APPENDIX 4.2
Traffic Study

DRAFT

TRAFFIC ANALYSIS
FOR
RENOVATION AND REOCCUPANCY
OF THE HALL OF JUSTICE

Prepared for:

HALL OF JUSTICE ASSOCIATES, INC.

Prepared by:

Crain & Associates
2007 Sawtelle Boulevard, Suite 4
Los Angeles, California 90025
(310) 473-6508

Revised April 2003

EXECUTIVE SUMMARY

The project under consideration is the renovation and reoccupancy of the historic Hall of Justice on County property in Downtown Los Angeles. The Los Angeles County Sheriff's Department will be the primary tenants of the building. The building was fully occupied, predominately by the Sheriff's Department, in the early 1990's and abandoned after the 1994 Northridge earthquake. The original size was 549,284 gross square feet with 15 stories. There were approximately 1,343 employees and 527 inmates housed in the Hall of Justice as of 1994. The number of employees and housed inmates was much higher in previous years. After renovation, the Hall of Justice will be 475,000 gross square feet (325,000 net square feet) with 13 stories. Two interior floors will be removed for program reasons. There will be several Los Angeles County offices housed in the renovated Hall of Justice. This will include members of the Los Angeles County Sheriffs Department, District Attorney Office, Public Defenders Office, Chief Administrative Office – Los Angeles County Real Estate and Risk Management, and headquarters for the Department of Parks and Recreation. Approximately 1,630 to 1,660 full time day personnel will be located in the building. The offices housed in the building will operate essentially the same as a standard office with no night deployment of personnel and no public counters. The functions conducted by each of the departments will be essentially the same as typical office employees.

The Hall of Justice building is located on the block between Aliso Street, North Spring Street, Temple Street and North Broadway. It is currently not in use. The parking lot surrounding the building is currently utilized for general downtown parking.

Parking for the project will be provided in a new 1,000 space parking structure which will be constructed on the northern side of the Hall of Justice site. Access to the

parking area will be provided by driveways on North Broadway and North Spring Street. Both of the driveways will be restricted to right turns in and out.

This study evaluated existing and anticipated future conditions at seven intersections in the project vicinity during the AM and PM peak hour. It is estimated that the completed project will generate approximately 1,052 net new vehicle trips per day, including 152 trips in the AM peak hour and 146 trips in the PM peak hour. This level of trip generation is not expected to significantly impact any of the seven study intersections. No project related traffic impacts are expected to the freeway system or the regionally monitored systems near the project. However, when cumulative growth is added to the future conditions, PM peak hour impacts occur at the intersection of Temple Street and North Broadway, Aliso Street/Southbound Hollywood Freeway Off-ramp and North Broadway, and the Northbound Hollywood Freeway On-ramp and North Broadway. These impacts are identified under a set of worst case assumptions where all of the currently proposed projects are built to their full intensity with none of the mitigation which would generally be imposed upon it. It is not likely that all of the cumulative projects will be built or built to the intensity currently envisioned. In addition, some of the projects will be conditioned to implement traffic improvement measures. These significant traffic impacts would occur without the proposed project and are not project related. However, in order for the project to reduce the cumulative impacts a Transportation System Management (TSM) plan will be implemented to encourage and facilitate in the employees use of the variety of opportunities for ridesharing to the downtown facility.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

INTRODUCTION

The project under consideration is the renovation and reoccupancy of the historic Hall of Justice on County property in Downtown Los Angeles. The Hall of Justice encompasses the entire block between Aliso Street, North Spring Street, Temple Street and North Broadway. The location of the project is shown on Figure 1, Site Vicinity Map.

The Hall of Justice will be reoccupied by mix Los Angeles County offices including the Sheriff's Department, District Attorney Office, Public Defenders Office, Chief Administrative Office (CAO) – Real Estate and Risk Management, and the headquarters of the Parks and Recreation Department. These County offices will be not have night or weekend deployment of personnel. There will be between 1,630 and 1,660 personnel in the building. Their functions will include typical office functions including morning arrival and evening departure with overtime conducted as needed. The County offices will conduct meetings as a typical office would. The Sheriff's Department will not conduct personnel functions or have a public counter in these offices. The Hall of Justice building is currently not in use. The parking lot surrounding the building is currently utilized for general downtown parking.

Parking for the project will be provided in a new 1,000 space parking structure which will be constructed on the northern side of the Hall of Justice site. Access to the parking area will be provided by driveways on North Broadway and North Spring Street.

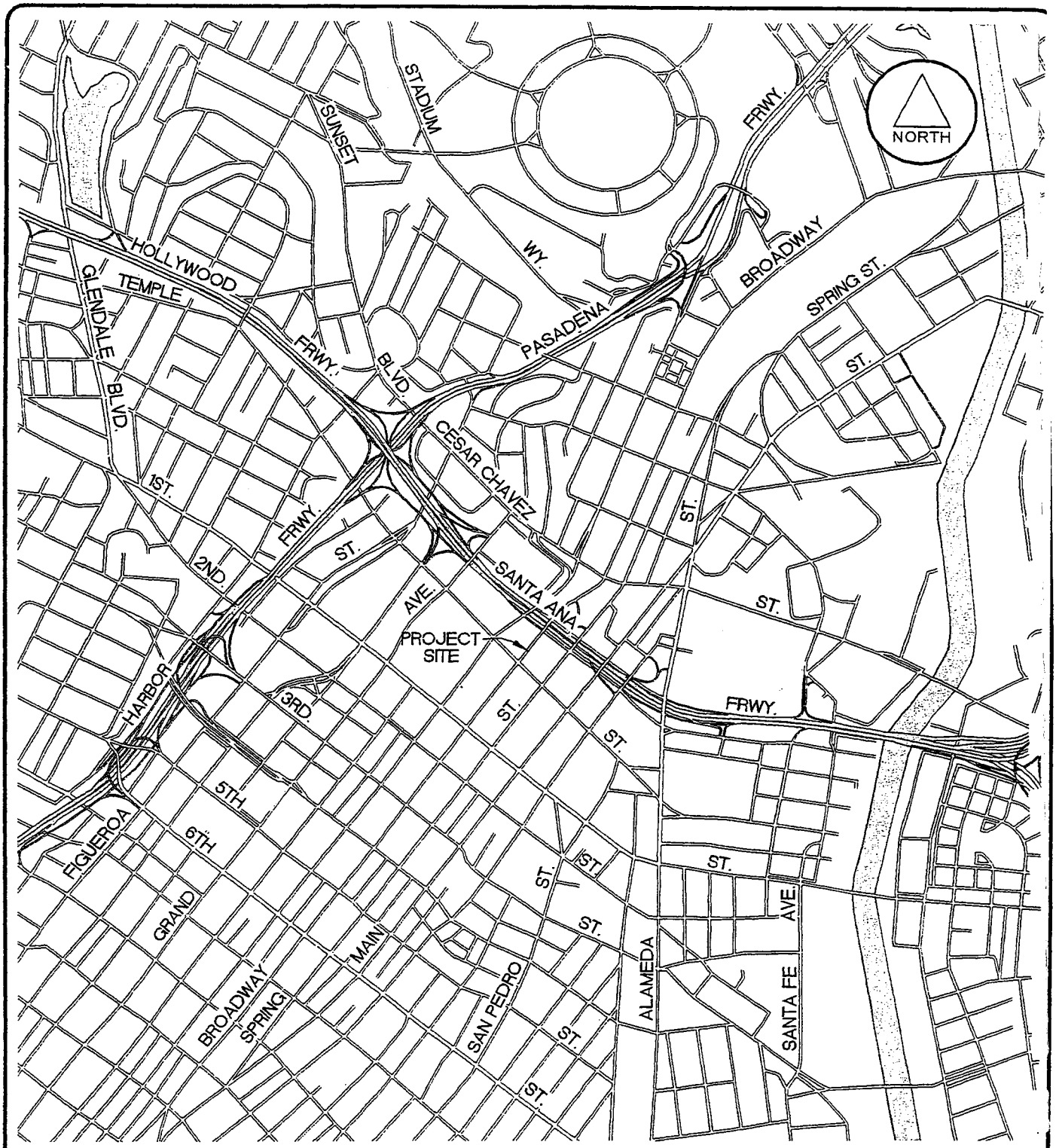


FIGURE 1

3/7/03

FN: HALL OF JUSTICE\SITEVICN

SITE VICINITY MAP

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

Crain & Associates has been retained to conduct a traffic study to assess the impact of the proposed reoccupancy on the surrounding street system under the requirements of the County of Los Angeles. This report presents the results of an analysis of existing conditions as well as projected traffic conditions following completion of the project. As discussed with the County of Los Angeles and the Los Angeles Department of Transportation, this analysis incorporates a detailed evaluation of existing and future traffic conditions during the AM and PM peak hour at the following seven intersections.

- North Broadway and Temple Street
- Aliso Street/Southbound 101 Freeway Off-ramp and North Broadway
- Northbound 101 Freeway On-ramp and North Broadway
- North Spring Street and Temple Street
- Aliso Street and North Spring Street
- Northbound 101 Freeway Off-ramp and North Spring Street
- Southbound 101 Freeway On-ramp and Los Angeles Street

These locations are within an area surrounding the project site and include the intersections expected to be most directly impacted by the proposed project's traffic generation. Figure 2, Study Intersection Map, illustrates the location of the study intersections.

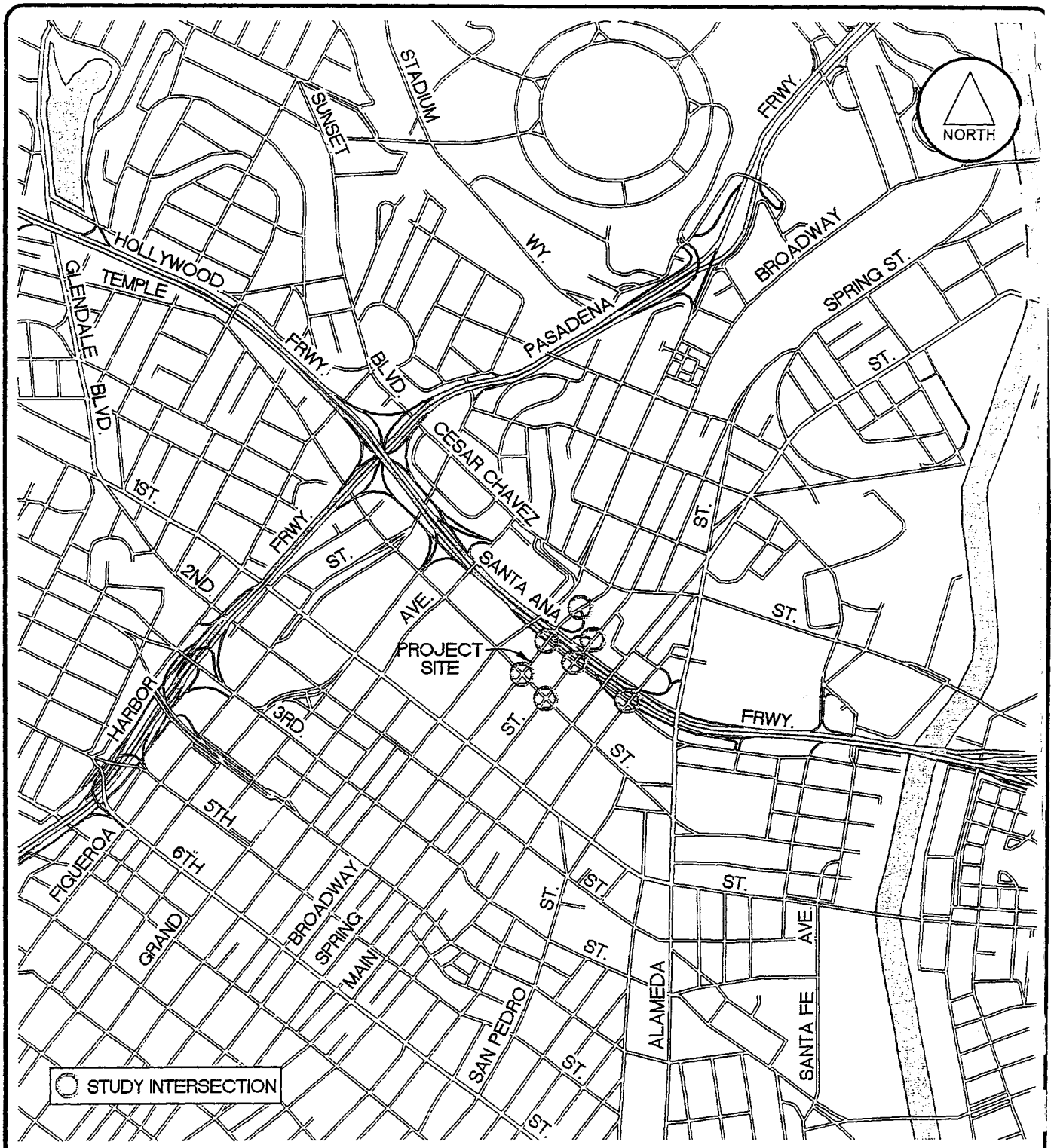


FIGURE 2

3/7/03

FN: HALL OF JUSTICE\STUDY-INTS

STUDY INTERSECTIONS MAP

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

PROJECT DESCRIPTION

The project under consideration is the renovation and reoccupancy of the historic Hall of Justice (HOJ) on County property in the Civic Center of Downtown Los Angeles. The Hall of Justice site encompasses the entire block between Aliso Street, North Spring Street, Temple Street and North Broadway.

The Los Angeles County Sheriff's Department will be the largest tenant of the building. The building was fully occupied, predominately by the Sheriff's Department through the early 1990's and vacated after the 1994 Northridge earthquake. The original size was 549,284 gross square feet with 15 stories. There were approximately 1,343 employees and 527 inmates housed in the Hall of Justice in 1994. After renovation the Hall of Justice will be 475,000 gross square feet (325,000 net square feet) with 13 stories. Two interior floors will be removed for program reasons. The renovated Hall of Justice will house several County offices including the Sheriff's Department, District Attorney, Public Defenders Office, CAO Office-Real Estate and Management Division, and headquarters for the Parks and Recreation Department. The Sheriff's Department will occasionally hold classes and all of the County offices would have meetings and visitors similar to a standard office setting. There will be no late night or weekend deployment of personnel for the Sheriff's Department from this structure. Overtime may be conducted as a standard office conducts business.

The Hall of Justice building is currently not in use. The parking lot surrounding the building is currently utilized for general downtown parking.

Parking for the project will be provided in a new 1,000 space parking structure which will be constructed on the northern side of the Hall of Justice site. Access to the parking area will be provided by one driveway on North Broadway and one driveway on

North Spring Street. Both of the driveways will be restricted to right turns in and out. Figure 3 shows a site plan with the renovated Hall of Justice and proposed parking structure.

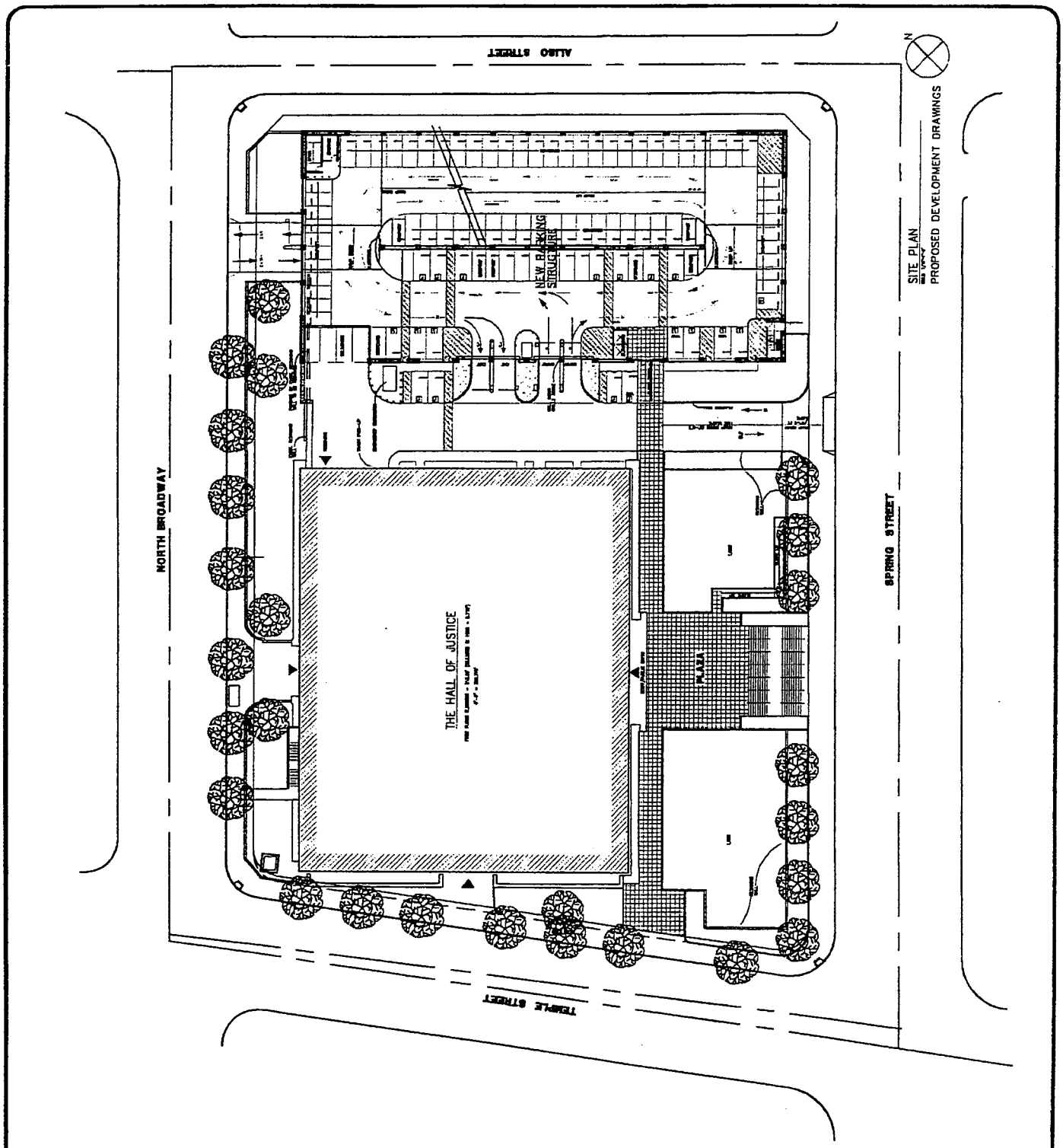


FIGURE 3

PROJECT SITE PLAN

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning •Traffic Engineering

ENVIRONMENTAL SETTING

The site of the proposed project is located on County property in Downtown Los Angeles. The site encompasses the entire block between Aliso Street, North Spring Street, Temple Street and North Broadway. The building is situated in the Civic Center area of Downtown Los Angeles with primarily government buildings and courthouses in the project vicinity.

Freeways

As a major destination point, several freeway systems surround the Downtown Los Angeles area. West of the project site is the Harbor Freeway (State Highway 110), to the south is the Santa Monica Freeway (Interstate 10) and to the north and east is the Hollywood Freeway (US Highway 101).

Hollywood Freeway (US Highway 101) is immediately north of the project site. A southbound off-ramp creates the fourth leg of an intersection immediately adjacent at Aliso Street and North Broadway. The Hollywood Freeway provides four to five lanes in each direction in the project vicinity and provides northwest and southeast service from Downtown Los Angeles northerly. A full interchange with the Harbor Freeway is provided west of the project site.

Harbor Freeway (State Highway 110) is an eight lane facility which travels from San Pedro to the south and Pasadena to the north. The Harbor Freeway provides north-south access to and from Downtown Los Angeles. The Harbor Freeway has a full interchange with the Hollywood, Golden State and Santa Monica Freeways.

Santa Monica Freeway (Interstate 10) is an east-west facility which provides four to six lanes in each direction. The Santa Monica Freeway spans from the City of Santa Monica in the west to San Bernardino in the east through Arizona and beyond.

Streets and Highways

Temple Street is designated as a Class II Major Highway by the City of Los Angeles. In the project vicinity Temple Street carries two lanes in each direction with left-turn channelization at most intersections. Temple Street is the southern boundary of the project site and runs essentially northwest to southeast. Temple Street is approximately 62 feet in width in front of the project site.

North Broadway is a northeast to southwest roadway open for two-way traffic along the western boundary of the project site. It is designated as a Secondary Highway from south of Alpine Street and as a Major Highway north of Alpine Street. North Broadway is approximately 60 feet in width and carries two lanes in each direction with left turn channelization at most intersections.

North Spring Street creates the eastern boundary of the project site. It runs parallel to North Broadway in the project vicinity. North Spring Street is designated as a Class II Major Highway by the City of Los Angeles between Cesar E Chavez and 2nd Street and north of Alpine Street. It is designated as a Secondary Highway south of 2nd Street and between Cesar E Chavez and Alpine Street. North Spring Street is approximately 70 feet in width at the project site. North Spring Street is a one-way southbound street for all vehicles with the exception of buses. There are two northbound exclusive lanes for buses and four mixed-flow lanes southbound. Spring Street is part of a one-way couplet with Main Street to the east.

Main Street is a one-way northbound street which is the second part of the one-way couplet with North Spring Street. Main Street is designated as a Secondary Highway through the Civic Center area.

Aliso Street is a one-way eastbound street which is designated as a local street by the City of Los Angeles. Aliso Street is approximately 32 feet in width and provides three travel lanes. Aliso Street is part of a one-way couplet with Arcadia Street which is located to the north.

Arcadia Street is a one-way westbound street which is designated as a local street. It is the reverse direction of Aliso Street as the second part of the one-way couplet.

Existing Traffic Volumes

Freeway traffic volumes were obtained from the Caltrans. The traffic volume count data for the streets was obtained by recent counts performed by Crain & Associates during May 2002. These counts were supplemented with an ambient growth rate of one percent to reflect growth in the area from mid 2002 to year 2003. Existing (2003) traffic volumes during the AM and PM peak periods for the freeways and major streets in the study area are summarized on the following pages and are shown for the study intersections on Figure 4.

The Hollywood Freeway carries approximately 243,000 vehicles per day (VPD) at the junction with the Harbor Freeway. The Harbor Freeway carries approximately 323,000 VPD at the junction with the Hollywood Freeway. The Santa Monica Freeway carries approximately 338,000 VPD at the junction with the Harbor Freeway.

