4. Future With Project Conditions

This Chapter describes the transportation characteristics of the proposed development project and documents the analysis of potential project traffic impacts in the study area.

Project Transportation Characteristics

Overall Project Description

The proposed project comprises approximately 4 million GSF of mixed-use development on six blocks, as shown in Figure 13, which shows the project site.

Three development areas are located west of Figueroa Street and are referred to as the "Olympic Properties". Three additional development areas are located east of Figueroa Street and are referred to as the "Figueroa Properties".

The development areas within the Olympic Properties include: (1) Olympic West Properties – the entire block east of the Harbor Freeway and west of Georgia Street, between Olympic Boulevard and 11th Street; (2) Olympic East Properties – the entire block east of Georgia Street and west of Figueroa Street, between Olympic Boulevard and 11th Street; and (3) Olympic North Properties – the southern portion of the block north of Olympic Boulevard and between Georgia and Francisco Streets.

The development areas within the Figueroa Properties include: (4) Figueroa North Properties – the southern portion of the block between Figueroa and Flower Streets, and north of Olympic Boulevard; (5) Figueroa Central Properties – the entire block between Figueroa and Flower Streets, and between 11th and 12th Streets; and (6) Figueroa South Properties – the northern three-quarters of the block between Figueroa and Flower Streets, and between 12th Street and almost to Pico Boulevard.

The land uses proposed in the Concept Plan are summarized in Table 8. The Concept Plan for the proposed project is shown in Figure 14.

Under the Concept Plan, the Applicant has designated the Olympic Properties as the site which will house a 1,200-room headquarters convention hotel and retail/entertainment/restaurant center to include up to a 7,000-seat live theater, night clubs and sports bars, a museum or cultural facilities, and a health club. Retail and food/beverage activities will also be developed in this area, and front upon an expanded outdoor plaza area that will be oriented to 11th Street and STAPLES Center/Star Plaza to create a major public gathering place which complements the proposed land uses and is suitable for large public outdoor events. This plaza will provide a pedestrian linkage between the new convention hotel, STAPLES Center, and the Los Angeles Convention Center. Under the Concept Plan, the Olympic North Properties include a proposed medical office/sports center programmed to provide treatment and research services to major league sports activities that are hosted by STAPLES Center and the Los Angeles Convention

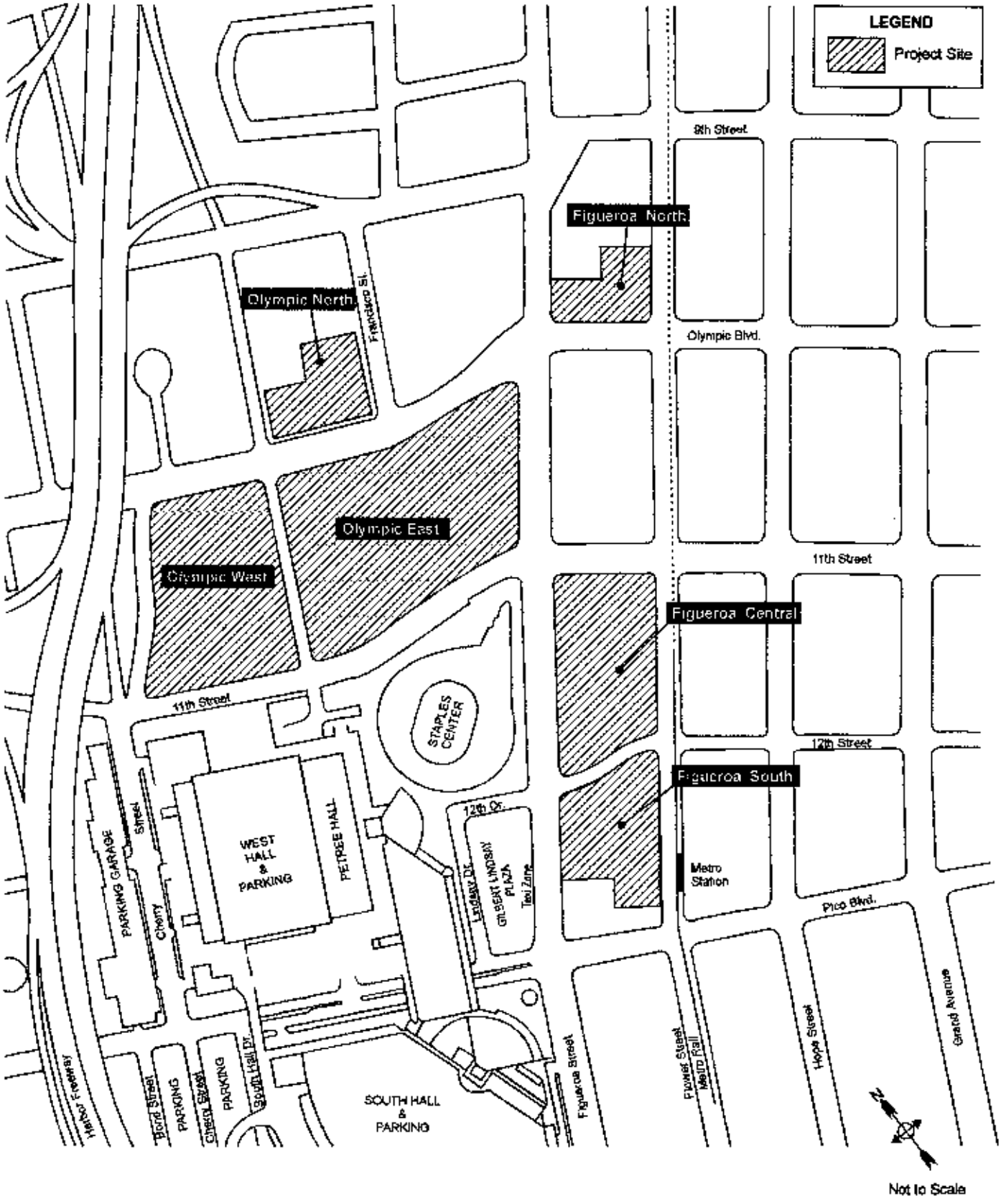

Figure 13
Project Site and Vicinity

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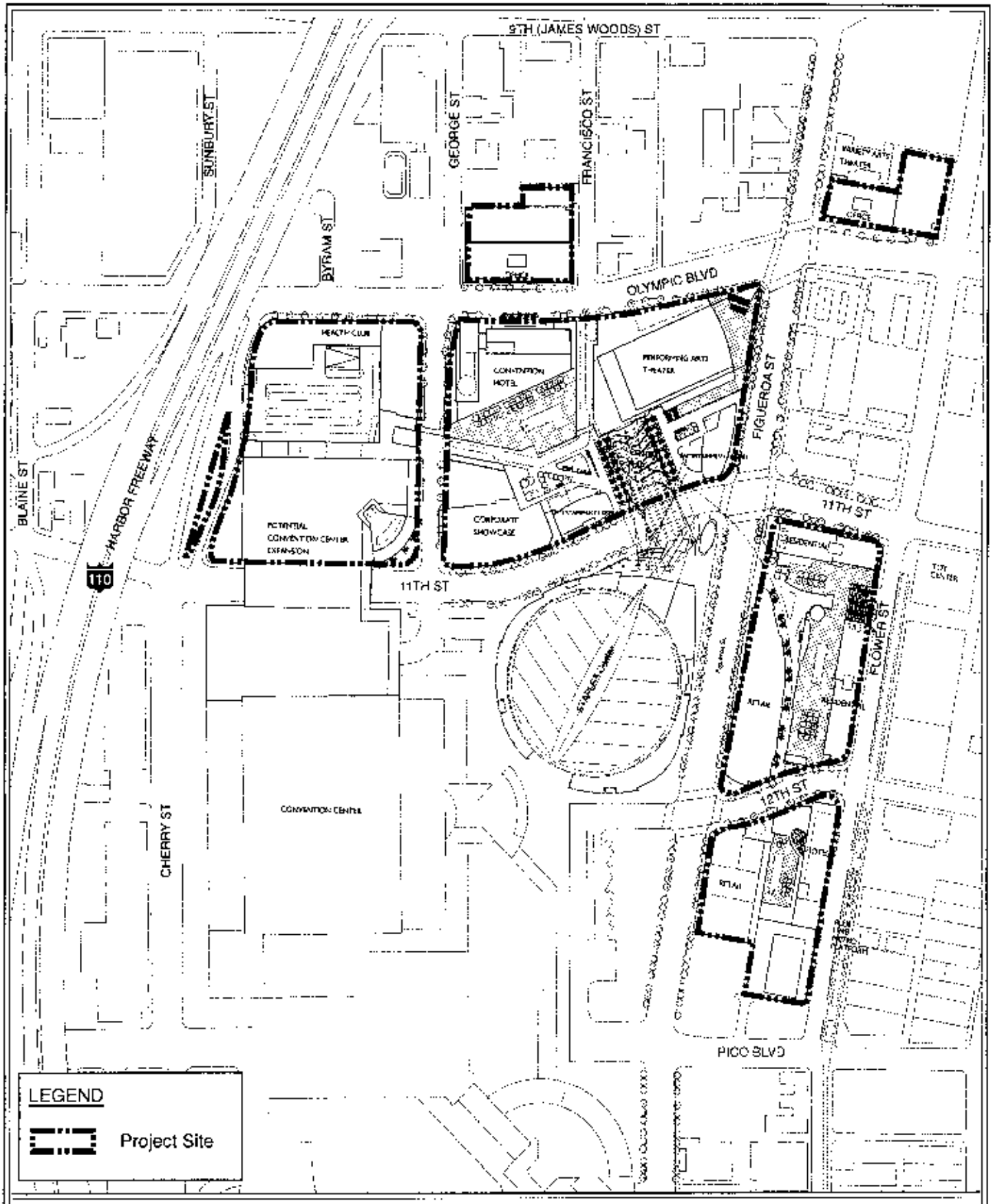

