However, along 6<sup>th</sup> Street and along Lucas Avenue, the applicant shall check with the Department of Public Works, Bureau of Engineering (BOE) Land Development Group to determine if there are any highway dedication, street widening and/or sidewalk requirements for this project. It should be noted that this project is subject to the provisions of the CCWSP Ordinance.

Per a recent City Council motion (CF 07-3825), DOT was directed to determine the appropriate designation and street dimensions for Bixel Street between 3<sup>rd</sup> Street and Wilshire Boulevard. A DOT report issued September 18, 2008, recommended that Bixel Street be redesignated to a Modified Secondary Highway providing a 56-foot wide roadway within a 76-foot wide right-of-way. Also, additional sidewalk easements of varying width (2-foot minimum, 5-foot maximum, 3-foot average) would be required of projects along this segment of Bixel Street to accommodate the placement of sidewalk amenities for pedestrian and transit riders. Therefore, DOT recommends that the applicant provide a 28-foot half-width roadway, a 38-foot half-width right-of-way, and a minimum 2-foot easement along the property's Bixel Street frontage.

E. Improvement and Mitigation Measures Implementation

For all of the proposed intersection improvements, the final determination on the feasibility of street widening and of narrowing of sidewalk widths shall be made by BOE. All proposed street improvements and associated traffic signal work within the City of Los Angeles must be guaranteed through BOE's B-Permit process, prior to the issuance of any building permit and completed prior to the issuance of any certificate of occupancy. Prior to setting the bond amount, BOE shall require that the developer's engineer or contractor contact DOT's B-Permit Coordinator, at (213) 928-9663, to arrange a pre-design meeting to finalize the proposed design. Costs related to any relocations of bus zones and shelters, and to modifying or upgrading traffic signal equipment and that are necessary to implement the proposed mitigations shall be incurred by the applicant.

F. Construction Impacts

DOT recommends that a construction work site traffic control plan be submitted to DOT's Central District Office for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

G. Parking Analysis

The traffic study indicated that the project would provide the code-required number of on-site parking spaces. The developer should check with the Department of Building and Safety on the number of parking spaces needed for the project.

H. Driveway Access

The review of this study does not constitute approval of the driveway access and circulation scheme. Those require separate review and approval and should be coordinated as soon as possible with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 4th Floor, Station 3 @ 213-482-7024) to avoid delays in the building permit approval process. In order to minimize and prevent last minute building design changes, it is imperative that the applicant, prior to the commencement of building or parking layout design efforts, contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans to avoid any unnecessary time delays and potential costs associated with late design changes. All driveways should be Case 2 and 30 feet wide for two-way operations. All delivery truck loading and unloading shall take place on-site with no trucks backing into or out of the project site from any adjacent street.

If you have any questions, please contact Eileen Hunt of my staff at (213) 972-8481.

#### Attachments

*P:\Letters\CEN07-4520\_Good Sam MU\_1136 6th\_ts\_ltr.wpd*

cc: ~~Guadalupe Duran-Medina~~, Council District No. 1, Rebecca Valdez  
Martha Stephenson, Central District, DOT  
Ben Chan, ATSAC Systems, DOT  
Taimour Tanavoli, Citywide Planning Coordination Section, DOT  
Carl Mills, Central District, BOE  
David Somers, City Planning  
George Rhyner/Ryan J. Kelly, Crain & Associates

**ATTACHMENT 1**  
**CEN07-4520 GOOD SAM MU**

LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTION<sup>1</sup>

<u>Level of Service</u>	<u>Volume/Capacity Ratio</u>	<u>Definition</u>
A	0.000 - 0.600	EXCELLENT. No vehicle waits longer than one red light and no approach phase is 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 that intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	Greater than 1.000	FAILURE. Backups from nearby intersections or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

---

<sup>1</sup>Source: Transportation Research Board, Interim Materials on Highway Capacity, Transportation Research Circular No. 212, January 1980.

## SIGNIFICANT TRANSPORTATION IMPACT CRITERIA

1. A transportation impact on an intersection shall be deemed "significant" in accordance with the following table except as otherwise specified in a TSP, ICO or CMP:

### SIGNIFICANT TRANSPORTATION IMPACT

<u>Level of Service</u>	<u>Final V/C Ratio</u>	<u>Project-Related Increase In V/C</u>
C	> 0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

2. A local residential street shall be deemed significantly impacted<sup>2</sup> based on an increase in the projected average daily traffic (ADT) volumes:

<u>Projected Average Daily Traffic with Project (Final ADT)</u>	<u>Project-Related Increase in ADT</u>
0 to 999	16% or more of final ADT*
1,000 or more	12% or more of final ADT
2,000 or more	10% or more of final ADT
3,000 or more	8% or more of final ADT

\*For projects in West Los Angeles Transportation Improvement and Mitigation Specific Plan area, use 120 or more trips.

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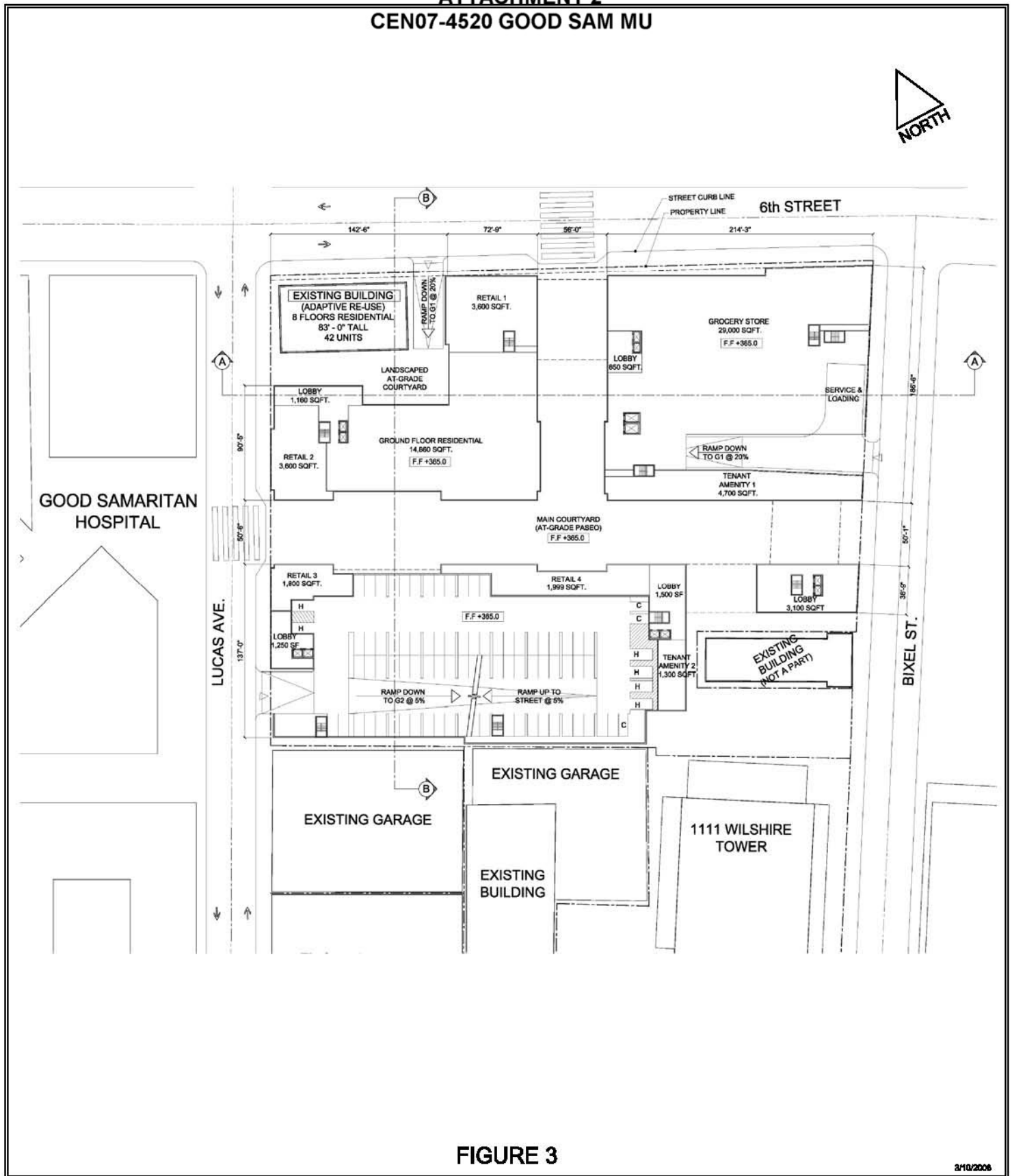
<sup>2</sup>Source: Traffic Infusion on Residential Environment (TIRE) Index developed by D.K. Goodrich and modified by LADOT for Los Angeles City conditions.

**Table 9  
Critical Movement Analysis (CMA) Summary  
Future (2012) Without and With Project Traffic Conditions**

No.	Intersection	Peak Hour	Without Project		With Project		
			CMA	LOS	CMA	LOS	Impact
1.	Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street	AM	0.718	C	0.720	C	0.002
		PM	0.819	D	0.838	D	0.019
2.	Lucas Avenue at 3rd Street	AM	1.052	F	1.054	F	0.002
		PM	0.894	D	0.903	E	0.009
3.	Lucas Avenue at 6th Street	AM	0.791	C	0.812	D	0.021 *
		PM	0.867	D	0.898	D	0.031 *
4.	Lucas Avenue at Wilshire Boulevard	AM	0.823	D	0.855	D	0.032 *
		PM	0.961	E	1.008	F	0.047 *
5.	Bixel Street at 6th Street	AM	0.983	E	1.007	F	0.024 *
		PM	1.157	F	1.187	F	0.030 *
6.	Bixel Street at Wilshire Boulevard	AM	0.757	C	0.787	C	0.030
		PM	0.875	D	0.907	E	0.032 *
7.	Bixel Street at 7th Street	AM	0.914	E	0.935	E	0.021 *
		PM	1.061	F	1.072	F	0.011 *
8.	Bixel Street/SR-110 Southbound On-Ramp at 8th Street	AM	0.527	A	0.537	A	0.010
		PM	0.571	A	0.577	A	0.006
9.	Beaudry Avenue at at 1st Street	AM	0.801	D	0.802	D	0.001
		PM	1.113	F	1.114	F	0.001
10.	Beaudry Avenue at at 2nd Street	AM	0.953	E	0.955	E	0.002
		PM	1.199	F	1.205	F	0.006
11.	Beaudry Avenue at the SR-110 Southbound Off-Ramp	AM	0.639	B	0.639	B	0.000
		PM	0.585	A	0.586	A	0.001
12.	Beaudry Avenue at Miramar Street/3rd Street	AM	0.888	D	0.889	D	0.001
		PM	0.620	B	0.621	B	0.001
13.	Beaudry Avenue at 5th Street/6th Street	AM	0.667	B	0.687	B	0.020
		PM	0.741	C	0.754	C	0.013
14.	Beaudry Avenue at Wilshire Boulevard	AM	0.742	C	0.757	C	0.015
		PM	0.595	A	0.616	B	0.021
15.	Figueroa Street at 5th Street	AM	0.433	A	0.433	A	0.000
		PM	0.596	A	0.599	A	0.003
16.	Figueroa Street at 6th Street	AM	0.605	B	0.609	B	0.004
		PM	0.715	C	0.723	C	0.008
17.	Figueroa Street at Wilshire Boulevard	AM	0.677	B	0.694	B	0.017
		PM	0.839	D	0.855	D	0.016
18.	Figueroa Street at 7th Street	AM	0.565	A	0.565	A	0.000
		PM	0.659	B	0.662	B	0.003
19.	Figueroa Street at James M. Wood Boulevard/9th Street	AM	0.719	C	0.719	C	0.000
		PM	0.703	C	0.707	C	0.004

\* Indicates a significant project impact, prior to mitigation.

**ATTACHMENT 2  
CEN07-4520 GOOD SAM MU**



**FIGURE 3**

2/10/2008

FN: GOOD SAMARITAN SITE WILSHIRE SITE PLAN

**PROJECT SITE PLAN**



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**Table 4**  
**Project Trip Generation Equations and Rates <sup>[1]</sup>**

Apartment, ITE LUC 220 (trips per dwelling unit)

Daily:  $T = 6.01 (U) + 150.35$   
 AM Peak Hour:  $T = 0.49 (U) + 3.73$ ; I/B = 20%, O/B = 80%  
 PM Peak Hour:  $T = 0.55 (U) + 17.65$ ; I/B = 65%, O/B = 35%

Shopping Center, ITE LUC 820 (trips per 1,000 square feet of gross leasable area)

Daily:  $\ln (T) = 0.65 \ln (A) + 5.83$   
 AM Peak Hour:  $\ln (T) = 0.60 \ln (A) + 2.29$ ; I/B = 61%, O/B = 39%  
 PM Peak Hour:  $\ln (T) = 0.66 \ln (A) + 3.40$ ; I/B = 48%, O/B = 52%

Medical-Dental Office Bldg., ITE LUC 720 (trips per 1,000 square feet of gross floor area)

Daily:  $T = 36.13 (A)$   
 AM Peak Hour:  $T = 2.48 (A)$ ; I/B = 79%, O/B = 21%  
 PM Peak Hour:  $T = 3.72 (A)$ ; I/B = 27%, O/B = 73%

Warehousing, ITE LUC 150 (trips per 1,000 square feet of gross floor area)

Daily:  $T = 4.96 (A)$   
 AM Peak Hour:  $T = 0.45 (A)$ ; I/B = 82%, O/B = 18%  
 PM Peak Hour:  $T = 0.47 (A)$ ; I/B = 25%, O/B = 75%

Office, ITE LUC 710 (trips per 1,000 square feet of gross floor area)

Daily:  $T = 11.01 (A)$   
 AM Peak Hour:  $T = 1.55 (A)$ ; I/B = 88%, O/B = 12%  
 PM Peak Hour:  $T = 1.49 (A)$ ; I/B = 17%, O/B = 83%

Notes

Source: Institute of Transportation Engineers (ITE) Trip Generation (7th Edition, 2003) - Land Use Code (LUC) 220 Apartment, LUC 820 Shopping Center, LUC 720 Medical-Dental Office Building, LUC 150 Warehousing, and LUC 710 General Office Building.

T = Trip Ends; U = Dwelling Unit; A = Gross Leasable or Floor Area (Thousands of Square Feet); I/B = Inbound; O/B = Outbound.

**Table 5**  
**Project Trip Reduction Factors**

Proposed Uses

Land Use	Internal Capture	Transit/Walk-In Factor	Pass-by Discount
Apartment	5%	25%	0%
Retail	(based on Apartment use)	25%	50%

Existing Uses

Land Use	Internal Capture	Transit/Walk-In Factor	Pass-by Discount
Medical-Dental Office Bldg.	0%	25%	0%
Warehouse	0%	25%	0%
Apartment	0%	25%	0%
Office	0%	25%	0%

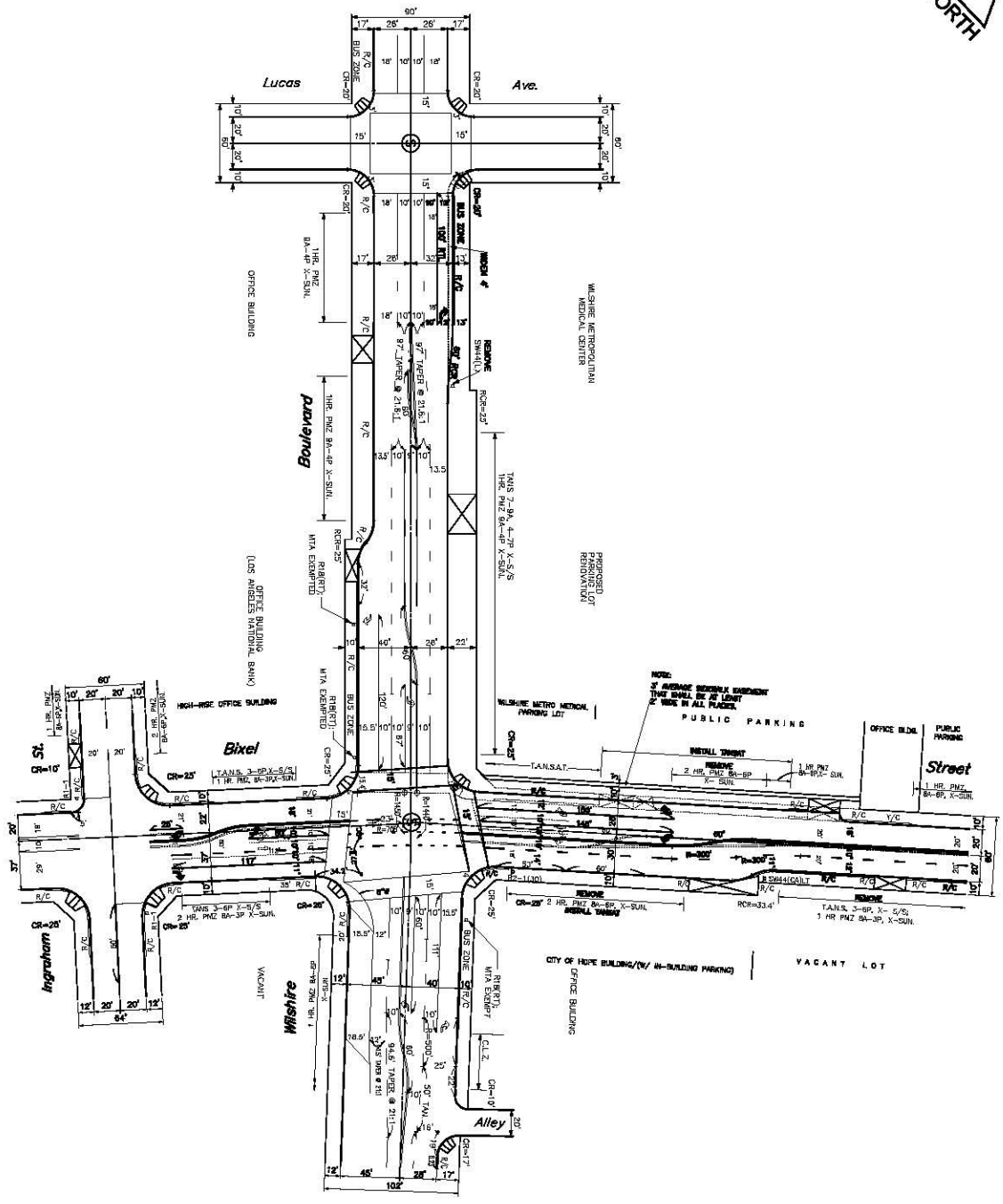
**Table 6  
Project Trip Generation**

Proposed Use	Size <sup>[1]</sup>	Daily	AM Peak Hour			PM Peak Hour		
			I/B	O/B	Total	I/B	O/B	Total
Apartment	725 du	4,510	72	287	359	270	146	416
Retail	39,999 sf	3,740	55	35	90	164	178	342
Subtotal		8,250	127	322	449	434	324	758
Less Internal Linkages Trip Adjustment								
Apartment	5%	(230)	(4)	(14)	(18)	(14)	(7)	(21)
Retail (based on Apartment)		(230)	(14)	(4)	(18)	(7)	(14)	(21)
		(460)	(18)	(18)	(36)	(21)	(21)	(42)
Less Transit/Walk Trip Adjustment								
Apartment	25%	(1,070)	(17)	(68)	(85)	(64)	(35)	(99)
Retail	25%	(880)	(10)	(8)	(18)	(39)	(41)	(80)
		(1,950)	(27)	(76)	(103)	(103)	(76)	(179)
<b>Net Proposed Driveway Trips [A]:</b>		<b>5,840</b>	<b>82</b>	<b>228</b>	<b>310</b>	<b>310</b>	<b>227</b>	<b>537</b>
Less Pass-By Trip Adjustment								
Retail	50%	(1,320)	(16)	(11)	(27)	(59)	(62)	(121)
<b>Net Proposed Trips [B]:</b>		<b>4,520</b>	<b>66</b>	<b>217</b>	<b>283</b>	<b>251</b>	<b>165</b>	<b>416</b>
<b>Existing Uses (Being Removed)</b>								
Medical-Dental Office Building	20,800 sf	750	41	11	52	21	56	77
Warehouse	18,250 sf	90	7	1	8	2	7	9
Apartment	14 du	90	1	6	7	6	3	9
Office	2,600 sf	30	4	0	4	1	3	4
Subtotal	41,664 sf	960	53	18	71	30	69	99
Less Transit/Walk Trip Adjustment								
Medical-Dental Office Building	25%	(190)	(10)	(3)	(13)	(5)	(14)	(19)
Warehouse	25%	(20)	(2)	0	(2)	0	(2)	(2)
Apartment	25%	(20)	0	(2)	(2)	(1)	(1)	(2)
Office	25%	(10)	(1)	0	(1)	0	(1)	(1)
		(240)	(13)	(5)	(18)	(6)	(18)	(24)
<b>Net Existing Driveway Trips [C]:</b>		<b>720</b>	<b>40</b>	<b>13</b>	<b>53</b>	<b>24</b>	<b>51</b>	<b>75</b>
<b>Net Existing Trips [D]:</b>		<b>720</b>	<b>40</b>	<b>13</b>	<b>53</b>	<b>24</b>	<b>51</b>	<b>75</b>
<b>Net Project Driveway Trips [A-C]:</b>		<b>5,120</b>	<b>42</b>	<b>215</b>	<b>257</b>	<b>286</b>	<b>176</b>	<b>462</b>
<b>Net Project Trips [B-D]:</b>		<b>3,800</b>	<b>26</b>	<b>204</b>	<b>230</b>	<b>227</b>	<b>114</b>	<b>341</b>

Notes:

<sup>[1]</sup> du = Dwelling Units; sf = Square Feet.

**ATTACHMENT 4  
CEN07-4520 GOOD SAM MU**



11/10/2008

FN: GOOD SAMARITAN SITE WILSHIRE CONCEPT-WILSHIRE-BIXEL-LUCAS-11-10-08

**CONCEPTUAL STRIPING PLAN  
LUCAS AVENUE AND WILSHIRE BOULEVARD  
BIXEL STREET AND WILSHIRE BOULEVARD**

**CA CRAIN** & **ASSOCIATES**  
 Transportation Planning  
 Traffic Engineering  
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 Los Angeles California 90025  
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VIA E-MAIL & MAIL

August 31, 2009

Mr. Tomas Carranza  
Senior Transportation Engineer  
Los Angeles Department of Transportation  
100 S. Main Street, 9th Floor  
Los Angeles, California 90012

RE: Mitigation Measure Triggers Associated with Development of the Good Samaritan  
Mixed-Use Project

Dear Mr. Carranza,

Crain & Associates has conducted traffic engineering and transportation planning analysis to evaluate the triggering of mitigation measure implementation associated with development for the proposed Good Samaritan mixed-use project. A traffic impact study was completed in October 2008 for the proposed project, which is located along the south side of 6th Street, between Lucas Avenue and Bixel Street, in the Central City West area adjacent to Downtown Los Angeles. The traffic study concluded that the project, at full occupancy in the year 2012, is expected to generate approximately 3,800 net daily study area trips (including approximately 230 net trips during the AM peak hour and 341 net trips during the PM peak hour). The Los Angeles Department of Transportation (LADOT) concluded that the traffic study “adequately summarized project-related impacts on the surrounding community” in their traffic assessment letter dated November 13, 2008. The study found that the project, at full occupancy, would have potentially significant traffic impacts at five of the nineteen study intersections analyzed. At two of these five intersections, no feasible and effective mitigation measures were available due to right-of-way constraints, geometric design limitations, and potential adverse impacts. Mitigation measures acceptable to LADOT were developed for the following three significantly impacted study intersections (impacted during the indicated peak hours):

- Int. 4 (per the traffic study), Lucas Avenue at Wilshire Boulevard – AM and PM peak hours
- Int. 5 (per the traffic study), Bixel Street at 6th Street – AM and PM peak hours
- Int. 6 (per the traffic study), Bixel Street at Wilshire Boulevard – PM peak hour

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The present analysis seeks to determine the level of project development at which each of the traffic impacts at these three locations first becomes significant. In order to do so, levels of project development are estimated via two methods. The first method examines the traffic impacts associated with varying levels of net project trips (trips generated by the proposed project uses minus trips generated by the existing site uses to be removed), irrespective of the amounts of proposed uses constructed and existing uses demolished necessary to yield those levels of net project trips. The second method examines the traffic impacts associated with varying levels of net project development, assuming that the construction of proposed uses occurs at the same rate as the demolition of existing uses (e.g., if 75 percent of the proposed uses are constructed, then 75 percent of the existing uses are assumed to be demolished). For reference, the project trip generation equations and rates and summary table included in the October 2008 traffic study have been provided in Attachment 1.

It should be noted that two sets of net project trips are included in the project trip generation table: net project trips and net driveway (site-adjacent) project trips. Per LADOT policy and as a conservative procedure, trip reductions for the proposed retail use pass-by activity were not applied to traffic volumes at either the project driveways or site-adjacent intersections since pass-by trips, while not new to the area roadways, will be included in the number of vehicles that enter and exit the project site driveways and make turning movements required for project access at site-adjacent intersections. The more conservative (higher) net project driveway trips were used in developing future traffic volumes at the site-adjacent intersection of Bixel Street at 6th Street.

To review, LADOT defines a significant traffic impact attributable to a project based on a “stepped scale”, with intersections at high volume-to-capacity ratios being more sensitive to additional traffic than those operating with more available capacity. According to LADOT policy, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project-related traffic, of 0.010 or more when the final (with project) Level of Service (LOS) is E or F, a CMA value increase of 0.020 or more when the final Level of Service is LOS D, or an increase of 0.040 or more at LOS C. No significant impacts are deemed to occur at LOS A or B, as these operating conditions exhibit sufficient surplus capacities to accommodate large traffic increases with little effect on traffic delays. These criteria are summarized in Table 1.

**Table 1**  
**LADOT Criteria for Significant Traffic Impact**

<u>LOS</u>	<u>Final CMA Value</u>	<u>Project-Related Increase in CMA Value</u>
C	> 0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Using the first method described above, the net project trips included in Attachment 1 were adjusted by a series of percentages. For each level of net project trips evaluated, the Future (2012) With Project traffic volumes were calculated and the Future (2012) With Project traffic conditions were analyzed. As shown in Table 2, the number of net project trips required to trigger a significant traffic impact (and, therefore, implementation of a mitigation measure) at each of the three study intersections, for each peak hour, was determined. These net project trips levels ranged from approximately 21 percent of net project traffic (72 net trips) required to trigger the mitigation measure at the intersection of Lucas Avenue at Wilshire Boulevard in the PM peak hour to approximately 62 percent of net project traffic (142 net trips) to trigger the mitigation measure at the intersection of Lucas Avenue at Wilshire Boulevard in the AM peak hour.

**Table 2**  
**Net Project Trips Triggering Mitigation Measures**  
**Based on Percent of Full-Build Trips**  
**Future (2012) Traffic Conditions**

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	<u>Without Project</u>		<u>With Project</u>			<u>Net Project Trips Triggering the Mitigation Measure</u>	
			<u>CMA</u>	<u>LOS</u>	<u>CMA</u>	<u>LOS</u>	<u>Impact</u>	<u>Number</u>	<u>Percent<sup>1</sup></u>
4	Lucas Avenue at Wilshire Boulevard	AM	0.823	D	0.855	D	0.032 <sup>2</sup>	142	62%
		PM	0.961	E	1.008	F	0.047 <sup>2</sup>	72	21%
5	Bixel Street at 6th Street	AM	0.983	E	1.007	F	0.024 <sup>2</sup>	103 <sup>3</sup>	40%
		PM	1.157	F	1.187	F	0.030 <sup>2</sup>	139 <sup>3</sup>	30%
6	Bixel Street at Wilshire Boulevard	AM	0.757	C	0.787	C	0.030	--	--
		PM	0.875	D	0.907	E	0.032 <sup>2</sup>	204	60%

Notes:

- <sup>1</sup> Percent of full-build net project trips.
- <sup>2</sup> Project traffic impact considered significant.
- <sup>3</sup> Net driveway (site-adjacent) project trips.



Using the second method described above, the project trip generation included in Attachment 1 was recalculated based on a series of percentages of project development levels, assuming that all proposed uses would be constructed at the same rate that all existing uses would be demolished. For example, under the scenario where the Good Samaritan project is 80 percent developed, it is assumed that approximately 580 (0.80 x 725) apartment dwelling units and 31,999 square feet of retail uses would be constructed and the following amounts of existing uses on-site would be removed: 16,640 square feet of medical offices, 14,600 square feet of warehouse, 11 apartment dwelling units, and 2,080 square feet of general office space. This method is meant to be illustrative, with actual development (construction and demolition) occurring at somewhat variable rates.

For each project development percentage evaluated, the number of net project trips was determined, the Future (2012) With Project traffic volumes were calculated and the Future (2012) With Project traffic conditions were analyzed. As shown in Table 3, the number of net project trips required to trigger implementation of a mitigation measure at each of the three study intersections, for each peak hour, was determined. These net project trips levels ranged from approximately 12 percent of net project traffic (68 net trips) required to trigger the mitigation measure at the intersection of Lucas Avenue at Wilshire Boulevard in the PM peak hour to approximately 61 percent of net project traffic (147 net trips) to trigger the mitigation measure at the intersection of Lucas Avenue at Wilshire Boulevard in the AM peak hour.

**Table 3**  
**Net Project Trips Triggering Mitigation Measures**  
**Based on Percent of Project Development**  
**Future (2012) Traffic Conditions**

No.	Intersection	Peak Hour	Without Project		With Project			Net Project Trips Triggering the Mitigation Measure	
			CMA	LOS	CMA	LOS	Impact	Number	Percent <sup>1</sup>
4	Lucas Avenue at	AM	0.823	D	0.855	D	0.032 <sup>2</sup>	147	61%
	Wilshire Boulevard	PM	0.961	E	1.008	F	0.047 <sup>2</sup>	68	12%
5	Bixel Street at	AM	0.983	E	1.007	F	0.024 <sup>2</sup>	107 <sup>3</sup>	36%
	6th Street	PM	1.157	F	1.187	F	0.030 <sup>2</sup>	145 <sup>3</sup>	21%
6	Bixel Street at	AM	0.757	C	0.787	C	0.030	--	--
	Wilshire Boulevard	PM	0.875	D	0.907	E	0.032 <sup>2</sup>	209	55%

Notes:

- <sup>1</sup> Percent of full-build net project trips.
- <sup>2</sup> Project traffic impact considered significant.
- <sup>3</sup> Net driveway (site-adjacent) project trips.

Mr. Tomas Carranza  
August 31, 2009  
Page Five

The preceding analysis results will assist the applicant in determining at what point in the development of the Good Samaritan mixed-use project significant traffic impacts (and, therefore, implementation of mitigation measures) are triggered.