Temple Street carries approximately 12,500 VPD in the project vicinity. Directional volumes are approximately 650 vehicles per hour (VPH) eastbound and 470 VPH

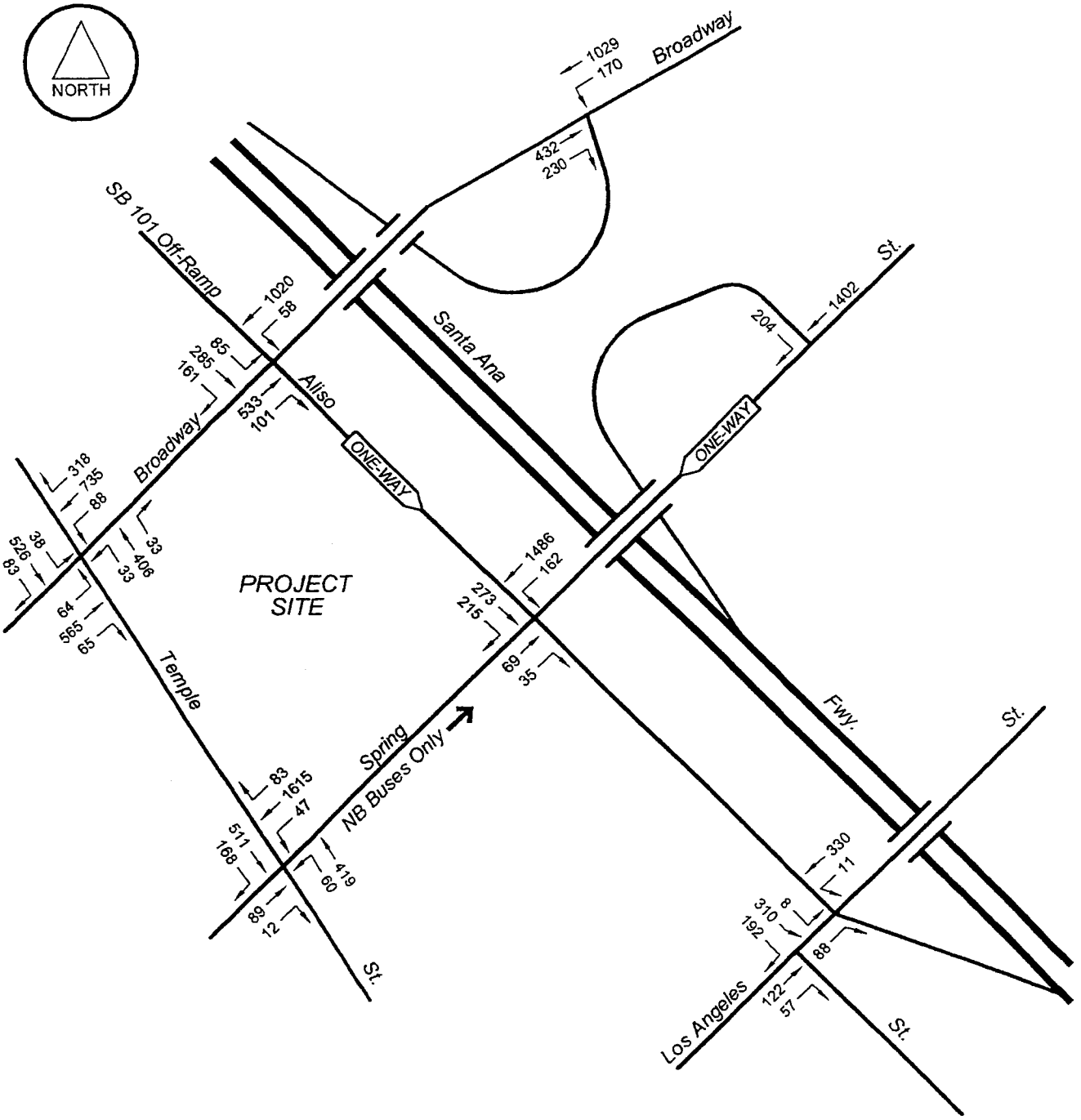


FIGURE 4(a)

3/7/03

Hall of Justice\AM2003

EXISTING (2003) TRAFFIC VOLUMES
AM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

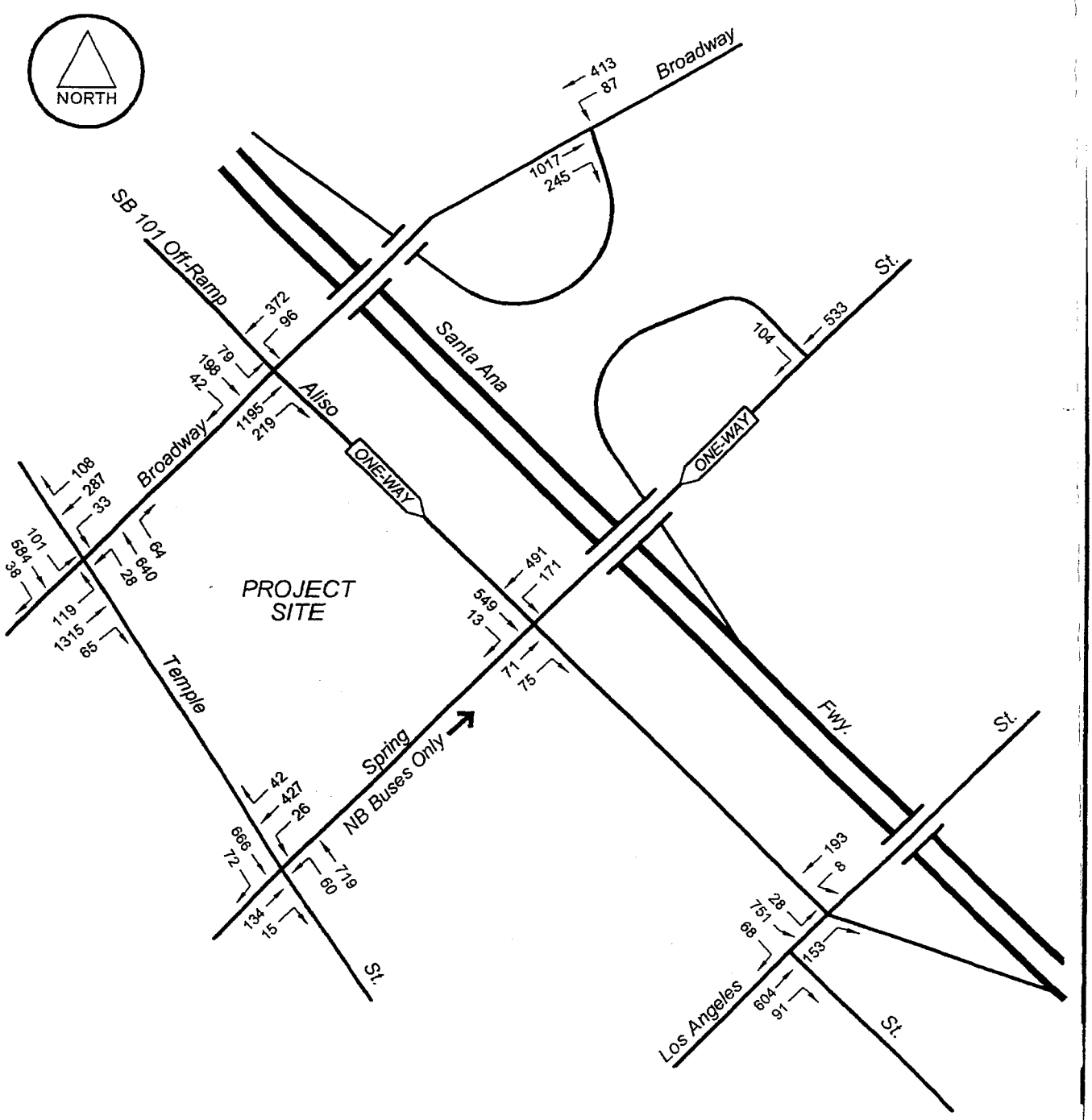


FIGURE 4(b)

3/7/03

Hall of Justice\PM2003

EXISTING (2003) TRAFFIC VOLUMES
PM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning -Traffic Engineering

westbound during the morning peak hours and 700 VPH eastbound with 725 VPH westbound during the evening peak hours.

The average daily traffic volume for North Broadway in the vicinity of the proposed project is approximately 18,500 VPD. Directional volumes are approximately 700 VPH northbound and 1,100 VPH southbound during the morning peak hours and 1,500 VPH northbound with 400 VPH southbound during the evening peak hours.

The average daily traffic volume for North Spring Street in the vicinity of the proposed project is approximately 12,000 VPD. Directional volumes are approximately 100 VPH northbound (restricted to buses only but some other vehicles mixed in) and 1,700 VPH (mixed mode) southbound during the morning peak hours and 150 VPH (again predominately buses) northbound with 500 VPH southbound during the evening peak hours.

Aliso Street carries approximately 5,500 VPD eastbound only in the project vicinity. Peak hour volumes are approximately 500 VPH eastbound during the morning peak hours and 560 VPH eastbound during the evening peak hours.

Public Transit

The Civic Center area provides a multitude of opportunities for public transit. There are trains, buses and subways which create a network with access throughout Los Angeles County, Orange County, Ventura County and beyond. Services are provided by Los Angeles County Metropolitan Transportation Authority (MTA), which has developed an extensive system of bus, rail and subway routes to provide transit patrons with a high level of connectivity throughout the region. The Los Angeles Department of Transportation (LADOT) operates a "DASH" services that provides community-based routes to the downtown workforce and visitors at relatively low cost and provides commuter services. In addition several neighboring cities provide commuter services into and out of downtown. The routes found to operate adjacent to the project site are described below.

Metrolink – The Metrolink is a rail transportation mode available throughout the day but is heavily used during typical commuter time periods. Service is available to/from the Antelope Valley through Santa Clarita Valley and the San Fernando Valley onto downtown. Services are also available to/from San Bernardino, Riverside, Orange County and the Inland Empire.

Subway and Light Rail – The MTA operates one subway and two light rail lines with access to/from Downtown Los Angeles. The Red Line is a subway which traverses downtown, the Wilshire Center and North Hollywood. The Blue Line operates from Downtown Los Angeles to/from Long Beach. The Green Line operates from Redondo Beach, traverses close to Los Angeles International Airport and heads east to Norwalk. There is a transfer opportunity to the Blue Line into Los Angeles.

Amtrak operates passenger trains from Union Station to counties near and far with a greater regional reach then the aforementioned services.

MTA Lines - Downtown Los Angeles is well served with MTA routes. These lines transport passengers throughout the local and regional community.

The routes which operate along the project frontage on North Broadway include routes 2 – Sunset Boulevard, 3 – Sunset Boulevard, Beverley Drive, 4 – Santa Monica Boulevard, 45 – Broadway/Mercury Avenue, 68 – West Los Angeles Transit Center/West Washington Boulevard/Cesar E Chavez Avenue/Montebello Town Center, 302 – Sunset Boulevard Limited, 304 – Santa Monica Boulevard Limited, 410 - San Fernado/Burbank/Glendale/Glenoaks/LA Express and 418 – Canoga Park/Van Nuys/Sun Valley/LA Express.

Along the project frontage on Temple Street the routes which operate are 10 – Melrose Avenue/Temple Street via Virgil Avenue, 11 – Melrose Avenue/Temple Street via Beverly Boulevard, 48 – Maple Avenue/South San Pedro Street, 92 – Gleonoaks Boulevard/Brand Boulevard via Glendale Boulevard, 93 – Glenoaks Boulevard/Brand Boulevard via Allesandro Street, 410 – San Fernando/Burbank/Glendale/Glenoaks Boulevard, and 445 – San Pedro/Artesia Transit Center/Pastaouras Transit Plaza/Union Station Express.

Routes along the project frontage on North Spring Street include route 33 – Venice Boulevard/Pastaouras Transit Plaza/Union Station, 38 – West Jefferson Boulevard, 55 – Imperial/Wilmington/Rosa Parks Metro Rail Station/Compton Avenue/Pastaouras Transit Plaza/Union Station, 70-LA/El Monte via Garvey Avenue, 71 – City Terrace/CSULA, 76 – Valley Boulevard via Main Street/El Monte Busway Station, 78 – LA/South Arcadia via Huntington Drive/Main Street/Las

Tunas Drive, 79 – LA//Arcadia via Huntington Drive, 83 – Pasadena Avenue/Marmion Way/York Boulevard, 84 – Cypress Avenue/Eagle Rock Boulevard, 85 – Cypress Avenue/Verdugo Road, 90 – Foothill Boulevard/Pennsylvania Avenue/Glendale Avenue, 91 – Foothill Boulevard/La Crescenta Avenue/Glendale Avenue, 94 – San Fernando Road, 96 – LA/Burbank/Sherman Oaks via LA Zoo, 333 – Venice Boulevard Limited/Patsaouras Transit Plaza/Union Station, 378 – LA/South Arcadia via Huntington Drive/Main Street/Las Tunas Drive Limited, 379 – LA Arcadia via Huntington Drive Limited, 394 – San Fernando Road Limited/Sylmar/San Fernando Metrolink Station, 401 – Pasadena/LA Express/North Allen Avenue, 434 – Malibu/Santa Monica/Patsaouras Transit Plaza/Union Station Express, 483 – Altadena/Pasadena/Fair Oaks Avenue/LA Express, 484 – Pomona/La Puente/Valley Boulevard/LA Express, 487 – Sierra Madre/San Gabriel Boulevard/LA Express and 491 – Sierra Madre/Arcadia/El Monte/LA Express.

These are the routes which run along the project boundary streets. A great deal more transit is available within walking distance from the site. Figure 5 graphically presents the multitude of transit opportunities available to the employees and visitors of the renovated Hall of Justice.

LADOT DASH Route Dash B operates along Temple Street to/from Chinatown to the Financial District. Transfer opportunities are available to the entire Downtown Dash System including shuttles from Union Station. The cost to ride is only 25 cents per one-way trip.

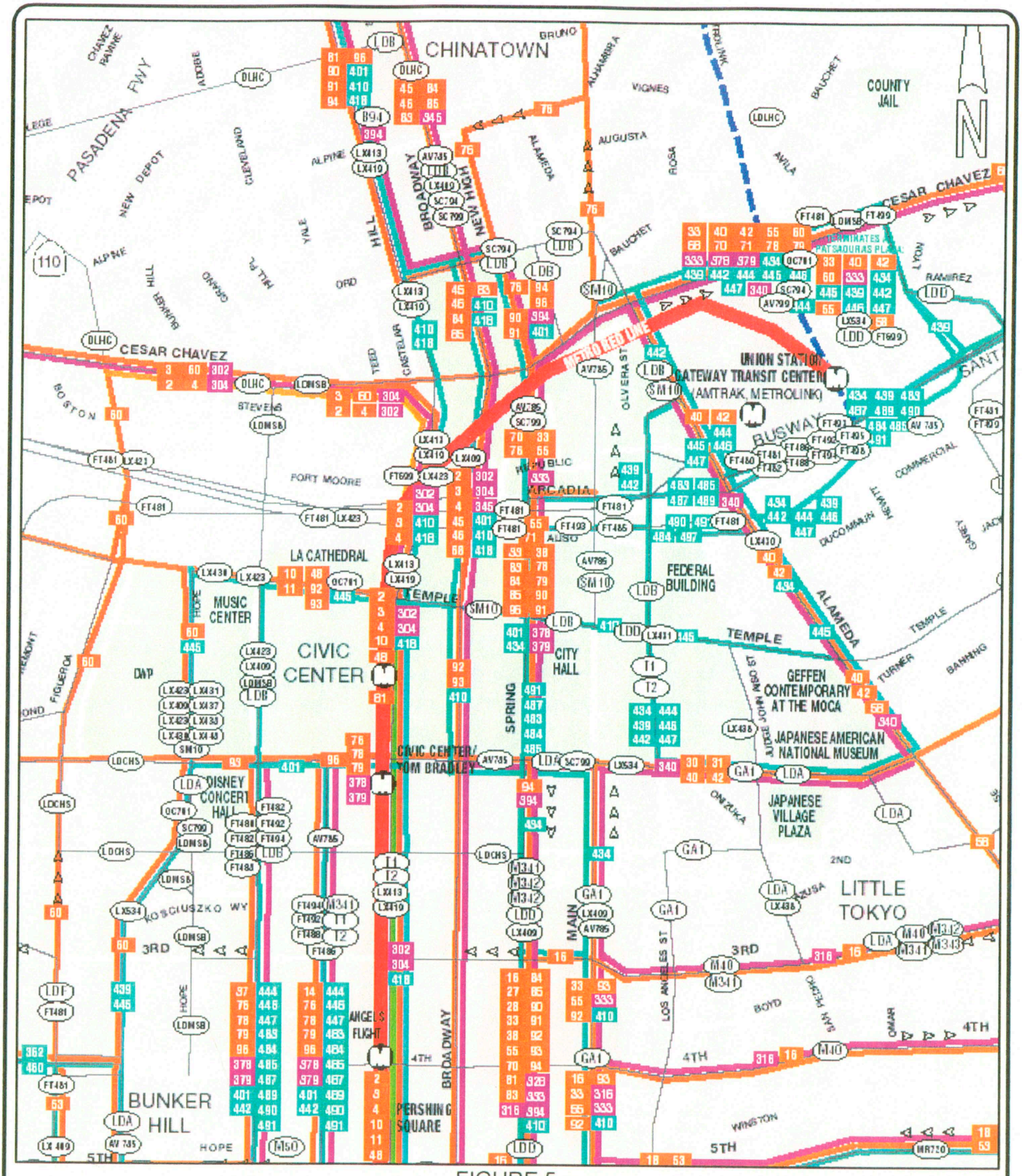


FIGURE 5

3/7/03

FN: HALL OF JUSTICE\TRANSIT-ROUTES

TRANSIT SYSTEMS MAP

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning • Traffic Engineering

LADOT Commuter Express – offers eleven lines from nearby communities to/from Downtown Los Angeles. These lines are available from the San Fernando Valley, Ventura County, Westside and southeast of downtown.

In addition, commuter lines are available from Foothill Transit, Orange County Transportation Authority, Santa Clarita Transit, Santa Monica Municipal Bus Lines, Torrance Transit and Antelope Valley Transit.

As shown by the above information, the project is well-served by direct transit links, and when transfer opportunities are considered most areas of Los Angeles are accessible via transit from the project site. Due to the proximity of project and readily accessible transit links some employees and visitors may choose transit as a viable alternative to driving.

Analysis of Existing 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 seven intersections:

- North Broadway and Temple Street
- Aliso Street/Southbound 101 Freeway Off-ramp and North Broadway
- Northbound 101 Freeway On-ramp and North Broadway
- North Spring Street and Temple Street
- Aliso Street and North Spring Street
- Northbound 101 Freeway Off-ramp and North Spring Street
- Southbound 101 Freeway On-ramp and Los Angeles Street

The traffic analysis was performed through the use of established traffic engineering techniques. The new traffic counts described earlier were utilized so as to reflect any recent changes in traffic demand patterns. Other data pertaining to intersection geometrics, parking-related curb restrictions and signal operations were obtained through field surveys of the study locations.

The methodology used in this study for the intersection analysis and evaluation of traffic operations at each study intersection is based on procedures outlined in Circular Number 212 of the Transportation Research Board.[1] 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 A to C operate quite 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 which might result in stoppages of momentary duration 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.

---

[1] Interim Materials on Highway Capacity, Circular Number 212, Transportation Research Board, Washington, D.C., 1980.

Table 1
Critical Movement Volume Ranges*
For Determining Levels of Service

Level of Service	Maximum Sum of Critical Volumes (VPH) Two Phase	Three Phase	Four or More Phases
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----------		

* For planning applications only, i.e., not appropriate for operations and design applications.

"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

Level of Service	Description of Operating Characteristics	Range of CMA Values
A	Uncongested operations; all vehicles clear in a single cycle.	< 0.60
B	Same as above.	>0.60 < 0.70
C	Light congestion; occasional backups on critical approaches.	>0.70 < 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 < 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 < 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. Those values, for existing (2003) AM and PM peak hour conditions, are shown in Table 3.

Table 3
Critical Movement Analysis Summary
Existing (2003) Traffic Conditions

No.	Intersection	AM Peak Hour CMA	AM Peak Hour LOS	PM Peak Hour CMA	PM Peak Hour LOS
1.	N. Broadway & Temple St.	0.431	A	0.714	C
2.	Aliso St./SB 101 Fwy Off & N. Broadway	0.394	A	0.485	A
3.	NB 101 Fwy On & N. Broadway	0.428	A	0.598	A
4.	N. Spring St. & Temple St.	0.479	A	0.309	A
5.	Aliso St. & N. Spring St.	0.333	A	0.246	A
6.	NB 101 Fwy Off & N. Spring St.	0.377	A	0.154	A
7.	SB 101 Fwy On & Los Angeles St.	0.184	A	0.285	A

PROJECT TRAFFIC

The following section describes the methodology used to determine the trip generation, distribution and assignment of the proposed project.

Traffic Generation

The occupancy in the Hall of Justice was approximately 1,343 employees and 527 inmates on 15 floors and 549,284 gross square feet in 1994. After renovation, the Hall of Justice will be 475,000 gross square feet (325,000 net square feet) with 13 stories. Two interior floors will be removed for program reasons. The renovated County Hall of Justice building will be occupied by the County Sheriff's Department, District Attorney's Office, Public Defenders Office, CAO Office – Real Estate and Risk Management, and Parks and Recreation with 1,630 to 1,660 full time day personnel. The operations conducted in the building will be very similar to a typical office building with the employees working a typical work day. There would potentially be meetings and visitors much as a typical office would conduct business. The County offices in the Hall of Justice building would not have nighttime of weekend deployment of personnel beyond typical office over time needs. The Sheriff's Department will not have a public counter or conduct personnel functions from the Hall of Justice. Based on the project description the trip generation is based upon General Office and on the greater number of employees (1,660) anticipated to occupy the building.

Traffic-generating characteristics of land uses, such as an office building, have been extensively surveyed and documented in studies conducted under the auspices of the Institute of Transportation Engineers (ITE). The most recent information is available in the ITE 6th Edition Trip Generation Manual, which was used as a basis for project trip

generation. This publication indicated that office buildings with employees as estimated generally exhibit the following trip-making characteristics:

Table 4
Trip Generation Rates*

General Office (trips per employee)

Daily:	T = 3.32(E)
AM Peak Hour	T = 0.48 (E); I/B = 88%, O/B = 12%
PM Peak Hour:	T = 0.46 (E); I/B = 17%, O/B = 83%

T = trip ends; E = employee;
I/B = inbound; O/B = outbound

*Source: ITE Trip Generation, 6th Edition (1997).