Figure 14
Conceptual Plan

Table 8

Concept Plan – Land Use Plan – Proposed Land Uses
(Square Feet)

	Convention Hotel/Hotel	Retail Entertainment Restaurant	Office (O), Medical Office (M)	Residential	Health Club/ Sports Club	Totals
Olympic Properties						
Olympic West	–	–	–	–	125,000	125,000
Olympic East	1,060,000 (1,200 rms)	580,000 (7,000 seats)	–	–	–	1,640,000
Olympic North	–	–	75,000 (O)	–	–	75,000
Total – Olympic:	**1,060,000**	**580,000**	**75,000**	–	**125,000**	**1,840,000**
Figueroa Properties						
Figueroa Central	–	535,000	–	870,000 (800 DU)	–	1,405,000
Figueroa South	530,000 (600 rms)	–	–	–	–	530,000
Figueroa North	–	–	90,000 (O) 135,000 (M)	–	–	225,000
Total – Figueroa:	**530,000**	**535,000**	**225,000**	**870,000**	–	**2,160,000**
SUBTOTAL:	**1,590,000**	**1,115,000**	**300,000**	**870,000**	**125,000**	**4,000,000**

Source: L.A. Arena Land Company, LLC

Center. Parking for this portion of the project will be structurally integrated throughout the development, making it conveniently located in proximity to its associated activity.

Under the Concept Plan, the Figueroa Properties are proposed to accommodate a second hotel (approximately 600 rooms), approximately 800 residential units, retail and entertainment uses, and associated additional parking. The Figueroa North Properties will accommodate office, retail and restaurant uses. The Figueroa Central Properties will contain 800 residential dwelling units as well as complementary retail, restaurant, and entertainment uses. The second 600-room hotel and complementary retail, restaurant, and entertainment uses will be located on the Figueroa South Properties.

Project Parking

The project proposes to provide a total of 5,305 parking spaces in subterranean and above-grade parking garages at various locations on the project site. These spaces will be distributed across the project and/or by covenant in the vicinity of the project, as shown in Table 9 below.

Table 9

Project Parking Allocation

Project Area	Number of Spaces	Configuration
Olympic West	805	Above/below ground
Olympic East	1,710	Below ground
Olympic North	600	Above/below ground
Figueroa North	150	Below ground
Figueroa Central	1,340	Above/below ground
Figueroa South	700	Below ground
Total	**5,305**	

The project intends to provide on-site parking generally in accordance with City code requirements, although, not necessarily all on-site. In order to meet 100% of the anticipated peak parking demand, additional private and public parking supply in the vicinity of the project will be utilized. A proportion of code required parking is planned to be provided off-site. This dispersed approach to peak parking avoids the need to build an oversupply of project related parking and enhances pedestrian linkages by spreading peak parking demand among off-site parking lots to encourage walking into the project. Chapter 5 provides a full discussion of code-required parking, projected parking demands and proposed parking supply.

Existing Land Uses On the Project Site

The only existing active land uses on the project site are all surface parking lots that are utilized exclusively for STAPLES Center parking. The number of surface parking spaces currently provided on each block are as follows:

Lot	Existing Parking Spaces
Olympic West	884
Olympic East	1,190
Olympic North	185
Figueroa North	148
Figueroa Central	367
Figueroa South	475
Total	**3,249**

Of the total 3,249 spaces, approximately 2,774 are reserved for season/premier ticket holders, and the remaining 475 spaces are available to the general public.

A total of 2,200 of these existing parking spaces will be replaced in the proposed parking structure on the Olympic West parcel. During events at STAPLES Center, these 2,200 parking spaces would be reserved for the exclusive use of STAPLES Center patrons (premier/season ticket holders). At other times these spaces would be available for general public use.

The remaining 1,049 existing STAPLES Center parking spaces are not likely to be replaced on the project site. STAPLES Center patrons currently parking in those spaces would in the future park in one of the many other STAPLES Center parking lots or public parking lots to the east and north of STAPLES Center.

Access & Circulation

The principal vehicular circulation to access/egress the project will take place via the surrounding public street system. There will be no internal surface-level vehicular circulation, with one exception: a service road looping through the northwest corner of the Olympic East Properties from Francisco Street to Georgia Street (as shown in Figure 14) would serve as passenger drop-off and loading for taxis, shuttle busses, and other private/tour busses, as well as providing service access to the plaza retail, and restaurant uses, and to create an intimate urban retail setting. Otherwise, vehicular circulation would occur via the public street system to parking garages that would be integrated throughout the project to serve the various land uses.

The project site is extremely well served by regional freeways from four directions (SR-110 Harbor Freeway to the north, I-110 Harbor Freeway to the south, I-10 Santa Monica Freeway to the west and to the east); fourteen freeway on- and off-ramps connecting to the surface street system; and by a comprehensive grid system of surface streets comprising five major north-south streets, five major east-west streets, and four secondary streets. The principal access routes to the project site are expected to be Olympic Boulevard from the west (as well as 8th Street, Pico Boulevard, and Venice Boulevard); Figueroa Street, Flower Street, Hope Street, Grand Avenue and Olive Street from the north and from the south; and Olympic Boulevard, 11th Street, 12th Street and Pico Boulevard from the east.

Driveway access is proposed for parking for each project block/parcel, as shown in Figure 15.

For the Olympic West parcel, access/egress would be provided on Cherry Street (right-in, right-out only), on Olympic Boulevard (right-in, right-out only), and on Georgia Street (full movement access).

For the Olympic East parcel, access/egress would be provided on Olympic Boulevard opposite Francisco Street (full movement access), and on Georgia Street (full movement access).

For the Olympic North parcel, access/egress would occur on both Georgia Street and Francisco Street (both full movement access).

For the Figueroa North parcel, access/egress would occur on both Figueroa Street and Flower Street (both right-in, right-out only).

Figure 15
Project Access/Egress

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For the Figueroa Central parcel, access/egress would be provided at 11th Street, Flower Street, and 12th Street (all right-in, right-out only).

For the Figueroa South parcel, access/egress would be provided on both Figueroa Street and Flower Street (both right-in, right-out only).

These access locations have been identified to facilitate vehicular access to the project from the main surface streets, and to minimize conflicts with pedestrians. For example, vehicular access to the Olympic East parcel would not be provided from 11th Street or from Figueroa Street, in order that the high pedestrian volumes on these block faces, both using the project and utilizing STAPLES Center and the Convention Center, would not be disrupted. Similarly, no vehicular access would be provided to the Figueroa Central parcel from Figueroa Street, again so that anticipated high volumes of pedestrians would not be disrupted.

Proposed Roadway Changes

Two changes to the existing roadway system are proposed as part of the project. Firstly, in order to enhance pedestrian circulation and safety, the curb-to-curb width of 11th Street between Figueroa and Georgia Streets would be reduced in width from 92 to 77 feet mid-block, and from 83 to 67 feet at Figueroa Street. The existing general four-lane configuration with left turn lanes and the eastbound loading zone (at STAPLES Center) would be retained, but the narrower street section would facilitate pedestrian crossings and create a more suitable pedestrian-oriented urban environment. In addition, the project envisions that at off-peak times 11th Street would be closed to the public between Figueroa and Georgia Streets to facilitate safe pedestrian flow and to enhance the pedestrian environment. Closure of this portion of 11th Street currently occurs during major events at STAPLES Center. These closures would be extended to start earlier in the evening, on weekends, and occasionally during midday, as needed. 11th Street would remain open during the morning and evening peak commute periods to allow vehicular access adjacent to STAPLES Center and the Convention Center and to freeway on/off-ramps during these periods.

Secondly, 12th Street between Figueroa and Flower Streets would be realigned as part of the project, such that the west end of the 12th Street aligns directly across from 12th Drive, thereby eliminating the current offset intersections of 12th Drive and 12th Street with Figueroa Street, and improving vehicular circulation and pedestrian circulation and safety. The existing four-lane configuration of 12th Street on this block would be maintained.

Project Transportation Strategy

The project proposes to take advantage of, and build upon, the unique transportation characteristics of the project site.