Please contact either George Rhyner or me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Ryan J. Kelly". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Ryan J. Kelly, T.E.  
Transportation Engineer

RK:gr  
C19684  
attachment  
cc: Mike Harden, PCR Services Corporation

**ATTACHMENT 1**  
**GOOD SAMARITAN MIXED-USE DEVELOPMENT**  
**PROJECT TRIP GENERATION EQUATIONS AND RATES**  
**AND SUMMARY TABLE**

## **Good Samaritan Mixed-Use Development Project Trip Generation Equations and Rates <sup>[1]</sup>**

### Apartment, ITE LUC 220 (trips per dwelling unit)

Daily:  $T = 6.01 (U) + 150.35$   
AM Peak Hour:  $T = 0.49 (U) + 3.73$ ; I/B = 20%, O/B = 80%  
PM Peak Hour:  $T = 0.55 (U) + 17.65$ ; I/B = 65%, O/B = 35%

### Shopping Center, ITE LUC 820 (trips per 1,000 square feet of gross leasable area)

Daily:  $\ln (T) = 0.65 \ln (A) + 5.83$   
AM Peak Hour:  $\ln (T) = 0.60 \ln (A) + 2.29$ ; I/B = 61%, O/B = 39%  
PM Peak Hour:  $\ln (T) = 0.66 \ln (A) + 3.40$ ; I/B = 48%, O/B = 52%

### Medical-Dental Office Bldg., ITE LUC 720 (trips per 1,000 square feet of gross floor area)

Daily:  $T = 36.13 (A)$   
AM Peak Hour:  $T = 2.48 (A)$ ; I/B = 79%, O/B = 21%  
PM Peak Hour:  $T = 3.72 (A)$ ; I/B = 27%, O/B = 73%

### Warehousing, ITE LUC 150 (trips per 1,000 square feet of gross floor area)

Daily:  $T = 4.96 (A)$   
AM Peak Hour:  $T = 0.45 (A)$ ; I/B = 82%, O/B = 18%  
PM Peak Hour:  $T = 0.47 (A)$ ; I/B = 25%, O/B = 75%

### Office, ITE LUC 710 (trips per 1,000 square feet of gross floor area)

Daily:  $T = 11.01 (A)$   
AM Peak Hour:  $T = 1.55 (A)$ ; I/B = 88%, O/B = 12%  
PM Peak Hour:  $T = 1.49 (A)$ ; I/B = 17%, O/B = 83%

#### Notes

Source: Institute of Transportation Engineers (ITE) Trip Generation (7th Edition, 2003) - Land Use Code (LUC) 220 Apartment, LUC 820 Shopping Center, LUC 720 Medical-Dental Office Building, LUC 150 Warehousing, and LUC 710 General Office Building.

T = Trip Ends; U = Dwelling Unit; A = Gross Leasable or Floor Area (Thousands of Square Feet);  
I/B = Inbound; O/B = Outbound.

## Good Samaritan Mixed-Use Development Project Trip Generation Summary Table

Proposed Use	Size <sup>[1]</sup>	Daily	AM Peak Hour			PM Peak Hour		
			I/B	O/B	Total	I/B	O/B	Total
Apartment	725 du	4,510	72	287	359	270	146	416
Retail	39,999 sf	3,740	55	35	90	164	178	342
Subtotal		8,250	127	322	449	434	324	758
Less Internal Linkages Trip Adjustment								
Apartment	5%	(230)	(4)	(14)	(18)	(14)	(7)	(21)
Retail (based on Apartment)		(230)	(14)	(4)	(18)	(7)	(14)	(21)
		(460)	(18)	(18)	(36)	(21)	(21)	(42)
Less Transit/Walk Trip Adjustment								
Apartment	25%	(1,070)	(17)	(68)	(85)	(64)	(35)	(99)
Retail	25%	(880)	(10)	(8)	(18)	(39)	(41)	(80)
		(1,950)	(27)	(76)	(103)	(103)	(76)	(179)
<b>Net Proposed Driveway Trips [A]:</b>		<b>5,840</b>	<b>82</b>	<b>228</b>	<b>310</b>	<b>310</b>	<b>227</b>	<b>537</b>
Less Pass-By Trip Adjustment								
Retail	50%	(1,320)	(16)	(11)	(27)	(59)	(62)	(121)
<b>Net Proposed Trips [B]:</b>		<b>4,520</b>	<b>66</b>	<b>217</b>	<b>283</b>	<b>251</b>	<b>165</b>	<b>416</b>
<b>Existing Uses (Being Removed)</b>								
Medical-Dental Office Building	20,800 sf	750	41	11	52	21	56	77
Warehouse	18,250 sf	90	7	1	8	2	7	9
Apartment	14 du	90	1	6	7	6	3	9
Office	2,600 sf	30	4	0	4	1	3	4
Subtotal	41,664 sf	960	53	18	71	30	69	99
Less Transit/Walk Trip Adjustment								
Medical-Dental Office Building	25%	(190)	(10)	(3)	(13)	(5)	(14)	(19)
Warehouse	25%	(20)	(2)	0	(2)	0	(2)	(2)
Apartment	25%	(20)	0	(2)	(2)	(1)	(1)	(2)
Office	25%	(10)	(1)	0	(1)	0	(1)	(1)
		(240)	(13)	(5)	(18)	(6)	(18)	(24)
<b>Net Existing Driveway Trips [C]:</b>		<b>720</b>	<b>40</b>	<b>13</b>	<b>53</b>	<b>24</b>	<b>51</b>	<b>75</b>
<b>Net Existing Trips [D]:</b>		<b>720</b>	<b>40</b>	<b>13</b>	<b>53</b>	<b>24</b>	<b>51</b>	<b>75</b>
<b>Net Project Driveway Trips [A-C]:</b>		<b>5,120</b>	<b>42</b>	<b>215</b>	<b>257</b>	<b>286</b>	<b>176</b>	<b>462</b>
<b>Net Project Trips [B-D]:</b>		<b>3,800</b>	<b>26</b>	<b>204</b>	<b>230</b>	<b>227</b>	<b>114</b>	<b>341</b>

Notes:

<sup>[1]</sup> du = Dwelling Units; sf = Square Feet.



June 23, 2011

Mr. Tomas Carranza  
Senior Transportation Engineer  
Metro Development Review Division  
Department of Transportation  
100 S. Main Street, 9th Floor  
Los Angeles, CA 90012

RE: Supplemental Traffic Analysis for Bixel & Lucas Project

Dear Mr. Carranza,

**Background**

Crain & Associates has been requested to analyze whether the approved October 2008 traffic study for the Bixel & Lucas site (formerly referred to as Good Samaritan Site) reflects the current project land uses proposed for that site and the current (2011) study area traffic conditions. Specifically, this memorandum reviews whether the currently proposed project and cumulative traffic impacts will be approximately equal to or lesser than those set forward in the October 2008 study. The traffic impacts of the then proposed (and more intense) project were analyzed in our October 2008 study. That traffic study was approved by LADOT in the November 13, 2008 assessment letter. This technical letter analyzes whether the October 2008 study adequately addresses the current proposal with the current study area traffic conditions.

Firstly, we compare the October 2008 traffic study and current project estimated trip generation levels. This analysis shows that the trip generation of the current project will be lower than the October 2008 traffic study predicted amounts. Secondly, this analysis compares the newly conducted existing counts (2009 - 2011) with the 2008 count volumes. In other words, the existing 2011 volumes (including 2009 and 2010 counts that were factored up by ambient growth rate to represent the 2011 conditions) were reviewed to ensure that the growth from the conditions in the October 2008 study had not occurred. The 2011 existing counts show substantially lower traffic volumes than the 2008 conditions in the October 2008 traffic study. Lastly, this analysis compares the new 2011 related projects list with the previous related projects list in the October 2008 traffic study. The 2011 related projects have lower trip generation levels than the October 2008 traffic study.

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The results of these comparisons demonstrate that the analysis in the October 2008 study conservatively estimates the traffic impacts of the currently proposed project. The traffic conditions, upon project completion and occupancy in 2015, including the traffic from the project, are expected to be the same or better than those projected for 2012 in the October 2008 traffic study.

In addition, subsequent to that approval, the California Sixth District Court of Appeal, in the case of *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council*, (the “Sunnyvale” case) determined that a project must be compared “against current, existing physical conditions.” Although the project elements in the “Sunnyvale” case may not be applicable to the Project, in the interest of full disclosure, we have prepared a supplemental traffic impact analysis of project impacts under existing conditions. This supplemental analysis utilizes information in the approved traffic report, as presented below, and verifies that the October 2008 report discloses all significant traffic impacts.

### **Current Project Trip Generation**

The current project will be smaller than the proposed uses analyzed in the October 2008 traffic study. The current project site plan is shown in Figure 1 of Appendix A, Project Site Plan. The specific comparison is shown in Table 1:

**Table 1**  
**Project Size Comparison**

	<b><u>Apartment</u></b>	<b><u>Retail</u></b>
October 2008 Traffic Study	725 unit	39,999 sf
Current Project	648 unit	39,996 sf

The trip generation rates, equations and assumptions used in this analysis are consistent with the traffic impact analysis procedures utilized in the October 2008 traffic study. Using the rates, formulas and assumptions listed in the October 2008 traffic study, the trip generations for the current project were estimated and are illustrated in Table 2(a) below. For the comparison purpose, the trip generation table of the October 2008 traffic study is included as Table 2(b). As summarized in Table 3, compared to the October 2008 traffic study, the current project will generate fewer trips than the project assumed for the October 2008 traffic study.

As shown in Figure 1 of Appendix A, Project Site Plan, there is one change in the proposed project access: the addition of a second project driveway along Lucas Avenue. This second driveway provides the same movements into the site allowed at the first driveway and only serves the residential portion of the proposed project. Therefore, the addition of this driveway is not expected to change the distribution of project-related traffic at the study intersections, and the

trip distribution will remain as analyzed in the October 2008 traffic study (see Figure 2 of Appendix A - Project Trip Distributions Percentages). Applying the inbound and outbound percentages to the net project trip generation shown in Table 2(a), net project traffic volumes at the 19 study intersections were determined for the AM and PM peak hours. The net project AM and PM traffic volumes are depicted in Figures 3(a) and 3(b) of Appendix A, respectively.

**Table 2(a)**  
**Project Trip Generation – Current Project**

Current Project Proposed Uses	Size	Daily	AM Peak Hour			PM Peak Hour		
			I/B	O/B	Total	I/B	O/B	Total
Apartment	648 du	4,040	64	257	321	243	131	374
Retail	39,996 sf	3,740	55	35	90	164	178	342
Subtotal		7,780	119	292	411	407	309	716
Less Internal Linkages Trip Adjustment								
Apartment	5%	(200)	(3)	(13)	(16)	(12)	(7)	(19)
Retail (based on Apartment)		(200)	(13)	(3)	(16)	(7)	(12)	(19)
		(400)	(16)	(16)	(32)	(19)	(19)	(38)
Less Transit/Walk Trip Adjustment								
Apartment	25%	(960)	(15)	(61)	(76)	(58)	(31)	(89)
Retail	25%	(890)	(11)	(8)	(19)	(39)	(42)	(81)
		(1,850)	(26)	(69)	(95)	(97)	(73)	(170)
<b>Net Proposed Driveway Trips [A]:</b>		<b>5,530</b>	<b>77</b>	<b>207</b>	<b>284</b>	<b>291</b>	<b>217</b>	<b>508</b>
Less Pass-By Trip Adjustment								
Retail	50%	(1,330)	(16)	(12)	(28)	(59)	(62)	(121)
<b>Net Proposed Trips [B]:</b>		<b>4,200</b>	<b>61</b>	<b>195</b>	<b>256</b>	<b>232</b>	<b>155</b>	<b>387</b>

**Table 2(b)**  
**Project Trip Generation – October 2008 Traffic Study**

October 2008 Traffic Study Proposed Use	Size <sup>[1]</sup>	Daily	AM Peak Hour			PM Peak Hour		
			I/B	O/B	Total	I/B	O/B	Total
Apartment	725 du	4,510	72	287	359	270	146	416
Retail	39,999 sf	3,740	55	35	90	164	178	342
Subtotal		8,250	127	322	449	434	324	758
Less Internal Linkages Trip Adjustment								
Apartment	5%	(230)	(4)	(14)	(18)	(14)	(7)	(21)
Retail (based on Apartment)		(230)	(4)	(4)	(18)	(7)	(14)	(21)
		(460)	(18)	(18)	(36)	(21)	(21)	(42)
Less Transit/Walk Trip Adjustment								
Apartment	25%	(1,070)	(17)	(68)	(85)	(64)	(35)	(99)
Retail	25%	(880)	(10)	(8)	(18)	(39)	(41)	(80)
		(1,950)	(27)	(76)	(103)	(103)	(76)	(179)
<b>Net Proposed Driveway Trips [A]:</b>		<b>5,840</b>	<b>82</b>	<b>228</b>	<b>310</b>	<b>310</b>	<b>227</b>	<b>537</b>
Less Pass-By Trip Adjustment								
Retail	50%	(1,320)	(16)	(11)	(27)	(59)	(62)	(121)
<b>Net Proposed Trips [B]:</b>		<b>4,520</b>	<b>66</b>	<b>217</b>	<b>283</b>	<b>251</b>	<b>165</b>	<b>416</b>



**Table 3  
 Project Trip Generation Comparison**

	Daily	AM Peak Hour			PM Peak Hour		
		I/B	O/B	Total	I/B	O/B	Total
October 2008 Traffic Study	4,520	66	217	283	251	165	416
Current Project	<u>4,200</u>	<u>61</u>	<u>195</u>	<u>256</u>	<u>232</u>	<u>155</u>	<u>387</u>
Changes	-320	-5	-22	-27	-19	-10	-29

**Existing Condition Traffic Volumes**

The current AM and PM peak hour existing traffic volumes were conducted in May 2011 for twelve of the study intersections. The LADOT count data, collected in December 2009, was used for two of the study intersections. Previously collected data in 2010 were used for the other five study intersections. These count worksheets are shown in Appendix B. The 2009 and 2010 counts were factored up using an annual growth rate of 1% to reflect 2011 traffic conditions. As shown in Table 4, the existing 2011 volumes are significantly lower than the exiting 2008 conditions reported in the October 2008 traffic study. However, to be conservative, the “Sunnyvale” analysis conducted below assumes the same existing conditions as the October 2008 traffic study.

**Table 4  
 Current Counted Volumes vs. 2008 Volumes**

<b>No. Intersection</b>	<b>Peak Hour</b>	<b>2008</b>	<b>Current</b>	<b>Changes from</b>
		<b>Traffic Study Existing Counts (2008) Volumes</b>	<b>Counts (2011) Volumes</b>	<b>2008 Counts Volumes</b>
1. Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street	AM	3,154	2,806	-348
	PM	3,328	2,813	-515
2. Lucas Avenue at 3rd Street	AM	4,089	3,270	-819
	PM	3,929	3,418	-511
3. Lucas Avenue at 6th Street	AM	2,548	2,417	-131
	PM	2,798	2,628	-170
4. Lucas Avenue at Wilshire Boulevard	AM	2,476	2,454	-22
	PM	2,698	2,459	-239
5. Bixel Street at 6th Street	AM	3,092	2,314	-778
	PM	3,325	2,591	-734
6. Bixel Street at Wilshire Boulevard	AM	2,812	2,540	-272
	PM	3,425	2,972	-453
7. Bixel Street at 7th Street	AM	2,952	2,352	-600
	PM	3,098	2,437	-661

**Table 4 (continued)**  
**Current Counted Volumes vs. 2008 Volumes**

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	2008	Current	Changes from
			<u>Traffic Study Existing Counts (2008) Volumes</u>	<u>Counts (2011) Volumes</u>	<u>2008 Counts Volumes</u>
8.	Bixel Street/SR-110 Southbound	AM	2,076	2,136	60
	On-Ramp at 8th Street	PM	2,947	2,745	-202
9.	Beaudry Avenue at	AM	3,098	3,062	-36
	at 1st Street	PM	3,797	2,952	-845
10.	Beaudry Avenue at	AM	3,152	2,718	-434
	at 2nd Street	PM	3,497	3,007	-490
11.	Beaudry Avenue at	AM	2,271	1,600	-671
	the SR-110 Southbound Off-Ramp	PM	2,326	1,753	-573
12.	Beaudry Avenue at	AM	3,448	2,309	-1,139
	Miramar Street/3rd Street	PM	3,143	2,669	-474
13.	Beaudry Avenue at	AM	2,570	2,213	-357
	5th Street/6th Street	PM	2,785	2,395	-390
14.	Beaudry Avenue at	AM	2,886	2,778	-108
	Wilshire Boulevard	PM	2,321	2,584	263
15.	Figueroa Street at	AM	3,731	3,682	-49
	5th Street	PM	5,431	5,572	141
16.	Figueroa Street at	AM	4,616	4,207	-409
	6th Street	PM	5,282	4,625	-657
17.	Figueroa Street at	AM	3,953	3,487	-466
	Wilshire Boulevard	PM	4,467	4,101	-366
18.	Figueroa Street at	AM	3,559	3,138	-421
	7th Street	PM	4,032	4,248	216
19.	Figueroa Street at	AM	4,195	4,091	-104
	James M. Wood Boulevard/9th Street	PM	3,610	3,474	-136
<b>Subtotal:</b>			<b>126,917</b>	<b>113,017</b>	<b>-13,900</b>
<b>Change Percentages:</b>					<b>-11.0%</b>

**Existing With Project Analysis**

We have prepared a supplemental “Sunnyvale” case traffic impact analysis, of project impacts under existing conditions. The purpose of this analysis is to study the project impacts under current, existing physical conditions to determine if any significant project traffic impacts would occur, which are not already identified for the future conditions. This supplemental analysis utilizes information in the approved traffic report, as presented below, and verifies that the October 2008 report discloses all significant traffic impacts.

The existing Levels of Service (LOS) for the study intersections were determined using the standard Critical Movement Analysis (CMA) methodology of LADOT. Combining the Project traffic volumes with the “Existing (2008) Condition” traffic volumes resulted in the “Existing (2008) Condition + Project-Only” traffic volumes at the study intersections, as shown in Figures 4(a) and 4(b) of Appendix A, respectively. The CMA methodology used in the October 2008 study was again used to analyze these combined volumes, with the results shown in Table 5. The Existing + Project Condition CMA worksheets are included in Appendix C.

The traffic impacts of the Project were determined by comparing the Existing Plus Project Condition CMA values with the Existing Condition CMA values. The significance of each impact was determined by using LADOT’s standard criteria.

**Table 5**  
**“Sunnyvale” Analysis**  
**Existing (2008) Condition CMA and LOS Summary**  
**Without and With Project**

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	<u>Existing</u>		<u>Existing Plus Project</u>		
			<u>CMA</u>	<u>LOS</u>	<u>CMA</u>	<u>LOS</u>	<u>Impact</u>
1.	Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street	AM	0.639	B	0.642	B	0.003
		PM	0.736	C	0.740	C	0.004
2.	Lucas Avenue at 3rd Street	AM	0.883	D	0.885	D	0.002
		PM	0.728	C	0.736	C	0.008
3.	Lucas Avenue at 6th Street	AM	0.593	A	0.613	B	0.020
		PM	0.672	B	0.701	C	0.029
4.	Lucas Avenue at Wilshire Boulevard	AM	0.623	B	0.651	B	0.028
		PM	0.725	C	0.767	C	0.042 *
5.	Bixel Street at 6th Street	AM	0.741	C	0.763	C	0.022
		PM	0.797	C	0.825	D	0.028 *
6.	Bixel Street at Wilshire Boulevard	AM	0.579	A	0.605	B	0.026
		PM	0.676	B	0.705	C	0.029
7.	Bixel Street at 7th Street	AM	0.725	C	0.744	C	0.019
		PM	0.885	D	0.896	D	0.011
8.	Bixel Street/SR-110 Southbound On-Ramp at 8th Street	AM	0.403	A	0.412	A	0.009
		PM	0.431	A	0.437	A	0.006
9.	Beaudry Avenue at at 1st Street	AM	0.641	B	0.641	B	0.000
		PM	0.941	E	0.943	E	0.002
10.	Beaudry Avenue at at 2nd Street	AM	0.836	D	0.837	D	0.001
		PM	0.935	E	0.939	E	0.004
11.	Beaudry Avenue at the SR-110 Southbound Off-Ramp	AM	0.583	A	0.583	A	0.000
		PM	0.517	A	0.518	A	0.001

**Table 5 (continued)**  
**“Sunnyvale” Analysis**  
**Existing (2008) Condition CMA and LOS Summary**  
**Without and With Project**

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	<u>Existing</u>		<u>Existing Plus Project</u>		
			<u>CMA</u>	<u>LOS</u>	<u>CMA</u>	<u>LOS</u>	<u>Impact</u>
12.	Beaudry Avenue at Miramar Street/3rd Street	AM	0.768	C	0.769	C	0.001
		PM	0.525	A	0.527	A	0.002
13.	Beaudry Avenue at 5th Street/6th Street	AM	0.559	A	0.578	A	0.019
		PM	0.621	B	0.634	B	0.013
14.	Beaudry Avenue at Wilshire Boulevard	AM	0.597	A	0.610	B	0.013
		PM	0.418	A	0.440	A	0.022
15.	Figueroa Street at 5th Street	AM	0.363	A	0.364	A	0.001
		PM	0.495	A	0.497	A	0.002
16.	Figueroa Street at 6th Street	AM	0.485	A	0.488	A	0.003
		PM	0.564	A	0.571	A	0.007
17.	Figueroa Street at Wilshire Boulevard	AM	0.525	A	0.529	A	0.004
		PM	0.653	B	0.668	B	0.015
18.	Figueroa Street at 7th Street	AM	0.491	A	0.491	A	0.000
		PM	0.581	A	0.583	A	0.002
19.	Figueroa Street at James M. Wood Boulevard/9th Street	AM	0.525	A	0.525	A	0.000
		PM	0.447	A	0.450	A	0.003

\* Indicates a significant project impact, prior to mitigation.

As shown in Table 5 for the “Sunnyvale” analysis, two study intersections would be significantly impacted by the project if no roadway improvements or cumulative traffic growth is included under the existing (2008) conditions. These same two intersections would be significantly impacted by project traffic under Future (2012) conditions in the October 2008 traffic study.

### **Future With Project Analysis**

A list of related projects was obtained from LADOT in May 2011 and compared to the October 2008 traffic study. As contained in Appendix D, a related project trip generation table based on the new LADOT related projects list has been prepared. As summarized in Table 6, the updated related projects generate fewer trips than those in the October 2008 traffic study.

**Table 6  
 Related Projects Trip Generation Comparison**

	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
October 2008 Traffic Study	399,238	13,117	12,379	25,496	17,447	14,197	31,644
2011 Updated Related Projects	<u>309,111</u>	<u>11,797</u>	<u>11,202</u>	<u>22,999</u>	<u>15,409</u>	<u>12,304</u>	<u>27,713</u>
Changes	-90,127	-1,320	-1,177	-2,497	-2,038	-1,893	-3,931

The Farmers Field stadium project has also been proposed recently in the Downtown area close to Staples Center. The stadium project includes replacing the existing Convention Center West Hall and building a new football stadium. At the present time, quantitative information is not available on the number of events, size of events and schedule of the proposed stadium, and quantitative and scheduling assumptions would be speculative. However, it is known that, unlike other related projects generating foreseeable and regular AM and PM period peak trips, Farmers Field stadium will operate only intermittently during the year with the vast majority of stadium events taking place on weekends, outside of the weekday AM and PM peak period traffic study periods for which related project impacts are being assessed. The Farmers Field stadium project does not yet have commitments for any new or relocated NFL team tenants and is not likely to be built unless a team is located and NFL approval is granted. When or if this may occur is not known, but it is likely that the stadium will not be built until after the proposed project's build-out year, which is 2015.

For all of these reasons, a quantitative analysis of the Farmers Field project during AM and PM weekday periods are not included. Nevertheless, it is acknowledged that, although the Bixel & Lucas project is separated from Farmers Field by the Harbor Freeway and is not on any direct access routes to or from Farmers Field, arrival and departure traffic from the stadium (which could occur during or outside of peak period depending on game and television schedules) may cause significant unavoidable cumulative impacts at area intersections, on freeway and freeway ramps, and on public transportation in the project vicinity. These potential impacts, as well as measures to mitigate them, will be studied in the Farmers Field project traffic study when it is prepared.<sup>1</sup>

Based upon the CMA analysis results in the October 2008 traffic study, the project will significantly impact five of the study intersections before any mitigation measures. The CMA calculation table for the future conditions from the October 2008 traffic study is included in

<sup>1</sup> CEQA permits a qualitative, as opposed to detailed quantitative, assessment of cumulative impacts in appropriate circumstances, including circumstances where quantitative analysis is not reasonably available, and where reasonable efforts to disclose potential cumulative impacts are made. See e.g., Al Larson Boat Shop v. Board of Harbor Commissioners, 18 Cal.App.4th 729, 749 (1993); Fairview Neighbors v. County of Ventura, 70 Cal.App.4th 238 (1999).

Appendix E. These five study intersections expected to experience a significant project impact are listed below:

- Lucas Avenue and 6<sup>th</sup> Street
- Lucas Avenue and Wilshire Boulevard
- Bixel Street and 6<sup>th</sup> Street
- Bixel Street and Wilshire Boulevard
- Bixel Street and 7<sup>th</sup> Street

Recommended improvement measures to address these significant impacts are described in the October 2008 traffic study, and their effectiveness analyzed, in the Mitigation Measures section of the October 2008 traffic study. These measures are outlined in the following section.

### **Mitigation Measures**

Mitigation measures were considered in the October 2008 traffic study for those locations where there would be significant project traffic impacts. This set of mitigation measures for this project was refined and approved in the November 13, 2008 LADOT letter. Those measures are:

Lucas Avenue at Wilshire Boulevard – The project proposes to widen and restripe the westbound approach on Wilshire Boulevard in order to provide a right-turn lane. Overall, the westbound approach would provide a shared left-turn/through lane, a through lane, and a right-turn lane. This improvement may require that the bus zone along the north side of Wilshire Boulevard be relocated to the far side (west leg) of the intersection and/or parking restrictions to be imposed. Also, modifications and/or upgrades to the traffic signal equipment may be necessary. This improvement would mitigate the project's traffic impact at this intersection to a level of insignificance.

Bixel Street at 6th Street – The project proposes to widen and restripe 6th Street in order to accommodate an eastbound right-turn lane at this intersection. Overall, the eastbound approach would be configured to provide one left-turn lane, two through lanes and a right turn lane on 6th Street. Modifications and/or upgrades to the existing traffic signal equipment may be necessary. This improvement would mitigate the project's traffic impact at this intersection to a level of insignificance. The conceptual plan of this mitigation measure is found in Appendix F.

Bixel Street at Wilshire Boulevard – The project proposes to widen Bixel Street north of Wilshire Boulevard and to restripe the northbound approach in order to accommodate an additional northbound through travel lane. The additional northbound lane, which would be carried through to 6th Street (see Attachment 4), would require the loss of on-street parking along the east side of Bixel Street between 6th Street and Wilshire Boulevard. Based on future traffic demands projected along this roadway, which includes traffic from this and other proposed

developments, it is expected that the additional through lane would be beneficial to traffic flow.

However, to defer the loss of parking until traffic demands warrant the second northbound through lane, this mitigation measure should be implemented in two phases. First, to satisfy their mitigation requirement, the applicant should widen Bixel Street, as illustrated in the attached drawing, and modify or upgrade the traffic signal equipment as necessary. Then, on-street parking along the east side of Bixel Street between 6th Street and Wilshire Boulevard would be restricted and the roadway would be restriped to provide a second northbound through lane. However, this second step would not be considered until traffic demands reveal the need for added roadway capacity. Should the second step be pursued, the loss of on-street parking along this segment is expected to be temporary, as the ultimate roadway dimension of Bixel Street would accommodate two lanes in each direction and on-street parking.

Two intersections would be significantly impacted by the project considering only existing and project traffic. The effectiveness of the mitigation measures at those two intersections is shown in Table 7. The CMA calculation sheets are included in Appendix C. As shown in Table 7, implementation of the mitigation measures identified above would reduce the project traffic impacts to a less than significant level at the these two study intersections which would be significantly impacted by the project under existing conditions.

**Table 7**  
**Critical Movement Analysis (CMA) Summary**  
**Existing (2008) Without and With Project Mitigation Measures**

<u>No.</u>	<u>Intersection</u>	<u>Peak Hour</u>	<u>Existing Without</u>		<u>Existing Plus Project</u>					
			<u>CMA</u>	<u>LOS</u>	<u>Without Mitigation</u>			<u>With Mitigation</u>		
					<u>CMA</u>	<u>LOS</u>	<u>Impact</u>	<u>CMA</u>	<u>LOS</u>	<u>Impact</u>
4.	Lucas Avenue at Wilshire Boulevard	AM	0.623	B	0.651	B	0.028	0.599	A	-0.024
		PM	0.725	C	0.767	C	0.042 *	0.700	B	-0.025
5.	Bixel Street at 6th Street	AM	0.741	C	0.763	C	0.022	0.665	B	-0.076
		PM	0.797	C	0.825	D	0.028 *	0.759	C	-0.038

\* Indicates a significant project impact, prior to mitigation.

As shown in Table 11 of the October 2008 traffic study for the future conditions, implementation of the recommended mitigation measure improvements would reduce the current project's traffic impacts at the three significantly impacted intersections to less than significant levels: Lucas Avenue and Wilshire Boulevard, Bixel Street and 6<sup>th</sup> Street and Bixel Street and Wilshire Boulevard. The CMA summary table for the future without and with project mitigation measures is included in Appendix E.

Due to right-of-way constraints, geometric design limitations, and potential secondary adverse impacts, no feasible and effective traffic mitigations were developed to reduce the project-related traffic impacts to a level of insignificance at two of the impacted intersections. Therefore, the traffic impact at the following intersections would remain significant and unmitigated:

Lucas Avenue at 6th Street – Improvements to the Lucas Avenue north and south legs of this intersection were investigated which could be implemented in order to mitigate the project's traffic impact to a less than significant level. However, on the north leg, this would result in loss of on-street parking and substandard lane widths that may not provide sufficient clearance and turning radius for trucks. Also, the physical improvement on the south leg is limited by the existing right-of-way on the west side of the roadway due to the historical building at the southeast corner of the intersection. Therefore, the project impact at this intersection would remain significant and unmitigated.

Bixel Street at 7th Street – Several improvements to the Bixel Street north and south legs of this intersection were investigated in order to mitigate the project's traffic impact to a less than significant level. However, meaningful traffic flow improvements at this intersection are limited along the west side of Bixel Street due to right-of-way constraints and the substandard geometry of the intersection. The proposed improvements could have the secondary adverse impact of additional delays and longer queues on Bixel Street and the Harbor Freeway southbound on-ramp. Therefore, the project impact at this intersection would remain significant and unmitigated.

#### Findings/Conclusions

The trip generation for the currently proposed project will be lower than the project analyzed in the October 2008 traffic study. Counts of the existing (2011) traffic volumes demonstrate that the study area existing traffic volumes have not grown. The 2011 related projects showed lower trip generation levels than the October 2008 traffic study. Therefore, the October 2008 traffic study is considered conservative and valid.

We have prepared a supplemental "Sunnyvale" case traffic impact analysis, of project impacts under existing conditions. This additional analysis is needed to address the California Sixth District Court of Appeal, in the case of *Sunnyvale West Neighborhood Association v. City of Sunnyvale City Council*, (the "Sunnyvale" case), which recently determined that a project must be compared "against current, existing physical conditions." This supplemental analysis utilizes information in the approved traffic report and has determined that the project traffic would significantly impact two of the previously identified five intersections in the October 2008 traffic study. The traffic impacts at these two study intersections under the existing conditions would



Letter to Mr. Tomas Carranza  
June 23, 2011  
Page 12

be mitigated to less than significant levels with the mitigation measures identified in the October 2008 traffic study.