On the basis of the above traffic generation rates, projections of the amount of new traffic to be generated by the proposed site were derived. Traffic generation discounts were applied for the previous occupancy of the building. Once renovated and fully occupied, the project is expected to generate approximately 1,052 net new daily trips, with 133 net trips inbound and 19 net outbound trips during the AM peak hour and approximately 25 net trips inbound and 121 net trips outbound during the PM peak hour at adjacent intersections. Table 5 shows the project trip generation calculation.

Table 5
Project Trip Generation

	Size (employees)	Daily Traffic	AM Peak Hour I/B	AM Peak Hour O/B	AM Peak Hour Total	PM Peak Hour I/B	PM Peak Hour O/B	PM Peak Hour Total
Proposed Occupancy	1,660	5,511	701	96	797	130	634	764
Previous Occupancy	1,343	4,459	568	77	645	105	513	618
Net Project Traffic	**317**	**1,052**	**133**	**19**	**152**	**25**	**121**	**146**

Trip Distribution

Determination of the geographic distribution of generated trips was the next step in the process. A primary factor affecting trip distribution is the relative distribution of population from which prospective employees and visitors of the proposed project would be drawn. Trip-making patterns and land use in the project area were analyzed and percentage trip distributions were developed. The project is located in the Civic Center just south of the 101 Freeway. Therefore, freeway access is readily available. The percentage split of trips, by direction, is shown in Table 6 and graphically presented in Figure 6.

Table 6
Directional Trip Distribution

Direction	Percentage of Trips
North	40%
South	20%
East	20%
West	20%
Total:	100%

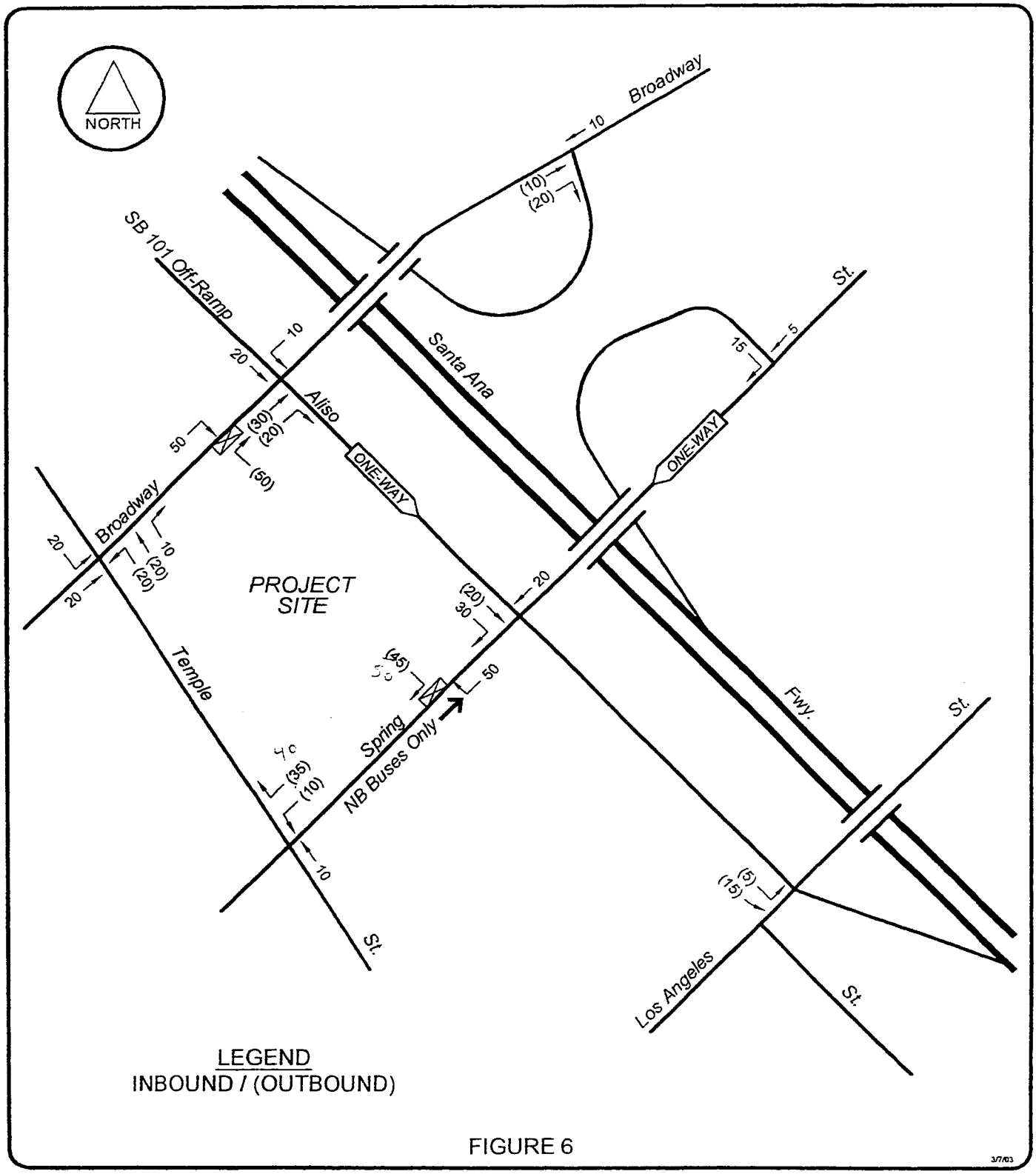


FIGURE 6

3/7/03

FN: HALL OF JUSTICE\PROJ-DIST

PROJECT DISTRIBUTION PERCENTAGES

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

Traffic Assignment

The assignment of project traffic to the street and highway systems was accomplished in two steps. Using the directional distribution percentages for the surface streets developed previously, the number of trips in each direction was calculated. The second step was to assign these trips to specific routes serving the project area. The results of the traffic assignment provide the necessary level of detail to conduct the traffic analysis. The results of the traffic assignments are shown in Figures 7(a) and 7(b), Project Traffic Volume, which estimate the project AM and PM peak hour traffic on the nearby street system for the proposed uses of each site.

Parking and Access

Parking for the renovated building will be provided in a new 1,000 space parking structure. The new parking structure will be constructed along the northern boundary of the project site. Access to the new parking structure will be provided for staff card key access on North Broadway and on North Spring Street. No vehicular access will be provided from Temple Street or Aliso Street. In order to maintain traffic flow on the project's boundary roadways, all of the driveways will be restricted to right turns in and out of the site. The project driveway volumes are illustrated on Figure 8. These figures do not incorporate the discount for the previous use but instead reflect the traffic which is anticipated to be turning into the driveways subsequent to the renovation.

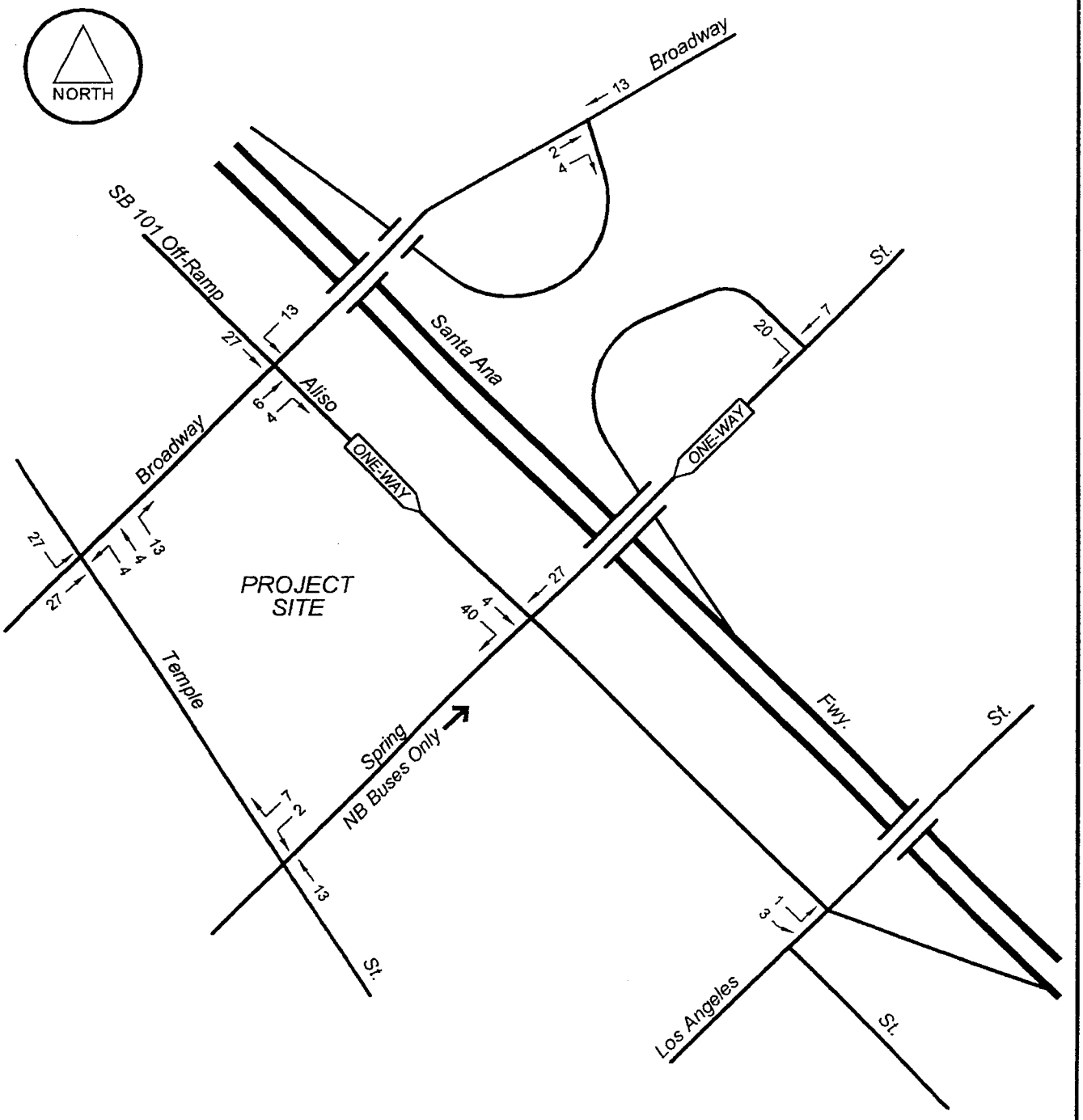


FIGURE 7(a)

3/7/03

Hall of Justice\AMPROVOL

FUTURE (2005) TRAFFIC VOLUMES
PROJECT ONLY
AM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning -Traffic Engineering

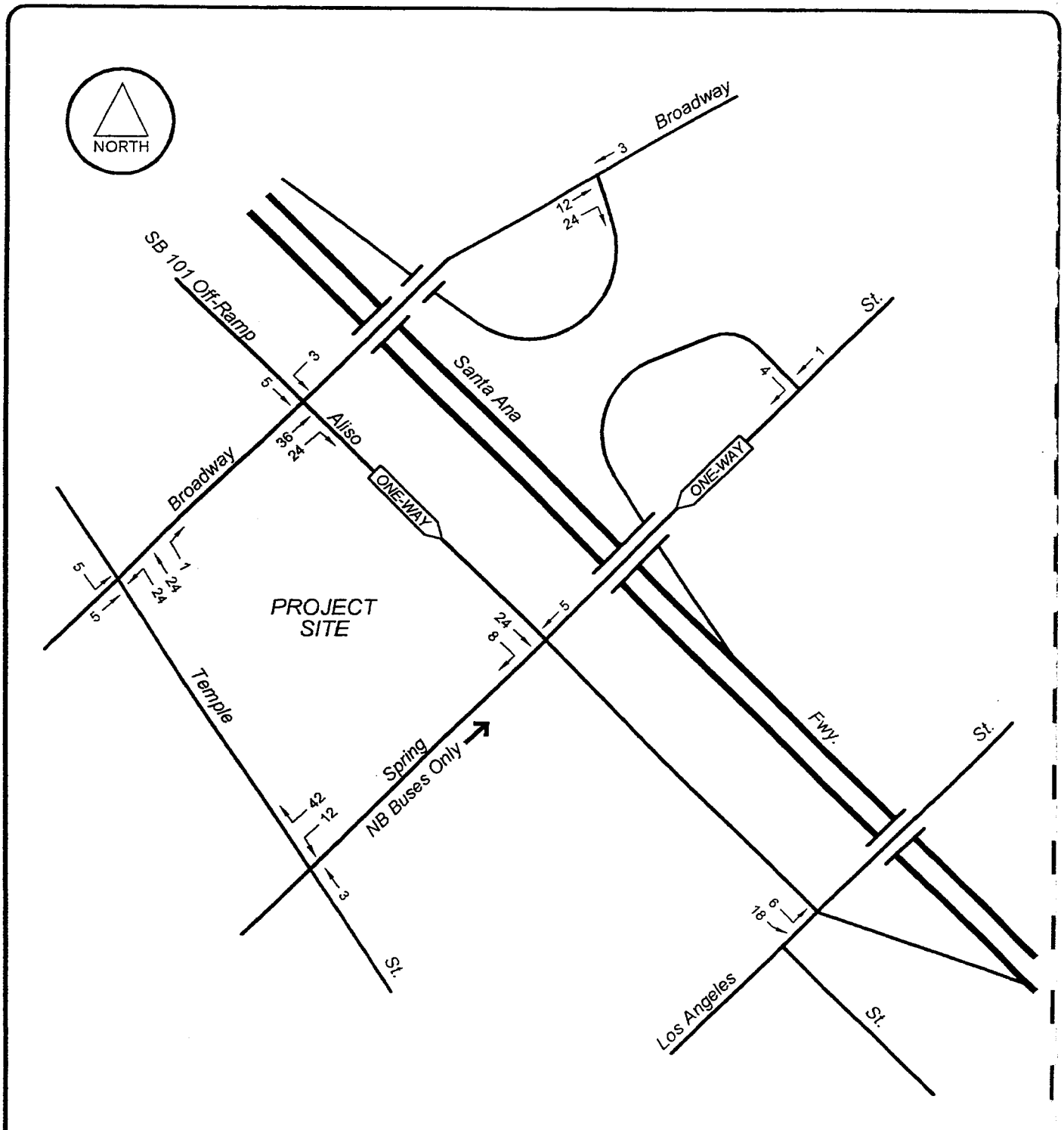


FIGURE 7(b)

3/7/03

Hall of Justice\PMPROVOL

FUTURE (2005) TRAFFIC VOLUMES
PROJECT ONLY
PM PEAK HOUR

CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning -Traffic Engineering

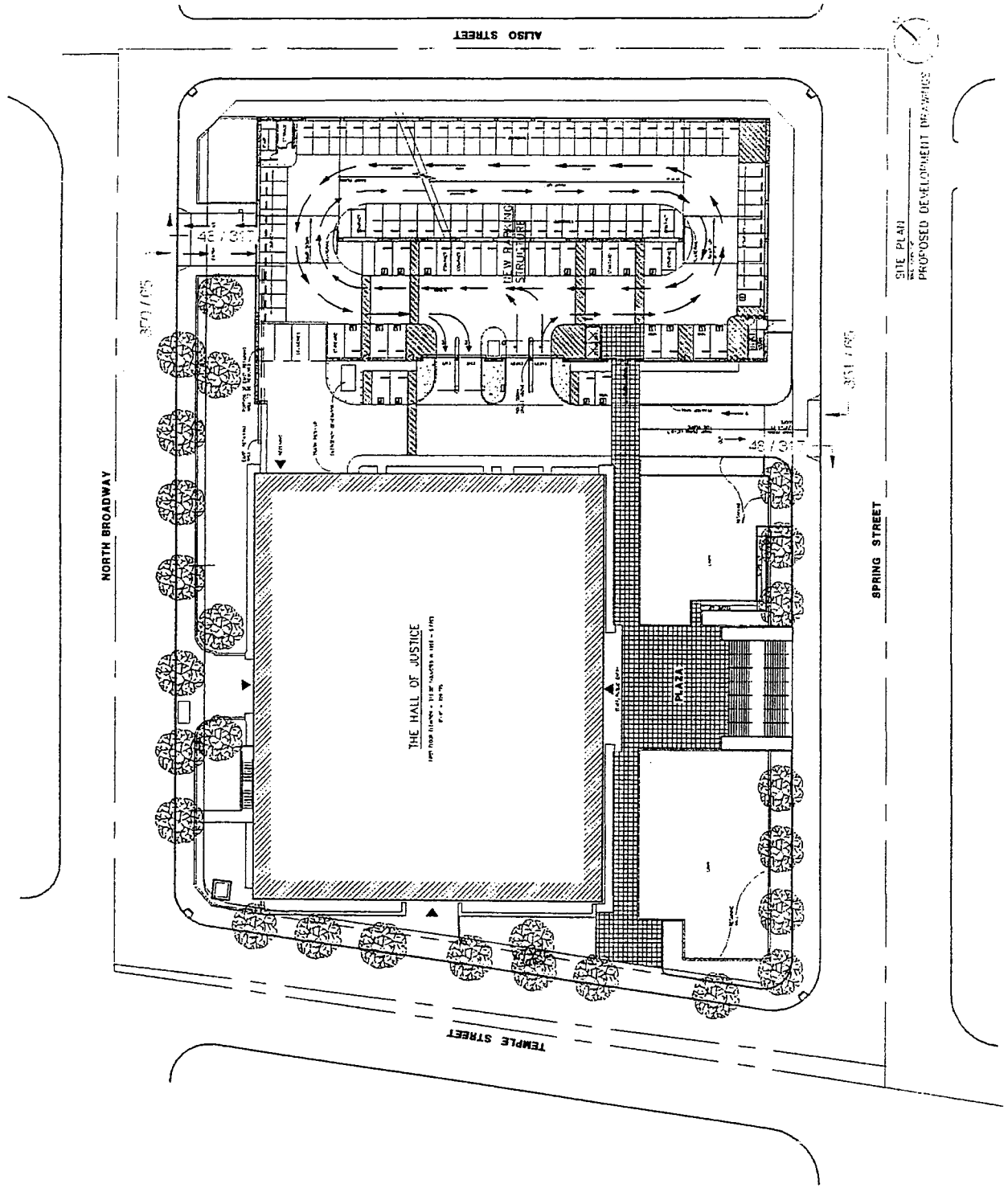


FIGURE 8

3/7/03

FN: HALL OF JUSTICE\DRIVEWAY-VOLS

DRIVEWAY VOLUMES
WITHOUT REDUCTION FOR PREVIOUS USE
AM / PM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

FUTURE TRAFFIC CONDITIONS

Other projects under development in the downtown area could add substantial amounts of traffic to the project area. For this reason, the analysis of future traffic conditions has been expanded to include potential traffic from as yet undeveloped or unoccupied projects. Briefly, the methodology for estimating future traffic volumes was as follows: First, current traffic volumes were determined by traffic counts (as described in a preceding section). Next, a traffic growth factor of 1.0 percent compounded annually was applied to develop a 2005 baseline "Without Project" figure. Project traffic, calculated previously, was analyzed as an incremental addition to the 2005 Without Project condition. Traffic expected to be generated from cumulative development in the study area was then added to the "With Project" traffic volumes to evaluate the affect of other projects in the area with the project on traffic.

Traffic Growth

Based on an analysis of the trends in traffic growth in the central Los Angeles area over the last several years, an annual traffic growth factor of 1.0 percent appeared conservative. This growth factor was used to account for increases in traffic resulting from projects not yet proposed or outside of the study area. This growth factor, compounded annually, was applied to the 2003 traffic volumes to develop an estimate of 2005 baseline volumes. The future 2005 traffic volumes without the project and without the cumulative projects is detailed in Figure 9 (a) for AM peak hours and Figure 9 (b) for PM peak hours.