The project site is adjacent to significant bus and rail transit service, including local and regional bus service, the Metro Blue Line light rail line (station and Flower/Pico), and the Metro Red Line subway (station at Figueroa/7th), all within easy walking distance of the project. MTA surveys have shown that as many as 500 people typically used the Blue Line to sporting events at STAPLES Center during its first year of operations. The Blue Line and Red Line also provide

connections to the regional Metrolink rail system at Union Station. In addition, the DASH Shuttle provides additional transit connection to the greater downtown area. This high level of transit service to the site will facilitate access to the project by transit, such that a significant number of trips to and from the project are expected to be made by transit. The project site is also well served by carpool/vanpool facilities including the Harbor Freeway transitway carpool/bus lanes (HOV) south of Adams Boulevard, which also connect to the HOV lanes on the I-105 Freeway.

The project site is also adjacent to both STAPLES Center and Los Angeles Convention Center. A significant number of visitors to the proposed project are expected to be already in the area to visit either STAPLES Center of the Convention Center. For example, a person attending an event at STAPLES Center or the Convention Center may also visit a restaurant or go shopping in the project. These visitors to the project would not create additional trips to the site because they would already be there for another reason. In the same way, the project site is also located in downtown Los Angeles and in the vicinity of the many office buildings in the financial district and Bunker Hill, as well as other commercial and residential uses in the downtown area, and within a short distance of the USC Campus. A strong connection is therefore expected between the project site, the rest of downtown and the USC/Exposition Park area, as people either walk or take transit, or even drive from these downtown uses to the project site.

In order to take advantage of these unique characteristics of the site, the project proposes to encourage transit use and walking, and to connect to the surrounding community through pedestrian, transit and visual linkages, to reduce the level of vehicular access to the project.

Due to the size of the project and its dispersed location over six blocks, traffic accessing the project will also tend to be dispersed over numerous access routes and roadways rather than being focused or concentrated on only one or two locations. To take advantage of this, the project proposes to distribute parking among on-site locations, as well as utilizing off-site locations, including the use of shared parking, to facilitate and encourage the dispersal of vehicular traffic, avoid congestion, reinforce the pedestrian linkages, and integrate the project with the Figueroa Corridor. While the project intends to provide on-site parking, generally in accordance with City code requirements, in order to meet 100% of the anticipated peak parking demand additional private and public parking supply in the vicinity of the project will be utilized. This dispersed approach to peak parking will avoid building an oversupply of project related parking and will enhance pedestrian linkages by spreading peak parking demand among both on-site and off-site lots to encourage walking into the project. This dispersal strategy will also be facilitated by the extensive number of arterial roadways and freeway ramps serving the site, thereby reducing the traffic volumes and impacts on any specific roadway or freeway ramp.

Finally, the area of the project site has in the recent past been the focus of intense study and the development of traffic circulation and parking management strategies for STAPLES Center and the Convention Center. A significant amount of physical and operational traffic improvements have been installed in the general South Park area to facilitate traffic flow and operations, including access/egress to the are and circulation within the area; including informational signing, dynamic (changeable) directional signing, traffic signal upgrades, street widenings, and the use of traffic control officers during certain events at STAPLES Center or the Convention Center, as described in Chapter I. In addition, a South Park Event Parking & Circulation Management Plan (PCMP) was developed and implemented to coordinate mobility and parking in the South Park

District. All of these measures have been successful in achieving effective traffic access and circulation in the general area.

The project proposes to be compatible with and to utilize these elements, as well as to build upon them to the maximum extent possible, to help the continued facilitation of effective traffic circulation and parking management in the area of the project. The project also proposes to support the implementation of traffic management measures if necessary, for the residential areas west of the Harbor Freeway, to ensure that project traffic does not impact those neighborhoods.

Project Trip Generation

The number of vehicle trips expected to be generated by the project was estimated for each of the two time periods being analyzed. Trip generation rates/equations from the Institute of Transportation Engineers, *Trip Generation – 6th Edition*, a standard source for trip rate information, were utilized to estimate the number of the vehicle trips from the new development uses. Certain adjustments were made to the trip generation estimates in order to more accurately reflect the specific conditions at the project site and in the downtown Los Angeles area. The proposed project is in the Los Angeles Central Business District, and immediately adjacent to STAPLES Center and the Convention Center, which will lead to a significant number of trips to the project coming from these adjacent uses and the downtown area in general. This, along with the high level of transit service to the site, will result in significantly less new vehicular trips being generated by the project than would typically be the case, thereby reducing the level of impacts, particularly on the regional roadway system. These adjustments are fully documented in Appendix A and discussed below.

A number of visitors to the project will already be in the area because they are already visiting either STAPLES Center or the Convention Center. These will be people attending an event at STAPLES Center, or people attending an event at the Convention Center and/or staying in the Convention Center hotel. These people will not generate new vehicle trips by visiting project uses, but will walk to those uses, having already parked their cars. Based on a review of events and activities typically scheduled at these facilities, as well as preliminary market analysis, the following interactions with the project were estimated. It was assumed that approximately 12% of visitors to the project's restaurant and retail uses would already be in the area visiting STAPLES Center and/or Convention Center. It was also assumed that 10% of visitors to the entertainment uses and 20% of visitors to the restaurant and retail uses would already be in the area visiting the Convention Center, and that 40% of the trips to/from the hotel would be associated with the Convention Center.

Trip rates were adjusted to allow for internal capture within the project, and reflect the synergy that occurs among different project land uses in a mixed-use development. For example, people who both go to a restaurant and shop at the retail uses, and people staying in the hotel who eat at a restaurant and/or go shopping or use the health club in the project, or who work at the office uses and also visit other uses on the site. In order to adequately reflect these multiple visits within the site from one vehicle trip to the site, trip rates were reduced by 5 – 10% for office, retail, health club and residential uses, by 15 – 20% for hotel and restaurant uses.

Trip generation rates were also adjusted to reflect the fact that the project site is in the downtown area, adjacent to significant rail and bus transit service to the site. Given this high level of transit service, and based upon past and current transit use in the downtown area, trip generation rates were reduced by 5 – 10% for restaurant, theater, retail, health club, and residential uses, and by 15 – 20% for hotel (including shuttle/tour buses) and office uses, to account for use of transit to the project. In addition, due to the proximity of the project within walking distance of many downtown land uses (such as office buildings, residential buildings), it was assumed that 5 – 10% of trips to the hotel, restaurant, retail, health club, office, and residential uses would walk to the project site from the surrounding area.

The trip rates were also adjusted to reflect pass-by trips, which are trips that are already on the street system that are passing by the project but would now divert into the project to visit one or more of the uses. LADOT standards were used in estimating pass-by trips and pass-by reductions were applied of 10% for restaurant, 20% for health club, and 20 – 30% for retail uses. No pass-by reductions were made for the office, hotel, theater, entertainment and residential uses on the site.

Net Trip Generation Totals

The net results of the trip generation estimating process are shown in Table 10 for each land use and time period. Appendix A contains the detailed calculations and trip rate sources supporting these trip generation estimates. As Table 10 shows, it is estimated that the project will generate approximately an additional 3,610 vehicle trips in the weekday PM peak hour (1,880 inbound and 1,730 outbound), and approximately 5,180 additional vehicle trips in the Saturday evening peak hour (3,585 inbound and 1,595 outbound).

Project Trip Distribution

The distribution of project trips determines which streets the project traffic will use to get to and from the project. The distribution pattern assumed for this development project is shown in Figure 16. This pattern was based upon careful consideration of a number of factors, including the types of project land uses; the types, characteristics and connectivity of individual streets in the study area; and the likely origins and destinations of project visitors. The estimated trip distribution was also based on resources, such as trip distribution information available in the Los Angeles County Congestion Management Program and from regional population data, and consideration of the market area for the project land uses.

This trip distribution takes into account regional access via the freeway system and principal arterials, as well as local access via the surrounding roadway system, including the fact that a significant number of trips are expected to come from the downtown area due to its proximity to the project. Approximately 42% of traffic would arrive by freeway and 58% would arrive by surface streets. The overall distribution of project trips is estimated at about 47% from the north of the project, including downtown and the Hollywood, Golden State and Pasadena Freeways, 14% from the east, 16% from the south, and 23% from the west.

Table 10. Trip Generation - Proposed Project

Land Use	Quantity	Units	PM Peak			Saturday Evening Peak		
			Inbound	Outbound	Total	Inbound	Outbound	Total
Hotel	1,800	Rooms	277	245	522	292	259	550
Theater	7,000	Seats	63	63	126	1,140	60	1,200
Entertainment	195,000	GSF	121	71	193	917	496	1,414
Restaurant	265,000	GSF	586	289	875	850	418	1,268
Retail	385,000	LSF	373	404	777	140	129	269
Health Club	125,000	GSF	212	136	348	106	68	174
Office	165,000	GSF	40	198	238	8	37	45
Medical Office	135,000	GSF	93	250	343	12	32	43
Residential	800	DU's	116	74	190	124	93	217
Net Total Trips			**1,881**	**1,731**	**3,612**	**3,588**	**1,593**	**5,181**

Source: See Appendix A for trip generation rates and detailed calculations of trip generation estimates.