As concluded in the October 2008 traffic study, three out of five significantly impacted intersections under future conditions would be mitigated with the mitigation measures proposed in the October 2008 traffic study, and the other two significantly impacted intersections would remain significant and unmitigated.

Sincerely,



George Rhyner  
Senior Transportation Engineer

GR:hs  
C20222  
JB19084  
attachments

**APPENDIX A**  
**FIGURES**

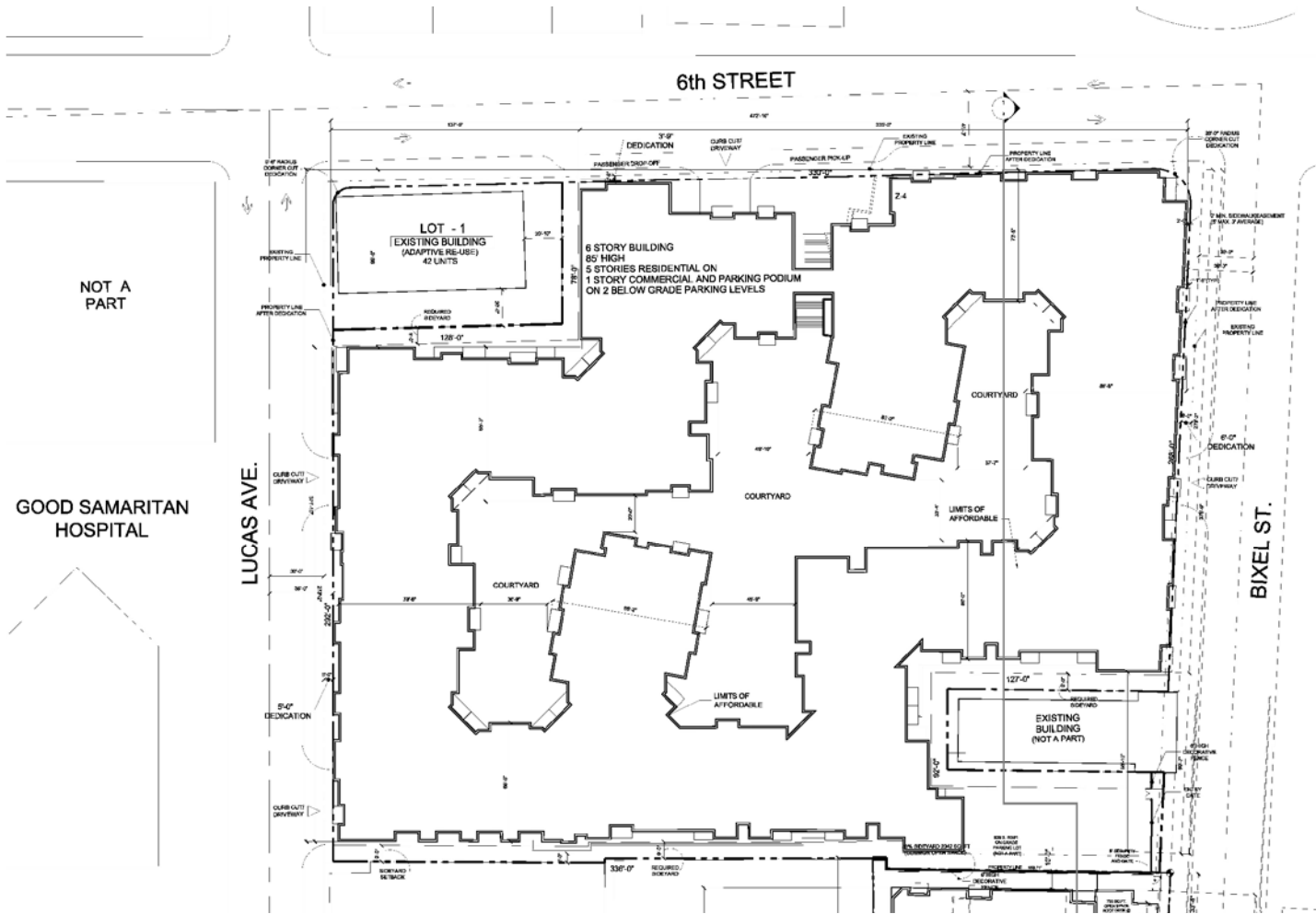


FIGURE 1

6/9/2011

FN: GOOD SAMARITAN SITE WILSHIRE SITEPLAN

# PROJECT SITE PLAN



Transportation Planning  
Traffic Engineering  
300 Corporate Pointe, Suite 470  
Culver City, California 90230  
PH (310) 473 6508 F (310) 444 9771  
www.crainandassociates.com

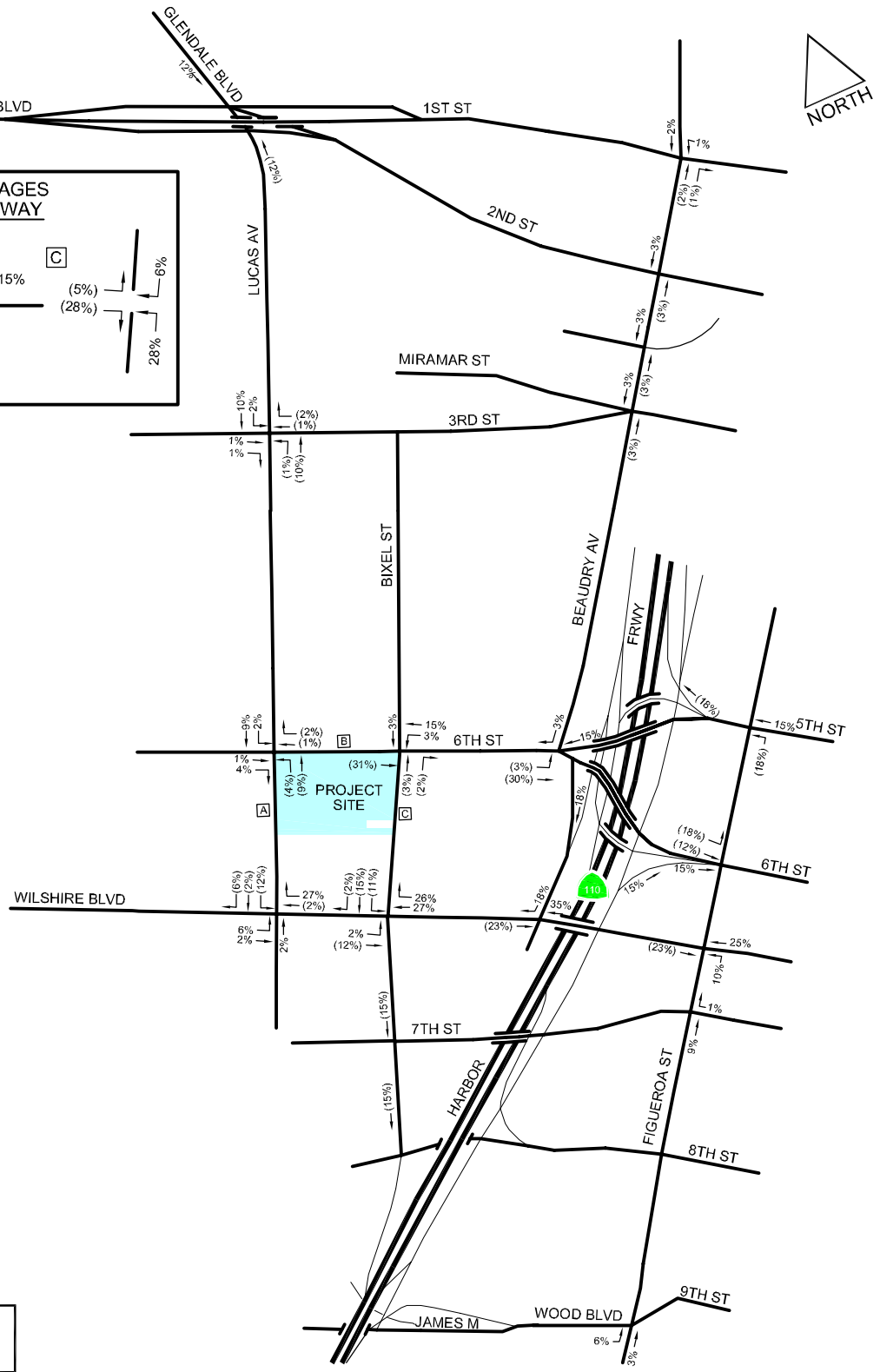
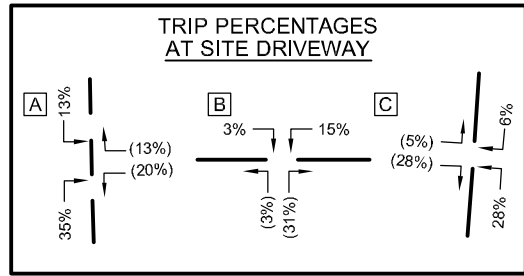


FIGURE 2

6/9/2011

FN: GOOD SAMARTAN SITE WILSHIRE PROJ-DIST

PROJECT TRIP DISTRIBUTION PERCENTAGES

**CA CRAIN** & **ASSOCIATES**  
 Transportation Planning  
 Traffic Engineering  
 300 Corporate Pointe, Suite 470  
 Culver City, California 90230  
 PH (310) 473 6508 F (310) 444 9771  
 www.crainandassociates.com

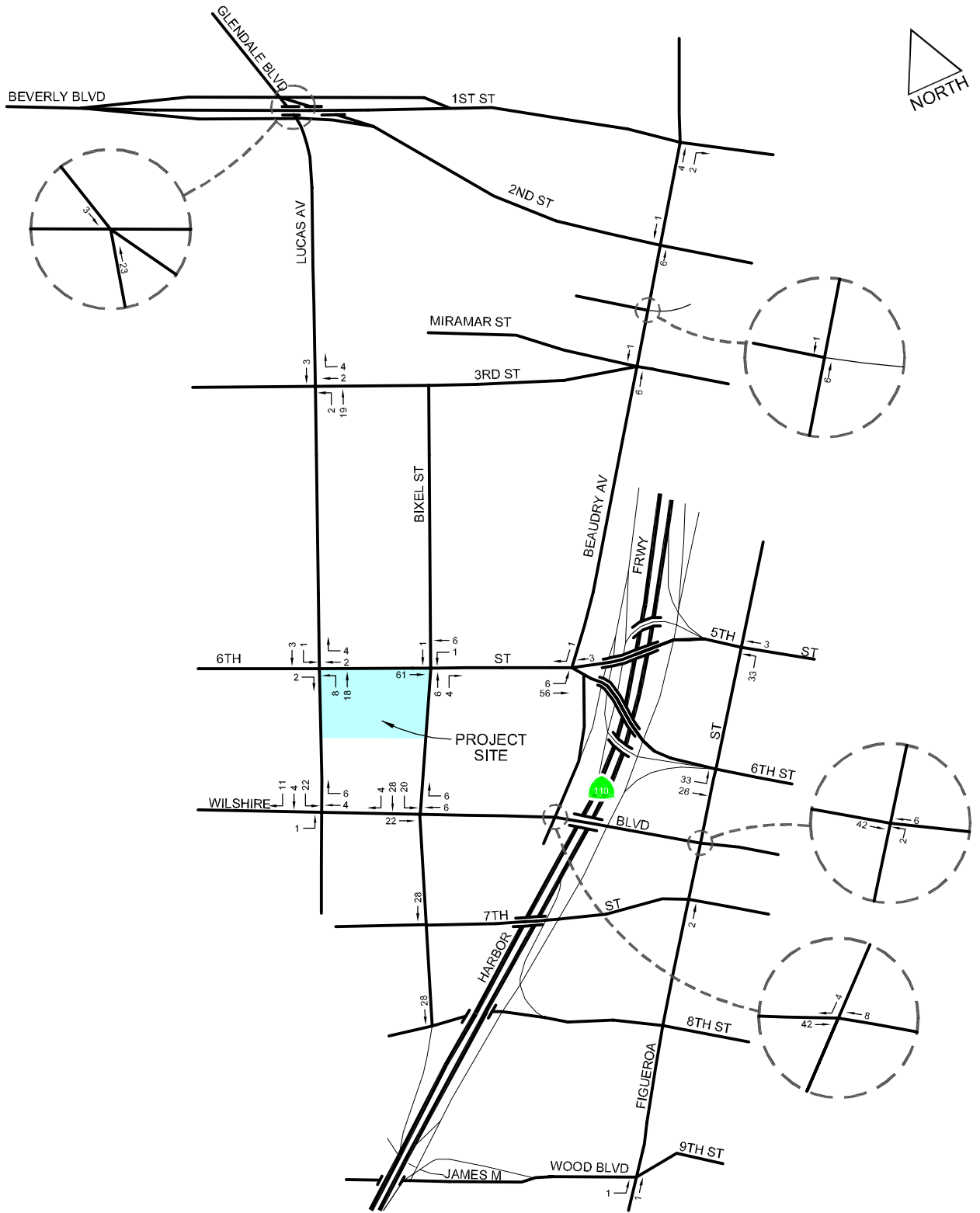


FIGURE 3(a)

6/7/2011

Good Samaritan Site Wilshire(2011-05)AMPRJ

PROJECT TRAFFIC VOLUMES (NET)  
AM PEAK HOUR



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Culver City, California 90230  
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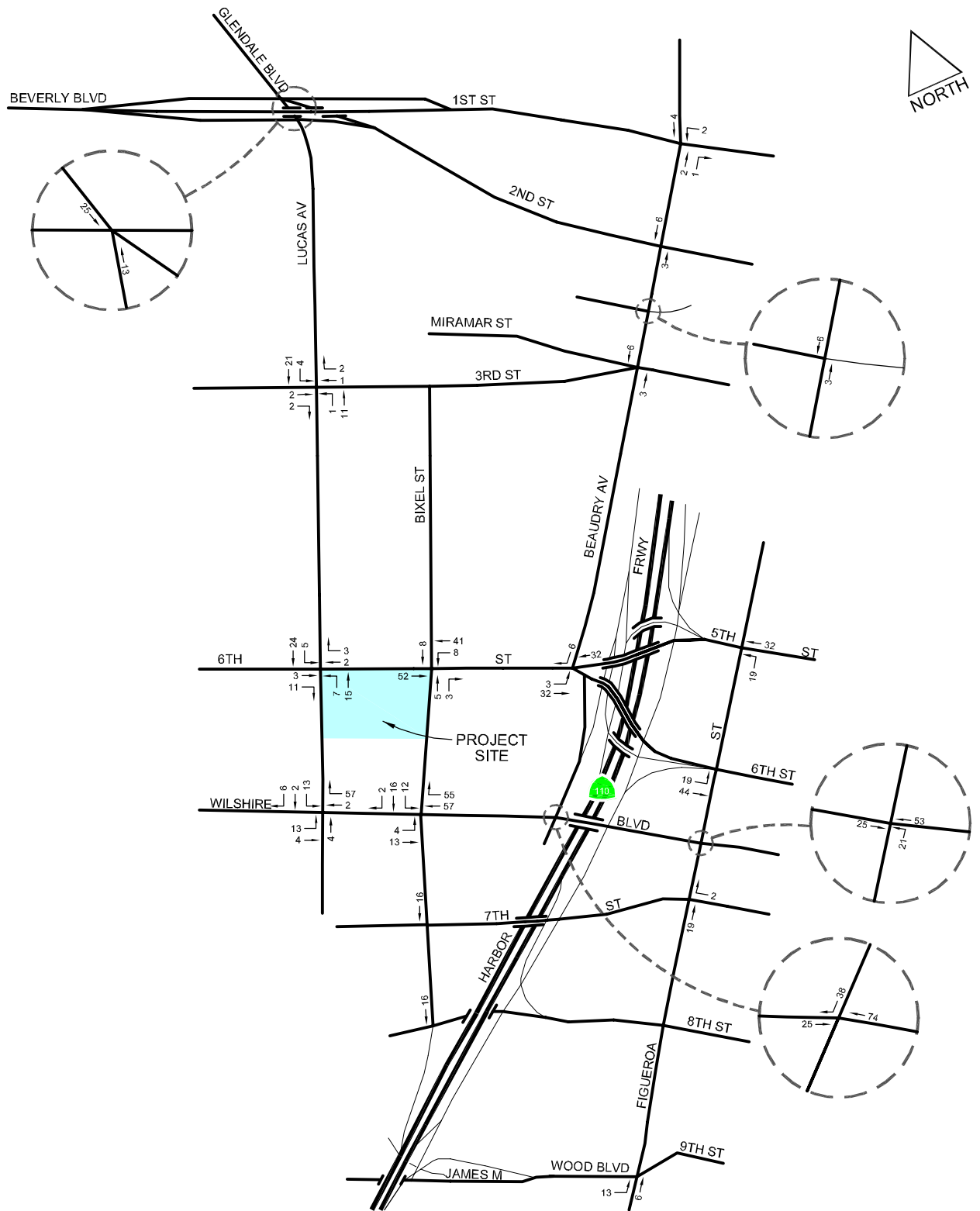


FIGURE 3(b)

6/7/2011

Good Samaritan Site Wilshire(2011-05)PMPRJ

PROJECT TRAFFIC VOLUMES (NET)  
PM PEAK HOUR



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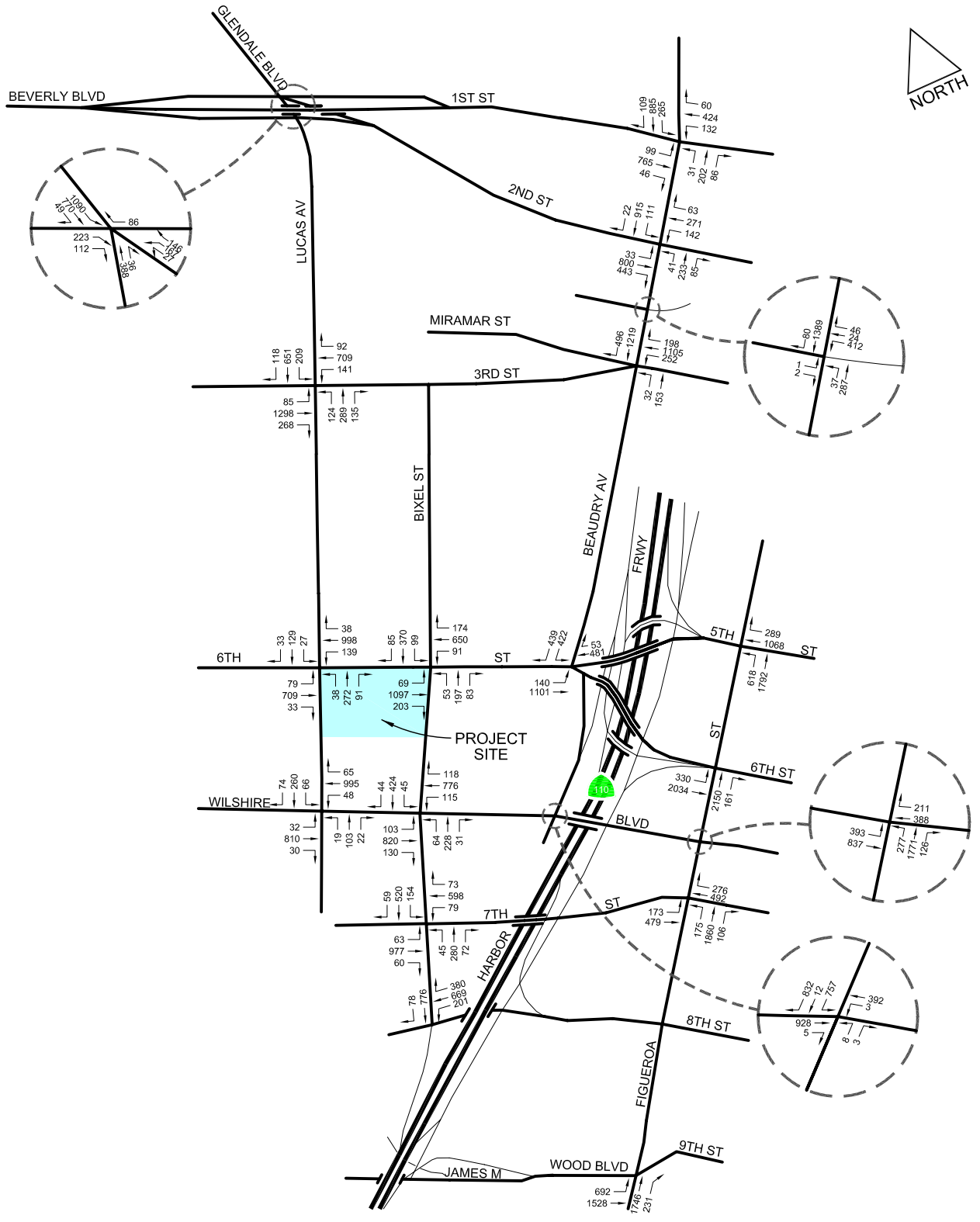


FIGURE 4(a)

6/7/2011

Good Samaritan Site Wilshire\2011-05\AM2008WP

**EXISTING (2008) TRAFFIC VOLUMES  
WITH PROJECT  
AM PEAK HOUR**



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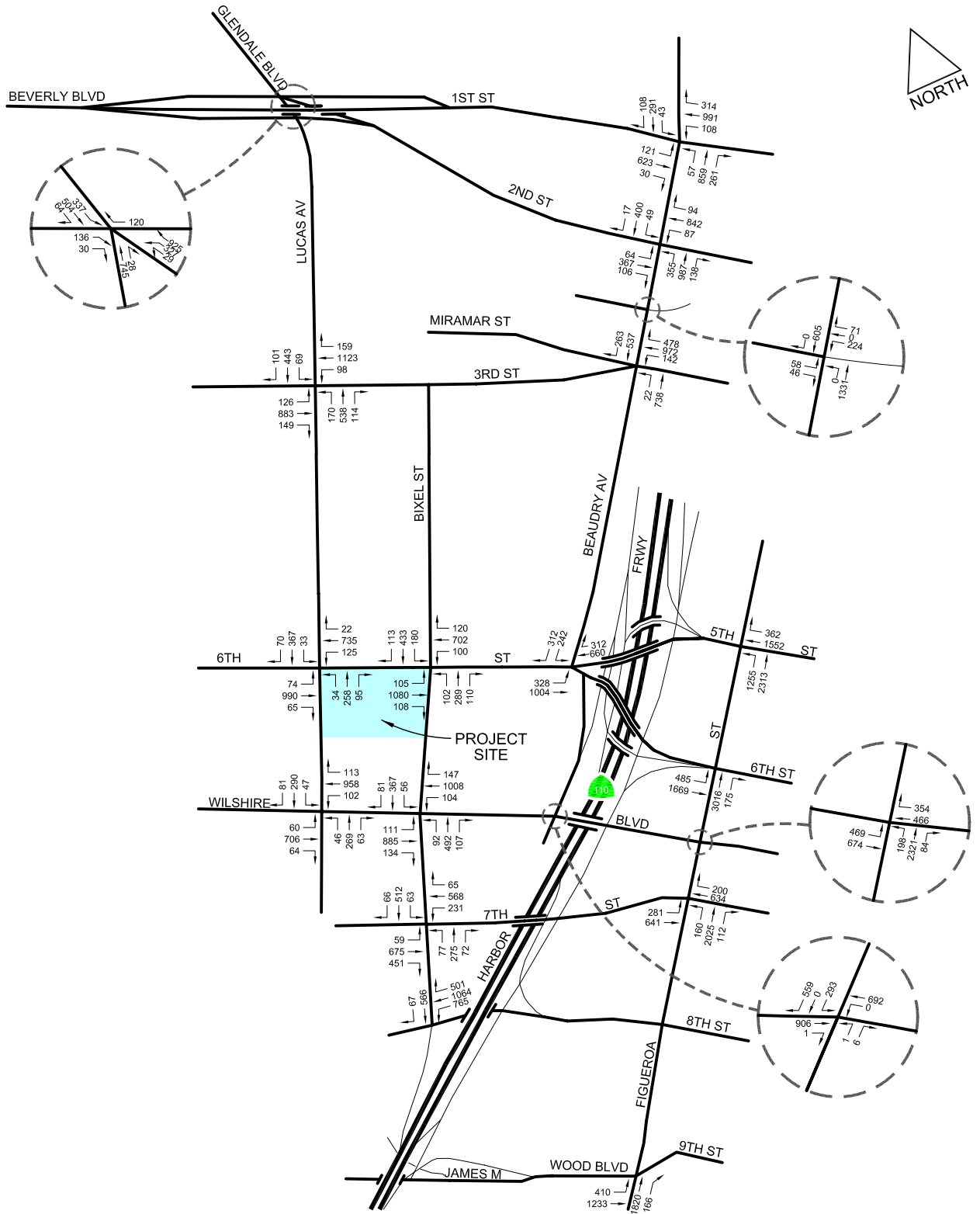


FIGURE 4(b)

6/7/2011

Good Samaritan Site Wilshire(2011-05)PM2008WP

EXISTING (2008) TRAFFIC VOLUMES  
WITH PROJECT  
PM PEAK HOUR



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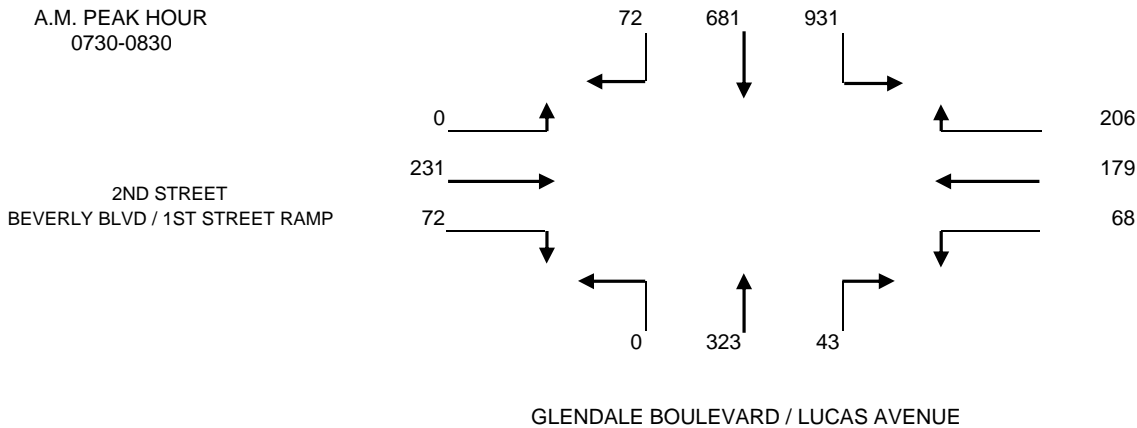
**APPENDIX B**  
**EXISTING TRAFFIC VOLUMES**

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S GLENDALE BOULEVARD / LUCAS AVENUE  
 E/W 2ND STREET - BEVERLY BOULEVARD / 1ST STREET RAMP  
 FILE NUMBER: 1-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	10	142	259	39	25	3	8	63	0	8	37	0
0715-0730	10	163	217	36	22	4	12	70	0	15	49	0
0730-0745	17	181	235	42	35	10	10	87	0	16	53	0
0745-0800	18	171	233	59	40	15	13	88	0	17	61	0
0800-0815	18	167	241	53	54	29	10	79	0	20	66	0
0815-0830	19	162	222	52	50	14	10	69	0	19	51	0
0830-0845	11	168	235	49	25	8	9	50	0	15	55	0
0845-0900	11	167	222	39	27	6	6	33	0	14	52	0
0900-0915	12	148	215	52	22	5	5	49	0	13	58	0
0915-0930	12	137	202	36	28	7	6	43	0	12	45	0
0930-0945	9	131	195	62	25	5	6	47	0	12	38	0
0945-1000	17	115	198	58	20	6	7	41	0	13	40	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	55	657	944	176	122	32	43	308	0	56	200	0	2593
0715-0815	63	682	926	190	151	58	45	324	0	68	229	0	2736
0730-0830	72	681	931	206	179	68	43	323	0	72	231	0	2806
0745-0845	66	668	931	213	169	66	42	286	0	71	233	0	2745
0800-0900	59	664	920	193	156	57	35	231	0	68	224	0	2607
0815-0915	53	645	894	192	124	33	30	201	0	61	216	0	2449
0830-0930	46	620	874	176	102	26	26	175	0	54	210	0	2309
0845-0945	44	583	834	189	102	23	23	172	0	51	193	0	2214
0900-1000	50	531	810	208	95	23	24	180	0	50	181	0	2152

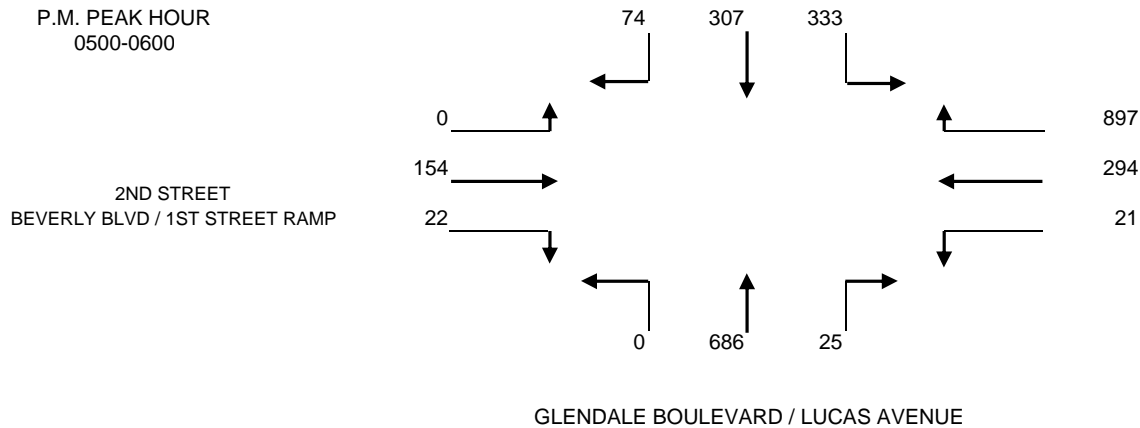


# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: CITY OF LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 03:00 PM TO 06:00 PM  
 INTERSECTION: N/S GLENDALE BOULEVARD / LUCAS AVENUE  
 E/W 2ND STREET - BEVERLY BOULEVARD / 1ST STREET RAMP  
 FILE NUMBER: 1-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	23	66	64	118	42	9	14	94	0	5	32	0
0315-0330	18	74	56	162	38	8	11	137	0	12	49	0
0330-0345	11	70	70	160	46	9	9	110	0	8	38	0
0345-0400	18	67	68	158	32	3	9	139	0	4	25	0
0400-0415	13	64	80	167	32	2	10	141	0	6	27	0
0415-0430	19	80	76	233	39	4	5	159	0	4	37	0
0430-0445	18	84	86	188	49	6	5	177	0	7	22	0
0445-0500	11	78	79	206	44	1	6	179	0	5	40	0
0500-0515	20	80	86	200	58	7	7	183	0	7	30	0
0515-0530	23	68	93	259	88	7	6	170	0	6	43	0
0530-0545	17	80	72	206	75	4	6	164	0	3	44	0
0545-0600	14	79	82	232	73	3	6	169	0	6	37	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0300-0400	70	277	258	598	158	29	43	480	0	29	144	0	2086
0315-0415	60	275	274	647	148	22	39	527	0	30	139	0	2161
0330-0430	61	281	294	718	149	18	33	549	0	22	127	0	2252
0345-0445	68	295	310	746	152	15	29	616	0	21	111	0	2363
0400-0500	61	306	321	794	164	13	26	656	0	22	126	0	2489
0415-0515	68	322	327	827	190	18	23	698	0	23	129	0	2625
0430-0530	72	310	344	853	239	21	24	709	0	25	135	0	2732
0445-0545	71	306	330	871	265	19	25	696	0	21	157	0	2761
0500-0600	74	307	333	897	294	21	25	686	0	22	154	0	2813