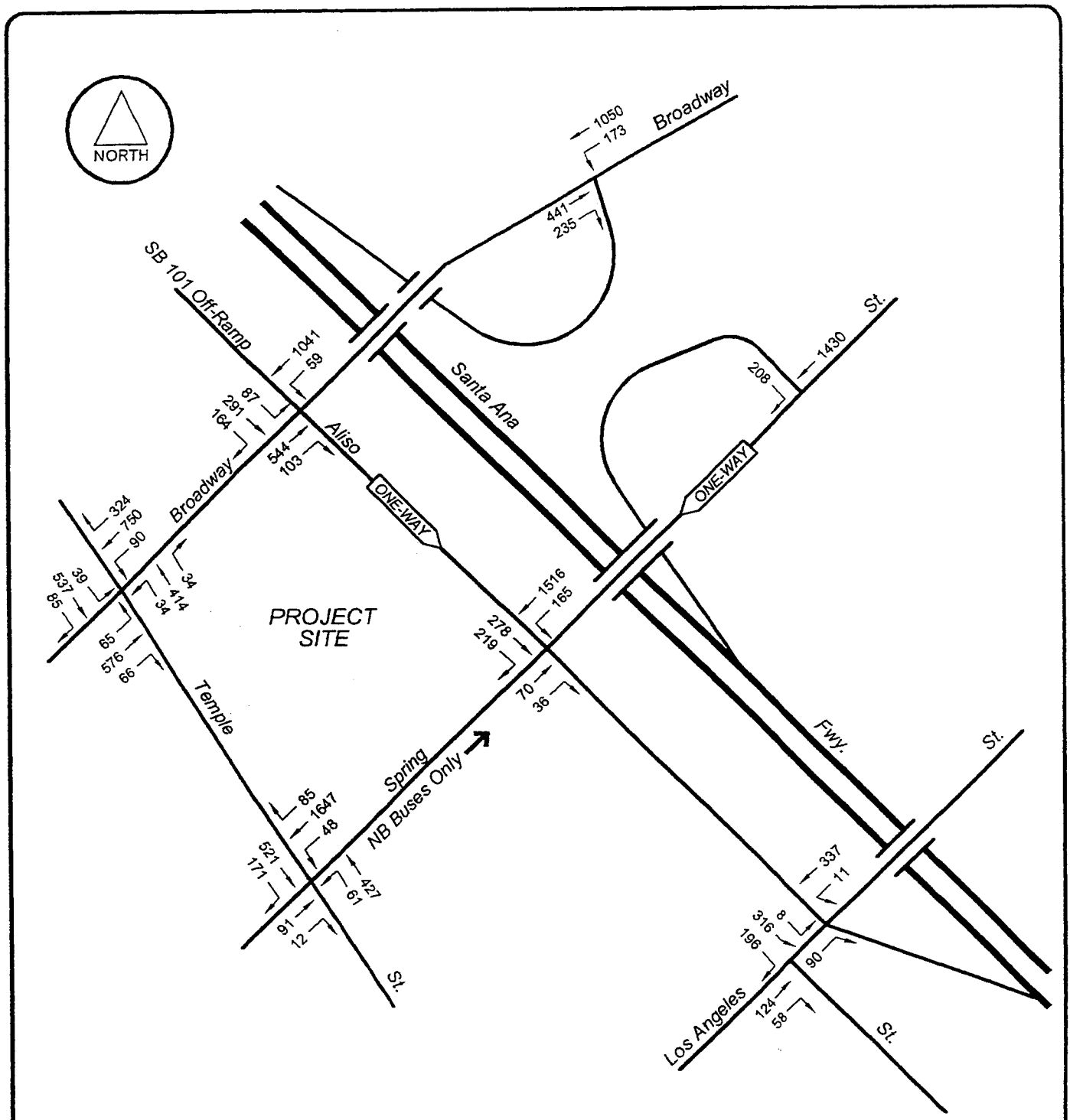


FIGURE 9(a)

3/7/03

H:\all of Justice\AM2005\WO

FUTURE (2005) TRAFFIC VOLUMES
WITHOUT PROJECT
AM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

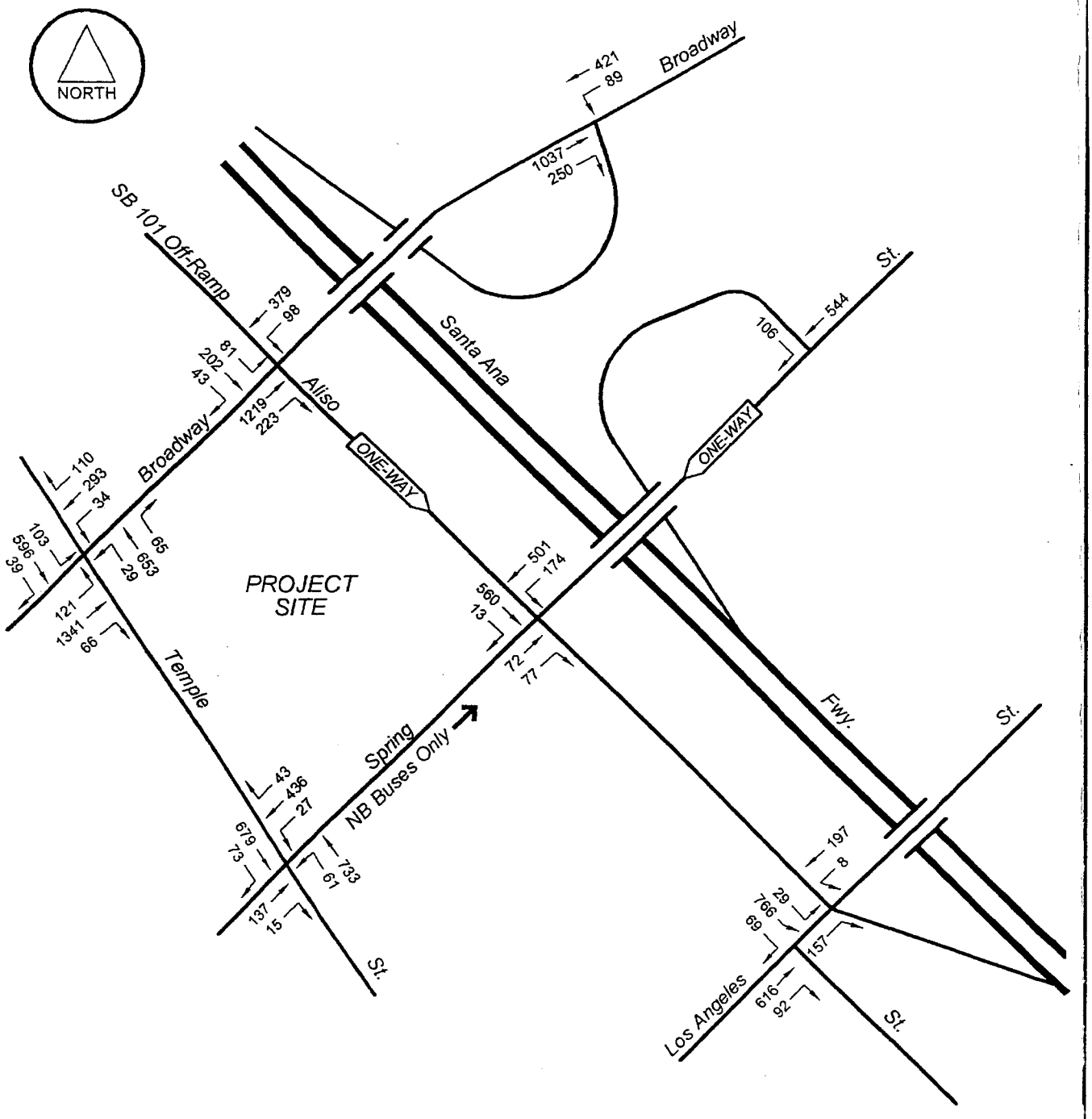


FIGURE 9(b)

3/7/03

H:\all of Justice\PM2005WO

FUTURE (2005) TRAFFIC VOLUMES
WITHOUT PROJECT
PM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning - Traffic Engineering

Cumulative Development

In addition to the use of the 1.0 percent annual growth rate, listings of potential projects located in the study area were obtained from the County of Los Angeles and City of Los Angeles Department of Transportation and field verified. From a review of these lists, it was determined that traffic from 44 projects near the study site may produce additional traffic at the study intersections. Traffic expected to be generated from these "related projects" was estimated by applying the trip generation rates in Table 7.

Table 7
6th Edition ITE
Trip Generation Rates and Equations

Industrial Park (1,000 sf) - LU 130
Daily: T = 6.96 (A)
AM Peak Hour: T = 0.89 (A); I/B = 82%, O/B = 18%
PM Peak Hour : T = 0.92 (A); I/B = 21%, O/B = 79%

Manufacturing (1,000 sf) - LU 140
Daily: T = 3.82 (A)
AM Peak Hour: T = 0.73 (A); I/B = 77%, O/B = 23%
PM Peak Hour : T = 0.74 (A); I/B = 36%, O/B = 64%

Warehousing (1,000 sf) - LU 150
Daily: T = 4.96 (A)
AM Peak Hour: T = 0.45 (A); I/B = 82%, O/B = 18%
PM Peak Hour : T = 0.51 (A); I/B = 24%, O/B = 76%

Apartment (per dwelling unit) - LU 220
Daily: T = 6.63 (D)
AM Peak Hour: T = 0.51 (D); I/B = 16%, O/B = 84%
PM Peak Hour: T = 0.62 (D); I/B = 67%, O/B = 33%

Condominium (per dwelling unit) - LU 230
Daily: T = 5.86 (D)
AM Peak Hour: T = 0.44 (D); I/B = 17%, O/B = 83%
PM Peak Hour: T = 0.54 (D); I/B = 67%, O/B = 33%

Table 7 (cont.)
6th Edition ITE
Trip Generation Rates and Equations

Hotel (per room) - LU 310
Daily: T = 8.92 (R)
AM Peak Hour: T = 0.67 (R); I/B = 58%, O/B = 42%
PM Peak Hour: T = 0.71 (R); I/B = 49%, O/B = 51%

Live Theater (per seat) - LU 441
Daily: N/A
AM Peak Hour: N/A
PM Peak Hour : T = 0.02 (St); I/B = 50%, O/B = 50%

Movie Theater with Matinee* (per seat)
Daily: T = 1.8 (St)
AM Peak Hour: T = 0.01 (St); I/B = 100%, O/B = 0%
PM Peak Hour: T = 0.14 (St); I/B = 60%, O/B = 40%

Recreational Community Center (per 1,000 sf) - LU 495
Daily: T = 22.88 (A)
AM Peak Hour: T = 1.32 (A); I/B = 66%, O/B = 34%
PM Peak Hour : T = 1.75 (A); I/B = 34%, O/B = 66%

Elementary School (per student) - LU 520
Daily: T = 1.02 (S)
AM Peak Hour: T = 0.29 (S); I/B = 59%, O/B = 41%
PM Peak Hour : T = 0.26 (S); I/B = 46%, O/B = 54%

High School (per 1,000 sf) - LU 530
Daily: T = 13.27 (A)
AM Peak Hour: T = 3.22 (A); I/B = 72%, O/B = 28%
PM Peak Hour : T = 1.02 (A); I/B = 30%, O/B = 70%

Church (per 1,000 sf) - LU 560
Daily: T = 9.11 (A)
AM Peak Hour: T = 0.72 (A); I/B = 54%, O/B = 46%
PM Peak Hour : T = 0.66 (A); I/B = 54%, O/B = 46%

Table 7 (cont.)
6th Edition ITE
Trip Generation Rates and Equations

Library (per 1,000 sf) - LU 590
Daily: T = 54.00 (A)
AM Peak Hour: T = 1.06 (A); I/B = 72%, O/B = 28%
PM Peak Hour: T = 7.09 (A); I/B = 48%, O/B = 52%

Hospital (per bed) - LU 610
Daily: T = 11.77 (B)
AM Peak Hour: T = 1.07 (B); I/B = 72%, O/B = 28%
PM Peak Hour: T = 1.22 (B); I/B = 34%, O/B = 66%

Clinic (per 1,000 sf) - LU 630
Daily: T = 31.45 (A)
AM Peak Hour: N/A
PM Peak Hour: T = 5.18 (A); I/B = N/A, O/B = N/A

Office (per 1,000 sf) - LU 710
Daily: Ln(T) = 0.768 Ln(A) + 3.654
AM Peak Hour: Ln(T) = 0.797 Ln(A) + 1.558; I/B = 88%, O/B = 12%
PM Peak Hour: T = 1.121 (A) + 79.295; I/B = 17%, O/B = 83%

Medical Office (per 1,000 sf) - LU 720
Daily: T = 36.13 (A)
AM Peak Hour: T = 2.43 (A); I/B = 80%, O/B = 20%
PM Peak Hour: T = 3.66 (A); I/B = 27%, O/B = 73%

Specialty Retail (per 1,000 sf) - LU 814
Daily: T = 40.67 (A)
AM Peak Hour *: T = 1.2201 (A); I/B = 60%, O/B = 40%
PM Peak Hour: T = 2.59 (A); I/B = 43%, O/B = 57%

Shopping Center (per 1,000 sf) - LU 820
Daily: T = 42.92 (A)
AM Peak Hour: T = 1.03 (A); I/B = 61%, O/B = 39%
PM Peak Hour: T = 3.74 (A); I/B = 48%, O/B = 52%

Table 7 (cont.)
6th Edition ITE
Trip Generation Rates and Equations

Quality Restaurant (per 1,000 sf) - LU 831
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 Restaurant (per 1,000 sf) - LU 832
Daily: T = 130.34 (A)
AM Peak Hour: T = 9.27 (A); I/B = 52%, O/B = 48%
PM Peak Hour: T = 10.86 (A); I/B = 60%, O/B = 40%

Fast-Food Restaurant with Drive-Through (per 1,000 sf) - LU 834
Daily: T = 496.12 (A)
AM Peak Hour: T = 49.86 (A); I/B = 51%, O/B = 49%
PM Peak Hour: T = 33.48 (A); I/B = 52%, O/B = 48%

Gas Station with Convenience Market (per fueling position) - LU 845
Daily: T = 162.78 (P)
AM Peak Hour: T = 10.06 (P); I/B = 50%, O/B = 50%
PM Peak Hour: T = 13.38 (P); I/B = 50%, O/B = 50%

Supermarket (per 1,000 sf) - LU 850
Daily: T = 111.51 (A)
AM Peak Hour: T = 3.25 (A); I/B = 61%, O/B = 39%
PM Peak Hour: T = 11.51 (A); I/B = 51%, O/B = 49%

Convenience Market (per 1,000 sf) - LU 851
Daily: T = 737.99 (A)
AM Peak Hour: T = 65.39 (A); I/B = 50%, O/B = 50%
PM Peak Hour: T = 53.73 (A); I/B = 50%, O/B = 50%

Drive-in Bank (per 1,000 sf) - LU 912
Daily: T = 265.21(A)
AM Peak Hour: T = 12.63 (A); I/B = 56%, O/B = 44%
PM Peak Hour: T = 54.77 (A); I/B = 50%, O/B = 50%

Table 7 (cont.)
6th Edition ITE
Trip Generation Rates and Equations

Where:

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

Source:
Trip Generation, 6th Edition, Institute of Transportation Engineers, 1997.
* San Diego Traffic Generators, San Diego Association of Governments, 1998.

The locations of the related projects are shown in Figure 10 and the projects are listed and described in Table 8. The estimates of traffic generated by each project are displayed in Table 9.

FIGURE 10

3/7/03

FN: HALL OF JUSTICE\REL\PROJS

RELATED PROJECTS LOCATION MAP

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

Table 8
Related Projects Descriptions

Map No.	Location	Size		Description
1.	1316 Glendale Bl.	21,026	sf	Recreation center
2.	330 N. Alvarado St.	2,500	sf	Fast-food restaurant w/ drive-thru
3.	Lake St. & Beverly Bl. (Belmont New Primary Ctr. No.12)	380	st	Primary school
4.	Alvarado St. & Wilshire Bl.	40,000	sf	Supermarket
	(Westlake Intermodal Center)	30,000	sf	Retail
		40,000	sf	Community facility
5.	2222 Olympic Bl.	28,800	sf	Bank
6.	1630 W. Olympic Bl.	5,432	sf	Office
		7,168	sf	Specialty retail
7.	1313 Olympic Bl.	160,000	sf	Retail
8.	722 7th St.	738	du	Apartment
		40,000	sf	Retail
9.	633 Bixel St.	86,000	sf	Retail
10.	616 St. Paul St.	10,000	sf	Mixed-use commercial
		330	du	Apartment
11.	5th St. & Bixel St.	12,465	sf	Production office
		149,580	sf	Production facilities[1]
		87,255	sf	Support
12.	1207 W. 3rd St.	330	du	Apartment
		50,000	sf	Commercial
13.	Temple St. & Beaudry Av.	326,000	sf	High school
14.	1010 Bellevue Av.	25,328	sf	Convent
15.	505 Figueroa St.	40,000	sf	Commercial
		330	du	Apartment

Table 8 (cont.)
Related Projects Descriptions

Map No.	Location	Size		Description
16.	N. Broadway & College St.	5,000	sf	Retail
	(Capital Mills)	20,000	sf	Office
		30	du	Artist loft
17.	900 N. Broadway	29,000	sf	Retail
	(Blossom Garden Apts.)	300	du	Apartment
18.	Spring St. & Baker St.	953,670	sf	Manufacturing
19.	2600 Main St.	3,000	sf	Convenience store
20.	Alameda St. & Los Angeles St.	8,200,000	sf	Office
	(Alameda District Plan)	750	rm	Hotel
		300	du	Apartment
		250,000	sf	Retail
		70,000	sf	Museum
21.	8th St. & Francisco St.	600	rm	Hotel
	(Metropolis)	1,600,000	sf	Office
		223,000	sf	Retail
22.	NEC of 8th St. & Figueroa St.	400	rm	Hotel
23.	Figueroa St. btwn.	1,800	rm	Hotel
	Olympic Bl. & 11th St.	3,600	st	Cinema
	(Staples Entertainment District)	1,000	st	Theater
		345,000	sf	Restaurant
		498,000	sf	Retail
		165,000	sf	Office
		800	du	Apartment
24.	605 W. Olympic Bl.	7,142	sf	Quality restaurant/night club
25.	615 Olympic Bl.	40,000	sf	Commercial
		270	du	Apartment
26.	1300 S. Figueroa St.	179	du	Apartment
		8,000	sf	Restaurant
27.	1530 S. Olive St.	31,655	sf	Community clinic

Table 8 (cont.)
Related Projects Descriptions

Map No.	Location	Size		Description
28.	10220 S. Main St.	32,533	sf	Retail
	(Accessory Mart)	7,909	sf	Storage
29.	1006 Los Angeles St.	96,000	sf	Retail
30.	Main St & 9th St.	151,000	sf	Retail
31.	305-27 9th St.	74,000	sf	Office
		157,000	sf	Retail
32.	SEC of Hill St. & 5th St.	200,000	sf	Office
	(Jewelry Center II)	20,000	sf	Retail
33.	9th St. & Wall St.	139,000	sf	Retail
34.	SWC of 1st St. & Grand Av.	2,835	st	Theater
	(Disney Hall)	25,000	sf	Ballroom
		22,424	sf	Office
		17,172	sf	Retail
35.	400 Main St.	5,265	sf	Restaurant and bar (215 seats)
36.	108 W. 2nd St.	146	du	Condominium
37.	Alameda St. & Temple St.	80,000	sf	Museum
38.	Alameda St. & 1st St.	600	rm	Hotel
	(Mangrove Estates)	1,200	du	Condominium
		221,048	sf	Office
39.	1st St. & Alameda St.	415,782	sf	Retail/office
	(First Street South Plaza)	1,154	du	Apartment
		500	rm	Hotel
40.	970 E. 3rd St.	596,000	sf	Multi-use (Freight Yard)
41.	2005 E. 4th St.	8	p	Gas station w/ mini-mart
		754	sf	Fast-food restaurant w/ drive-thru
42.	1720 Cesar Chavez Av.	114,000	sf	Medical office expansion
		359	bd	Hospital (White Memorial)

Table 8 (cont.)
Related Projects Descriptions

Map No.	Location	Size		Description
43.	NEC Mission Rd./Marengo St.	600	bd	Hospital (1,471,467 sf)
44.	2650 Olympic Bl.	1,300,000	sf	Industrial park
		229,000	sf	Retail
		4,000	sf	Fast-food restaurant w/ drive-thru

Table 9
Related Projects Trip Generation

No.	Size	Description	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
1.	21,026 sf	Recreation center	481	18	10	28	13	24	37
2.	2,500 sf	Fast-food restaurant w/ drive-thru	1,240	64	61	125	44	40	84
3.	380 st	Primary school	388	65	45	110	46	53	99
4.	40,000 sf	Supermarket	4,460	79	51	130	235	225	460
	30,000 sf	Retail	1,288	19	12	31	54	58	112
	40,000 sf	Community facility	915	35	18	53	24	46	70
			6,663	133	81	214	313	329	642
5.	28,800 sf	Bank	7,638	204	160	364	789	788	1,577
6.	5,432 sf	Office	142	16	2	18	14	71	85
	7,168 sf	Specialty retail	292	5	4	9	8	11	19
			434	21	6	27	22	82	104
7.	160,000 sf	Retail	6,867	101	64	165	287	311	598
8.	738 du	Apartment	4,893	60	316	376	307	151	458
	40,000 sf	Retail	1,717	25	16	41	72	78	150
			6,610	85	332	417	379	229	608
9.	86,000 sf	Retail	3,691	54	35	89	155	167	322
10.	10,000 sf	Mixed-use commercial	429	6	4	10	18	19	37
	330 du	Apartment	2,188	27	141	168	137	68	205
			2,617	33	145	178	155	87	242
11.	12,465 sf	Production Office [1]	154	16	1	17	2	8	10
	149,580 sf	Production Facilities [1]	488	31	9	40	13	36	49
	87,255 sf	Support [1]	383	15	8	23	8	24	32
			1,025	62	18	80	23	68	91
12.	330 du	Apartment	2,188	27	141	168	137	68	205
	50,000 sf	Commercial	2,146	32	20	52	90	97	187
			4,334	59	161	220	227	165	392
13.	326,000 sf	High School	4,326	756	294	1,050	100	233	333
14.	25,328 sf	Convent	231	10	8	18	9	8	17

Table 9 (cont.)
Related Projects Trip Generation

No.	Size	Description	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
15.	40,000 sf	Commercial	1,717	25	16	41	72	78	150
	330 du	Apartment	2,188	27	141	168	137	68	205
			3,905	52	157	209	209	146	355
16.	5,000 sf	Retail	203	4	2	6	6	7	13
	20,000 sf	Office	386	46	6	52	17	85	102
	30 du	Artist lofts	199	2	13	15	13	6	19
			788	52	21	73	36	98	134
17.	29,000 sf	Retail	1,245	18	12	30	52	56	108
	300 du	Apartment	1,989	24	129	153	125	61	186
			3,234	42	141	183	177	117	294
18.	953,670 sf	Manufacturing	3,643	536	160	696	254	452	706
19.	3,000 sf	Convenience Store	2,214	98	98	196	81	80	161
20.	8,200,000 sf	Office	39,149	5,501	750	6,251	1,576	7,695	9,271
	750 rm	Hotel	6,690	292	211	503	261	272	533
	300 du	Apartment	1,989	24	129	153	125	61	186
	250,000 sf	Retail	10,730	157	101	258	449	486	935
	70,000 sf	Museum	3,780	53	21	74	238	258	496
			62,338	6,027	1,212	7,239	2,649	8,772	11,421
21.	600 rm	Hotel	5,352	233	169	402	209	217	426
	1,600,000 sf	Office	11,160	1,495	204	1,699	318	1,555	1,873
	223,000 sf	Retail	9,571	140	90	230	400	434	834
			26,083	1,868	463	2,331	927	2,206	3,133
22.	400 rm	Hotel	3,568	155	113	268	139	145	284
23.	1,800 rm	Hotel	16,056	699	507	1,206	626	652	1,278
	3,600 st	Cinema	6,480	36	0	36	302	202	504
	1,000 st	Theater	N/A	N/A	N/A	N/A	10	10	20
	345,000 sf	Restaurant	44,967	1,663	1,535	3,198	2,248	1,499	3,747
	498,000 sf	Retail	21,374	313	200	513	894	969	1,863
	165,000 sf	Office	1,950	245	33	278	45	219	264
	800 du	Apartment	5,304	65	343	408	332	164	496
			96,131	3,021	2,618	5,639	4,457	3,715	8,172
24.	7,142 sf	Quality restaurant/night club	642	5	1	6	36	17	53

Table 9 (cont.)
Related Projects Trip Generation

No.	Size	Description	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
25.	40,000 sf	Commercial	1,717	25	16	41	72	78	150
	270 du	Apartment	1,790	22	116	138	112	55	167
			3,507	47	132	179	184	133	317
26.	179 du	Apartment	1,187	15	76	91	74	37	111
	8,000 sf	Restaurant	1,043	38	36	74	52	35	87
			2,230	53	112	165	126	72	198
27.	31,655 sf	Community clinic	996	N/A	N/A	N/A	N/A	N/A	164
28.	32,533 sf	Retail	1,323	24	16	40	36	48	84
	7,909 sf	Storage	39	3	1	4	1	3	4
			1,362	27	17	44	37	51	88
29.	96,000 sf	Retail	4,120	60	39	99	172	187	359
30.	151,000 sf	Retail	6,481	95	61	156	271	294	565
31.	74,000 sf	Office	1,053	129	18	147	28	134	162
	157,000 sf	Retail	6,738	99	63	162	282	305	587
			7,791	228	81	309	310	439	749
32.	200,000 sf	Office	2,260	285	39	324	52	251	303
	20,000 sf	Retail	858	13	8	21	36	39	75
			3,118	298	47	345	88	290	378
33.	139,000 sf	Retail	5,966	87	56	143	250	270	520
34.	2,835 st	Theater	N/A	N/A	N/A	N/A	29	28	57
	25,000 sf	Ballroom	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	22,424 sf	Office	421	50	7	57	18	86	104
	17,172 sf	Retail	698	13	8	21	19	25	44
35.	5,265 sf	Restaurant and bar (215 seats)	686	25	24	49	34	23	57
36.	146 du	Condominium	856	11	53	64	53	26	79
37.	80,000 sf	Museum	4,320	61	24	85	272	295	567
38.	600 rm	Hotel	5,352	233	169	402	209	217	426
	1,200 du	Condominium	7,032	90	438	528	434	214	648
	221,048 sf	Office	2,440	309	42	351	56	271	327
			14,824	632	649	1,281	699	702	1,401

Table 9 (cont.)
Related Projects Trip Generation

No.	Size	Description	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
39.	415,782 sf	Retail/office	3,965	511	70	581	93	452	545
	1,154 du	Apartment	7,651	94	495	589	479	236	715
	500 rm	Hotel	4,460	194	141	335	174	181	355
			16,076	799	706	1,505	746	869	1,615
40.	596,000 sf	Multi-use (Freight Yard) [2]	7,532	335	482	817	353	467	820
41.	8 p	Gas station w/ mini-mart	1,302	40	40	80	54	53	107
	754 sf	Fast-food restaurant w/ drive-thru	374	19	19	38	13	12	25
			1,676	59	59	118	67	65	132
42.	114,000 sf	Medical office expansion	4,119	222	55	277	113	304	417
	359 bd	Hospital (White Memorial)	4,225	276	108	384	149	289	438
			8,344	498	163	661	262	593	855
43.	600 bd	Hospital (1,471,467 sf)	7,062	462	180	642	249	483	732
44.	1,300,000 sf	Industrial park	9,048	949	208	1,157	251	945	1,196
	229,000 sf	Retail	9,829	144	92	236	411	445	856
	4,000 sf	Fast-food restaurant w/ drive-thru	1,984	101	98	199	70	64	134
			20,861	1,194	398	1,592	732	1,454	2,186

[1] Rates from *Traffic Impact Analysis for the Renovation and Expansion of Fox Studio Facilities in Century City*, Crain & Associates, Revised October 1991. Assumed 5% for production office, 60% for production & staging, and 35% for support.

