APPENDIX F

Traffic & Parking Study

LINSCOTT
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TRAFFIC AND PARKING STUDY

SANTA MONICA COLLEGE
CAREER & EDUCATIONAL FACILITIES
MASTER PLAN 2010 UPDATE

City of Santa Monica, California
March 22, 2010

Prepared for:

Santa Monica College
1900 Pico Boulevard
Santa Monica, California 90405

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TRAFFIC AND PARKING STUDY

SANTA MONICA COLLEGE
CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

City of Santa Monica, California
March 22, 2010

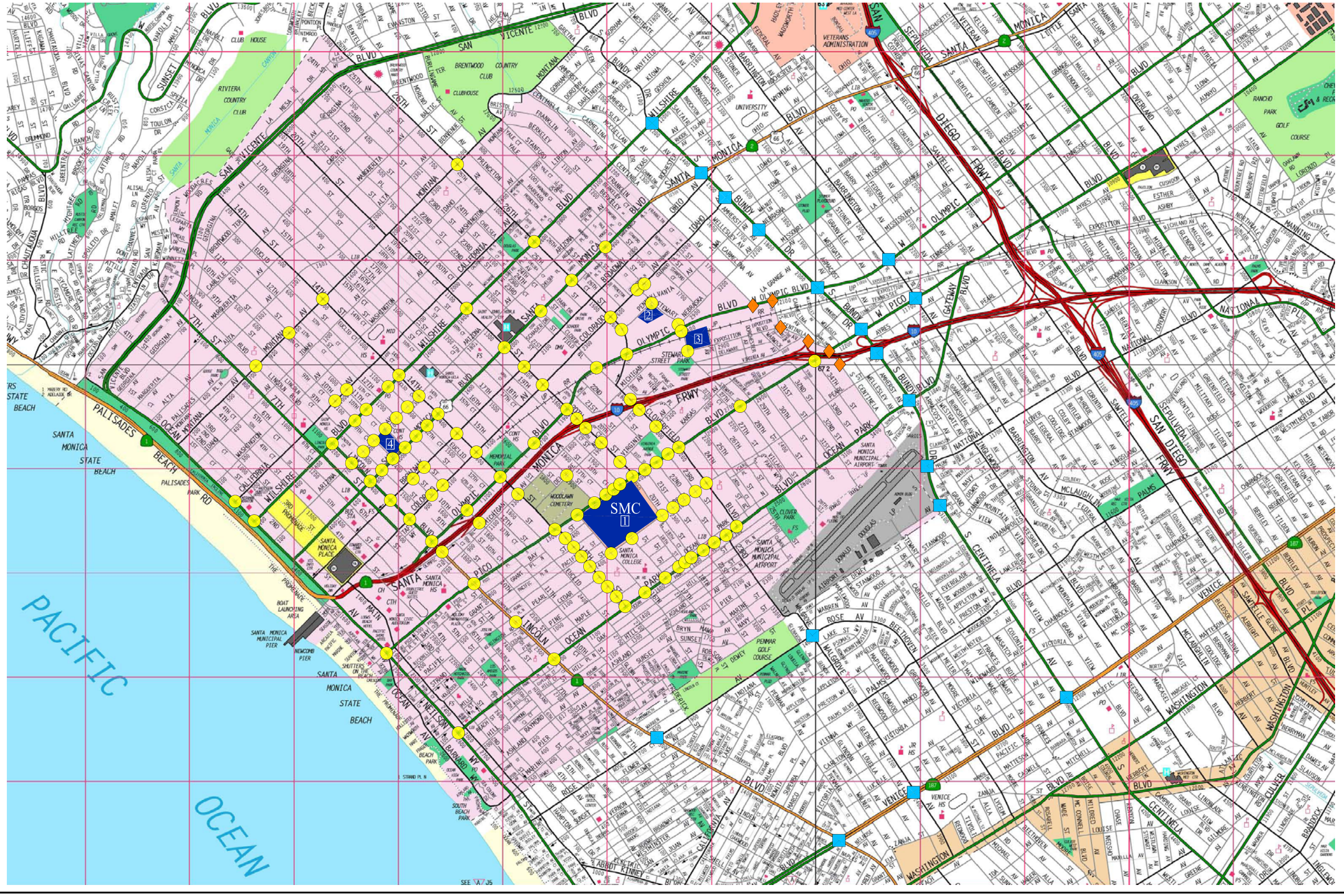
1.0 INTRODUCTION

This traffic analysis has been prepared to identify and evaluate the potential traffic and parking impacts of the proposed Santa Monica College (SMC) Career & Educational Facilities Master Plan 2010 Update (the "Project"). The Project encompasses the SMC Main Campus located at 1900 Pico Boulevard, the SMC Academy of Entertainment and Technology (AET) Campus located at 1660 Stewart Street, the SMC Olympic Shuttle Lot located at 1831 Stewart Street, and the SMC Performing Arts Center (PAC) Campus (formerly known as the Madison Campus) located at 1310 11th Street. All of the subject SMC campus locations are situated within the City of Santa Monica, California. The SMC campus locations and general vicinity are shown in ***Figure 1-1***.

The traffic analysis follows City of Santa Monica traffic study guidelines[1] and is consistent with the traffic impact assessment guidelines set forth in the *2004 Congestion Management Program for Los Angeles County*[2]. This traffic analysis evaluates potential Project-related impacts at 134 key intersections and 66 key street segments encompassing a study area that extends from Montana Avenue to the north, Venice Boulevard to the south, Ocean Avenue to the west, and Barrington Avenue to the east. The study intersections and street segments were determined in consultation with Santa Monica Community College District (SMCCD), the Lead Agency for this Project. Supplemental intersections, street segments and freeway segments evaluated herein were selected for analysis based on comments received by the Lead Agency through the California Environmental Quality Act (CEQA) Notice of Preparation (NOP) process.

The Lead Agency determined that the study intersections would be evaluated using the methodologies utilized by the local city in which the intersections are located. Thus, in accordance with policies established by the City of Santa Monica, the operations analysis method from the *Highway Capacity Manual*[3] (HCM2000) was utilized to perform the intersection Level of Service analysis for 111 signalized and unsignalized study intersections located within the City of Santa Monica. In addition, the Critical Movement Analysis method was conducted for the 23 study intersections located partially or solely within the City of Los Angeles. The study street segments were evaluated for potential Project-related impacts based on criteria set forth in the City of Santa Monica's traffic study guidelines. A review also was conducted of Los

[1] *Traffic Study Guidelines,* City of Santa Monica Transportation Management Division.
[2] *2004 Congestion Management Program for Los Angeles County*, Los Angeles County Metropolitan Transportation Authority, July 2004.
[3] *Highway Capacity Manual*, Transportation Research Board, National Research Council, Washington D.C., 2000.



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LEGEND:

- [1] SMC MAIN CAMPUS
- [2] SMC AET CAMPUS
- [3] SMC OLYMPIC SHUTTLE LOT
- [4] SMC PAC CAMPUS

- CITY OF SANTA MONICA
- CITY OF LOS ANGELES
- JOINT SANTA MONICA/LOS ANGELES

FIGURE 1-1
VICINITY MAP

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Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the Project.

This study (i) presents existing traffic volumes, (ii) forecasts future traffic volumes with the related projects and the growth in ambient traffic, (iii) forecasts future traffic volumes with the Project, (iv) determines Project-related impacts, and (v) recommends mitigation measures, where necessary.

1.1 Study Area

Based on direction from SMCCD staff and through the CEQA NOP process, a total of 200 locations, including 134 study intersections and 66 street segments, have been identified for evaluation. These study locations provide local access to the study area and define the extent of the boundaries for this traffic impact study. Further discussion of the existing street system and study area is provided in Section 4.0 herein.

The general location of the Project in relation to the study locations and surrounding street system is presented in *Figure 1–1*. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the Project as defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

a. Immediately adjacent or in close proximity to the Project site;

b. In the vicinity of the Project site that are documented to have current or projected future adverse operational issues; and

c. In the vicinity of the Project site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, the forecast Project peak hour vehicle trip generation, the anticipated distribution of Project vehicular trips and existing intersection/corridor operations.

2.0 PROJECT DESCRIPTION

2.1 Project Locations and Surrounding Uses

The existing SMC Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus are situated within an area surrounded by residential, institutional and commercial uses. All of the above SMC campus locations are located within the City of Santa Monica, California. The Project sites and the general vicinity of the area are shown in *Figure 1-1*.

- *Main Campus Site:*

  The existing Main Campus is located at 1900 Pico Boulevard, on a rectangular block generally bounded by Pico Boulevard to the north, 16th Street to the west, a public alley to the east (i.e., just west of 20th Street), and Pearl Street to the south. Surrounding uses adjacent to the SMC Main Campus include single and multi-family residential uses to the east and west, Woodlawn Cemetery and commercial uses to the north, and institutional (i.e., middle school and church uses) and residential uses to the south.

- *AET Campus Site:*

  The AET Campus is located northeast of the Main Campus, at 1660 Stewart Street. The AET Campus is situated on the southwest corner of the Stewart Street/Pennsylvania Avenue intersection, generally bounded by Pennsylvania Avenue to the northwest, Stewart Street to east. Surrounding uses adjacent to the AET Campus include entertainment office uses to the north, east, and west, and an industrial use to the south.

- *Olympic Shuttle Lot:*

  The Olympic Shuttle Lot, which is located less than one-half mile southeast of the AET Campus, is situated at the northeast corner of the Stewart Street/Exposition Boulevard intersection. The Olympic Shuttle Lot site is a surface parking lot and is currently used as satellite parking from which students and visitors take shuttles to/from other SMC campuses. Immediate uses adjacent to the surface parking lot include an existing garden nursery to the north, industrial and office uses along the west side of Stewart Street, and multi-family residential uses along the south side of Exposition Boulevard.

- *PAC Campus Site:*

  The PAC Campus, which is located northwest of the Main Campus, is situated at 1310 11th Street and is bounded by Arizona Avenue to the north, Santa Monica Boulevard to the south, 11th Street to the east, and 10th Street to the west. The PAC Campus is primarily surrounded by multi-family residential uses to the north, commercial/retail uses to the south, multi-family residential and commercial/retail uses to the east, and multi-family residential and office uses to the west.

- *Other SMC Campuses:*

  SMC also operates three other satellite campuses east and west of the Main Campus, known as the Bundy Campus, the Airport Arts (AA) Campus, and the Emeritus College. The Bundy Campus and AA Campus, which are located at 3171 South Bundy Drive and 2800 Airport Avenue, respectively, are both situated along the south side of the Santa Monica Municipal Airport. The SMC Emeritus College is located at 1227 Second Street in Downtown Santa Monica, southwest of the PAC Campus. Although described herein, no changes[4] to these three SMC satellite campuses (i.e., Bundy Campus, AA Campus, Emeritus College) are envisioned and, thus, they are not affected by the SMC Career & Educational Facilities Master Plan 2010 Update.

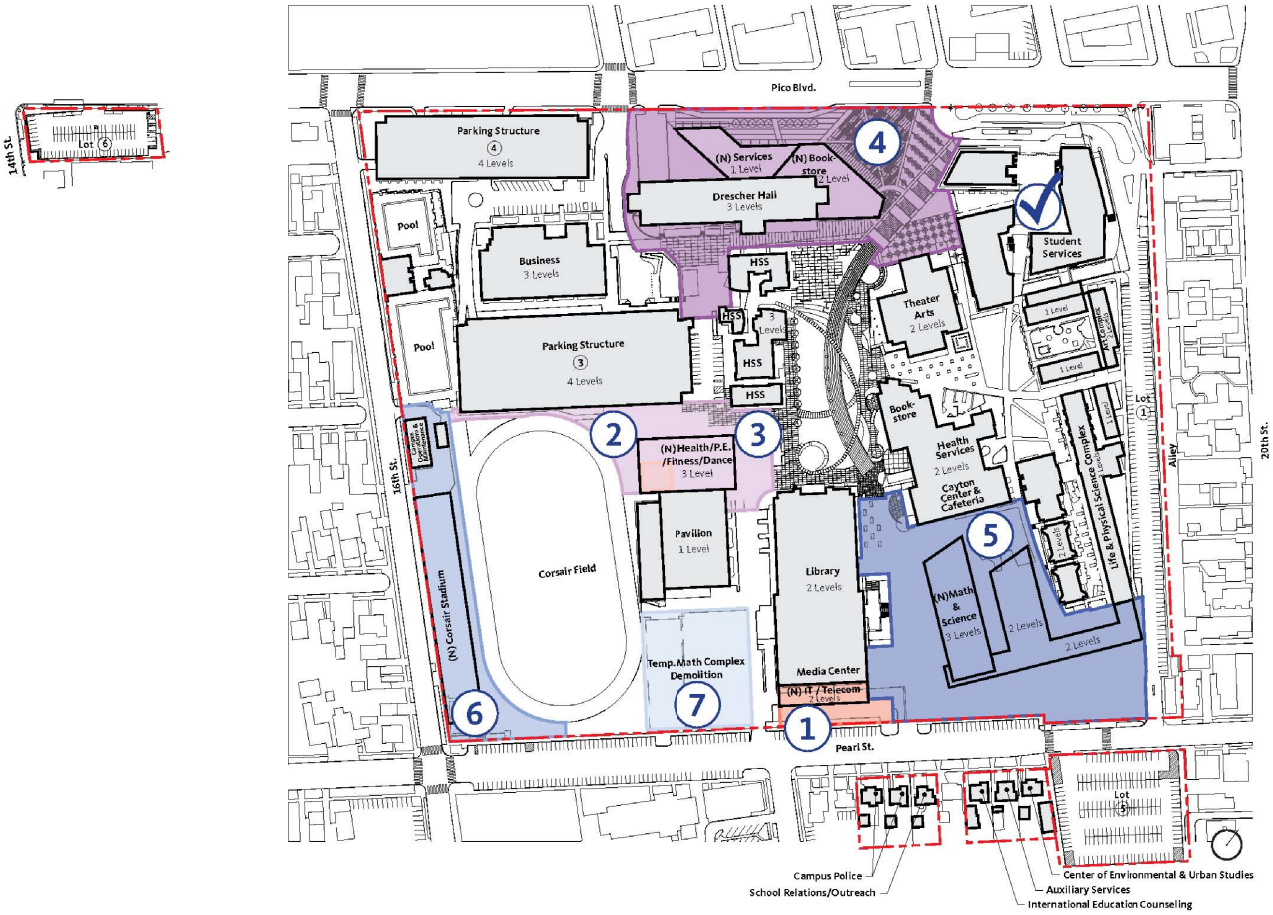
2.2 Project Description

The Project proposes renovation, new construction and demolition of facilities on the SMC Main Campus, the two satellite campuses known as the AET Campus and the PAC Campus, and the satellite parking lot situated southeast of the AET Campus which is referred to as the Olympic Shuttle Lot. It should be noted that the PAC Campus may include exhibition/museum type space to be used for academic needs and/or public usage. Listed below is a summary of the net increase in gross square feet (GSF) of new and improved facilities (while also accounting for proposed building demolition and removals) to accommodate the academic programming needs for each of the subject SMC campuses (assigned square feet [ASF] is noted in parentheses):

- Main Campus: 11,296 GSF (11,037 ASF)
- AET Campus: 63,608 GSF (47,172 ASF)
- Olympic Shuttle Lot: 75,000 GSF (48,750 ASF)
- PAC Campus: 93,722 GSF (55,031 ASF)

The conceptual campus plan for the SMC Main Campus is shown in ***Figure 2-1***. The conceptual campus plan for the AET Campus is shown in ***Figure 2-2***. The conceptual campus plan for the Olympic Shuttle Lot is displayed in ***Figure 2-3***. Finally, the conceptual campus plan for the PAC Campus is shown in ***Figure 2-4***.

[4] No changes to the Airport Arts and Emeritus College campuses are proposed. Further, no modifications to the Master Plan previously approved by the Lead Agency in 2007 for the Bundy Campus are proposed.



Approved Projects:

- ✓ Student Services (Under Construction)
- 1 IT/Telecom Relocation (Needs Board Approval)

Proposed Projects:

- 2 Energy Saving Project - Central Plant
- 3 Health/P.E./Fitness/Dance
- 4 Drescher Hall Modernization & Pico Promenade
- 5 Math & Science Extension Replacement
- 6 Corsair Stadium/ESL Demolition
- 7 Temporary Math Complex Demolition

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FIGURE 2-1
CONCEPTUAL CAMPUS SITE PLAN
MAIN CAMPUS

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FIGURE 2-2
CONCEPTUAL CAMPUS SITE PLAN
AET CAMPUS

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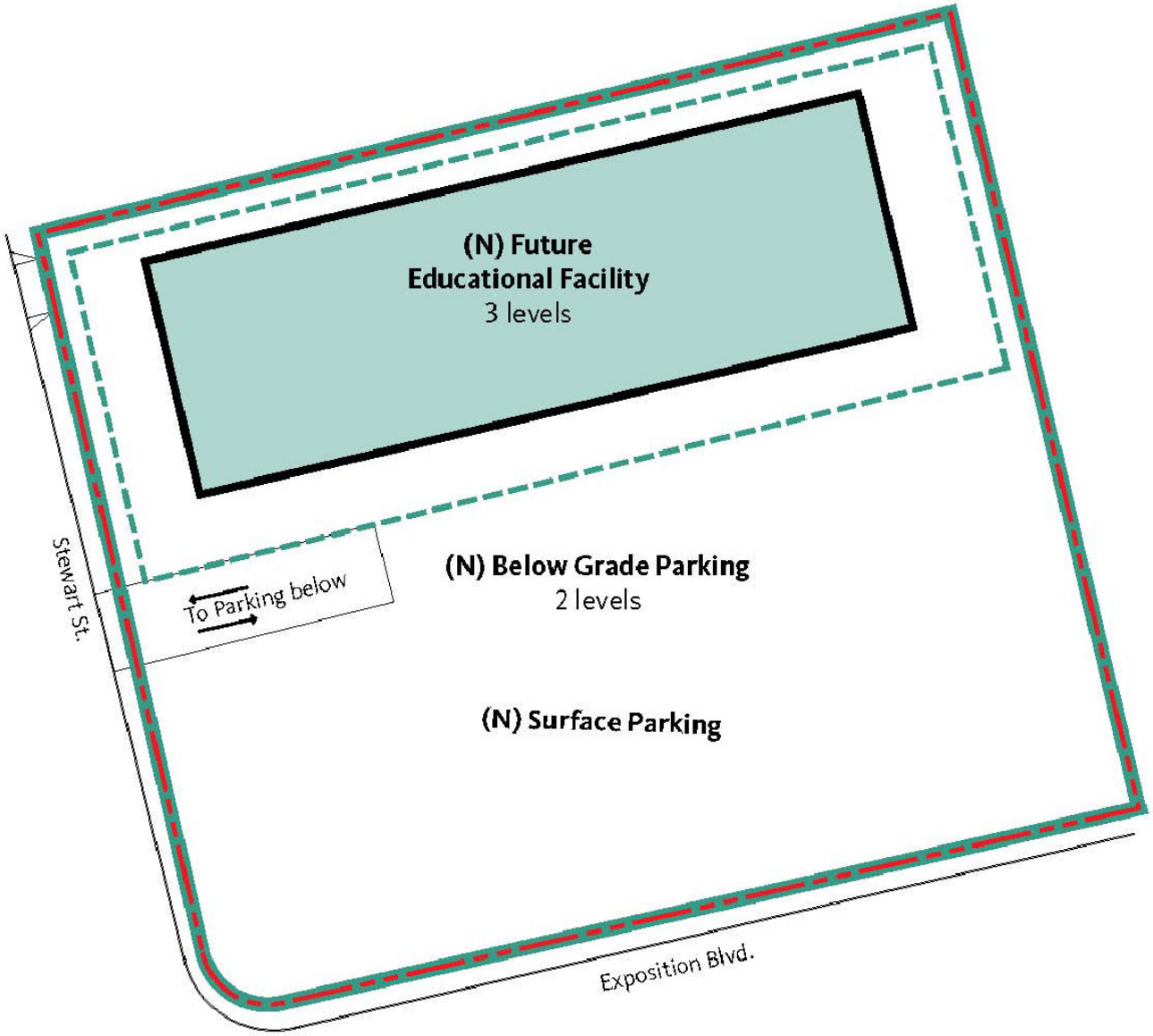

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FIGURE 2-3
CONCEPTUAL CAMPUS SITE PLAN
OLYMPIC SHUTTLE LOT

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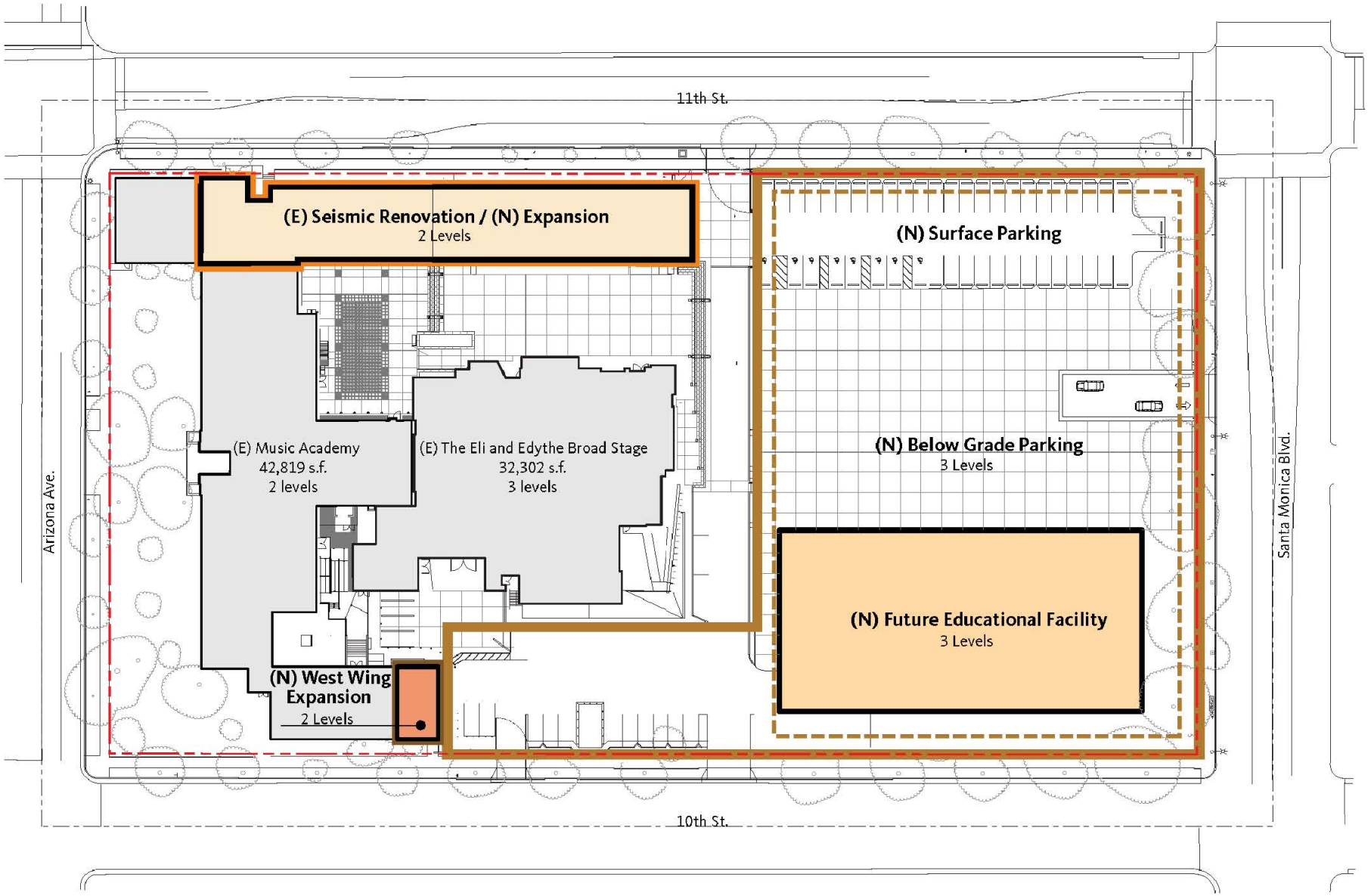

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FIGURE 2-4
CONCEPTUAL CAMPUS SITE PLAN
PAC CAMPUS

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3.0 SITE ACCESS AND CIRCULATION

Descriptions of the Project site access and circulation schemes are provided in the following subsections and summarized in ***Table 3-1***. Photographs of each of the existing driveway locations at the SMC Main Campus, AET Campus, Olympic Shuttle Lot, and PAC Campus are provided in ***Appendix A***. With the exception of the AET Campus, no changes to the existing site access points for the SMC Main Campus, Olympic Shuttle Lot, and PAC Campus are planned in conjunction with the development of the Project. Accordingly, all of the existing site driveways will remain in place at the subject SMC campuses.

3.1 Main Campus Site Access

Access to the existing Main Campus is provided via driveways along the Pico Boulevard, Pearl Street, a public alley, and 16th Street property frontages. The Main Campus driveways are located as follows:

- Pico Boulevard Driveways: A total of seven driveways are located along the south side of Pico Boulevard including one driveway serving Parking Lot 6, two driveways serving Parking Structure 4, one signalized driveway opposite 17th Street, one signalized driveway opposite 18th Court, one driveway serving Parking Lot 2, and a right-turn only ingress/egress driveway for Parking Lot 1.

- Pearl Street Driveways: There are three driveways that are located along the north side of Pearl Street along the campus frontage. Also, there is one driveway situated on the south side of the roadway serving Parking Lot 5. In addition, there are individual driveways serving the small campus buildings along the south side Pearl Street.

- Public Alley Driveway: One access driveway is located near the northeast corner of the Main Campus, with access via the public alley and 20th Street.

- 16th Street Driveways: Two driveways are located along the east side of 16th Street including one egress driveway from Parking Structure 4 and one ingress/egress driveway.

A summary of the Main Campus driveway locations and access schemes is presented in *Table 3-1*. The site access scheme for the Main Campus is shown in ***Figure 3-1***.

3.2 AET Campus Site Access

Access to the existing AET Campus is provided via four driveways along the Pennsylvania Avenue and Stewart Street property frontages. The AET Campus driveways are located as follows:

- Pennsylvania Avenue Driveways: Two driveways are located along the south side of Pennsylvania Avenue. Both driveways on Pennsylvania Avenue are right-turn only ingress/egress driveways.

Table 3-1
DRIVEWAY LOCATIONS AND ACCESS SCHEMES FOR SMC CAMPUSES

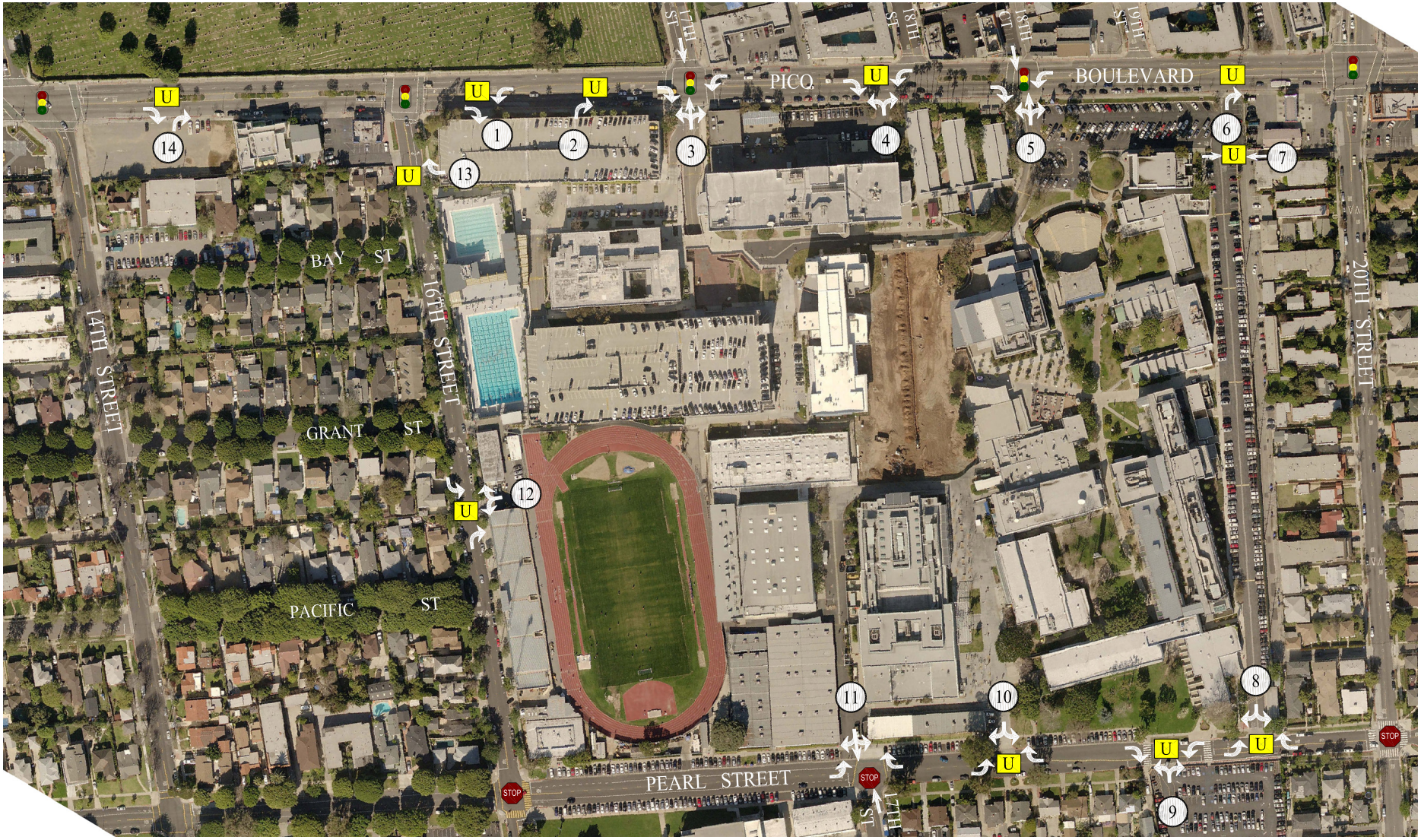
Driveway Nos. [1]	Driveway Location	Access Turning Movement(s)	Traffic Control	Access To/From
Main Campus [2]:				
1	South side of Pico Boulevard, between 16th Street and 17th Street	Left- and right-turn ingress	Stop sign	Parking structure 4
2	South side of Pico Boulevard, between 16th Street and 17th Street	Right-turn egress	Stop sign	Parking structure 4
3	South side of Pico Boulevard, at 17th Street	Left- and right-turn ingress and egress	Traffic signal	Parking structures 3, 4
4	South side of Pico Boulevard, between 17th Street and 18th Street	Left- and right-turn ingress and egress	Stop sign	Parking lot 2
5	South side of Pico Boulevard, at 18th Court	Left- and right-turn ingress and egress	Traffic signal	Parking lot 1
6	South side of Pico Boulevard, between 19th Street and 20th Street	Right-turn ingress and egress	Stop sign	Parking lot 1
7	Public Alley/East side of 20th Street, south of Pico Boulevard	Left- and right-turn ingress and egress	Stop sign	Parking lot 1
8	North side of Pearl Street, between 17th Street and 20th Street	Left- and right-turn ingress and egress	Stop sign	Parking lot 1
9	South side of Pearl Street, between 17th Street and 20th Street	Left- and right-turn ingress and egress	Stop sign	Parking lot 5
10	North side of Pearl Street, between 17th Street and 20th Street	Left- and right-turn ingress and egress	Stop sign	Walkway to Quad [3]
11	North side of Pearl Street, at 17th Street	Left-and right-turn ingress and egress	Stop sign	Walkway to Quad [3]
12	East side of 16th Street, between Grant Street and Pacific Street	Left-and right-turn ingress and egress	Stop sign	Operations & maintenance lot
13	East side of 16th Street, between Pico Boulevard and Bay Street	Right-turn egress	Stop sign	Parking structure 4
14	South side of Pico Boulevard, east of 14th Street	Left- and right-turn ingress and egress	Stop sign	Parking lot 6
AET Campus:				
1	South side of Pennsylvania Avenue, between 26th Street and Stewart Street	Right-turn ingress and egress	Stop sign	AET Campus parking lot
2	South side of Pennsylvania Avenue, between 26th Street and Stewart Street	Right-turn ingress and egress	Stop sign	AET Campus parking lot
3	West side of Stewart Street, south of Pennsylvania Avenue	Left- and right-turn ingress	Stop sign	AET Campus parking lot
4	West side of Stewart Street, south of Pennsylvania Avenue	Left- and right-turn egress	Stop sign	AET Campus parking lot
Olympic Shuttle Lot:				
1	East side of Stewart Street, between Olympic and Exposition Boulevard	Left- and right-turn ingress and egress	Stop sign	Olympic Shuttle lot
2	North side of Exposition Boulevard, east of Stewart Street	Closed - gated	--	Olympic Shuttle lot
3	North side of Exposition Boulevard, east of Stewart Street	Closed - gated	--	Olympic Shuttle lot
PAC Campus:				
1	West side of 11th Street, between Arizona Avenue and Santa Monica Boulevard	Left- and right-turn ingress and egress	Stop sign	PAC Campus parking lot
2	North side of Santa Monica Boulevard, between 10th Street and 11th Street	Left- and right-turn ingress and egress	Stop sign	PAC Campus parking lot
3	East side of 10th Street, between Arizona Avenue and Santa Monica Boulevard	Closed - Service/Emergency access only	Stop sign	PAC Campus parking lot
4 [4]	East side of 10th Street, north of Santa Monica Boulevard	Closed - Service/Emergency access only	Stop sign	PAC Campus parking lot

[1] Refer to Figure 3-1 (Main Campus), 3-2 (AET Campus), 3-3 (Olympic Shuttle Lot), and 3-4 (PAC Campus) for the corresponding numbered driveway locations at each of the SMC project campuses. Also, refer to Appendix A to view pictures of the driveways at each of the SMC project campuses.

[2] Driveway summary does not include minor driveways on south side of Pearl Street serving small campus buildings.

[3] For use by maintenance and emergency vehicles only.

[4] Refer to Figure 2-4, Conceptual PAC Campus Site Plan, for proposed future driveway location.



MAP SOURCE: GOOGLE EARTH

NOT TO SCALE

X DRIVEWAY LOCATIONS

SIGNALIZED

STOP STOP SIGN

U UNSIGNALIZED

FIGURE 3-1
EXISTING SITE DRIVEWAYS
MAIN CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

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- Stewart Street Driveways: Two driveways are located along the west side of Stewart Street. The northerly Stewart Street driveway is an ingress only driveway and the southerly Stewart Street driveway is an egress only driveway.

A summary of the AET Campus driveway locations and access schemes is provided in *Table 3-1*. The site access scheme for the AET Campus is displayed in ***Figure 3-2***.

3.3 Olympic Shuttle Lot Site Access

The Olympic Shuttle Lot has one single access point provided via an ingress/egress driveway on Stewart Street, at the northwest corner of the parking lot. As confirmed by recent field observations, two driveways at the Olympic Shuttle Lot that would provide access to and from Exposition Boulevard are presently gated and closed.

A summary of the Olympic Shuttle Lot driveway locations and access schemes (including the closed Exposition Boulevard driveways) is provided in *Table 3-1*. The site access scheme for the Olympic Shuttle Lot is displayed in ***Figure 3-3***.

3.4 PAC Campus Site Access

Access to the existing PAC Campus is provided via three driveways along the Santa Monica Boulevard, 10th Street and 11th Street property frontages (i.e., one driveway located along each roadway). The PAC Campus driveways are located as follows:

- Santa Monica Boulevard Driveway: The Santa Monica Boulevard driveway accommodates ingress/egress turning movements.

- 10th Street Driveway: The 10th Street driveway accommodates ingress/egress turning movements but is gated and restricted to service and emergency vehicles only.

- 11th Street Driveway: The 11th Street driveway accommodates ingress/egress turning movements. The 11th Street driveway is generally closed during the weekends.