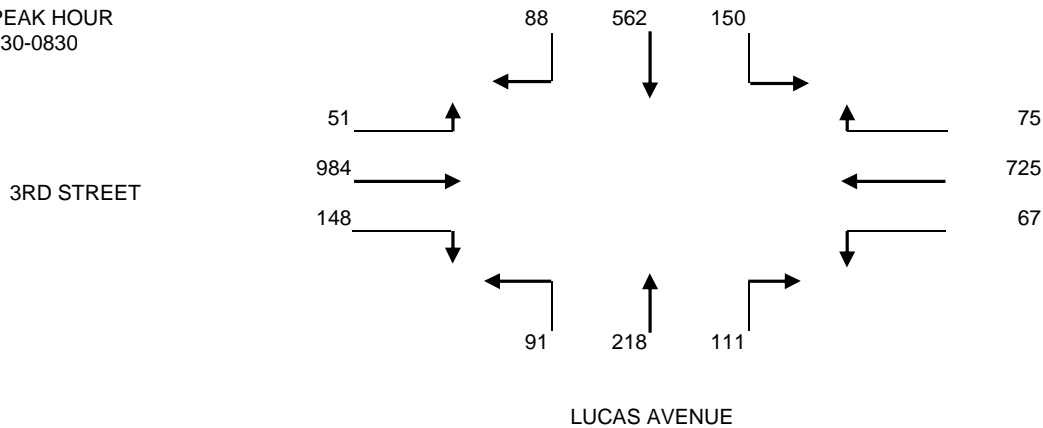
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S LUCAS AVENUE  
 E/W 3RD STREET  
 FILE NUMBER: 2-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	14	106	23	16	163	12	4	30	8	16	139	8
0715-0730	17	117	35	19	193	15	10	38	16	26	179	10
0730-0745	22	128	28	22	190	17	21	68	22	37	224	12
0745-0800	29	158	35	23	180	19	43	68	28	45	249	11
0800-0815	22	149	39	19	174	12	33	47	29	39	255	12
0815-0830	15	127	48	11	181	19	14	35	12	27	256	16
0830-0845	19	107	42	12	184	18	11	23	7	17	246	15
0845-0900	17	115	46	8	184	14	8	23	8	18	234	12
0900-0915	13	111	49	14	150	17	8	32	10	12	174	10
0915-0930	10	105	37	10	174	11	8	27	8	15	189	8
0930-0945	17	81	30	18	162	17	7	26	11	11	157	10
0945-1000	13	97	25	14	166	18	5	21	7	9	153	13

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	82	509	121	80	726	63	78	204	74	124	791	41	2893
0715-0815	90	552	137	83	737	63	107	221	95	147	907	45	3184
0730-0830	88	562	150	75	725	67	111	218	91	148	984	51	3270
0745-0845	85	541	164	65	719	68	101	173	76	128	1006	54	3180
0800-0900	73	498	175	50	723	63	66	128	56	101	991	55	2979
0815-0915	64	460	185	45	699	68	41	113	37	74	910	53	2749
0830-0930	59	438	174	44	692	60	35	105	33	62	843	45	2590
0845-0945	57	412	162	50	670	59	31	108	37	56	754	40	2436
0900-1000	53	394	141	56	652	63	28	106	36	47	673	41	2290

A.M. PEAK HOUR  
0730-0830



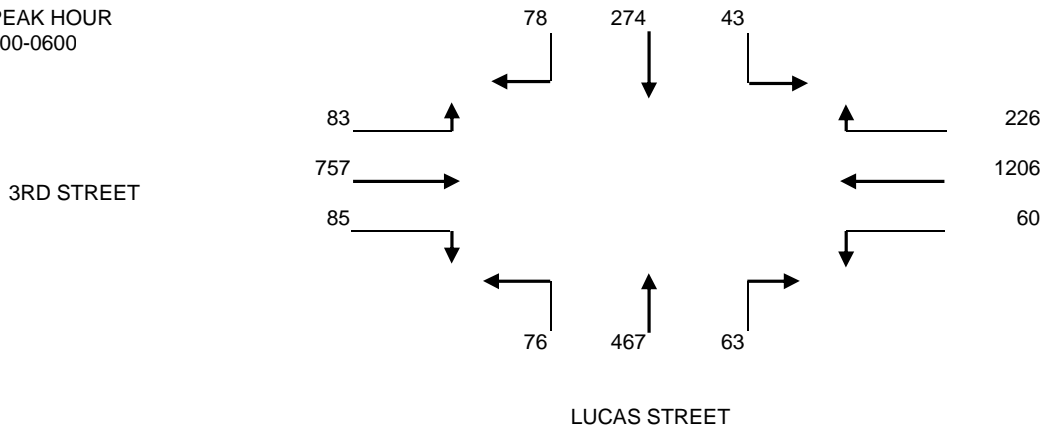
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: CITY OF LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 03:00 PM TO 06:00 PM  
 INTERSECTION: N/S LUCAS STREET  
 E/W 3RD STREET  
 FILE NUMBER: 2-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	23	55	17	25	207	19	18	94	24	36	137	17
0315-0330	21	74	13	35	184	17	14	97	25	25	122	20
0330-0345	16	55	19	30	183	19	12	81	19	23	160	22
0345-0400	21	58	15	42	208	15	10	90	12	16	175	19
0400-0415	15	74	19	54	232	13	10	101	17	14	173	19
0415-0430	18	61	14	56	241	8	15	103	16	12	169	15
0430-0445	19	74	18	58	214	12	11	113	19	19	164	22
0445-0500	15	74	15	66	260	13	12	112	16	17	177	25
0500-0515	13	60	10	56	299	10	16	121	19	20	194	20
0515-0530	17	66	12	66	285	14	14	118	16	24	204	20
0530-0545	25	74	10	50	321	19	15	115	24	20	180	22
0545-0600	23	74	11	54	301	17	18	113	17	21	179	21

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0300-0400	81	242	64	132	782	70	54	362	80	100	594	78	2639
0315-0415	73	261	66	161	807	64	46	369	73	78	630	80	2708
0330-0430	70	248	67	182	864	55	47	375	64	65	677	75	2789
0345-0445	73	267	66	210	895	48	46	407	64	61	681	75	2893
0400-0500	67	283	66	234	947	46	48	429	68	62	683	81	3014
0415-0515	65	269	57	236	1014	43	54	449	70	68	704	82	3111
0430-0530	64	274	55	246	1058	49	53	464	70	80	739	87	3239
0445-0545	70	274	47	238	1165	56	57	466	75	81	755	87	3371
0500-0600	78	274	43	226	1206	60	63	467	76	85	757	83	3418

P.M. PEAK HOUR  
0500-0600



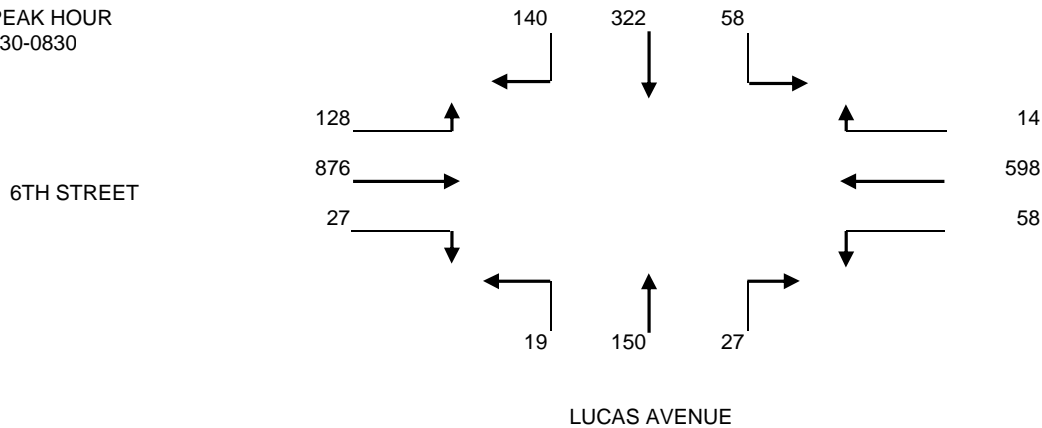
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S LUCAS AVENUE  
 E/W 6TH STREET  
 FILE NUMBER: 3-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	24	50	16	1	128	10	5	15	2	4	160	19
0715-0730	32	72	10	3	151	10	4	23	2	8	197	21
0730-0745	38	78	16	4	155	18	6	49	3	4	205	35
0745-0800	37	75	19	2	161	12	6	51	5	7	223	32
0800-0815	39	88	12	3	150	14	5	30	7	10	232	39
0815-0830	26	81	11	5	132	14	10	20	4	6	216	22
0830-0845	26	78	11	3	130	10	7	21	6	9	184	15
0845-0900	27	80	11	6	122	20	13	22	7	10	172	20
0900-0915	21	63	14	6	101	29	9	20	13	12	150	24
0915-0930	25	65	17	6	103	23	11	21	6	19	137	26
0930-0945	34	54	14	3	104	33	12	26	9	19	129	23
0945-1000	25	47	19	5	112	33	15	17	7	23	121	17

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	131	275	61	10	595	50	21	138	12	23	785	107	2208
0715-0815	146	313	57	12	617	54	21	153	17	29	857	127	2403
0730-0830	140	322	58	14	598	58	27	150	19	27	876	128	2417
0745-0845	128	322	53	13	573	50	28	122	22	32	855	108	2306
0800-0900	118	327	45	17	534	58	35	93	24	35	804	96	2186
0815-0915	100	302	47	20	485	73	39	83	30	37	722	81	2019
0830-0930	99	286	53	21	456	82	40	84	32	50	643	85	1931
0845-0945	107	262	56	21	430	105	45	89	35	60	588	93	1891
0900-1000	105	229	64	20	420	118	47	84	35	73	537	90	1822

A.M. PEAK HOUR  
0730-0830



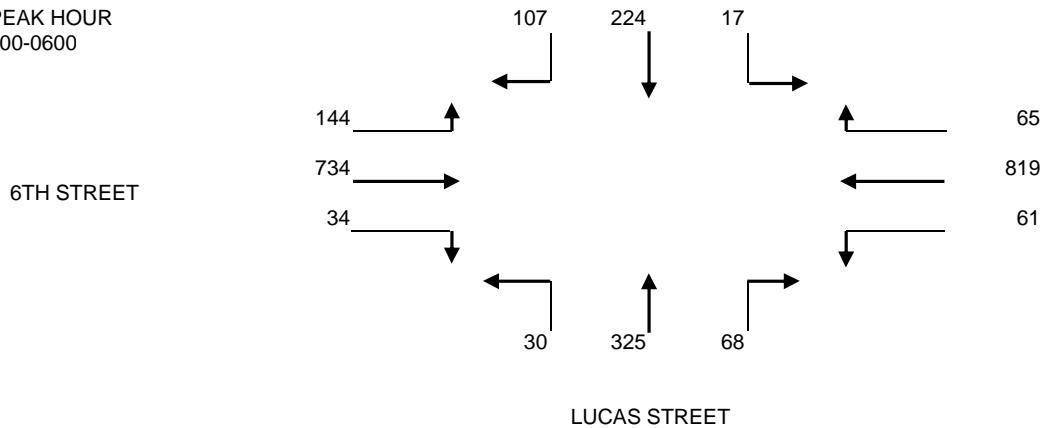
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: CITY OF LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 03:00 PM TO 06:00 PM  
 INTERSECTION: N/S LUCAS STREET  
 E/W 6TH STREET  
 FILE NUMBER: 3-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	16	47	6	8	95	14	13	57	8	11	138	27
0315-0330	26	54	9	5	99	10	12	66	6	10	143	39
0330-0345	22	59	7	8	111	10	12	77	4	5	155	39
0345-0400	18	47	8	6	136	14	19	64	7	10	141	30
0400-0415	16	53	4	10	140	14	16	63	10	9	175	32
0415-0430	13	55	6	8	137	11	18	61	9	12	162	45
0430-0445	19	67	4	12	124	11	16	70	12	9	180	35
0445-0500	25	52	5	14	160	13	22	93	8	9	158	45
0500-0515	23	57	4	16	197	14	17	78	7	12	199	44
0515-0530	26	53	5	16	177	14	20	81	6	6	175	31
0530-0545	30	61	5	16	235	15	16	80	7	5	190	35
0545-0600	28	53	3	17	210	18	15	86	10	11	170	34

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0300-0400	82	207	30	27	441	48	56	264	25	36	577	135	1928
0315-0415	82	213	28	29	486	48	59	270	27	34	614	140	2030
0330-0430	69	214	25	32	524	49	65	265	30	36	633	146	2088
0345-0445	66	222	22	36	537	50	69	258	38	40	658	142	2138
0400-0500	73	227	19	44	561	49	72	287	39	39	675	157	2242
0415-0515	80	231	19	50	618	49	73	302	36	42	699	169	2368
0430-0530	93	229	18	58	658	52	75	322	33	36	712	155	2441
0445-0545	104	223	19	62	769	56	75	332	28	32	722	155	2577
0500-0600	107	224	17	65	819	61	68	325	30	34	734	144	2628

P.M. PEAK HOUR  
0500-0600



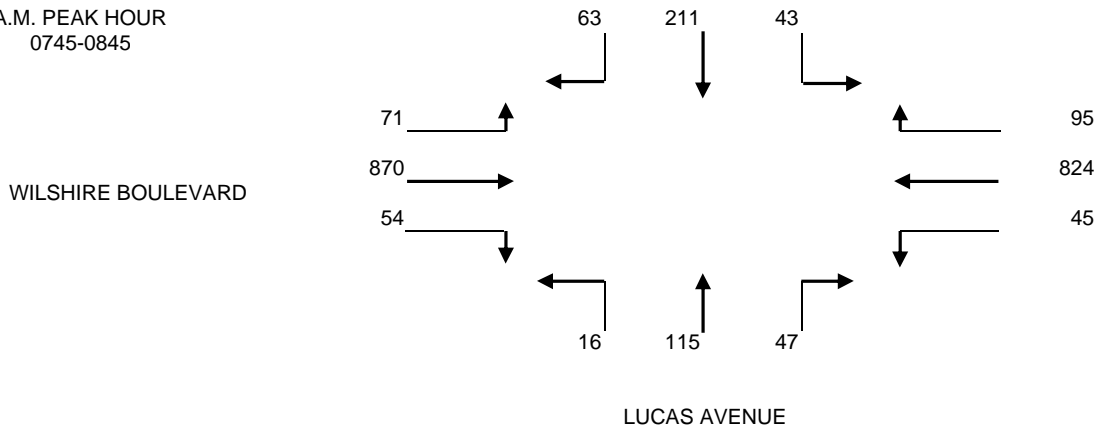
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S LUCAS AVENUE  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 4-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	14	34	6	12	117	8	8	11	2	6	84	4
0715-0730	16	45	9	18	176	6	8	22	3	6	127	8
0730-0745	14	46	12	22	190	10	11	27	8	9	196	15
0745-0800	12	48	7	20	197	8	12	35	5	12	223	18
0800-0815	15	64	12	26	227	9	14	35	2	14	206	19
0815-0830	19	50	12	22	220	11	10	21	4	12	216	15
0830-0845	17	49	12	27	180	17	11	24	5	16	225	19
0845-0900	14	56	16	20	187	13	10	32	4	13	192	12
0900-0915	15	52	27	22	171	17	7	32	7	16	168	13
0915-0930	20	62	23	24	160	16	11	21	7	10	173	9
0930-0945	19	48	24	24	160	11	14	16	7	12	159	10
0945-1000	14	49	24	20	170	9	7	19	6	9	142	7

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	56	173	34	72	680	32	39	95	18	33	630	45	1907
0715-0815	57	203	40	86	790	33	45	119	18	41	752	60	2244
0730-0830	60	208	43	90	834	38	47	118	19	47	841	67	2412
0745-0845	63	211	43	95	824	45	47	115	16	54	870	71	2454
0800-0900	65	219	52	95	814	50	45	112	15	55	839	65	2426
0815-0915	65	207	67	91	758	58	38	109	20	57	801	59	2330
0830-0930	66	219	78	93	698	63	39	109	23	55	758	53	2254
0845-0945	68	218	90	90	678	57	42	101	25	51	692	44	2156
0900-1000	68	211	98	90	661	53	39	88	27	47	642	39	2063

A.M. PEAK HOUR  
0745-0845





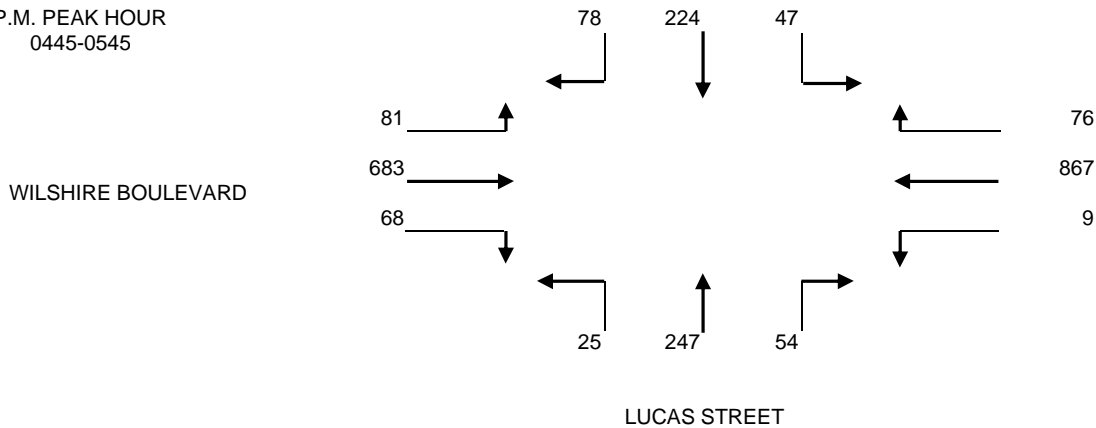
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: CITY OF LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 03:00 PM TO 06:00 PM  
 INTERSECTION: N/S LUCAS STREET  
 E/W WILSHIRE BOULEVARD  
 FILE NUMBER: 4-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	16	44	17	24	163	6	7	34	5	19	145	16
0315-0330	22	49	11	23	143	3	10	42	11	15	168	13
0330-0345	21	50	9	23	183	2	18	43	11	16	145	11
0345-0400	24	53	9	19	188	4	13	46	8	10	154	15
0400-0415	22	55	11	25	223	3	12	41	5	10	178	10
0415-0430	19	59	9	24	184	4	17	53	10	15	142	18
0430-0445	16	40	14	16	191	0	13	43	5	14	168	17
0445-0500	20	63	12	21	175	0	10	59	6	16	160	20
0500-0515	24	55	11	17	185	3	12	62	4	17	180	24
0515-0530	21	58	14	17	248	2	13	76	7	20	176	16
0530-0545	13	48	10	21	259	4	19	50	8	15	167	21
0545-0600	17	47	16	20	205	2	12	50	7	19	139	25

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0300-0400	83	196	46	89	677	15	48	165	35	60	612	55	2081
0315-0415	89	207	40	90	737	12	53	172	35	51	645	49	2180
0330-0430	86	217	38	91	778	13	60	183	34	51	619	54	2224
0345-0445	81	207	43	84	786	11	55	183	28	49	642	60	2229
0400-0500	77	217	46	86	773	7	52	196	26	55	648	65	2248
0415-0515	79	217	46	78	735	7	52	217	25	62	650	79	2247
0430-0530	81	216	51	71	799	5	48	240	22	67	684	77	2361
0445-0545	78	224	47	76	867	9	54	247	25	68	683	81	2459
0500-0600	75	208	51	75	897	11	56	238	26	71	662	86	2456

P.M. PEAK HOUR  
0445-0545



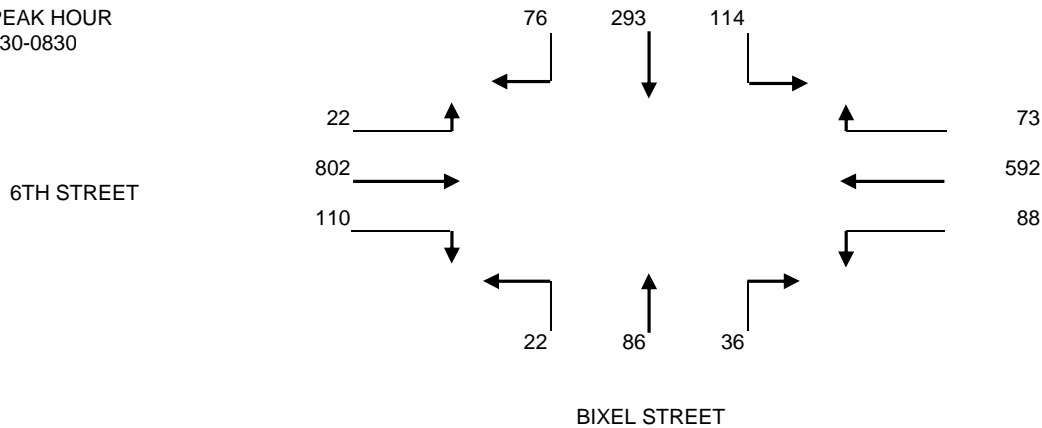
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S BIXEL STREET  
 E/W 6TH STREET  
 FILE NUMBER: 5-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	10	66	19	15	138	10	4	11	4	18	140	2
0715-0730	14	51	18	17	152	20	6	17	7	25	163	4
0730-0745	13	52	24	15	150	23	9	20	4	26	198	2
0745-0800	20	86	28	21	170	25	7	26	4	31	211	5
0800-0815	27	94	37	20	142	20	11	21	8	33	203	9
0815-0830	16	61	25	17	130	20	9	19	6	20	190	6
0830-0845	13	77	17	21	128	21	5	22	8	25	174	7
0845-0900	19	55	19	20	125	17	7	16	7	26	161	6
0900-0915	16	50	15	14	121	12	7	17	3	23	132	5
0915-0930	13	39	12	13	129	11	11	19	4	19	131	3
0930-0945	14	28	11	12	122	9	12	25	5	17	141	3
0945-1000	11	30	9	10	130	8	9	16	3	15	138	2

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	57	255	89	68	610	78	26	74	19	100	712	13	2101
0715-0815	74	283	107	73	614	88	33	84	23	115	775	20	2289
0730-0830	76	293	114	73	592	88	36	86	22	110	802	22	2314
0745-0845	76	318	107	79	570	86	32	88	26	109	778	27	2296
0800-0900	75	287	98	78	525	78	32	78	29	104	728	28	2140
0815-0915	64	243	76	72	504	70	28	74	24	94	657	24	1930
0830-0930	61	221	63	68	503	61	30	74	22	93	598	21	1815
0845-0945	62	172	57	59	497	49	37	77	19	85	565	17	1696
0900-1000	54	147	47	49	502	40	39	77	15	74	542	13	1599

A.M. PEAK HOUR  
0730-0830



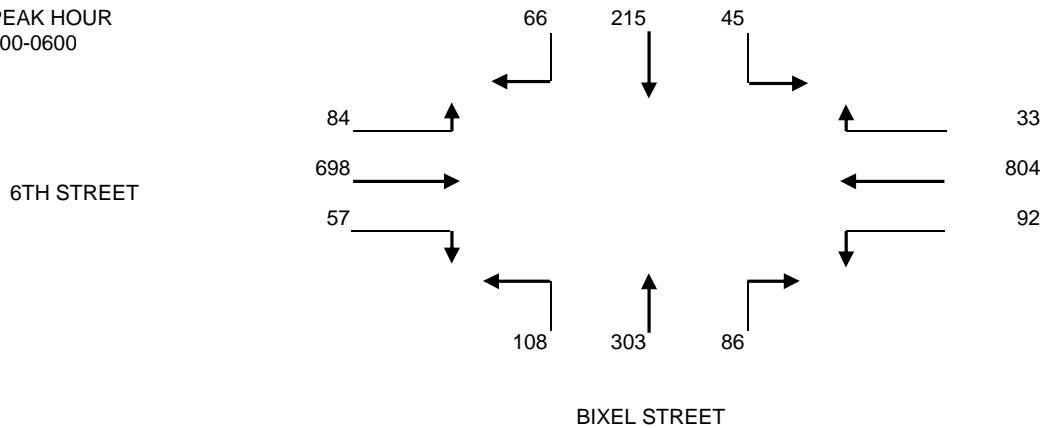
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: CITY OF LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 03:00 PM TO 06:00 PM  
 INTERSECTION: N/S BIXEL STREET  
 E/W 6TH STREET  
 FILE NUMBER: 5-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	13	45	15	9	88	19	15	30	12	17	128	9
0315-0330	17	52	13	8	105	23	14	32	19	20	140	10
0330-0345	15	53	16	7	112	22	15	36	11	22	159	9
0345-0400	18	60	16	10	116	24	18	30	14	18	153	11
0400-0415	14	62	10	6	124	19	16	37	12	17	160	14
0415-0430	17	57	11	8	158	22	20	37	15	17	161	14
0430-0445	15	60	9	6	143	26	20	61	20	15	164	20
0445-0500	13	57	14	11	140	24	19	51	18	15	178	21
0500-0515	16	50	12	9	166	20	23	77	23	20	188	25
0515-0530	18	55	11	8	204	27	16	79	28	13	172	19
0530-0545	17	54	9	7	237	26	25	75	35	11	167	20
0545-0600	15	56	13	9	197	19	22	72	22	13	171	20

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0300-0400	63	210	60	34	421	88	62	128	56	77	580	39	1818
0315-0415	64	227	55	31	457	88	63	135	56	77	612	44	1909
0330-0430	64	232	53	31	510	87	69	140	52	74	633	48	1993
0345-0445	64	239	46	30	541	91	74	165	61	67	638	59	2075
0400-0500	59	236	44	31	565	91	75	186	65	64	663	69	2148
0415-0515	61	224	46	34	607	92	82	226	76	67	691	80	2286
0430-0530	62	222	46	34	653	97	78	268	89	63	702	85	2399
0445-0545	64	216	46	35	747	97	83	282	104	59	705	85	2523
0500-0600	66	215	45	33	804	92	86	303	108	57	698	84	2591

P.M. PEAK HOUR  
0500-0600



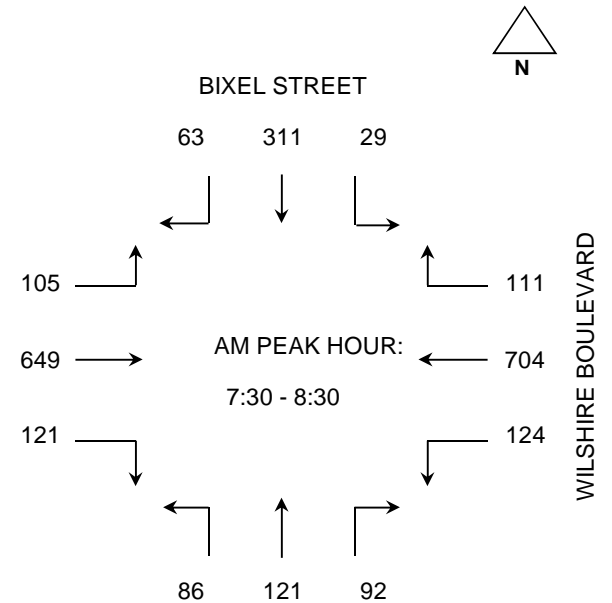
### VEHICLE TURNING MOVEMENT COUNT SUMMARY

**N/S STREET:** BIXEL STREET  
**PERIOD:** AM PEAK HOUR

**E/W STREET:** WILSHIRE BOULEVARD  
**DATE:** TUESDAY June 8, 2010

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	30	151	16	6	74	22	21	6	9	0	51	4	390
7:15 - 7:30	29	173	26	16	110	29	27	17	14	7	66	12	526
7:30 - 7:45	33	183	24	18	131	37	23	29	18	8	89	18	611
7:45 - 8:00	24	177	27	36	190	24	12	39	27	5	87	16	664
8:00 - 8:15	36	166	36	31	171	27	30	24	23	6	59	15	624
8:15 - 8:30	31	178	24	20	157	33	21	29	24	10	76	14	617
8:30 - 8:45	39	172	31	20	140	29	20	31	29	5	73	16	605
8:45 - 9:00	30	163	32	32	138	38	21	21	23	7	62	20	587
9:00 - 9:15	36	173	22	27	141	42	19	24	14	9	57	15	579
9:15 - 9:30	31	170	29	20	135	36	13	25	19	7	58	21	564
9:30 - 9:45	19	162	42	12	99	24	26	24	23	10	87	11	539
9:45 - 10:00	26	149	31	16	124	22	12	39	16	5	72	18	530

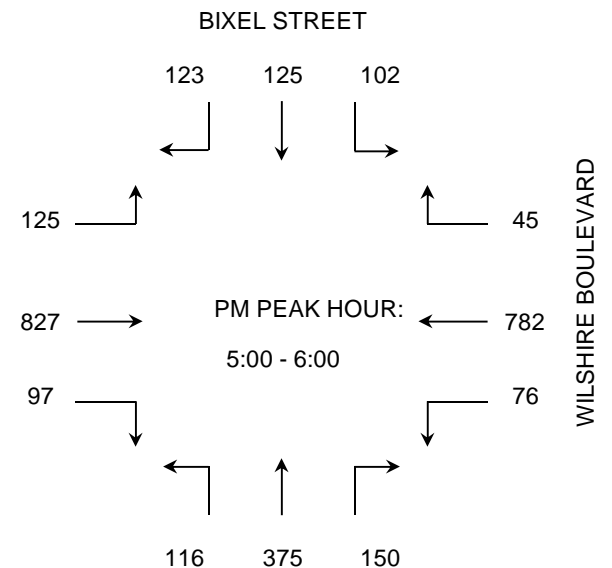
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	116	684	93	76	505	112	83	91	68	20	293	50	2,191
7:15 - 8:15	122	699	113	101	602	117	92	109	82	26	301	61	2,425
7:30 - 8:30	124	704	111	105	649	121	86	121	92	29	311	63	2,516 *
7:45 - 8:45	130	693	118	107	658	113	83	123	103	26	295	61	2,510
8:00 - 9:00	136	679	123	103	606	127	92	105	99	28	270	65	2,433
8:15 - 9:15	136	686	109	99	576	142	81	105	90	31	268	65	2,388
8:30 - 9:30	136	678	114	99	554	145	73	101	85	28	250	72	2,335
8:45 - 9:45	116	668	125	91	513	140	79	94	79	33	264	67	2,269
9:00 - 10:00	112	654	124	75	499	124	70	112	72	31	274	65	2,212