[2] Provided by LADOT related projects database website.

Highway System Improvements

A review of anticipated transportation improvements was conducted for the street system servicing the site. A review of the City's 5 Year Capital Improvement Program (CIP), 1997-98, Pictorial Guide revealed that there are no improvement projects scheduled for implementation that would significantly affect the transportation system in the study area. However several improvements are anticipated in the downtown area. These include the construction of the "Gold Line" by the Pasadena Blue Line Authority from Union Station into Pasadena, the Adaptive Traffic Control System throughout Downtown Los Angeles, the Figueroa Corridor Economic Development Strategy where Figueroa Street would be rebalanced south of Ninth Street to provide three lanes in each direction, the Hollywood Freeway (US-101) ramps at Glendale Boulevard will be reconstructed into a full diamond interchange, the Hollywood Freeway will be improved between Vermont Avenue and the four level interchange to provide one additional lane in each direction with a future conversion to an HOV facility is also planned between Glendale Boulevard and Vermont Avenue, the Harbor Freeway (State Route 110) northbound and southbound ramps at Fourth Street will be reconfigured and the Santa Monica Freeway (I-10), the Olympic Boulevard interchange will be improved to provide a westbound off-ramp connection from the Santa Monica, and the connection of the HOV system throughout downtown. While these projects may be implemented in the future they have not been included in the future conditions with the project or with the project and the cumulative development in order to provide a conservative estimate of potential impacts.

Analysis of Future Traffic Conditions (Without Project, With Project and With Cumulative Development)

The analysis of future conditions in the project area was performed using the same critical lane analysis procedures described previously in this report. For future project conditions, the roadway system was not considered to be improved from existing conditions.

Traffic volumes for the analysis were developed as follows:

- As described earlier in the report, future-year benchmark traffic volumes for the no-project condition were determined by applying a 1% annual ambient growth factor to the existing traffic counts.
- Traffic volumes generated by the project were then combined with these benchmark volumes to arrive at the " with project" traffic analysis and to determine traffic impacts directly attributable to the proposed development.
- Finally, traffic generated by the 44 identified development projects was added to the "With Project" scenario, to produce an estimate of the potential cumulative traffic impacts within the study area.

The projected traffic volumes for the "with project" (2005) conditions described above are shown in Figure 11.

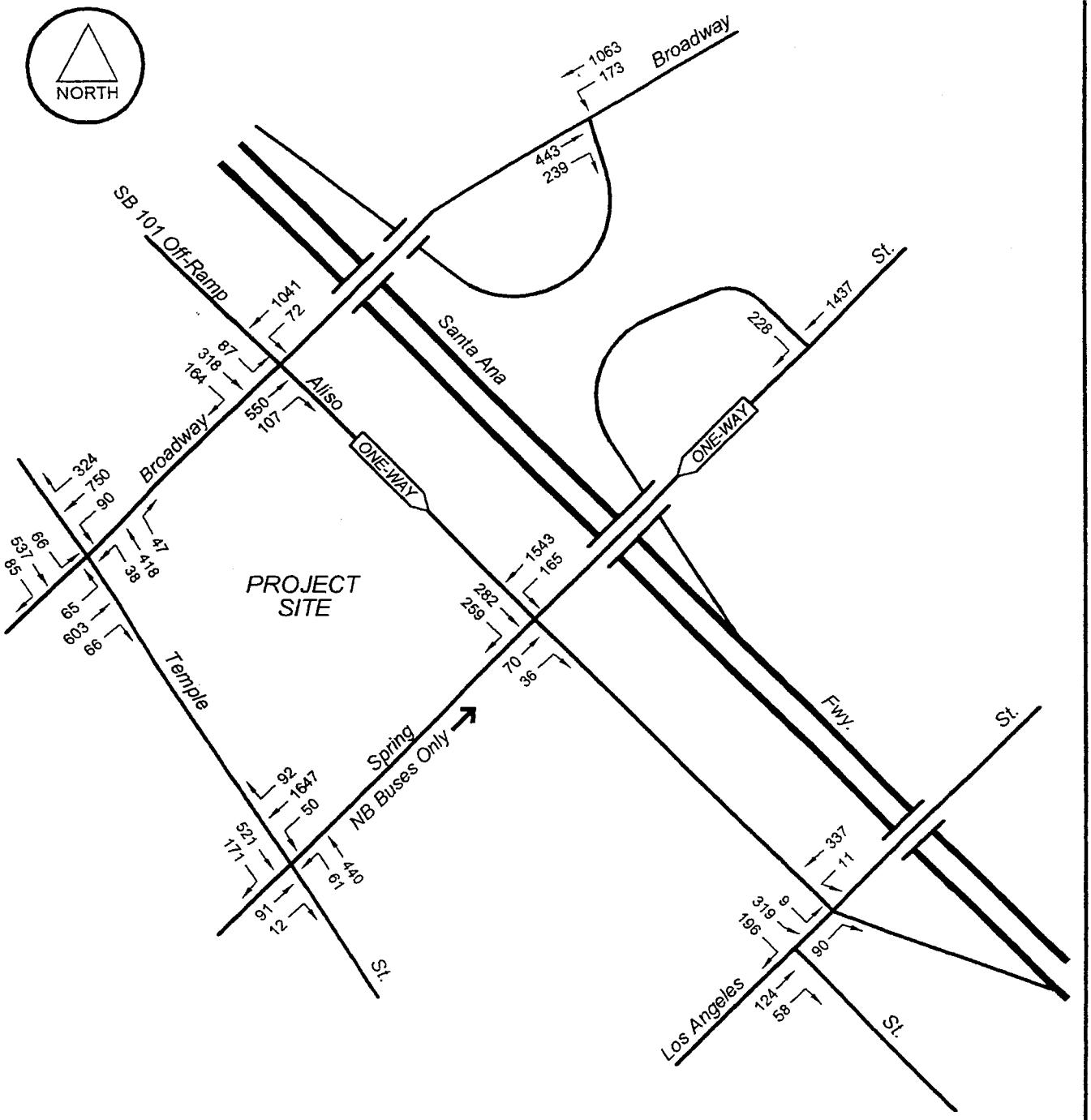


FIGURE 11(a)

3/7/03

Hall of Justice\AM2005\WP

FUTURE (2005) TRAFFIC VOLUMES
WITH PROJECT
AM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning -Traffic Engineering

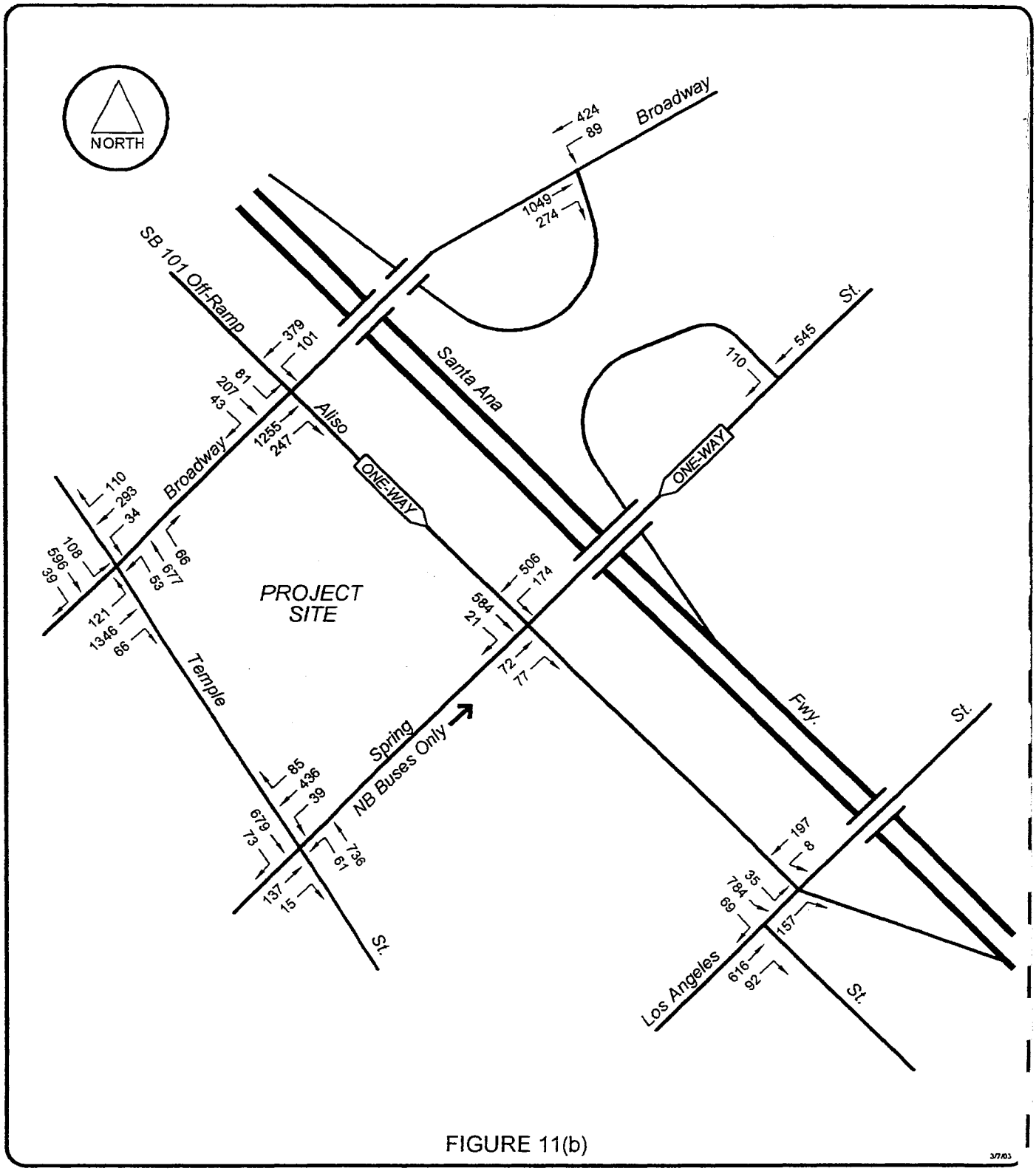


FIGURE 11(b)

3/7/03

Hall of Justice\PM2005\MP

FUTURE (2005) TRAFFIC VOLUMES
WITH PROJECT
PM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning -Traffic Engineering

The current definition of a "significant traffic impact" attributable to a project can occur within three ranges of CMA values as follows:

Table 10

Criteria for Significant Traffic Impact

LOS	Final CMA Value	Project-Related Increase in CMA Value
C	0.71 to 0.80	equal to or greater than 0.04
D	0.81 to 0.90	equal to or greater than 0.02
E, F	0.91 or greater	equal to or greater than 0.01

As indicated in Table 11, the proposed project is not expected to have a significant traffic impact at any of the seven study intersections.

Table 11
Summary of Critical Movement Analysis
Future (2005) Traffic Conditions - With and Without Project

			Without Project		With Project		
No.	Intersection	Hour	CMA	LOS	CMA	LOS	Impacts
1.	Temple Street &	AM	0.442	A	0.445	A	0.003
	North Broadway	PM	0.730	C	0.743	C	0.013
2.	Aliso St./SB 101 Fwy	AM	0.403	A	0.411	A	0.008
	Off-ramp & North Broadway	PM	0.497	A	0.512	A	0.015
3.	NB 101 Fwy On-ramp &	AM	0.438	A	0.443	A	0.005
	North Broadway	PM	0.611	B	0.626	B	0.015
4.	Temple Street &	AM	0.490	A	0.491	A	0.001
	North Spring Street	PM	0.316	A	0.321	A	0.005
5.	Aliso Street &	AM	0.339	A	0.366	A	0.027
	North Spring Street	PM	0.251	A	0.257	A	0.006
6.	NB 101 Fwy Off-ramp &	AM	0.385	A	0.394	A	0.009
	North Spring Street	PM	0.157	A	0.159	A	0.002
7.	SB 101 Fwy On-ramp &	AM	0.188	A	0.188	A	0.000
	Los Angeles Street	PM	0.290	A	0.294	A	0.004

Other projects which are proposed in the area around the project will add traffic to the study intersections. The proposed renovation of the Hall of Justice along with these related projects have been evaluated for potential cumulative impacts. The analysis

includes a conservative set of assumptions. It is likely that not all of the proposed development will be built or built to the intensity currently envisioned. In addition, many of the projects will be required to develop traffic mitigation plans for their development which will reduce cumulative impacts. The potential improvements which may be required of other developments have not been included in the analysis. Table 12 provides a summary of the future 2005 conditions with the cumulative development, and Figure 12 provides a graphic representation of the volumes.

Table 12
Future (2005) Traffic Conditions - With Cumulative Development

No.	Intersection	Peak Period	Without Project CMA	LOS	With Project CMA	LOS	Impact	With Project + Cumulative Projects CMA	LOS	Impact	Project % of Impact
1.	Temple Street &	AM	0.442	A	0.445	A	0.003	0.558	A	0.116	3%
	North Broadway	PM	0.730	C	0.743	C	0.013	0.941	E	0.211*	6%
2.	Aliso St./SB 101 Fwy	AM	0.403	A	0.411	A	0.008	0.451	A	0.048	17%
	Off-ramp & North Broadway	PM	0.497	A	0.512	A	0.015	0.701	C	0.204*	7%
3.	NB 101 Fwy On-ramp &	AM	0.438	A	0.443	A	0.005	0.542	A	0.104	5%
	North Broadway	PM	0.611	B	0.626	B	0.015	0.829	D	0.218*	7%
4.	Temple Street &	AM	0.490	A	0.491	A	0.001	0.524	A	0.034	3%
	North Spring Street	PM	0.316	A	0.321	A	0.005	0.351	A	0.035	14%
5.	Aliso Street &	AM	0.339	A	0.366	A	0.027	0.390	A	0.051	53%
	North Spring Street	PM	0.251	A	0.257	A	0.006	0.272	A	0.021	29%
6.	NB 101 Fwy Off-ramp &	AM	0.385	A	0.394	A	0.009	0.407	A	0.022	41%
	North Spring Street	PM	0.157	A	0.159	A	0.002	0.173	A	0.016	13%
7.	SB 101 Fwy On-ramp &	AM	0.188	A	0.188	A	0.000	0.312	A	0.124	0%
	Los Angeles Street	PM	0.290	A	0.294	A	0.004	0.465	A	0.175	2%

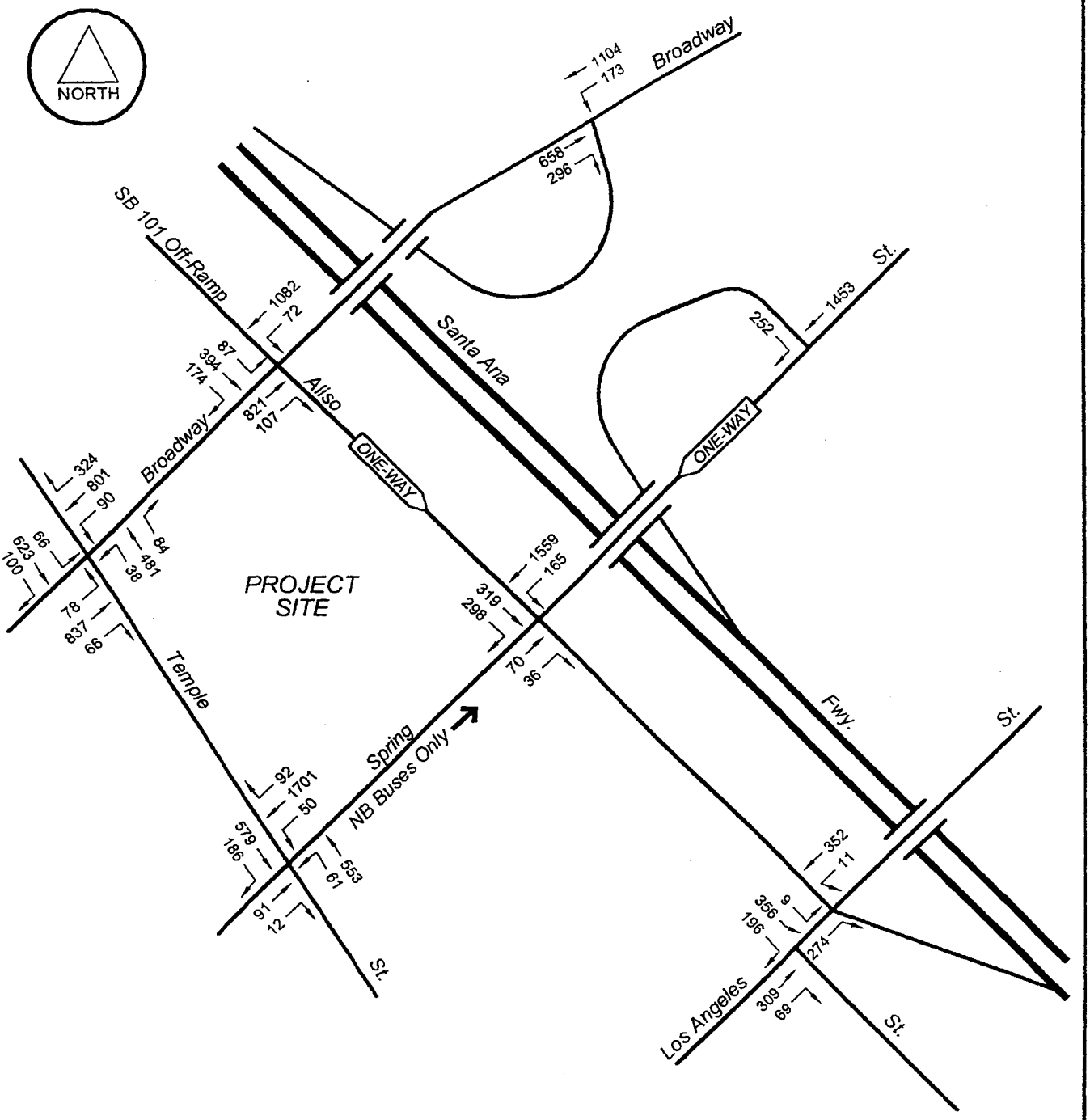


FIGURE 12(a)

3/7/03

Hall of Justice\AM2005WP+C

FUTURE (2005) TRAFFIC VOLUMES
WITH PROJECT + CUMULATIVE PROJECTS
AM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning · Traffic Engineering

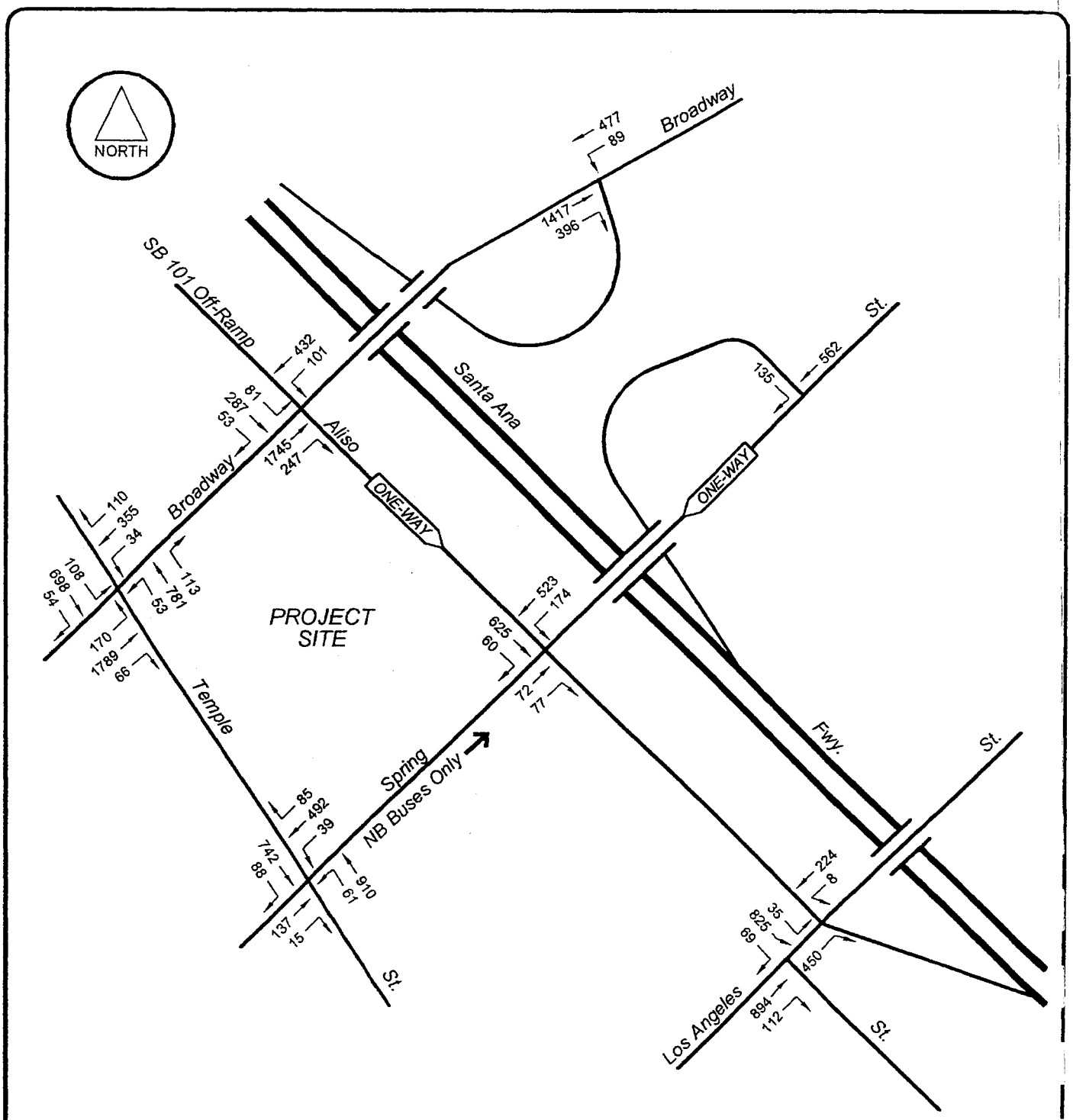


FIGURE 12(b)

3/7/03

H:\all of Justice\PM2005\WP+C

FUTURE (2005) TRAFFIC VOLUMES
WITH PROJECT + CUMULATIVE PROJECTS
PM PEAK HOUR

C&A
CRAIN & ASSOCIATES
2007 Sawtelle Boulevard
Los Angeles, California 90025
(310) 473-6508
Transportation Planning -Traffic Engineering

Future conditions with the project and conservative assumptions on future development indicate a significant cumulative traffic impact during the PM peak hour at the intersection of Temple Street and North Broadway, Aliso Street/Southbound 101 Freeway Off-ramp and North Broadway and the Northbound 101 On-ramp and North Broadway. These significant impacts would occur without the project. They are not created by the proposed project.