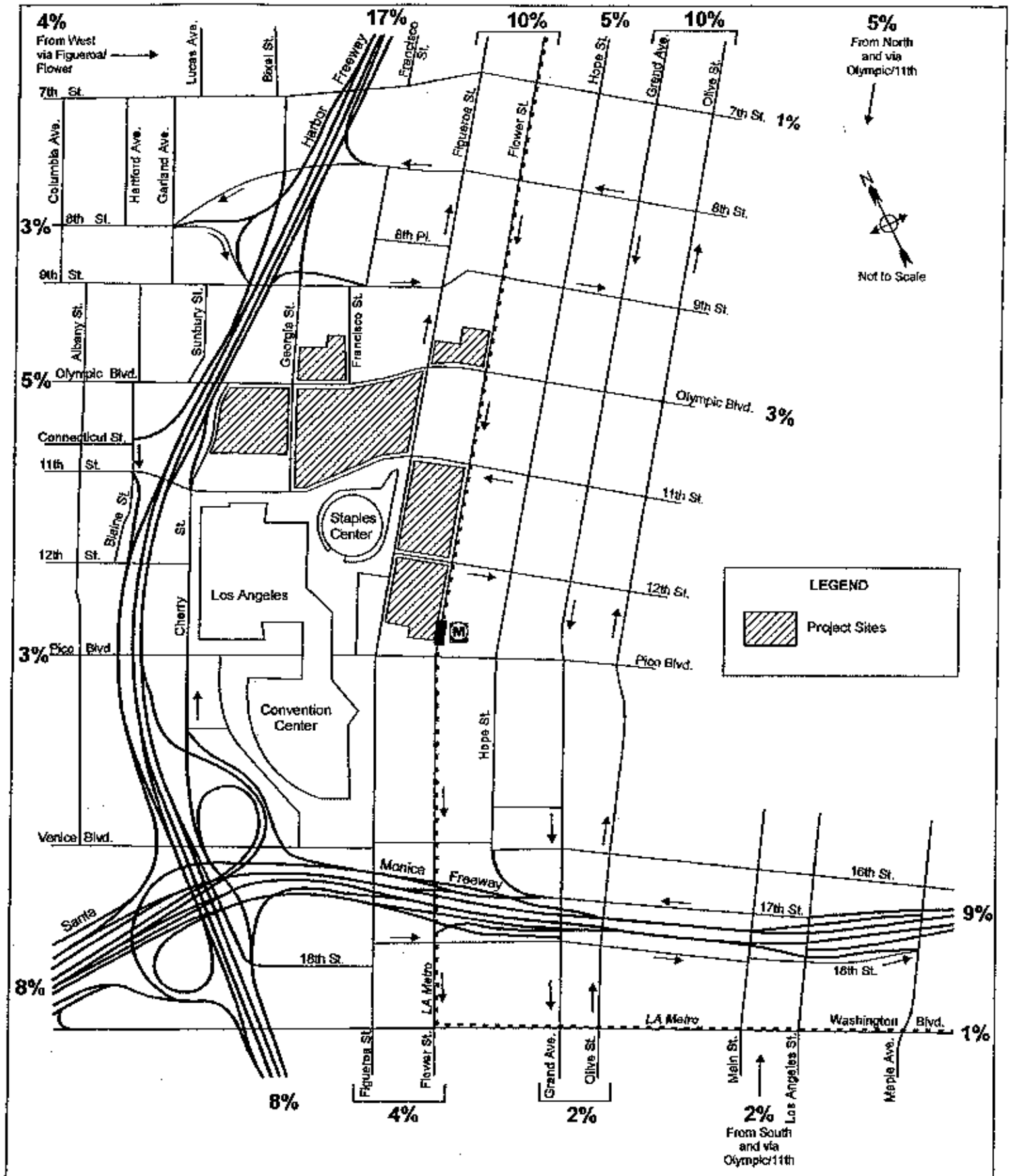

Figure 16
Project Trip Distribution

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Project Trip Assignment

Project trips were assigned to the roadway network based on the trip distribution parameters identified above, as well as a number of other factors. The trip assignment process took into account the South Park Event Parking & Circulation Management Plan (PCMP), and current traffic access patterns for STAPLES Center. Project traffic is expected to access the site via major arterial roadways in the area. Project traffic is not expected to utilize 11th Street and 12th Street west of the Harbor Freeway, nor other streets in the adjacent residential neighborhoods. This is due to the experience to-date with STAPLES Center, which has shown that STAPLES Center traffic does not utilize those streets and that there are no significant traffic impacts in this area, and that a Neighborhood Traffic Management Plan was prepared in conjunction with the opening of STAPLES Center, which the Entertainment District project will respect and support.

Because the project will extend over six blocks, with different uses being located on each block, and with different levels of parking supply on each block, the destination of vehicle trips to the site will be determined more by the location of parking than by the location of the actual land use. While many people will park in the same block as their destination, many others may park in a different block and walk one or two blocks to their destination, or park off-site and walk to the site. Project trips were thus distributed to individual blocks on the project site based on parking supply. In addition, while the project will in general meet requirements of the City code with respect to parking supply, it is expected that not all trips to the project will park on-site but that some will park off-site. The project intends that most employee parking will occur off-site (for example, as it currently occurs for STAPLES Center) and that, depending on the time of day/ evening, a portion of visitor trips will also park off-site. This is consistent with a key project goal of dispersing project parking not only on the site but also to off-site locations, to minimize congestion and to encourage linkages to adjacent areas.

Based on the parking analysis in Chapter 5 and Appendix B (particularly Tables 4A and 4C in Appendix B), it was estimated that about 10% of trips during the weekday PM peak hour would park off-site and about 25% of trips during the Saturday evening peak hour would park off-site. These trips were thus assigned to off-site destinations generally within two or three blocks to the north (Figueroa/Flower Corridor), northeast, and east (9th/Olympic Corridor) of the project site, to reflect this off-site parking, and where abundant parking supply is available from weekday office buildings.

Finally, the trip assignment process had to take account of the fact that the project is replacing existing surface parking lots for STAPLES Center, which will be relocated due to the project. The existing trips to these surface lots were first estimated, then subtracted from the roadway system, and finally added back to the roadway system, based on anticipated new destinations. This process was accomplished as follows. The number of parking spaces in each of these lots (as shown in Table 9) represents the maximum number of inbound trips that occurs. The number of trips entering during the weekday evening peak (5:00 – 6:00 PM) and Saturday evening peak (7:00 – 8:00 PM) was estimated using the time of arrival profiles from the STAPLES Center EIR[1], which indicated that 5% of event traffic arrives between 5:00 – 6:00 PM and 50% arrives between 7:00 – 8:00 PM. These trips were subtracted from the roadway network using the trip distribution identified in the STAPLES Center EIR. The majority of these trips were then reassigned to the proposed parking structure on the Olympic West parcel that will accommodate 2,200 STAPLES Center parking spaces. The residual amount were assigned to destinations

within two or three blocks to the north, northeast, and east of STAPLES Center, representing parking in other STAPLES Center and public parking lots.

The traffic volumes forecast to be generated only by the proposed project are shown in Figures 17 and 18 for the PM peak hour, and Saturday evening peak hour respectively for each of the study intersections.

Future With Project Traffic Conditions Analysis

Future traffic volumes with the proposed project were estimated by assigning project traffic to the roadway network based on the trip generation and trip distribution parameters described above. The resulting future total traffic volumes (with project and related projects) are shown in Figures 19 and 20 for the PM peak hour, and Saturday evening peak hour respectively.

The analysis then evaluated the potential for significant impacts to be created by the project, by comparing levels of service (LOS) at study intersections without the project and with the project.

Significant Impact Thresholds

The LADOT has established threshold criteria that are used to determine if a project has a significant traffic impact at a specific location. A project impact is considered significant if the following conditions are met:

Intersection Condition

With Project Traffic		Project-Related Increase
LOS	V/C Ratio	in V/C Ratio
C	0.701 – 0.800	equal to or greater than 0.040
D	0.801 – 0.900	equal to or greater than 0.020
E, F	> 0.900	equal to or greater than 0.010

Using these criteria, for example, a project would not have a significant impact at an intersection if it is operating at LOS C after the addition of project traffic and the incremental change in the V/C ratio is less than 0.040. However, if the intersection is operating at LOS F after the addition of project traffic and the incremental change in the V/C ratio is 0.010 or greater, the project would be considered to have a significant impact at that intersection.

The results of the future with project intersection LOS analysis are shown in Table 11 for PM peak hour, and Saturday evening peak hour. Level of service conditions with the project are also shown in Figure 21.

[1] Los Angeles Sports & Entertainment Complex, DEIR. March, 1997.