**PERIOD:** PM PEAK HOUR

**DATE:** TUESDAY June 8, 2010

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	20	156	17	16	133	27	12	32	18	12	76	21	540
3:15 - 3:30	20	173	22	16	155	28	6	37	7	2	66	19	551
3:30 - 3:45	24	108	20	19	131	30	23	31	23	25	87	12	533
3:45 - 4:00	18	140	11	18	129	21	15	22	30	14	59	16	493
4:00 - 4:15	16	152	19	19	137	13	21	41	36	18	63	19	554
4:15 - 4:30	21	149	10	26	146	10	24	56	34	27	55	21	579
4:30 - 4:45	21	163	12	23	161	19	16	59	31	34	51	19	609
4:45 - 5:00	24	176	14	19	181	10	27	72	30	29	45	24	651
5:00 - 5:15	30	180	6	30	209	19	39	97	48	38	21	36	753
5:15 - 5:30	7	215	16	23	207	26	16	88	34	17	42	30	721
5:30 - 5:45	21	200	12	31	211	23	32	93	39	31	29	31	753
5:45 - 6:00	18	187	11	41	200	29	29	97	29	16	33	26	716



1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	82	577	70	69	548	106	56	122	78	53	288	68	2,117
3:15 - 4:15	78	573	72	72	552	92	65	131	96	59	275	66	2,131
3:30 - 4:30	79	549	60	82	543	74	83	150	123	84	264	68	2,159
3:45 - 4:45	76	604	52	86	573	63	76	178	131	93	228	75	2,235
4:00 - 5:00	82	640	55	87	625	52	88	228	131	108	214	83	2,393
4:15 - 5:15	96	668	42	98	697	58	106	284	143	128	172	100	2,592
4:30 - 5:30	82	734	48	95	758	74	98	316	143	118	159	109	2,734
4:45 - 5:45	82	771	48	103	808	78	114	350	151	115	137	121	2,878
5:00 - 6:00	76	782	45	125	827	97	116	375	150	102	125	123	2,943 *

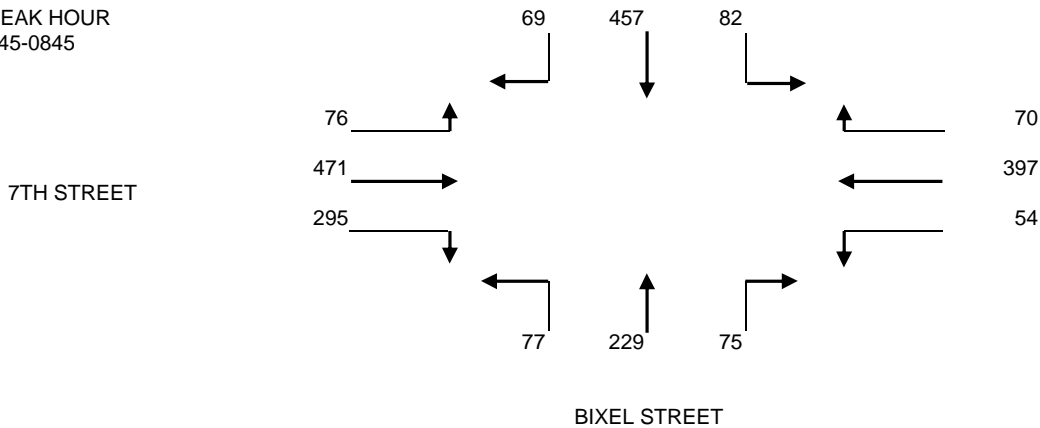
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S BIXEL STREET  
 E/W 7TH STREET  
 FILE NUMBER: 6-AM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0700-0715	14	93	7	9	69	10	8	41	13	63	55	6
0715-0730	17	106	10	11	72	13	7	48	19	80	59	9
0730-0745	16	148	9	14	85	11	10	50	16	78	95	12
0745-0800	21	110	17	19	94	10	10	58	19	74	109	20
0800-0815	19	113	20	24	105	11	20	62	18	80	141	26
0815-0830	14	117	25	15	103	16	25	53	22	71	106	19
0830-0845	15	117	20	12	95	17	20	56	18	70	115	11
0845-0900	18	91	19	19	101	16	12	43	10	58	101	14
0900-0915	18	79	14	19	90	19	10	31	17	54	98	9
0915-0930	13	87	12	18	88	23	9	45	11	65	83	9
0930-0945	9	55	9	11	88	20	12	34	13	70	81	5
0945-1000	12	47	13	8	81	20	13	29	8	62	76	5

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0700-0800	68	457	43	53	320	44	35	197	67	295	318	47	1944
0715-0815	73	477	56	68	356	45	47	218	72	312	404	67	2195
0730-0830	70	488	71	72	387	48	65	223	75	303	451	77	2330
0745-0845	69	457	82	70	397	54	75	229	77	295	471	76	2352
0800-0900	66	438	84	70	404	60	77	214	68	279	463	70	2293
0815-0915	65	404	78	65	389	68	67	183	67	253	420	53	2112
0830-0930	64	374	65	68	374	75	51	175	56	247	397	43	1989
0845-0945	58	312	54	67	367	78	43	153	51	247	363	37	1830
0900-1000	52	268	48	56	347	82	44	139	49	251	338	28	1702

A.M. PEAK HOUR  
0745-0845



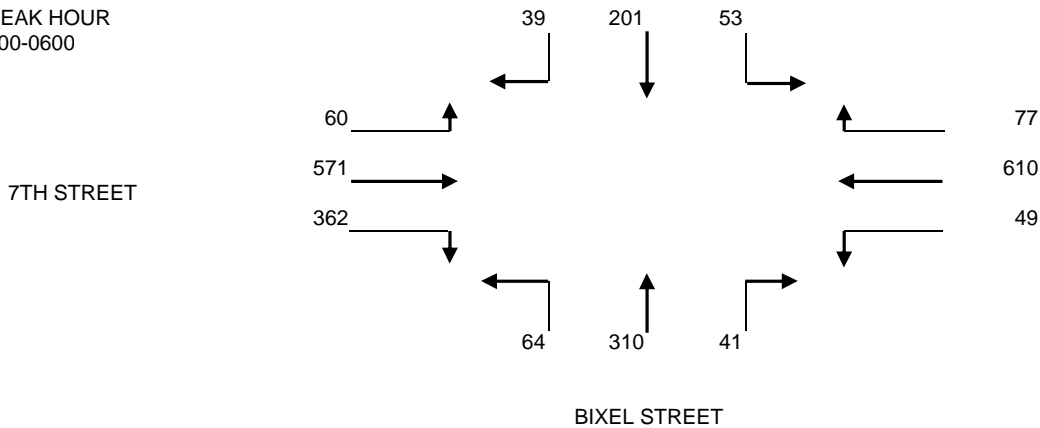
# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: CITY OF LOS ANGELES  
 DATE: THURSDAY, MAY 26, 2011  
 PERIOD: 03:00 PM TO 06:00 PM  
 INTERSECTION: N/S BIXEL STREET  
 E/W 7TH STREET  
 FILE NUMBER: 6-PM

15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
0300-0315	10	71	11	16	113	37	7	37	7	93	101	14
0315-0330	9	70	7	14	102	26	4	21	7	78	81	8
0330-0345	8	70	15	17	125	37	3	24	10	64	114	13
0345-0400	13	55	17	15	118	33	5	25	10	49	96	17
0400-0415	14	56	12	19	117	29	6	42	14	80	95	15
0415-0430	8	56	17	14	135	20	6	30	9	62	100	10
0430-0445	10	45	18	10	125	18	3	42	7	79	106	14
0445-0500	14	43	15	13	139	14	13	60	12	55	120	9
0500-0515	11	51	18	16	180	15	13	63	11	80	142	13
0515-0530	9	48	10	19	156	12	11	72	19	97	156	15
0530-0545	10	58	12	24	138	13	9	83	18	98	140	16
0545-0600	9	44	13	18	136	9	8	92	16	87	133	16

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	TOTALS
	SBRT	SBTH	SBLT	WBRT	WBTH	WBLT	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	
0300-0400	40	266	50	62	458	133	19	107	34	284	392	52	1897
0315-0415	44	251	51	65	462	125	18	112	41	271	386	53	1879
0330-0430	43	237	61	65	495	119	20	121	43	255	405	55	1919
0345-0445	45	212	64	58	495	100	20	139	40	270	397	56	1896
0400-0500	46	200	62	56	516	81	28	174	42	276	421	48	1950
0415-0515	43	195	68	53	579	67	35	195	39	276	468	46	2064
0430-0530	44	187	61	58	600	59	40	237	49	311	524	51	2221
0445-0545	44	200	55	72	613	54	46	278	60	330	558	53	2363
0500-0600	39	201	53	77	610	49	41	310	64	362	571	60	2437

P.M. PEAK HOUR  
0500-0600



**VEHICLE TURNING MOVEMENT COUNT SUMMARY**

**N/S STREET:** BIXEL STREET  
**PERIOD:** AM PEAK HOUR

**E/W STREET:** 8TH STREET/110 SB ON  
**DATE:** THURSDAY May 27, 2010

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	55	123	66	0	0	0	0	0	0	0	172	8	424
7:15 - 7:30	59	112	62	0	0	0	0	0	0	0	198	12	443
7:30 - 7:45	51	129	85	0	0	0	0	0	0	0	221	23	509
7:45 - 8:00	62	161	86	0	0	0	0	0	0	0	227	20	556
8:00 - 8:15	82	143	87	0	0	0	0	0	0	0	216	9	537
8:15 - 8:30	50	142	76	0	0	0	0	0	0	0	226	19	513
8:30 - 8:45	61	127	73	0	0	0	0	0	0	0	211	16	488
8:45 - 9:00	89	151	67	0	0	0	0	0	0	0	179	30	516
9:00 - 9:15	75	115	68	0	0	0	0	0	0	0	157	24	439
9:15 - 9:30	75	137	66	0	0	0	0	0	0	0	182	12	472
9:30 - 9:45	81	111	59	0	0	0	0	0	0	0	165	19	435
9:45 - 10:00	111	115	54	0	0	0	0	0	0	0	186	21	487

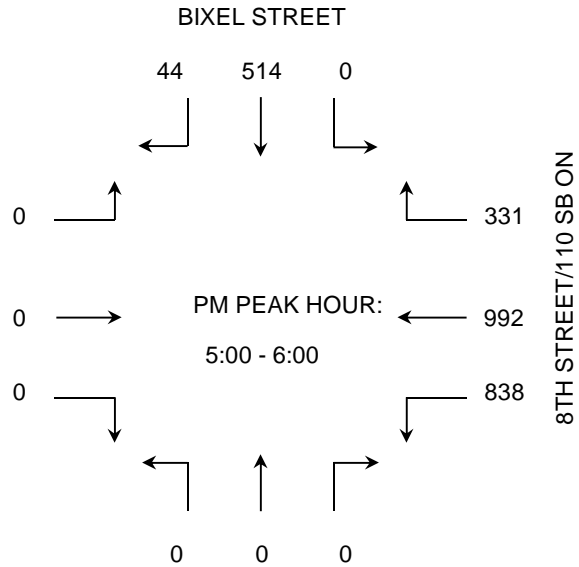
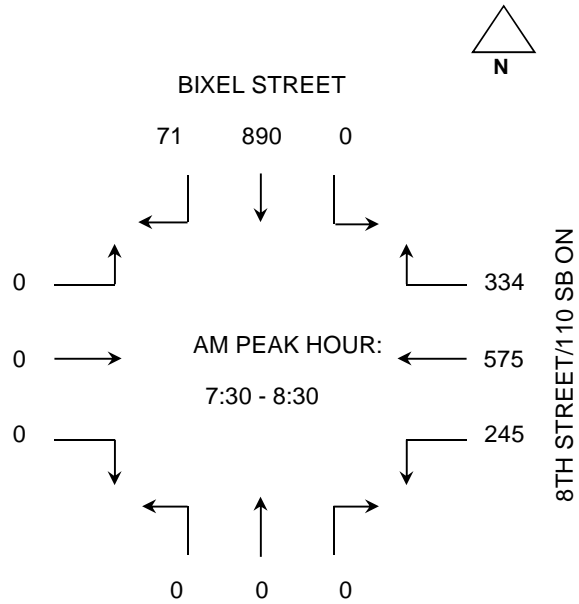
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	227	525	299	0	0	0	0	0	0	0	818	63	1,932
7:15 - 8:15	254	545	320	0	0	0	0	0	0	0	862	64	2,045
7:30 - 8:30	245	575	334	0	0	0	0	0	0	0	890	71	2,115 *
7:45 - 8:45	255	573	322	0	0	0	0	0	0	0	880	64	2,094
8:00 - 9:00	282	563	303	0	0	0	0	0	0	0	832	74	2,054
8:15 - 9:15	275	535	284	0	0	0	0	0	0	0	773	89	1,956
8:30 - 9:30	300	530	274	0	0	0	0	0	0	0	729	82	1,915
8:45 - 9:45	320	514	260	0	0	0	0	0	0	0	683	85	1,862
9:00 - 10:00	342	478	247	0	0	0	0	0	0	0	690	76	1,833

**PERIOD:** PM PEAK HOUR

**DATE:** THURSDAY May 27, 2010

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	140	129	38	0	0	0	0	0	0	0	194	18	519
3:15 - 3:30	147	120	44	0	0	0	0	0	0	0	181	16	508
3:30 - 3:45	174	158	49	0	0	0	0	0	0	0	160	27	568
3:45 - 4:00	127	137	45	0	0	0	0	0	0	0	203	17	529
4:00 - 4:15	163	162	45	0	0	0	0	0	0	0	159	17	546
4:15 - 4:30	192	160	66	0	0	0	0	0	0	0	157	17	592
4:30 - 4:45	216	181	67	0	0	0	0	0	0	0	143	14	621
4:45 - 5:00	186	161	65	0	0	0	0	0	0	0	99	6	517
5:00 - 5:15	209	194	65	0	0	0	0	0	0	0	120	8	596
5:15 - 5:30	219	226	83	0	0	0	0	0	0	0	120	5	653
5:30 - 5:45	212	254	82	0	0	0	0	0	0	0	138	14	700
5:45 - 6:00	198	318	101	0	0	0	0	0	0	0	136	17	770

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	588	544	176	0	0	0	0	0	0	0	738	78	2,124
3:15 - 4:15	611	577	183	0	0	0	0	0	0	0	703	77	2,151
3:30 - 4:30	656	617	205	0	0	0	0	0	0	0	679	78	2,235
3:45 - 4:45	698	640	223	0	0	0	0	0	0	0	662	65	2,288
4:00 - 5:00	757	664	243	0	0	0	0	0	0	0	558	54	2,276
4:15 - 5:15	803	696	263	0	0	0	0	0	0	0	519	45	2,326
4:30 - 5:30	830	762	280	0	0	0	0	0	0	0	482	33	2,387
4:45 - 5:45	826	835	295	0	0	0	0	0	0	0	477	33	2,466
5:00 - 6:00	838	992	331	0	0	0	0	0	0	0	514	44	2,719 *



# VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates  
 2007 Sawtelle Blvd., Suite 4  
 Los Angeles, CA 90025  
 Tel: (310) 473-6508

N/S STREET: Beaudry Ave

E/W STREET: 1st St

PERIOD: AM PEAK HOUR

DATE: Tue

May 24, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	10	60	11	12	42	5	7	54	22	33	126	16	398
7:15 - 7:30	12	53	12	11	65	4	16	54	22	41	136	26	452
7:30 - 7:45	13	71	17	27	90	6	20	73	24	52	179	31	603
7:45 - 8:00	12	107	20	41	148	6	23	93	31	65	175	48	769
8:00 - 8:15	24	119	29	50	155	10	20	90	35	77	193	52	854
8:15 - 8:30	20	94	24	37	137	7	17	81	27	79	190	46	759
8:30 - 8:45	21	88	27	16	118	6	16	59	19	81	187	42	680
8:45 - 9:00	22	98	21	22	136	3	14	70	25	81	148	37	677
9:00 - 9:15	19	89	14	19	119	6	15	52	19	76	161	30	619
9:15 - 9:30	14	58	10	12	84	8	6	49	24	47	132	20	464
9:30 - 9:45	15	60	15	14	103	5	10	51	21	51	99	9	453
9:45 - 10:00	10	72	11	11	75	6	8	42	18	43	101	9	406

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	47	291	60	91	345	21	66	274	99	191	616	121	2,222
7:15 - 8:15	61	350	78	129	458	26	79	310	112	235	683	157	2,678
7:30 - 8:30	69	391	90	155	530	29	80	337	117	273	737	177	2,985
7:45 - 8:45	77	408	100	144	558	29	76	323	112	302	745	188	3,062 *
8:00 - 9:00	87	399	101	125	546	26	67	300	106	318	718	177	2,970
8:15 - 9:15	82	369	86	94	510	22	62	262	90	317	686	155	2,735
8:30 - 9:30	76	333	72	69	457	23	51	230	87	285	628	129	2,440
8:45 - 9:45	70	305	60	67	442	22	45	222	89	255	540	96	2,213
9:00 - 10:00	58	279	50	56	381	25	39	194	82	217	493	68	1,942

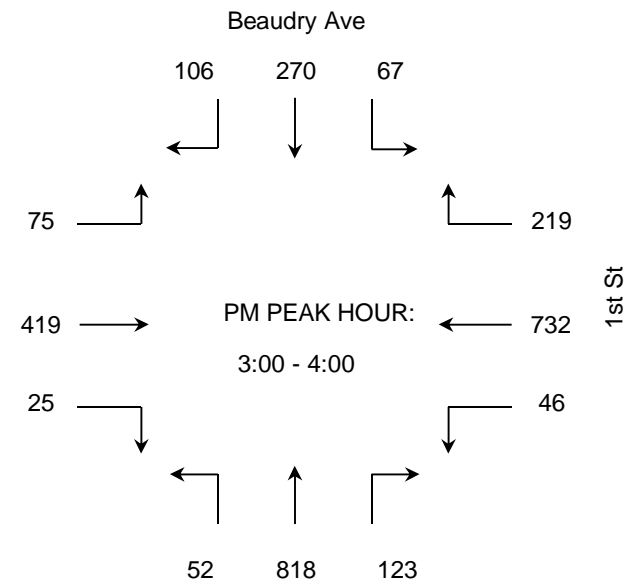
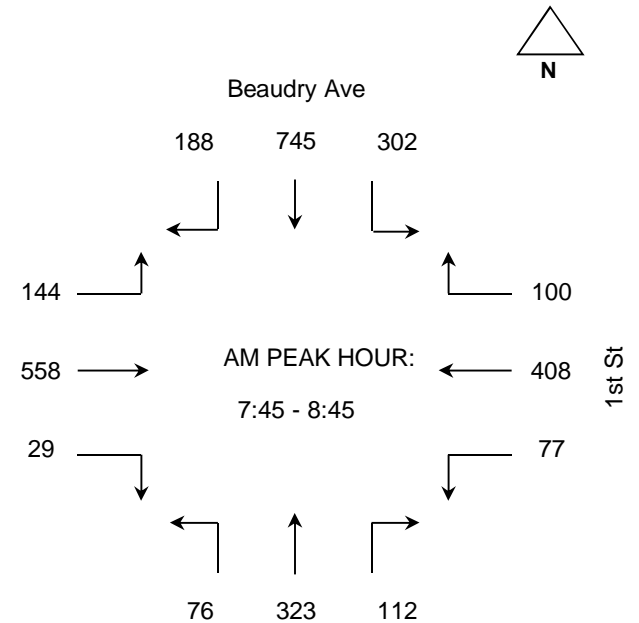
PERIOD: PM PEAK HOUR

DATE: Tue

May 24, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	16	68	19	17	85	9	19	84	32	11	66	13	439
3:15 - 3:30	15	74	20	19	81	6	18	99	28	10	39	21	430
3:30 - 3:45	19	91	21	17	89	7	24	113	30	9	49	29	498
3:45 - 4:00	14	94	24	21	93	10	16	121	29	12	53	17	504
4:00 - 4:15	16	115	33	20	91	9	13	113	25	12	58	17	522
4:15 - 4:30	17	133	36	28	111	9	16	177	31	12	76	21	667
4:30 - 4:45	13	137	40	22	90	6	14	171	27	14	81	26	641
4:45 - 5:00	17	142	38	19	107	7	14	183	24	12	72	30	665
5:00 - 5:15	15	150	46	14	114	5	10	198	31	17	63	33	696
5:15 - 5:30	16	205	46	22	118	7	17	218	30	21	89	33	822
5:30 - 5:45	9	190	55	17	88	7	13	222	29	15	68	22	735
5:45 - 6:00	6	187	72	22	99	6	12	180	33	14	50	18	699

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	64	327	84	74	348	32	77	417	119	42	207	80	1,871
3:15 - 4:15	64	374	98	77	354	32	71	446	112	43	199	84	1,954
3:30 - 4:30	66	433	114	86	384	35	69	524	115	45	236	84	2,191
3:45 - 4:45	60	479	133	91	385	34	59	582	112	50	268	81	2,334
4:00 - 5:00	63	527	147	89	399	31	57	644	107	50	287	94	2,495
4:15 - 5:15	62	562	160	83	422	27	54	729	113	55	292	110	2,669
4:30 - 5:30	61	634	170	77	429	25	55	770	112	64	305	122	2,824
4:45 - 5:45	57	687	185	72	427	26	54	821	114	65	292	118	2,918
5:00 - 6:00	46	732	219	75	419	25	52	818	123	67	270	106	2,952 *





# VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates  
2007 Sawtelle Blvd., Suite 4  
Los Angeles, CA 90025  
Tel: (310) 473-6508

N/S STREET: Beaudry Ave

E/W STREET: 2nd St

PERIOD: AM PEAK HOUR

DATE: Wed May 25, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	7	27	11	5	157	90	16	48	9	14	87		471
7:15 - 7:30	15	46	22	5	190	83	17	64	16	24	137	6	625
7:30 - 7:45	22	48	20	13	178	93	7	73	16	35	155	3	663
7:45 - 8:00	25	55	24	13	180	85	9	70	17	33	160	4	675
8:00 - 8:15	30	49	27	14	181	93	10	75	22	31	168	6	706
8:15 - 8:30	21	60	15	12	159	81	16	88	21	23	175	3	674
8:30 - 8:45	17	51	16	11	144	71	11	71	20	24	169	1	606
8:45 - 9:00	15	57	13	9	155	59	9	79	15	20	144	4	579
9:00 - 9:15	17	51	12	10	150	55	10	69	16	19	140	2	551
9:15 - 9:30	12	41	9	7	135	47	13	60	20	19	107	3	473
9:30 - 9:45	24	42	16	9	138	51	12	54	18	17	98	3	482
9:45 - 10:00	9	37	11	11	102	46	14	58	24	20	94	5	431

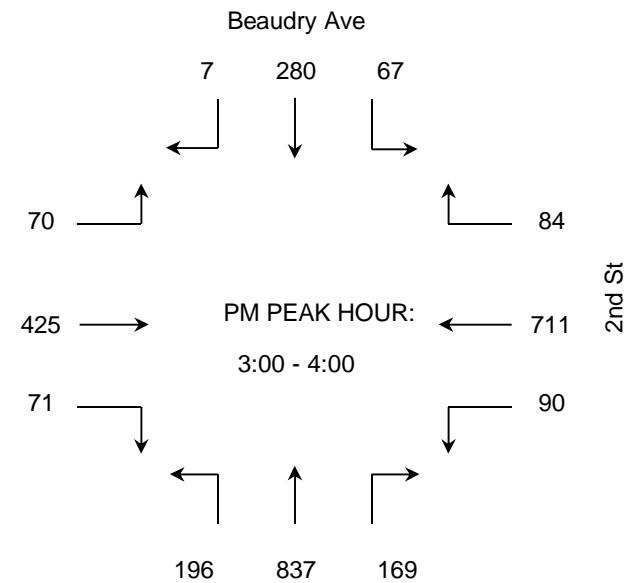
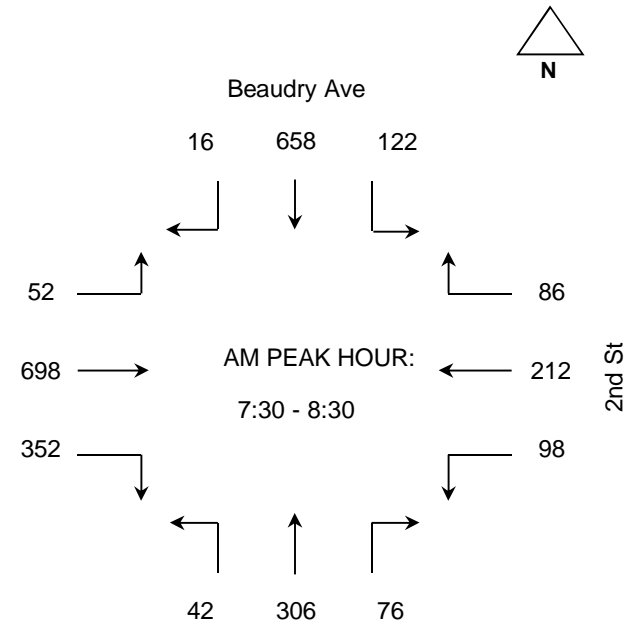
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	69	176	77	36	705	351	49	255	58	106	539	13	2,434
7:15 - 8:15	92	198	93	45	729	354	43	282	71	123	620	19	2,669
7:30 - 8:30	98	212	86	52	698	352	42	306	76	122	658	16	2,718 *
7:45 - 8:45	93	215	82	50	664	330	46	304	80	111	672	14	2,661
8:00 - 9:00	83	217	71	46	639	304	46	313	78	98	656	14	2,565
8:15 - 9:15	70	219	56	42	608	266	46	307	72	86	628	10	2,410
8:30 - 9:30	61	200	50	37	584	232	43	279	71	82	560	10	2,209
8:45 - 9:45	68	191	50	35	578	212	44	262	69	75	489	12	2,085
9:00 - 10:00	62	171	48	37	525	199	49	241	78	75	439	13	1,937

PERIOD: PM PEAK HOUR

DATE: Wed May 25, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	3	106	14	11	111	20	42	101	22	21	60	7	518
3:15 - 3:30	8	97	15	4	110	14	45	108	18	22	63	9	513
3:30 - 3:45	6	90	11	7	99	21	41	142	24	17	74	4	536
3:45 - 4:00	9	86	12	10	106	25	48	149	36	12	63		556
4:00 - 4:15	10	117	16	4	84	21	44	155	39	12	72	3	577
4:15 - 4:30	9	129	19	7	96	26	50	159	36	16	79	2	628
4:30 - 4:45	11	128	22	5	90	28	49	162	40	14	84	1	634
4:45 - 5:00	6	159	17	10	90	25	57	183	31	18	61	5	662
5:00 - 5:15	19	166	23	21	111	26	51	202	39	19	70	4	751
5:15 - 5:30	23	181	19	19	113	17	47	198	41	15	79	1	753
5:30 - 5:45	26	167	18	19	99	13	53	243	47	13	71	2	771
5:45 - 6:00	22	197	24	11	102	15	45	194	42	20	60		732

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	26	379	52	32	426	80	176	500	100	72	260	20	2,123
3:15 - 4:15	33	390	54	25	399	81	178	554	117	63	272	16	2,182
3:30 - 4:30	34	422	58	28	385	93	183	605	135	57	288	9	2,297
3:45 - 4:45	39	460	69	26	376	100	191	625	151	54	298	6	2,395
4:00 - 5:00	36	533	74	26	360	100	200	659	146	60	296	11	2,501
4:15 - 5:15	45	582	81	43	387	105	207	706	146	67	294	12	2,675
4:30 - 5:30	59	634	81	55	404	96	204	745	151	66	294	11	2,800
4:45 - 5:45	74	673	77	69	413	81	208	826	158	65	281	12	2,937
5:00 - 6:00	90	711	84	70	425	71	196	837	169	67	280	7	3,007 *



# VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates  
 2007 Sawtelle Blvd., Suite 4  
 Los Angeles, CA 90025  
 Tel: (310) 473-6508

N/S STREET: Beaudry Ave

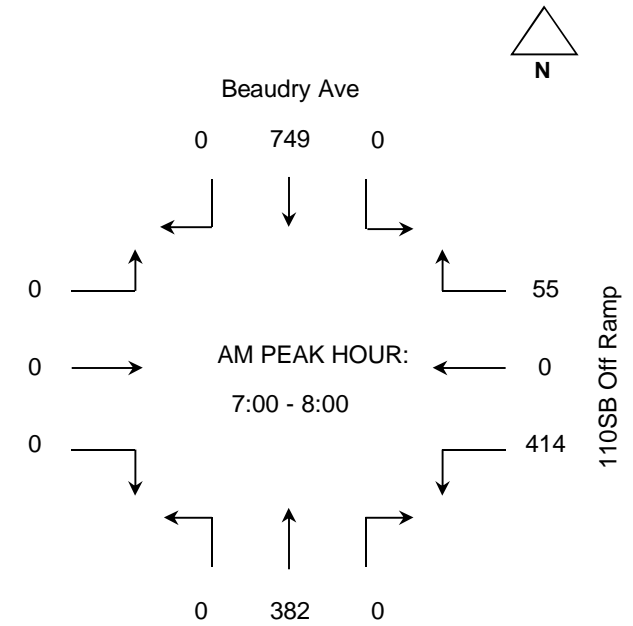
E/W STREET: 110SB Off Ramp

PERIOD: AM PEAK HOUR

DATE: Thu May 26, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	105	0	14	0	0	0	0	90	0	0	189	0	398
7:15 - 7:30	100	0	14	0	0	0	0	114	0	0	184	0	412
7:30 - 7:45	99	0	12	0	0	0	0	101	0	0	180	0	392
7:45 - 8:00	110	0	15	0	0	0	0	77	0	0	196	0	398
8:00 - 8:15	97	0	15	0	0	0	0	69	0	0	199	0	380
8:15 - 8:30	95	0	16	0	0	0	0	94	0	0	204	0	409
8:30 - 8:45	91	0	12	0	0	0	0	88	0	0	188	0	379
8:45 - 9:00	87	0	13	0	0	0	0	80	0	0	201	0	381
9:00 - 9:15	90	0	9	0	0	0	0	91	0	0	207	0	397
9:15 - 9:30	82	0	11	0	0	0	0	71	0	0	162	0	326
9:30 - 9:45	71	0	13	0	0	0	0	70	0	0	153	0	307
9:45 - 10:00	76	0	16	0	0	0	0	69	0	0	150	0	311

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	414	0	55	0	0	0	0	382	0	0	749	0	1,600 *
7:15 - 8:15	406	0	56	0	0	0	0	361	0	0	759	0	1,582
7:30 - 8:30	401	0	58	0	0	0	0	341	0	0	779	0	1,579
7:45 - 8:45	393	0	58	0	0	0	0	328	0	0	787	0	1,566
8:00 - 9:00	370	0	56	0	0	0	0	331	0	0	792	0	1,549
8:15 - 9:15	363	0	50	0	0	0	0	353	0	0	800	0	1,566
8:30 - 9:30	350	0	45	0	0	0	0	330	0	0	758	0	1,483
8:45 - 9:45	330	0	46	0	0	0	0	312	0	0	723	0	1,411
9:00 - 10:00	319	0	49	0	0	0	0	301	0	0	672	0	1,341