It is noted that a second 10th Street driveway is proposed for the PAC Campus north of Santa Monica Boulevard as part of the Project. The proposed new driveway is intended to better facilitate access and internal circulation by service vehicles. The new driveway would also be available for use by emergency vehicles. The proposed 10th Street driveway would be closed for use by the general public (including SMC staff and students).

A summary of the PAC Campus driveway locations and access schemes is presented in *Table 3-1*. The site access scheme for the PAC Campus is shown in ***Figure 3-4***.

MAP SOURCE: GOOGLE EARTH

NOT TO SCALE

X DRIVEWAY LOCATIONS

STOP STOP SIGN

SIGNALIZED

U UNSIGNALIZED

FIGURE 3-2
EXISTING SITE DRIVEWAYS
AET CAMPUS

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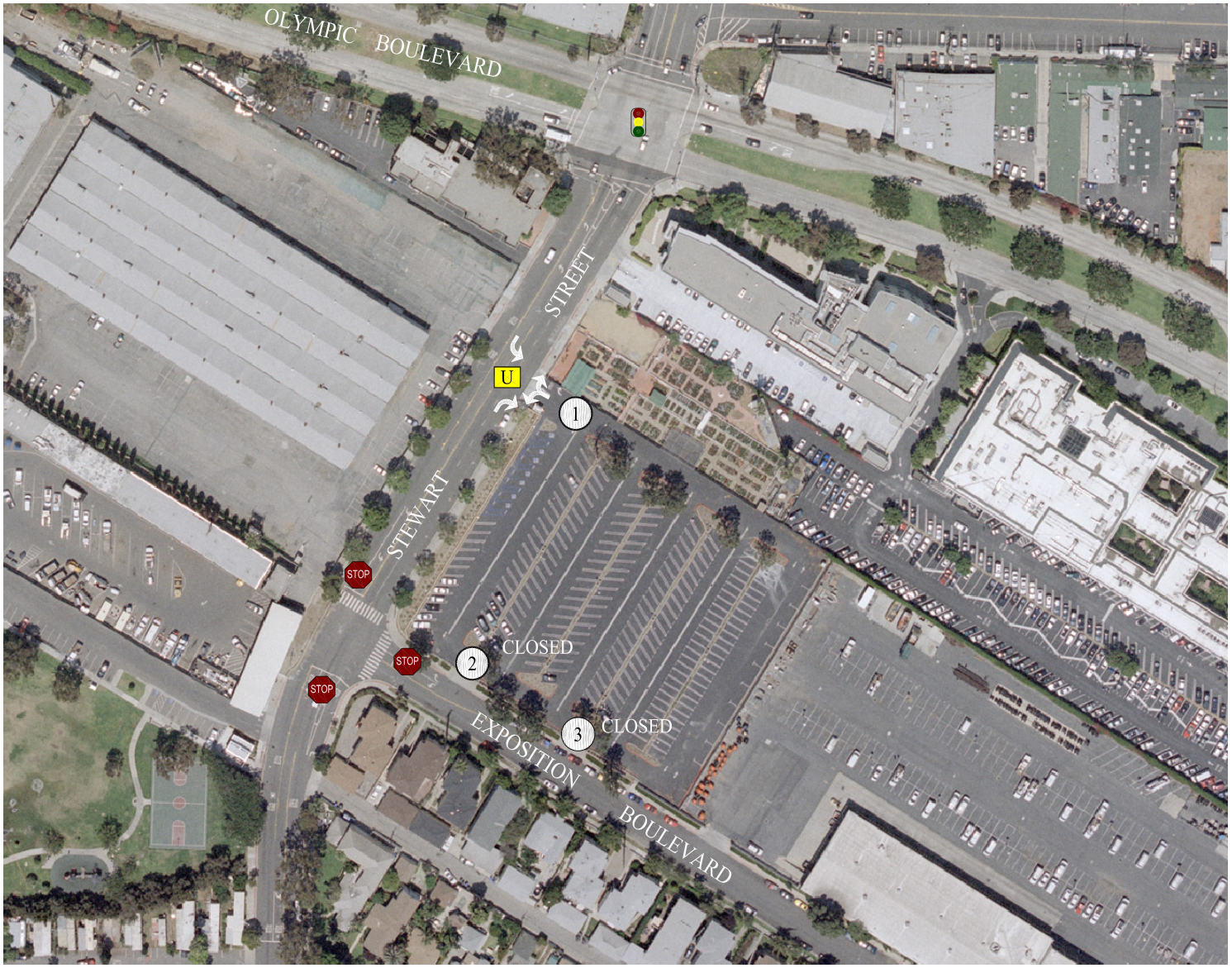

MAP SOURCE: SMCC

NOT TO SCALE

X DRIVEWAY LOCATIONS

STOP STOP SIGN

SIGNALIZED

U UNSIGNALIZED

FIGURE 3-3
EXISTING SITE DRIVEWAYS
OLYMPIC SHUTTLE LOT

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SOURCE: SMCC

N

NOT TO SCALE

X DRIVEWAY LOCATIONS

U UNSIGNALIZED

SIGNALIZED

STOP STOP SIGN

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 3-4
EXISTING SITE DRIVEWAYS
PAC CAMPUS

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES
MASTER PLAN 2010 UPDATE

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4.0 EXISTING STREET SYSTEM

4.1 Regional Highway System

Regional access to the Project sites is provided by the I-10 (Santa Monica) Freeway and I-405 (San Diego) Freeway as shown in *Figure 1-1*. A brief description of the I-10 and I-405 Freeways are provided in the following paragraphs.

I-10 (Santa Monica) Freeway is an east-west freeway connecting the City of Santa Monica with the City of Los Angeles and the municipalities of the San Gabriel Valley and San Bernardino County to the east. In the Project vicinity, three to four mixed-flow freeway lanes are generally provided in each direction on the I-10 Freeway with auxiliary merge/weave lanes provided between some interchanges. Eastbound and westbound ramps are provided on the I-10 Freeway at Bundy Drive, Centinela Avenue, Cloverfield Boulevard, 20th Street, Olympic Boulevard and 4th Street in the Project area.

I-405 (San Diego) Freeway is a major north-south oriented freeway that extends from the San Fernando area to the north and the Orange County area to the south. In the Project vicinity, the I-405 Freeway generally provides six mainline freeway lanes (five mixed flow lanes and one carpool lane) in each direction. Northbound and southbound ramps are provided on the I-405 Freeway at Santa Monica Boulevard, Tennessee Avenue south of Olympic Boulevard, and National Boulevard in the Project area.

4.2 Existing Local Street System

Primary access to the Main Campus is provided via Pico Boulevard with secondary access available from Pearl Street and 16th Street. Access to the AET Campus is provided via Stewart Street and Pennsylvania Avenue, and the Olympic Shuttle Lot is accessed via Stewart Street. Primary access to the PAC Campus is provided by Santa Monica Boulevard with secondary access available via 11th Street (and 10th Street for service and emergency vehicles).

A total of 134 study intersections and 66 study street segments were selected for analysis of potential impacts related to the Project in consultation with SMCCD staff and through the CEQA NOP process. The lists of study intersections and street segments selected for analysis are presented in ***Table 4-1*** and ***Table 4-2***, respectively. A total of 111 study intersections are located within the City of Santa Monica, 17 intersections are located within the City of Los Angeles, and six intersections are shared between the two subject municipalities. A total of 90 of the study intersections are presently controlled by traffic signals, while the remaining 44 study intersections are currently either stop sign controlled or uncontrolled. Of the unsignalized study intersections, 16 study intersections are all-way stop sign controlled, 27 study intersections are stop sign controlled with the stop signs facing the minor street approaches, and one study intersection is uncontrolled. The existing lane configurations at the 134 study intersections are displayed in ***Figure 4-1***.

Table 4-1
LIST OF STUDY INTERSECTIONS

No.	North-South Streets	East-West Streets	Traffic Control [1]	Jurisdiction(s)
1	Ocean Avenue	California Avenue	Signalized	Santa Monica
2	Ocean Avenue	Wilshire Boulevard	Signalized	Santa Monica
3	Ocean Avenue-Neilson Way	Pico Boulevard	Signalized	Santa Monica
4	Neilson Way	Ocean Park Boulevard	Signalized	Santa Monica
5	Lincoln Boulevard	Montana Avenue	Signalized	Santa Monica
6	Lincoln Boulevard	Wilshire Boulevard	Signalized	Santa Monica
7	Lincoln Boulevard	Arizona Avenue	Signalized	Santa Monica
8	Lincoln Boulevard	Santa Monica Boulevard	Signalized	Santa Monica
9	Lincoln Boulevard	Broadway	Signalized	Santa Monica
10	Lincoln Boulevard	Colorado Avenue	Signalized	Santa Monica
11	Lincoln Boulevard	Olympic Boulevard (WB)	Signalized	Santa Monica
12	Lincoln Boulevard	Olympic Boulevard (EB)	Signalized	Santa Monica
13	Lincoln Boulevard	Pico Boulevard	Signalized	Santa Monica
14	Lincoln Boulevard	Pearl Street	Signalized	Santa Monica
15	Lincoln Boulevard	Ocean Park Boulevard	Signalized	Santa Monica
16	9th Street	Arizona Avenue	Unsignalized	Santa Monica
17	9th Street	Santa Monica Boulevard	Unsignalized	Santa Monica
18	10th Street	California Avenue	Unsignalized	Santa Monica
19	10th Street	Wilshire Boulevard	Unsignalized	Santa Monica
20	10th Street	Arizona Avenue	Unsignalized	Santa Monica
21	10th Street	Santa Monica Boulevard	Unsignalized	Santa Monica
22	10th Street	Broadway	Unsignalized	Santa Monica
23	10th Street	Colorado Avenue	Unsignalized	Santa Monica
24	11th Street	Montana Avenue	Signalized	Santa Monica
25	11th Street	California Avenue	Unsignalized	Santa Monica
26	11th Street	Wilshire Boulevard	Signalized	Santa Monica
27	11th Street	Arizona Avenue	Signalized	Santa Monica
28	11th Street	Santa Monica Boulevard	Signalized	Santa Monica
29	11th Street	Broadway	Signalized	Santa Monica
30	11th Street	Colorado Avenue	Signalized	Santa Monica
31	11th Street	Olympic Boulevard (WB)	Signalized	Santa Monica
32	11th Street	Olympic Boulevard (EB)	Signalized	Santa Monica
33	12th Street	Arizona Avenue	Unsignalized	Santa Monica
34	12th Street	Santa Monica Boulevard	Unsignalized	Santa Monica
35	Euclid Street	Wilshire Boulevard	Signalized	Santa Monica
36	Euclid Street	Arizona Avenue	Unsignalized	Santa Monica
37	Euclid Street	Santa Monica Boulevard	Unsignalized	Santa Monica
38	14th Street	Montana Avenue	Signalized	Santa Monica
39	14th Street	Wilshire Boulevard	Signalized	Santa Monica
40	14th Street	Arizona Avenue	Signalized	Santa Monica
41	14th Street	Santa Monica Boulevard	Signalized	Santa Monica
42	14th Street	Broadway	Signalized	Santa Monica
43	14th Street	Colorado Avenue	Signalized	Santa Monica
44	14th Street	Olympic Boulevard	Signalized	Santa Monica
45	14th Street	Michigan Avenue	Signalized	Santa Monica
46	14th Street	Pico Boulevard	Signalized	Santa Monica
47	14th Street	Bay Street	Unsignalized	Santa Monica
48	14th Street	Grant Street	Unsignalized	Santa Monica
49	14th Street	Pacific Street	Unsignalized	Santa Monica

Table 4-1 (Continued)
LIST OF STUDY INTERSECTIONS

No.	North-South Streets	East-West Streets	Traffic Control [1]	Jurisdiction(s)
50	14th Street	Pearl Street	Unsignalized	Santa Monica
51	14th Street	Cedar Street	Unsignalized	Santa Monica
52	14th Street	Pine Street	Unsignalized	Santa Monica
53	14th Street	Maple Street	Unsignalized	Santa Monica
54	14th Street	Ocean Park Boulevard	Signalized	Santa Monica
55	16th Street	Pico Boulevard	Signalized	Santa Monica
56	16th Street	Pearl Street	Unsignalized	Santa Monica
57	16th Street	Ocean Park Boulevard	Unsignalized	Santa Monica
58	17th Street	Olympic Boulevard	Signalized	Santa Monica
59	17th Street	Delaware Avenue	Unsignalized	Santa Monica
60	17th Street	Pico Boulevard	Signalized	Santa Monica
61	17th Street	Pearl Street	Unsignalized	Santa Monica
62	17th Street	Ocean Park Boulevard	Signalized	Santa Monica
63	18th Street	Pico Boulevard	Unsignalized	Santa Monica
64	18th Court	Pico Boulevard	Signalized	Santa Monica
65	18th Street (West Intersection)	Ocean Park Boulevard	Unsignalized	Santa Monica
66	18th Street (East Intersection)	Ocean Park Boulevard	Unsignalized	Santa Monica
67	19th Street	Pico Boulevard	Unsignalized	Santa Monica
68	20th Street	Wilshire Boulevard	Signalized	Santa Monica
69	20th Street	Santa Monica Boulevard	Signalized	Santa Monica
70	20th Street	Broadway	Signalized	Santa Monica
71	20th Street	Colorado Avenue	Signalized	Santa Monica
72	20th Street	Olympic Boulevard	Signalized	Santa Monica
73	20th Street	I-10 Freeway WB On-Ramp	Uncontrolled	Santa Monica
74	20th Street	I-10 Freeway EB Off-Ramp	Signalized	Santa Monica
75	20th Street	Delaware Avenue	Signalized	Santa Monica
76	20th Street	Virginia Avenue	Unsignalized	Santa Monica
77	20th Street	Pico Boulevard	Signalized	Santa Monica
78	20th Street	Pearl Street	Unsignalized	Santa Monica
79	20th Street	Ocean Park Boulevard	Signalized	Santa Monica
80	21st Street	Pico Boulevard	Unsignalized	Santa Monica
81	21st Street	Pearl Street	Unsignalized	Santa Monica
82	21st Street	Ocean Park Boulevard	Signalized	Santa Monica
83	22nd Street	Pico Boulevard	Unsignalized	Santa Monica
84	22nd Street	Pearl Street	Unsignalized	Santa Monica
85	22nd Street	Ocean Park Boulevard	Unsignalized	Santa Monica
86	23rd Street	Pico Boulevard	Signalized	Santa Monica
87	23rd Street	Pearl Street	Unsignalized	Santa Monica
88	23rd Street	Ocean Park Boulevard	Signalized	Santa Monica
89	Cloverfield Boulevard	Santa Monica Boulevard	Signalized	Santa Monica
90	Cloverfield Boulevard	Olympic Boulevard	Signalized	Santa Monica
91	Cloverfield Boulevard	I-10 Freeway WB Off-Ramp	Signalized	Santa Monica
92	Cloverfield Boulevard	I-10 Fwy. EB On-Ramp - Delaware Avenue	Signalized	Santa Monica
93	Cloverfield Boulevard	Virginia Avenue	Signalized	Santa Monica
94	Cloverfield Boulevard	Pico Boulevard	Signalized	Santa Monica
95	Cloverfield Boulevard	Pearl Street	Unsignalized	Santa Monica
96	Cloverfield Boulevard	Ocean Park Boulevard	Signalized	Santa Monica
97	26th Street	Wilshire Boulevard	Signalized	Santa Monica
98	26th Street	Santa Monica Boulevard	Signalized	Santa Monica
99	26th Street	Colorado Avenue	Signalized	Santa Monica

Table 4-1 (Continued)
LIST OF STUDY INTERSECTIONS

No.	North-South Streets	East-West Streets	Traffic Control [1]	Jurisdiction(s)
100	26th Street	Pennsylvania Avenue	Signalized	Santa Monica
101	26th Street	Olympic Boulevard	Signalized	Santa Monica
102	Stewart Street	Colorado Avenue	Signalized	Santa Monica
103	Stewart Street	Pennsylvania Avenue	Unsignalized	Santa Monica
104	Stewart Street	Nebraska Avenue	Unsignalized	Santa Monica
105	Stewart Street	Olympic Boulevard	Signalized	Santa Monica
106	Stewart Street	Exposition Boulevard	Unsignalized	Santa Monica
107	Stewart Street-28th Street	Pico Boulevard	Signalized	Santa Monica
108	Yale Street	Santa Monica Boulevard	Signalized	Santa Monica
109	Yale Street	Colorado Avenue	Unsignalized	Santa Monica
110	I-10 Freeway EB Off-Ramp-34th Street	Pico Boulevard	Signalized	Santa Monica
111	Centinela Avenue	Olympic Boulevard (West Intersection)	Signalized	Santa Monica, Los Angeles
112	Centinela Avenue	Olympic Boulevard (East Intersection)	Signalized	Santa Monica, Los Angeles
113	Centinela Avenue	Exposition Boulevard	Unsignalized	Santa Monica, Los Angeles
114	Centinela Avenue	I-10 Freeway WB Ramps	Signalized	Santa Monica, Los Angeles
115	Carmelina Avenue-Centinela Avenue	Pico Boulevard	Signalized	Santa Monica, Los Angeles
116	Centinela Avenue	I-10 Freeway EB On-Ramp	Signalized	Santa Monica, Los Angeles
117	Lincoln Boulevard	Rose Avenue	Signalized	Los Angeles
118	Lincoln Boulevard	Venice Boulevard	Signalized	Los Angeles
119	Walgrove Avenue	Rose Avenue	Signalized	Los Angeles
120	Walgrove Avenue	Venice Boulevard	Signalized	Los Angeles
121	Bundy Drive	Wilshire Boulevard	Signalized	Los Angeles
122	Bundy Drive	Santa Monica Boulevard	Signalized	Los Angeles
123	Bundy Drive	Idaho Avenue	Signalized	Los Angeles
124	Bundy Drive	Nebraska Avenue	Unsignalized	Los Angeles
125	Bundy Drive	Olympic Boulevard	Signalized	Los Angeles
126	Bundy Drive	Pico Boulevard	Signalized	Los Angeles
127	Bundy Drive	I-10 Freeway EB On-Ramp	Signalized	Los Angeles
128	Bundy Drive	Ocean Park Boulevard	Signalized	Los Angeles
129	Bundy Drive	National Boulevard	Signalized	Los Angeles
130	Bundy Drive	Airport Avenue	Signalized	Los Angeles
131	Centinela Avenue	Venice Boulevard	Signalized	Los Angeles
132	26th Street	Montana Avenue	Signalized	Santa Monica
133	Barrington Avenue	Olympic Boulevard	Signalized	Los Angeles
134	Barrington Avenue	Pico Boulevard	Signalized	Los Angeles

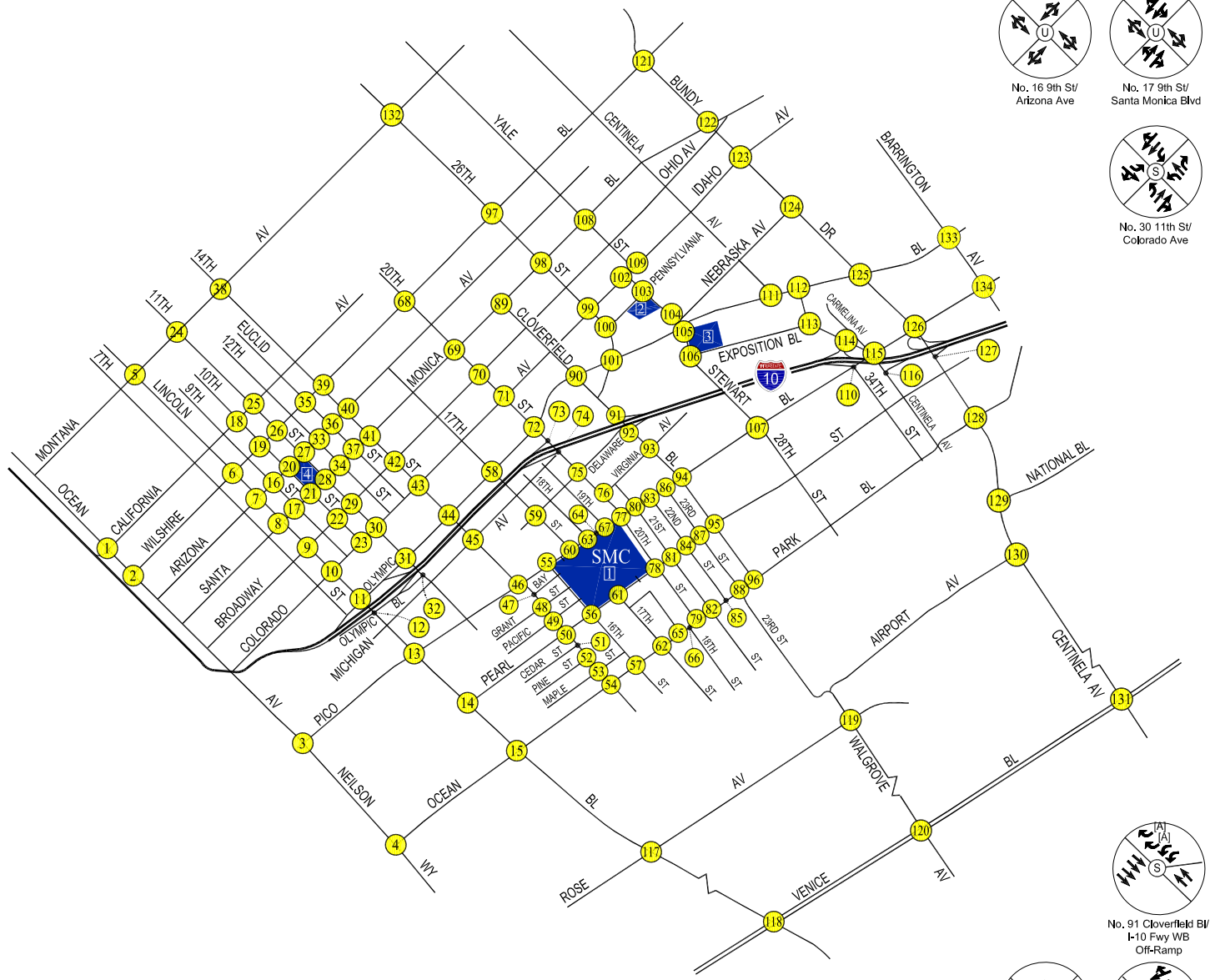
[1] The traffic controls indicated are based on field reviews conducted by LLG Engineers.

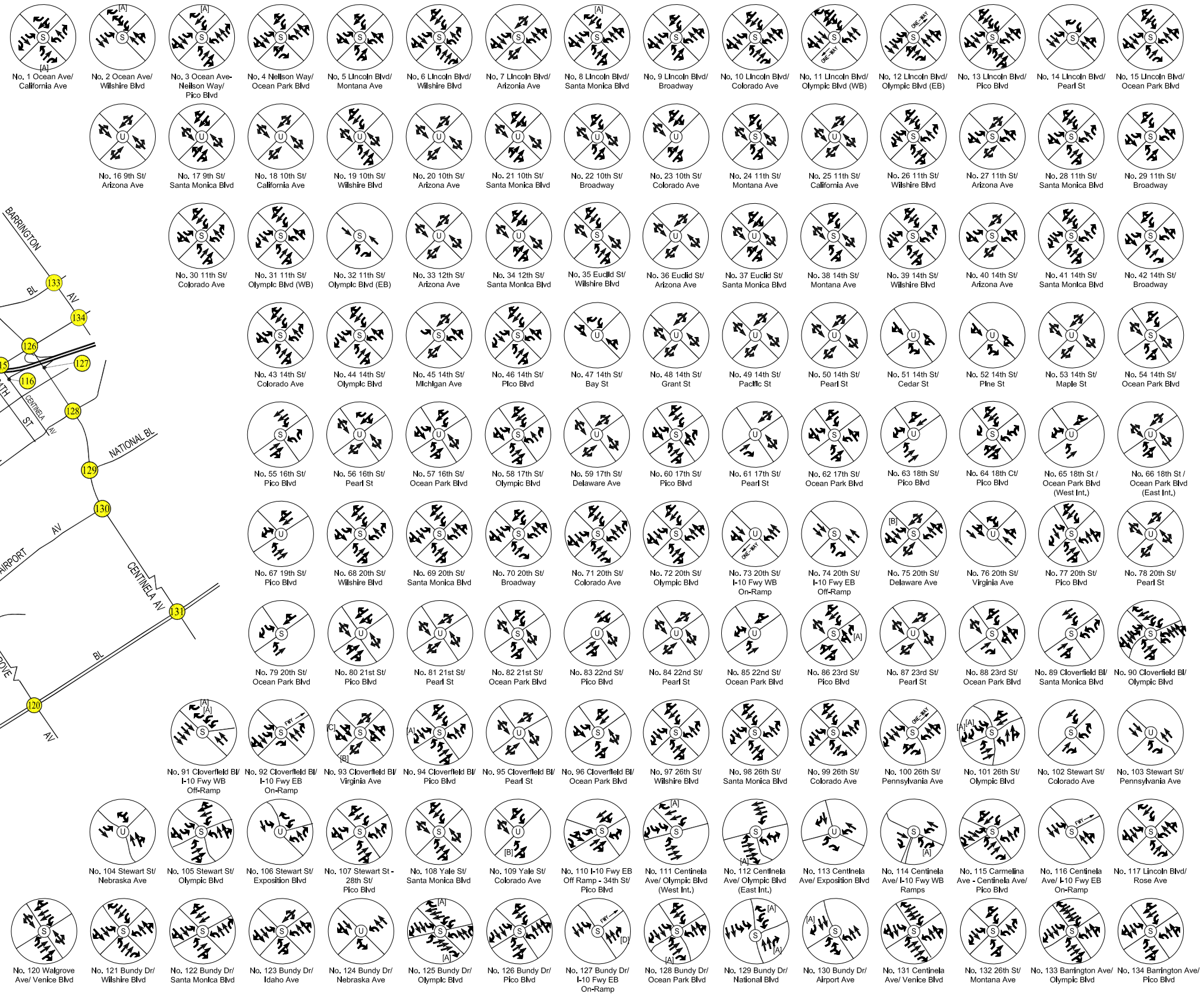
Table 4-2
LIST OF STUDY STREET SEGMENTS

No.	Study Street Segment Location		
1	Arizona Avenue	between	9th Street and 10th Street
2	10th Street	between	California Avenue and Wilshire Boulevard
3	10th Street	between	Wilshire Boulevard and Arizona Avenue
4	10th Street	between	Arizona Avenue and Santa Monica Boulevard
5	10th Street	between	Santa Monica Boulevard and Broadway
6	Arizona Avenue	between	10th Street and 11th Street
7	11th Street	between	California Avenue and Wilshire Boulevard
8	11th Street	between	Wilshire Boulevard and Arizona Avenue
9	11th Street	between	Arizona Avenue and PAC Campus driveway
10	11th Street	between	PAC Campus driveway and Santa Monica Boulevard
11	11th Street	between	Santa Monica Boulevard and Broadway
12	Arizona Avenue	between	11th Street and 12th Street
13	Pearl Street	between	Euclid Street and 14th Street
14	Cedar Street	between	Euclid Street and 14th Street
15	14th Street	between	Delaware Avenue and Pico Boulevard
16	14th Street	between	Pico Boulevard and Bay Street
17	14th Street	between	Pacific Street and Pearl Street
18	14th Street	between	Pearl Street and Cedar Street
19	14th Street	between	Ocean Park Boulevard and Ocean Park Place South
20	Pearl Street	between	14th Street and 16th Street
21	Maple Street	between	14th Street and 16th Street
22	16th Street	between	Pico Boulevard and Bay Street
23	16th Street	between	Pacific Street and Pearl Street
24	16th Street	between	Pearl Street and Maple Street
25	16th Street	between	Ocean Park Boulevard and Ocean Park Place South
26	Michigan Avenue	between	16th Street and 17th Street
27	Delaware Avenue	between	16th Street and 17th Street
28	Pearl Street	between	16th Street and 17th Street
29	17th Street	between	Delaware Avenue and Pico Boulevard
30	17th Street	between	Pearl Street and Ocean Park Boulevard
31	17th Street	between	Ocean Park Boulevard and Ocean Park Place South
32	Delaware Avenue	between	17th Street and 18th Street
33	Pearl Street	between	17th Street and SMC Main Campus driveway
34	18th Street	between	Delaware Avenue and Pico Boulevard
35	18th Street	between	Ocean Park Boulevard and Ocean Park Place South
36	Pearl Street	between	Main Campus driveway and 20th Street
37	19th Street	between	Delaware Avenue and Pico Boulevard
38	Delaware Avenue	between	19th Street and 20th Street
39	20th Street	between	Virginia Avenue and Pico Boulevard
40	20th Street	between	Pico Boulevard and Pearl Street
41	20th Street	between	Pearl Street and Ocean Park Boulevard North

Table 4-2 (Continued)
LIST OF STUDY STREET SEGMENTS

No.	Study Street Segment Location		
42	Pearl Street	between	20th Street and 21st Street
43	21st Street	between	Pico Boulevard and Pearl Street
44	21st Street	between	Pearl Street and Ocean Park Boulevard North
45	21st Street	between	Ocean Park Boulevard and Ocean Park Place South
46	22nd Street	between	Pico Boulevard and Pearl Street
47	22nd Street	between	Pearl Street and Ocean Park Boulevard North
48	Virginia Avenue	between	22nd Street and Cloverfield Boulevard
49	23rd Street	between	Pico Boulevard and Pearl Street
50	23rd Street	between	Pearl Street and Ocean Park Boulevard
51	23rd Street	between	Ocean Park Boulevard and Ocean Park Place South
52	Pearl Street	between	23rd Street and Cloverfield Boulevard
53	Cloverfield Boulevard	between	Pico Boulevard and Pearl Street
54	Cloverfield Boulevard	between	Pearl Street and Ocean Park Boulevard
55	Pennsylvania Avenue	between	26th Street and Stewart Street
56	Harvard Street	between	Broadway and Colorado Avenue
57	Colorado Avenue	between	Harvard Street and Stewart Street
58	Stewart Street	between	Colorado Avenue and Pennsylvania Avenue
59	Stewart Street	between	Pennsylvania Avenue and Nebraska Avenue
60	Stewart Street	between	Nebraska Avenue and Olympic Boulevard
61	Stewart Street	between	Olympic Boulevard and Exposition Boulevard
62	Stewart Street	between	Exposition Boulevard and Delaware Avenue
63	Colorado Avenue	between	Stewart Steet and Yale Street
64	Yale Street	between	Broadway and Colorado Avenue
65	Nebraska Avenue	between	Stewart Steet and Stanford Street
66	Exposition Boulevard	between	Stewart Street and Yorkshire Avenue





LEGEND:

- [1] SMC MAIN CAMPUS
- [2] SMC AET CAMPUS
- [3] SMC OLYMPIC SHUTTLE LOT
- [4] SMC PAC CAMPUS
- (S) SIGNALIZED INTERSECTION
- (U) UNSIGNALIZED INTERSECTION
- [A] OVERLAP PHASE
- [B] NO LEFT-TURN (7-9 AM, 4-6 PM)
- [C] NO RIGHT-TURN (7-9 AM, 4-6 PM)
- [D] NO RIGHT-TURN ON RED

NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 4-1
EXISTING LANE CONFIGURATIONS

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4.3 Roadway Descriptions

A review of the characteristics (e.g., street classification, number of travel lanes, etc.) of important roadways in the Project site vicinity and study area is summarized in ***Table 4-3***. As indicated in *Table 4-3*, the important roadways within the Project study area were inventoried on a segment basis in terms of the number of lanes provided, parking restrictions, posted speed limits, etc. Additionally, the roadway classifications as designated by the appropriate jurisdiction are noted on a segment basis in *Table 4-3*.

4.4 Existing Transit Service

4.4.1 *Existing Public Bus Transit Service*

Public bus transit service within the vicinity of the SMC campuses is currently provided by the Santa Monica Big Blue Bus (BBB), the Los Angeles County Metropolitan Transportation Authority (Metro), and the City of Culver City. Beginning in Fall 2008, SMC students and staff members may ride any of the BBB lines for free upon presentation of a valid SMC identification card through a partnership between SMC, SMC Associated Students, and the BBB. A summary of the existing transit service including the transit routes, destinations and peak hour headways is presented in ***Table 4-4***. The existing public transit routes in the vicinity of the SMC campuses are illustrated in ***Figure 4-2***.

4.4.2 *Existing SMC Shuttle Services*

As a supplement to the Santa Monica BBB service, SMC operates two inter-campus shuttles that transfer students between the Main Campus and two satellite campuses (i.e., the PAC Campus and the Bundy Campus). The existing SMC inter-campus shuttle routes are illustrated in ***Figure 4-3***. The PAC Campus shuttle operates 7:30 AM to 5:30 PM, Mondays through Fridays, with headways of approximately 15 to 20 minutes per shuttle in the southeast to northwest direction via 11th Street, Santa Monica Boulevard, 14th Street, Pico Boulevard, and 17th Street. In addition, SMC operates a daytime shuttle between the Bundy Campus and the AA Campus from 7:30 AM to 5:30 PM, Mondays through Thursdays. An evening shuttle provides students the opportunity to transfer between the Bundy Campus and the Main Campus from 5:30 PM to 10:10 PM on Mondays through Thursdays with headways of approximately 15 to 20 minutes.

4.4.3 *Existing SMC Transit Ridership Counts*

Manual and video surveillance of the existing SMC transit ridership counts were conducted for each of the seven transit stop locations adjacent to the SMC Main Campus. Of the seven stop locations, four are located on Pico Boulevard, one is on 20th Street, and two are on Pearl Street. The transit ridership counts at each of the stop locations were conducted in Fall 2009 from 7:00 AM to 10:00 AM coinciding with the AM peak commuter period and from 4:00 PM to 7:00 PM with the PM peak commuter period.