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, the Congestion Management Program (CMP) was enacted by Proposition 111.

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, the local CMP agency, to implement the statutory requirements of the CMP. The countywide approach includes designating a highway network that includes all state highways and principal arterials within the County and monitoring the network's Level of Service standards. This monitoring of the CMP network is one of the responsibilities of local jurisdictions. If Level of Service standards deteriorate, then local jurisdictions must prepare a deficiency plan to be in conformance with the countywide plan.

Furthermore, all development projects which are required to prepare an EIR are subject to the Land Use Analysis program of the CMP. This requirement will provide decision-makers with the project-specific traffic impacts created by large projects on the CMP highway network. The traffic impact analysis (TIA) to be included in an EIR requires that all freeway segments where the project adds 150 or more trips, in each direction, during the peak hours be analyzed. An analysis is also required at all CMP

intersections where the project will add 50 or more trips during the peak hour. The CMP intersection closest to the project is Wilshire Boulevard and Alvarado Street. The intersection is over 2 miles away from the project. Less than 50 project related trips are anticipated to utilize this intersection during the peak hours. In addition, as shown previously in Figures 5(a) and 5(b), the proposed project will not add 150 or more trips to any of the freeway segments including the Harbor Freeway south of the Hollywood Freeway, the Harbor Freeway at Alpine Street, the Hollywood Freeway north of Vignes Street or Golden State Freeway at Stadium Way, all the CMP Freeway segments in the project area. Therefore, no additional analysis was performed.

IMPROVEMENT MEASURES

As indicated in this project traffic analysis, no significant project related impacts are created by the renovation and reuse of the Hall of Justice. However, under a conservative set of assumptions significant cumulative traffic impacts have been identified during the PM peak hour at the intersection of Temple Street and North Broadway, Aliso Street/Southbound 101 Freeway and at the intersection of the Northbound Hollywood Freeway on ramp and North Broadway. These significant impacts would occur with or without the project and are not project related. The project contributes to these impacts by 6% at Temple Street and North Broadway, 7% at Aliso Street/Southbound 101 Freeway Off-ramp and North Broadway and 7% at the intersection of the Northbound 101 Freeway On-ramp and North Broadway. In order to contribute to the reduction of the cumulative traffic impacts, the project will implement a Transportation System Management (TSM) plan. With successful implementation of the following TSM plan the ridesharing will help to reduce the number of vehicles which will be utilizing the cumulatively impacted intersections.

Transportation System Management (TSM) Program

There are a number of viable strategies the project can utilize to encourage options to single occupancy vehicles to and from the site. The following details plans in which the reoccupied Hall of Justice will achieve vehicle trip reduction goals. The project's TSM efforts incorporate ridesharing in all the traditional methods such as vanpooling, carpooling, walking, bicycling and bus ridership. Downtown Los Angeles has the benefit of housing Union Station which provides opportunities to utilize trains, light rail and the current subway system and hence the entire regional network of public transit services. The full TSM program is discussed below in detail.

- The project will encourage employee ridership of the rail, bus and subway services through employee awareness programs and convenient access to schedules and routes.

- The project will implement TSM measures to increase the convenience and attractiveness of the other transportation alternatives among employees and visitors. Services such as carpool and vanpool matching, vanpool formation and leasing assistance, and preferred parking for employees who carpool or vanpool together, will be provided by the project to facilitate ridesharing. These services work well in conjunction with, and benefit those who wish to take advantage of, the high occupancy vehicle (HOV) lanes on the freeways.

- Bicycle travel will be supported by the project through such on-site amenities as bicycle racks or lockers that are located on site. Bicycle ridership is supported by some other modes of transportation with bicycle racks. The availability of these services will be highlighted.

- The trip-reduction strategies discussed above will be carried out and marketed by a centralized transportation management office (TMO) established within the project. The TMO will provide rideshare matching, public transit schedules and the opportunity to purchase bus and metro rail passes on-site. The services will be coordinated through a centralized rideshare coordinator.

- The project volumes can be reduced by 10 to 20% with the implementation of the TSM program.

While the TSM program is not required to mitigate a specific project related impact it is offered to participate in the reduction of overall trips into Downtown Los Angeles. The successful implementation of the program will help reduce potential cumulative impacts which have been identified under the conservative cumulative analysis.

SHORT TERM CONSTRUCTION PARKING AND TRAFFIC ANALYSIS

The potential traffic and parking impacts associated with the project construction period was evaluated. It is anticipated that there will be approximately 250 construction employees on-site on any given day from approximately 6:30 AM to 7:00 PM. Approximately 65 trucks per day would be needed for construction activities during a three month time period. A specific off-loading site has not yet been selected for hauling any dirt related to construction activities. However, it is likely that the site would be accessed from the 101 Freeway north of the project site.

Construction Traffic Impact Analysis

There are no County criteria to identify significant traffic impacts associated with the construction of a project, because unlike the completed project itself, construction impacts are short-term effects. However, a quantitative construction traffic impact analysis was prepared. The following assessment as to whether expected construction traffic on surrounding streets is "significant" was based on the County's criteria for a proposed project. This is a highly conservative analytical approach as these criteria were formulated to apply to the long-term traffic impacts of a completed project, not short-term construction traffic impacts. Nevertheless, this procedure was utilized to ensure that worst case impacts were adequately analyzed.

For purposes of a highly conservative analysis, it was assumed that all construction workers, supervisory and staff personnel, and visitors would drive alone to the site and park their vehicles on-site. It was assumed that one-half of the haul, concrete, delivery and other heavy-duty construction truck trips would be on the street system during peak commuter periods.

Construction workers are expected to arrive at the site prior to the 6:30 AM start time and leave soon after the 7:00 PM quitting time. Once on the site, the majority of the

construction workers are not expected to leave the site until the end of the work day. Supervisory and staff personnel are expected to arrive earlier and leave later than the construction workers, and may make trips to and from the site during work hours. Visitor and miscellaneous trips are estimated to occur between 7:00 AM and 6:00 PM. Heavy-duty construction trucks are expected to arrive and depart from the site throughout the day.

It is estimated that most weeks of construction would generally entail four days of average activity and one day of peak activity during each stage of construction. The number of construction workers is expected to range from 200 to 250 workmen per day during peak construction activity periods.

Construction truck and employee vehicle activity is estimated to consist of the following:

- 65 inbound and 65 outbound haul trucks, concrete trucks, delivery trucks (lumber, rebar etc.) trips per day for the site work, dirt hauling and grading.
- 250 inbound – AM peak hour and 250 outbound –PM peak Hour personal vehicles for construction employees. This is a conservative assumption as it would be anticipated that construction employees will rideshare.

As the construction work force and visitors would be from all parts of the region, they would be arriving from all directions. The location receiving the soil, debris and other materials excavated from the site during site work demolition, clearing and grading has not been established.

The surrounding intersections listed below were selected for analysis (same as the project traffic analysis), as they are the intersections expected to be the most affected by construction-related traffic.

1. North Broadway and Temple Street
2. Aliso Street/Southbound 101 Freeway Off-ramp and North Broadway
3. Northbound 101 Freeway On-ramp and North Broadway
4. North Spring Street and Temple Street
5. Aliso Street and North Spring Street
6. Northbound 101 Freeway Off-ramp and North Spring Street
7. Southbound 101 Freeway On-ramp and Los Angeles Street

As the time frame of construction is anticipated to be 2004 - 2005, the early year of 2005 was assumed as the baseline year for the construction traffic impact analysis. Existing peak hour traffic volumes on these intersections, which were obtained from recent traffic counts conducted in May 2002, were increased by a growth factor of 1.0 percent per year to reflect 2005 baseline conditions. This is the same growth factor used in the analysis of project traffic impacts. No related projects traffic volumes were added to these intersections.

In order to evaluate potential construction related traffic impacts conditions associated with existing, future without construction activity, and future with construction activity were evaluated. No significant traffic impacts have been identified with the analysis. Significant impact criteria are the same as previously identified in Table 10.

Table 13

LOS Analysis for Construction Activity

No.	Intersection	Peak Hour	Existing CMA	Existing LOS	Construction Activity CMA	Construction Activity LOS	Construction Activity CMA	Construction Activity LOS	Impact
1	TEMPLE STREET &	AM	0.548	A	0.561	A	0.569	A	0.008
	N. BROADWAY	PM	0.714	C	0.730	C	0.760	C	0.030
2	ALISO STREET/SB 101 FWY	AM	0.394	A	0.403	A	0.421	A	0.018
	OFF-RAMP & N. BROADWAY	PM	0.485	A	0.497	A	0.531	A	0.034
3	NB 101 FWY ON-RAMP &	AM	0.364	A	0.372	A	0.382	A	0.010
	N. BROADWAY	PM	0.528	A	0.541	A	0.576	A	0.035
4	TEMPLE STREET &	AM	0.479	A	0.490	A	0.493	A	0.003
	N. SPRING STREET	PM	0.309	A	0.316	A	0.329	A	0.013
5	ALISO STREET &	AM	0.333	A	0.339	A	0.394	A	0.055
	N. SPRING STREET	PM	0.246	A	0.251	A	0.265	A	0.014
6	NB 101 FWY OFF-RAMP &	AM	0.377	A	0.385	A	0.405	A	0.020
	N. SPRING STREET	PM	0.154	A	0.157	A	0.162	A	0.005
7	SB 101 FWY ON-RAMP &	AM	0.184	A	0.188	A	0.188	A	0.000
	LOS ANGELES STREET	PM	0.285	A	0.290	A	0.298	A	0.008

In order to ensure construction activity does not interfere with weekday activities, the following measures are recommended.

Construction Traffic Measures

It is recommended that the following measures be implemented during construction:

- Trucks and construction materials and equipment should be staged on-site whenever feasible. If additional space is necessary it is recommended that lane closure plans be submitted to the County and City of Los Angeles for approval.
- Temporary "Truck Crossing" warning signs should be placed in each direction in advance of each site driveway used by construction vehicles.
- A flag person or persons should be positioned at the project site to assist truck operators in entering and exiting the project area, and to help minimize conflicts with other motorists.

- To the greatest extent possible, heavy-duty construction trucks should be scheduled to arrive and depart before and after peak commuting periods of 7:00 AM to 10:00 AM and 4:00 PM to 7:00 PM.
- A construction worker ridesharing plan should be implemented to reduce construction-related trips.
- A off-site parking area for parking construction workers personal vehicles should be established during peak construction activity days/time periods when all worker vehicles cannot be accommodated on site.
- Once a site has been identified for hauling excess dirt, a haul route should be developed which keeps trucks on major. The haul route should be reviewed and approved by the County and City.

Parking During Construction

No parking impacts from construction-related vehicles are expected to occur on the surrounding streets. All construction-related vehicles, including construction worker vehicles, would be parked on the project site. On street parking is in high demand in the project site area. If during peak construction activity parking demand cannot be adequately accommodated on-site, then a parking plan involving an off-site location and a shuttle operation would be implemented for the affected work crew.

APPENDIX A

INTERSECTION COUNTS

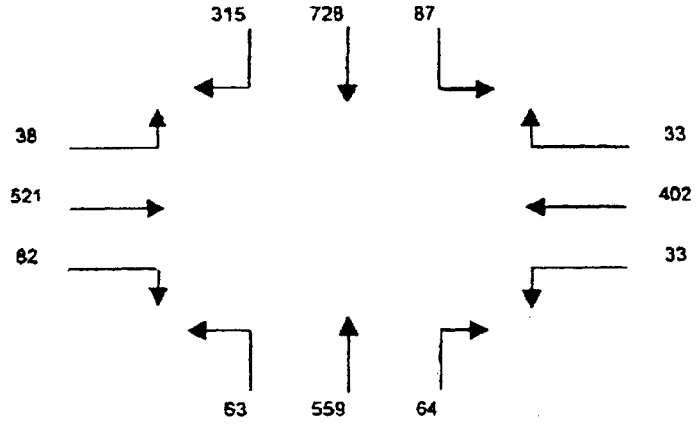
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S NORTH BROADWAY.
E/W TEMPLE STREET.
FILE NUMBER: 3-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	65	163	10	7	75	2	15	128	10	12	122	10
715-730	76	151	19	10	103	6	12	146	14	9	109	8
730-745	81	204	27	8	112	9	20	128	10	17	141	12
745-800	74	171	29	12	85	10	15	135	18	27	140	10
800-815	84	202	12	3	102	8	17	150	21	29	131	8
815-830	63	187	13	10	78	10	20	121	9	13	92	10
830-845	74	190	20	6	73	5	15	116	15	22	112	9
845-900	82	163	20	7	76	11	13	128	10	20	118	14

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	296	689	85	37	375	27	62	537	52	65	512	40	2777
715-815	315	728	87	33	402	33	64	559	63	82	521	38	2925
730-830	302	764	81	33	377	37	72	534	58	86	504	40	2888
745-845	295	750	74	31	338	33	67	522	63	91	475	37	2778
800-900	283	742	65	26	329	34	65	515	55	84	453	41	2692

A.M. PEAK HOUR
715-815



NORTH BROADWAY.

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

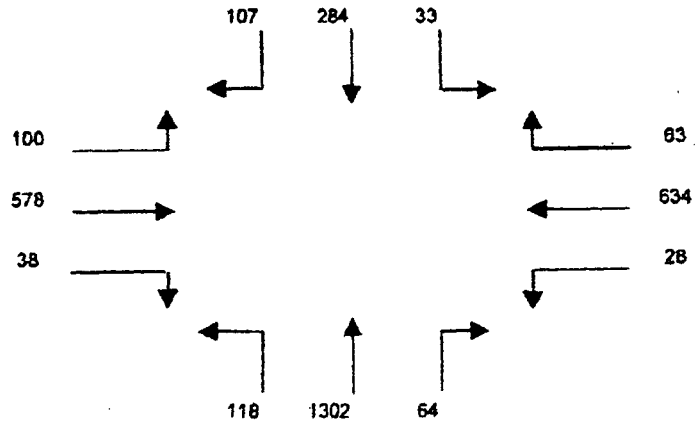
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S NORTH BROADWAY.
E/W TEMPLE STREET.
FILE NUMBER: 3-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	20	79	12	19	158	9	26	221	35	9	122	23
415-430	17	56	2	15	150	8	26	212	27	11	95	24
430-445	22	73	13	20	163	7	25	221	35	15	125	30
445-500	25	75	10	12	147	8	18	316	42	18	139	21
500-515	27	62	8	17	145	6	13	314	22	11	177	43
515-530	30	66	6	19	158	5	15	340	31	10	145	18
530-545	25	81	9	15	184	9	18	332	23	1	117	18
545-600	16	68	4	11	133	3	12	351	20	4	91	24

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	84	283	37	66	618	32	95	970	139	51	481	98	2854
415-515	91	266	33	64	605	29	82	1063	126	53	536	118	3066
430-530	104	276	37	68	613	28	71	1191	130	52	586	112	3286
445-545	107	284	33	63	634	28	64	1302	118	38	578	100	3349
500-600	98	277	27	62	620	23	58	1337	96	26	530	103	3257

P.M. PEAK HOUR
445-545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

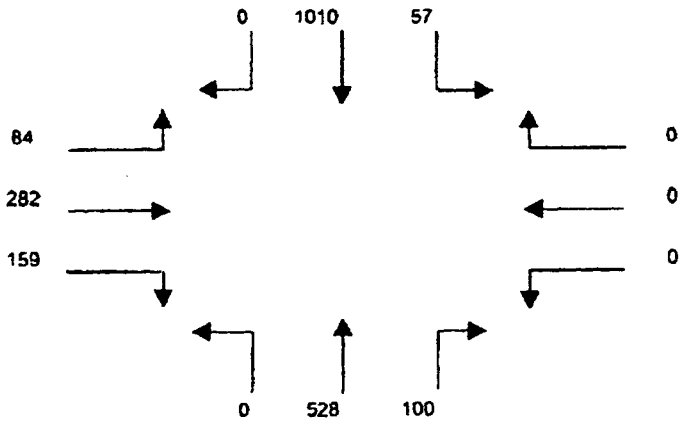
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S NORTH BROADWAY.
E/W NB 101 OFF-RAMP/ ALISO ST.
FILE NUMBER: 2-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	179	8	0	0	0	11	110	0	22	58	22
715-730	0	214	11	0	0	0	16	108	0	29	86	16
730-745	0	236	16	0	0	0	22	116	0	18	86	18
745-800	0	251	16	0	0	0	30	136	0	36	70	29
800-815	0	243	14	0	0	0	23	132	0	36	74	20
815-830	0	265	8	0	0	0	33	139	0	49	78	19
830-845	0	251	19	0	0	0	14	121	0	38	60	16
845-900	0	182	24	0	0	0	12	98	0	20	95	18

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	880	51	0	0	0	79	470	0	105	280	85	1950
715-815	0	944	57	0	0	0	91	492	0	119	296	83	2082
730-830	0	995	54	0	0	0	108	523	0	139	308	86	2213
745-845	0	1010	57	0	0	0	100	528	0	159	282	84	2220
800-900	0	941	65	0	0	0	82	490	0	143	307	73	2101

A.M. PEAK HOUR
745-845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

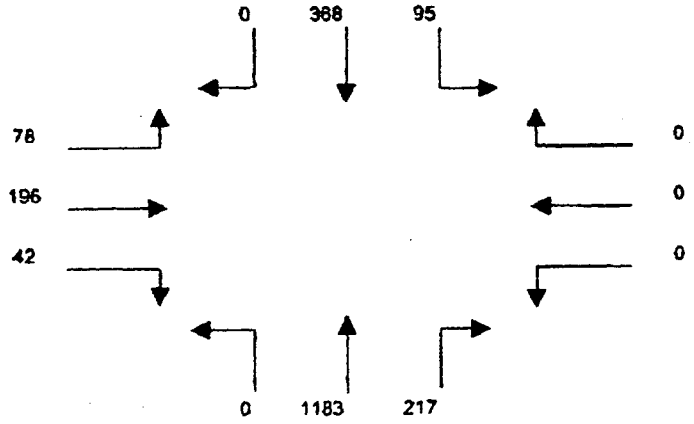
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S NORTH BROADWAY.
E/W NB 101 OFF-RAMP/ ALISO ST.
FILE NUMBER: 2-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	62	20	0	0	0	53	208	0	11	32	14
415-430	0	96	14	0	0	0	54	273	0	21	65	32
430-445	0	89	17	0	0	0	45	261	0	6	47	26
445-500	0	112	25	0	0	0	51	322	0	17	68	24
500-515	0	75	28	0	0	0	74	271	0	4	38	14
515-530	0	77	16	0	0	0	55	282	0	12	43	18
530-545	0	104	26	0	0	0	37	308	0	9	47	22
545-600	0	78	23	0	0	0	27	281	0	18	65	53

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	359	76	0	0	0	203	1064	0	55	212	96	2065
415-515	0	372	84	0	0	0	224	1127	0	48	218	96	2169
430-530	0	353	86	0	0	0	225	1136	0	39	196	82	2117
445-545	0	368	95	0	0	0	217	1183	0	42	196	78	2179
500-600	0	332	93	0	0	0	193	1142	0	43	193	107	2103