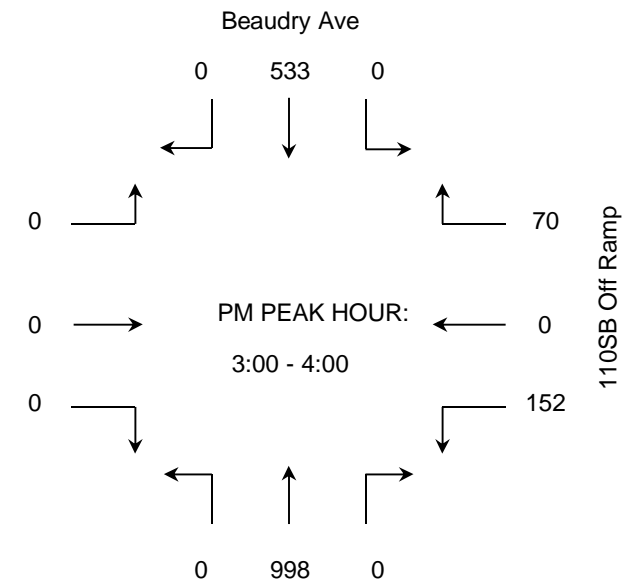


PERIOD: PM PEAK HOUR

DATE: Thu May 26, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	35	0	10	0	0	0	0	188	0	0	120	0	353
3:15 - 3:30	34	0	8	0	0	0	0	212	0	0	122	0	376
3:30 - 3:45	51	0	14	0	0	0	0	230	0	0	117	0	412
3:45 - 4:00	40	0	11	0	0	0	0	217	0	0	119	0	387
4:00 - 4:15	29	0	17	0	0	0	0	240	0	0	125	0	411
4:15 - 4:30	33	0	22	0	0	0	0	244	0	0	130	0	429
4:30 - 4:45	35	0	15	0	0	0	0	253	0	0	128	0	431
4:45 - 5:00	55	0	16	0	0	0	0	261	0	0	150	0	482
5:00 - 5:15	27	0	20	0	0	0	0	224	0	0	139	0	410
5:15 - 5:30	33	0	18	0	0	0	0	227	0	0	124	0	402
5:30 - 5:45	50	0	23	0	0	0	0	230	0	0	99	0	402
5:45 - 6:00	39	0	14	0	0	0	0	203	0	0	103	0	359

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	160	0	43	0	0	0	0	847	0	0	478	0	1,528
3:15 - 4:15	154	0	50	0	0	0	0	899	0	0	483	0	1,586
3:30 - 4:30	153	0	64	0	0	0	0	931	0	0	491	0	1,639
3:45 - 4:45	137	0	65	0	0	0	0	954	0	0	502	0	1,658
4:00 - 5:00	152	0	70	0	0	0	0	998	0	0	533	0	1,753 *
4:15 - 5:15	150	0	73	0	0	0	0	982	0	0	547	0	1,752
4:30 - 5:30	150	0	69	0	0	0	0	965	0	0	541	0	1,725
4:45 - 5:45	165	0	77	0	0	0	0	942	0	0	512	0	1,696
5:00 - 6:00	149	0	75	0	0	0	0	884	0	0	465	0	1,573



# VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates  
 2007 Sawtelle Blvd., Suite 4  
 Los Angeles, CA 90025  
 Tel: (310) 473-6508

N/S STREET: Beaudry Ave  
 E/W STREET: 3rd St  
 PERIOD: AM PEAK HOUR  
 DATE: Tue May 24, 2011

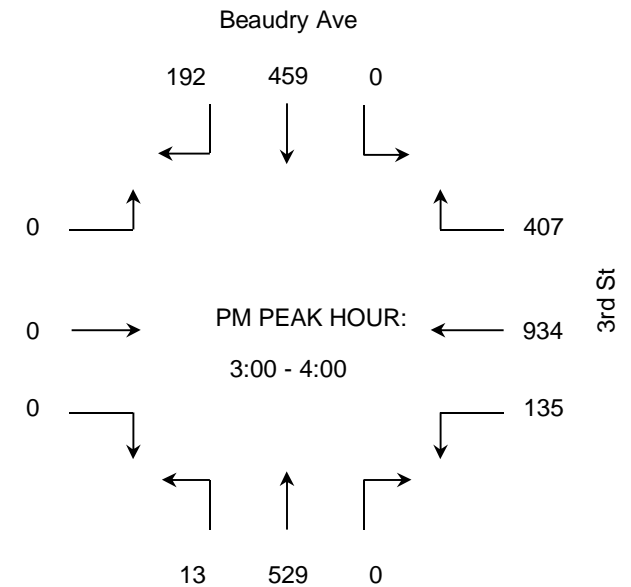
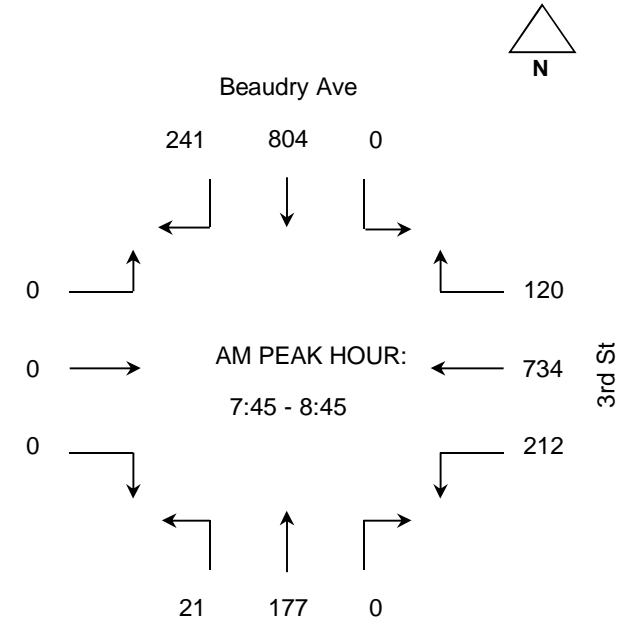
15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	19	209	76	0	0	0	6	36	0	0	195	89	630
7:15 - 7:30	10	210	44	0	0	0	0	60	0	0	120	72	516
7:30 - 7:45	48	208	39	0	0	0	5	49	0	0	144	58	551
7:45 - 8:00	88	225	25	0	0	0	5	35	0	0	171	44	593
8:00 - 8:15	30	165	24	0	0	0	4	33	0	0	198	77	531
8:15 - 8:30	39	194	45	0	0	0	3	55	0	0	217	69	622
8:30 - 8:45	55	150	26	0	0	0	9	54	0	0	218	51	563
8:45 - 9:00	51	153	31	0	0	0	7	41	0	0	212	57	552
9:00 - 9:15	48	157	36	0	0	0	1	47	0	0	219	64	572
9:15 - 9:30	36	134	31	0	0	0	3	32	0	0	178	55	469
9:30 - 9:45	42	152	23	0	0	0	1	35	0	0	150	45	448
9:45 - 10:00	36	131	29	0	0	0	6	49	0	0	165	45	461

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	165	852	184	0	0	0	16	180	0	0	630	263	2,290
7:15 - 8:15	176	808	132	0	0	0	14	177	0	0	633	251	2,191
7:30 - 8:30	205	792	133	0	0	0	17	172	0	0	730	248	2,297
7:45 - 8:45	212	734	120	0	0	0	21	177	0	0	804	241	2,309 *
8:00 - 9:00	175	662	126	0	0	0	23	183	0	0	845	254	2,268
8:15 - 9:15	193	654	138	0	0	0	20	197	0	0	866	241	2,309 *
8:30 - 9:30	190	594	124	0	0	0	20	174	0	0	827	227	2,156
8:45 - 9:45	177	596	121	0	0	0	12	155	0	0	759	221	2,041
9:00 - 10:00	162	574	119	0	0	0	11	163	0	0	712	209	1,950

PERIOD: PM PEAK HOUR  
 DATE: Tue May 24, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	24	172	71	0	0	0	4	91	0	0	100	51	513
3:15 - 3:30	32	203	68	0	0	0	5	132	0	0	104	60	604
3:30 - 3:45	31	174	81	0	0	0	7	145	0	0	135	47	620
3:45 - 4:00	21	158	76	0	0	0	6	132	0	0	115	32	540
4:00 - 4:15	26	211	104	0	0	0	3	121	0	0	110	48	623
4:15 - 4:30	35	228	119	0	0	0	1	144	0	0	100	44	671
4:30 - 4:45	34	226	76	0	0	0	3	115	0	0	110	35	599
4:45 - 5:00	40	269	108	0	0	0	6	149	0	0	139	65	776
5:00 - 5:15	18	172	71	0	0	0	1	131	0	0	86	39	518
5:15 - 5:30	24	220	84	0	0	0	1	126	0	0	98	44	597
5:30 - 5:45	35	255	92	0	0	0	2	144	0	0	92	41	661
5:45 - 6:00	34	269	79	0	0	0	2	107	0	0	109	50	650

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	108	707	296	0	0	0	22	500	0	0	454	190	2,277
3:15 - 4:15	110	746	329	0	0	0	21	530	0	0	464	187	2,387
3:30 - 4:30	113	771	380	0	0	0	17	542	0	0	460	171	2,454
3:45 - 4:45	116	823	375	0	0	0	13	512	0	0	435	159	2,433
4:00 - 5:00	135	934	407	0	0	0	13	529	0	0	459	192	2,669 *
4:15 - 5:15	127	895	374	0	0	0	11	539	0	0	435	183	2,564
4:30 - 5:30	116	887	339	0	0	0	11	521	0	0	433	183	2,490
4:45 - 5:45	117	916	355	0	0	0	10	550	0	0	415	189	2,552
5:00 - 6:00	111	916	326	0	0	0	6	508	0	0	385	174	2,426



# VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates  
 2007 Sawtelle Blvd., Suite 4  
 Los Angeles, CA 90025  
 Tel: (310) 473-6508

N/S STREET: Beaudry Ave

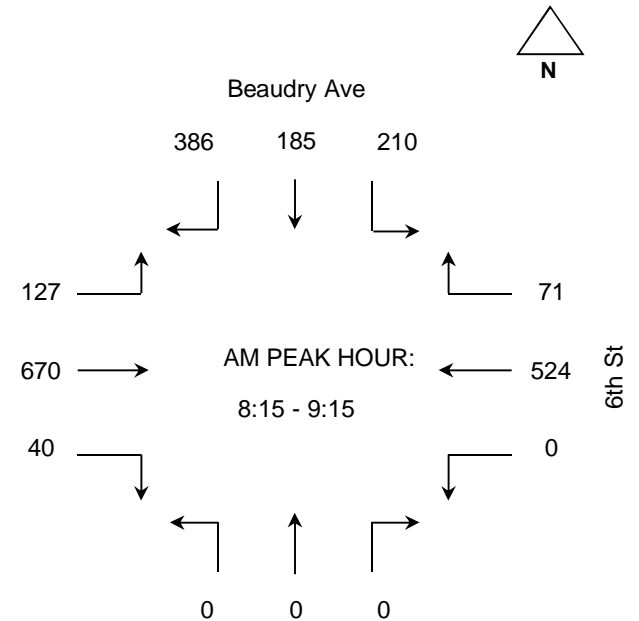
E/W STREET: 6th St

PERIOD: AM PEAK HOUR

DATE: Wed May 25, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	0	102	9	12	147	1	0	0	0	44	30	64	409
7:15 - 7:30	0	98	10	19	139	0	0	0	0	40	33	60	399
7:30 - 7:45	0	105	12	22	144	1	0	0	0	47	30	66	427
7:45 - 8:00	0	105	14	18	143	0	0	0	0	45	23	63	411
8:00 - 8:15	0	125	9	22	139	6	0	0	0	50	48	91	490
8:15 - 8:30	0	130	12	28	152	5	0	0	0	47	53	100	527
8:30 - 8:45	0	135	19	33	159	10	0	0	0	56	45	94	551
8:45 - 9:00	0	138	19	39	171	14	0	0	0	55	46	99	581
9:00 - 9:15	0	121	21	27	188	11	0	0	0	52	41	93	554
9:15 - 9:30	0	96	16	19	205	10	0	0	0	46	36	81	509
9:30 - 9:45	0	88	12	22	179	11	0	0	0	50	39	87	488
9:45 - 10:00	0	79	7	25	135	8	0	0	0	53	44	89	440

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	0	410	45	71	573	2	0	0	0	176	116	253	1,646
7:15 - 8:15	0	433	45	81	565	7	0	0	0	182	134	280	1,727
7:30 - 8:30	0	465	47	90	578	12	0	0	0	189	154	320	1,855
7:45 - 8:45	0	495	54	101	593	21	0	0	0	198	169	348	1,979
8:00 - 9:00	0	528	59	122	621	35	0	0	0	208	192	384	2,149
8:15 - 9:15	0	524	71	127	670	40	0	0	0	210	185	386	2,213 *
8:30 - 9:30	0	490	75	118	723	45	0	0	0	209	168	367	2,195
8:45 - 9:45	0	443	68	107	743	46	0	0	0	203	162	360	2,132
9:00 - 10:00	0	384	56	93	707	40	0	0	0	201	160	350	1,991

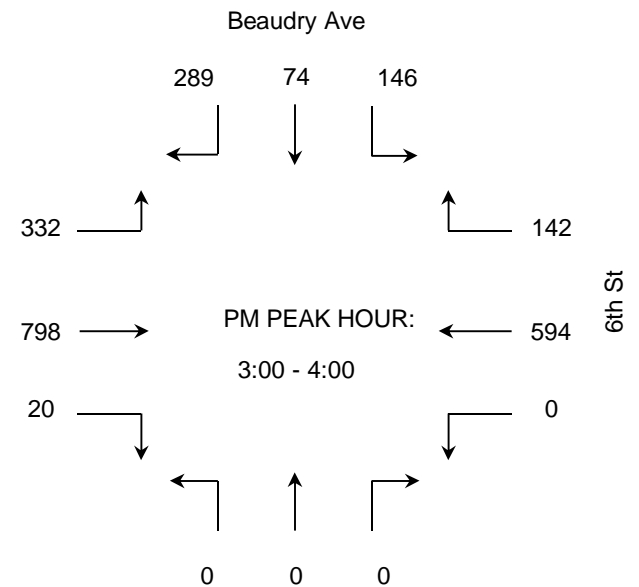


PERIOD: PM PEAK HOUR

DATE: Wed May 25, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	0	76	18	42	212	6	0	0	0	32	5	52	443
3:15 - 3:30	0	89	21	60	189	9	0	0	0	28	5	58	459
3:30 - 3:45	0	105	21	55	171	16	0	0	0	22	9	57	456
3:45 - 4:00	0	125	19	64	173	4	0	0	0	46	14	79	524
4:00 - 4:15	0	136	23	72	186	4	0	0	0	34	16	78	549
4:15 - 4:30	0	147	41	84	196	5	0	0	0	29	11	72	585
4:30 - 4:45	0	156	30	90	210	5	0	0	0	28	13	66	598
4:45 - 5:00	0	155	48	86	206	6	0	0	0	55	34	73	663
5:00 - 5:15	0	133	51	56	142	7	0	0	0	37	28	57	511
5:15 - 5:30	0	155	46	58	148	4	0	0	0	31	22	66	530
5:30 - 5:45	0	160	30	56	144	5	0	0	0	33	26	60	514
5:45 - 6:00	0	139	25	60	141	3	0	0	0	30	18	63	479

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	0	395	79	221	745	35	0	0	0	128	33	246	1,882
3:15 - 4:15	0	455	84	251	719	33	0	0	0	130	44	272	1,988
3:30 - 4:30	0	513	104	275	726	29	0	0	0	131	50	286	2,114
3:45 - 4:45	0	564	113	310	765	18	0	0	0	137	54	295	2,256
4:00 - 5:00	0	594	142	332	798	20	0	0	0	146	74	289	2,395 *
4:15 - 5:15	0	591	170	316	754	23	0	0	0	149	86	268	2,357
4:30 - 5:30	0	599	175	290	706	22	0	0	0	151	97	262	2,302
4:45 - 5:45	0	603	175	256	640	22	0	0	0	156	110	256	2,218
5:00 - 6:00	0	587	152	230	575	19	0	0	0	131	94	246	2,034



# VEHICLE TURNING MOVEMENT COUNT SUMMARY

Crain & Associates  
 2007 Sawtelle Blvd., Suite 4  
 Los Angeles, CA 90025  
 Tel: (310) 473-6508

N/S STREET: Beaudry Ave

E/W STREET: Wilshire Blvd

PERIOD: AM PEAK HOUR

DATE: Thu May 26, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 7:15	0	89	0	0	87	7	0	0	5	118	8	128	442
7:15 - 7:30	1	89	0	0	99	5	1	0	7	125	9	132	468
7:30 - 7:45	0	97	0	0	149	10	1	0	2	122	5	162	548
7:45 - 8:00	0	113	0	0	168	12	0	0	0	140	12	157	602
8:00 - 8:15	0	122	0	0	200	9	1	0	1	182	16	160	691
8:15 - 8:30	2	128	0	0	231	10	0	0	0	196	16	151	734
8:30 - 8:45	0	111	0	0	196	6	0	0	5	196	23	153	690
8:45 - 9:00	1	108	0	0	187	7	1	0	8	189	18	144	663
9:00 - 9:15	1	100	0	0	169	7	0	0	6	174	27	132	616
9:15 - 9:30	1	109	0	0	152	6	2	0	6	166	20	127	589
9:30 - 9:45	0	104	0	0	131	8	0	0	8	153	24	112	540
9:45 - 10:00	0	110	0	0	120	3	3	0	3	92	18	126	475

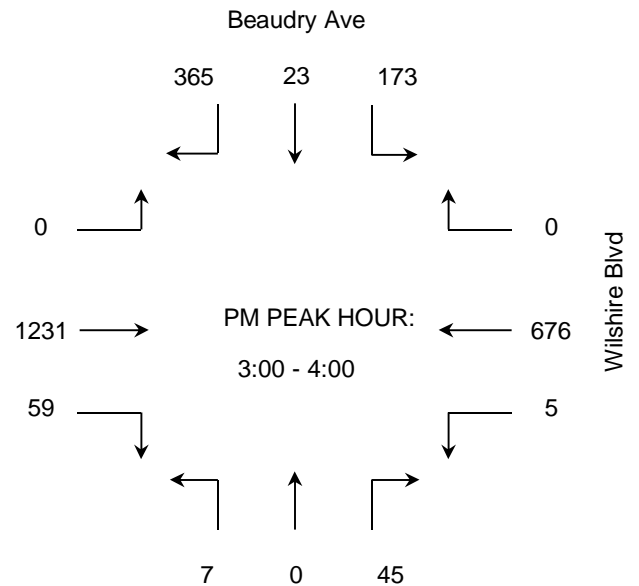
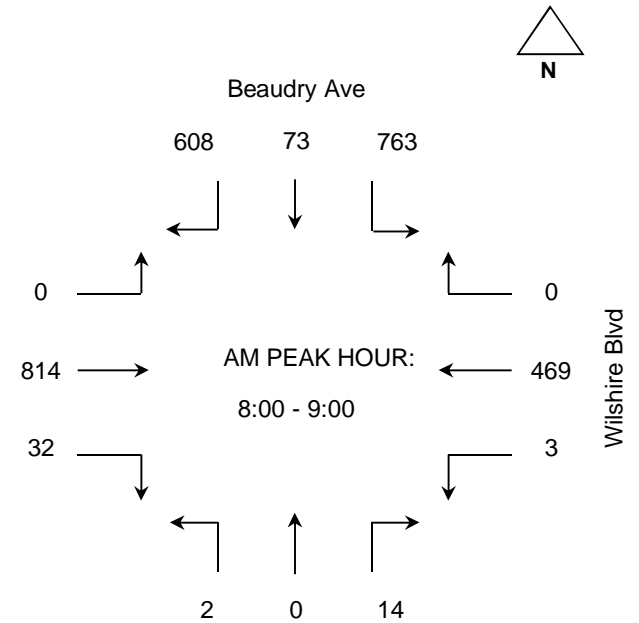
1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
7:00 - 8:00	1	388	0	0	503	34	2	0	14	505	34	579	2,060
7:15 - 8:15	1	421	0	0	616	36	3	0	10	569	42	611	2,309
7:30 - 8:30	2	460	0	0	748	41	2	0	3	640	49	630	2,575
7:45 - 8:45	2	474	0	0	795	37	1	0	6	714	67	621	2,717
8:00 - 9:00	3	469	0	0	814	32	2	0	14	763	73	608	2,778 *
8:15 - 9:15	4	447	0	0	783	30	1	0	19	755	84	580	2,703
8:30 - 9:30	3	428	0	0	704	26	3	0	25	725	88	556	2,558
8:45 - 9:45	3	421	0	0	639	28	3	0	28	682	89	515	2,408
9:00 - 10:00	2	423	0	0	572	24	5	0	23	585	89	497	2,220

PERIOD: PM PEAK HOUR

DATE: Thu May 26, 2011

15-MINUTE TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 3:15	1	105	0	0	142	7	0	0	5	33	14	85	392
3:15 - 3:30	3	89	0	0	187	2	2	0	2	27	2	71	385
3:30 - 3:45	1	111	0	0	177	2	2	0	2	36	10	89	430
3:45 - 4:00	2	96	0	0	184	5	0	0	5	24	6	70	392
4:00 - 4:15	2	92	0	0	209	21	1	0	9	33	9	87	463
4:15 - 4:30	1	158	0	0	381	22	4	0	12	42	2	85	707
4:30 - 4:45	0	166	0	0	290	18	2	0	14	38	2	91	621
4:45 - 5:00	4	170	0	0	242	7	1	0	9	46	11	100	590
5:00 - 5:15	0	182	0	0	318	12	0	0	10	47	8	89	666
5:15 - 5:30	1	178	0	0	262	6	1	0	8	50	10	108	624
5:30 - 5:45	6	186	0	0	226	10	2	0	6	55	21	112	624
5:45 - 6:00	0	160	0	0	184	7	0	0	5	50	9	110	525

1-HOUR TOTALS	WESTBOUND			EASTBOUND			NORTHBOUND			SOUTHBOUND			TOTAL
	L	T	R	L	T	R	L	T	R	L	T	R	
3:00 - 4:00	7	401	0	0	690	16	4	0	14	120	32	315	1,599
3:15 - 4:15	8	388	0	0	757	30	5	0	18	120	27	317	1,670
3:30 - 4:30	6	457	0	0	951	50	7	0	28	135	27	331	1,992
3:45 - 4:45	5	512	0	0	1,064	66	7	0	40	137	19	333	2,183
4:00 - 5:00	7	586	0	0	1,122	68	8	0	44	159	24	363	2,381
4:15 - 5:15	5	676	0	0	1,231	59	7	0	45	173	23	365	2,584 *
4:30 - 5:30	5	696	0	0	1,112	43	4	0	41	181	31	388	2,501
4:45 - 5:45	11	716	0	0	1,048	35	4	0	33	198	50	409	2,504
5:00 - 6:00	7	706	0	0	990	35	3	0	29	202	48	419	2,439





City Of Los Angeles  
 Department Of Transportation  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET: **North/South** FIGUEROA ST (ONE WAY)

**East/West** 5TH ST (ONE WAY)

**Day:** THURSDAY **Date:** December 3, 2009 **Weather:** SUNNY

**Hours:** 7-10AM 3-6PM **Chckrs:** YOUNG

**School Day:** YES **District:** CENTRAL **I/S CODE** 8965

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
<b>DUAL-WHEELED BIKES</b>	278	0	0	207
<b>BUSES</b>	339	0	0	406

	<u>N/B TIME</u>		<u>S/B TIME</u>		<u>E/B TIME</u>		<u>W/B TIME</u>	
<i>AM PK 15 MIN</i>	623	8.15	0	7.00	0	7.00	353	8.15
<i>PM PK 15 MIN</i>	860	5.15	0	3.00	0	3.00	583	5.30
<i>AM PK HOUR</i>	2276	7.45	0	7.00	0	7.00	1334	8.00
<i>PM PK HOUR</i>	3284	5.00	0	3.00	0	3.00	2178	5.00

**NORTHBOUND Approach**  
**FIGUEROA ST**

Hours	Lt	Th	Rt	Total
7-8	488	1382	0	1870
8-9	592	1683	0	2275
9-10	550	1186	0	1736
3-4	746	1930	0	2676
4-5	769	2136	0	2905
5-6	867	2417	0	3284
<b>TOTAL</b>	<b>4012</b>	<b>10734</b>	<b>0</b>	<b>14746</b>

**SOUTHBOUND Approach**  
**NONE**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>TOTAL</b>	<b>XING S/L</b>		<b>XING N/L</b>	
N-S	Ped	Sch	Ped	Sch
1870	0	0	0	0
2275	0	0	0	0
1736	0	0	0	0
2676	0	0	0	0
2905	0	0	0	0
3284	0	0	0	0
<b>14746</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**EASTBOUND Approach**  
**NONE**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**WESTBOUND Approach**  
**5TH ST**

Hours	Lt	Th	Rt	Total
7-8	0	760	207	967
8-9	0	1001	333	1334
9-10	0	934	239	1173
3-4	0	1345	222	1567
4-5	0	1444	255	1699
5-6	0	1879	299	2178
<b>TOTAL</b>	<b>0</b>	<b>7363</b>	<b>1555</b>	<b>8918</b>

<b>TOTAL</b>	<b>XING W/L</b>		<b>XING E/L</b>	
E-W	Ped	Sch	Ped	Sch
967	0	0	0	0
1334	0	0	0	0
1173	0	0	0	0
1567	0	0	0	0
1699	0	0	0	0
2178	0	0	0	0
<b>8918</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: DOWNTOWN LOS ANGELES  
 DATE: TUESDAY, JUNE 08, 2010  
 PERIOD: 07:00 AM TO 10:00 AM  
 INTERSECTION: N/S FIGUEROA STREET  
 E/W 6TH STREET  
 FILE NUMBER: 1-AM

		FROM				
		110 S	110 N	6TH		
15 MINUTE TOTALS	7	8	11A	11B	11C	12
	NBRT	NBTH	EBTH	EBTH	EBTH	EBLT

0700-0715	19	266	99	115	135	30
0715-0730	18	307	101	105	125	40
0730-0745	26	356	115	104	143	60
0745-0800	25	372	135	114	197	65
0800-0815	32	449	126	132	245	47
0815-0830	37	457	163	134	230	68
0830-0845	45	417	133	161	189	53
0845-0900	30	456	138	154	194	71
0900-0915	28	460	147	141	199	60
0915-0930	32	461	143	148	158	74
0930-0945	38	351	145	130	185	61
0945-1000	46	319	129	162	138	60

		FROM					12	TOTALS
		110 S	110 N	6TH				
1 HOUR TOTALS	7	8	11A	11B	11C	EBLT		
	NBRT	NBTH	EBTH	EBTH	EBTH	EBLT	TOTALS	

0700-0800	88	1301	450	438	600	195	3072
0715-0815	101	1484	477	455	710	212	3439
0730-0830	120	1634	539	484	815	240	3832
0745-0845	139	1695	557	541	861	233	4026
0800-0900	144	1779	560	581	858	239	4161
0815-0915	140	1790	581	590	812	252	4165
0830-0930	135	1794	561	604	740	258	4092
0845-0945	128	1728	573	573	736	266	4004
0900-1000	144	1591	564	581	680	255	3815

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978

# INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES  
 PROJECT: DOWNTOWN LOS ANGELES  
 DATE: TUESDAY, JUNE 08, 2010  
 PERIOD: 03:00 PM TO 07:00 PM  
 INTERSECTION: N/S FIGUEROA STREET  
 E/W 6TH STREET  
 FILE NUMBER: 1-PM

15 MINUTE TOTALS			FROM			
	7	8	11A	11B	11C	12
	NBRT	NBTH	EBTH	EBTH	EBTH	EBLT

0300-0315	36	537	81	110	105	68
0315-0330	36	548	89	116	125	50
0330-0345	35	530	62	110	100	67
0345-0400	33	573	92	80	122	80
0400-0415	35	534	89	71	103	56
0415-0430	36	588	70	71	120	72
0430-0445	41	675	82	85	131	81
0445-0500	35	696	65	72	161	74
0500-0515	39	710	65	81	165	101
0515-0530	26	742	69	61	143	118
0530-0545	37	707	52	56	166	102
0545-0600	33	735	77	65	149	81
0600-0615	37	701	68	61	149	61
0615-0630	30	766	70	51	136	75
0630-0645	33	745	62	70	141	64
0645-0700	38	690	75	65	148	56

1 HOUR TOTALS			FROM				TOTALS
	7	8	11A	11B	11C	12	
	NBRT	NBTH	EBTH	EBTH	EBTH	EBLT	

0300-0400	140	2188	324	416	452	265	3785
0315-0415	139	2185	332	377	450	253	3736
0330-0430	139	2225	313	332	445	275	3729
0345-0445	145	2370	333	307	476	289	3920
0400-0500	147	2493	306	299	515	283	4043
0415-0515	151	2669	282	309	577	328	4316
0430-0530	141	2823	281	299	600	374	4518
0445-0545	137	2855	251	270	635	395	4543
0500-0600	135	2894	263	263	623	402	4580
0515-0615	133	2885	266	243	607	362	4496
0530-0630	137	2909	267	233	600	319	4465
0545-0645	133	2947	277	247	575	281	4460
0600-0700	138	2902	275	247	574	256	4392

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626.446.7978



# Intersection Turning Movement

Prepared by:



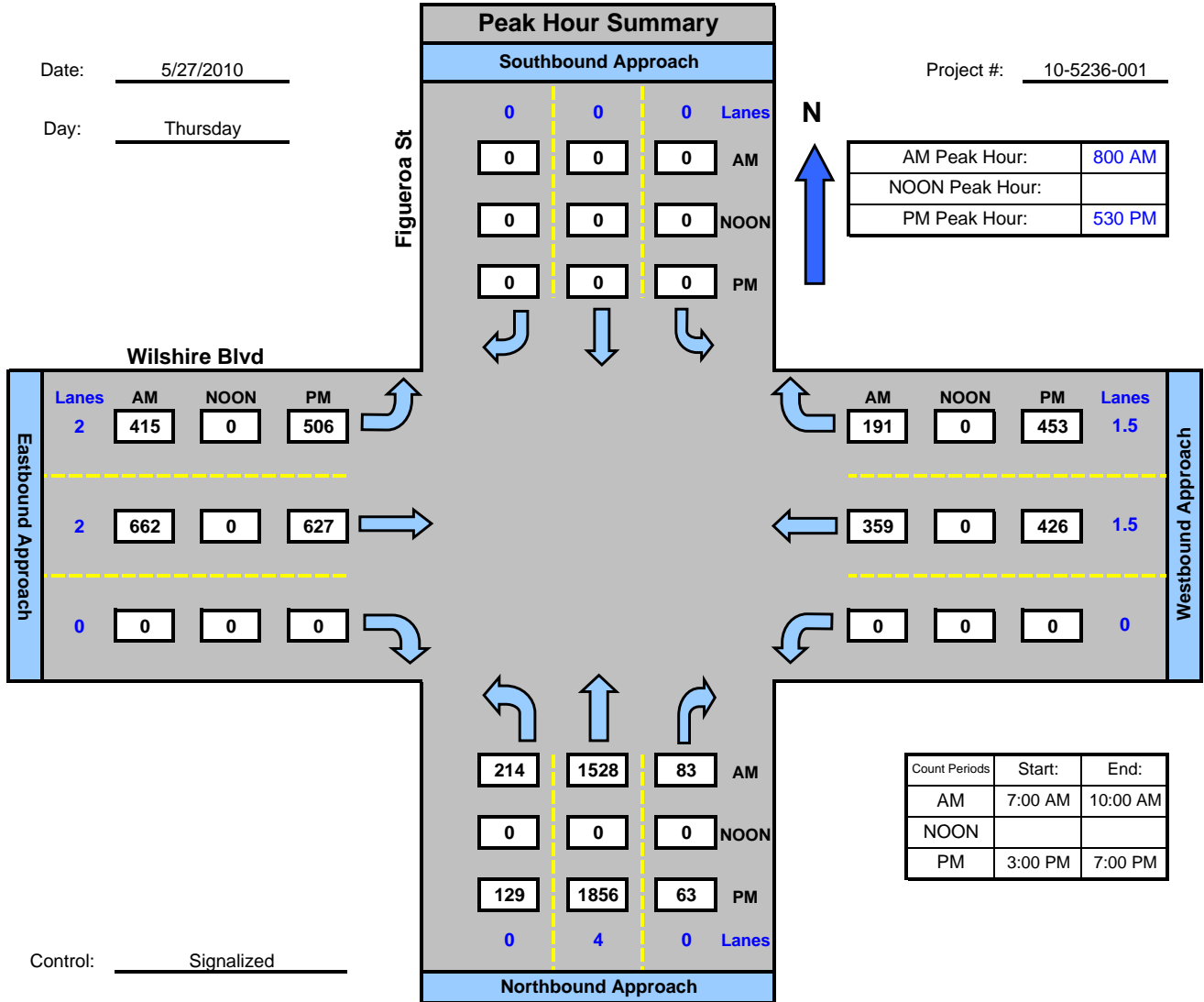
National Data & Surveying Services

## Figueroa St and Wilshire Blvd , City of Los Angeles

Date: 5/27/2010

Day: Thursday

Project #: 10-5236-001





City Of Los Angeles  
 Department Of Transportation  
**MANUAL TRAFFIC COUNT SUMMARY**

STREET:

North/South FIGUEROA ST

East/West 7TH ST

Day: THURSDAY Date: December 17, 2009 Weather: SUNNY

Hours: 7-10AM 3-6PM Chekrs: ALAS

School Day: YES District: CENTRAL I/S CODE 8593

	<u>N/B</u>	<u>S/B</u>	<u>E/B</u>	<u>W/B</u>
<b>DUAL-WHEELED BIKES</b>	199	0	58	132
<b>BUSES</b>	42	0	0	31
<b>BUSES</b>	316	0	163	349

	<u>N/B TIME</u>		<u>S/B TIME</u>		<u>E/B TIME</u>		<u>W/B TIME</u>	
AM PK 15 MIN	481	8.45	0	7.00	121	7.45	228	8.15
PM PK 15 MIN	505	4.15	0	3.00	220	5.15	419	5.45
AM PK HOUR	1839	8.00	0	7.00	438	7.45	810	8.00
PM PK HOUR	1964	3.45	0	3.00	812	4.45	1504	5.00

**NORTHBOUND Approach**  
**FIGUEROA ST**

Hours	Lt	Th	Rt	Total
7-8	129	1324	94	1547
8-9	231	1451	157	1839
9-10	193	1045	139	1377
3-4	196	1511	181	1888
4-5	189	1592	157	1938
5-6	172	1544	149	1865
<b>TOTAL</b>	<b>1110</b>	<b>8467</b>	<b>877</b>	<b>10454</b>

**SOUTHBOUND Approach**  
**NONE**

Hours	Lt	Th	Rt	Total
7-8	0	0	0	0
8-9	0	0	0	0
9-10	0	0	0	0
3-4	0	0	0	0
4-5	0	0	0	0
5-6	0	0	0	0
<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

TOTAL	XING S/L		XING N/L	
N-S	Ped	Sch	Ped	Sch
1547	0	0	0	0
1839	0	0	0	0
1377	0	0	0	0
1888	0	0	0	0
1938	0	0	0	0
1865	0	0	0	0
<b>10454</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**EASTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	81	269	0	350
8-9	76	351	0	427
9-10	78	250	0	328
3-4	157	420	0	577
4-5	192	488	0	680
5-6	187	609	0	796
<b>TOTAL</b>	<b>771</b>	<b>2387</b>	<b>0</b>	<b>3158</b>

**WESTBOUND Approach**

Hours	Lt	Th	Rt	Total
7-8	0	464	167	631
8-9	0	610	200	810
9-10	0	477	151	628
3-4	0	591	232	823
4-5	0	755	249	1004
5-6	0	1211	293	1504
<b>TOTAL</b>	<b>0</b>	<b>4108</b>	<b>1292</b>	<b>5400</b>

TOTAL	XING W/L		XING E/L	
E-W	Ped	Sch	Ped	Sch
981	0	0	0	0
1237	0	0	0	0
956	0	0	0	0
1400	0	0	0	0
1684	0	0	0	0
2300	0	0	0	0
<b>8558</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# Intersection Turning Movement

Prepared by:



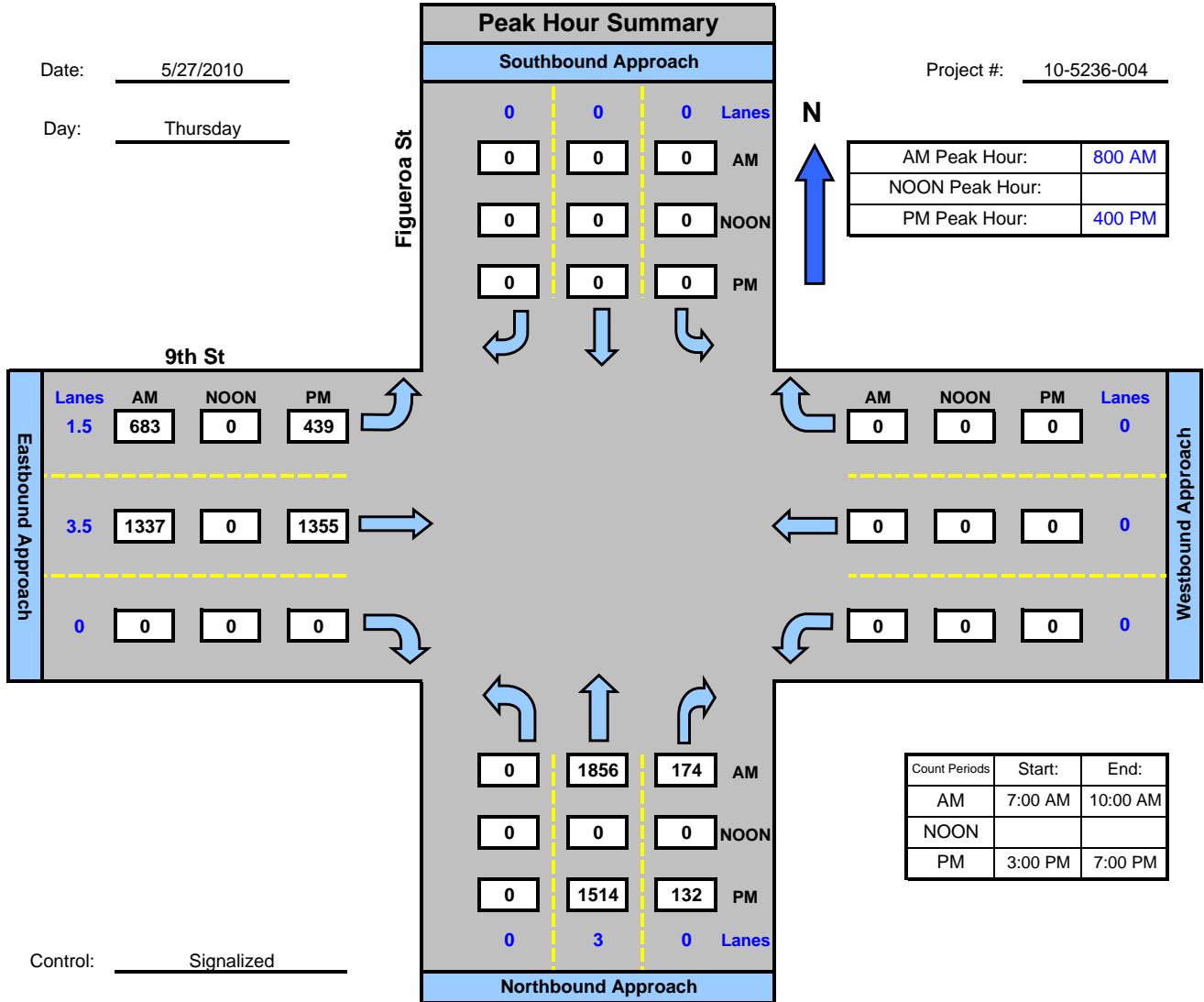
National Data & Surveying Services

## Figueroa St and 9th St, City of Los Angeles

Date: 5/27/2010

Day: Thursday

Project #: 10-5236-004



**APPENDIX C**  
**EXISTING WITH PROJECT CONDITIONS CMA CALCULATION SHEET**

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	27	167	318	0
EASTBOUND	0	223	112	0
NORTHBOUND	0	388	36	0
SOUTHBOUND	1090	770	49	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	0	1	0	0	2	0	3
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	194	N/A	N/A	159	N/A
EASTBOUND	N/A	N/A	168	168	N/A	N/A
NORTHBOUND	N/A	N/A	212	212	N/A	N/A
SOUTHBOUND	600	N/A	N/A	819	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 195  
 NORTH-SOUTH CRITICAL VOLUMES ..... 819  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1014  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.642  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	141	709	92	0
EASTBOUND	85	1298	268	0
NORTHBOUND	124	289	65	70
SOUTHBOUND	209	651	118	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	141	N/A	400	400	N/A
EASTBOUND	85	N/A	783	783	N/A	N/A
NORTHBOUND	124	N/A	144	N/A	65	N/A
SOUTHBOUND	209	N/A	384	384	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 924  
 NORTH-SOUTH CRITICAL VOLUMES ..... 508  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1432  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.885  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	139	998	38	0
EASTBOUND	79	709	33	0
NORTHBOUND	38	272	91	0
SOUTHBOUND	27	129	33	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	139	N/A	518	518	N/A	N/A
EASTBOUND	79	N/A	371	371	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	401
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	189

EAST-WEST CRITICAL VOLUMES ..... 597  
 NORTH-SOUTH CRITICAL VOLUMES ..... 428  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1025  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.613  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	48	995	65	0
EASTBOUND	32	810	30	0
NORTHBOUND	19	103	22	0
SOUTHBOUND	66	260	74	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	477	N/A	631	N/A	N/A
EASTBOUND	N/A	367	N/A	505	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	144
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	400

EAST-WEST CRITICAL VOLUMES ..... 663  
 NORTH-SOUTH CRITICAL VOLUMES ..... 419  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1082  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.651  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	91	650	174	0
EASTBOUND	69	1097	203	0
NORTHBOUND	53	197	83	0
SOUTHBOUND	99	370	85	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	91	N/A	412	412	N/A	N/A
EASTBOUND	69	N/A	650	650	N/A	N/A
NORTHBOUND	53	N/A	N/A	280	N/A	N/A
SOUTHBOUND	99	N/A	N/A	455	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 741  
 NORTH-SOUTH CRITICAL VOLUMES ..... 508  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1249  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.763  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	115	776	0	118
EASTBOUND	103	820	98	32
NORTHBOUND	64	228	0	31
SOUTHBOUND	45	424	0	44

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	115	N/A	388	N/A	0	N/A
EASTBOUND	103	N/A	410	N/A	98	N/A
NORTHBOUND	64	N/A	228	N/A	0	N/A
SOUTHBOUND	45	N/A	424	N/A	0	N/A

EAST-WEST CRITICAL VOLUMES ..... 525  
 NORTH-SOUTH CRITICAL VOLUMES ..... 488  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1013  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.605  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	79	598	0	73
EASTBOUND	63	977	60	0
NORTHBOUND	45	280	72	0
SOUTHBOUND	154	520	59	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	79	N/A	299	N/A	0	N/A
EASTBOUND	63	N/A	518	518	N/A	N/A
NORTHBOUND	45	N/A	N/A	352	N/A	N/A
SOUTHBOUND	154	N/A	N/A	579	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 597  
 NORTH-SOUTH CRITICAL VOLUMES ..... 624  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1221  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.744  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	201	669	380	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	776	78	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	111	N/A	334	N/A	380	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	388	N/A	78	N/A

EAST-WEST CRITICAL VOLUMES ..... 380  
 NORTH-SOUTH CRITICAL VOLUMES ..... 388  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 768  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.412  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	132	424	0	60
EASTBOUND	99	765	46	0
NORTHBOUND	31	202	20	66
SOUTHBOUND	265	885	109	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	99	N/A	406	406	N/A	N/A
NORTHBOUND	31	N/A	202	N/A	20	N/A
SOUTHBOUND	265	N/A	497	497	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 538  
 NORTH-SOUTH CRITICAL VOLUMES ..... 528  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1066  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.641  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	142	271	63	0
EASTBOUND	33	800	443	0
NORTHBOUND	41	233	85	0
SOUTHBOUND	111	915	22	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	142	N/A	167	167	N/A	N/A
EASTBOUND	33	N/A	622	622	N/A	N/A
NORTHBOUND	N/A	104	N/A	255	N/A	N/A
SOUTHBOUND	N/A	491	N/A	556	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 764  
 NORTH-SOUTH CRITICAL VOLUMES ..... 597  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1361  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.837  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	412	24	46	0
EASTBOUND	1	0	2	0
NORTHBOUND	37	287	0	0
SOUTHBOUND	0	1389	80	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	206	N/A	N/A	70	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	3
NORTHBOUND	N/A	70	254	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	734	734	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 209  
 NORTH-SOUTH CRITICAL VOLUMES ..... 771  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 980  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.583  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	252	1105	0	198
EASTBOUND	0	0	0	0
NORTHBOUND	32	153	0	0
SOUTHBOUND	0	1219	496	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	252	N/A	368	N/A	0	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	32	N/A	153	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	858	858	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 368  
 NORTH-SOUTH CRITICAL VOLUMES ..... 890  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1258  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.769  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	481	53	0
EASTBOUND	140	1101	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	422	0	297	142

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	140	N/A	550	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	422	N/A	N/A	N/A	297	N/A

EAST-WEST CRITICAL VOLUMES ..... 550  
 NORTH-SOUTH CRITICAL VOLUMES ..... 422  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 972  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.578  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	3	392	0	0
EASTBOUND	0	928	5	0
NORTHBOUND	8	0	3	0
SOUTHBOUND	757	12	699	133

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	N/A	N/A	466	466	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	11
SOUTHBOUND	489	N/A	N/A	N/A	489	489

EAST-WEST CRITICAL VOLUMES ..... 469  
 NORTH-SOUTH CRITICAL VOLUMES ..... 500  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 969  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.610  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1068	289	0
EASTBOUND	0	0	0	0
NORTHBOUND	618	1792	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	5	1	1	0	7
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	194	194	194	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	227	N/A	448	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 194  
 NORTH-SOUTH CRITICAL VOLUMES ..... 448  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 642  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.364  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	330	2034	0	0
NORTHBOUND	0	2150	161	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	330	N/A	407	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	430	N/A	161	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 407  
 NORTH-SOUTH CRITICAL VOLUMES ..... 430  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 837  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.488  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	388	211	0
EASTBOUND	393	837	0	0
NORTHBOUND	277	1771	126	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	216	N/A	418	N/A	N/A	N/A
NORTHBOUND	N/A	435	435	435	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 418  
 NORTH-SOUTH CRITICAL VOLUMES ..... 435  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 853  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.529  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	492	276	0
EASTBOUND	173	479	0	0
NORTHBOUND	175	1860	106	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	2	0	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	N/A	N/A	246	N/A	276
EASTBOUND	95	N/A	240	N/A	N/A	N/A
NORTHBOUND	N/A	428	428	428	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 371  
 NORTH-SOUTH CRITICAL VOLUMES ..... 428  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 799  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.491  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	692	1528	0	0
NORTHBOUND	0	1746	231	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	444	444	444	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	494	494	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	444
NORTH-SOUTH CRITICAL VOLUMES .....	494
	-----
THE SUM OF CRITICAL VOLUMES .....	938
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.525
LEVEL OF SERVICE .....	A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION:1, GLENDALE BOULEVARD/LUCAS AVENUE & 1ST STREET/2ND STREET  
DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	29	327	1166	0
EASTBOUND	0	136	30	0
NORTHBOUND	0	745	28	0
SOUTHBOUND	337	504	64	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	0	1	0	0	2	0	3
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	1	1	0	0	2
SOUTHBOUND	2	0	0	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	356	N/A	N/A	583	N/A
EASTBOUND	N/A	N/A	83	83	N/A	N/A
NORTHBOUND	N/A	N/A	386	386	N/A	N/A
SOUTHBOUND	185	N/A	N/A	568	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 583  
 NORTH-SOUTH CRITICAL VOLUMES ..... 571  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1154  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.740  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 2, LUCAS AVENUE & 3RD STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	98	1123	159	0
EASTBOUND	126	883	149	0
NORTHBOUND	170	538	0	114
SOUTHBOUND	69	443	101	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	2	0	1	0	4
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	98	N/A	641	641	N/A
EASTBOUND	126	N/A	516	516	N/A	N/A
NORTHBOUND	170	N/A	269	N/A	0	N/A
SOUTHBOUND	69	N/A	272	272	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 767  
 NORTH-SOUTH CRITICAL VOLUMES ..... 442  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1209  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.736  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 3, LUCAS AVENUE & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	125	735	22	0
EASTBOUND	74	990	65	0
NORTHBOUND	34	258	95	0
SOUTHBOUND	33	367	70	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	125	N/A	378	378	N/A	N/A
EASTBOUND	74	N/A	528	528	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	387
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	470

EAST-WEST CRITICAL VOLUMES ..... 653  
 NORTH-SOUTH CRITICAL VOLUMES ..... 504  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1157  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.701  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	102	958	113	0
EASTBOUND	60	706	64	0
NORTHBOUND	46	269	63	0
SOUTHBOUND	47	290	81	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	0	1	0	0	2
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	441	N/A	732	N/A	N/A
EASTBOUND	N/A	284	N/A	546	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	378
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	418

EAST-WEST CRITICAL VOLUMES ..... 792  
 NORTH-SOUTH CRITICAL VOLUMES ..... 464  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1256  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.767  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	100	702	120	0
EASTBOUND	105	1080	108	0
NORTHBOUND	102	289	110	0
SOUTHBOUND	180	433	113	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	100	N/A	411	411	N/A
EASTBOUND	105	N/A	594	594	N/A	N/A
NORTHBOUND	102	N/A	N/A	399	N/A	N/A
SOUTHBOUND	180	N/A	N/A	546	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 694  
 NORTH-SOUTH CRITICAL VOLUMES ..... 648  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1342  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.825  
 LEVEL OF SERVICE ..... D

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 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 6, BIXEL STREET & WILSHIRE BOULEVARD  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	104	1008	119	28
EASTBOUND	111	885	44	90
NORTHBOUND	92	492	21	86
SOUTHBOUND	56	367	25	56

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	104	N/A	504	N/A	119	N/A
EASTBOUND	111	N/A	442	N/A	44	N/A
NORTHBOUND	92	N/A	492	N/A	21	N/A
SOUTHBOUND	56	N/A	367	N/A	25	N/A

EAST-WEST CRITICAL VOLUMES ..... 615  
 NORTH-SOUTH CRITICAL VOLUMES ..... 548  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1163  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.705  
  
 LEVEL OF SERVICE ..... C

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 7, BIXEL STREET & 7TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	231	568	0	65
EASTBOUND	59	675	451	0
NORTHBOUND	77	275	72	0
SOUTHBOUND	63	512	66	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	231	N/A	284	N/A	0	N/A
EASTBOUND	59	N/A	563	563	N/A	N/A
NORTHBOUND	77	N/A	N/A	347	N/A	N/A
SOUTHBOUND	63	N/A	N/A	578	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 794  
 NORTH-SOUTH CRITICAL VOLUMES ..... 655  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1449  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.896  
 LEVEL OF SERVICE ..... D

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 8, BIXEL STREET/SR-110 SB ON-RAMP & 8TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	765	1064	501	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	0	566	67	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	2	0	2	1	0	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	0	0	2	0	1	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	421	N/A	522	522	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	283	N/A	67	N/A

EAST-WEST CRITICAL VOLUMES ..... 522  
 NORTH-SOUTH CRITICAL VOLUMES ..... 283  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 805  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.437  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 9, BEAUDRY AVENUE & 1ST STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	108	991	292	22
EASTBOUND	121	623	30	0
NORTHBOUND	57	859	115	146
SOUTHBOUND	43	291	108	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	2	0	1	0	4
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	1	0	1	0	1	0	3
SOUTHBOUND	1	0	1	1	0	0	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	108	N/A	496	N/A	292	N/A
EASTBOUND	121	N/A	326	326	N/A	N/A
NORTHBOUND	57	N/A	859	N/A	115	N/A
SOUTHBOUND	43	N/A	200	200	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 617  
 NORTH-SOUTH CRITICAL VOLUMES ..... 902  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1519  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.943  
 LEVEL OF SERVICE ..... E

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 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 10, BEAUDRY AVENUE & 2ND STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	87	842	94	0
EASTBOUND	64	367	106	0
NORTHBOUND	355	987	138	0
SOUTHBOUND	49	400	17	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	1	1	0	0	3
NORTHBOUND	0	1	0	1	0	0	2
SOUTHBOUND	0	1	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
	WESTBOUND	87	N/A	468	468	N/A
EASTBOUND	64	N/A	236	236	N/A	N/A
NORTHBOUND	N/A	547	N/A	932	N/A	N/A
SOUTHBOUND	N/A	120	N/A	346	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 532  
 NORTH-SOUTH CRITICAL VOLUMES ..... 981  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1513  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.939  
  
 LEVEL OF SERVICE ..... E

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 11, BEAUDRY AVENUE & SR-110 SB OFF-RAMP  
DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	224	0	71	0
EASTBOUND	58	0	46	0
NORTHBOUND	0	1331	0	0
SOUTHBOUND	0	605	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	1	0	1	0	0	3
EASTBOUND	0	0	0	0	0	1	1
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	112	N/A	N/A	71	N/A	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	104
NORTHBOUND	N/A	666	666	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	302	302	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	216
NORTH-SOUTH CRITICAL VOLUMES .....	666
	-----
THE SUM OF CRITICAL VOLUMES .....	882
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.518
LEVEL OF SERVICE .....	A

-----  
\* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 12, BEAUDRY AVENUE & MIRAMAR STREET/3RD STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	142	972	474	4
EASTBOUND	0	0	0	0
NORTHBOUND	22	738	0	0
SOUTHBOUND	0	537	263	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	1	0	3	0	1	0	5
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	0	1	1	0	0	0	2
SOUTHBOUND	0	0	1	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	142	N/A	324	N/A	474	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	347	413	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	400	400	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 474  
 NORTH-SOUTH CRITICAL VOLUMES ..... 422  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 896  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.527  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 13, BEAUDRY AVENUE & 5TH STREET/6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	660	312	0
EASTBOUND	328	1004	0	0
NORTHBOUND	0	0	0	0
SOUTHBOUND	242	0	148	164

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED	TOTAL LANES
	ONLY	SHARED		SHARED	ONLY		
WESTBOUND	0	0	1	1	0	0	2
EASTBOUND	1	0	2	0	0	0	3
NORTHBOUND	0	0	0	0	0	0	0
SOUTHBOUND	1	0	0	0	1	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT		THROUGH ONLY	RIGHT		L/T/R SHARED
	ONLY	SHARED		SHARED	ONLY	
WESTBOUND	N/A	N/A	486	486	N/A	N/A
EASTBOUND	328	N/A	502	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A
SOUTHBOUND	242	N/A	N/A	N/A	148	N/A

EAST-WEST CRITICAL VOLUMES ..... 814  
 NORTH-SOUTH CRITICAL VOLUMES ..... 242  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1056  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.634  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 14, BEAUDRY AVENUE & WILSHIRE BOULEVARD  
DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	692	0	0
EASTBOUND	0	906	1	0
NORTHBOUND	1	0	6	0
SOUTHBOUND	293	0	505	54

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	0	0	2
EASTBOUND	0	0	1	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	1	0	0	0	1	1	3

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	346	346	N/A	N/A	N/A
EASTBOUND	N/A	N/A	454	454	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	7
SOUTHBOUND	266	N/A	N/A	N/A	266	266

EAST-WEST CRITICAL VOLUMES ..... 454  
 NORTH-SOUTH CRITICAL VOLUMES ..... 273  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 727  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
  
 CMA VALUE ..... 0.440  
  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

Northbound and Southbound approaches have opposed signal phases.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 15, FIGUEROA STREET & 5TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	1552	362	0
EASTBOUND	0	0	0	0
NORTHBOUND	1255	2313	0	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	5	1	1	0	7
EASTBOUND	0	0	0	0	0	0	0
NORTHBOUND	3	0	4	0	0	0	7
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	273	273	273	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	460	N/A	578	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 273  
 NORTH-SOUTH CRITICAL VOLUMES ..... 578  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 851  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.497  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 16, FIGUEROA STREET & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	485	1669	0	0
NORTHBOUND	0	3016	175	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	4	0	0	0	6
NORTHBOUND	0	0	5	0	1	0	6
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	359	359	359	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	603	N/A	175	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 359  
 NORTH-SOUTH CRITICAL VOLUMES ..... 603  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 962  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.571  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 17, FIGUEROA STREET & WILSHIRE BOULEVARD  
DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	466	354	0
EASTBOUND	469	674	0	0
NORTHBOUND	198	2321	84	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	1	1	1	0	3
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	273	273	273	N/A
EASTBOUND	258	N/A	337	N/A	N/A	N/A
NORTHBOUND	N/A	521	521	521	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 531  
 NORTH-SOUTH CRITICAL VOLUMES ..... 521  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1052  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.668  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.



CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 18, FIGUEROA STREET & 7TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	634	200	0
EASTBOUND	281	641	0	0
NORTHBOUND	160	2025	112	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED	TOTAL LANES
EASTBOUND	2	0	2	0	0	0	4
NORTHBOUND	0	1	3	1	0	0	5
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
EASTBOUND	155	N/A	320	N/A	N/A	N/A
NORTHBOUND	N/A	459	459	459	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 472  
 NORTH-SOUTH CRITICAL VOLUMES ..... 459  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 931  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 3\*  
 CMA VALUE ..... 0.583  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATSAC Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 19, FIGUEROA STREET & JAMES M. WOOD BOULEVARD/9TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	410	1233	0	0
NORTHBOUND	0	1820	166	0
SOUTHBOUND	0	0	0	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	0	0	0	0	0	0
EASTBOUND	1	1	3	0	0	0	5
NORTHBOUND	0	0	3	1	0	0	4
SOUTHBOUND	0	0	0	0	0	0	0

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
EASTBOUND	329	329	329	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	496	496	N/A	N/A
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES .....	329
NORTH-SOUTH CRITICAL VOLUMES .....	496
	-----
THE SUM OF CRITICAL VOLUMES .....	825
NUMBER OF CRITICAL CLEARANCE INTERVALS ....	2*
CMA VALUE .....	0.450
LEVEL OF SERVICE .....	A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
CASE: EXISTING (2008) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	48	995	0	65
EASTBOUND	32	810	30	0
NORTHBOUND	19	103	22	0
SOUTHBOUND	66	260	74	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	1	0	3
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	445	598	N/A	0	N/A
EASTBOUND	N/A	372	N/A	500	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	144
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	400

EAST-WEST CRITICAL VOLUMES ..... 630  
 NORTH-SOUTH CRITICAL VOLUMES ..... 419  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1049  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.599  
 LEVEL OF SERVICE ..... A

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: AM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	91	650	174	0
EASTBOUND	69	1097	177	26
NORTHBOUND	53	197	83	0
SOUTHBOUND	99	370	85	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	91	N/A	412	412	N/A	N/A
EASTBOUND	69	N/A	548	N/A	177	N/A
NORTHBOUND	53	N/A	N/A	280	N/A	N/A
SOUTHBOUND	99	N/A	N/A	455	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 639  
 NORTH-SOUTH CRITICAL VOLUMES ..... 508  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1147  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.665  
  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 4, LUCAS AVENUE & WILSHIRE BOULEVARD  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	102	958	70	43
EASTBOUND	60	706	64	0
NORTHBOUND	46	269	63	0
SOUTHBOUND	47	290	81	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	LANES
WESTBOUND	0	1	1	0	1	0	3
EASTBOUND	0	1	0	1	0	0	2
NORTHBOUND	0	0	0	0	0	1	1
SOUTHBOUND	0	0	0	0	0	1	1

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	N/A	385	676	N/A	70	N/A
EASTBOUND	N/A	291	N/A	539	N/A	N/A
NORTHBOUND	N/A	N/A	N/A	N/A	N/A	378
SOUTHBOUND	N/A	N/A	N/A	N/A	N/A	418

EAST-WEST CRITICAL VOLUMES ..... 736  
 NORTH-SOUTH CRITICAL VOLUMES ..... 464  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1200  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
 CMA VALUE ..... 0.700  
 LEVEL OF SERVICE ..... B

-----  
 \* Includes CMA value decreased due to ATCS Implementation.

CRAIN & ASSOCIATES  
CMA CALCULATIONS

INTERSECTION: 5, BIXEL STREET & 6TH STREET  
 DATE: 6/7/2011 INITIALS: RK PERIOD: PM PEAK HOUR  
 CASE: EXISTING (2008) WITH PROJECT PLUS MITIGATION

\*\* INPUT VOLUMES \*\*

APPROACH	LEFT	THROUGH	** RIGHT TURNS **	
			MIN ON GREEN	MAX ON RED
WESTBOUND	100	702	120	0
EASTBOUND	105	1080	57	51
NORTHBOUND	102	289	110	0
SOUTHBOUND	180	433	113	0

\*\* NUMBER OF LANES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R	TOTAL LANES
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED	
WESTBOUND	1	0	1	1	0	0	3
EASTBOUND	1	0	2	0	1	0	4
NORTHBOUND	1	0	0	1	0	0	2
SOUTHBOUND	1	0	0	1	0	0	2

\*\* ASSIGNED LANE VOLUMES \*\*

APPROACH	LEFT	LEFT	THROUGH	RIGHT	RIGHT	L/T/R
	ONLY	SHARED	ONLY	SHARED	ONLY	SHARED
WESTBOUND	100	N/A	411	411	N/A	N/A
EASTBOUND	105	N/A	540	N/A	57	N/A
NORTHBOUND	102	N/A	N/A	399	N/A	N/A
SOUTHBOUND	180	N/A	N/A	546	N/A	N/A

EAST-WEST CRITICAL VOLUMES ..... 640  
 NORTH-SOUTH CRITICAL VOLUMES ..... 648  
 -----  
 THE SUM OF CRITICAL VOLUMES ..... 1288  
  
 NUMBER OF CRITICAL CLEARANCE INTERVALS .... 2\*  
  
 CMA VALUE ..... 0.759  
  
 LEVEL OF SERVICE ..... C

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 \* Includes CMA value decreased due to ATCS Implementation.