A summary of the existing SMC student boardings and alightings at the bus stop locations adjacent to the SMC Main Campus is presented in ***Table 4-5***. The locations of these public

Table 4-3

EXISTING ROADWAY DESCRIPTIONS

PRIMARY STREET	STREET CLASSIFICATION [1], [2]	LANES [3] NB/EB	LANES [3] SB/WB	MEDIAN TYPES [3]	SPEED LIMIT [3]
North -South Streets					
Ocean Avenue					
between California Avenue and Wilshire Boulevard	Collector	2=>1	2	DY	30
between Wilshire Boulevard and Pico Boulevard	Arterial	2	2	2LT	30
Neilson Way					
between Pico Boulevard and Ocean Park Boulevard	Arterial	2	2	RM/2LT	30
Lincoln Boulevard					
between Montana Avenue and Wilshire Boulevard	Collector	1	1=>2	DY	30
between Wilshire Boulevard and Olympic Boulevard	Arterial	2	2	2LT	30
between Olympic Boulevard and Santa Monica City Limit	Arterial	2	2	DY/2LT	30=>35
between Los Angeles City Limit and Venice Boulevard	Major Highway Class II	2	2	DY/2LT	35
10th Street					
between Montana Avenue and Colorado	Local	1	1	none	25
11th Street					
between Montana Avenue and Olympic Boulevard	Collector	1	1	DY	25=>30
Euclid Street					
between Wilshire Boulevard and Santa Monica Boulevard	Local	1	1	none	25
14th Street					
between Montana Avenue and Wilshire Boulevard	Feeder	1	1	DY=>2LT	25
between Wilshire Boulevard and Pico Boulevard	Collector	1	1	2LT	25=>30
between Pico Boulevard and Ocean Park Boulevard	Feeder	1	1	DY=>none	30=>25
16th Street					
between Pico Boulevard and Ocean Park Boulevard	Local	1	1	none	25
17th Street					
between Olympic Boulevard and Ocean Park Boulevard	Feeder	1	1	DY=>none	30=>25
20th Street					
between Wilshire Boulevard and Ocean Park Boulevard	Collector	1=>2=>1	1=>2=>1	DY/2LT	25=>30=>25
23rd Street					
between Pico Boulevard and Ocean Park Boulevard	Collector	1	1	DY	25
Cloverfield Boulevard					
between Santa Monica Boulevard and I-10 Freeway WB Off-Ramp	Arterial	3=>2	2=>3=>4	DY/RM	30
between I-10 Freeway WB Off-Ramp and Pico Boulevard	Arterial	2	2=>1	DY/RM	30
between Pico Boulevard and Ocean Park Boulevard	Collector	1	1	DY	25
26th Street					
between Wilshire Boulevard and Olympic Boulevard	Arterial	2=>1	1=>2	2LT=>DY	30
Stewart Street					
between Colorado Avenue and Pico Boulevard	Collector	1=>2	2=>1	DY/2LT	30=>25
Yale Street					
between Santa Monica Boulevard and Colorado Avenue	Local	1	1	none	25
Centinela Avenue					
between Wilshire Boulevard and Olympic Boulevard	Collector	1	1	none=>2LT	30
between Olympic Boulevard and Pico Boulevard	Collector	1	1	DY/2LT	30
between Pico Boulevard and Ocean Park Boulevard	Collector	2	2=>1	RM=>DY	30
between Airport Avenue and Venice Boulevard	Major Highway Class II	2	2	2LT	40=>35
Walgrove Avenue					
between Airport Avenue and Venice Boulevard	Collector	1	1	DY	25
Bundy Drive					
between Wilshire Boulevard and Pico Boulevard	Secondary Highway	2	2	DY=>2LT	30=>35
between Pico Boulevard and Airport Avenue	Major Highway Class II	2	2	2LT	35=>40
East-West Streets					
Montana Avenue					
between Lincoln Boulevard and 14th Street	Collector	1	1	2LT	30
California Avenue					
between Ocean Avenue and 11th Street	Local	1	1	RM=>DY	25
Wilshire Boulevard					
between Ocean Avenue and 10th Street	Arterial	2	2	2LT=>RM	30=>35
between 10th Street and Santa Monica City Limit	Arterial	2	2	2LT/RM	35
between Los Angeles City Limit and Bundy Drive	Major Highway Class II	2	2	2LT/RM	35
Arizona Avenue					
between Ocean Park and Lincoln Boulevard	Collector	1	1	DY	25
between Lincoln Boulevard and 14th Street	Feeder	1	1	DY	25
between 14th Street and 20th Street	Feeder	1	1	DY	25

Table 4-3 (Continued)
EXISTING ROADWAY DESCRIPTIONS

PRIMARY STREET	STREET CLASSIFICATION [1], [2]	LANES [3] NB/EB	LANES [3] SB/WB	MEDIAN TYPES [3]	SPEED LIMIT [3]
Santa Monica Boulevard					
between Lincoln Boulevard and Santa Monica City Limit	Arterial	2	1=>2	DY=>2LT	30
between Los Angeles City Limit and Bundy Drive	Major Highway Class II	2=>3	2=>3	2LT	30
Broadway					
between Lincoln Boulevard and 20th Street	Collector	1	1	2LT	25
Colorado Avenue					
between Lincoln Boulevard and 26th Street	Arterial	2=>1	2	DY=>2LT	30
between 26th Street and Yale Street	Collector	1	2=>1	2LT	30
Idaho Avenue					
between Centinela Avenue and Santa Monica City Limit	Arterial	1	1	2LT	30=>25
between Los Angeles City Limit and Bundy Drive	Secondary Highway	1	1	2LT	25
Pennsylvania Avenue					
between 26th Street and Stewart Street	Local	2	0	none	25
Nebraska Avenue					
between Stewart Street and Centinela Avenue	Local	1	1	DY	30
between Centinela Avenue and Bundy Drive	Collector	1	1	none	25
Olympic Boulevard					
between Lincoln Boulevard and 11th Street	Local	3=>2	2	FWY=>RM	45
between 11th Street and Centinela Avenue	Arterial	2	3=>2	RM	45=>35
between Centinela Avenue and Bundy Drive	Major Highway Class II	3	3	2LT	35
Michigan Avenue					
between 14th Street and 20th Street	Local	1	1	none	25
Exposition Boulevard					
between Stewart Street and Centinela Avenue	Local	1	1	none	25
Delaware Avenue					
between 17th Street and Cloverfield Boulevard	Local	1	1	none	25
Virginia Avenue					
between 20th Street and Cloverfield Boulevard	Local	1	1	none	25
Pico Boulevard					
between Ocean Avenue and Centinela Avenue	Arterial	2	2	2LT/DY	35
between Centinela Avenue and Bundy Drive	Major Highway Class II	2	2	2LT	35
Pearl Street					
between Lincoln Boulevard and Cloverfield Boulevard	Feeder	1	1	DY=>none	25
Ocean Park Boulevard					
between Neilson Way and 14th Street	Arterial	1	1=>2	2LT=>DY	30=>35
between 14th Street and 25th Street	Arterial	2	2	DY	25=>35
between 25th Street and Centinela Ave	Arterial	2	2	RM	35
between Centinela Avenue and Bundy Drive	Major Highway Class II	2	2	2LT	35
National Boulevard					
between Bundy Drive and Sawtelle Avenue	Secondary Highway	2	2	DY/2LT	35
Airport Avenue					
between Walgrove Avenue and Centinela Avenue	Local	1	1	DY	25
Rose Avenue					
between Lincoln Boulevard and Walgrove Avenue	Secondary Highway	1	1	DY/2LT	35
Venice Boulevard					
between Lincoln Boulevard and South Centinela Avenue	Major Highway Class II	3	3=>2	RM	40

[1] Source: City of Santa Monica Land Use and Circulation Elements, as revised October 2002.
[2] Source: City of Los Angeles General Plan.
[3] Descriptions based on field reviews conducted by LLG Engineers.

Lanes
# Number of through travel lanes
x=>y Change from x number of lanes to y number of lanes

Median Type
DY = Double Yellow
RM = Raised Median
2LT = 2-way left-turn

Table 4-4
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAYS NEAR SITE	HEADWAYS (Number of buses during peak hour)			
				WEEKDAY		WEEKEND
			DIR [2]	AM	PM	MID-DAY
Big Blue Bus 1	Terminal	Santa Monica Boulevard, Main Street	NB SB	7 6	6 6	5
Big Blue Bus 2	UCLA Transit Center, Westwood, Brentwood, Santa Monica, 3rd Street Promenade, Venice Beach Terminal	Wilshire Boulevard, 4th Street, Pico Boulevard	NB SB	4 4	4 4	4
Big Blue Bus 3	UCLA Transit Center, Westwood, Brentwood, Santa Monica, 3rd Street Promenade, Venice Beach, LAX Transit Center	4th Street, Pico Boulevard, Lincoln Boulevard	NB SB	4 4	4 4	4
Big Blue Bus Rapid 3	Santa Monica, 3rd Street Promenade, Venice Beach, LAX Transit Center	4th Street, Pico Boulevard, Lincoln Boulevard	NB SB	4 4	4 4	[3]
Big Blue Bus 5	3rd Street Promenade, Santa Monica, Brentwood, Beverly Hills, Rimpau Transit Center	4th Street, Colorado Avenue, Olympic Boulevard	EB WB	3 3	4 3	2
Big Blue Bus 6	SMC Main Campus, Bundy Campus, Airport Arts Campus, Palms, Mar Vista	20th Street, Ocean Park Boulevard, Bundy Drive	EB WB	0 2	1 1	[3]
Big Blue Bus 7	Santa Monica, SMC Main Campus, West Los Angeles, Rancho Park Cheviot Hills, Rimpau Transit Center	Ocean Avenue, Pico Boulevard	EB WB	6 7	6 6	[3]
Big Blue Bus Rapid 7	Los Angeles, Santa Monica	Ocean Avenue, Pico Boulevard	EB WB	6 6	3 3	[3]
Big Blue Bus 8	UCLA Hilgard Terminal, Westwood, Westside Pavilion, Westdale, Santa Monica Airport, Santa Monica, 3rd Street Promenade	Ocean Park Boulevard	NB SB	4 4	4 4	[3]
Big Blue Bus 9	Santa Monica, Will Rogers Beach, Temescal Canyon, Sunset Boulevard	4th Street, 6th Street, 7th Street	NB SB	2 2	2 2	[3]

Table 4-4 (Continued)
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAYS NEAR SITE	HEADWAYS (Number of buses during peak hour)			
				WEEKDAY		WEEKEND
			DIR [2]	AM	PM	MID-DAY
Big Blue Bus 10	Santa Monica, 3rd Street Promenade, West Los Angeles, Westdale, Metro Blue and Red Lines, Downtown Los Angeles, Union Station	Santa Monica Boulevard, Bundy Drive, I-10 Freeway, 2nd Street	EB WB	4 3	3 4	2
Big Blue Bus 11	Santa Monica College Main Campus, Westwood, UCLA Hilgard Terminal	Santa Monica Boulevard, Bundy Drive, Pico Boulevard, 16th Street, 18th Street, 20th Street	EB WB	1 1	0 0	--
Big Blue Bus 14	Brentwood, West Los Angeles, Westdale, Santa Monica Airport, Mar Vista, Culver City	Centinela Avenue, Bundy Drive, Barrington Avenue	NB SB	5 5	5 5	[3]
Big Blue Bus MiniBlue-Crosstown Ride	SMC Main Campus, Woodlawn Cemetery, Lincoln Middle School, St. John's Hospital, John Adams Middle School	14th Street, 17th Street, 20th Street, Pearl Street, Montana Avenue, Ocean Park Boulevard	NB SB	-- 4	-- 4	--
Big Blue Bus MiniBlue-Sunset Ride	SMC Main Campus and AET Campus, SMC Olympic Shuttle Lot, Santa Monica Airport	16th Street, 17th Street, 20th Street, Stewart Street, Colorado Avenue, Pico Boulevard, Ocean Park Boulevard	NB SB	-- 4	-- 2	[3]
Metro 4 [4]	Santa Monica, West Los Angeles, Century City, Beverly Hills, West Hollywood, Downtown Los Angeles	Santa Monica Boulevard, Broadway	EB WB	-- --	-- --	-- --
Metro 20 [4]	Santa Monica, Westwood, Beverly Hills, Los Angeles	Pico Boulevard, Main Street, Wilshire Boulevard	EB WB	-- --	-- --	-- --
Metro 33/333	Los Angeles, Mid-City, Culver City, Venice, Santa Monica	Venice Boulevard, Main Street, 2nd Street	EB WB	5 9	8 8	[3]
Metro 534	Santa Monica, 3rd Street Promenade, Castellammare, Malibu	2nd Street, Broadway, I-10 Freeway	EB WB	2 2	6 2	[3]
Metro 704	Santa Monica, West Los Angeles, West Hollywood, Echo Park, Downtown Los Angeles	Santa Monica Boulevard	EB WB	7 7	8 7	4

Table 4-4 (Continued)
EXISTING TRANSIT ROUTES [1]

ROUTE	DESTINATIONS	ROADWAYS NEAR SITE	HEADWAYS (Number of buses during peak hour)			
				WEEKDAY		WEEKEND
			DIR [2]	AM	PM	MID-DAY
Metro 720	Santa Monica, Brentwood, Westwood, Century City, Beverly Hills, Los Angeles Midtown, Downtown Los Angeles, Commerce	4th Street, Ocean Avenue, Wilshire Boulevard	EB WB	6 6	7 6	6
Metro 920	Santa Monica, Brentwood, Westwood, Century City, Beverly Hills, Park La Brea, Hancock Park, Koreatown, Downtown Los Angeles	Ocean Avenue, Wilshire Boulevard	EB WB	5 10	7 4	[3]
Culver City 2	Blair Hills, Culver City, Mar Vista, Santa Monica	Venice Boulevard, Centinela Avenue	EB WB	3 3	2 3	[3]
Culver City 5	Culver City, Mar Vista, Santa Monica	Venice Boulevard, Centinela Avenue	EB WB	0 1	0 0	[3]

[1] Sources: Routes obtained from the Santa Monica Big Blue Bus, Los Angeles County Metropolitan Transportation Authority (Metro), and the City of Culver City websites as of December 2009.

[2] NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound.

[3] The weekend analysis focuses in an area that is not part of this route.

[4] Bus line is in service during off-peak hours only. No service is available during peak commute hours.

MAP SOURCE: LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

LEGEND:

1. SMC MAIN CAMPUS
2. SMC AET CAMPUS
3. SMC OLYMPIC SHUTTLE LOT
4. SMC PAC CAMPUS

NOT TO SCALE

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FIGURE 4-2
EXISTING PUBLIC TRANSIT ROUTES

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Satellite Campus Parking & Connecting Shuttles are Free for Students & Staff with SMC ID

The Sunset Ride route in orange connects all Campuses except Performing Arts (Madison), which connects by way of the route in blue.

For more Information and Schedules go to: www.smc.edu/transportation

MAP SOURCE: SANTA MONICA COLLEGE WEBSITE

FIGURE 4-3
SMC SHUTTLE ROUTES

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Table 4-5

BOARDINGS/ALIGHTINGS FOR BUS STOP LOCATIONS ADJACENT TO SMC MAIN CAMPUS

Start to Finish	Bus Stop Location #1 [1]		Bus Stop Location #2 [2]		Bus Stop Location #3 [3]		Bus Stop Location #4 [4]		Bus Stop Location #5 [5]		Bus Stop Location #6 [6]		Bus Stop Location #7 [7]		Total	
	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off	On	Off
7:00 AM - 8:00 AM	25	43	46	598	29	128	4	0	11	60	4	30	1	1	120	860
8:00 AM - 9:00 AM	13	37	22	394	56	89	4	2	20	67	5	43	2	2	122	634
9:00 AM - 10:00 AM	42	119	75	454	204	60	5	1	24	113	6	81	1	1	357	829
4:00 PM - 5:00 PM	31	29	67	61	302	56	8	5	24	22	35	24	1	0	468	197
5:00 PM - 6:00 PM	32	25	77	70	256	40	7	4	18	27	0	1	1	0	391	167
6:00 PM - 7:00 PM	5	14	38	101	148	51	2	9	5	7	0	0	1	1	199	183
7:00 - 10:00 AM Peak Total	80	199	143	1,446	289	277	13	3	55	240	15	154	4	4	599	2,323
4:00 - 7:00 PM Peak Total	68	68	182	232	706	147	17	18	47	56	35	25	3	1	1,058	547
Total (All Six Hours)	**148**	**267**	**325**	**1,678**	**995**	**424**	**30**	**21**	**102**	**296**	**50**	**179**	**7**	**5**	**1,657**	**2,870**

Notes:

All counts were conducted on Tuesday, October 6, 2009 with the exception of Bus Stop Location #3 which was conducted on Tuesday, October 20, 2009.

[1] Bus Stop Location #1 is located on the south side of Pico Boulevard (between 16th Street and 17th Street).

[2] Bus Stop Location #2 is located on the north side of Pico Boulevard (east of 18th Court).

[3] Bus Stop Location #3 is located on the south side of Pico Boulevard (west of 18th Court).

[4] Bus Stop Location #4 is located on the south side of Pico Boulevard (west of 20th Street).

[5] Bus Stop Location #5 is located on the west side of 20th Street (south of Pico Boulevard).

[6] Bus Stop Location #6 is located on the east side of 17th Street (south of Pearl Street).

[7] Bus Stop Location #7 is located on the north side of Pearl Street (east of 16th Street).

transit stops adjacent to the SMC Main Campus along Pico Boulevard, 20th Street, and Pearl Street are illustrated in ***Figure 4-4***. As shown in *Table 4-5*, the peak bus ridership during the AM peak hour (i.e., 9:00 AM to 10:00 AM) consisted of a total of 357 boardings and 829 alightings. The peak bus ridership during the PM peak hour occurred from 4:00 PM to 5:00 PM, with a total of 468 boardings and 197 alightings.

4.5 Existing Bicycle Routes

Bicycle access to the Project site is facilitated by the City of Santa Monica bicycle roadway network. Approximately ten bicycle routes (i.e., Class II Bike Lanes or Class III Bike Routes[5]) in the City's bicycle network are located within an approximate one-half mile radius from the Project site. The following are key bicycle routes located near the SMC campuses and are illustrated in ***Figure 4-5***:

- Main Campus Routes

  - Pearl Street: Class II Bike Lane (between Lincoln Blvd. and 16th St.)
    Class III Bike Route (between 16th St. and Centinela Ave.)

  - Ocean Park Boulevard: Class III Bike Route (between Lincoln Blvd. and 11th St.)

  - 11th Street: Class II Bike Lane (between Wilshire Blvd. and Pico Blvd.)
    Class III Bike Route (between Pico Blvd. and Ashland Ave.)

  - 17th Street: Class II Bike Lane (between Arizona Ave. and Michigan Ave.)
  - Class III Bike Lane (between Pearl St. and Airport Ave.)

- AET Campus and Olympic Shuttle Lot Routes

  - Arizona Avenue: Class III Bike Route (between 26th St. and Centinela Ave.)

  - Broadway: Class II Bike Lane

  - Stewart Street: Class III Bike Route

- PAC Campus Routes

  - California Avenue: Class II Bike Lane

  - Arizona Avenue: Class II Bike Lane (between Lincoln Blvd. and 26th St.)

[5] Class II bike lanes are lanes on the outside edge of roadways reserved for the exclusive use of bicycles and are designated with special signing and pavement markings. Class III bike routes are roadways recommended for bicycle use and are designated with signs posted along roadways.

MAP SOURCE: SANTA MONICA COLLEGE WEBSITE

FIGURE 4-5
BICYCLE ROUTE MAP

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MAP SOURCE: GOOGLE EARTH

(XX) BUS STOP LOCATION

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FIGURE 4-4
EXISTING BUS STOP LOCATIONS ADJACENT TO MAIN CAMPUS

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- Broadway: Class II Bike Lane

- 7th Street: Class II Bike Lane (between Wilshire Blvd. and Olympic Blvd.)
  Class III Bike Route (north of Wilshire Blvd.)

- Lincoln Boulevard: Class III Bike Route (south of Arizona Ave.)

- 11th Street: Class II Bike Lane (between Wilshire Blvd. and Pico Blvd.)
  Class III Bike Route (between San Vicente Blvd. and Wilshire Blvd.)

5.0 TRAFFIC COUNTS

5.1 Existing Manual Traffic Counts

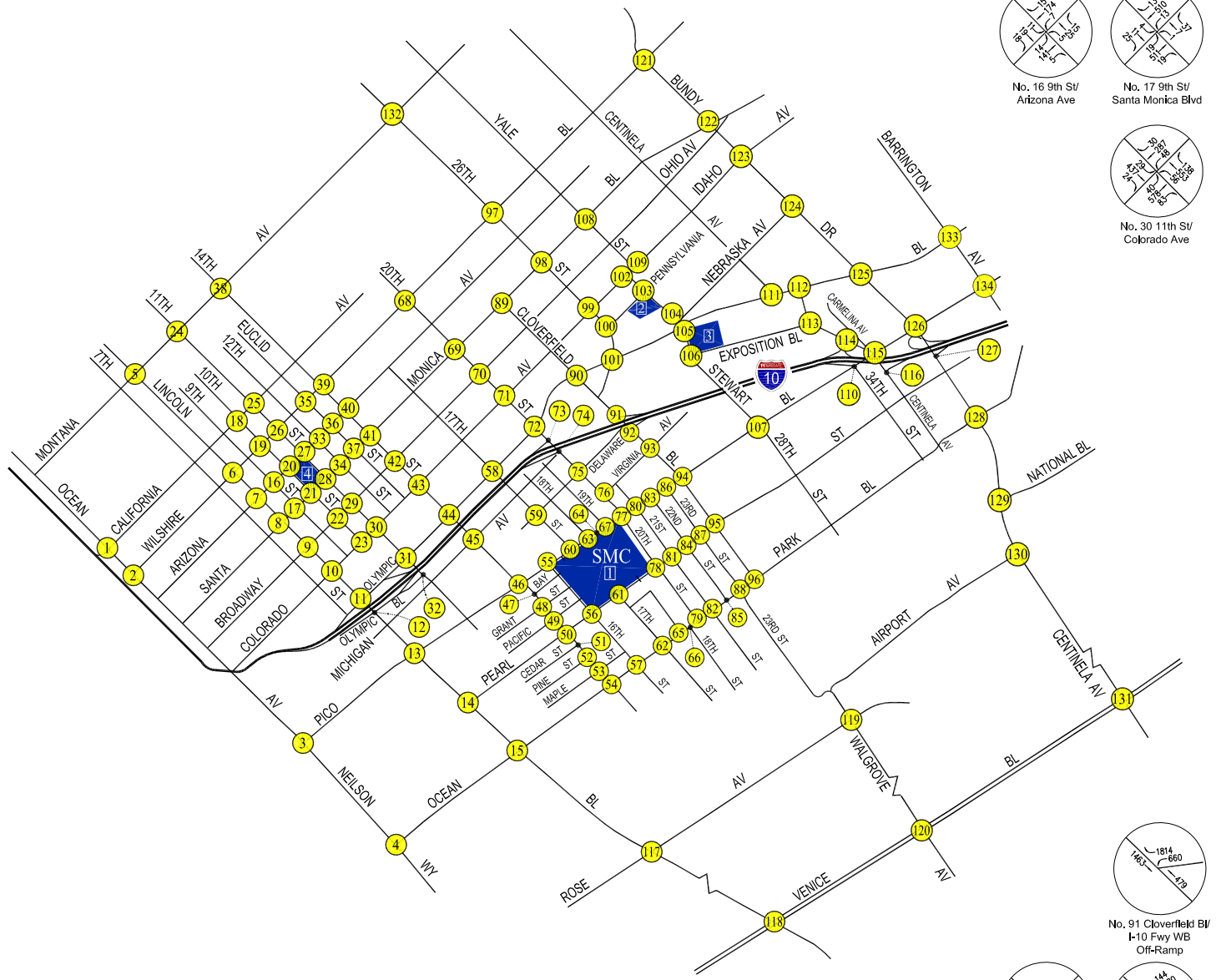
Existing manual traffic counts were conducted at the 134 study intersections during the weekday AM and PM peak commuter periods. In addition, weekend (i.e., Saturday) mid-day peak period traffic counts were also conducted at 42 of the 134 study intersections that are located in the vicinity of the PAC campus. The weekday and weekend counts are discussed further in the subsections below.

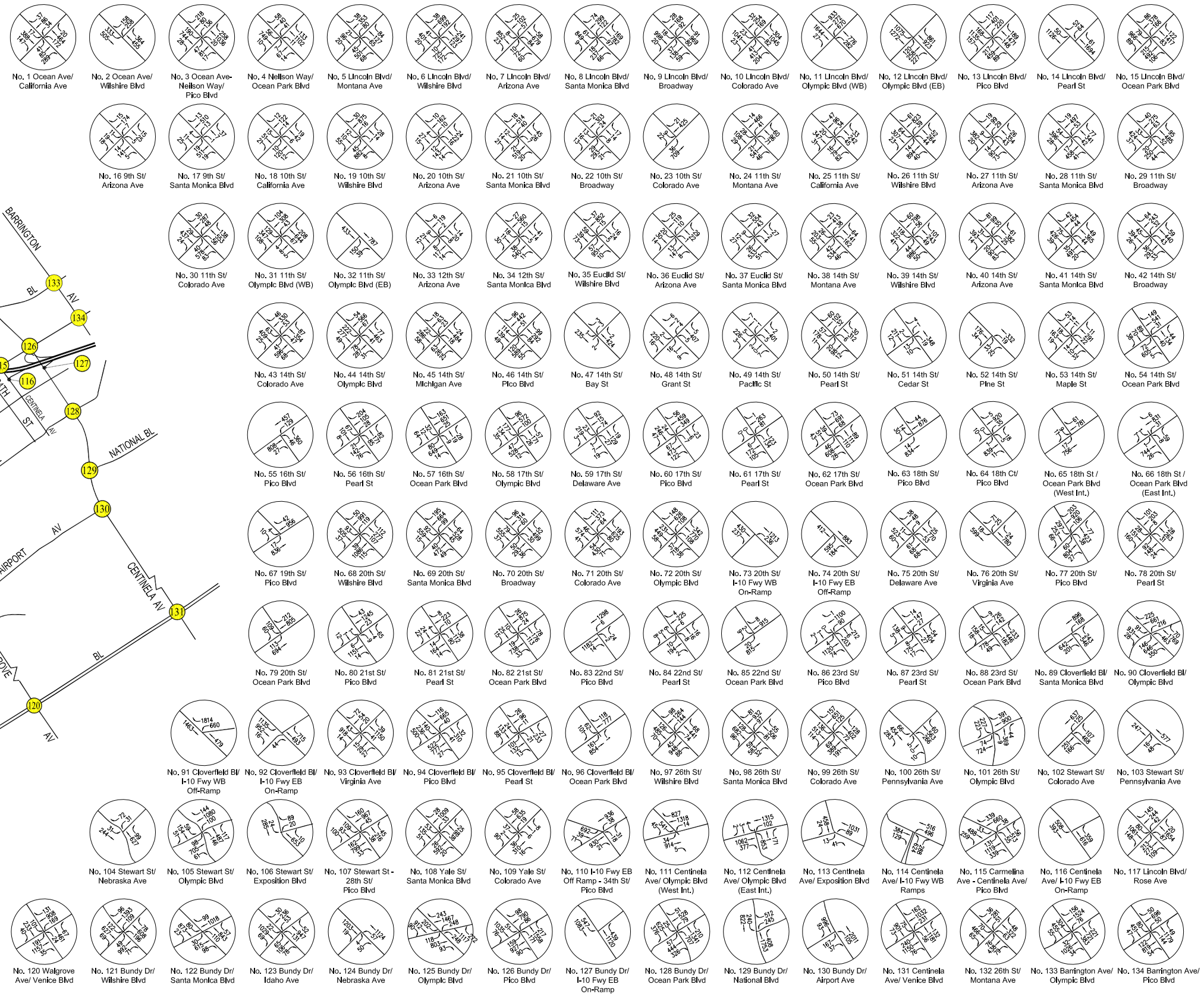
5.1.1 *Existing Weekday Manual Traffic Counts*

Manual traffic counts of vehicular turning movements were conducted by traffic count subconsultants at the 134 study intersections during the weekday morning and afternoon commuter periods to determine the peak hour traffic volumes. The manual traffic counts at the study intersections were conducted from 7:00 AM to 10:00 AM to determine the weekday AM peak commuter hour and from 4:00 PM to 7:00 PM to determine the weekday PM peak commuter hour. The traffic counts were conducted over a three-week period when SMC campuses and local schools in the area were in session. The hours of the traffic counts represent periods of peak traffic volumes at the study intersections coinciding with high levels of trip generation activity associated with the SMC campuses. A review of the traffic count was conducted to determine the highest one-hour period of traffic volume for each intersection for each time period, based on 15-minute increments (e.g., 7:00 AM to 8:00 AM, 7:15 AM to 8:15 AM, etc.). The resulting existing peak hour traffic volumes at the study intersections during the weekday AM and PM peak hours are shown in ***Figures 5-1*** and ***5-2***, respectively. Summary data worksheets of the weekday manual traffic counts at the study intersections are contained in ***Appendix B***.

5.1.2 *Existing Weekend Manual Traffic Counts*

Manual traffic counts of vehicular turning movement were also conducted by traffic count subconsultants at 42 study intersections in the vicinity of the PAC campus during the weekend (i.e., Saturday) mid-day period based on the potential use at this campus (i.e., fine arts exhibition building) that may generate weekend traffic at levels exceeding those found at a typical educational facility. The traffic counts at these intersections were conducted from 12:00 PM to 2:00 PM to determine the Saturday mid-day peak hour. The hours of the traffic counts represent periods of peak traffic volumes at the study intersections coinciding with high levels of trip generation activity associated with the PAC campus. These traffic counts were conducted over two weekend time periods during the same timeframe when the weekday counts were being conducted. A review of the traffic count was conducted to determine the highest one-hour period of traffic volume for each intersection for each time period, based on 15-minute increments (e.g., 12:00 PM to 1:00 PM, 12:15 PM to 1:15 PM, etc.). The resulting existing peak hour traffic volumes at the study intersections during the weekend mid-day peak hour are displayed in ***Figure 5-3***. Summary data worksheets of the weekend manual intersection traffic counts are contained in ***Appendix C***.





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NOT TO SCALE

LEGEND:
[1] SMC MAIN CAMPUS
[2] SMC AET CAMPUS
[3] SMC OLYMPIC SHUTTLE LOT
[4] SMC PAC CAMPUS

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FIGURE 5-1
EXISTING TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

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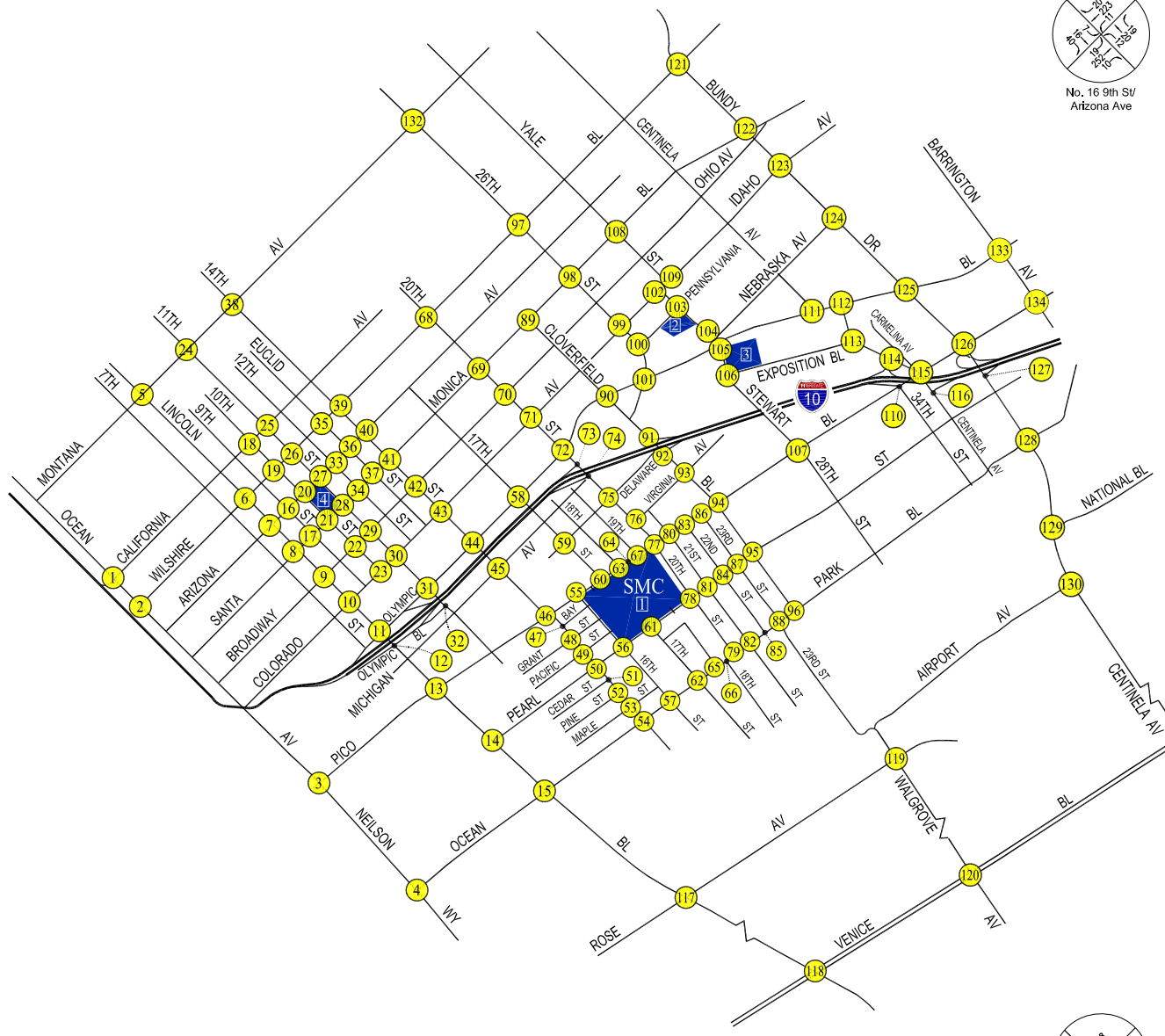

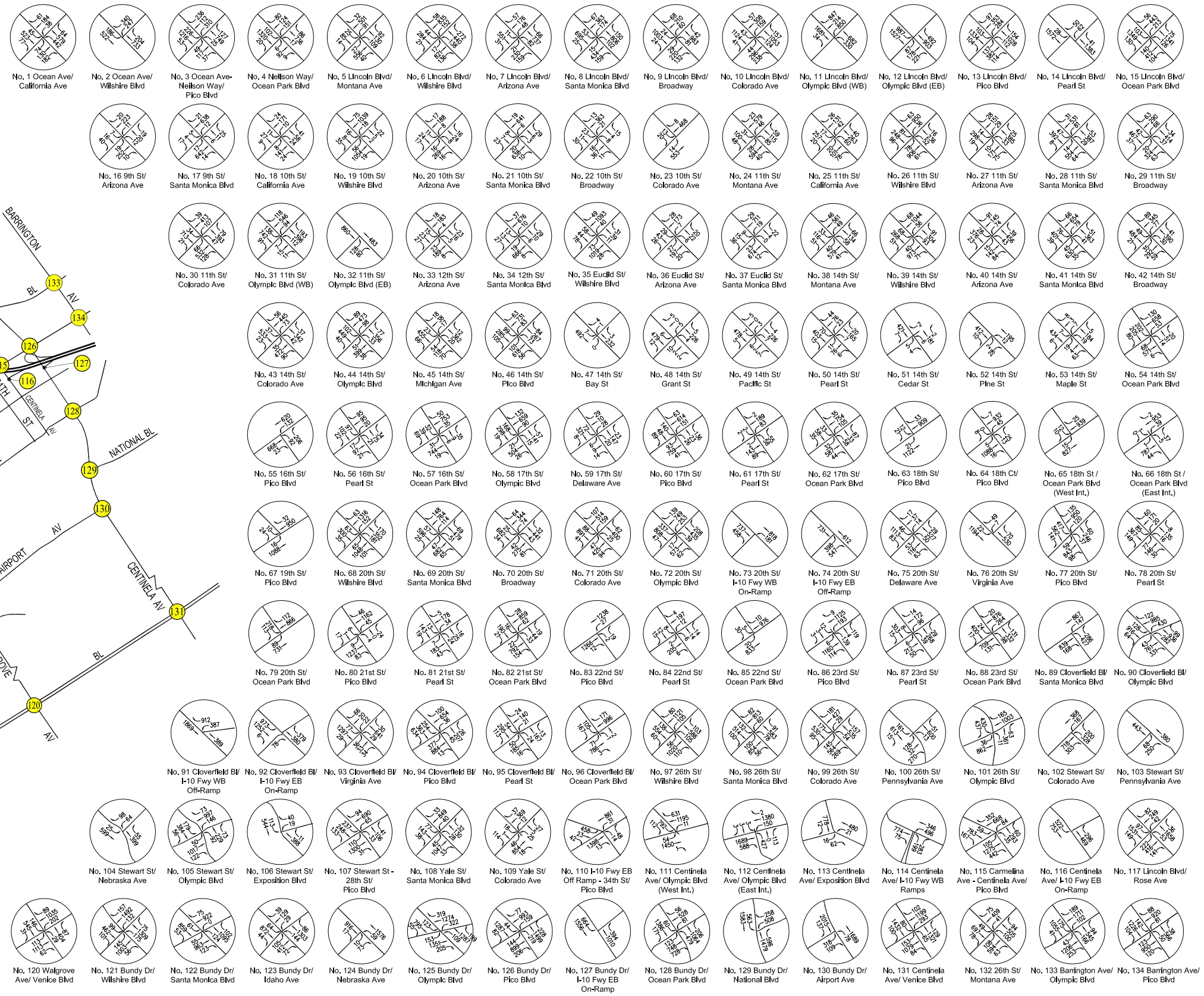

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NOT TO SCALE

LEGEND:
1 SMC MAIN CAMPUS
2 SMC AET CAMPUS
3 SMC OLYMPIC SHUTTLE LOT
4 SMC PAC CAMPUS

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FIGURE 5-2
EXISTING TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

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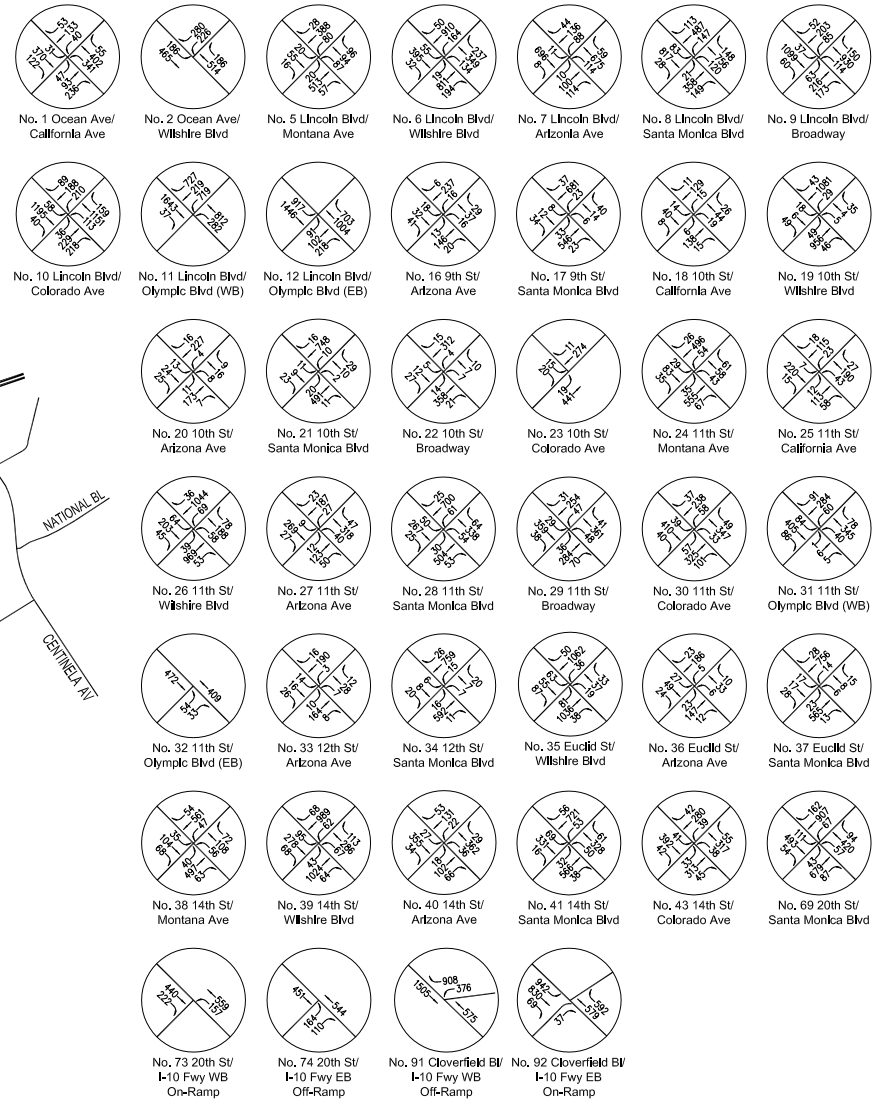

LEGEND:

1 SMC MAIN CAMPUS
2 SMC AET CAMPUS
3 SMC OLYMPIC SHUTTLE LOT
4 SMC PAC CAMPUS

N

NOT TO SCALE

FIGURE 5-3
EXISTING TRAFFIC VOLUMES
WEEKEND MID-DAY PEAK HOUR

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5.2 Existing Automatic 24-Hour Machine Traffic Counts

Directional automatic 24-hour machine traffic counts were conducted by a traffic count subconsultant at each of the 66 study street segment locations during a typical weekday (i.e., Tuesday, Wednesday, or Thursday) to determine the weekday Average Daily Traffic (ADT) volumes. Additionally, automatic 24-hour machine traffic counts were conducted at 12 of the study street segments in the vicinity of the PAC Campus during a typical Saturday to determine the weekend ADT volumes. The weekday and weekend automatic 24-hour machine traffic counts were conducted during the same timeframe as when the intersection counts were conducted.