P.M. PEAK HOUR
445-545



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

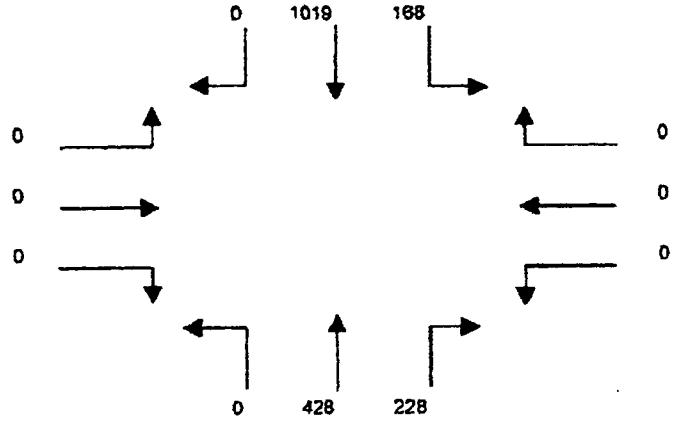
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S NORTH BROADWAY.
E/W NB 101/ 110 ON-RAMP
FILE NUMBER: 1-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	209	28	0	0	0	51	96	0	0	0	0
715-730	0	237	38	0	0	0	56	104	0	0	0	0
730-745	0	260	29	0	0	0	50	107	0	0	0	0
745-800	0	271	68	0	0	0	71	113	0	0	0	0
800-815	0	251	33	0	0	0	51	104	0	0	0	0
815-830	0	246	44	0	0	0	45	95	0	0	0	0
830-845	0	259	40	0	0	0	60	87	0	0	0	0
845-900	0	248	36	0	0	0	54	92	0	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	977	163	0	0	0	228	420	0	0	0	0	1788
715-815	0	1019	168	0	0	0	228	428	0	0	0	0	1843
730-830	0	1028	174	0	0	0	217	419	0	0	0	0	1838
745-845	0	1027	185	0	0	0	227	399	0	0	0	0	1838
800-900	0	1004	153	0	0	0	210	378	0	0	0	0	1745

A.M. PEAK HOUR
715-815



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

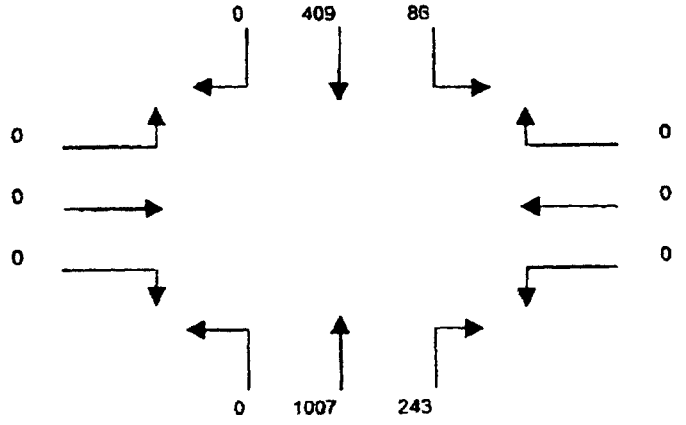
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S NORTH BROADWAY.
E/W NB 101/ 110 ON-RAMP
FILE NUMBER: 1-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	98	26	0	0	0	52	203	0	0	0	0
415-430	0	116	32	0	0	0	74	249	0	0	0	0
430-445	0	94	19	0	0	0	56	258	0	0	0	0
445-500	0	106	17	0	0	0	54	247	0	0	0	0
500-515	0	93	18	0	0	0	59	253	0	0	0	0
515-530	0	107	17	0	0	0	46	252	0	0	0	0
530-545	0	85	9	0	0	0	62	245	0	0	0	0
545-600	0	105	20	0	0	0	46	247	0	0	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	414	94	0	0	0	236	957	0	0	0	0	1701
415-515	0	409	86	0	0	0	243	1007	0	0	0	0	1745
430-530	0	400	71	0	0	0	215	1010	0	0	0	0	1696
445-545	0	391	61	0	0	0	221	997	0	0	0	0	1670
500-600	0	390	64	0	0	0	213	997	0	0	0	0	1664

P.M. PEAK HOUR
415-515



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

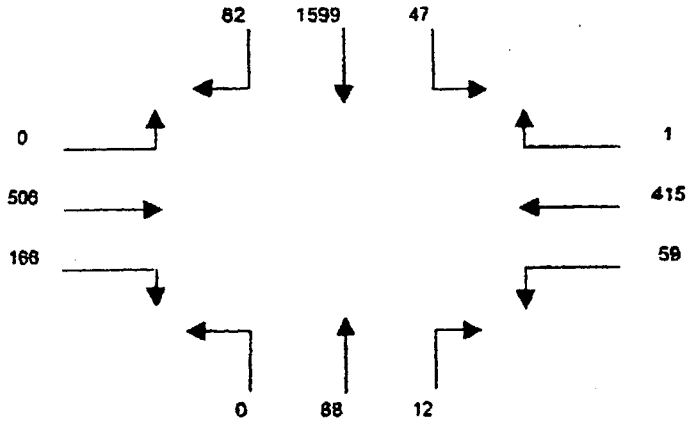
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S NORTH SPRING ST.
E/W TEMPLE STREET.
FILE NUMBER: 6-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	11	253	7	1	75	14	4	20	0	34	122	0
715-730	16	287	7	0	77	18	3	23	0	36	110	0
730-745	12	305	10	2	97	6	4	29	0	34	112	0
745-800	18	354	17	0	112	19	3	24	0	31	118	0
800-815	28	431	9	0	111	16	3	19	0	45	127	0
815-830	13	428	9	1	88	14	3	24	0	39	128	0
830-845	25	386	12	0	104	10	3	21	0	51	133	0
845-900	12	372	19	1	94	9	2	11	0	34	110	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	55	1199	41	3	361	57	14	98	0	135	462	0	2423
715-815	72	1377	43	2	397	59	13	95	0	148	467	0	2671
730-830	69	1518	45	3	408	55	13	96	0	149	485	0	2841
745-845	82	1599	47	1	415	59	12	88	0	166	506	0	2975
800-900	78	1617	49	2	397	49	11	75	0	169	498	0	2945

A.M. PEAK HOUR
745-845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

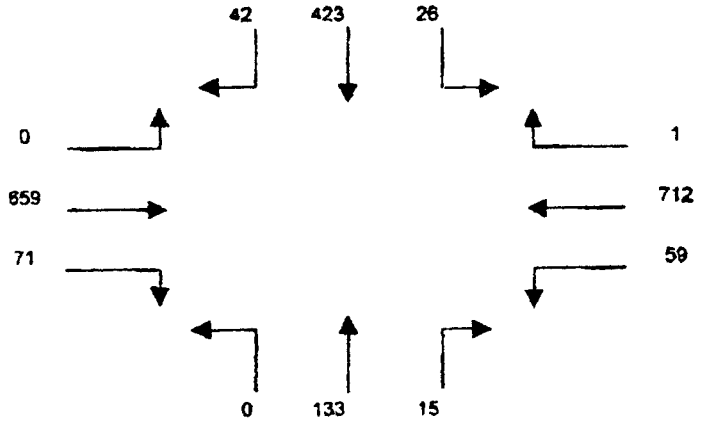
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S NORTH SPRING ST.
E/W TEMPLE STREET.
FILE NUMBER: 6-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	26	118	15	1	170	25	5	21	0	17	112	0
415-430	25	129	6	0	193	17	4	28	0	27	125	0
430-445	13	103	9	1	194	7	5	40	0	23	185	0
445-500	6	109	7	0	120	21	3	32	0	22	158	0
500-515	16	105	7	0	184	11	4	30	0	13	169	0
515-530	7	106	3	0	214	20	3	31	0	13	169	0
530-545	9	107	0	1	150	3	3	31	0	17	162	0
545-600	8	93	3	0	172	13	5	39	0	12	119	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	70	459	37	2	677	70	17	121	0	89	558	0	2100
415-515	60	446	29	1	691	56	16	130	0	85	615	0	2129
430-530	42	423	26	1	712	59	15	133	0	71	659	0	2141
445-545	38	427	17	1	668	55	13	124	0	65	656	0	2064
500-600	40	411	13	1	720	47	15	131	0	55	619	0	2052

P.M. PEAK HOUR
430-530



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

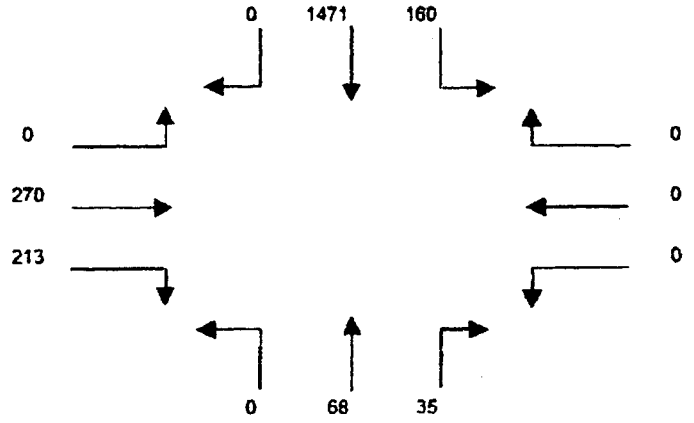
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S NORTH SPRING ST.
E/W ALISO STREET.
FILE NUMBER: 5-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	248	30	0	0	0	10	18	0	26	59	0
715-730	0	265	31	0	0	0	12	17	0	30	63	0
730-745	0	325	45	0	0	0	8	22	0	37	59	0
745-800	0	347	40	0	0	0	10	17	0	49	68	0
800-815	0	375	47	0	0	0	7	16	0	55	77	0
815-830	0	390	32	0	0	0	10	16	0	54	67	0
830-845	0	359	41	0	0	0	8	19	0	55	58	0
845-900	0	288	29	0	0	0	5	11	0	44	61	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	1183	146	0	0	0	40	74	0	142	249	0	1834
715-815	0	1312	163	0	0	0	37	72	0	171	267	0	2022
730-830	0	1437	164	0	0	0	35	71	0	195	271	0	2173
745-845	0	1471	160	0	0	0	35	68	0	213	270	0	2217
800-900	0	1412	149	0	0	0	30	62	0	208	263	0	2124

A.M. PEAK HOUR
745-845



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

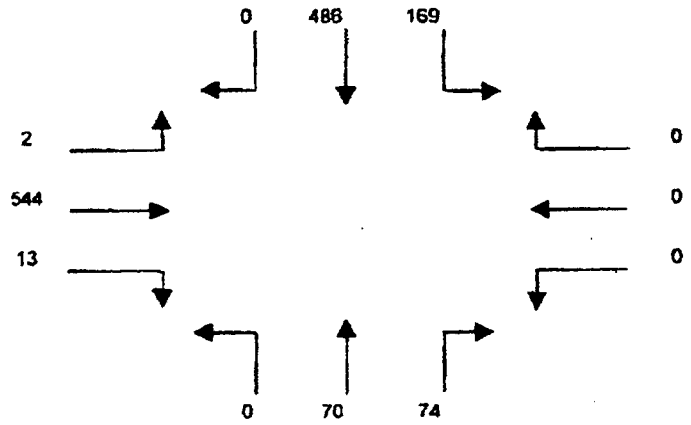
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S NORTH SPRING ST.
E/W ALISO STREET.
FILE NUMBER: 5-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	133	36	0	0	0	17	14	0	1	101	0
415-430	0	120	29	0	0	0	15	16	0	6	118	0
430-445	0	126	55	0	0	0	18	19	0	5	126	0
445-500	0	128	38	0	0	0	20	22	0	4	161	1
500-515	0	116	41	0	0	0	14	10	0	3	125	1
515-530	0	116	35	0	0	0	22	19	0	1	132	0
530-545	0	125	36	0	0	0	19	17	0	7	119	1
545-600	0	85	19	0	0	0	15	12	0	3	92	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	507	158	0	0	0	70	71	0	16	506	1	1329
415-515	0	490	163	0	0	0	67	67	0	18	530	2	1337
430-530	0	486	169	0	0	0	74	70	0	13	544	2	1358
445-545	0	485	150	0	0	0	75	68	0	15	537	3	1333
500-600	0	442	131	0	0	0	70	58	0	14	468	2	1185

P.M. PEAK HOUR
430-530



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

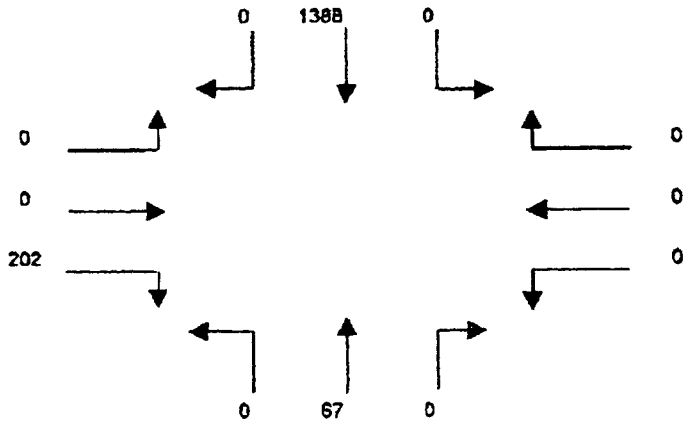
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S NORTH SPRING ST.
E/W NB 101 OFF-RAMP.
FILE NUMBER: 4-AM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
700-715	0	282	0	0	0	0	0	19	0	30	0	0
715-730	0	307	0	0	0	0	0	19	0	24	0	0
730-745	0	322	0	0	0	0	0	21	0	52	0	0
745-800	0	351	0	0	0	0	0	16	0	47	0	0
800-815	0	356	0	0	0	0	0	13	0	54	0	0
815-830	0	359	0	0	0	0	0	17	0	49	0	0
830-845	0	320	0	0	0	0	0	22	0	41	0	0
845-900	0	313	0	0	0	0	0	16	0	45	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
700-800	0	1272	0	0	0	0	0	75	0	153	0	0	1500
715-815	0	1336	0	0	0	0	0	69	0	177	0	0	1582
730-830	0	1388	0	0	0	0	0	67	0	202	0	0	1657
745-845	0	1386	0	0	0	0	0	68	0	191	0	0	1645
800-900	0	1348	0	0	0	0	0	68	0	189	0	0	1605

A.M. PEAK HOUR
730-830



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

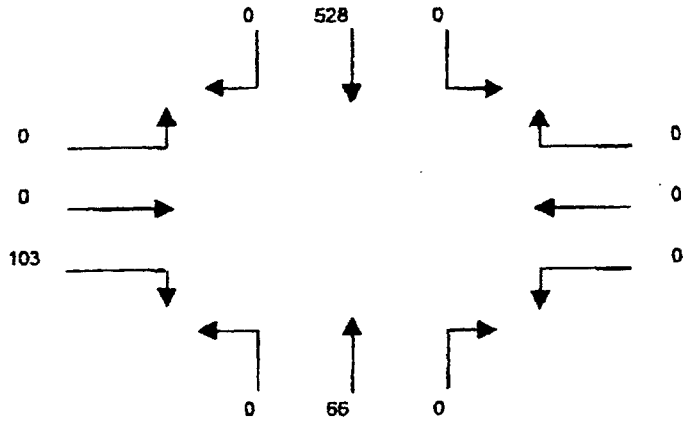
INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 06:00 PM
INTERSECTION N/S NORTH SPRING ST.
E/W NB 101 OFF-RAMP.
FILE NUMBER: 4-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT
400-415	0	125	0	0	0	0	0	11	0	36	0	0
415-430	0	129	0	0	0	0	0	20	0	37	0	0
430-445	0	130	0	0	0	0	0	18	0	20	0	0
445-500	0	125	0	0	0	0	0	14	0	28	0	0
500-515	0	144	0	0	0	0	0	14	0	18	0	0
515-530	0	126	0	0	0	0	0	21	0	39	0	0
530-545	0	110	0	0	0	0	0	16	0	17	0	0
545-600	0	104	0	0	0	0	0	20	0	40	0	0

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	4 WBRT	5 WBTH	6 WBLT	7 NBRT	8 NBTH	9 NBLT	10 EBRT	11 EBTH	12 EBLT	TOTALS
400-500	0	509	0	0	0	0	0	63	0	121	0	0	693
415-515	0	528	0	0	0	0	0	66	0	103	0	0	697
430-530	0	525	0	0	0	0	0	67	0	105	0	0	697
445-545	0	505	0	0	0	0	0	65	0	102	0	0	672
500-600	0	484	0	0	0	0	0	71	0	114	0	0	669

P.M. PEAK HOUR
415-515



THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A.
DATE: THURSDAY, MAY 16, 2002
PERIOD: 07:00 AM TO 09:00 AM
INTERSECTION N/S LOS ANGELES ST.
E/W SB 101 ON-RAMP.
FILE NUMBER: 7-AM

15 MINUTE	1	2	3	3F	7	7F	8	10	11F	11	12
TOTALS	SBRT	SBTH	SBLT	SBLT	NBRT	NBRT	NBTH	EBRT	EBTH	EBTH	EBLT
700-715	0	58	2	0	17	13	36	58	39	22	2
715-730	0	69	3	2	19	16	25	62	46	28	3
730-745	0	75	1	1	25	22	26	42	37	30	1
745-800	0	97	2	0	13	22	28	39	56	21	2
800-815	0	64	2	3	15	26	31	49	43	27	4
815-830	0	74	2	0	10	20	36	48	51	23	1
830-845	0	92	2	0	19	19	36	54	57	29	2
845-900	0	78	1	1	16	14	29	35	48	29	4

1 HOUR	1	2	3	3F	7	7F	8	10	11F	11	12	
TOTALS	SBRT	SBTH	SBLT	SBLT	NBRT	NBRT	NBTH	EBRT	EBTH	EBTH	EBLT	TOTALS
700-800	0	299	8	3	74	73	115	201	178	101	8	1060
715-815	0	305	8	6	72	86	110	192	182	106	10	1077
730-830	0	310	7	4	83	90	121	178	187	101	8	1069
745-845	0	327	8	3	57	87	131	190	207	100	9	1119
800-900	0	308	7	4	60	79	132	186	199	108	11	1094

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: CRAIN & ASSOCIATES
PROJECT: HALL OF JUSTICE DOWNTOWN L.A
DATE: THURSDAY, MAY 16, 2002
PERIOD: 04:00 PM TO 08:00 PM
INTERSECTION N/S LOS ANGELES ST.
E/W SB 101 ON-RAMP.
FILE NUMBER: 7-PM

15 MINUTE TOTALS	1 SBRT	2 SBTH	3 SBLT	3F SBLT	7 NBRT	7F NBRT	8 NBTH	10 EBRT	11F EBTH	11 EBTH	12 EBLT
400-415	0	41	1	5	16	23	72	22	82	31	2
415-430	0	56	2	4	18	25	82	21	116	49	5
430-445	0	58	1	3	21	46	124	31	92	63	7
445-500	0	43	1	3	24	33	147	18	108	74	5
500-515	0	51	0	2	31	52	148	17	121	75	6
515-530	0	50	1	0	22	31	144	19	105	82	11
530-545	0	47	0	1	13	36	159	13	113	68	6
545-600	0	29	1	2	15	27	132	14	110	54	2

1 HOUR TOTALS	1 SBRT	2 SBTH	3 SBLT	3F SBLT	7 NBRT	7F NBRT	8 NBTH	10 EBRT	11F EBTH	11 EBTH	12 EBLT	TOTALS
400-500	0	198	5	15	79	127	425	92	396	217	19	1573
415-515	0	208	4	12	94	156	501	87	435	261	23	1781
430-530	0	202	3	8	98	162	563	85	424	294	29	1868
445-545	0	191	2	6	90	152	598	67	445	299	28	1878
500-600	0	177	2	5	81	146	583	63	449	279	25	1810

THE TRAFFIC SOLUTION
329 DIAMOND STREET
ARCADIA, CALIFORNIA 91006
626.446.7978

APPENDIX B

CMA CALCULATION WORKSHEETS

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	33	406	33	0
EASTBOUND	38	526	83	0
NORTHBOUND	64	565	65	0
SOUTHBOUND	88	735	318	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	33	N/A	220	220	N/A	N/A
EASTBOUND	38	N/A	304	304	N/A	N/A
NORTHBOUND	64	N/A	315	315	N/A	N/A
SOUTHBOUND	88	N/A	351	351	N/A	N/A

EAST-WEST CRITICAL VOLUMES	337
NORTH-SOUTH CRITICAL VOLUMES	415
THE SUM OF CRITICAL VOLUMES	752
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.431
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 2
4/24/03 5:34:05 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	34	414	34	0
EASTBOUND	39	537	85	0
NORTHBOUND	65	576	66	0
SOUTHBOUND	90	750	324	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	34	N/A	224	224	N/A	N/A
EASTBOUND	39	N/A	311	311	N/A	N/A
NORTHBOUND	65	N/A	321	321	N/A	N/A
SOUTHBOUND	90	N/A	358	358	N/A	N/A

EAST-WEST CRITICAL VOLUMES	345
NORTH-SOUTH CRITICAL VOLUMES	423
THE SUM OF CRITICAL VOLUMES	768
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.442
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 16
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	38	418	47	0
EASTBOUND	66	537	85	0
NORTHBOUND	65	603	66	0
SOUTHBOUND	90	750	324	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	38	N/A	232	232	N/A	N/A
EASTBOUND	66	N/A	311	311	N/A	N/A
NORTHBOUND	65	N/A	334	334	N/A	N/A
SOUTHBOUND	90	N/A	358	358	N/A	N/A

EAST-WEST CRITICAL VOLUMES	349
NORTH-SOUTH CRITICAL VOLUMES	424
THE SUM OF CRITICAL VOLUMES	773
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.445
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 30
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	38	481	84	0
EASTBOUND	66	623	100	0
NORTHBOUND	78	837	66	0
SOUTHBOUND	90	801	324	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	38	N/A	282	282	N/A	N/A
EASTBOUND	66	N/A	362	362	N/A	N/A
NORTHBOUND	78	N/A	452	452	N/A	N/A
SOUTHBOUND	90	N/A	375	375	N/A	N/A

EAST-WEST CRITICAL VOLUMES	400
NORTH-SOUTH CRITICAL VOLUMES	542
THE SUM OF CRITICAL VOLUMES	942
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.558
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 44
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	85	285	161	0
NORTHBOUND	0	533	101	0
SOUTHBOUND	58	1020	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	185	185	N/A	161	N/A
NORTHBOUND	N/A	N/A	266	N/A	101	N/A
SOUTHBOUND	58	N/A	510	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	185
NORTH-SOUTH CRITICAL VOLUMES	510
THE SUM OF CRITICAL VOLUMES	695
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.394
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 3
4/24/03 5:34:05 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	87	291	164	0
NORTHBOUND	0	544	103	0
SOUTHBOUND	59	1041	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	189	189	N/A	164	N/A
NORTHBOUND	N/A	N/A	272	N/A	103	N/A
SOUTHBOUND	59	N/A	520	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	189
NORTH-SOUTH CRITICAL VOLUMES	520
THE SUM OF CRITICAL VOLUMES	709
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.403
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 17
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	87	318	164	0
NORTHBOUND	0	550	107	0
SOUTHBOUND	72	1041	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	202	202	N/A	164	N/A
NORTHBOUND	N/A	N/A	275	N/A	107	N/A
SOUTHBOUND	72	N/A	520	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	202
NORTH-SOUTH CRITICAL VOLUMES	520
THE SUM OF CRITICAL VOLUMES	722
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.411
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 31
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	87	394	174	0
NORTHBOUND	0	821	107	0
SOUTHBOUND	72	1082	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	240	240	N/A	174	N/A
NORTHBOUND	N/A	N/A	410	N/A	107	N/A
SOUTHBOUND	72	N/A	541	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 240
NORTH-SOUTH CRITICAL VOLUMES 541
THE SUM OF CRITICAL VOLUMES 781