**APPENDIX D**  
**2011 RELATED PROJECTS LOCATION AND TRIP GENERATIONS**

**Good Samaritan Mixed-Use  
Related Projects Location, Description and Trip Generation**

Crain Associates  
6/8/2011  
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Map No.	Location (Address)	Size	Unit	Description	Daily	AM Peak Hour			PM Peak Hour			
						In	Out	Total	In	Out	Total	
1.	2950 6th Street	7,500 sf	Retail		332	5	4	9	9	11	20	
				277 du	Condominium	1,623	21	101	122	96	48	144
				80 rm	Hotel	654	27	18	45	25	22	47
				13,000 sf	Restaurant	1,653	78	72	150	87	55	142
					4,262	131	195	326	217	136	353	
2.	3033 Wilshire Boulevard	190 du	Condominium		1,113	14	70	84	66	33	99	
				5,540 sf	Retail	246	4	3	7	7	8	15
					1,359	18	73	91	73	41	114	
3.	2525 Wilshire Boulevard	118 du	Condominium		691	9	43	52	41	20	61	
				3,000 sf	Retail	133	2	2	4	4	4	8
					824	11	45	56	45	24	69	
4.	2100 3rd Street	24,075 sf		Medical Office	870	47	13	60	24	66	90	
5.	2929 W Leeward Avenue	125 du		Apartment	840	13	51	64	51	27	78	
6.	981 Arapahoe Street	60 du	Condominium		352	4	22	26	21	10	31	
				6,000 sf	Retail	266	4	3	7	7	9	16
					618	8	25	33	28	19	47	
7.	2323 Olympic Boulevard	87 du	Condominium		510	6	32	38	30	15	45	
				70,231 sf	Retail	5,397	77	50	127	238	258	496
					5,907	83	82	165	268	273	541	
8.	2300 W 7th Street	400 st		Elementary School	516	92	76	168	50	62	112	
9.	820 S Hoover Street	32 du	Condominium		188	2	12	14	11	6	17	
				4,500 sf	Retail	199	3	2	5	5	7	12
					-1,435 sf	Office (to be removed)	(16)	(2)	-	(2)	(2)	
					371	3	14	17	16	11	27	
10.	1610 W 7th Street	46 du		Apartment	309	5	18	23	19	10	29	
11.	1700 W Pico Boulevard	450 st		Charter School (K-5)	581	104	85	189	57	69	126	
12.	1130 W Wilshire Boulevard	86,844 sf		Office	956	119	16	135	22	107	129	
13.	662 Lucas Avenue	311 du		Condominium	1,822	23	114	137	109	53	162	
14.	1924 W Temple Street	132 du	High-Rise Condominium		552	9	36	45	31	19	50	
				73 du	Condominium	428	5	27	32	25	13	38
		46 du	Apartment	309	5	18	23	19	10	29		
		19,103 sf	Retail	847	14	9	23	23	29	52		
					2,136	33	90	123	98	71	169	
15.	1027 Wilshire Boulevard	4,728 sf	Retail		210	4	2	6	6	7	13	
				402 du	Condominium	2,356	30	147	177	140	69	209
					2,566	34	149	183	146	76	222	
16.	1010 Wilshire Boulevard	250 du		Condominium	1,465	19	91	110	87	43	130	
17.	619 S Westlake Avenue	52 du		Apartment	349	5	22	27	21	11	32	
18.	1076 6th Street	20,000 sf	Retail		886	14	10	24	24	30	54	
				600 du	Apartment	4,032	61	245	306	242	130	372
					4,918	75	255	330	266	160	426	
19.	2924 W 8th Street	37 du	Apartment		249	4	15	19	15	8	23	
				48 du	Assisted Units	128	5	2	7	5	6	11
					377	9	17	26	20	14	34	
20.	431 S Lucas Avenue	75 du		Apartment	504	8	30	38	31	16	47	
21.	1311 5th Street	7,037 sf	Retail		312	5	3	8	8	11	19	
				130 du	Condominium	762	10	47	57	46	22	68
					1,074	15	50	65	54	33	87	
22.	1234 3rd Street	7,740 sf	Retail		343	5	4	9	9	12	21	
				363 du	Apartment	2,439	37	148	185	146	79	225
					2,782	42	152	194	155	91	246	
23.	1215 W Miramar Street	500 st		High School	855	141	64	205	33	37	70	
24.	1200 W Colton Street	25,500 sf		Human Resource Department	1,758	126	24	150	10	21	31	
25.	2908 W Wilshire Boulevard	156,000 sf		Shopping Center	9,067	124	80	204	403	437	840	
26.	991 Arapahoe Street	46 du		Condominium	270	3	17	20	16	8	24	
27.	1430 W Beverly Boulevard	157 du		Apartment	1,055	16	64	80	63	34	97	
28.	3050 W Wilshire Boulevard	133 du		Student Housing	894	14	54	68	53	29	82	
29.	1111 Sunset Boulevard	71 du		Apartment	477	7	29	36	29	15	44	
30.	711 N Broadway	65 du		Apartment	437	7	26	33	26	14	40	
31.	Cesar E. Chavez Avenue and Broadway <sup>[4]</sup>	280 du	Condominium		2,665	40	112	152	145	102	247	
				22,000 sf	Retail							
32.	715 N Yale Street	65 du		Apartment	437	7	26	33	26	14	40	
33.	500 Bunker Hill Avenue	17,000 sf	Supermarket		1,738	34	21	55	91	87	178	
				4,200 sf	Retail	186	3	2	5	5	6	11
					1,924	37	23	60	96	93	189	
34.	Cesar E Chavez Av. and Bunker Hill Av.	272 du	Condominium		1,594	20	100	120	94	47	141	
				6,431 sf	Retail	285	5	3	8	7	10	17
				8,000 sf	Restaurant	1,017	48	44	92	53	34	87
					2,896	73	147	220	154	91	245	



**Good Samaritan Mixed-Use  
Related Projects Location, Description and Trip Generation**

Crain Associates  
6/8/2011  
Draft

Map No.	Location (Address)	Size	Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
35.	211 Temple Street	1,660	emp	Hall of Justice Building	19,837	1,422	271	1,693	2,347	824	3,171
36.	Los Angeles Street and Temple Street	179,000	sf	Jail	9,110	859	442	1,301	146	375	521
37.	1st Street and Main Street	500,000	sf	Police HQ Facility Plan	34,465	2,470	470	2,940	188	417	605
38.	249-259 S Broadway	40	du	Condominium	234	3	15	18	14	7	21
39.	250 S Hill Street	330	du	Condominium	1,379	21	91	112	78	47	125
		12,000	sf	Retail/Restaurant	<u>532</u>	<u>8</u>	<u>6</u>	<u>14</u>	<u>15</u>	<u>18</u>	<u>33</u>
					1,911	29	97	126	93	65	158
40.	242 S Broadway	37	du	Apartment	249	4	15	19	15	8	23
41.	1st Street and Alameda Street	350	du	Apartment	2,352	36	143	179	141	76	217
		40	du	Senior Housing	139	1	2	3	2	2	4
		123,000	sf	Retail	7,769	108	69	177	345	373	718
		180,000	sf	Office	<u>1,982</u>	<u>246</u>	<u>33</u>	<u>279</u>	<u>46</u>	<u>222</u>	<u>268</u>
					12,242	391	247	638	534	673	1,207
42.	221 Los Angeles Street	300	du	Condominium	1,758	22	110	132	105	51	156
		3,400	sf	Retail	<u>151</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>9</u>
					1,909	24	112	136	109	56	165
43.	200 Los Angeles Street	50,000	sf	Retail	4,328	63	40	103	190	206	396
		570	du	Condominium	3,340	43	208	251	198	98	296
		280	du	Apartment	<u>1,882</u>	<u>29</u>	<u>114</u>	<u>143</u>	<u>113</u>	<u>61</u>	<u>174</u>
					9,550	135	362	497	501	365	866
44.	418 S Spring Street	96	du	High-Rise Condominium	401	6	27	33	22	14	36
		122	rm	Hotel	997	41	27	68	38	34	72
		10,000	sf	Retail	443	7	5	12	12	15	27
		2,000	sf	Spa	25	9	12	21	36	33	69
		3,500	sf	Drinking Place	<u>315</u>	<u>23</u>	<u>5</u>	<u>28</u>	<u>26</u>	<u>14</u>	<u>40</u>
					2,181	86	76	162	134	110	244
45.	416 S Spring Street	66	du	Condominium	387	5	24	29	23	11	34
46.	548 S Spring Street	157	du	Apartment	1,055	16	64	80	63	34	97
47.	424-426 S Broadway	54	du	Apartment	363	6	22	28	21	12	33
48.	458 S Spring Street	209	du	Apartment	1,404	21	86	107	85	45	130
49.	510 S Spring Street	153	du	Apartment	1,028	16	62	78	62	33	95
50.	506 S Grand Avenue	140	du	Condominium	820	11	51	62	49	24	73
51.	411 W 5th Street	74	du	Apartment	497	8	30	38	30	16	46
52.	315-317 W 5th Street	84	du	Apartment	564	9	34	43	34	18	52
53.	540 S Broadway	143	du	Apartment	961	15	58	73	58	31	89
54.	1111 S Broadway	20	du	Apartment	134	2	8	10	8	4	12
55.	601 S Main Street	777	du	High-Rise Condominium	3,248	50	214	264	183	112	295
		25,000	sf	Retail	<u>1,108</u>	<u>18</u>	<u>12</u>	<u>30</u>	<u>30</u>	<u>38</u>	<u>68</u>
					4,356	68	226	294	213	150	363
56.	620 S Main Street	35	du	Apartment	235	4	14	18	14	8	22
57.	219-225 W 7th Street	73	du	Apartment	491	7	30	37	29	16	45
58.	630 W 6th Street	90	du	Apartment	605	9	37	46	36	20	56
59.	609 S Grand Avenue	99	du	Apartment	665	10	40	50	40	21	61
60.	655 S Hope Street	90	du	Apartment	605	9	37	46	36	20	56
61.	727 W 7th Street	221	du	Condominium	1,295	16	81	97	77	38	115
62.	930 W Wilshire Boulevard <sup>[6]</sup>	560	rm	Hotel	3624	635	165	800	280	578	858
		100	du	Apartment							
		1,500,000	sf	Office							
		275,000	sf	Retail/Restaurant							
63.	520 W 7th Street, 700-708 S Grand Avenue	76	du	Condominium	445	6	27	33	27	13	40
64.	8th Street and Grand Avenue	34,061	sf	Retail	3,372	50	32	82	148	160	308
		10,000	sf	Restaurant	1,272	60	55	115	66	43	109
		875	du	Condominium	<u>5,128</u>	<u>65</u>	<u>320</u>	<u>385</u>	<u>305</u>	<u>150</u>	<u>455</u>
					9,772	175	407	582	519	353	872
65.	801-803 S Grand Avenue	132	du	Condominium	774	10	48	58	46	23	69
66.	500-518 W 7th Street	55	du	Apartment	370	6	22	28	22	12	34
67.	760 S Hill Street	91	du	Apartment	612	9	37	46	36	20	56
68.	756 S Broadway	46	du	Apartment	309	5	18	23	19	10	29
69.	756 S Spring Street	46	du	Apartment	309	5	18	23	19	10	29
70.	220 W 9th Street	10,300	sf	Retail	456	7	5	12	12	16	28
		22,500	sf	Restaurant & Bar	<u>2,861</u>	<u>135</u>	<u>124</u>	<u>259</u>	<u>150</u>	<u>96</u>	<u>246</u>
					3,317	142	129	271	162	112	274
71.	738-750 S Los Angeles Street	308	du	Apartment	2,070	31	126	157	124	67	191
72.	315-317 E 8th Street	64	du	Condominium	375	5	23	28	22	11	33
73.	849 S Broadway	147	du	Condominium	861	11	54	65	51	25	76
74.	901-909 S Broadway	82	du	Apartment	551	8	34	42	33	18	51
75.	409 W Olympic Boulevard	78	du	Apartment	524	8	32	40	31	17	48
76.	8th Street and San Francisco Street <sup>[7]</sup>			<u>Metropolis</u>	8,010	307	318	625	386	512	898

**Good Samaritan Mixed-Use  
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Map No.	Location (Address)	Size	Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
		836 du		Condominium							
		988,225 sf		Office							
		480 rm		Hotel							
		46,000 sf		Retail							
77.	900 Figueroa Street	27,000 sf		Retail	2,900	43	28	71	127	137	264
		629 du		Condominium	3,686	47	230	277	219	108	327
					6,586	90	258	348	346	245	591
78.	948 Figueroa Street	7,500 sf		Retail	1,261	20	13	33	54	59	113
		156 du		Apartment	1,048	16	64	80	63	34	97
					2,309	36	77	113	117	93	210
79.	860 S Olive Street	98 du		live/work	659	10	40	50	40	21	61
		11,400 sf		Retail	505	8	6	14	14	17	31
		6,000 sf		Restaurant	763	36	33	69	40	26	66
		255 du		Condominium	1,066	17	70	87	60	37	97
		7,500 sf		Retail	332	5	4	9	9	11	20
					3,325	76	153	229	163	112	275
80.	1000 S Hope Street	116 du		Apartment	780	12	47	59	47	25	72
81.	1340 Figueroa Street	273 du		Condominium	1,141	18	75	93	64	40	104
		10,000 sf		Spa	125	9	12	21	36	33	69
		9,000 sf		Restaurant	1,144	54	50	104	60	38	98
					2,410	81	137	218	160	111	271
82.	1050 S Grand Avenue	151 du		Condominium	631	10	41	51	35	22	57
		3,472 sf		Retail	154	2	2	4	4	5	9
		2,200 sf		Restaurant	280	13	12	25	15	9	24
					1,065	25	55	80	54	36	90
83.	330 W 11th Street	66 du		Condominium	387	5	24	29	23	11	34
84.	848 S Grand Avenue	420 du		High-Rise Condominium	1,756	27	116	143	99	61	160
		38,500 sf		Market	3,936	76	49	125	205	197	402
					5,692	103	165	268	304	258	562
85.	1155 Grand Avenue	17,500 sf		Retail	776	13	8	21	21	26	47
		374 du		Condominium	2,192	28	137	165	130	64	194
					2,968	41	145	186	151	90	241
86.	1301 Olive Street	105 du		Condominium	615	8	38	46	37	18	55
		4,500 sf		Retail	199	3	2	5	5	7	12
					814	11	40	51	42	25	67
87.	1525 S Grand Avenue	64,734 sf		Medical Office	2,339	127	34	161	65	176	241
88.	902 Washington Boulevard	142 du		Condominium	832	11	51	62	50	24	74
89.	233 W Washington Boulevard	92 du		Apartment	618	9	38	47	37	20	57
		24,250 sf		Retail	1,075	17	12	29	29	37	66
		24,250 sf		Office	267	33	5	38	6	30	36
					1,960	59	55	114	72	87	159
90.	1115 S Hill Street	172 du		Condominium	1,008	13	63	76	60	29	89
		6,850 sf		Retail	304	5	3	8	8	11	19
					1,312	18	66	84	68	40	108
91.	1340 S Olive Street	150 du		Condominium	627	10	41	51	35	22	57
92.	12th Street and Broadway <sup>[8]</sup>			<u>Herald Examiner</u>	5,416	137	211	348	280	268	548
		575 du		Condominium							
		39,610 sf		Shopping Center							
		39,725 sf		Office							
93.	2005 W Pico Boulevard	30,300 sf		Office	334	41	6	47	8	37	45
		4,500 sf		Assembly Hall	50	6	1	7	1	6	7
					384	47	7	54	9	43	52
94.	9th Street and Hill Street <sup>[9]</sup>			<u>Eastern Tower</u>	1,140	14	56	70	64	38	102
		267 du		Condominium							
		5,520 sf		Retail							
95.	1360 & 1500 Figueroa Street <sup>[10]</sup>			<u>1360 and 1500 Figueroa Street</u>	1,641	13	108	121	92	57	149
		518 du		Condominium							
		9,073 sf		Retail							
96.	Alvarado Street and Santa Ynez Street	875 st		LAUSD Cen. Reg. Elementary School #14	1,129	202	166	368	110	135	245
97.	Commercial Street and Hewitt Street	2 ac		Bus Maintenance & Inspection Facility	104	12	3	15	3	12	15
98.	1135 7th Street	7,037 sf		Retail	312	5	3	8	8	11	19
		130 du		Condominium	762	10	47	57	46	22	68
					1,074	15	50	65	54	33	87
99.	Fremont Avenue and Temple Street	30,000 sf		Retail	3,105	46	30	76	136	147	283
		600 du		Apartment	4,032	61	245	306	242	130	372
					7,137	107	275	382	378	277	655
100.	939 Flower Street	95,700 sf		FIDM Campus Expansion	2,631	212	74	286	141	102	243
		112 du		Apartment	753	11	46	57	45	24	69
					3,384	223	120	343	186	126	312
101.	Grand Av., btw Cesar Chavez Av. And 5th St. <sup>[11]</sup>			<u>The Grand Avenue Project</u>							
		1,648 du		Condominium	5,235	82	347	429	285	175	460
		412 du		Apartment	969	17	53	70	50	32	82

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Map No.	Location (Address)	Size	Unit	Description	Daily	AM Peak Hour			PM Peak Hour		
						In	Out	Total	In	Out	Total
		275	rm	Hotel	764	59	38	97	58	52	110
		681,000	sf	Office	4,491	585	72	657	91	519	610
		53,000	sf	Supermarket	2,438	54	34	88	123	118	241
		225,250	sf	Retail	5,181	100	63	163	308	334	642
		67,000	sf	Restaurant	3,013	13	13	26	158	78	236
		250	se	Event Facility	252	-	-	-	11	3	14
		50,000	sf	Health Club	626	9	12	21	36	33	69
					22,969	919	632	1,551	1,120	1,344	2,464
102.	Wilshire Boulevard and Bixel Street <sup>[12]</sup>			<u>Wilshire &amp; Bixel Mixed-Use Project</u>	2,790	55	124	179	149	92	241
		420	du	Condominium							
		140	rm	Hotel							
		7,500	sf	Quality Restaurant							
103.	456 S Witmer Street	39	du	Condominium	229	3	14	17	13	7	20
104.	7th Street and Witmer Street	186	du	Condominium	1,090	14	68	82	65	32	97
		6,200	sf	Retail	275	4	3	7	7	10	17
					1,365	18	71	89	72	42	114
105.	855 Figueroa Terrace	102	du	Condominium	598	8	37	45	36	17	53
106.	819 Santee Street	96	du	Condominium	563	7	35	42	34	16	50
		7,800	sf	Retail	346	5	4	9	9	12	21
					909	12	39	51	43	28	71
107.	745 S Spring Street	247	du	Condominium	1,447	19	90	109	86	42	128
		10,675	sf	Retail	473	8	5	13	13	16	29
					1,920	27	95	122	99	58	157
108.	1133 S Hope Street	159	du	Condominium	932	12	58	70	56	27	83
		6,827	sf	Restaurant	868	41	38	79	46	29	75
					1,800	53	96	149	102	56	158
109.	1150 S Grand Avenue	351	du	Condominium	2,057	26	128	154	123	60	183
		12,500	sf	Retail	554	9	6	15	15	19	34
		12,500	sf	Restaurant	1,589	75	69	144	84	53	137
					4,200	110	203	313	222	132	354
110.	609 W 8th Street	30,000	sf	Retail	3,105	46	30	76	136	147	283
		225	du	Condominium	1,319	17	82	99	78	39	117
		200	rm	Hotel	1,634	68	44	112	63	55	118
		32,000	sf	Restaurant	2,878	212	47	259	161	79	240
					8,936	343	203	546	438	320	758
111.	1901 W 7th Street <sup>[13]</sup>			<u>MacArthur Park/Alvarado Metro Mixed-Use Project</u>	1,504	28	62	90	77	56	133
		172	du	Apartment							
		32,850	sf	Retail							
112.	1600 W Olympic Boulevard	8	vfp	Gasoline/Service Station with Mini-Market	1,302	40	40	80	54	53	107
113.	501 S Olive Street	900	du	Condominium	5,274	67	329	396	314	154	468
		19,000	sf	Retail	842	14	9	23	22	29	51
		19,200	sf	Restaurant	2,441	115	106	221	128	82	210
					8,557	196	444	640	464	265	729

Notes:  
Units: sf = Square Feet; du = Dwelling Units; rm = Rooms; st = Students; emp = Employees; se = Seats; ac = Acres; vfp = Vehicle Fueling Positions.

- Sources:
- [1] Central Los Angeles Area New Middle School #1 EIR, The Planning Center, June 2002.
  - [2] Final Mitigated Negative Declaration and Initial Study for: New Gratts Primary Center & Early Childhood Education Center, The Planning Center, January 2005.
  - [3] Central Los Angeles Area New High School #10 Draft EIR, Katz, Okitsu & Associates, February 2002.
  - [4] Traffic Analysis for a Proposed Mixed-Use Development on Cesar E. Chavez Avenue between Broadway and Hill Street in the Chinatown Community of Los Angeles, Crain & Associates, August 2005.
  - [5] Traffic Analysis for Proposed Santa Fe Lofts Project at 101 - 131 East 6th Street, City of Los Angeles, Crain & Associates, July 2006.
  - [6] From LADOT database.
  - [7] Traffic Impact Study and Parking Analysis for the Metropolis Mixed-Use project, Crain & Associates, August 2007.
  - [8] Traffic Analysis for the Herald Examiner Mixed-Use Project, City of Los Angeles, Crain & Associates, December 2005.
  - [9] Traffic Analysis for Proposed Mixed-Use Project at the Northeast Corner of 9th Street and Hill Street, Crain & Associates, May 2006.
  - [10] Traffic Impact Study for Residential Condominium Project at 1360 & 1500 Figueroa Street, City of Los Angeles, Crain & Associates, May 2006.
  - [11] Grand Avenue Project EIR Traffic Study, The Mobility Group, May 2006.
  - [12] Traffic Analysis for the Wilshire & Bixel Mixed-Use Project, Crain & Associates, June 2006.
  - [13] Revised Traffic Impact Study for MacArthur Park/Alvarado Metro Mixed-Use Project, Crain & Associates, April 2007.

**APPENDIX E**  
**OCTOBER 2008 TRAFFIC STUDY**  
**IMPACT TABLE**

**October 2008 Traffic Study**  
**Table 9**  
**Critical Movement Analysis (CMA) Summary**  
**Future (2012) Without and With Project Traffic Conditions**

No.	Intersection	Peak Hour	Without Project		With Project		
			CMA	LOS	CMA	LOS	Impact
1.	Glendale Boulevard/Lucas Avenue at 1st Street/2nd Street	AM	0.718	C	0.720	C	0.002
		PM	0.819	D	0.838	D	0.019
2.	Lucas Avenue at 3rd Street	AM	1.052	F	1.054	F	0.002
		PM	0.894	D	0.903	E	0.009
3.	Lucas Avenue at 6th Street	AM	0.791	C	0.812	D	0.021 *
		PM	0.867	D	0.898	D	0.031 *
4.	Lucas Avenue at Wilshire Boulevard	AM	0.823	D	0.855	D	0.032 *
		PM	0.961	E	1.008	F	0.047 *
5.	Bixel Street at 6th Street	AM	0.983	E	1.007	F	0.024 *
		PM	1.157	F	1.187	F	0.030 *
6.	Bixel Street at Wilshire Boulevard	AM	0.757	C	0.787	C	0.030
		PM	0.875	D	0.907	E	0.032 *
7.	Bixel Street at 7th Street	AM	0.914	E	0.935	E	0.021 *
		PM	1.061	F	1.072	F	0.011 *
8.	Bixel Street/SR-110 Southbound On-Ramp at 8th Street	AM	0.527	A	0.537	A	0.010
		PM	0.571	A	0.577	A	0.006
9.	Beaudry Avenue at 1st Street	AM	0.801	D	0.802	D	0.001
		PM	1.113	F	1.114	F	0.001
10.	Beaudry Avenue at 2nd Street	AM	0.953	E	0.955	E	0.002
		PM	1.199	F	1.205	F	0.006
11.	Beaudry Avenue at the SR-110 Southbound Off-Ramp	AM	0.639	B	0.639	B	0.000
		PM	0.585	A	0.586	A	0.001
12.	Beaudry Avenue at Miramar Street/3rd Street	AM	0.888	D	0.889	D	0.001
		PM	0.620	B	0.621	B	0.001
13.	Beaudry Avenue at 5th Street/6th Street	AM	0.667	B	0.687	B	0.020
		PM	0.741	C	0.754	C	0.013
14.	Beaudry Avenue at Wilshire Boulevard	AM	0.742	C	0.757	C	0.015
		PM	0.595	A	0.616	B	0.021
15.	Figueroa Street at 5th Street	AM	0.433	A	0.433	A	0.000
		PM	0.596	A	0.599	A	0.003
16.	Figueroa Street at 6th Street	AM	0.605	B	0.609	B	0.004
		PM	0.715	C	0.723	C	0.008
17.	Figueroa Street at Wilshire Boulevard	AM	0.677	B	0.694	B	0.017
		PM	0.839	D	0.855	D	0.016
18.	Figueroa Street at 7th Street	AM	0.565	A	0.565	A	0.000
		PM	0.659	B	0.662	B	0.003
19.	Figueroa Street at James M. Wood Boulevard/9th Street	AM	0.719	C	0.719	C	0.000
		PM	0.703	C	0.707	C	0.004

\* Indicates a significant project impact, prior to mitigation.

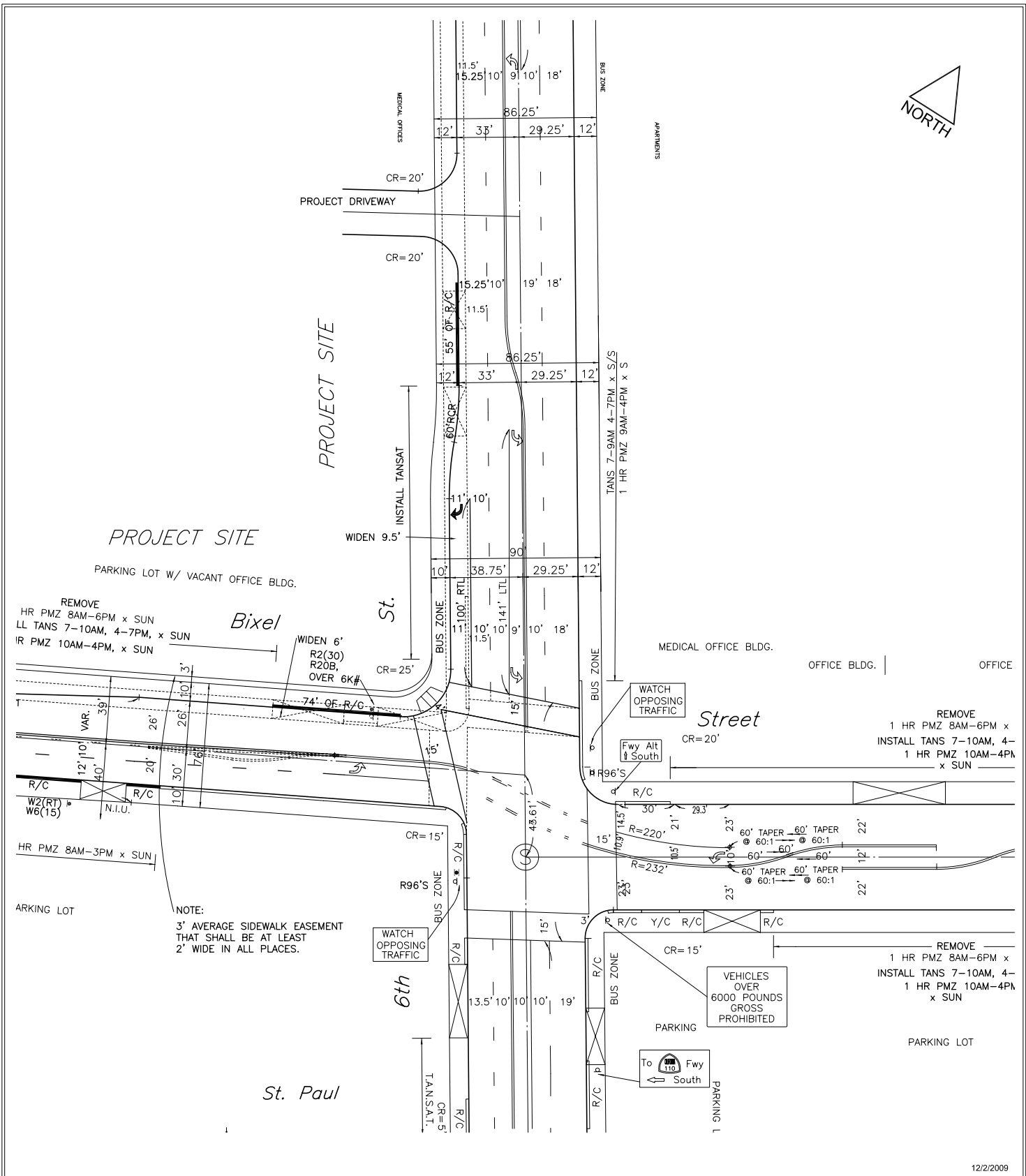
**October 2008 Traffic Study  
Table 11**

**Critical Movement Analysis (CMA) Summary  
Future (2012) Traffic Conditions - Without and With Mitigation**

No.	Intersection	Peak Hour	Without		With Project			With Project Plus Mitigation		
			Project CMA	LOS	CMA	LOS	Impact	CMA	LOS	Impact
3	Lucas Avenue at 6th Street	AM	0.791	C	0.812	D	0.021 *	0.812	D	0.021 *
		PM	0.867	D	0.898	D	0.031 *	0.898	D	0.031 *
4	Lucas Avenue at Wilshire Boulevard	AM	0.823	D	0.855	D	0.032 *	0.823	D	0.000
		PM	0.961	E	1.008	F	0.047 *	0.959	E	-0.002
5	Bixel Street at 6th Street	AM	0.983	E	1.007	F	0.024 *	0.935	E	-0.048
		PM	1.157	F	1.187	F	0.030 *	1.148	F	-0.009
6	Bixel Street at Wilshire Boulevard	AM	0.757	C	0.787	C	0.030	0.787	C	0.030
		PM	0.875	D	0.907	E	0.032 *	0.871	D	-0.004
7	Bixel Street at 7th Street	AM	0.914	E	0.935	E	0.021 *	0.935	E	0.021 *
		PM	1.061	F	1.072	F	0.011 *	1.072	F	0.011 *

\* Project traffic impact considered significant.

**APPENDIX F**  
**MITIGATION MEASURE CONCEPTUAL PLAN**  
**BIXEL STREET AND 6<sup>TH</sup> STREET**



12/2/2009

FN: GOOD SAMARITIAN SITE WILSHIRE\CONCEPT PLANS\CONCEPT-BIXEL-6TH-12-2-09

## CONCEPTUAL STRIPING PLAN BIXEL STREET AND 6TH STREET



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