Summary data worksheets of the weekday automatic 24-hour machine traffic counts at the study locations are contained in ***Appendix D***. Summary data worksheets of the weekend automatic 24-hour machine traffic counts at the study locations are contained in ***Appendix E***.

6.0 CUMULATIVE PROJECTS

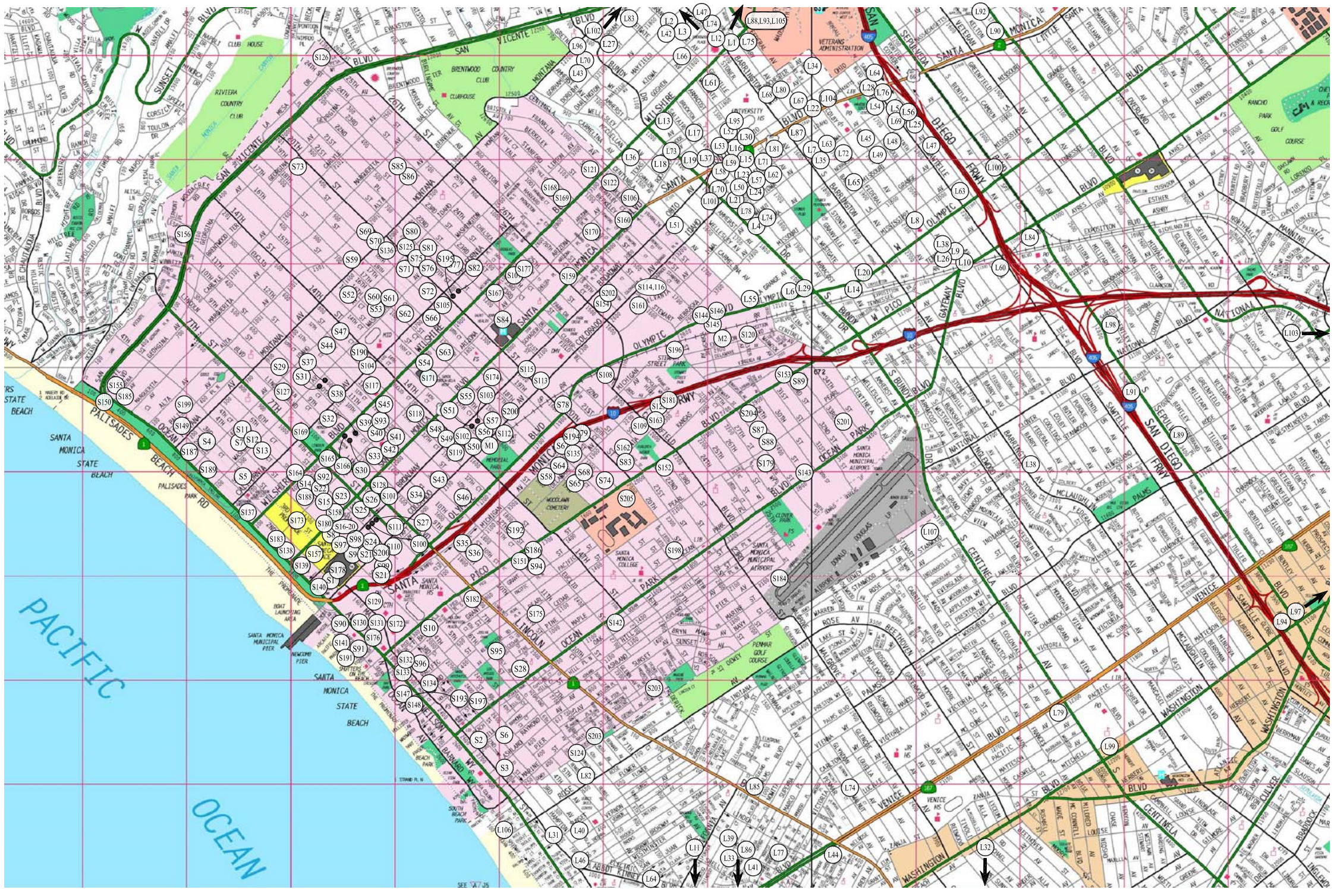
The forecast of future pre-Project conditions was prepared in accordance with procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provides two options for developing the future traffic volume forecast:

> "(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
>
> (B) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency."

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the "A" and "B" options outlined in the CEQA Guidelines for purposes of developing the forecast. In general, a review of cumulative impacts must address approved related projects under construction, approved related projects not yet under construction, and unapproved projects under environmental review with related impacts or which result in significant cumulative impacts.

6.1 Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Project can be evaluated within the context of the cumulative impact of all ongoing development. The list of related projects was based on information on file at the City of Santa Monica and the City of Los Angeles Departments of Transportation and Planning, as well as recently approved traffic impact analysis reports prepared for projects in the vicinity of the Project. The related projects research was conducted in October 2009, coinciding with the issuance of the Notice of Preparation by the Lead Agency. Included in the list of related projects is the Exposition Corridor Transit Project - Phase 2, which proposes to improve public transit service and mobility in the Exposition Boulevard corridor by extending the Metro Expo Light Rail Transit Project Phase 1 (currently under construction) from City of Culver City to a terminus station near 4th Street/Colorado Boulevard in the City of Santa Monica. Also, the SMC Interim Phase projects, such as the Bundy Campus Master Plan and the Student Services Replacement project on the Main Campus, are considered within this analysis as related projects as these are entitled projects for which prior environmental documents have been prepared and certified. The list of related projects in the Project area is provided in ***Appendix F*** (refer to Appendix Table F-1). The location of the related projects is shown in ***Figure 6-1***. The list is conservative in that it includes projects that



MAP SOURCE: THOMAS BROS. GUIDE

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NOT TO SCALE

FIGURE 6-1
LOCATION OF RELATED PROJECTS

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have been completed as well as projects that may never be approved, financed, or built or may be reduced in scale before approval.

Traffic volumes expected to be generated by the related projects were determined: 1) as calculated using rates provided in the Institute of Transportation Engineers' (ITE) *Trip Generation* manual[6], or 2) as provided within other available environmental documents (e.g., EIR, MND) prepared for specific projects. The related projects respective traffic generation for the AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in *Appendix F* (refer to Appendix Table F-1). Similar to the weekday methodology, the related projects respective traffic generation for the weekend mid-day peak hour as well as on a daily basis for a typical weekend day is summarized in *Appendix F* (refer to Appendix Table F-2). The anticipated distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours as well as the weekend mid-day peak hour is displayed in ***Figures 6-2, 6-3***, and ***6-4***, respectively.

6.2 Ambient Traffic Growth Factor

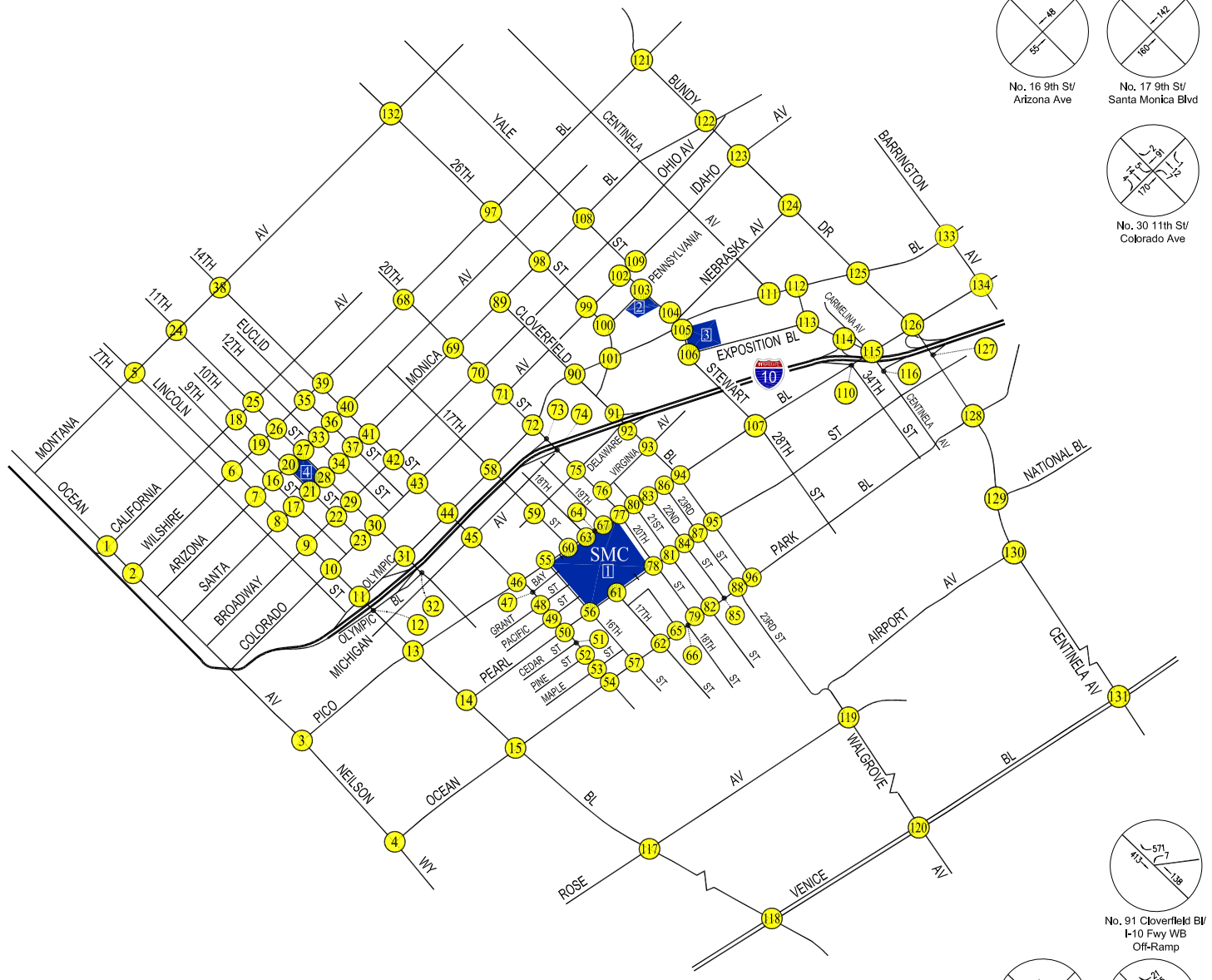
In order to account for area-wide regional growth not included in this analysis, the existing traffic volumes were increased at an annual compounded rate of eight-tenths percent (0.8%) to the year 2017 (i.e., the anticipated year of Project build-out). The ambient growth factor was based on general traffic growth factors determined in consultation with the City of Santa Monica staff and the *2004 Congestion Management Program for Los Angeles County* (the "CMP manual"). It is noted that based on review of the general traffic growth factors provided in the CMP manual for the Westside area (i.e., includes the incorporated cities of Beverly Hills, Culver City, Malibu, Santa Monica, and West Hollywood), it is anticipated that the existing traffic volumes are expected to increase at an annual rate of approximately nine-tenths percent (0.9%) per year between the years 2005 and 2025. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor results in a conservative estimate of future traffic volumes at the study intersections that is substantially higher than the CMP traffic model forecasts.

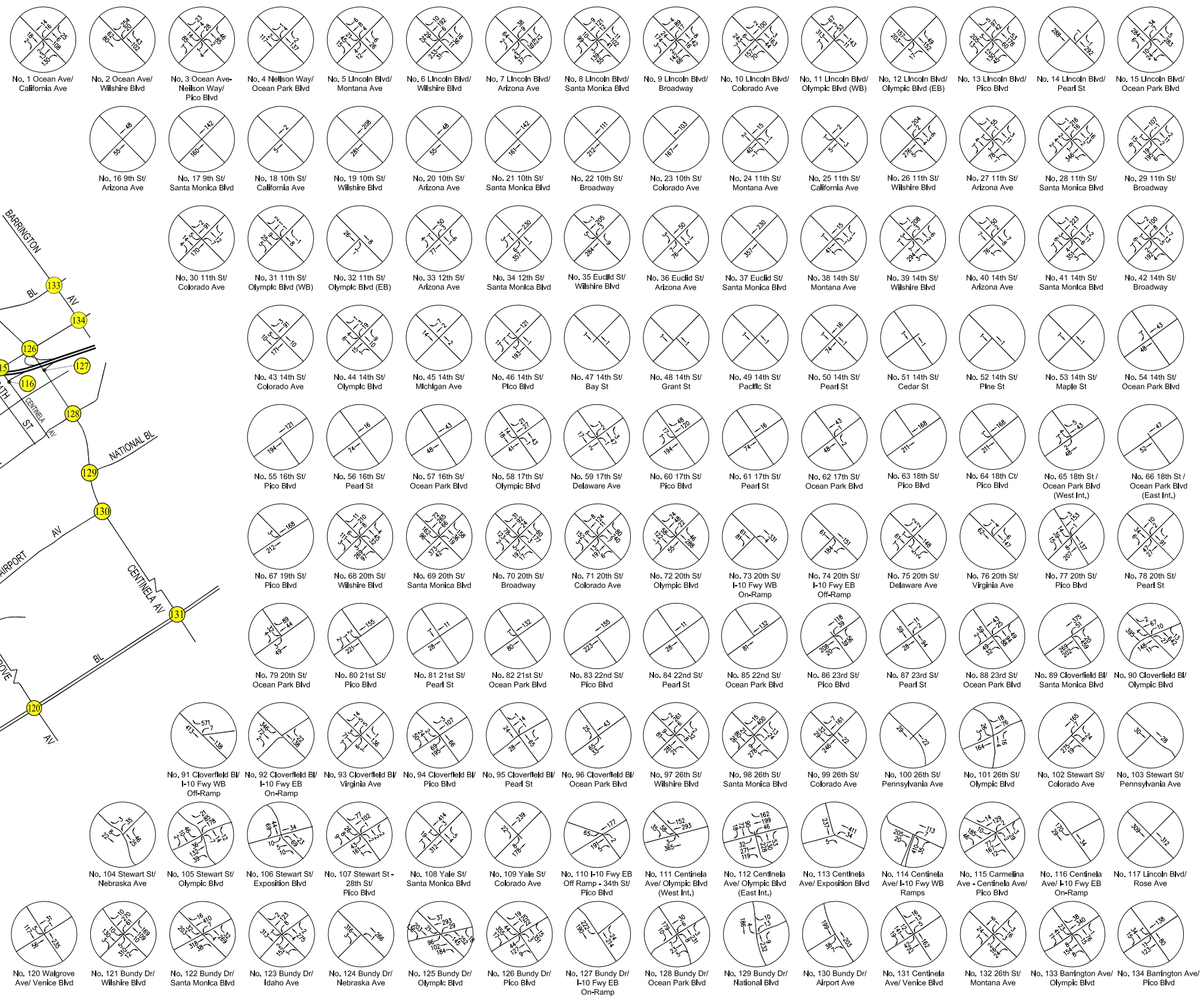
6.3 Metro Exposition Corridor Transit Project Phase 2

The Metro Exposition Corridor Transit Project Phase 2 proposes to extend the Exposition Transit Project Phase 1 (currently under construction) from the Washington Boulevard/National Avenue station in the City of Culver City to a planned westerly terminus at 4th Street/Colorado Boulevard in the City of Santa Monica. The Exposition Corridor Transit Project Phase 2 will run along Olympic Boulevard and Colorado Boulevard within the City of Santa Monica (i.e., assuming the Colorado Boulevard route alignment). This Metro light rail transit line will include the following three stations in the City of Santa Monica:

- 26th Street/Olympic Boulevard Station

[6] *Trip Generation,* Institute of Transportation Engineers, 8th Edition, 2008.





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NOT TO SCALE

LEGEND:
[1] SMC MAIN CAMPUS
[2] SMC AET CAMPUS
[3] SMC OLYMPIC SHUTTLE LOT
[4] SMC PAC CAMPUS

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FIGURE 6-2
RELATED PROJECTS TRAFFIC VOLUMES

WEEKDAY AM PEAK HOUR

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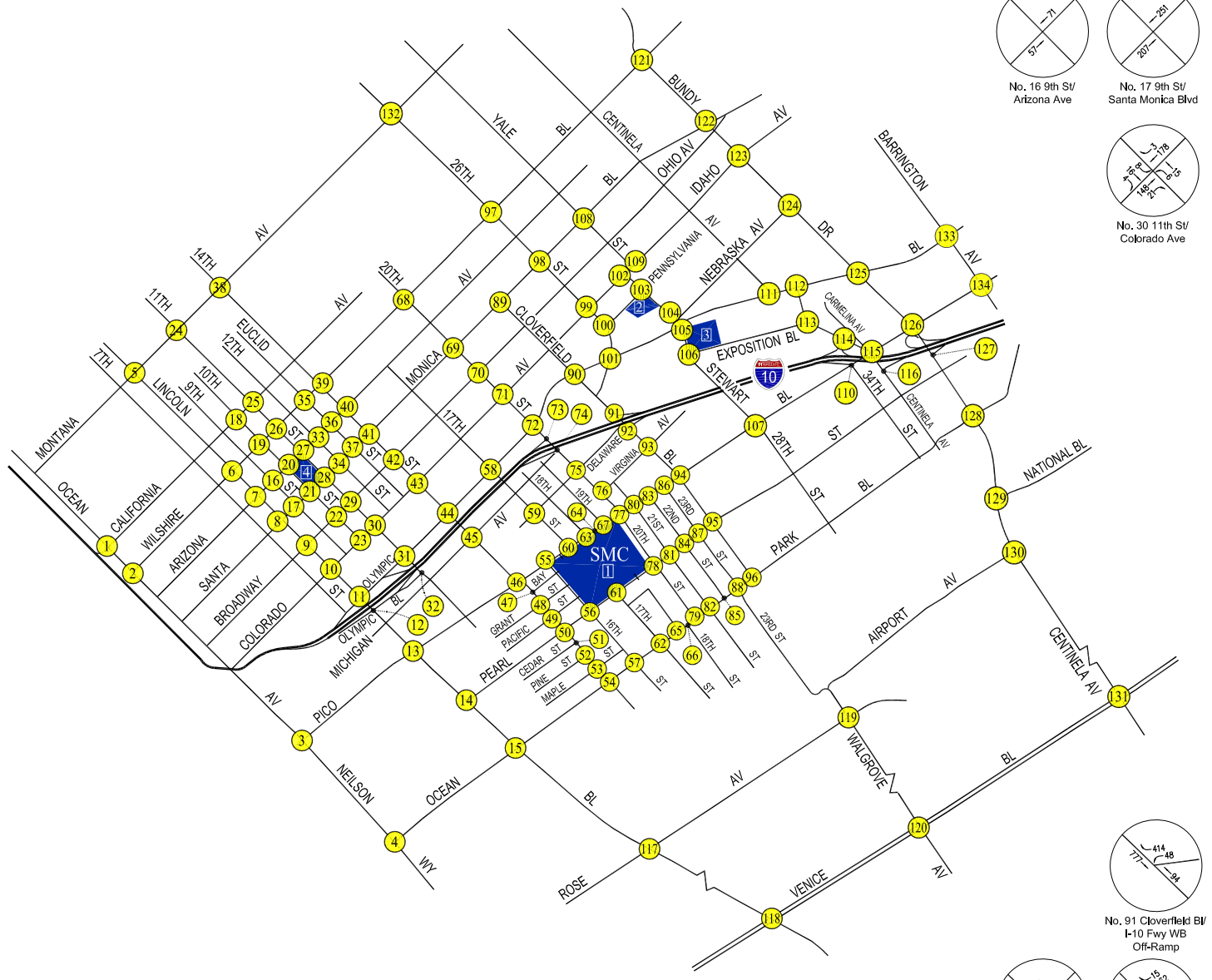
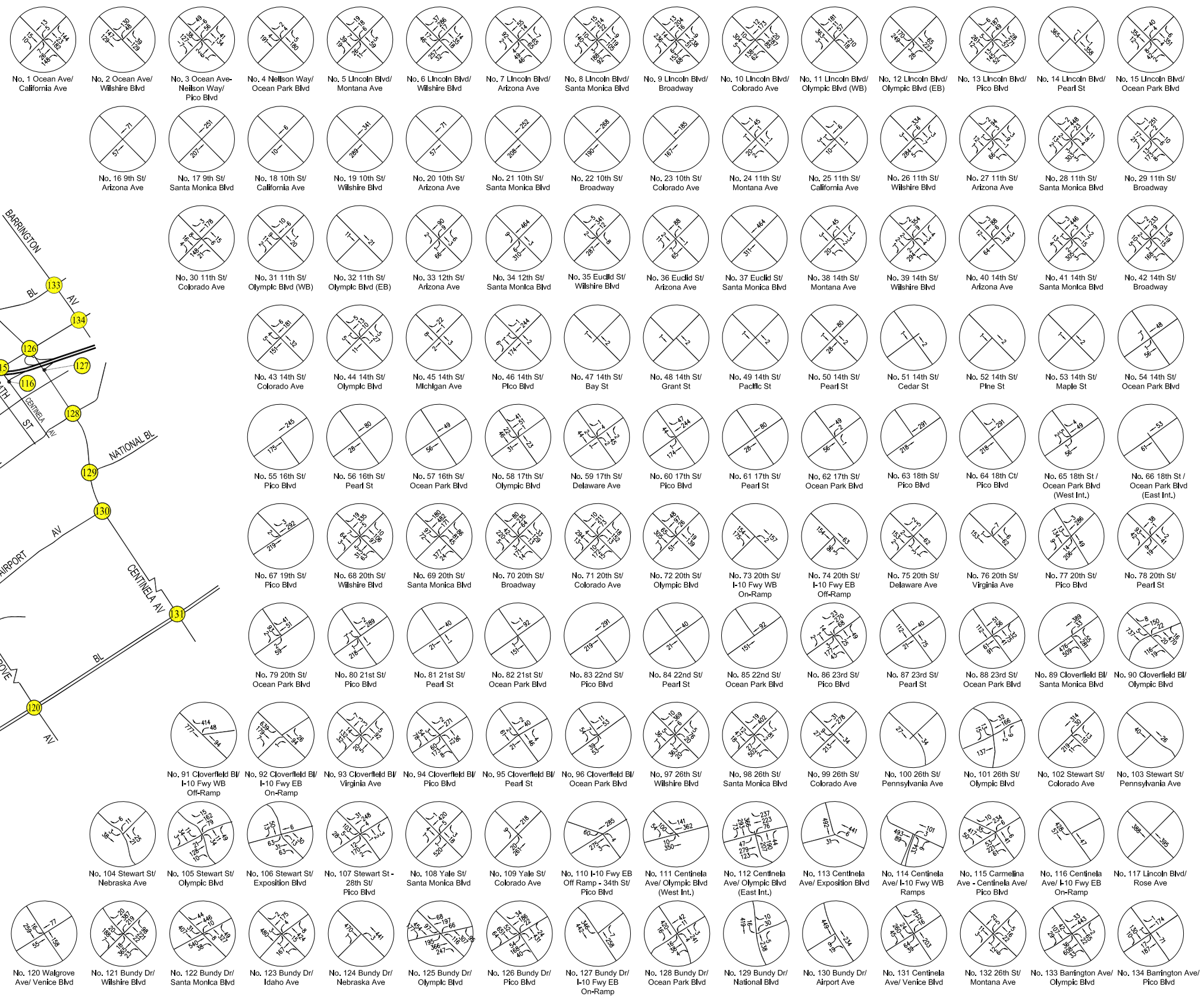




N

NOT TO SCALE

LEGEND:

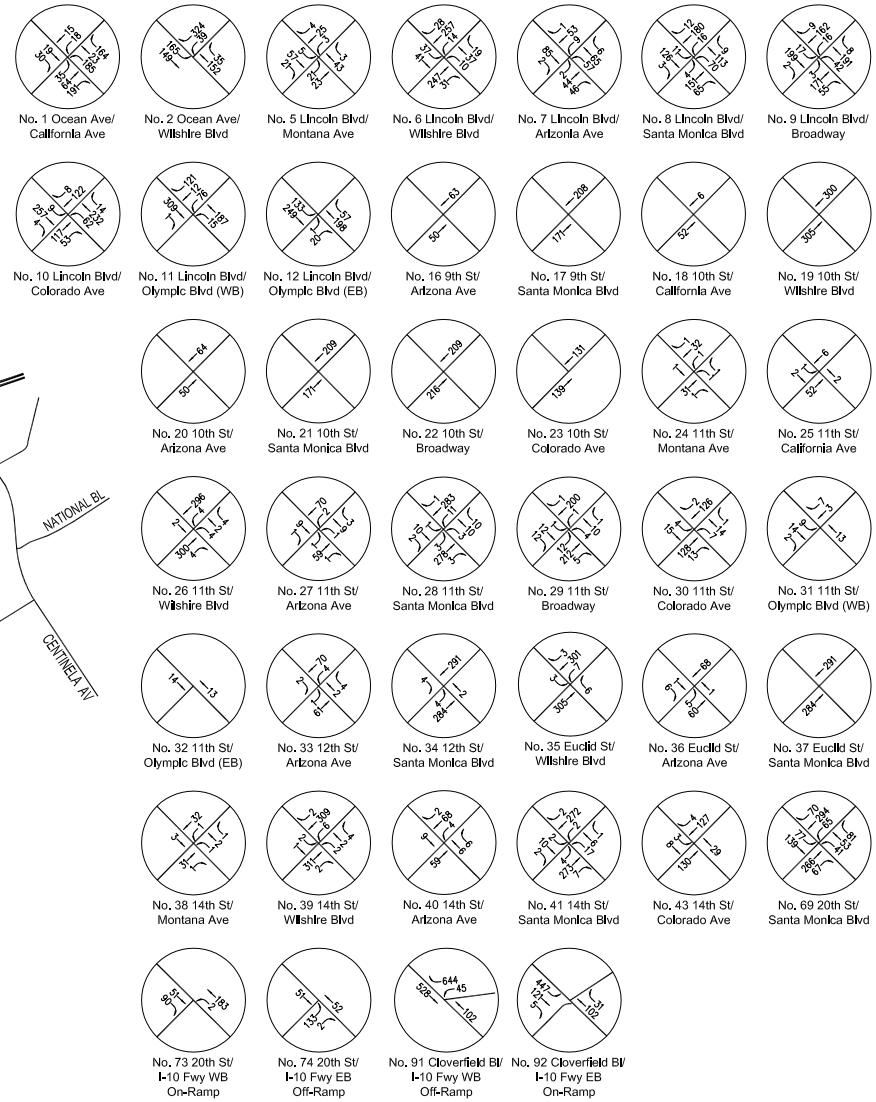
[1] SMC MAIN CAMPUS
[2] SMC AET CAMPUS
[3] SMC OLYMPIC SHUTTLE LOT
[4] SMC PAC CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 6-3
RELATED PROJECTS TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE



LEGEND:

1 SMC MAIN CAMPUS
2 SMC AET CAMPUS
3 SMC OLYMPIC SHUTTLE LOT
4 SMC PAC CAMPUS

N

NOT TO SCALE

FIGURE 6-4
RELATED PROJECTS TRAFFIC VOLUMES

WEEKEND MID-DAY PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

- 17th Street/Colorado Boulevard Station
- 4th Street/Colorado Boulevard Station

The Metro Exposition Corridor Transit Project Phase 2 is currently under review by Metro. The design and construction of the project is currently planned to commence in year 2010 with completion and revenue service starting in year 2015.

7.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the SMC Career & Educational Facilities Master Plan 2010 Update, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic volumes on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic volumes. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational (i.e., Levels of Service) conditions at the selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project's impacts identified.

7.1 Weekday Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Vehicular trip generation forecasts have been prepared for the SMC Career & Educational Facilities Master Plan 2010 Update. In preparing vehicular trip generation forecasts for development projects, it is common for traffic engineers (including the City of Santa Monica) to consult trip rates published in the ITE *Trip Generation* manual. The ITE manual contains trip rates for a variety of land uses (including office buildings, shopping centers, universities, etc.), which have been derived based on traffic counts conducted at existing sites. However, the traffic count data submitted to ITE is for free-standing sites generally located in suburban locations, which likely do not reflect the trip generation characteristics for projects located in highly urban areas such as the City of Santa Monica. Thus, the trip rates provided in the ITE *Trip Generation* manual (derived from traffic counts at suburban locations) would substantially overstate the trip generation potential of projects located in the City of Santa Monica, including the proposed SMC Career & Educational Facilities Master Plan 2010 Update.

As stated on page 1 of the ITE *Trip Generation, 8th Edition, User's Guide*: "Data were primarily collected at suburban locations having little or no transit service, nearby pedestrian amenities, or travel demand management programs. At specific sites, the user may wish to modify trip

generation rates presented in this document to reflect the presence of public transportation service, ridesharing, or other TDM measures; enhanced pedestrian and bicycle trip-making opportunities; or other special characteristics of the site or surrounding area. When practical, the user is encouraged to supplement the data in this document with local data that have been collected at similar sites." The area adjacent to the SMC campuses provides public transportation service, as well as enhanced pedestrian and bicycle trip-making opportunities. Therefore, traffic volumes expected to be generated by the Project were based upon empirical rates derived from weekday manual and 24-hour machine driveway traffic counts conducted at the subject SMC campuses (i.e., Main Campus, AET Campus, Olympic Shuttle Lot, and PAC Campus).

The manual traffic counts were conducted at the subject campus site access driveways during Fall school session during the weekday AM and PM peak time periods (i.e., 7:00 AM to 10:00 AM, and 4:00 PM to 7:00 PM), and automatic 24-hour machine counts were conducted at the driveways over a weekday daily period. It is important to note that on-street public parking immediately adjacent to the SMC Main Campus (i.e., along the Main Campus frontages on the south side of Pico Boulevard, east side of 16th Street, and both sides of Pearl Street) were included in the manual counts to account for existing trip patterns due to motorists parking on-street at the Main Campus during the AM and PM peak time periods. Adjustments were made to the 24-hour machine driveway traffic counts to reflect consistency with the peak hour manual driveway traffic counts at each driveway location for the Main Campus, AET Campus, Olympic Shuttle Lot, and PAC Campus. Summaries of the existing SMC campuses peak period manual driveway traffic counts conducted during the weekday and weekend peak periods are provided in ***Appendix G*** (refer to Appendix G-1). Summaries of the existing weekday and weekend day 24-hour machine driveway traffic counts conducted at the SMC campuses also are contained *Appendix G* (refer to Appendix G-2). The existing weekday trips observed to be generated by the SMC project campuses during the AM and PM peak hour, as well as on a daily basis are as follows:

- Main Campus: 18,634 daily trips, 1,833 AM peak hour trips, 1,370 PM peak hour trips;
- AET Campus: 1,491 daily trips, 197 AM peak hour trips, 143 PM peak hour trips;
- Olympic Shuttle Lot: 441 daily trips, 63 AM peak hour trips, 28 PM peak hour trips;
- PAC Campus: 1,382 daily trips, 120 AM peak hour trips, 104 PM peak hour trips;
- Total Trips: 21,948 daily trips, 2,213 AM peak hour trips, 1,645 PM peak hour trips.

The traffic count data were compiled to develop SMC-specific trip rates for the weekday AM and PM peak hours, as well as on a daily basis. The following weekday trip rates for SMC were developed based on existing traffic characteristics observed at the subject campuses:

- Weekday AM Peak Hour Trip Rate:
  - 2.35 trips per 1,000 GSF of building area
  - 84% inbound and 16% outbound
- Weekday PM Peak Hour Trip Rate:
  - 1.75 trips per 1,000 GSF of building area
  - 46% inbound and 54% outbound
- Weekday Daily Trip Rate:
  - 23.31 trips per 1,000 GSF of building area
  - 50% inbound and 50% outbound

The above SMC weekday trip rates were utilized in the forecast of Project-related trips expected to be generated due to the Project.