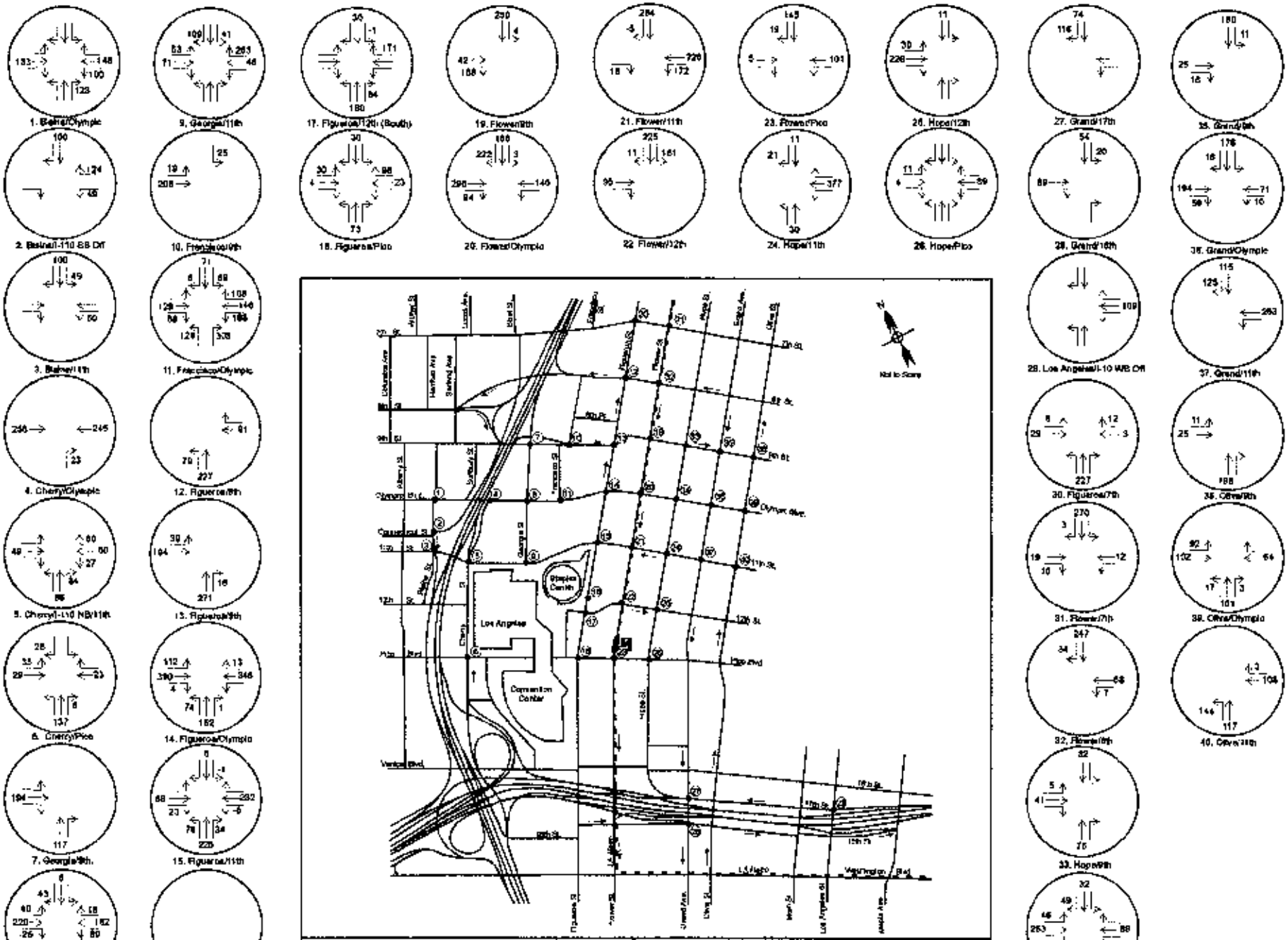

Figure 17
Project Only PM Peak Hour Traffic Volumes

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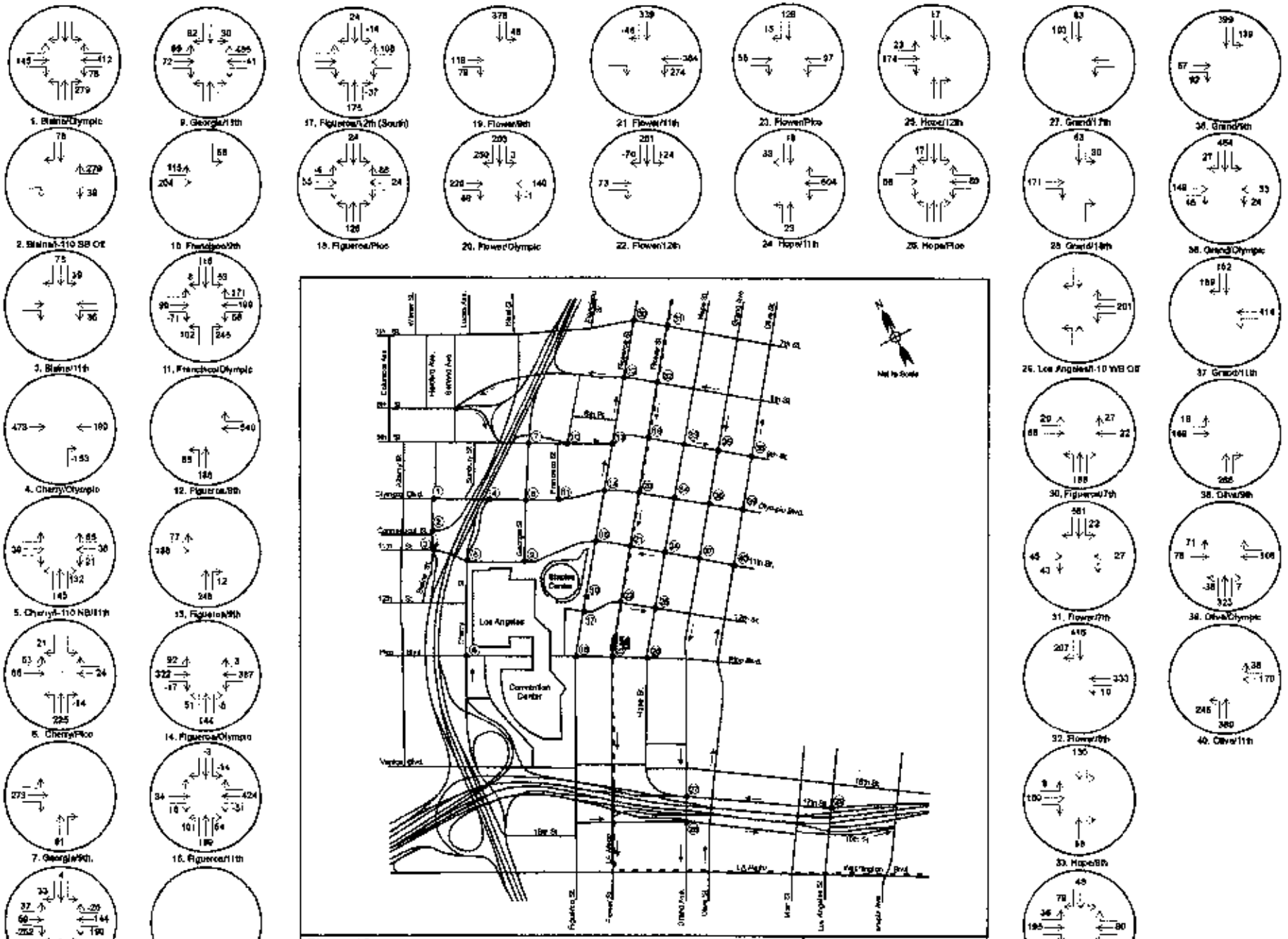