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.451

LEVEL OF SERVICE ..... A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 45
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	432	230	0
SOUTHBOUND	170	1029	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	331	331	N/A	N/A
SOUTHBOUND	170	N/A	514	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	0
NORTH-SOUTH CRITICAL VOLUMES	514
THE SUM OF CRITICAL VOLUMES	514
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.428
LEVEL OF SERVICE	A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 4
4/24/03 5:34:05 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	441	235	0
SOUTHBOUND	173	1050	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	338	338	N/A	N/A
SOUTHBOUND	173	N/A	525	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 525

THE SUM OF CRITICAL VOLUMES 525

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.438

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 18
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	443	239	0
SOUTHBOUND	173	1063	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	341	341	N/A	N/A
SOUTHBOUND	173	N/A	532	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 532

THE SUM OF CRITICAL VOLUMES 532

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.443

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 32
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	658	296	0
SOUTHBOUND	173	1104	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	477	477	N/A	N/A
SOUTHBOUND	173	N/A	552	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	0
NORTH-SOUTH CRITICAL VOLUMES	650
THE SUM OF CRITICAL VOLUMES	650
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.542
LEVEL OF SERVICE	A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 46
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	60	419	1	0
EASTBOUND	0	511	168	0
NORTHBOUND	0	89	12	0
SOUTHBOUND	47	1615	83	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	210	210	N/A	N/A
EASTBOUND	N/A	340	N/A	340	N/A	N/A
NORTHBOUND	N/A	N/A	50	50	N/A	N/A
SOUTHBOUND	47	N/A	424	424	N/A	N/A

EAST-WEST CRITICAL VOLUMES	400
NORTH-SOUTH CRITICAL VOLUMES	424
THE SUM OF CRITICAL VOLUMES	824
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.479
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 5
4/24/03 5:34:05 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	61	427	1	0
EASTBOUND	0	521	171	0
NORTHBOUND	0	91	12	0
SOUTHBOUND	48	1647	85	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	61	N/A	214	214	N/A	N/A
EASTBOUND	N/A	346	N/A	346	N/A	N/A
NORTHBOUND	N/A	N/A	52	52	N/A	N/A
SOUTHBOUND	48	N/A	433	433	N/A	N/A

EAST-WEST CRITICAL VOLUMES	407
NORTH-SOUTH CRITICAL VOLUMES	433
THE SUM OF CRITICAL VOLUMES	840
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.490
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 19
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	61	440	1	0
EASTBOUND	0	521	171	0
NORTHBOUND	0	91	12	0
SOUTHBOUND	50	1647	92	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	61	N/A	220	220	N/A	N/A
EASTBOUND	N/A	346	N/A	346	N/A	N/A
NORTHBOUND	N/A	N/A	52	52	N/A	N/A
SOUTHBOUND	50	N/A	435	435	N/A	N/A

EAST-WEST CRITICAL VOLUMES	407
NORTH-SOUTH CRITICAL VOLUMES	435
THE SUM OF CRITICAL VOLUMES	842
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.491
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 33
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	61	553	1	0
EASTBOUND	0	579	186	0
NORTHBOUND	0	91	12	0
SOUTHBOUND	50	1701	92	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	61	N/A	277	277	N/A	N/A
EASTBOUND	N/A	382	N/A	382	N/A	N/A
NORTHBOUND	N/A	N/A	52	52	N/A	N/A
SOUTHBOUND	50	N/A	448	448	N/A	N/A

EAST-WEST CRITICAL VOLUMES	443
NORTH-SOUTH CRITICAL VOLUMES	448
THE SUM OF CRITICAL VOLUMES	891
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.524
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 47
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	273	215	0
NORTHBOUND	0	69	35	0
SOUTHBOUND	162	1486	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	136	136	N/A	215	N/A
NORTHBOUND	N/A	N/A	52	52	N/A	N/A
SOUTHBOUND	162	N/A	372	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	215
NORTH-SOUTH CRITICAL VOLUMES	372
THE SUM OF CRITICAL VOLUMES	587
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.333
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 6
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	278	219	0
NORTHBOUND	0	70	36	0
SOUTHBOUND	165	1516	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	139	139	N/A	219	N/A
NORTHBOUND	N/A	N/A	53	53	N/A	N/A
SOUTHBOUND	165	N/A	379	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 219
NORTH-SOUTH CRITICAL VOLUMES 379

THE SUM OF CRITICAL VOLUMES 598

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.339

LEVEL OF SERVICE ..... A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 20
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	282	259	0
NORTHBOUND	0	70	36	0
SOUTHBOUND	165	1543	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	141	141	N/A	259	N/A
NORTHBOUND	N/A	N/A	53	53	N/A	N/A
SOUTHBOUND	165	N/A	386	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	259
NORTH-SOUTH CRITICAL VOLUMES	386
THE SUM OF CRITICAL VOLUMES	645
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.366
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 34
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS	**
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	319	298	0
NORTHBOUND	0	70	36	0
SOUTHBOUND	165	1559	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	160	160	N/A	298	N/A
NORTHBOUND	N/A	N/A	53	53	N/A	N/A
SOUTHBOUND	165	N/A	390	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 298
NORTH-SOUTH CRITICAL VOLUMES 390

THE SUM OF CRITICAL VOLUMES 688

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.390

LEVEL OF SERVICE ..... A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 48
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	204	0
NORTHBOUND	0	68	0	0
SOUTHBOUND	0	1402	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	102	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	350	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 102
NORTH-SOUTH CRITICAL VOLUMES 350

THE SUM OF CRITICAL VOLUMES 452

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.377

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 7
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	208	0
NORTHBOUND	0	69	0	0
SOUTHBOUND	0	1430	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	104	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	358	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	104
NORTH-SOUTH CRITICAL VOLUMES	358
THE SUM OF CRITICAL VOLUMES	462
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.385
LEVEL OF SERVICE	A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 21
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	228	0
NORTHBOUND	0	69	0	0
SOUTHBOUND	0	1437	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	114	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	359	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 114
NORTH-SOUTH CRITICAL VOLUMES 359

THE SUM OF CRITICAL VOLUMES 473

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.394

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 35
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	252	0
NORTHBOUND	0	69	0	0
SOUTHBOUND	0	1453	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	126	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	363	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 126
NORTH-SOUTH CRITICAL VOLUMES 363

THE SUM OF CRITICAL VOLUMES 489

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.407

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 49
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	8	310	169	23
NORTHBOUND	0	122	145	0
SOUTHBOUND	11	330	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	106	106	N/A	169	N/A
NORTHBOUND	N/A	N/A	61	N/A	145	N/A
SOUTHBOUND	11	N/A	110	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	169
NORTH-SOUTH CRITICAL VOLUMES	156
THE SUM OF CRITICAL VOLUMES	325
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.184
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 8
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	8	316	172	24
NORTHBOUND	0	124	148	0
SOUTHBOUND	11	337	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	108	108	N/A	172	N/A
NORTHBOUND	N/A	N/A	62	N/A	148	N/A
SOUTHBOUND	11	N/A	112	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	172
NORTH-SOUTH CRITICAL VOLUMES	159
THE SUM OF CRITICAL VOLUMES	331
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.188
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 22
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	9	319	172	24
NORTHBOUND	0	124	148	0
SOUTHBOUND	11	337	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	109	109	N/A	172	N/A
NORTHBOUND	N/A	N/A	62	N/A	148	N/A
SOUTHBOUND	11	N/A	112	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 172
NORTH-SOUTH CRITICAL VOLUMES 159

THE SUM OF CRITICAL VOLUMES 331

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.188

LEVEL OF SERVICE ..... A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 36
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: AM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	9	356	196	0
NORTHBOUND	0	309	343	0
SOUTHBOUND	11	352	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	122	122	N/A	196	N/A
NORTHBOUND	N/A	N/A	154	N/A	343	N/A
SOUTHBOUND	11	N/A	117	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	196
NORTH-SOUTH CRITICAL VOLUMES	354
THE SUM OF CRITICAL VOLUMES	550
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.312
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 50
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	28	640	64	0
EASTBOUND	101	584	38	0
NORTHBOUND	119	1315	65	0
SOUTHBOUND	33	287	108	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	28	N/A	352	352	N/A	N/A
EASTBOUND	101	N/A	311	311	N/A	N/A
NORTHBOUND	119	N/A	690	690	N/A	N/A
SOUTHBOUND	33	N/A	132	132	N/A	N/A

EAST-WEST CRITICAL VOLUMES	453
NORTH-SOUTH CRITICAL VOLUMES	723
THE SUM OF CRITICAL VOLUMES	1176
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.714
LEVEL OF SERVICE	C

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 9
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	29	653	65	0
EASTBOUND	103	596	39	0
NORTHBOUND	121	1341	66	0
SOUTHBOUND	34	293	110	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	29	N/A	359	359	N/A	N/A
EASTBOUND	103	N/A	318	318	N/A	N/A
NORTHBOUND	121	N/A	704	704	N/A	N/A
SOUTHBOUND	34	N/A	134	134	N/A	N/A

EAST-WEST CRITICAL VOLUMES	462
NORTH-SOUTH CRITICAL VOLUMES	738
THE SUM OF CRITICAL VOLUMES	1200
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.730
LEVEL OF SERVICE	C

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 23
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	53	677	66	0
EASTBOUND	108	596	39	0
NORTHBOUND	121	1346	66	0
SOUTHBOUND	34	293	110	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	53	N/A	372	372	N/A	N/A
EASTBOUND	108	N/A	318	318	N/A	N/A
NORTHBOUND	121	N/A	706	706	N/A	N/A
SOUTHBOUND	34	N/A	134	134	N/A	N/A

EAST-WEST CRITICAL VOLUMES	480
NORTH-SOUTH CRITICAL VOLUMES	740
THE SUM OF CRITICAL VOLUMES	1220
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.743
LEVEL OF SERVICE	C

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 37
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:1, TEMPLE STREET & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	53	781	113	0
EASTBOUND	108	698	54	0
NORTHBOUND	170	1789	66	0
SOUTHBOUND	34	355	110	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	53	N/A	447	447	N/A	N/A
EASTBOUND	108	N/A	376	376	N/A	N/A
NORTHBOUND	170	N/A	928	928	N/A	N/A
SOUTHBOUND	34	N/A	155	155	N/A	N/A

EAST-WEST CRITICAL VOLUMES 555
NORTH-SOUTH CRITICAL VOLUMES 962

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.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 51
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	79	198	0	42
NORTHBOUND	0	1195	219	0
SOUTHBOUND	96	372	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	138	138	N/A	0	N/A
NORTHBOUND	N/A	N/A	598	N/A	219	N/A
SOUTHBOUND	96	N/A	186	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	138
NORTH-SOUTH CRITICAL VOLUMES	694
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.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 10
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	81	202	0	43
NORTHBOUND	0	1219	223	0
SOUTHBOUND	98	379	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	142	142	N/A	0	N/A
NORTHBOUND	N/A	N/A	610	N/A	223	N/A
SOUTHBOUND	98	N/A	190	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	142
NORTH-SOUTH CRITICAL VOLUMES	708
THE SUM OF CRITICAL VOLUMES	850
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.497
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 24
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	81	207	0	43
NORTHBOUND	0	1255	247	0
SOUTHBOUND	101	379	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	144	144	N/A	0	N/A
NORTHBOUND	N/A	N/A	628	N/A	247	N/A
SOUTHBOUND	101	N/A	190	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	144
NORTH-SOUTH CRITICAL VOLUMES	729
THE SUM OF CRITICAL VOLUMES	873
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.512
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 38
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:2, ALISO STREET/SB 101 FWY OFF-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	81	287	0	53
NORTHBOUND	0	1745	247	0
SOUTHBOUND	101	432	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	184	184	N/A	0	N/A
NORTHBOUND	N/A	N/A	872	N/A	247	N/A
SOUTHBOUND	101	N/A	216	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	184
NORTH-SOUTH CRITICAL VOLUMES	973
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.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 52
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	1017	245	0
SOUTHBOUND	87	413	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	631	631	N/A	N/A
SOUTHBOUND	87	N/A	206	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	0
NORTH-SOUTH CRITICAL VOLUMES	718
THE SUM OF CRITICAL VOLUMES	718
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.598
LEVEL OF SERVICE	A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 11
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	1037	250	0
SOUTHBOUND	89	421	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	644	644	N/A	N/A
SOUTHBOUND	89	N/A	210	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 733

THE SUM OF CRITICAL VOLUMES 733

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.611

LEVEL OF SERVICE ..... B

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 25
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	1049	274	0
SOUTHBOUND	89	424	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	662	662	N/A	N/A
SOUTHBOUND	89	N/A	212	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 0
NORTH-SOUTH CRITICAL VOLUMES 751

THE SUM OF CRITICAL VOLUMES 751

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.626

LEVEL OF SERVICE ..... B

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 39
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:3, NB 101 FWY ON-RAMP & N. BROADWAY
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	0	0
NORTHBOUND	0	1417	396	0
SOUTHBOUND	89	477	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	N/A	N/A
NORTHBOUND	N/A	N/A	906	906	N/A	N/A
SOUTHBOUND	89	N/A	238	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	0
NORTH-SOUTH CRITICAL VOLUMES	995
THE SUM OF CRITICAL VOLUMES	995
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.829
LEVEL OF SERVICE	D

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 53
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	60	719	1	0
EASTBOUND	0	666	72	0
NORTHBOUND	0	134	15	0
SOUTHBOUND	26	427	42	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	60	N/A	360	360	N/A	N/A
EASTBOUND	N/A	369	N/A	369	N/A	N/A
NORTHBOUND	N/A	N/A	74	74	N/A	N/A
SOUTHBOUND	26	N/A	117	117	N/A	N/A

EAST-WEST CRITICAL VOLUMES	429
NORTH-SOUTH CRITICAL VOLUMES	117
THE SUM OF CRITICAL VOLUMES	546
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.309
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 12
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	61	733	1	0
EASTBOUND	0	679	73	0
NORTHBOUND	0	137	15	0
SOUTHBOUND	27	436	43	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	61	N/A	367	367	N/A	N/A
EASTBOUND	N/A	376	N/A	376	N/A	N/A
NORTHBOUND	N/A	N/A	76	76	N/A	N/A
SOUTHBOUND	27	N/A	120	120	N/A	N/A

EAST-WEST CRITICAL VOLUMES	437
NORTH-SOUTH CRITICAL VOLUMES	120
THE SUM OF CRITICAL VOLUMES	557
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.316
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 26
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	61	736	1	0
EASTBOUND	0	679	73	0
NORTHBOUND	0	137	15	0
SOUTHBOUND	39	436	85	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	61	N/A	368	368	N/A	N/A
EASTBOUND	N/A	376	N/A	376	N/A	N/A
NORTHBOUND	N/A	N/A	76	76	N/A	N/A
SOUTHBOUND	39	N/A	130	130	N/A	N/A

EAST-WEST CRITICAL VOLUMES	437
NORTH-SOUTH CRITICAL VOLUMES	130
THE SUM OF CRITICAL VOLUMES	567
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.321
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 40
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:4, TEMPLE STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	61	910	1	0
EASTBOUND	0	742	88	0
NORTHBOUND	0	137	15	0
SOUTHBOUND	39	492	85	0

** NUMBER OF LANES **

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

** ASSIGNED LANE VOLUMES **

APPROACH	LEFT ONLY	LEFT SHARED	THROUGH ONLY	RIGHT SHARED	RIGHT ONLY	L/T/R SHARED
WESTBOUND	61	N/A	456	456	N/A	N/A
EASTBOUND	N/A	415	N/A	415	N/A	N/A
NORTHBOUND	N/A	N/A	76	76	N/A	N/A
SOUTHBOUND	39	N/A	144	144	N/A	N/A

EAST-WEST CRITICAL VOLUMES	476
NORTH-SOUTH CRITICAL VOLUMES	144
THE SUM OF CRITICAL VOLUMES	620
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.351
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 54
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	2	549	13	0
NORTHBOUND	0	71	75	0
SOUTHBOUND	171	491	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	188	188	188	N/A	N/A
NORTHBOUND	N/A	N/A	71	N/A	75	N/A
SOUTHBOUND	171	N/A	123	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	188
NORTH-SOUTH CRITICAL VOLUMES	246
THE SUM OF CRITICAL VOLUMES	434
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.246
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 13
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	2	560	13	0
NORTHBOUND	0	72	77	0
SOUTHBOUND	174	501	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	192	192	192	N/A	N/A
NORTHBOUND	N/A	N/A	72	N/A	77	N/A
SOUTHBOUND	174	N/A	125	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	192
NORTH-SOUTH CRITICAL VOLUMES	251
THE SUM OF CRITICAL VOLUMES	443
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.251
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 27
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS **	
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	2	584	21	0
NORTHBOUND	0	72	77	0
SOUTHBOUND	174	506	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	202	202	202	N/A	N/A
NORTHBOUND	N/A	N/A	72	N/A	77	N/A
SOUTHBOUND	174	N/A	126	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	202
NORTH-SOUTH CRITICAL VOLUMES	251
THE SUM OF CRITICAL VOLUMES	453
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.257
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 41
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:5, ALISO STREET & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	2	625	60	0
NORTHBOUND	0	72	77	0
SOUTHBOUND	174	523	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	229	229	229	N/A	N/A
NORTHBOUND	N/A	N/A	72	N/A	77	N/A
SOUTHBOUND	174	N/A	131	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	229
NORTH-SOUTH CRITICAL VOLUMES	251
THE SUM OF CRITICAL VOLUMES	480
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.272
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 55
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	104	0
NORTHBOUND	0	67	0	0
SOUTHBOUND	0	533	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	52	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	133	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 52
NORTH-SOUTH CRITICAL VOLUMES 133

THE SUM OF CRITICAL VOLUMES 185

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.154

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 14
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	106	0
NORTHBOUND	0	68	0	0
SOUTHBOUND	0	544	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	53	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	136	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	53
NORTH-SOUTH CRITICAL VOLUMES	136
THE SUM OF CRITICAL VOLUMES	189
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.157
LEVEL OF SERVICE	A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 28
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	0	0	110	0
NORTHBOUND	0	68	0	0
SOUTHBOUND	0	545	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	55	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	136	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 55
NORTH-SOUTH CRITICAL VOLUMES 136

THE SUM OF CRITICAL VOLUMES 191

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.159

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 42
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:6, NB 101 FWY OFF-RAMP & N. SPRING STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	0	0	135	0
NORTHBOUND	0	68	0	0
SOUTHBOUND	0	562	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	N/A	N/A	N/A	68	N/A
NORTHBOUND	N/A	N/A	34	N/A	N/A	N/A
SOUTHBOUND	N/A	N/A	140	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 68
NORTH-SOUTH CRITICAL VOLUMES 140

THE SUM OF CRITICAL VOLUMES 208

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.173

LEVEL OF SERVICE ..... A

Capacity assumed = 1200.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 56
4/24/03 5:34:08 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: EXISTING (2003)

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	28	751	68	0
NORTHBOUND	0	604	244	0
SOUTHBOUND	8	193	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	212	212	212	N/A	N/A
NORTHBOUND	N/A	N/A	283	283	N/A	N/A
SOUTHBOUND	8	N/A	64	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	212
NORTH-SOUTH CRITICAL VOLUMES	291
THE SUM OF CRITICAL VOLUMES	503
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.285
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 15
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITHOUT PROJECT

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS MIN ON GREEN	MAX ON RED **
WESTBOUND	0	0	0	0
EASTBOUND	29	766	69	0
NORTHBOUND	0	616	249	0
SOUTHBOUND	8	197	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	216	216	216	N/A	N/A
NORTHBOUND	N/A	N/A	288	288	N/A	N/A
SOUTHBOUND	8	N/A	66	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	216
NORTH-SOUTH CRITICAL VOLUMES	296
THE SUM OF CRITICAL VOLUMES	512
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.290
LEVEL OF SERVICE	A

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

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 29
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT

** INPUT VOLUMES **

APPROACH			** RIGHT TURNS	**
	LEFT	THROUGH	MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	35	784	69	0
NORTHBOUND	0	616	249	0
SOUTHBOUND	8	197	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	222	222	222	N/A	N/A
NORTHBOUND	N/A	N/A	288	288	N/A	N/A
SOUTHBOUND	8	N/A	66	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES	222
NORTH-SOUTH CRITICAL VOLUMES	296
THE SUM OF CRITICAL VOLUMES	518
NUMBER OF CRITICAL CLEARANCE INTERVALS	2
CMA VALUE	0.294
LEVEL OF SERVICE	A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 43
4/24/03 5:34:06 PM

CRAIN AND ASSOCIATES
CMA CALCULATIONS

INTERSECTION:7, SB 101 FWY ON-RAMP & LOS ANGELES STREET
DATE: 4/24/03 INITIALS: LC PERIOD: PM PEAK HOUR
CASE: FUTURE (2005) WITH PROJECT + CUMULATIVE PROJECTS

** INPUT VOLUMES **

APPROACH	LEFT	THROUGH	** RIGHT TURNS ** MIN ON GREEN	MAX ON RED
WESTBOUND	0	0	0	0
EASTBOUND	35	825	69	0
NORTHBOUND	0	894	562	0
SOUTHBOUND	8	224	0	0

** NUMBER OF LANES **

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

** 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	N/A
EASTBOUND	N/A	232	232	232	N/A	N/A
NORTHBOUND	N/A	N/A	447	N/A	562	N/A
SOUTHBOUND	8	N/A	75	N/A	N/A	N/A

EAST-WEST CRITICAL VOLUMES 232
NORTH-SOUTH CRITICAL VOLUMES 570

THE SUM OF CRITICAL VOLUMES 802

NUMBER OF CRITICAL CLEARANCE INTERVALS 2

CMA VALUE 0.465

LEVEL OF SERVICE ..... A

---

* Includes CMA value decreased due to ATSAC Implementation.

Capacity assumed = 1500.

File: J:\Icap6\Hall of Justice\Total4-03Rev.xls, Worksheet: Formula Total, Row: 57
4/24/03 5:34:08 PM