On a comparative basis with trip rates provided in the ITE *Trip Generation* manual (ITE Land Use Code 540, Junior/Community College), the observed SMC trip rates are 21%, 31% and 15% lower than the applicable ITE trip rates for the AM peak hour, PM peak hour, and daily basis. This difference in the observed rates versus the ITE rates is representative of the urban location of SMC which includes extensive public transit service, pedestrian and bicycle trip-making opportunities provided at the campuses and surrounding areas.

7.1.1 *Weekday Project Trip Generation Summary*

The trip generation rates and forecast of the vehicular trips anticipated to be generated by the Project are presented in ***Table 7-1***. As summarized in *Table 7-1*, the Project is expected to generate a total of 572 net new vehicle trips (481 inbound trips and 91 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the Project is expected to generate 426 net new vehicle trips (195 inbound trips and 231 outbound trips). Over a 24-hour period, the Project is forecast to generate 5,678 net new daily trip ends during a typical weekday (2,839 inbound trips and 2,839 outbound trips).

7.2 Weekend PAC Campus Traffic Generation

In order to account for the potential inclusion of exhibition/museum type space at the PAC Campus, weekend (i.e., Saturday) traffic volumes expected to be generated by this land use component were based upon empirical rates developed from a similar type use. The empirical weekend trip rates for the PAC Campus were derived from weekend manual driveway traffic counts conducted at the Norton Simon Museum located in the City of Pasadena, California. The Norton Simon Museum was selected for review as it has similar characteristics in terms of size,

Table 7-1
WEEKDAY PROJECT TRIP GENERATION [1]

LAND USE	NET INCREASE CAMPUS SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Main Campus	11,296 GSF	264	23	4	27	9	11	20
AET Campus	63,608 GSF	1,482	125	24	149	51	60	111
Olympic Shuttle Lot	75,000 GSF	1,748	148	28	176	60	71	131
PAC Campus	93,722 GSF	2,184	185	35	220	75	89	164
Total SMC Campus Projects		**5,678**	**481**	**91**	**572**	**195**	**231**	**426**

[1] Trip generation rates for the SMC project campuses were derived based on the existing weekday AM and PM peak period driveway counts conducted at the Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus as well as inbound/outbound vehicles occupying the on-street parking spaces adjacent to the Main Campus. The existing weekday AM and PM peak period driveway counts and on-street in/out traffic counts were conducted by Accutek Traffic Data, Inc., on Tuesday, October 14, 2008 and Wednesday, October 15, 2008. Refer to Appendix G-1 for a summary of the existing SMC project campuses driveway counts and on-street traffic counts for the Main Campus. The daily trips were based on machine driveway counts at each of the SMC project campuses and were adjusted to account for public on-street in/out volumes attributable to the SMC Main Campus.

The trip rates for the SMC project campuses are listed below:

- Daily Trip Rate: 23.31 trips/1,000 GSF of building area; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 2.35 trips/1,000 GSF of building area; 84% inbound/16% outbound
- PM Peak Hour Trip Rate: 1.75 trips/1,000 GSF of building area; 46% inbound/54% outbound

[2] Trips are one-way traffic movements, entering or leaving.

use, and location as compared to the potential exhibition/museum use at the PAC Campus. The trip generation rates were derived based on existing weekend mid-day peak period (i.e., 12:00 Noon to 2:00 PM) conducted at this facility. Summaries of the manual driveway traffic counts conducted at the Norton Simon Museum during the weekend peak period are provided in *Appendix G* (refer to Appendix G-1). The traffic count data were compiled to develop SMC-specific trip rates for the weekend mid-day peak hour, as well as on a daily basis. The following weekend trip rates for the PAC Campus were developed based on existing traffic characteristics observed at the Norton Simon Museum:

- Weekend Mid-Day Peak Hour Trip Rate:
  - 1.50 trips per 1,000 GSF of building area
  - 74% inbound and 26% outbound
- Weekend Daily Trip Rate:
  - Based on the assumption that the mid-day peak hour trip rates represent 10% of the daily trip rate
  - 50% inbound and 50% outbound

The above weekend trip rates were utilized in the forecast of PAC Campus Project-related trips. It is noted that should the proposed building at the PAC Campus be used primarily for educational/institutional purposes, its potential trip generation would be substantially less as compared to the exhibition/museum use assumed in this traffic analysis.

7.2.1 *Weekend PAC Campus Trip Generation Summary*

The weekend trip generation rates and forecast of the vehicular trips anticipated to be generated by the PAC Campus are presented in ***Table 7-2***. As summarized in *Table 7-2*, the PAC Campus is expected to generate 141 net new vehicle trips (104 inbound trips and 37 outbound trips) during the weekend mid-day peak hour. Over a 24-hour period, the PAC Campus is forecast to generate 1,410 net new daily trip ends during a typical weekend day (705 inbound trips and 705 outbound trips).

7.3 Project Trip Distribution and Assignment

Project traffic volumes both entering and exiting each of the SMC Campus sites have been distributed and assigned to the adjacent street system based on the following considerations:

- The sites' proximity to major traffic corridors (i.e., Santa Monica Boulevard, Olympic Boulevard, Pico Boulevard, Ocean Park Boulevard, Lincoln Boulevard, etc.);

Table 7-2
PAC CAMPUS WEEKEND PROJECT TRIP GENERATION [1]

LAND USE	NET INCREASE CAMPUS SIZE	DAILY TRIP ENDS [2] VOLUMES	SATURDAY MID-DAY PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL
PAC Campus	93,722 GSF	1,410	104	37	141
Total PAC Campus Project		**1,410**	**104**	**37**	**141**

[1] The trip generation rates were derived based on the existing weekend mid-day peak period driveway counts conducted at the Norton Simon Museum in Pasadena, California. The existing weekend mid-day peak period driveway counts were conducted by The Traffic Solution on Saturday, October 4, 2008 from 12:00 Noon to 2:00 PM. Refer to Appendix G-1 for a summary of the driveway traffic counts conducted for the Norton Simon Museum. The Saturday trip rates applied for the PAC Campus are listed below:
- Saturday Daily Trip Rate: Not available; daily trips assumed to be ten times the Saturday mid-day peak hour trips.
- Saturday Mid-day Peak Hour Trip Rate: 1.5 trips/1,000 GSF of building area; 74% inbound/26% outbound.

[2] Trips are one-way traffic movements, entering or leaving.

- Expected localized traffic flow patterns based on adjacent roadway channelization and presence of traffic signals;

- Existing intersection traffic volumes at each of the SMC campuses;

- Ingress/egress availability planned for the Project; and

- Student population zip code data from previous environmental studies.

The general, directional weekday traffic distribution patterns for the SMC Main Campus, AET Campus, Olympic Shuttle Lot, and the PAC Campus are presented in ***Figures 7-1*** through ***7-4***, respectively. The detailed trip distribution patterns at the study intersections located in the vicinity of the subject SMC campuses are contained in *Appendix G* (refer to Appendix G-3). The forecast weekday AM and PM peak hour Project traffic volumes at the study intersections are presented in ***Figures 7-5*** and ***7-6***, respectively. The forecast weekday Project traffic volume assignments presented in *Figures 7-5* and *7-6* reflect the combined traffic distribution characteristics shown in *Figures 7-1* through *7-4* and the weekday Project traffic generation forecast presented in *Table 7-1*.

The general, directional distribution patterns for the PAC Campus are presented in ***Figure 7-7*** for weekend conditions. The forecast weekend traffic volume assignments attributable to the PAC Campus presented in ***Figure 7-8*** reflect the traffic distribution characteristics shown in *Figure 7-7* and the weekend Project traffic generation forecast presented in *Table 7-2*.

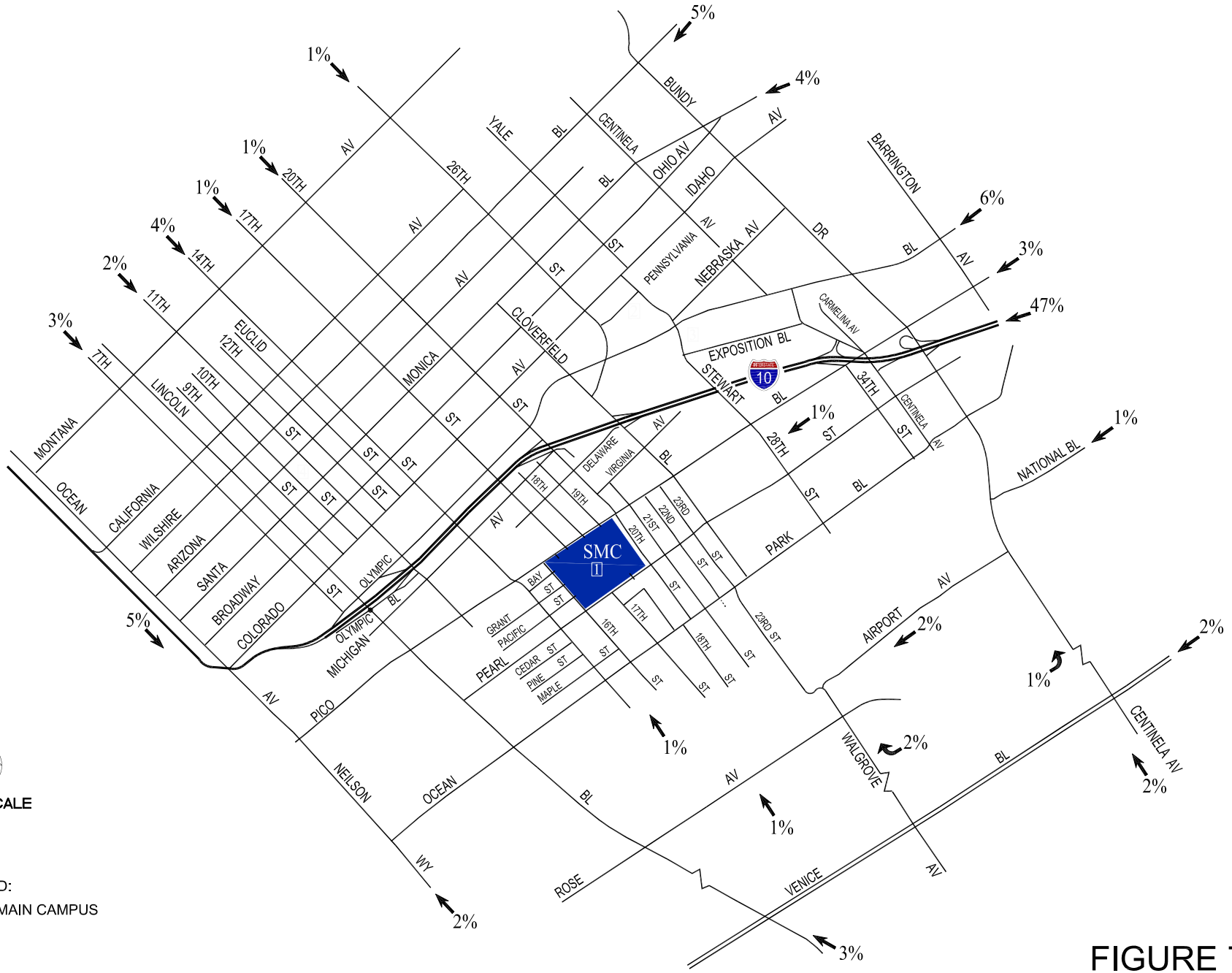


FIGURE 7-1
PROJECT TRIP DISTRIBUTION - MAIN CAMPUS

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LINSCOTT, LAW & GREENSPAN, engineers

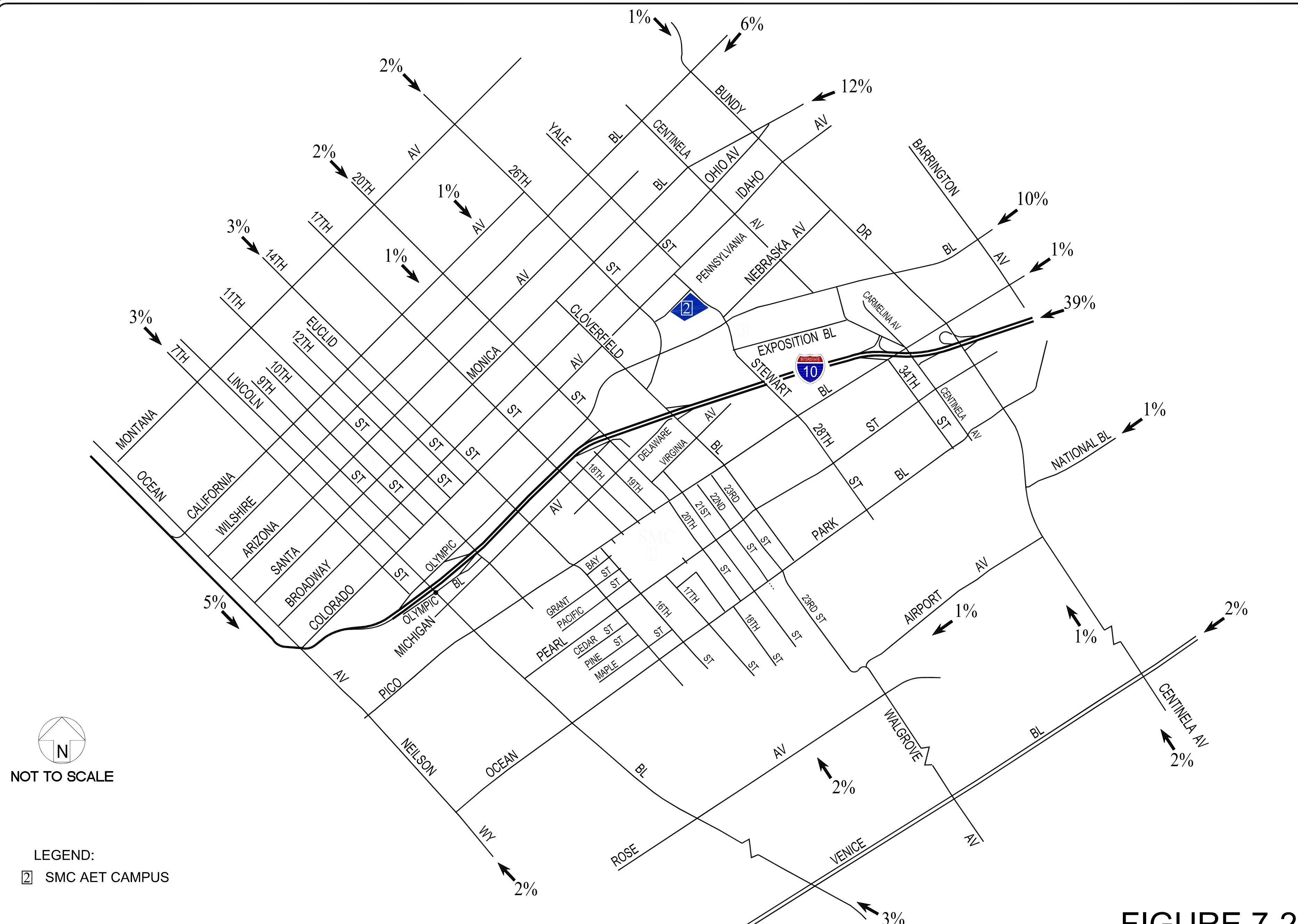

FIGURE 7-2
PROJECT TRIP DISTRIBUTION - AET CAMPUS
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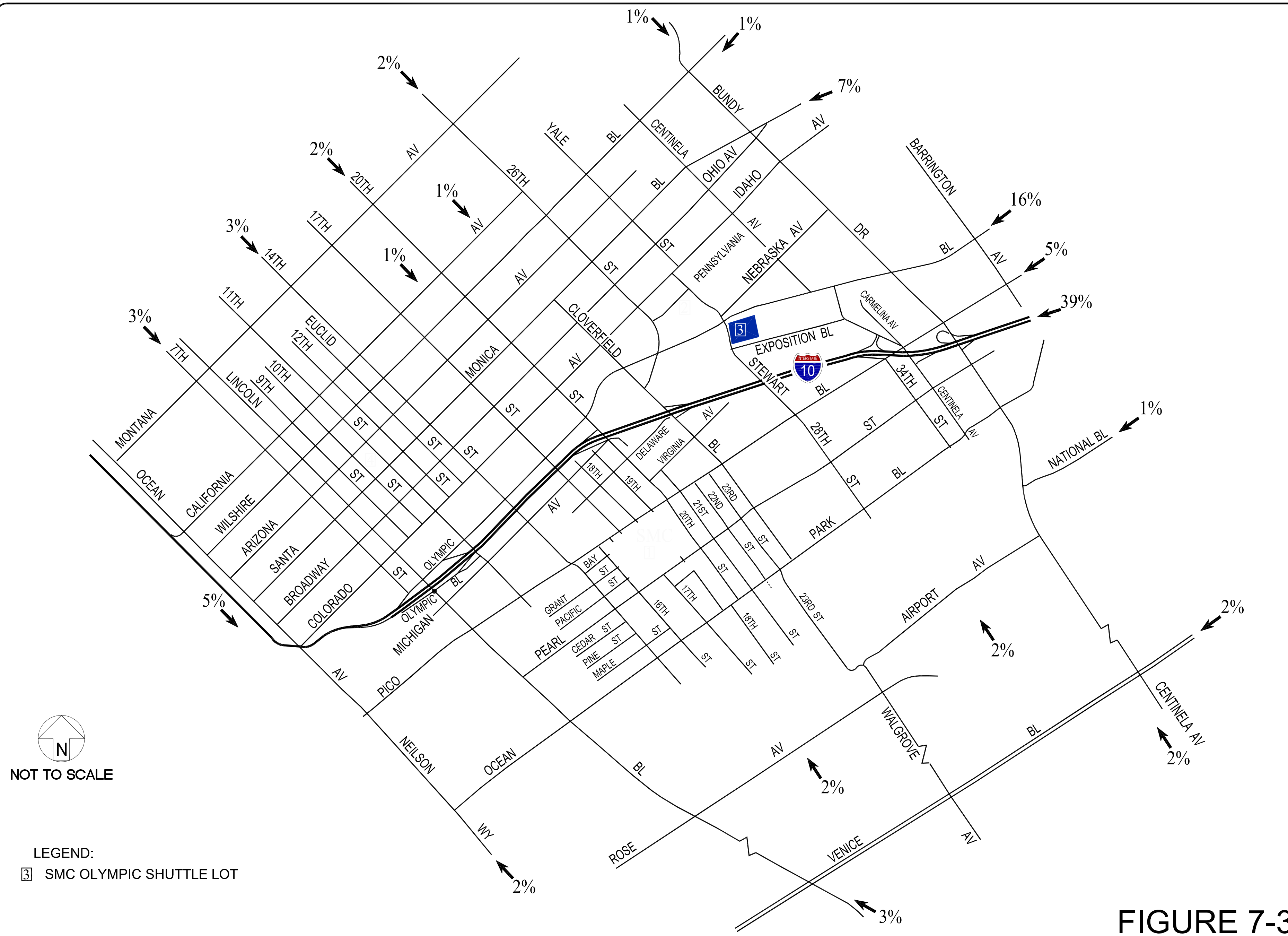

FIGURE 7-3

PROJECT TRIP DISTRIBUTION - OLYMPIC SHUTTLE LOT

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LINSCOTT, LAW & GREENSPAN, engineers

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FIGURE 7-4

PROJECT TRIP DISTRIBUTION - PAC CAMPUS (WEEKDAY)

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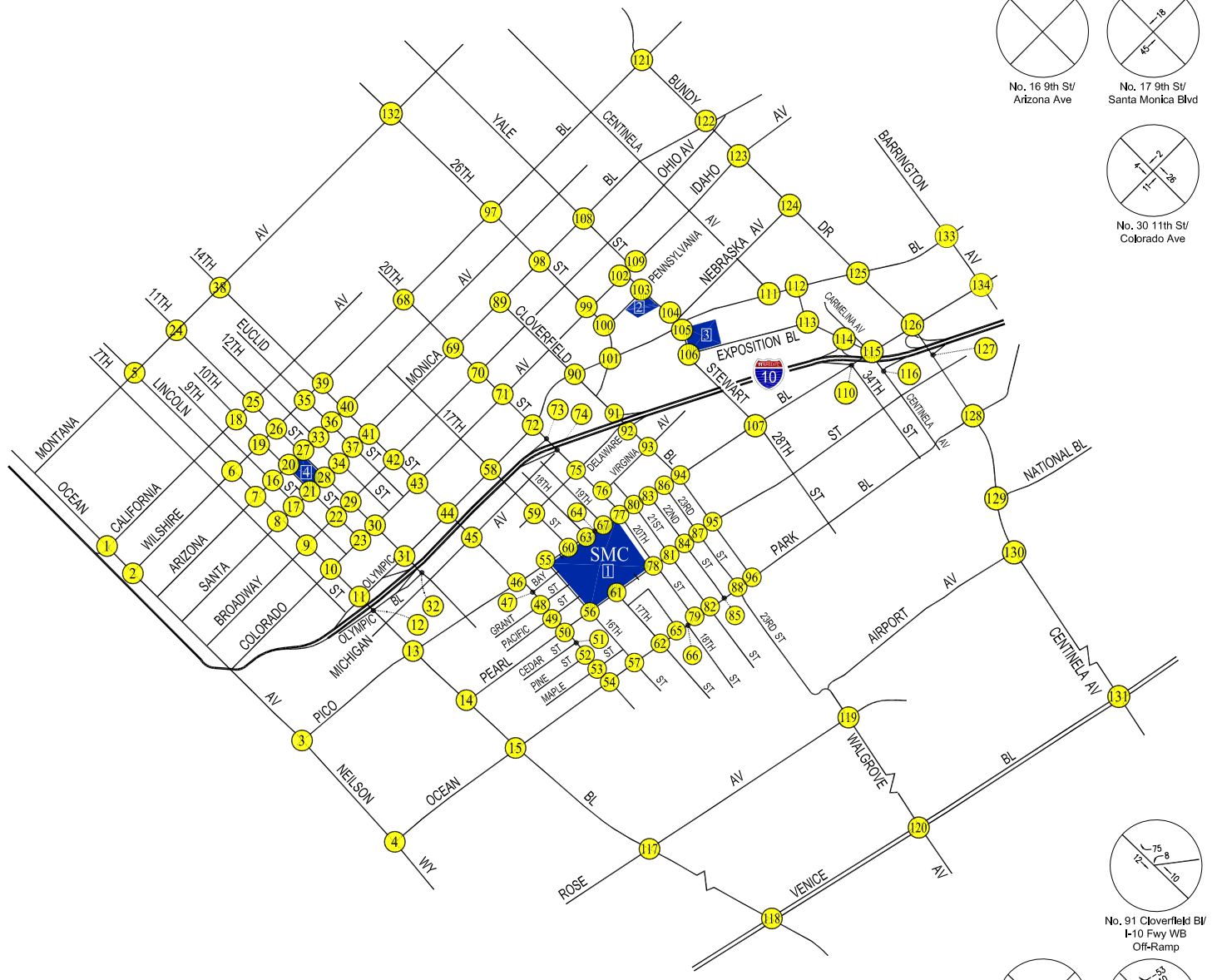
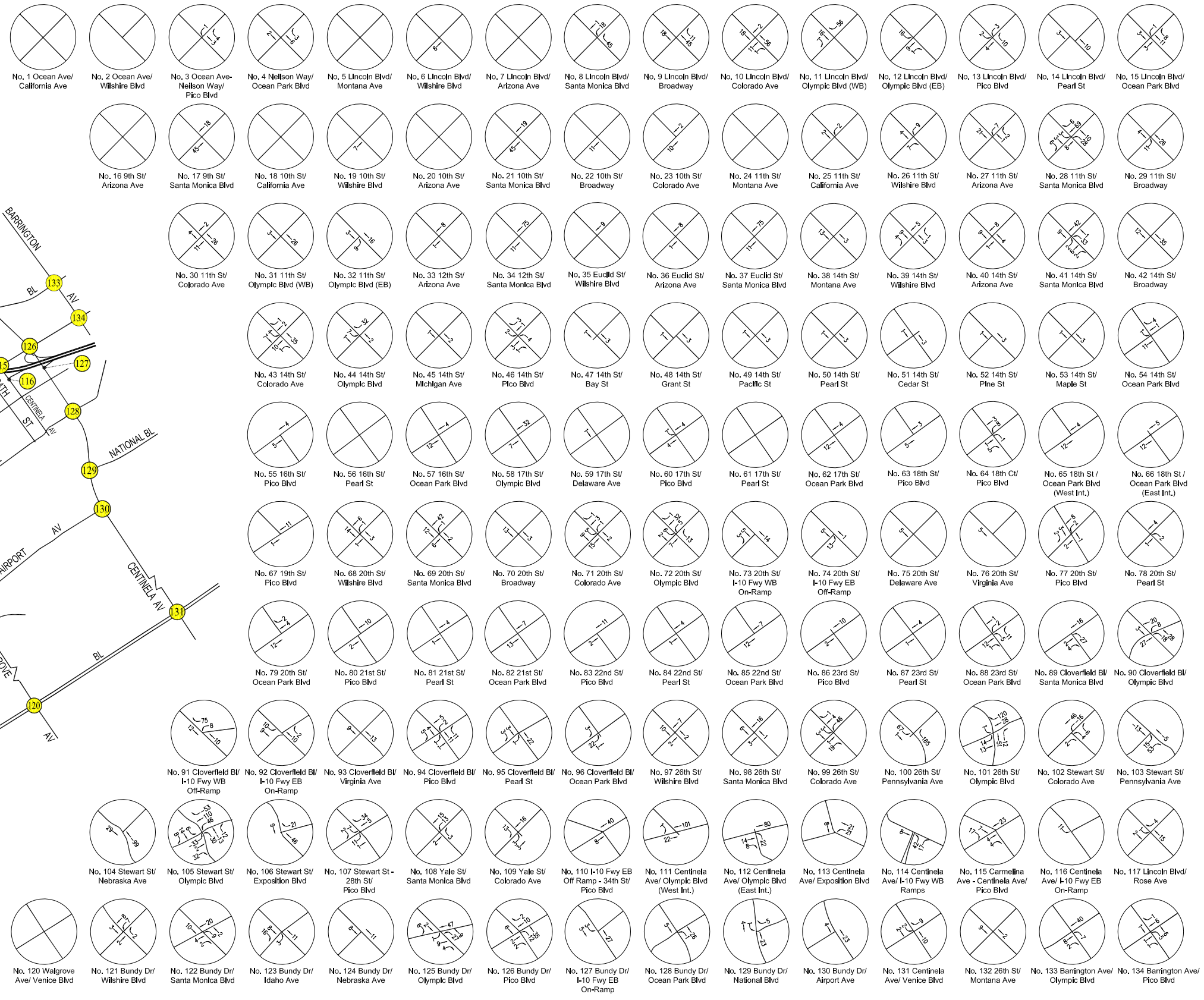




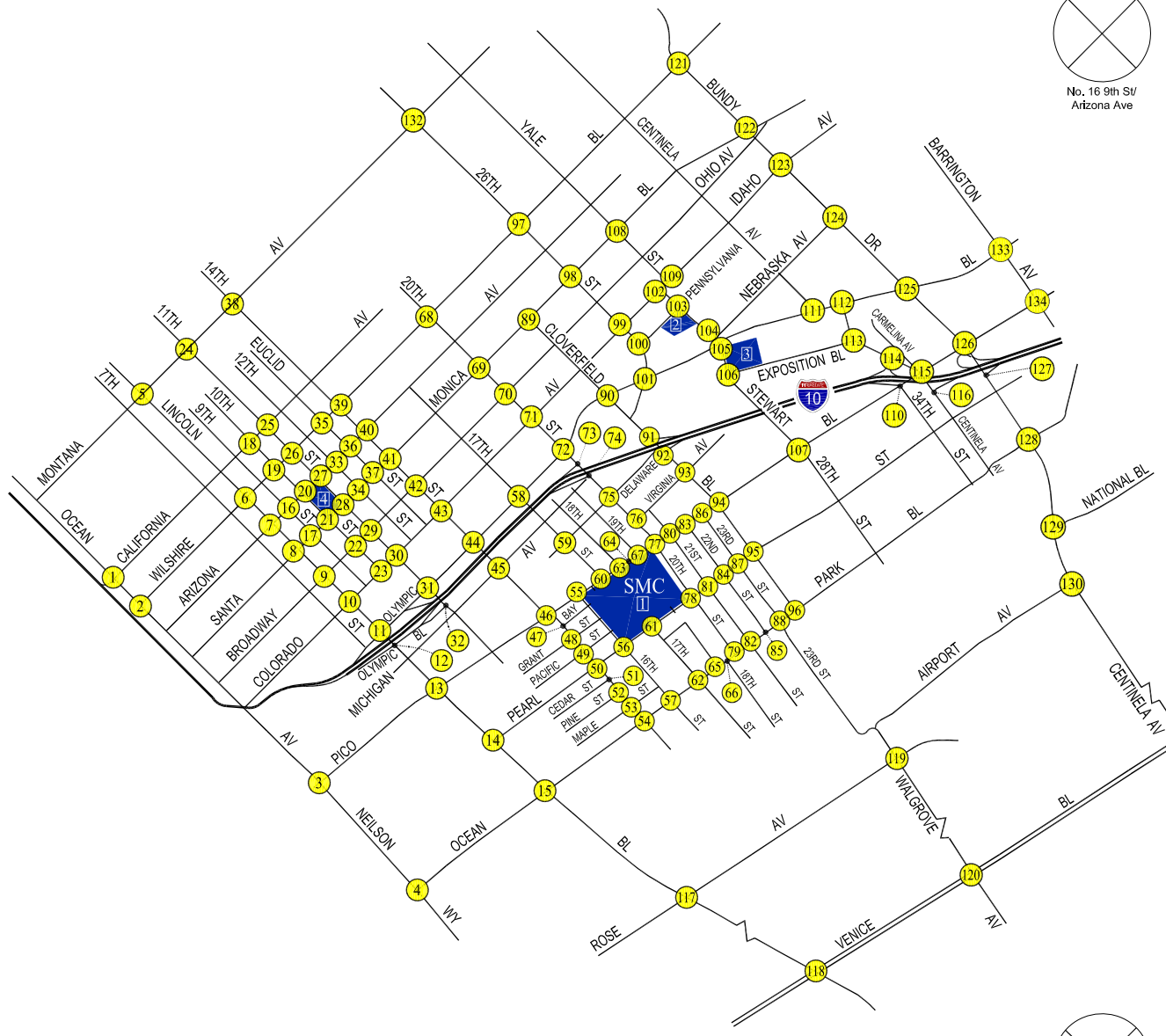
N

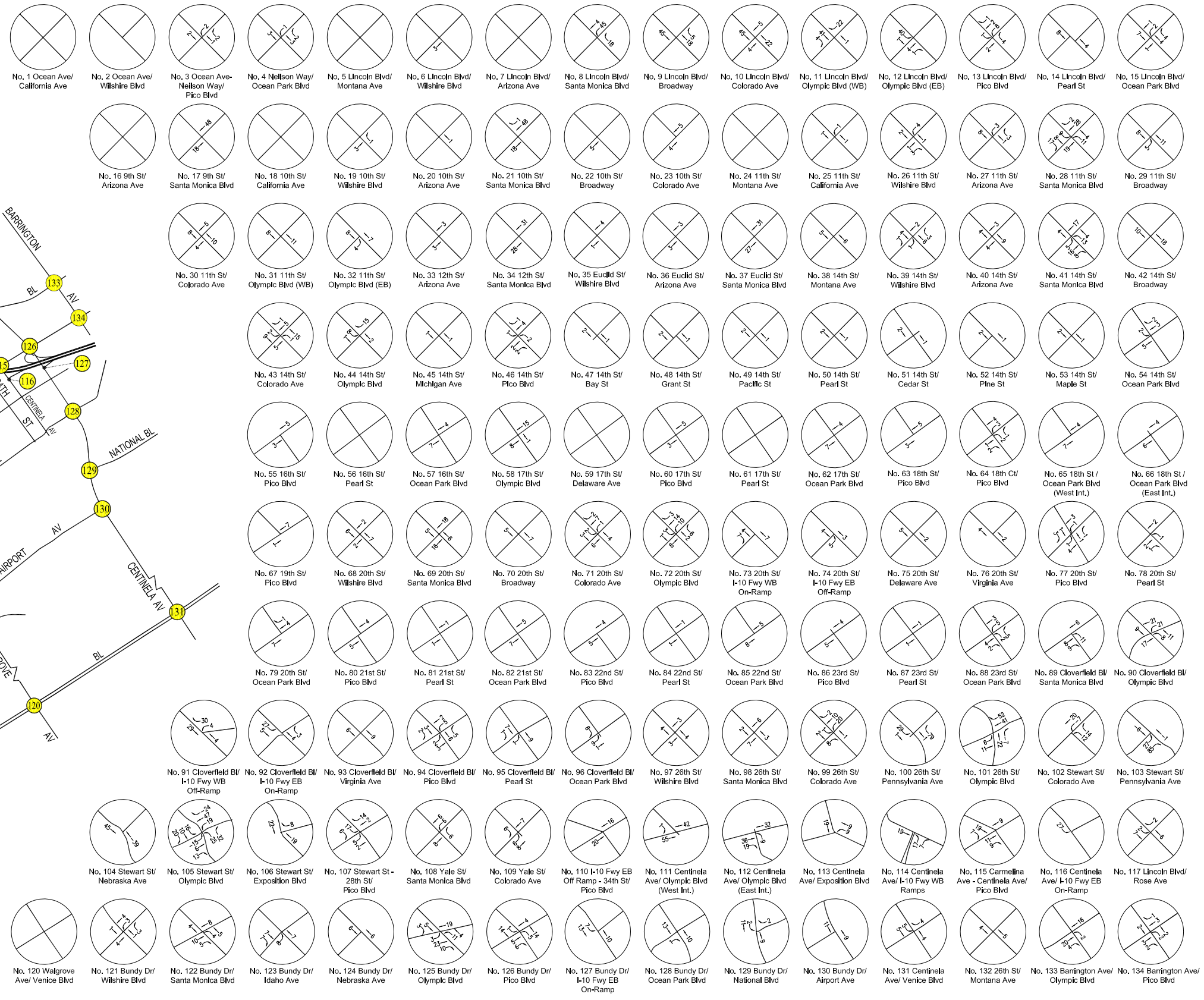
NOT TO SCALE

LEGEND:
1 SMC MAIN CAMPUS
2 SMC AET CAMPUS
3 SMC OLYMPIC SHUTTLE LOT
4 SMC PAC CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 7-5
TOTAL PROJECT NET NEW TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE





N

NOT TO SCALE

LEGEND:
1. SMC MAIN CAMPUS
2. SMC AET CAMPUS
3. SMC OLYMPIC SHUTTLE LOT
4. SMC PAC CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 7-6
TOTAL PROJECT NET NEW TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

N

NOT TO SCALE

LEGEND:

4 SMC PAC CAMPUS

FIGURE 7-7

PROJECT TRIP DISTRIBUTION - PAC CAMPUS (WEEKEND)

LINSCOTT, LAW & GREENSPAN, engineers

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

NOT TO SCALE

LEGEND:

4 SMC PAC CAMPUS

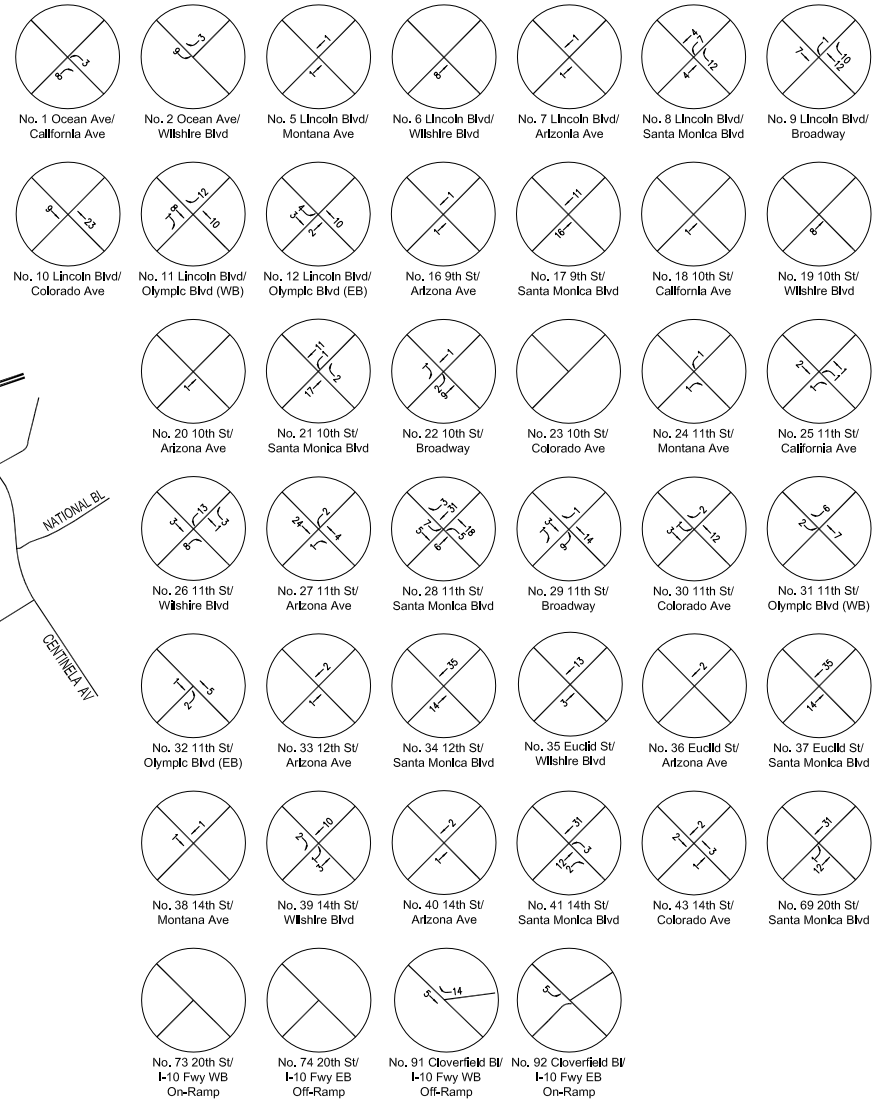


FIGURE 7-8
TOTAL PAC CAMPUS NET NEW TRAFFIC VOLUMES
WEEKEND MID-DAY PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

8.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

The Lead Agency determined that the study intersections located in the City of Santa Monica would be evaluated using the traffic analysis methodology and thresholds of significance utilized by the City of Santa Monica in their review of development projects. Similarly, the study intersections located in the City of Los Angeles would be evaluated using the traffic analysis methodology and thresholds of significance utilized by the City of Los Angeles in their review of development projects. For those study intersections with joint jurisdictions (i.e., located in both Santa Monica and Los Angeles), the intersections were evaluated using the traffic study methodologies and thresholds of significance for both cities.