Figure 18
Project Only Saturday Evening Peak Hour Traffic Volumes

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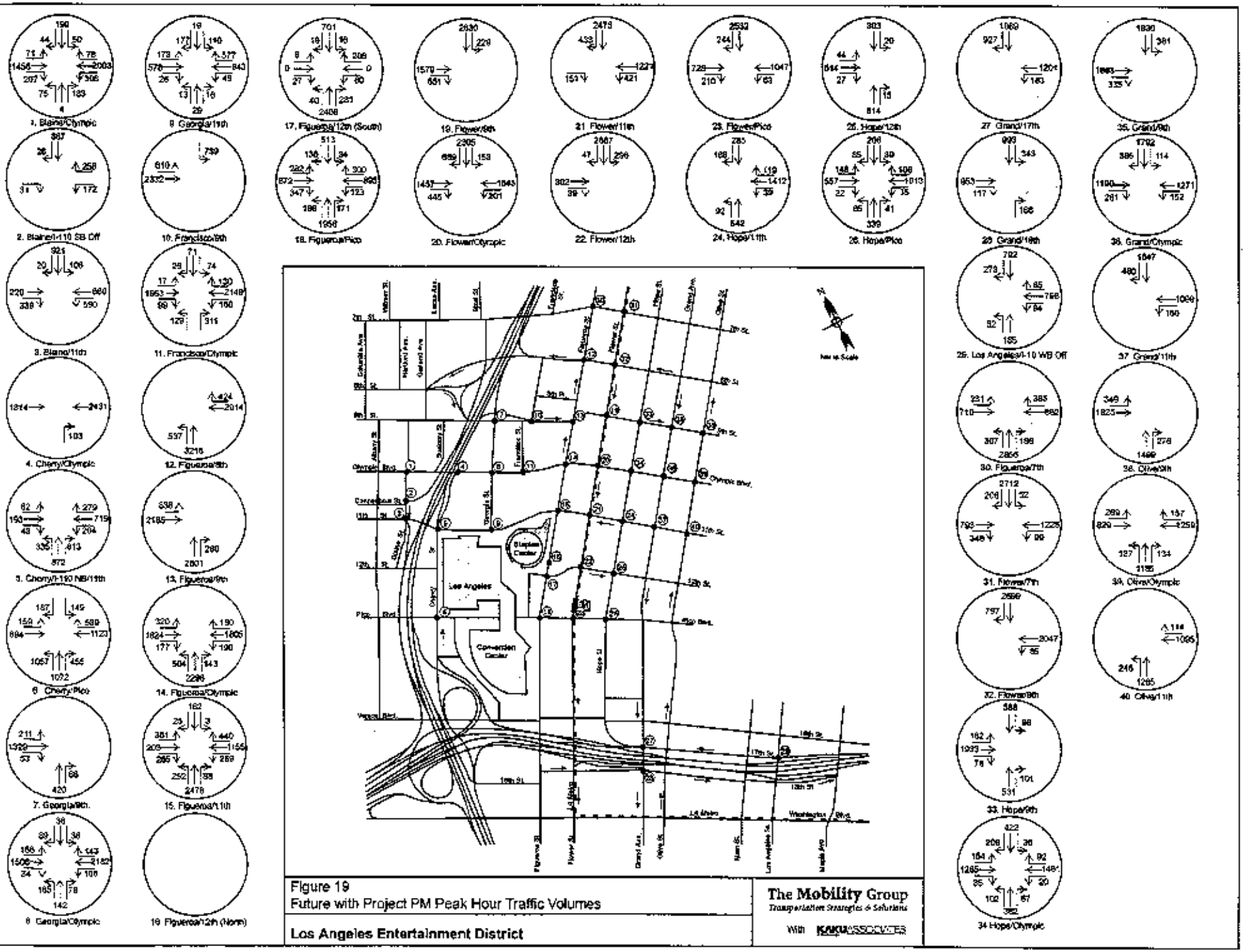

Figure 19
Future with Project PM Peak Hour Traffic Volumes

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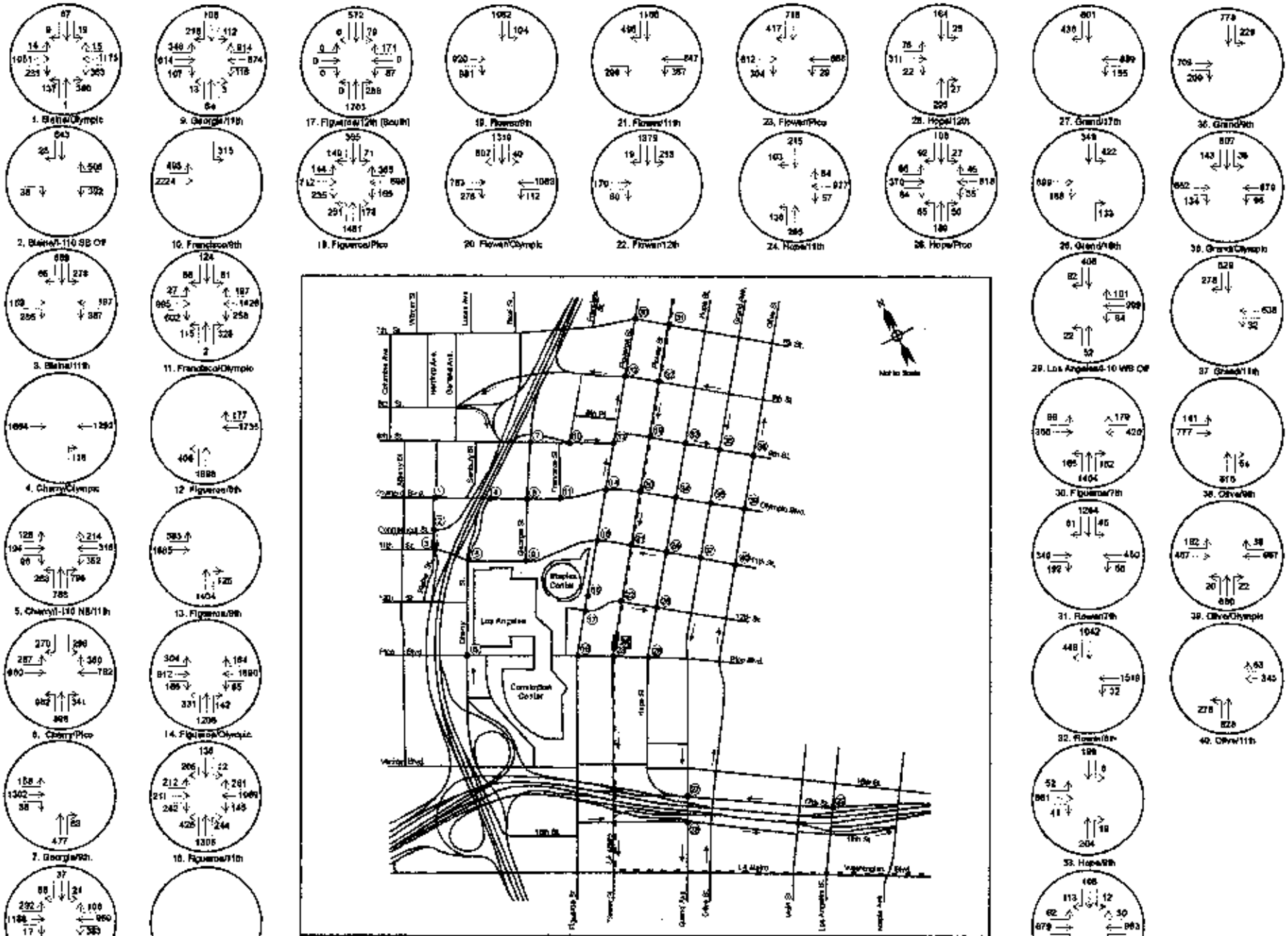

Figure 20
Future with Project Saturday Evening Peak Hour Traffic Volumes

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Table 11. Future With Project Conditions - Intersection Level of Service

No.	Intersection	Type	PM						Saturday					
			Future Without Project		Future With Project		Change in V/C	Significant Impact	Future Without Project		Future With Project		Change in V/C	Significant Impact
			V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	Blaine & Olympic	Signalized	0.742	C	0.770	C	0.028	No	0.563	A	0.696	B	0.133	No
2	Blaine & I-110 SB Off	Signalized	0.340	A	0.362	A	0.022	No	0.417	A	0.464	A	0.047	No
3	Blaine & 11th	Signalized	0.831	D	0.895	D	0.064	Yes	0.617	B	0.665	B	0.048	No
4	Cherry & Olympic	Signalized	0.468	A	0.525	A	0.057	No	0.330	A	0.375	A	0.045	No
5	Cherry & I-110 NB On/11th	Signalized	0.584	A	0.686	B	0.082	No	0.724	C	0.828	D	0.104	Yes
6	Cherry & Pico	Signalized	0.992	E	1.059	F	0.067	Yes	0.915	E	1.015	F	0.100	Yes
7	Georgia & 9th	Signalized	0.508	A	0.618	B	0.110	No	0.520	A	0.622	B	0.102	No
8	Georgia & Olympic	Signalized	0.688	B	0.782	C	0.094	Yes	0.618	B	0.727	C	0.109	Yes
9	Georgia & 11th	Signalized	0.387	A	0.589	A	0.202	No	0.479	A	0.834	D	0.355	Yes
10	Francisco & 9th (East)	Signalized	0.781	C	0.818	D	0.037	Yes	0.447	A	0.521	A	0.074	No
11	Francisco & Olympic	Signalized	0.435	A	0.704	C	0.269	Yes	0.598	A	0.770	C	0.172	Yes
12	Figueroa & 8th	Signalized	0.790	C	0.832	D	0.042	Yes	0.377	A	0.510	A	0.133	No
13	Figueroa & 9th	Signalized	0.741	C	0.813	D	0.072	Yes	0.466	A	0.538	A	0.072	No
14	Figueroa & Olympic	Signalized	0.820	D	0.993	E	0.173	Yes	0.604	B	0.778	C	0.174	Yes
15	Figueroa & 11th	Signalized	0.792	C	0.906	E	0.114	Yes	0.619	B	0.818	D	0.199	Yes
16	Figueroa & 12th (North) [1]	Signalized	0.460	A	N/A				0.420	A	N/A			
17	Figueroa & 12th (South)	Signalized	0.432	A	0.608	B	0.176	No	0.306	A	0.495	A	0.189	No
18	Figueroa & Pico	Signalized	0.739	C	0.795	C	0.056	Yes	0.602	B	0.639	B	0.037	No
19	Flower & 8th	Signalized	0.581	A	0.713	C	0.132	Yes	0.632	B	0.726	C	0.094	Yes
20	Flower & Olympic	Signalized	0.771	C	0.924	E	0.153	Yes	0.556	A	0.771	C	0.215	Yes
21	Flower & 11th	Signalized	0.633	B	0.746	C	0.112	Yes	0.572	A	0.726	C	0.154	Yes
22	Flower & 12th	Signalized	0.573	A	0.650	B	0.077	No	0.291	A	0.352	A	0.061	No
23	Flower & Pico	Signalized	0.846	D	0.880	D	0.034	Yes	0.521	A	0.547	A	0.026	No
24	Hope & 11th	Signalized	0.537	A	0.661	B	0.124	No	0.302	A	0.501	A	0.199	No
25	Hope & 12th	Signalized	0.298	A	0.375	A	0.077	No	0.172	A	0.232	A	0.060	No
26	Hope & Pico	Signalized	0.512	A	0.611	B	0.099	No	0.345	A	0.367	A	0.022	No
27	Grand & 17th	Signalized	0.690	B	0.728	C	0.038	No	0.427	A	0.462	A	0.035	No
28	Grand & 18th	Signalized	0.453	A	0.480	A	0.027	No	0.451	A	0.507	A	0.056	No
29	Los Angeles & I- 10 WB Off	Signalized	0.615	B	0.648	B	0.033	No	0.456	A	0.516	A	0.060	No
30	Figueroa & 7th	Signalized	0.750	C	0.784	C	0.034	No	0.346	A	0.384	A	0.038	No
31	Flower & 7th	Signalized	0.806	D	0.856	D	0.050	Yes	0.289	A	0.407	A	0.118	No
32	Flower & 8th	Signalized	0.710	C	0.758	C	0.048	Yes	0.291	A	0.421	A	0.130	No
33	Hope & 9th	Signalized	0.481	A	0.510	A	0.029	No	0.150	A	0.189	A	0.039	No
34	Hope & Olympic	Signalized	0.584	A	0.623	B	0.039	No	0.245	A	0.336	A	0.091	No
35	Grand & 9th	Signalized	0.529	A	0.561	A	0.032	No	0.149	A	0.264	A	0.115	No
36	Grand & Olympic	Signalized	0.609	B	0.629	B	0.020	No	0.327	A	0.389	A	0.062	No
37	Grand & 11th	Signalized	0.591	A	0.704	C	0.113	Yes	0.148	A	0.371	A	0.223	No
38	Olive & 9th	Signalized	0.499	A	0.533	A	0.034	No	0.178	A	0.249	A	0.071	No
39	Olive & Olympic	Signalized	0.585	A	0.670	B	0.085	No	0.311	A	0.420	A	0.109	No
40	Olive & 11th	Signalized	0.489	A	0.561	A	0.072	No	0.126	A	0.272	A	0.146	No

1. Eliminated by project with realignment of 12th Street to Figueroa & 12th Drive (South)

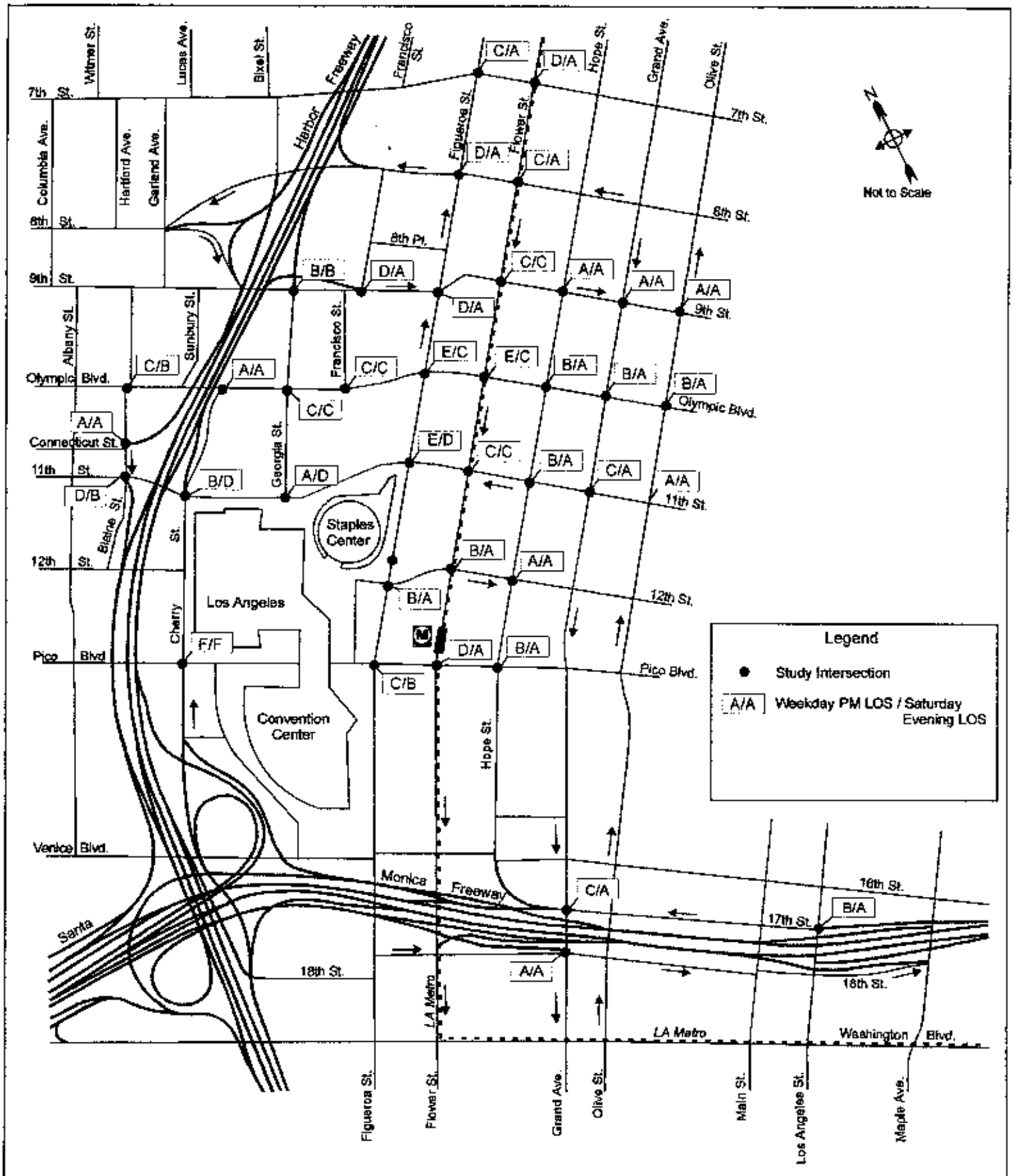

Figure 21
Intersection Levels of Service - Future with Project

Los Angeles Entertainment District

The **Mobility** Group
Transportation Strategies & Solutions
With KAKU ASSOCIATES

Weekday PM Peak Hour Project Impacts

As shown in Table 11, the project would result in a significant traffic impact at 17 intersections in the PM peak hour, as follows (resultant LOS in parentheses):

- Blaine Avenue & 11th Street (LOS D)
- Cherry Avenue & Pico Boulevard (LOS F)
- Georgia Street & Olympic Boulevard (LOS C)
- Francisco Street & 9th Street (LOS D)
- Francisco Street & Olympic Boulevard (LOS C)
- Figueroa Street & 8th Street (LOS D)
- Figueroa Street & 9th Street (LOS D)
- Figueroa Street & Olympic Boulevard (LOS E)
- Figueroa Street & 11th Street (LOS E)
- Figueroa Street & Pico Boulevard (LOS C)
- Flower Street & 9th Street (LOS C)
- Flower Street & Olympic Boulevard (LOS E)
- Flower Street & 11th Street (LOS C)
- Flower Street & Pico Boulevard (LOS D)
- Flower Street & 7th Street (LOS D)
- Flower Street & 8th Street (LOS C)
- Grand Avenue & 11th Street (LOS C)

Thirteen of the seventeen impacted intersections will continue to operate at LOS D or better, with the project. Of the remaining four impacted intersections, three will operate at LOS E, and one at LOS F, although one of those would already operate at LOS E without the project.