The 117 study intersections located in the City of Santa Monica (including 111 study intersections situated within the City and six study intersections shared with the City of Los Angeles) were evaluated using the HCM method of analysis (as generally used by the City of Santa Monica in their evaluation of intersection operations) which determines vehicular delays at intersections for the weekday AM and PM peak hours. A total of 42 City of Santa Monica study intersections located in the vicinity of the PAC Campus also were evaluated using the HCM method of analysis for the weekend (i.e., Saturday) mid-day peak hour. The overall intersection vehicular delay is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition).

The unsignalized study intersections were also analyzed using methodology included in the HCM. According to the HCM, the level of service for an unsignalized intersection is determined by the computed or measured control delay and is defined for each minor movement. For an all-way stop controlled intersection, the overall intersection delay is subsequently assigned a Level of Service (LOS) value to describe intersection operations. For a two-way stop controlled intersection, it should be noted that although delay values are not defined for the intersection as a whole, they can be calculated. The delay experienced by a motorist is made up of a number of factors that relate to control, geometrics, traffic and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during conditions with ideal geometrics and in the absence of incidents, control, traffic, or geometric delay. The HCM quantifies only that portion of total delay attributed to traffic control measures, either traffic signals or stop signs. This delay is called control delay and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Average control delay for any particular movement is a function of the capacity of the approach and the degree of saturation.

The 17 study intersections located within the City of Los Angeles were evaluated using the Critical Movement Analysis (CMA) method as generally used by the City of Los Angeles Department of Transportation (LADOT) in their evaluation of intersection operations. The Critical Movement Analysis (CMA) method of analysis determines Volume-to-Capacity (*v/c*) ratios on a critical lane basis. The overall intersection *v/c* ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Additionally, each of the six study

intersections located partially in the City of Santa Monica and the City of Los Angeles was evaluated using methodologies from both jurisdictions. Descriptions of the HCM and CMA methods and corresponding Level of Service is provided in ***Appendices H*** and ***I***, respectively.

8.1 Impact Criteria and Thresholds

The relative impact of the added project traffic volumes to be generated by the proposed SMC Career & Educational Facilities Master Plan 2010 Update during the weekday AM and PM peak hours was evaluated based on analysis of future operating conditions at the 134 study intersections, without and with the Project. In addition, the relative impact of the added Project traffic volumes to be generated by the PAC Campus during the weekend mid-day peak hour was evaluated based on analysis of future operating conditions at the 42 study intersections located near the subject campus, without and with the Project. The previously discussed capacity analysis procedures were utilized to evaluate the future vehicular delay values and service level characteristics at each study intersection.

As previously noted, the Lead Agency determined that each of the Santa Monica study intersections would be evaluated for potential traffic impacts using the City of Santa Monica significant traffic impact thresholds. The 23 study intersections located in the City of Los Angeles (i.e., 17 study intersections situated within the City of Los Angeles and six study intersections shared with the City of Santa Monica) would be evaluated for potential traffic impacts using the City of Los Angeles significant traffic impact thresholds. Accordingly, the six study intersections located partially within the City of Santa Monica and the City of Los Angeles were evaluated using the significant traffic impact criteria utilized by both agencies.

8.1.1 *City of Santa Monica Thresholds of Significance*

The significance of the potential impacts of Project-generated traffic at each study intersection within the City of Santa Monica was identified using criteria set forth in the City of Santa Monica's *Traffic and Parking Impact Guidelines*. According to the City's Sliding Scale Method for calculating the level of impact due to traffic generated by the proposed project, a significant transportation impact is determined based on the criteria presented in ***Table 8-1***.

It should be noted that the City of Santa Monica's project impact thresholds for LOS F conditions are determined based on increases in *v/c* ratios. For purposes of determining project impacts for the unsignalized study intersections, these intersections were therefore analyzed as signalized intersections using the HCM signalized intersection methodology to quantify the *v/c* ratio increases over future pre-Project conditions with the LOS determined through use of the HCM unsignalized method of analysis.

Table 8-1
CITY OF SANTA MONICA
INTERSECTION IMPACT THRESHOLD CRITERIA

Future Base Scenario	Intersection Class	Future Plus Project Scenario
If LOS = A, B, or C and	Is a Collector Street Intersection Is an Arterial Street Intersection	Significant impact if: Average delay (sec/veh) increases by 15 seconds or more, OR if LOS becomes D, E, or F Average delay (sec/veh) increases by 15 seconds or more, OR if LOS becomes E or F
If LOS = D and	Is a Collector Street Intersection Is an Arterial Street Intersection	Significant impact if: Average delay (sec/veh) increases by ANY amount Average delay (sec/veh) increases by 15 seconds or more, OR if LOS becomes E or F
If LOS = E and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Significant impact if: Average delay (sec/veh) increases by ANY amount
If LOS = F and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Significant impact if: Net HCM *v/c* ratio increases by 0.005 or more

The City's Sliding Scale Method requires mitigation of project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection delay value or *v/c* ratio by an amount equal to or greater than the values shown above.

8.1.2 *City of Los Angeles Thresholds of Significance*

For the 23 intersections located partially or entirely within the City of Los Angeles, the significance of the potential impacts of Project generated traffic at these study intersections was identified using criteria set forth in the LADOT's *Traffic Study Policies and Procedures*[7]

[7] *Traffic Study Policies and Procedures*, City of Los Angeles Department of Transportation, March 2002.

document. According to the City's Sliding Scale Method for calculating the level of impact due to traffic generated by the proposed project, a significant transportation impact is determined based on the sliding scale criteria presented in ***Table 8-2***.

Table 8-2
CITY OF LOS ANGELES
INTERSECTION IMPACT THRESHOLD CRITERIA

Final *v/c*	**Level of Service**	**Project Related Increase in *v/c***
> 0.700 - 0.800	C	equal to or greater than 0.040
> 0.800 - 0.900	D	equal to or greater than 0.020
>0.900	E or F	equal to or greater than 0.010

The City's Sliding Scale Method requires mitigation of project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection *v/c* ratio by an amount equal to or greater than the values shown above.

8.2 Traffic Impact Analysis Scenarios

Pursuant to the City of Santa Monica's and LADOT's traffic study guidelines, traffic impacts at the study intersections were analyzed for the following conditions:

[a] Existing conditions.

[b] Condition [a] plus eight-tenths percent (0.8%) ambient traffic growth per year through year 2017.

[c] Condition [b] with completion and occupancy of the related projects.

[d] Condition [c] with completion and occupancy of the Project.

[e] Conditions [d] with implementation of Project mitigation measures, where necessary.

The traffic volumes for each new condition were added to the volumes in the prior condition to determine the change in capacity utilization at the 134 study intersections located partially or entirely within the City of Santa Monica and the City of Los Angeles. Further, it is important to note that the above identified analysis scenarios was analyzed utilizing a build-out projection year of 2017.

9.0 CITY OF SANTA MONICA TRAFFIC ANALYSIS

The traffic impact analysis prepared for the City of Santa Monica study intersections using the HCM methodology and application of the City of Santa Monica significant traffic impact criteria is summarized in ***Tables 9-1*** and ***9-2*** for weekday and weekend conditions, respectively. The HCM data worksheets for the analyzed intersections are contained in *Appendix H*.

9.1 Existing Conditions

9.1.1 *Weekday Existing Conditions*

As indicated in column [1] of *Table 9-1*, 108 of the 117 City of Santa Monica study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The remaining nine City of Santa Monica study intersections are currently operating at LOS E or F during the peak hours shown in *Table 9-1*. The existing conditions HCM data worksheets for the study intersections during the weekday AM and PM peak hours are contained in *Appendix H* (refer to Appendix H-1). As previously mentioned, the existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5-1* and *5-2*, respectively.

9.1.2 *Weekend Existing Conditions*

As indicated in column [1] of *Table 9-2*, 41 of the 42 study intersections located in the vicinity of the PAC Campus are presently operating at LOS D or better during the weekend mid-day peak hour under existing conditions. The remaining City of Santa Monica study intersection at 10th Street/Wilshire Boulevard is currently operating at LOS F during the mid-day peak hour shown in *Table 9-2*. The existing conditions HCM data worksheets for the study intersections during the weekend mid-day peak hour are contained in *Appendix H* (refer to Appendix H-2). As previously mentioned, the existing traffic volumes at the study intersections during the weekend mid-day peak hour are displayed in *Figure 5-3*.

9.2 Future Pre-Project Conditions

9.2.1 *Weekday Future Pre-Project Conditions*

The delay values and *v/c* ratios at the study intersections are incrementally increased with the addition of ambient growth plus traffic generated by the related projects shown in *Figure 6-1* and listed in *Appendix F*. As presented in column [2] of *Table 9-1*, 83 of the 117 City of Santa Monica study intersections are expected to continue operating at LOS D or better during the weekday AM and PM peak hours with the addition of ambient traffic growth and traffic due to the related projects. The remaining 34 City of Santa Monica study intersections are expected to operate at LOS E or F during the peak hours shown in *Table 9-1* with the addition of ambient traffic and traffic due to the related projects.

The future pre-Project (existing, ambient growth and related projects) conditions HCM data worksheets for the study intersections during the weekday AM and PM peak hours are contained

Table 9-1
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKDAY AM AND PM PEAK HOURS

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay ([3]-[2])	Signif. Impact Yes/No [a]
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS		
1	Ocean Avenue/	Arterial	AM	18	0.612	B	23	0.783	C	23	0.783	C	0	NO
	California Avenue		PM	41	0.987	D	75	1.203	E	75	1.203	E	0	NO
2	Ocean Avenue/	Arterial	AM	15	0.681	B	18	0.849	B	18	0.849	B	0	NO
	Wilshire Boulevard		PM	14	0.545	B	18	0.773	B	18	0.773	B	0	NO
3	Ocean Avenue-Neilson Way/	Arterial	AM	18	0.707	B	19	0.837	B	19	0.840	B	0	NO
	Pico Boulevard		PM	24	0.728	C	26	0.890	C	26	0.893	C	0	NO
4	Neilson Way/	Arterial	AM	5	0.469	A	5	0.551	A	5	0.554	A	0	NO
	Ocean Park Boulevard		PM	9	0.569	A	10	0.680	A	10	0.682	A	0	NO
5	Lincoln Boulevard/	Collector	AM	12	0.575	B	14	0.648	B	14	0.648	B	0	NO
	Montana Avenue		PM	13	0.595	B	16	0.689	B	16	0.689	B	0	NO
6	Lincoln Boulevard/	Arterial	AM	14	0.534	B	16	0.749	B	16	0.754	B	0	NO
	Wilshire Boulevard		PM	15	0.619	B	19	0.882	B	19	0.885	B	0	NO
7	Lincoln Boulevard/	Arterial	AM	14	0.607	B	18	0.761	B	18	0.761	B	0	NO
	Arizona Avenue		PM	21	0.710	C	32	0.902	C	32	0.902	C	0	NO
8	Lincoln Boulevard/	Arterial	AM	20	0.631	C	26	0.817	C	27	0.850	C	1	NO
	Santa Monica Boulevard		PM	25	0.787	C	55	1.027	D	64	1.060	E	9	YES
9	Lincoln Boulevard/	Arterial	AM	11	0.553	B	22	0.851	C	22	0.860	C	0	NO
	Broadway		PM	17	0.678	B	48	1.315	D	49	1.335	D	1	NO
10	Lincoln Boulevard/	Arterial	AM	23	0.829	C	57	1.055	E	63	1.083	E	6	YES
	Colorado Avenue		PM	23	0.790	C	72	1.150	E	76	1.168	E	4	YES
11	Lincoln Boulevard/	Arterial	AM	27	0.860	C	34	0.961	C	36	0.974	D	2	NO
	Olympic Boulevard (WB)		PM	30	0.909	C	54	1.047	D	57	1.060	E	3	YES
12	Lincoln Boulevard/	Arterial	AM	25	0.881	C	37	0.999	D	38	1.005	D	1	NO
	Olympic Boulevard (EB)		PM	19	0.739	B	26	0.911	C	27	0.926	C	1	NO
13	Lincoln Boulevard/	Arterial	AM	41	0.964	D	98	1.199	F	100	1.206	F	0.007	YES
	Pico Boulevard		PM	32	0.892	C	74	1.135	E	75	1.138	E	1	YES
14	Lincoln Boulevard/	Arterial	AM	4	0.632	A	5	0.777	A	5	0.780	A	0	NO
	Pearl Street		PM	3	0.519	A	4	0.677	A	4	0.679	A	0	NO
15	Lincoln Boulevard/	Arterial	AM	41	0.976	D	78	1.159	E	80	1.168	F	2	YES
	Ocean Park Boulevard		PM	46	1.007	D	104	1.242	F	105	1.246	F	0.004	NO
16	9th Street/	Feeder	AM	11	n/a	B	12	n/a	B	12	n/a	B	0	NO
	Arizona Avenue [b]		PM	13	n/a	B	15	n/a	C	15	n/a	C	0	NO
17	9th Street/	Arterial	AM	16	n/a	C	22	n/a	C	24	n/a	C	2	NO
	Santa Monica Boulevard [b]		PM	20	n/a	C	40	n/a	E	44	n/a	E	4	YES
18	10th Street/	Arterial	AM	8	0.186	A	8	0.205	A	8	0.205	A	0	NO
	California Avenue [c]		PM	9	0.261	A	9	0.293	A	9	0.293	A	0	NO
19	10th Street/	Arterial	AM	39	n/a	E	307	*0.430*	F	315	*0.432*	F	0.002	NO
	Wilshire Boulevard [b] [d]		PM	107	n/a	F	***	*0.513*	F	***	*0.513*	F	0	NO
20	10th Street/	Feeder	AM	8	0.223	A	9	0.306	A	9	0.306	A	0	NO
	Arizona Avenue[c]		PM	9	0.371	A	11	0.483	B	11	0.484	B	0	NO
21	10th Street/	Arterial	AM	21	n/a	C	37	n/a	E	42	n/a	E	5	YES
	Santa Monica Boulevard [b]		PM	19	n/a	C	37	n/a	E	42	n/a	E	5	YES
22	10th Street/	Collector	AM	15	n/a	C	24	n/a	C	25	n/a	C	1	NO
	Broadway [b]		PM	16	n/a	C	34	n/a	D	34	n/a	D	0	NO
23	10th Street/	Arterial	AM	12	n/a	B	12	n/a	B	12	n/a	B	0	NO
	Colorado Avenue [b]		PM	13	n/a	B	14	n/a	B	14	n/a	B	0	NO
24	11th Street/	Collector	AM	13	0.602	B	14	0.681	B	14	0.681	B	0	NO
	Montana Avenue		PM	15	0.664	B	17	0.737	B	17	0.737	B	0	NO
25	11th Street/	Collector	AM	14	0.618	B	16	0.693	C	16	0.697	C	0	NO
	California Avenue [c]		PM	13	0.579	B	15	0.656	C	15	0.659	C	0	NO
26	11th Street/	Arterial	AM	13	0.506	B	13	0.642	B	13	0.647	B	0	NO
	Wilshire Boulevard		PM	12	0.497	B	12	0.651	B	12	0.652	B	0	NO
27	11th Street/	Collector	AM	12	0.432	B	15	0.524	B	15	0.539	B	0	NO
	Arizona Avenue		PM	14	0.494	B	16	0.590	B	16	0.594	B	0	NO

Table 9-1 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKDAY AM AND PM PEAK HOURS

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay	Signif. Impact
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS	([3]-[2])	Yes/No [a]
28	11th Street/	Arterial	AM	16	0.489	B	17	0.656	B	17	0.666	B	0	NO
	Santa Monica Boulevard		PM	16	0.512	B	17	0.694	B	18	0.725	B	1	NO
29	11th Street/	Collector	AM	17	0.666	B	25	0.862	C	26	0.880	C	1	NO
	Broadway		PM	18	0.662	B	30	0.905	C	31	0.910	C	1	NO
30	11th Street/	Arterial	AM	16	0.577	B	58	1.053	E	62	1.078	E	4	YES
	Colorado Avenue		PM	20	0.788	B	100	1.267	F	102	1.276	F	0.009	YES
31	11th Street/	Arterial	AM	14	0.769	B	16	0.833	B	17	0.851	B	1	NO
	Olympic Boulevard (WB)		PM	16	0.674	B	17	0.732	B	17	0.737	B	0	NO
32	11th Street/	Arterial	AM	8	0.644	A	9	0.697	A	10	0.713	A	1	NO
	Olympic Boulevard (EB)		PM	9	0.684	A	10	0.742	A	10	0.750	A	0	NO
33	12th Street/	Feeder	AM	11	n/a	B	12	n/a	B	12	n/a	B	0	NO
	Arizona Avenue [b]		PM	12	n/a	B	14	n/a	B	14	n/a	B	0	NO
34	12th Street/	Arterial	AM	21	n/a	C	69	*0.379*	F	90	*0.386*	F	0.007	YES
	Santa Monica Boulevard [b] [d]		PM	25	n/a	C	182	*0.429*	F	223	*0.439*	F	0.010	YES
35	Euclid Street/	Arterial	AM	9	0.477	A	9	0.617	A	9	0.617	A	0	NO
	Wilshire Boulevard		PM	9	0.551	A	10	0.714	A	10	0.716	A	0	NO
36	Euclid Street/	Feeder	AM	11	n/a	B	13	n/a	B	13	n/a	B	0	NO
	Arizona Avenue [b]		PM	13	n/a	B	17	n/a	C	17	n/a	C	0	NO
37	Euclid Street/	Arterial	AM	20	n/a	C	51	*0.360*	F	61	*0.371*	F	0.011	YES
	Santa Monica Boulevard [b] [d]		PM	25	n/a	C	157	*0.446*	F	185	*0.456*	F	0.010	YES
38	14th Street/	Collector	AM	21	0.801	C	29	0.912	C	29	0.919	C	0	NO
	Montana Avenue		PM	15	0.662	B	17	0.743	B	18	0.747	B	1	NO
39	14th Street/	Arterial	AM	13	0.549	B	14	0.699	B	14	0.700	B	0	NO
	Wilshire Boulevard		PM	13	0.580	B	15	0.755	B	15	0.759	B	0	NO
40	14th Street/	Collector	AM	13	0.499	B	16	0.591	B	16	0.599	B	0	NO
	Arizona Avenue		PM	16	0.625	B	20	0.762	C	20	0.771	C	0	NO
41	14th Street/	Arterial	AM	15	0.447	B	16	0.613	B	16	0.622	B	0	NO
	Santa Monica Boulevard		PM	15	0.509	B	16	0.718	B	17	0.726	B	1	NO
42	14th Street/	Collector	AM	15	0.599	B	19	0.736	B	20	0.761	C	1	NO
	Broadway		PM	18	0.697	B	31	0.939	C	32	0.946	C	1	NO
43	14th Street/	Arterial	AM	15	0.527	B	24	0.889	C	25	0.901	C	1	NO
	Colorado Avenue		PM	17	0.582	B	28	0.901	C	28	0.911	C	0	NO
44	14th Street/	Arterial	AM	16	0.591	B	18	0.679	B	18	0.709	B	0	NO
	Olympic Boulevard		PM	15	0.490	B	16	0.554	B	16	0.561	B	0	NO
45	14th Street/	Collector	AM	9	0.472	A	10	0.513	A	10	0.514	A	0	NO
	Michigan Avenue		PM	13	0.573	B	14	0.624	B	14	0.625	B	0	NO
46	14th Street/	Arterial	AM	23	0.566	C	23	0.674	C	23	0.676	C	0	NO
	Pico Boulevard		PM	25	0.714	C	30	0.928	C	30	0.931	C	0	NO
47	14th Street/	Feeder	AM	15	n/a	B	16	n/a	C	16	n/a	C	0	NO
	Bay Street [b]		PM	11	n/a	B	11	n/a	B	11	n/a	B	0	NO
48	14th Street/	Feeder	AM	10	0.495	B	11	0.536	B	11	0.540	B	0	NO
	Grant Street [c]		PM	12	0.582	B	12	0.630	B	13	0.632	B	1	NO
49	14th Street/	Feeder	AM	12	n/a	B	12	n/a	B	12	n/a	B	0	NO
	Pacific Street [b]		PM	14	n/a	B	15	n/a	B	15	n/a	B	0	NO
50	14th Street/	Feeder	AM	12	0.513	B	14	0.609	B	14	0.614	B	0	NO
	Pearl Street [c]		PM	13	0.667	B	18	0.791	C	18	0.795	C	0	NO
51	14th Street/	Feeder	AM	10	0.432	A	10	0.467	B	10	0.471	B	0	NO
	Cedar Street [c]		PM	10	0.490	B	11	0.530	B	11	0.532	B	0	NO
52	14th Street/	Feeder	AM	10	0.421	A	10	0.457	A	10	0.460	A	0	NO
	Pine Street [b]		PM	10	0.491	B	11	0.532	B	11	0.535	B	0	NO
53	14th Street/	Feeder	AM	12	n/a	B	12	n/a	B	13	n/a	B	1	NO
	Maple Street [b]		PM	13	n/a	B	14	n/a	B	14	n/a	B	0	NO
54	14th Street/	Arterial	AM	12	0.535	B	13	0.610	B	13	0.619	B	0	NO
	Ocean Park Boulevard		PM	23	0.806	C	30	0.895	C	30	0.899	C	0	NO
55	16th Street/	Arterial	AM	20	0.695	B	22	0.813	C	22	0.815	C	0	NO
	Pico Boulevard		PM	15	0.512	B	14	0.602	B	14	0.603	B	0	NO
56	16th Street/	Feeder	AM	13	0.555	B	16	0.652	C	16	0.652	C	0	NO
	Pearl Street [c]		PM	9	0.318	A	10	0.372	B	10	0.372	B	0	NO

Table 9-1 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKDAY AM AND PM PEAK HOURS

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay	Signif. Impact
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS	([3]-[2])	Yes/No [a]
57	16th Street/	Arterial	AM	63	n/a	F	145	*0.589*	F	154	*0.591*	F	0.002	NO
	Ocean Park Boulevard [b] [d]		PM	106	n/a	F	245	*0.583*	F	252	*0.586*	F	0.003	NO
58	17th Street/	Arterial	AM	13	0.407	B	14	0.490	B	14	0.502	B	0	NO
	Olympic Boulevard		PM	13	0.465	B	14	0.560	B	14	0.565	B	0	NO
59	17th Street/	Feeder	AM	9	0.324	A	10	0.386	B	10	0.388	B	0	NO
	Delaware Avenue [c]		PM	10	0.494	B	12	0.604	B	12	0.604	B	0	NO
60	17th Street/	Arterial	AM	20	0.623	C	17	0.574	B	17	0.576	B	0	NO
	Pico Boulevard		PM	17	0.509	B	14	0.583	B	14	0.584	B	0	NO
61	17th Street/	Feeder	AM	11	0.499	B	13	0.582	B	13	0.582	B	0	NO
	Pearl Street [c]		PM	9	0.356	A	11	0.494	B	11	0.494	B	0	NO
62	17th Street/	Arterial	AM	12	0.702	B	14	0.787	B	14	0.789	B	0	NO
	Ocean Park Boulevard		PM	9	0.664	A	10	0.749	B	10	0.752	B	0	NO
63	18th Street/	Arterial	AM	20	n/a	C	30	n/a	D	30	n/a	D	0	NO
	Pico Boulevard [b] [d]		PM	24	n/a	C	50	*0.444*	E	51	*0.445*	F	1	YES
64	18th Court/	Arterial	AM	12	0.342	B	16	0.499	B	16	0.507	B	0	NO
	Pico Boulevard		PM	14	0.444	B	25	0.586	C	25	0.591	C	0	NO
65	18th Street (West Intersection)/	Arterial	AM	26	n/a	D	39	n/a	E	40	n/a	E	1	YES
	Ocean Park Boulevard [b] [d]		PM	39	n/a	E	65	*0.631*	F	66	*0.633*	F	0.002	NO
66	18th Street (East Intersection)/	Arterial	AM	39	n/a	E	55	*0.621*	F	57	*0.624*	F	0.003	NO
	Ocean Park Boulevard [b] [d]		PM	80	n/a	F	124	*0.695*	F	126	*0.697*	F	0.002	NO
67	19th Street/	Arterial	AM	19	n/a	C	35	n/a	D	35	n/a	D	0	NO
	Pico Boulevard [b] [d]		PM	22	n/a	C	51	*0.433*	F	52	*0.433*	F	0.000	NO
68	20th Street/	Arterial	AM	17	0.772	B	60	1.453	E	60	1.432	E	0	NO
	Wilshire Boulevard		PM	18	0.805	B	53	1.596	D	55	1.614	E	2	YES
69	20th Street/	Arterial	AM	14	0.460	B	35	1.119	D	37	1.126	D	2	NO
	Santa Monica Boulevard		PM	14	0.474	B	33	1.320	C	34	1.348	C	1	NO
70	20th Street/	Collector	AM	16	0.510	B	20	0.843	B	20	0.845	B	0	NO
	Broadway		PM	16	0.547	B	25	0.904	C	25	0.906	C	0	NO
71	20th Street/	Arterial	AM	13	0.353	B	15	0.497	B	15	0.499	B	0	NO
	Colorado Avenue		PM	14	0.504	B	19	0.823	B	19	0.828	B	0	NO
72	20th Street/	Arterial	AM	30	0.900	C	61	1.084	E	65	1.094	E	4	YES
	Olympic Boulevard		PM	27	0.861	C	41	1.017	D	43	1.024	D	2	NO
73	20th Street/	Collector	AM	10	n/a	B	12	n/a	B	12	n/a	B	0	NO
	I-10 Freeway WB On-Ramp		PM	14	n/a	B	22	n/a	C	22	n/a	C	0	NO
74	20th Street/	Collector	AM	17	0.649	B	23	0.854	C	23	0.862	C	0	NO
	I-10 Freeway EB Off-Ramp		PM	16	0.494	B	16	0.578	B	16	0.579	B	0	NO
75	20th Street/	Collector	AM	11	0.443	B	11	0.536	B	11	0.536	B	0	NO
	Delaware Avenue		PM	10	0.600	B	11	0.705	B	11	0.707	B	0	NO
76	20th Street/	Collector	AM	17	n/a	C	26	n/a	D	26	n/a	D	0	NO
	Virginia Avenue [b]		PM	13	n/a	B	18	n/a	C	18	n/a	C	0	NO
77	20th Street/	Arterial	AM	22	0.776	C	33	0.948	C	33	0.952	C	0	NO
	Pico Boulevard		PM	23	0.761	C	36	0.973	D	36	0.979	D	0	NO
78	20th Street/	Collector	AM	17	0.615	C	51	0.991	F	54	1.001	F	0.01	YES
	Pearl Street [c]		PM	30	0.955	D	108	1.381	F	109	1.387	F	0.006	YES
79	20th Street/	Arterial	AM	10	0.813	A	26	0.997	C	26	1.002	C	0	NO
	Ocean Park Boulevard		PM	15	0.842	B	37	1.032	D	38	1.036	D	1	NO
80	21st Street/	Arterial	AM	48	n/a	E	234	*0.582*	F	241	*0.585*	F	0.003	NO
	Pico Boulevard [b] [d]		PM	54	n/a	F	280	*0.630*	F	286	*0.632*	F	0.002	NO
81	21st Street/	Feeder	AM	10	0.351	A	11	0.394	B	11	0.400	B	0	NO
	Pearl Street [c]		PM	10	0.315	A	10	0.391	B	11	0.392	B	1	NO
82	21st Street/	Arterial	AM	27	0.922	C	56	1.086	E	58	1.091	E	2	YES
	Ocean Park Boulevard		PM	16	0.854	B	36	1.028	D	37	1.033	D	1	NO
83	22nd Street/	Arterial	AM	18	n/a	C	25	n/a	D	25	n/a	D	0	NO
	Pico Boulevard [b]		PM	20	n/a	C	33	n/a	D	33	n/a	D	0	NO
84	22nd Street/	Feeder	AM	9	0.281	A	9	0.320	A	9	0.325	A	0	NO
	Pearl Street [c]		PM	9	0.257	A	9	0.329	A	9	0.331	A	0	NO
85	22nd Street/	Arterial	AM	22	n/a	C	31	n/a	D	31	n/a	D	0	NO
	Ocean Park Boulevard [b]		PM	25	n/a	C	36	n/a	E	37	n/a	E	1	YES

Table 9-1 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKDAY AM AND PM PEAK HOURS

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay ([3]-[2])	Signif. Impact Yes/No [a]
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS		
86	23rd Street/	Arterial	AM	35	0.667	C	64	0.830	E	65	0.831	E	1	YES
	Pico Boulevard		PM	34	0.732	C	27	0.999	C	28	1.001	C	1	NO
87	23rd Street/	Collector	AM	15	0.719	C	35	0.994	E	36	0.998	E	1	YES
	Pearl Street [c]		PM	17	0.622	C	57	1.030	F	58	1.032	F	0.002	NO
88	23rd Street/	Arterial	AM	57	1.075	E	143	1.349	F	148	1.366	F	0.017	YES
	Ocean Park Boulevard		PM	67	1.108	E	180	1.412	F	184	1.422	F	0.01	YES
89	Cloverfield Boulevard/	Arterial	AM	18	0.560	B	31	0.944	C	33	0.956	C	2	NO
	Santa Monica Boulevard		PM	18	0.619	B	41	1.026	D	42	1.032	D	1	NO
90	Cloverfield Boulevard/	Arterial	AM	31	0.859	C	52	1.052	D	56	1.069	E	4	YES
	Olympic Boulevard		PM	30	0.830	C	53	1.054	D	56	1.070	E	3	YES
91	Cloverfield Boulevard/	Arterial	AM	36	1.003	D	154	1.381	F	164	1.410	F	0.029	YES
	I-10 Freeway WB Off-Ramp		PM	17	0.672	B	24	0.907	C	25	0.922	C	1	NO
92	Cloverfield Boulevard/	Arterial	AM	20	0.907	B	47	1.094	D	48	1.099	D	1	NO
	I-10 Freeway EB On-Ramp-Delaware Ave.		PM	9	0.606	A	16	0.887	B	16	0.898	B	0	NO
93	Cloverfield Boulevard/	Arterial	AM	7	0.584	A	9	0.706	A	9	0.711	A	0	NO
	Virgina Avenue		PM	7	0.649	A	11	0.834	B	11	0.837	B	0	NO
94	Cloverfield Boulevard/	Arterial	AM	26	0.771	C	35	0.937	C	36	0.946	D	1	NO
	Pico Boulevard		PM	27	0.741	C	36	0.917	D	37	0.922	D	1	NO
95	Cloverfield Boulevard/	Collector	AM	11	0.432	B	14	0.610	B	15	0.649	C	1	NO
	Pearl Street [b]		PM	16	0.718	C	33	0.972	D	36	0.992	E	3	YES
96	Cloverfield Boulevard/	Arterial	AM	99	0.892	F	131	0.964	F	130	0.965	F	0.001	NO
	Ocean Park Boulevard		PM	187	1.255	F	227	1.328	F	226	1.328	F	0	NO
97	26th Street/	Arterial	AM	33	0.938	C	74	1.115	E	76	1.124	E	2	YES
	Wilshire Boulevard		PM	44	0.989	D	117	1.202	F	118	1.206	F	0.004	NO
98	26th Street/	Arterial	AM	19	0.782	B	39	1.011	D	40	1.020	D	1	NO
	Santa Monica Boulevard		PM	19	0.696	B	61	1.664	E	61	1.650	E	0	NO
99	26th Street/	Arterial	AM	16	0.571	B	20	0.791	B	26	0.944	C	6	NO
	Colorado Avenue		PM	17	0.723	B	29	0.975	C	29	0.984	C	0	NO
100	26th Street/	Arterial	AM	8	0.405	A	8	0.435	A	8	0.435	A	0	NO
	Pennsylvania Avenue		PM	16	0.483	B	16	0.529	B	16	0.576	B	0	NO
101	26th Street/	Arterial	AM	21	0.721	C	24	0.823	C	29	0.901	C	5	NO
	Olympic Boulevard		PM	24	0.726	C	29	0.857	C	32	0.895	C	3	NO
102	Stewart Street/	Collector	AM	20	0.764	C	30	0.947	C	35	0.984	C	5	NO
	Colorado Avenue		PM	18	0.750	B	29	0.964	C	30	0.968	C	1	NO
103	Stewart Street/	Collector	AM	10	n/a	B	11	n/a	B	11	n/a	B	0	NO
	Pennsylvania Avenue [b]		PM	13	n/a	B	14	n/a	B	15	n/a	C	1	NO
104	Stewart Street/	Collector	AM	15	n/a	B	24	n/a	C	21	n/a	C	-3	NO
	Nebraska Avenue [b]		PM	19	n/a	C	28	n/a	D	28	n/a	D	0	NO
105	Stewart Street/	Arterial	AM	23	0.621	C	22	0.816	C	23	0.830	C	1	NO
	Olympic Boulevard		PM	25	0.778	C	27	0.847	C	30	0.892	C	3	NO
106	Stewart Street/	Collector	AM	41	1.008	E	81	1.251	F	103	1.352	F	0.101	YES
	Exposition Boulevard [c]		PM	19	0.769	C	25	0.887	C	28	0.936	D	3	YES
107	Stewart Street-28th Street/	Arterial	AM	11	0.620	B	20	1.028	B	23	1.122	C	3	NO
	Pico Boulevard		PM	16	0.757	B	25	0.914	C	26	0.929	C	1	NO
108	Yale Street/	Arterial	AM	12	0.540	B	13	0.733	B	13	0.738	B	0	NO
	Santa Monica Boulevard		PM	13	0.577	B	15	0.813	B	15	0.817	B	0	NO
109	Yale Street/	Arterial	AM	24	n/a	C	99	*0.667*	F	117	*0.684*	F	0.017	YES
	Colorado Avenue [b] [d]		PM	44	n/a	E	320	*0.807*	F	362	*0.815*	F	0.008	YES
110	I-10 Freeway EB Off-Ramp-	Arterial	AM	18	0.611	B	20	0.762	C	21	0.774	C	1	NO
	34th Street/Pico Boulevard		PM	15	0.692	B	19	0.862	B	20	0.869	B	1	NO
111	Centinela Avenue/	Arterial	AM	9	0.602	A	11	0.760	B	11	0.792	B	0	NO
	Olympic Boulevard (West Intersection) [e]		PM	13	0.700	B	18	0.891	B	19	0.907	B	1	NO
112	Centinela Avenue/	Arterial	AM	18	0.762	B	56	1.406	E	58	1.427	E	2	YES
	Olympic Boulevard (East Intersection) [e]		PM	12	0.952	B	196	2.643	F	197	2.675	F	0.032	YES
113	Centinela Avenue/	Arterial	AM	22	n/a	C	88	*1.100*	F	108	*1.150*	F	0.05	YES
	Exposition Boulevard [b] [d] [e]		PM	20	n/a	C	141	*0.825*	F	160	*0.835*	F	0.010	YES
114	Centinela Avenue/	Arterial	AM	37	0.943	D	150	1.404	F	160	1.435	F	0.031	YES
	I-10 Freeway WB Ramps [e]		PM	34	0.926	C	195	1.518	F	203	1.541	F	0.023	YES

Table 9-1 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKDAY AM AND PM PEAK HOURS

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay	Signif. Impact
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS	([3]-[2])	Yes/No [a]
115	Carmelina Avenue-Centinela Avenue/ Pico Boulevard [e]	Arterial	AM	17	0.700	B	32	1.058	C	36	1.076	D	4	NO
			PM	17	0.735	B	50	1.205	D	53	1.226	D	3	NO
116	Centinela Avenue/ I-10 Freeway EB On-Ramp [e]	Arterial	AM	12	0.636	B	17	0.803	B	17	0.810	B	0	NO
			PM	9	0.579	A	18	0.911	B	19	0.929	B	1	NO
132	26th Street/ Montana Avenue	Collector	AM	17	0.672	B	19	0.768	B	19	0.774	B	0	NO
			PM	36	1.055	D	68	1.327	E	68	1.333	E	0	NO

* Reported average control delay values in seconds per vehicle.
*** Oversaturated Conditions. Delay cannot be calculated.
[a] Note: City of Santa Monica intersection impact threshold criteria is as follows:

Future Base Scenario	Intersection Class	Future Plus Project Scenario
If LOS = A, B, or C and	Is a Collector Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes D, E, or F
	Is an Arterial Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes E or F
If LOS = D and	Is a Collector Street Intersection	Average delay (sec/veh) increases by ANY amount
	Is an Arterial Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes E or F
If LOS = E and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Average delay (sec/veh) increases by ANY amount
If LOS = F and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Net HCM V/C ratio increases by 0.005 or more

[b] Stop controlled intersection on the minor approaches.
[c] Stop controlled intersection on all approaches.
[d] This stop controlled intersection is forecast to operate at LOS F in the future and was analyzed as signalized to calculate the V/C increment required by the City of Santa Monica's impact threshold criteria for intersections operating at LOS F.
[e] Shared City of Santa Monica and City of Los Angeles study intersection.