Saturday Evening Peak Hour Project Impacts

As shown in Table 11, the project would result in a significant traffic impact at ten intersections in the Saturday evening peak hour, as follows (resultant LOS in parenthesis):

- Cherry Avenue & I-110 NB on-ramp/11th Street (LOS D)
- Cherry Avenue & Pico Boulevard (LOS F)
- Georgia Street & Olympic Boulevard (LOS C)
- Georgia Street & 11th Street (LOS D)
- Francisco Street & Olympic Boulevard (LOS D)
- Figueroa Street & Olympic Boulevard (LOS C)
- Figueroa Street & 11th Street (LOS D)
- Flower Street & 9th Street (LOS C)
- Flower Street & Olympic Boulevard (LOS C)
- Flower Street & 11th Street (LOS C)

As can be seen, all of the impacted intersections would continue to operate at LOS D or better with the project, with the exception of the intersection of Cherry Avenue & Pico Boulevard,

which would operate at LOS E without the project and LOS F with the project.

Freeway Ramp/Intersection Analysis

There are numerous freeway ramps and access routes from the freeway system via the surface arterial street system to the project. This will lead to a dispersed pattern of traffic whereby vehicles use many different ramps, rather than the traffic being focused on only one or two ramps. The key off-ramps that will be utilized by freeway traffic are the following:

The 9th Street southbound off-ramp is a long exit ramp from the SR-110 Freeway southbound, which joins 9th Street prior to the intersection of 9th Street and Georgia Street. This ramp provides a significant distance of queueing space and, as shown in Table 11, the intersection of Georgia and 9th Street will operate at LOS B in both the weekday PM peak hour and Saturday evening peak hour with no significant impact caused by the project at this intersection. There will be no significant impact on the ramp of this location.

The 9th Street northbound off-ramp is an exit ramp from the SR-110 Freeway northbound, again with a long distance from the freeway exit along the ramp to the intersection at 9th and Francisco Street at the end of the ramp. Table 11 indicates that this intersection will operate at LOS D in the weekday PM peak hour, and LOS A on a Saturday evening peak with a significant impact caused by the project in the PM peak. However, given the long distance between the freeway and this intersection, it is unlikely that significant impacts would extend to the freeway mainline.

The Olympic southbound off-ramp is an exit ramp from the SB SR-110 Freeway to Blaine Street. As shown in Table 11, this intersection will operate at LOS A in both the weekday PM and Saturday evening peak periods with no significant impact caused by the project. This off-ramp was recently improved and widened in conjunction with the recently constructed STAPLES Center project. It is concluded that there would be no impact on this off-ramp.

The Pico/Cherry northbound off-ramp from the I-110 Freeway provides another long exit ramp terminating at the intersection of Pico Boulevard and Cherry Street. This intersection, as shown in Table 11, would operate at LOS F in both the weekday PM peak and Saturday evening peak hour with the project causing significant impacts during both time periods at this location. However, there is one block length of City street between this intersection and the signalized intersection to the south that is actually the termination of the freeway ramps. In addition, the freeway off-ramps extend a long distance from the freeway to this end-of-ramp intersection. It is therefore unlikely that significant impacts will occur on the freeway mainline.

The Grand Avenue eastbound off-ramp from the I-10 Freeway provides a long exit ramp terminating at the intersection of Grand Avenue and 18th Street. The impact analysis, as shown in Table 11, indicates that this intersection will operate at LOS A in both the weekday PM peak and Saturday evening peak hour with no significant impact caused by the project. No significant impacts are expected on the ramp at this location.

The Los Angeles Street westbound off-ramp from the I-10 Freeway terminates at the end of the off-ramp at the intersection of Los Angeles Street and 17th Street. As shown in Table 11, this intersection would operate at LOS B in the weekday PM peak, and LOS A in the Saturday

evening peak hour with no significant impact caused by the project. Thus, no significant impacts would occur on this ramp.

Residential Street Analysis

West of the Harbor Freeway there are a number of residential streets, primarily 9th Street, 11th Street, and 12th Street, that could potentially be impacted by the proposed project. An evaluation was conducted to address this issue as described below.

The arterial streets approaching the project site from the west are 8th Street (a Secondary Highway), Olympic Boulevard (a Major Highway), and Pico Boulevard (a Secondary Highway). Other streets include 9th Street (also a Secondary Highway), 11th Street (a Collector Street), and 12th Street (a Local Street). Olympic Boulevard leads to the primary parking entrances to the Olympic Properties. There is only one parking entrance located on 11th Street (a right-in/right-out for the Figueroa Central block), with no parking entrances from 11th Street to the Olympic Properties. Pico Boulevard serves the south end of the project, and parking entrances on both Figueroa Street and Flower Street to the Figueroa Central and Figueroa South blocks.

It is therefore expected that project traffic will use the major streets of Olympic Boulevard and Pico Boulevard, and not the minor/local streets of 9th, 11th, and 12th Streets, for the following reasons. Firstly, the major streets offer the most direct approach route with the highest travel speeds and fewest stops (signals rather than more frequent stop signs). Secondly, the minor streets do not provide direct access routes to the project parking driveways (12th Street in particular does not provide good access to the project site, terminating at Cherry Street). Thirdly, measures were implemented in conjunction with the opening of STAPLES Center, to direct traffic on the major roadways through directional signing of approach/egress routes to avoid the residential neighborhoods. Operating experience during the first year of STAPLES Center has shown there to be no significant volumes of the STAPLES Center traffic using streets such as 11th and 12th Streets west of the Harbor Freeway. 9th Street is not expected to be used as a traffic route to the project for similar reasons, with both 8th Street and Olympic Boulevard being more direct and convenient streets. In addition, land uses along 9th Street are primarily commercial and institutional rather than residential.

However, it is recognized that, even though it is considered unlikely, there is some potential for a small amount of the project traffic to use these streets. For this reason, further analysis was conducted to explore this potential. The anticipated distribution of project traffic (Figure 16) estimated a total of 8% of project traffic would use Olympic Boulevard and Pico Boulevard to access the project site. Potentially, some of this traffic could "cut-thru" the residential neighborhood on 11th Street and 12th Street, rather than stay on the arterial roadways. If as much as 20% of this traffic did this, then potentially approximately 765 daily vehicles might use 11th and 12th Streets in total on a typical weekday. On a Saturday, arterial traffic volumes are lower, so less traffic might divert off those streets. If three quarters of the weekday total (or 15%) used neighborhood streets, then potentially approximately 580 daily vehicles might use 11th and 12th Streets in total on a typical Saturday. Assuming that two-thirds of these vehicles might use 11th Street and one-third might use 12th Street (because 11th Street is a more direct route), then the potential impacts at four key locations on 11th and 12th Streets are summarized in Tables 12 and 13.

LADOT has criteria for significant impacts on local residential streets as follows:

Projected Average Daily Traffic With Project (Final ADT)	Project Related Increase in ADT
0 – 999	16% or more of final ADT
≥ 1,000	12% or more of final ADT
≥ 2,000	10% or more of final ADT
≥ 3,000	8% or more of final ADT

As shown in Tables 12 and 13, on a weekday, potential impacts could occur on 11th Street east of Burlington Avenue, and on 12th Street east of Burlington Avenue and between Valencia and Albany Streets, with potential traffic increases slightly above LADOT criteria for significant impact. The potential increase on 11th Street between Valencia Street and Albany Street would be less than significant according to LADOT criteria. A similar situation could occur on a Saturday, as shown in Table 13, again where potential increases could be slightly above LADOT criteria for three of the four locations, indicating potential significant impacts.

While the above analysis evaluated the potential for significant impacts, the actual occurrence of such impacts is considered unlikely due to the fact that the arterial streets provide the most direct and convenient access to the project site and it's driveways, and that experience with STAPLES Center has shown no significant traffic intrusion into the neighborhood.

The project Applicant is committed to preventing any significant traffic impacts occurring on these residential streets west of the Harbor Freeway due to the project, and will work with LADOT to accomplish this as necessary. This could include additional signage for the Entertainment District, in addition to that for STAPLES Center, to define major street approach/egress routes, as well as additional measures, or the project Applicant depositing monies with LADOT for the development and implementation of a Neighborhood Traffic Management Program if it becomes necessary (with any unused monies to be refunded to the Applicant after 3 years).

Table 12. Analysis of Potential Neighborhood Impacts – Weekday

Street	Segment	Existing Daily Vehicles	Future Without Project	Potential Project Traffic	% Increase	Significant Impact Threshold	Potential Significant Impact
11th Street	East of Burlington	5,010	5,480	497	8.3%	8%	Yes
11th Street	Valencia – Albany	9,560	10,460	497	4.5%	8%	No
12th Street	East of Burlington	1,850	2,025	267	11.7%	10%	Yes
12th Street	Valencia – Albany	1,725	1,890	267	12.4%	10%	Yes

Table 13. Analysis of Potential Neighborhood Impacts – Saturday

Street	Segment	Existing Daily Vehicles	Future Without Project	Potential Project Traffic	% Increase	Significant Impact Threshold	Potential Significant Impact
11th Street	East of Burlington	2,405	2,630	378	12.6%	8%	Yes
11th Street	Valencia – Albany	6,910	7,560	378	4.8%	8%	No
12th Street	East of Burlington	1,130	1,235	203	14.1%	12%	Yes
12th Street	Valencia – Albany	1,650	1,805	203	10.1%	10%	Yes