Table 9-2
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKEND MID-DAY PEAK HOUR

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay	Signif. Impact
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS	([3]-[2])	Yes/No [a]
1	Ocean Avenue/ California Avenue	Arterial	Midday	22	0.684	C	36	0.940	D	37	0.955	D	1	NO
2	Ocean Avenue/ Wilshire Boulevard	Arterial	Midday	14	0.450	B	17	0.701	B	17	0.708	B	0	NO
5	Lincoln Boulevard/ Montana Avenue	Collector	Midday	12	0.558	B	14	0.646	B	14	0.646	B	0	NO
6	Lincoln Boulevard/ Wilshire Boulevard	Arterial	Midday	14	0.561	B	18	0.838	B	19	0.847	B	1	NO
7	Lincoln Boulevard/ Arizona Avenue	Arterial	Midday	18	0.654	B	25	0.858	C	25	0.859	C	0	NO
8	Lincoln Boulevard/ Santa Monica Boulevard	Arterial	Midday	26	0.767	C	135	1.006	F	138	1.008	F	0.002	NO
9	Lincoln Boulevard/ Broadway	Arterial	Midday	19	0.807	B	69	1.492	E	69	1.497	E	0	NO
10	Lincoln Boulevard/ Colorado Avenue	Arterial	Midday	24	0.838	C	52	1.070	D	54	1.074	D	2	NO
11	Lincoln Boulevard/ Olympic Boulevard (WB)	Arterial	Midday	25	0.826	C	41	1.000	D	42	1.004	D	1	NO
12	Lincoln Boulevard/ Olympic Boulevard (EB)	Arterial	Midday	20	0.761	B	26	0.920	C	26	0.923	C	0	NO
16	9th Street/ Arizona Avenue [b]	Feeder	Midday	12	n/a	B	14	n/a	B	14	n/a	B	0	NO
17	9th Street/ Santa Monica Boulevard [b]	Arterial	Midday	21	n/a	C	44	n/a	E	46	n/a	E	2	YES
18	10th Street/ California Avenue [c]	Arterial	Midday	8	0.199	A	9	0.284	A	9	0.285	A	0	NO
19	10th Street/ Wilshire Boulevard [b] [d]	Arterial	Midday	89	n/a	F	922	*0.521*	F	938	*0.521*	F	0	NO
20	10th Street/ Arizona Avenue[c]	Feeder	Midday	9	0.301	A	10	0.411	A	10	0.411	A	0	NO
21	10th Street/ Santa Monica Boulevard [b]	Arterial	Midday	22	n/a	C	42	n/a	E	44	n/a	E	2	YES
22	10th Street/ Broadway [b]	Collector	Midday	14	n/a	B	24	n/a	C	24	n/a	C	0	NO
23	10th Street/ Colorado Avenue [b]	Arterial	Midday	12	n/a	B	12	n/a	B	12	n/a	B	0	NO
24	11th Street/ Montana Avenue	Collector	Midday	11	0.580	B	12	0.651	B	12	0.652	B	0	NO
25	11th Street/ California Avenue [c]	Collector	Midday	11	0.388	B	12	0.451	B	12	0.455	B	0	NO
26	11th Street/ Wilshire Boulevard	Arterial	Midday	10	0.493	B	11	0.632	B	11	0.634	B	0	NO
27	11th Street/ Arizona Avenue	Collector	Midday	14	0.449	B	15	0.547	B	16	0.553	B	1	NO
28	11th Street/ Santa Monica Boulevard	Arterial	Midday	14	0.470	B	15	0.615	B	15	0.630	B	0	NO
29	11th Street/ Broadway	Collector	Midday	16	0.566	B	22	0.787	C	22	0.791	C	0	NO
30	11th Street/ Colorado Avenue	Arterial	Midday	15	0.481	B	22	0.827	C	22	0.829	C	0	NO
31	11th Street/ Olympic Boulevard (WB)	Arterial	Midday	12	0.436	B	12	0.482	B	12	0.489	B	0	NO
32	11th Street/ Olympic Boulevard (EB)	Arterial	Midday	5	0.366	A	5	0.403	A	5	0.405	A	0	NO
33	12th Street/ Arizona Avenue [b]	Feeder	Midday	12	n/a	B	13	n/a	B	13	n/a	B	0	NO
34	12th Street/ Santa Monica Boulevard [b] [d]	Arterial	Midday	22	n/a	C	58	*0.393*	F	63	*0.404*	F	0.011	YES

Table 9-2 (Continued)
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF SANTA MONICA INTERSECTIONS
WEEKEND MID-DAY PEAK HOUR

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions			[2] Year 2017 Background Traffic Conditions			[3] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay	Signif. Impact
				Delay*	V/C	LOS	Delay*	V/C	LOS	Delay*	V/C	LOS	([3]-[2])	Yes/No [a]
35	Euclid Street/ Wilshire Boulevard	Arterial	Midday	10	0.562	B	11	0.713	B	11	0.717	B	0	NO
36	Euclid Street/ Arizona Avenue [b]	Feeder	Midday	13	n/a	B	15	n/a	C	15	n/a	C	0	NO
37	Euclid Street/ Santa Monica Boulevard [b] [d]	Arterial	Midday	29	n/a	D	128	*0.408*	F	149	*0.419*	F	0.011	YES
38	14th Street/ Montana Avenue	Collector	Midday	14	0.648	B	16	0.727	B	16	0.727	B	0	NO
39	14th Street/ Wilshire Boulevard	Arterial	Midday	13	0.559	B	15	0.729	B	15	0.730	B	0	NO
40	14th Street/ Arizona Avenue	Collector	Midday	13	0.443	B	15	0.543	B	15	0.544	B	0	NO
41	14th Street/ Santa Monica Boulevard	Arterial	Midday	14	0.485	B	15	0.626	B	15	0.637	B	0	NO
43	14th Street/ Colorado Avenue	Arterial	Midday	15	0.429	B	17	0.660	B	17	0.662	B	0	NO
69	20th Street/ Santa Monica Boulevard	Arterial	Midday	14	0.527	B	22	0.999	C	23	1.005	C	1	NO
73	20th Street/ I-10 Freeway WB On-Ramp	Collector	Midday	10	n/a	A	11	n/a	B	11	n/a	B	0	NO
74	20th Street/ I-10 Freeway EB Off-Ramp	Collector	Midday	10	0.286	A	13	0.401	B	13	0.401	B	0	NO
91	Cloverfield Boulevard/ I-10 Freeway WB Off-Ramp	Arterial	Midday	17	0.609	B	36	0.996	D	37	1.003	D	1	NO
92	Cloverfield Boulevard/ I-10 Freeway EB On-Ramp-Delaware Ave.	Arterial	Midday	15	0.779	B	32	1.011	C	33	1.013	C	1	NO

* Reported average control delay values in seconds per vehicle.
*** Oversaturated Conditions. Delay cannot be calculated.

[a] Note: City of Santa Monica intersection impact threshold criteria is as follows:

Future Base Scenario	Intersection Class	Future Plus Project Scenario
If LOS = A, B, or C and	Is a Collector Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes D, E, or F
	Is an Arterial Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes E or F
If LOS = D and	Is a Collector Street Intersection	Average delay (sec/veh) increases by ANY amount
	Is an Arterial Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes E or F
If LOS = E and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Average delay (sec/veh) increases by ANY amount
If LOS = F and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Net HCM V/C ratio increases by 0.005 or more

[b] Stop controlled intersection on the minor approaches.
[c] Stop controlled intersection on all approaches.
[d] This stop controlled intersection is forecast to operate at LOS F in the future and was analyzed as signalized to calculate the V/C increment required by the City of Santa Monica's impact threshold criteria for intersections operating at LOS F.

in *Appendix H* (refer to Appendix H-3). The future pre-Project weekday conditions HCM data worksheets for those unsignalized study intersections operating at LOS F (but analyzed as signalized intersections only for purposes of determining the *v/c* ratios) are also contained in *Appendix H* (refer to Appendix H-4). The future pre-Project traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in ***Figures 9-1*** and ***9-2***, respectively.

9.2.2 *Weekend Future Pre-Project Conditions*

The delay values and *v/c* ratios at all 42 City of Santa Monica study intersections located in the vicinity of the PAC Campus are incrementally increased with the addition of weekend traffic generated by the ambient growth plus related projects as shown in *Figure 6-1* and listed in *Appendix F*. As presented in column [2] of *Table 9-2*, 35 of the 42 City of Santa Monica study intersections are expected to continue operating at LOS D or better during the weekend mid-day peak hour with the addition of ambient traffic growth and traffic due to the related projects. The remaining seven City of Santa Monica study intersections are expected to operate at LOS E or F during the weekend mid-day peak hour as shown in *Table 9-2* with the addition of ambient traffic and traffic due to the related projects.

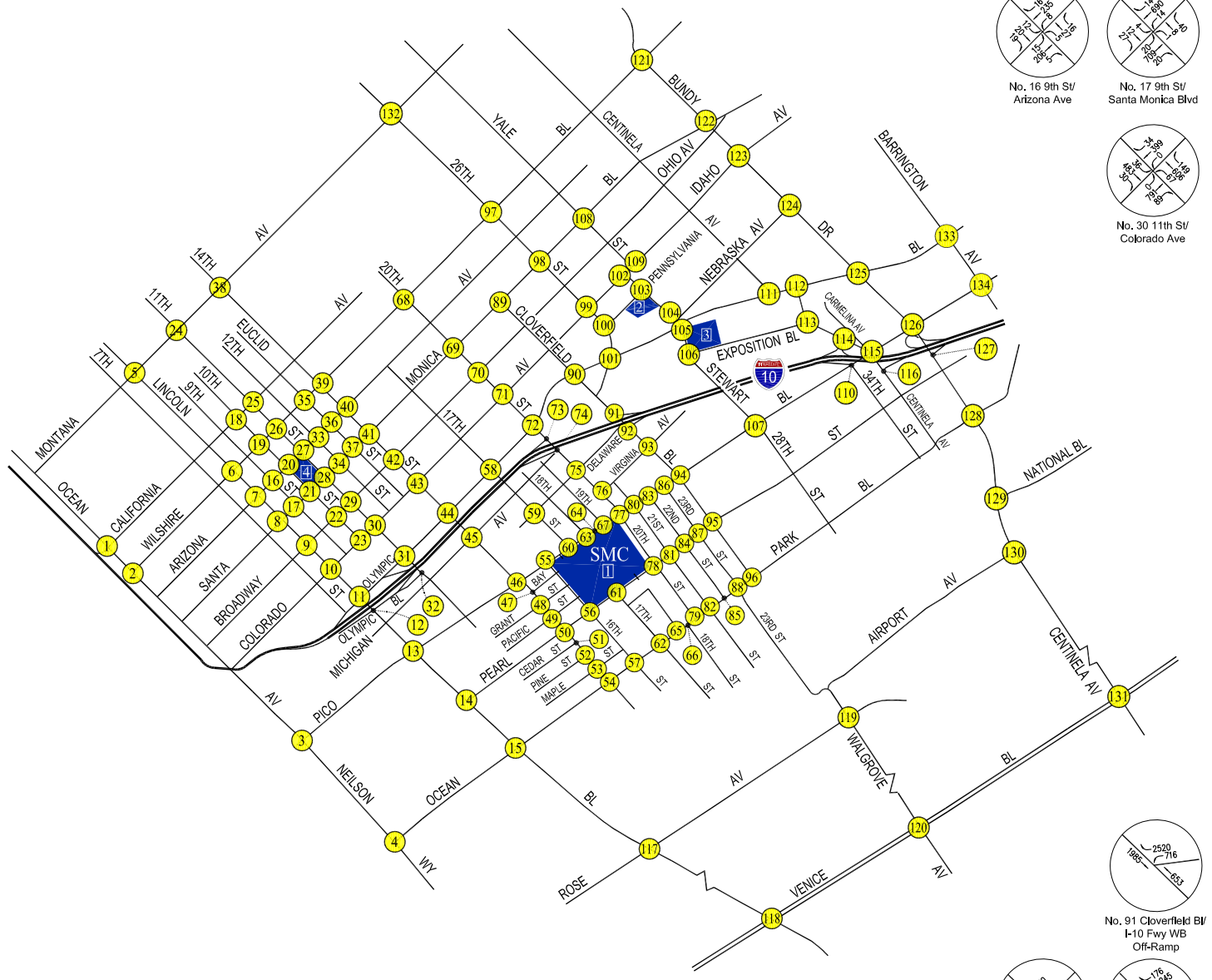
The future pre-Project (existing, ambient growth and related projects) conditions HCM data worksheets for the study intersections during the weekend mid-day peak hour are contained in *Appendix H* (refer to Appendix H-5). The future pre-Project weekend conditions HCM data worksheets for those unsignalized study intersections operating at LOS F (but analyzed as signalized intersections only for purposes of determining the *v/c* ratios) are also contained in *Appendix H* (refer to Appendix H-6). The future pre-Project (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekend mid-day peak hour are presented in ***Figure 9-3***.

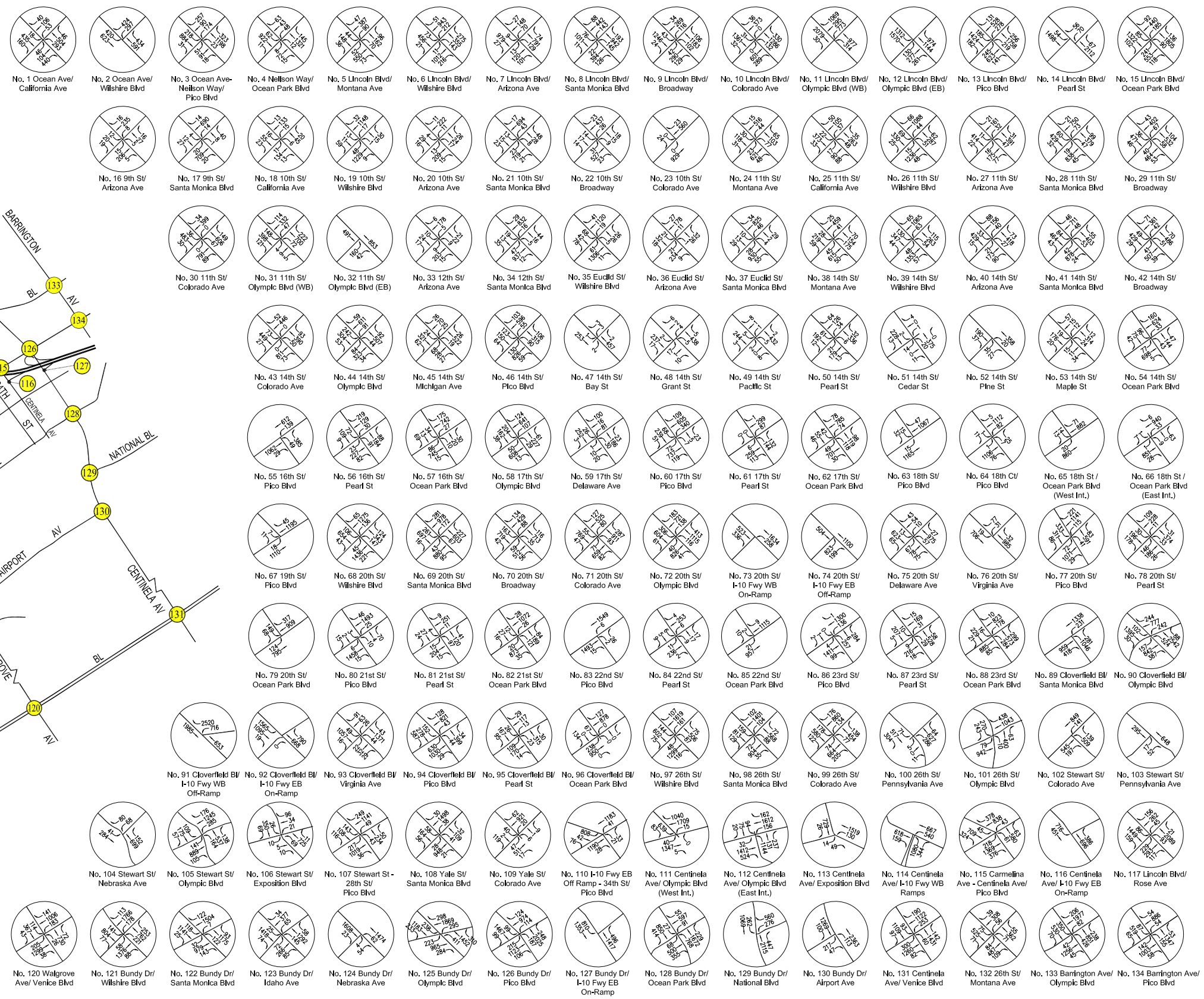
9.3 Future With Project Conditions

9.3.1 *Weekday Future With Project Conditions*

As shown in column [3] of *Table 9-1*, application of the City of Santa Monica's significant impact threshold criteria in the "Year 2017 Plus Project Traffic Conditions" scenario indicates that the Project is expected to create significant impacts at 29 of the 117 City of Santa Monica study intersections during weekday conditions. Incremental but not significant impacts are noted at the remaining 88 study intersections as presented in *Table 9-1*.

The future with Project (existing, ambient growth, related projects and Project) conditions HCM data worksheets for the study intersections during the weekday AM and PM peak hours are contained in *Appendix H* (refer to Appendix H-7). The future with Project weekday conditions HCM data worksheets for those unsignalized study intersections operating at LOS F (but analyzed as signalized intersections only for purposes of determining the *v/c* ratios) are also contained in *Appendix H* (refer to Appendix H-8). The future with Project traffic volumes at the





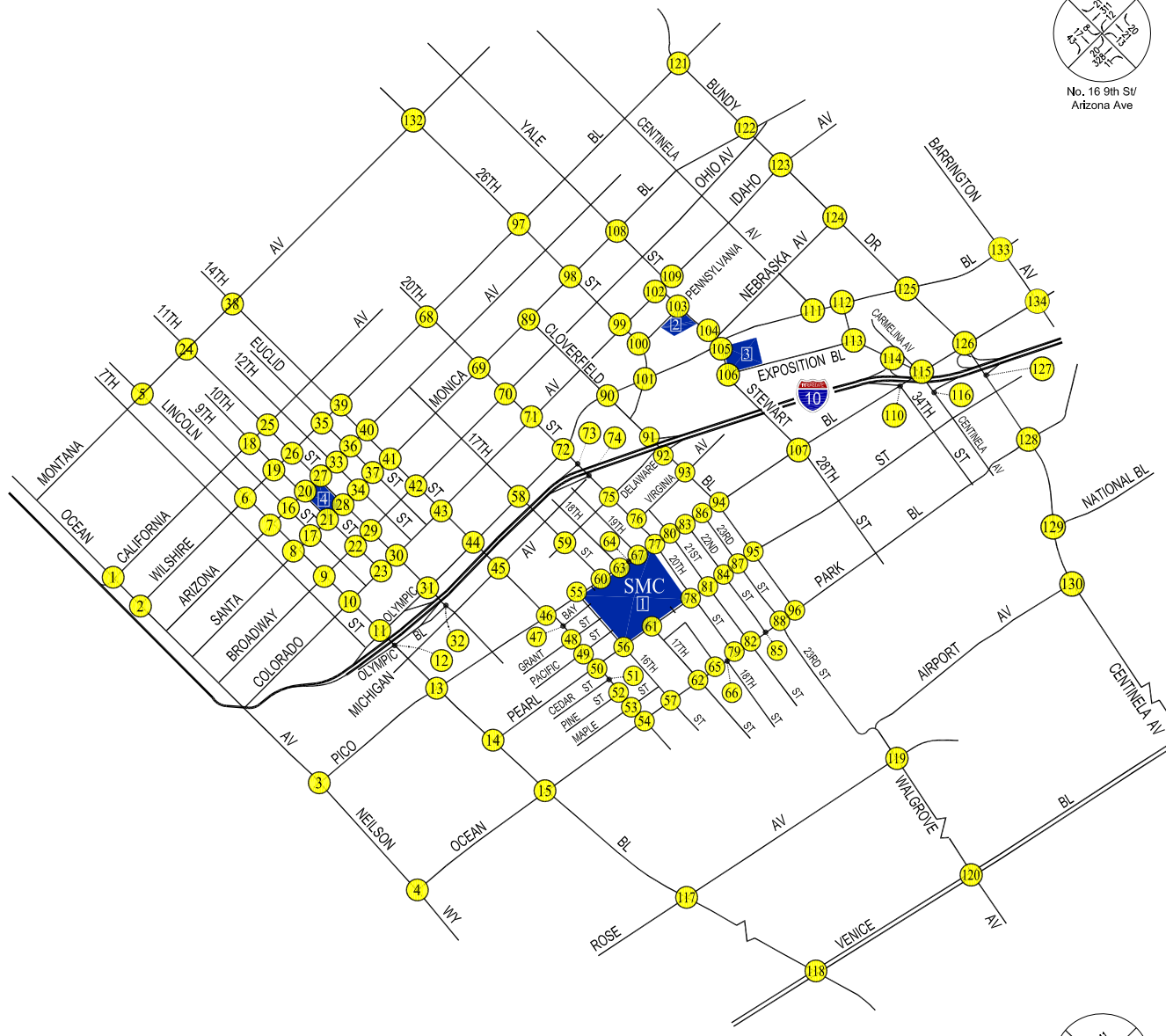
LEGEND:
1. SMC MAIN CAMPUS
2. SMC AET CAMPUS
3. SMC OLYMPIC SHUTTLE LOT
4. SMC PAC CAMPUS

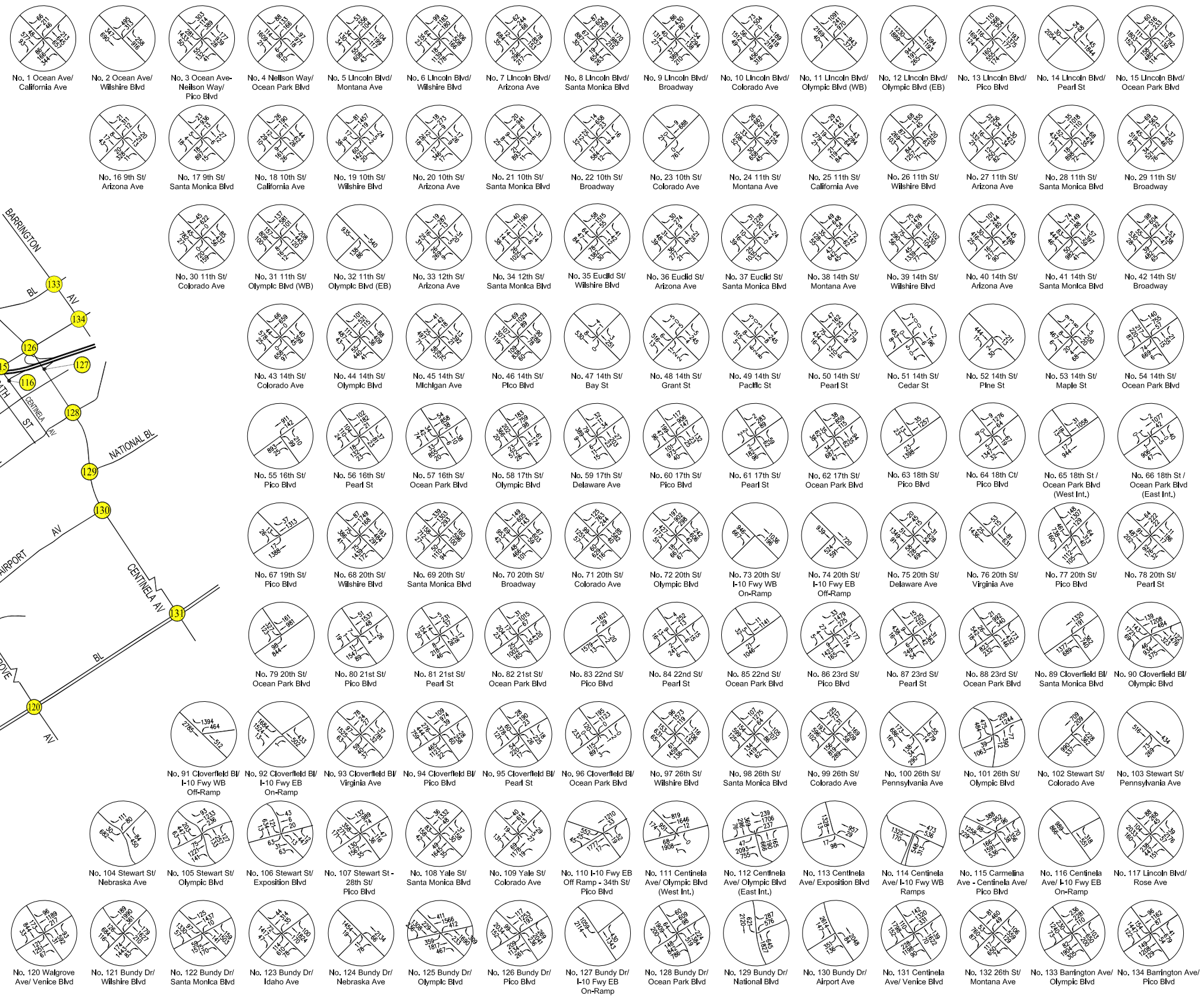
NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 9-1
FUTURE PRE-PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE





N

NOT TO SCALE

LEGEND:

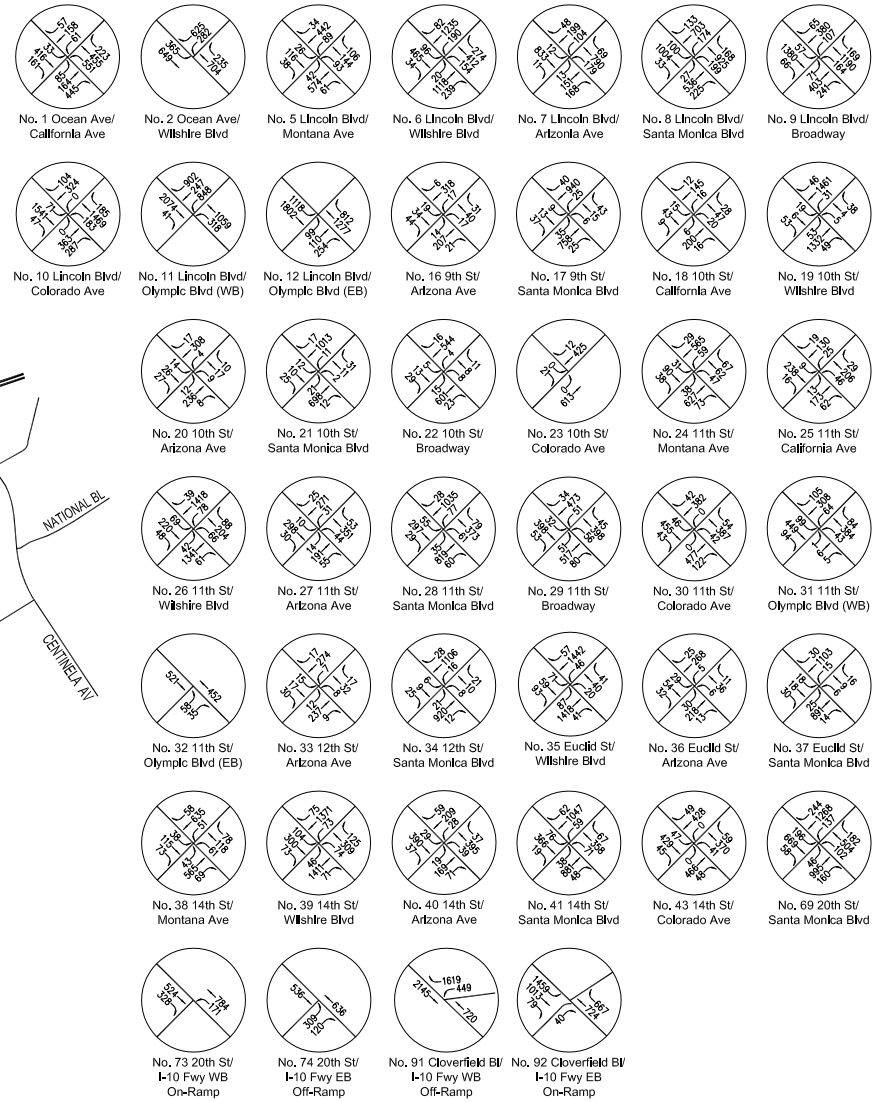
[1] SMC MAIN CAMPUS
[2] SMC AET CAMPUS
[3] SMC OLYMPIC SHUTTLE LOT
[4] SMC PAC CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 9-2
FUTURE PRE-PROJECT TRAFFIC VOLUMES

WEEKDAY PM PEAK HOUR

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE



N

NOT TO SCALE

LEGEND:

4 SMC PAC CAMPUS

FIGURE 9-3
FUTURE PRE-PROJECT TRAFFIC VOLUMES
WEEKEND MID-DAY PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

study intersections during the weekday AM and PM peak hours are illustrated in ***Figures 9-4*** and ***9-5***, respectively.

9.3.2 *Weekend Future With Project Conditions*

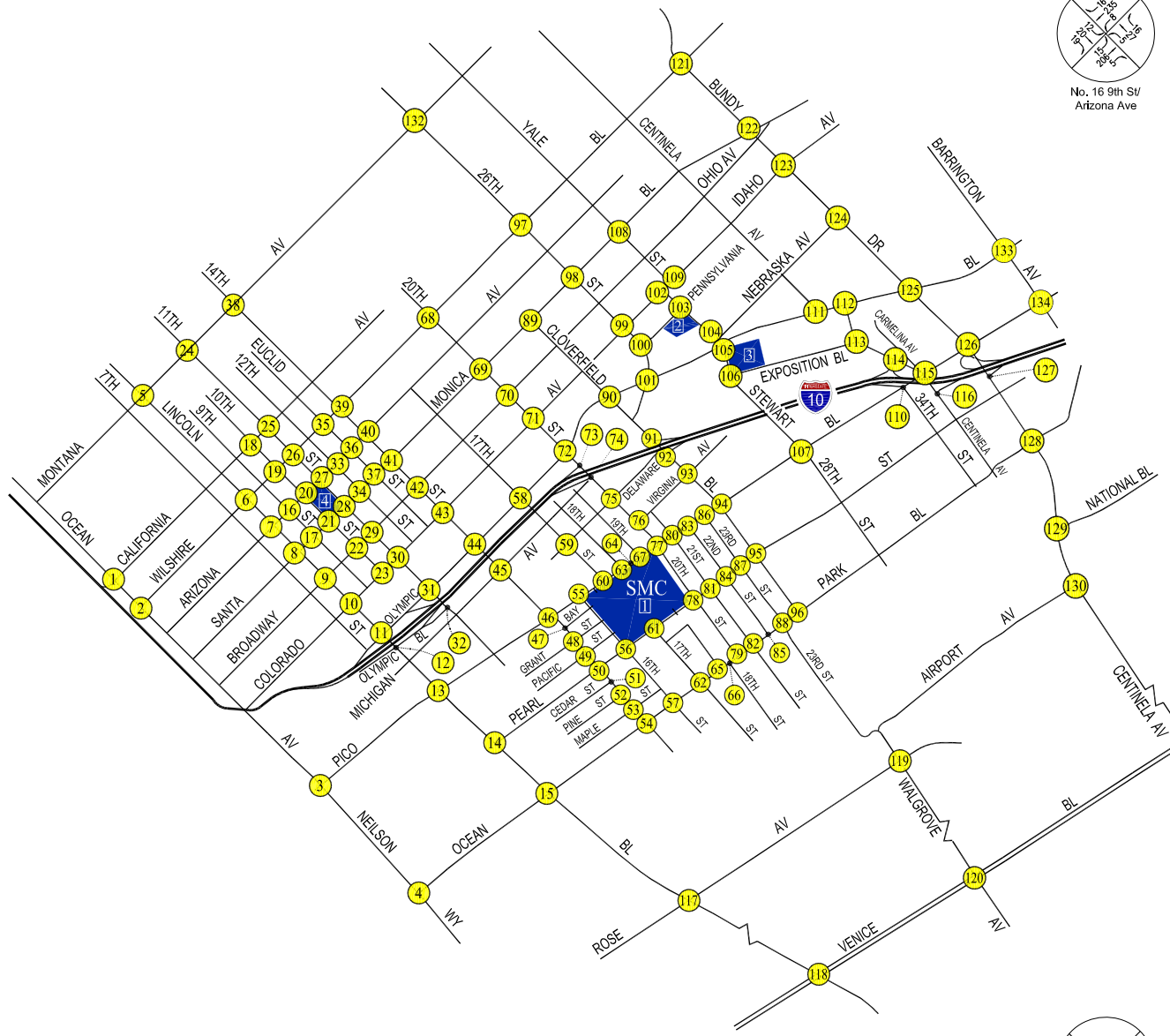
As shown in column [3] of *Table 9-2*, application of the City of Santa Monica's significant impact threshold criteria in the "Year 2017 Plus Project Traffic Conditions" scenario indicates that the Project is expected to create significant impacts at four of the City of Santa Monica study intersections located in the vicinity of the PAC Campus during the weekend conditions. Incremental but not significant impacts are noted at the remaining study intersections as presented in *Table 9-2*.

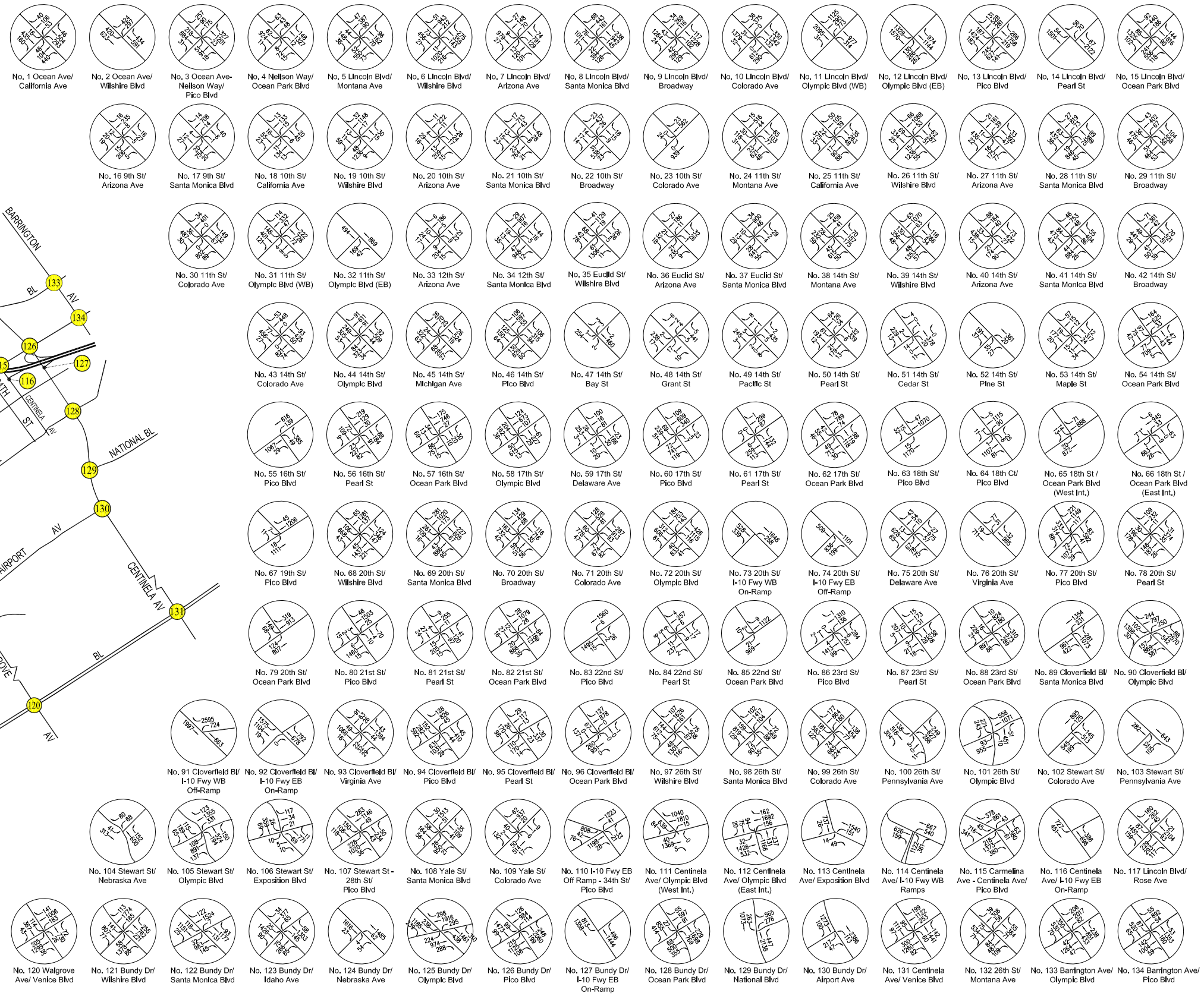
The future with Project (existing, ambient growth, related projects and Project) conditions HCM data worksheets for the study intersections during the weekend mid-day peak hour are contained in *Appendix H* (refer to Appendix H-9). The future with Project weekend conditions HCM data worksheets for those unsignalized study intersections operating at LOS F (but analyzed as signalized intersections only for purposes of determining the *v/c* ratios) are also contained in *Appendix H* (refer to Appendix H-10). The future with Project traffic volumes at the study intersections during the weekend mid-day peak hour are illustrated in ***Figure 9-6***.

9.3.3 *Summary of Project-Related Impacts – City of Santa Monica Study Intersections*

The following provides a summary of the 29 study intersections located in the City of Santa Monica that are determined to have significant traffic impacts due to the Project (and prior to consideration of recommended mitigation measures) during the weekday AM and/or PM peak hours, as well as the weekend mid-day peak hour, based on the City of Santa Monica traffic analysis methodologies and thresholds of significance.

- Int. No. 8: Lincoln Boulevard/Santa Monica Boulevard (PM peak hour)
- Int. No. 10: Lincoln Boulevard/Colorado Avenue (AM and PM peak hours)
- Int. No. 11: Lincoln Boulevard/Olympic Boulevard (WB) (PM peak hour)
- Int. No. 13: Lincoln Boulevard/Pico Boulevard (AM and PM peak hours)
- Int. No. 15: Lincoln Boulevard/Ocean Park Boulevard (AM peak hour)
- Int. No. 17: 9th Street/Santa Monica Boulevard (PM and weekend mid-day peak hours)
- Int. No. 21: 10th Street/Santa Monica Boulevard (AM, PM, weekend mid-day peak hours)
- Int. No. 30: 11th Street/Colorado Avenue (AM and PM peak hours)



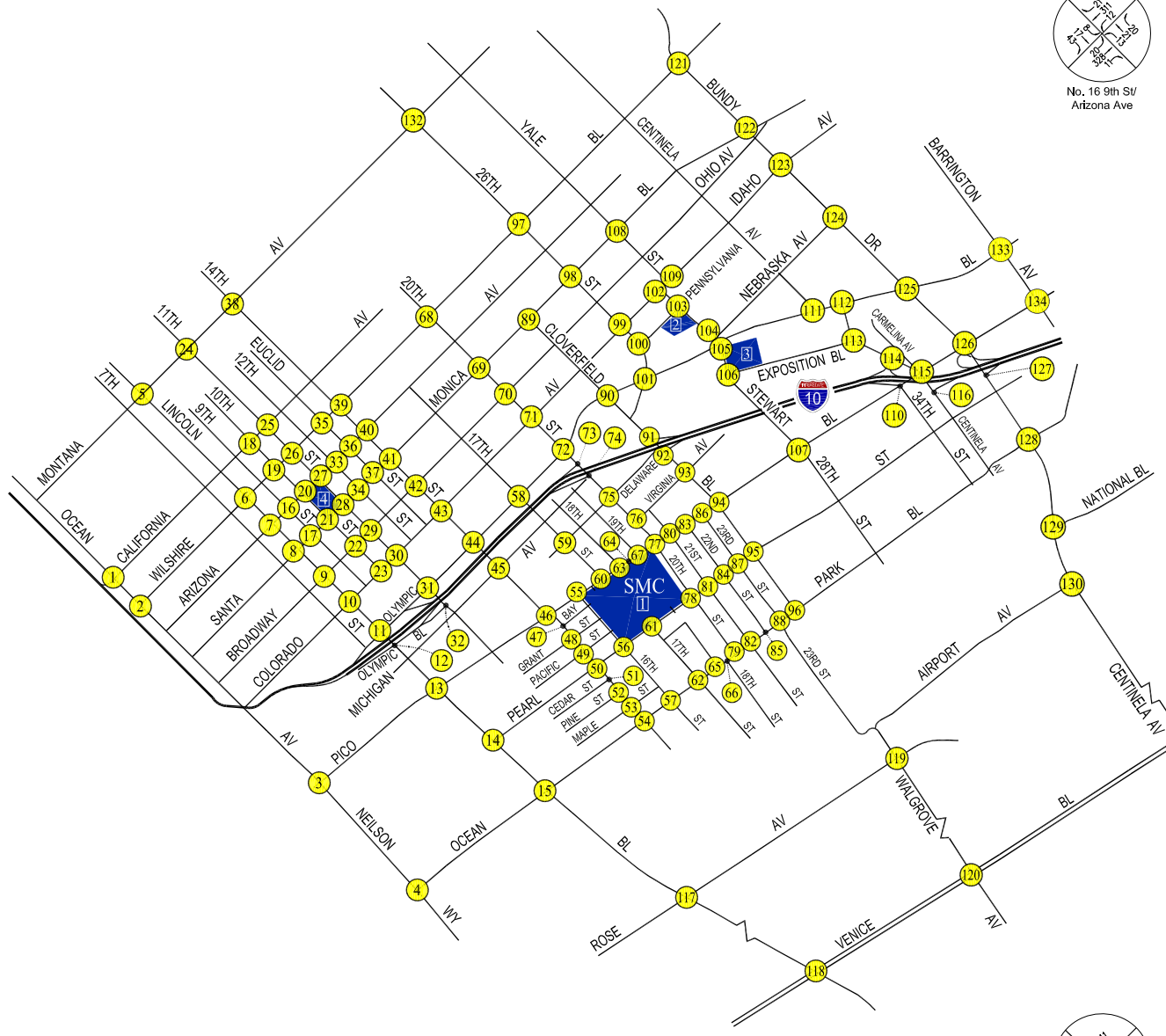


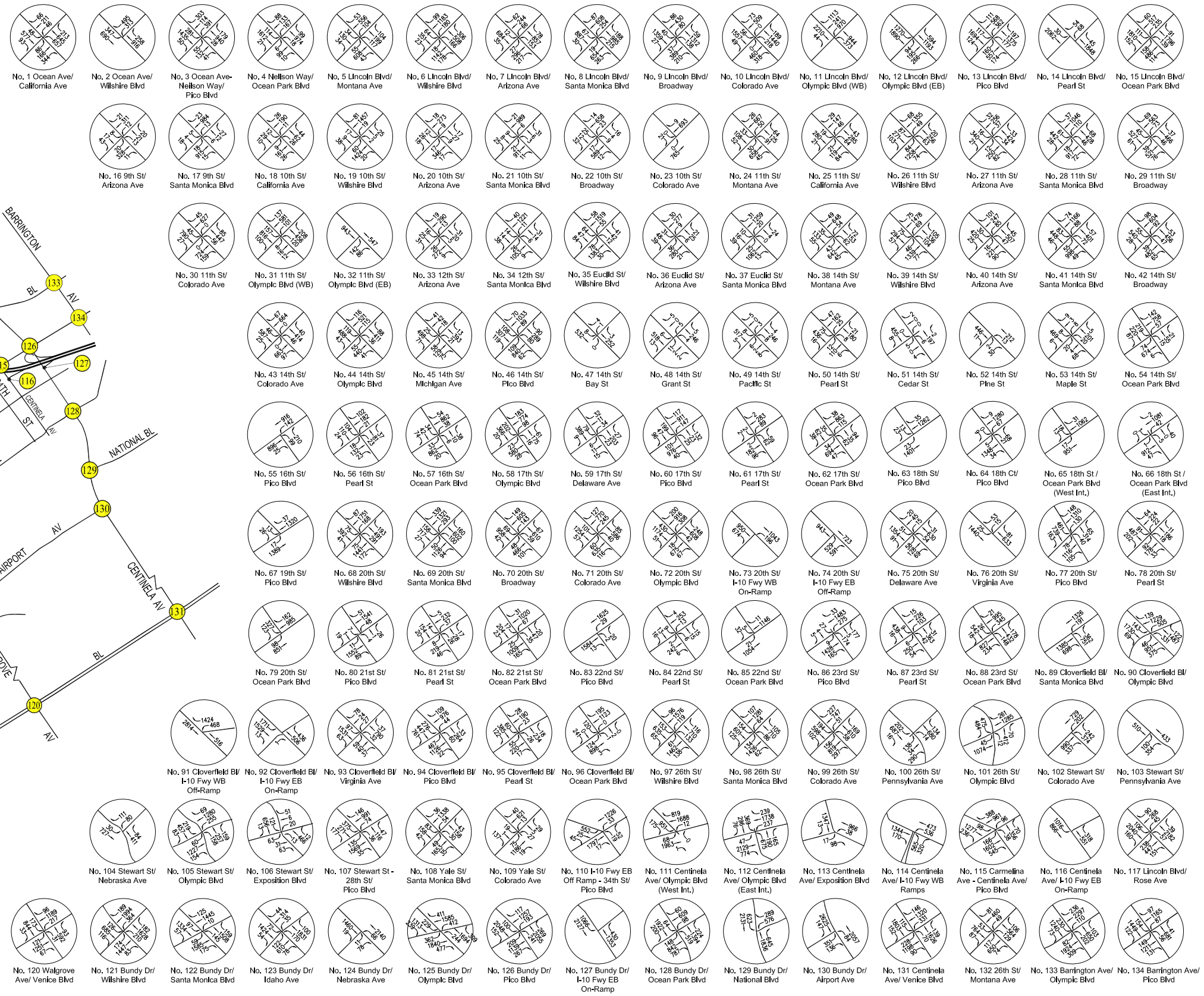
LEGEND:
[1] SMC MAIN CAMPUS
[2] SMC AET CAMPUS
[3] SMC OLYMPIC SHUTTLE LOT
[4] SMC PAC CAMPUS

N
NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 9-4
FUTURE WITH PROJECT TRAFFIC VOLUMES
WEEKDAY AM PEAK HOUR
SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE





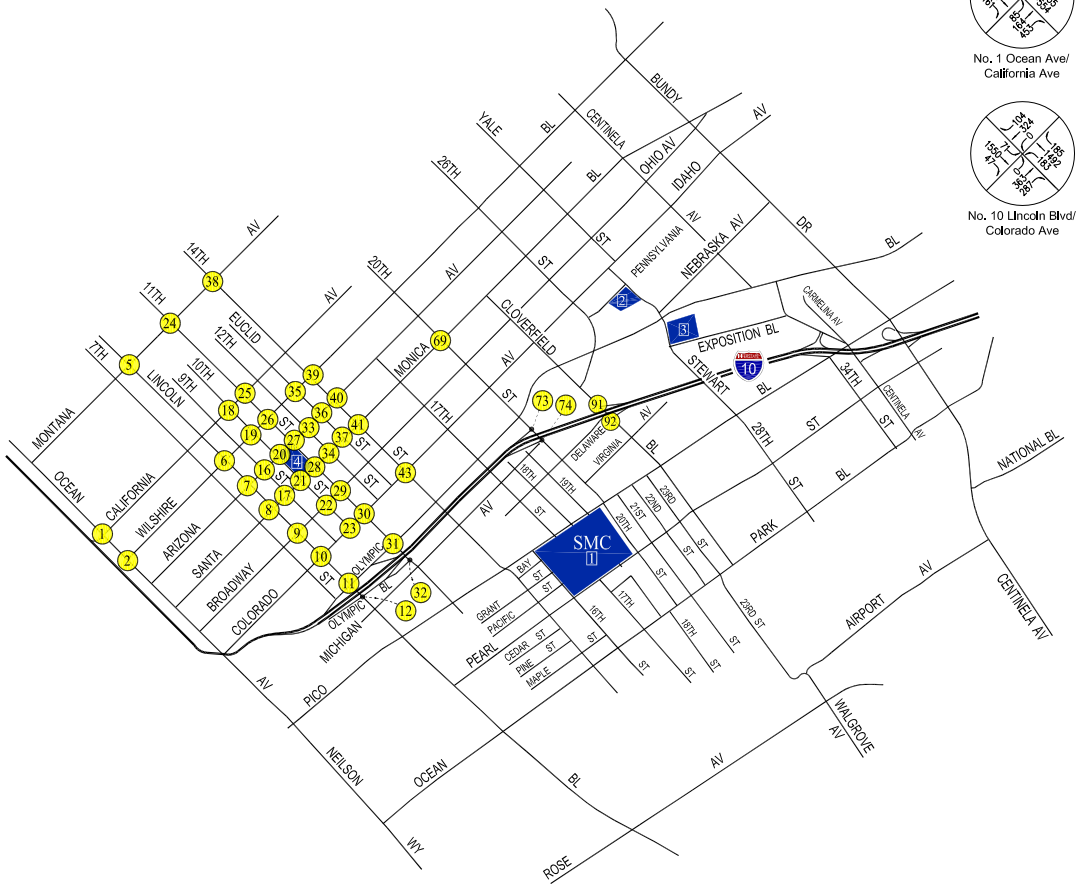
N

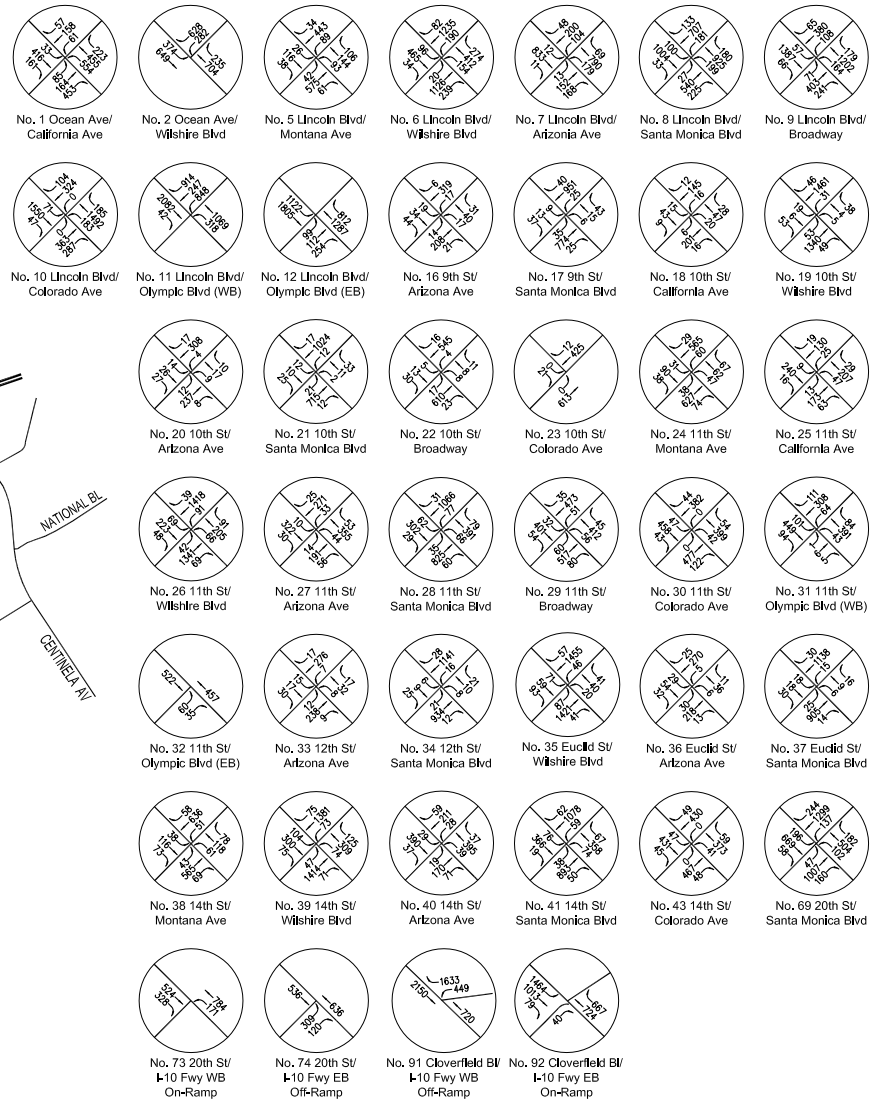
NOT TO SCALE

LEGEND:
1. SMC MAIN CAMPUS
2. SMC AET CAMPUS
3. SMC OLYMPIC SHUTTLE LOT
4. SMC PAC CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE 9-5
FUTURE WITH PROJECT TRAFFIC VOLUMES
WEEKDAY PM PEAK HOUR
SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE





LEGEND:

1 SMC MAIN CAMPUS
2 SMC AET CAMPUS
3 SMC OLYMPIC SHUTTLE LOT
4 SMC PAC CAMPUS

N

NOT TO SCALE

FIGURE 9-6
FUTURE WITH PROJECT TRAFFIC VOLUMES
WEEKEND MID-DAY PEAK HOUR

LINSCOTT, LAW & GREENSPAN, engineers

SANTA MONICA COLLEGE CAREER & EDUCATIONAL FACILITIES MASTER PLAN 2010 UPDATE

- Int. No. 34: 12th Street/Santa Monica Boulevard (AM, PM and weekend mid-day peak hours)
- Int. No. 37: Euclid Street/Santa Monica Boulevard (AM, PM and weekend mid-day peak hours)
- Int. No. 63: 18th Street/Pico Boulevard (PM peak hour)
- Int. No. 65: 18th Street (West Int.)/Ocean Park Boulevard (AM peak hour)
- Int. No. 68: 20th Street/Wilshire Boulevard (PM peak hour)
- Int. No. 72: 20th Street/Olympic Boulevard (AM peak hour)
- Int. No. 78: 20th Street/Pearl Street (AM and PM peak hours)
- Int. No. 82: 21st Street/Ocean Park Boulevard (AM peak hour)
- Int. No. 85: 22nd Street/Ocean Park Boulevard (PM peak hour)
- Int. No. 86: 23rd Street/Pico Boulevard (AM peak hour)
- Int. No. 87: 23rd Street/Pearl Street (AM peak hour)
- Int. No. 88: 23rd Street/Ocean Park Boulevard (AM and PM peak hours)
- Int. No. 90: Cloverfield Boulevard/Olympic Boulevard (AM and PM peak hours)
- Int. No. 91: Cloverfield Boulevard/I-10 Freeway WB Off-Ramp (AM peak hour)
- Int. No. 95: Cloverfield Boulevard/Pearl Street (PM peak hour)
- Int. No. 97: 26th Street/Wilshire Boulevard (AM peak hour)
- Int. No. 106: Stewart Street/Exposition Boulevard (AM and PM peak hours)
- Int. No. 109: Yale Street/Colorado Avenue (AM and PM peak hours)
- Int. No. 112: Centinela Avenue/Olympic Boulevard (East Intersection) (AM and PM peak hours)
- Int. No. 113: Centinela Avenue/Exposition Boulevard (AM and PM peak hours)
- Int. No. 114: Centinela Avenue/I-10 Freeway WB Ramps (AM and PM peak hours)

10.0 CITY OF LOS ANGELES TRAFFIC ANALYSIS

As discussed previously, a supplemental analysis was prepared using the CMA methodology for the 23 study intersections located partially or entirely in the City of Los Angeles (i.e., 17 study intersections situated within the City of Los Angeles and six study intersections shared with the City of Santa Monica). These intersections were evaluated for potential traffic impacts using the LADOT significant traffic impact thresholds in this supplemental traffic impact analysis. Accordingly, each of the six study intersections located partially within the City of Santa Monica and the City of Los Angeles was evaluated using the significant traffic impact criteria utilized by both agencies.

The traffic impact analysis prepared for the City of Los Angeles study intersections using the CMA methodology and application of the City of Los Angeles significant traffic impact criteria is summarized in ***Table 10-1*** for weekday AM and PM peak hour conditions. The CMA data worksheets for the analyzed intersections are contained in ***Appendix I***.

10.1 Weekday Existing Conditions

As indicated in column [1] of *Table 10-1*, 14 of the 23 City of Los Angeles study intersections are presently operating at LOS D or better during the weekday AM and PM peak hours under existing conditions. The remaining nine City of Los Angeles study intersections are currently operating at LOS E or F during the peak hours shown in *Table 10-1*. As previously mentioned, the existing traffic volumes at the study intersections during the weekday AM and PM peak hours are displayed in *Figures 5-1* and *5-2*, respectively.

10.2 Weekday Future Pre-Project Conditions

The *v/c* ratios at the study intersections are incrementally increased with the addition of traffic generated by the related projects shown in *Figure 6-1* and listed in *Appendix F*. As presented in column [2] of *Table 10-1*, one of the 23 City of Los Angeles study intersections is expected to continue operating at LOS D or better during the weekday AM and PM peak hours with the addition of ambient traffic growth and traffic due to the related projects. The remaining 22 City of Los Angeles study intersections are expected to operate at LOS E or F during the peak hours shown in *Table 10-1* with the addition of ambient traffic and traffic due to the related projects.

The future pre-Project traffic volumes at the study intersections during the weekday AM and PM peak hours are presented in *Figures 9-1* and *9-2*, respectively.

10.3 Weekday Future With Project Conditions

As shown in column [3] of *Table 10-1*, application of the City of Los Angeles' significant impact threshold criteria in the "Year 2017 Plus Project Traffic Conditions" scenario indicates that the Project is expected to create significant impacts at ten of the 23 City of Los Angeles study intersections during weekday AM and/or PM peak hour conditions, which are listed below:

Table 10-1
SUMMARY OF VOLUME TO CAPACITY RATIOS AND LEVELS OF SERVICE
CITY OF LOS ANGELES
WEEKDAY AM AND PM PEAK HOURS

No.	Key Intersection	Class.	Time Period	[1] Existing Traffic Conditions V/C	[1] Existing Traffic Conditions LOS	[2] Year 2017 Traffic Conditions V/C	[2] Year 2017 Traffic Conditions LOS	[3] Year 2017 Plus Project Traffic Conditions V/C	[3] Year 2017 Plus Project Traffic Conditions LOS	Change in V/C ([3]-[2])	Signif. Impact Yes/No [a]
111	Centinela Avenue/ Olympic Boulevard (West Int.) [b] [c]	Arterial	AM	0.625	B	0.774	C	0.810	D	0.036	YES
			PM	0.753	C	0.945	E	0.964	E	0.019	YES
112	Centinela Avenue/ Olympic Boulevard (East Int.) [b] [c]	Arterial	AM	0.646	B	0.977	E	1.002	F	0.025	YES
			PM	0.641	B	1.199	F	1.211	F	0.012	YES
113	Centinela Avenue/ Exposition Boulevard [b] [d]	Arterial	AM	1.223	F	1.426	F	1.461	F	0.035	YES
			PM	0.926	E	1.237	F	1.260	F	0.023	YES
114	Centinela Avenue/ I-10 Freeway WB Ramps [b] [c]	Arterial	AM	0.985	E	1.470	F	1.505	F	0.035	YES
			PM	0.961	E	1.590	F	1.615	F	0.025	YES
115	Carmelina Avenue-Centinela Avenue/ Pico Boulevard [b] [c]	Arterial	AM	0.714	C	0.868	D	0.875	D	0.007	NO
			PM	0.751	C	1.015	F	1.028	F	0.013	YES
116	Centinela Avenue/ I-10 Freeway EB On-Ramp [b] [c]	Arterial	AM	0.594	A	0.738	C	0.745	C	0.007	NO
			PM	0.533	A	0.849	D	0.867	D	0.018	NO
117	Lincoln Boulevard/ Rose Avenue [e] [f]	Arterial	AM	0.816	D	0.988	E	0.994	E	0.006	NO
			PM	0.843	D	1.045	F	1.048	F	0.003	NO
118	Lincoln Boulevard/ Venice Boulevard [e] [f]	Arterial	AM	0.761	C	0.949	E	0.955	E	0.006	NO
			PM	0.850	D	1.085	F	1.087	F	0.002	NO
119	Walgrove Avenue/ Rose Avenue [e] [f]	Arterial	AM	1.133	F	1.382	F	1.396	F	0.014	YES
			PM	0.973	E	1.226	F	1.231	F	0.005	NO
120	Walgrove Avenue/ Venice Boulevard [e] [f]	Arterial	AM	0.756	C	1.001	F	1.001	F	0.000	NO
			PM	0.844	D	1.120	F	1.120	F	0.000	NO
121	Bundy Drive/ Wilshire Boulevard [c] [e]	Arterial	AM	0.868	D	1.065	F	1.069	F	0.004	NO
			PM	1.153	F	1.499	F	1.501	F	0.002	NO
122	Bundy Drive/ Santa Monica Boulevard [c] [e]	Arterial	AM	0.570	A	0.759	C	0.773	C	0.014	NO
			PM	0.698	B	1.054	F	1.060	F	0.006	NO
123	Bundy Drive/ Idaho Avenue [c] [e]	Arterial	AM	0.639	B	0.859	D	0.869	D	0.010	NO
			PM	0.778	C	1.071	F	1.074	F	0.003	NO
124	Bundy Drive/ Nebraska Avenue [d] [e]	Arterial	AM	0.602	B	0.780	C	0.783	C	0.003	NO
			PM	0.726	C	0.964	E	0.966	E	0.002	NO
125	Bundy Drive/ Olympic Boulevard [c] [e]	Arterial	AM	0.925	E	1.244	F	1.277	F	0.033	YES
			PM	0.944	E	1.322	F	1.330	F	0.008	NO
126	Bundy Drive/ Pico Boulevard [c] [e]	Arterial	AM	0.869	D	1.125	F	1.140	F	0.015	YES
			PM	1.075	F	1.461	F	1.472	F	0.011	YES
127	Bundy Drive/ I-10 Freeway EB On-Ramp [c] [e]	Arterial	AM	0.707	C	0.965	E	0.977	E	0.012	YES
			PM	0.750	C	1.115	F	1.123	F	0.008	NO
128	Bundy Drive/ Ocean Park Boulevard [c] [e]	Arterial	AM	0.933	E	1.014	F	1.016	F	0.002	NO
			PM	1.072	F	1.298	F	1.302	F	0.004	NO
129	Bundy Drive/ National Boulevard [c] [e]	Arterial	AM	0.904	E	1.035	F	1.047	F	0.012	YES
			PM	0.862	D	1.003	F	1.007	F	0.004	NO
130	Bundy Drive/ Airport Avenue [c] [e]	Arterial	AM	0.713	C	0.830	D	0.838	D	0.008	NO
			PM	0.853	D	1.059	F	1.063	F	0.004	NO
131	Centinela Avenue/ Venice Boulevard [e] [f]	Arterial	AM	0.861	D	1.034	F	1.041	F	0.007	NO
			PM	0.941	E	1.146	F	1.148	F	0.002	NO
133	Barrington Avenue/ Olympic Boulevard [c] [e]	Arterial	AM	0.853	D	0.936	E	0.945	E	0.009	NO
			PM	0.847	D	1.069	F	1.076	F	0.007	NO
134	Barrington Avenue/ Pico Boulevard [c] [e]	Arterial	AM	0.723	C	0.832	D	0.837	D	0.005	NO
			PM	0.825	D	0.937	E	0.940	E	0.003	NO

[a] Note: City of Los Angeles intersection impact threshold criteria is as follows:

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

[b] Shared City of Santa Monica and City of Los Angeles study intersection.
[c] This intersection currently operates under the ATSAC system. This intersection is planned to operate under the ATSAC/ATCS system in the future.
[d] The stop controlled intersection was analyzed as a signalized intersection with a capacity of 1,200 to determine the V/C
[e] City of Los Angeles study intersection.
[f] This intersection currently operates under the ATSAC/ATCS system.

- Int. No. 111: Centinela Avenue/Olympic Boulevard (West Int.) (AM and PM peak hours)
- Int. No. 112: Centinela Avenue/Olympic Boulevard (East Int.) (AM and PM peak hours)
- Int. No. 113: Centinela Avenue/Exposition Boulevard (AM and PM peak hours)
- Int. No. 114: Centinela Avenue/I-10 Freeway WB Ramps (AM and PM peak hours)
- Int. No. 115: Carmelina Avenue-Centinela Avenue/Pico Boulevard (PM peak hour)
- Int. No. 119: Walgrove Avenue/Rose Avenue (AM peak hour)
- Int. No. 125: Bundy Drive/Olympic Boulevard (AM peak hour)
- Int. No. 126: Bundy Drive/Pico Boulevard (AM and PM peak hours)
- Int. No. 127: Bundy Drive/I-10 Freeway EB On-Ramp (AM peak hour)
- Int. No. 129: Bundy Drive/National Boulevard (AM peak hour)

Incremental but not significant impacts are noted at the remaining 13 study intersections as presented in *Table 10-1*. It should be noted that three of the ten study intersections (Nos. 112, 113 and 114) forecast to be significantly impacted based on the City of Los Angeles methodology also are forecast to be significantly impacted based on the City of Santa Monica methodology. The future with Project traffic volumes at the study intersections during the weekday AM and PM peak hours are illustrated in *Figures 9-4* and *9-5*, respectively.

11.0 STREET SEGMENT ANALYSIS

The City of Santa Monica, in addition to evaluating potential project-related impacts at study intersections, also reviews a project's potential effects on study street segments. Accordingly, the Lead Agency directed that analysis be prepared of the Project's potential traffic impacts to nearby street segments consistent with the City of Santa Monica analysis procedures and thresholds of significance. As required by the City of Santa Monica traffic study guidelines, existing and existing with Project Average Daily Traffic (ADT) volumes were determined at 66 street segment locations in the vicinity of the proposed SMC campuses for the SMC Career & Educational Facilities Master Plan 2010 Update. The City of Santa Monica ADT impact threshold criteria for street segments are listed in ***Table 11–1***.

Table 11-1
CITY OF SANTA MONICA
STREET SEGMENT IMPACT THRESHOLD CRITERIA

A transportation impact is significant if the Base Average Daily Traffic Volume (ADT) is:	
Collector Streets	Greater than 13,500 (90% of capacity) and there is a net increase* of one trip or more in ADT due to project-related traffic
	Greater than 7,500 (50% of capacity) but less than 13,500 and the project-related traffic increases* the ADT by 12.5% or the ADT becomes 13,500 or more
	Less than 7,500 and the project-related traffic increases* the ADT by 25%
Feeder Streets	Greater than 6,750 (90% of capacity) and there is a net increase* of one trip or more in ADT due to project-related traffic
	Greater than 3,750 (50% of capacity) but less than 6,750 and the project related traffic increases* the ADT by 12.5% or the ADT becomes 6,750 or more
	Less than 3,750 and the project-related traffic increases* the ADT by 25%
Residential Streets	Greater than 2,250 (90% of capacity) and there is a net increase* of one trip or more in ADT due to project-related traffic
	Greater than 1,250 (50% of capacity) but less than 2,250 and the project related traffic increases* the ADT by 12.5% or the ADT becomes 2,250 or more
	Less than 1,250 and the project-related traffic increases* the ADT by 25%

Note: *Average Daily Traffic Volume "increase" denotes adverse impacts; "decrease" denotes beneficial impacts.

The 66 street segment locations identified in the ADT analysis are listed in ***Table 11-2***. Automatic 24-hour machine traffic counts were conducted by a traffic count subconsultant at the 66 study street segment locations for a weekday and 12 of the 66 street segment locations for a weekend day in Fall 2008. Copies of the weekday and weekend 24-hour machine traffic counts for the study street segment locations are contained in *Appendices D* and *E*, respectively.

11.1 Existing and Future Street Segment Conditions

The existing and future ADT volumes at the study street segment locations are summarized in ***Table 11-2*** for weekday conditions at 66 study street segments and weekend conditions at 12 study street segments (Nos. 1 through 12). The existing ADT volume is shown in column [1]. The forecast future ADT volumes with the addition of ambient traffic growth for the analyzed street segment locations are shown in column [2]. Finally, the forecast future with Project ADT volumes and the Project-related percent increase in ADT growth for the analyzed street segment locations are presented in column [3].

11.2 Summary of Street Segment Impact Analysis

Application of the City's threshold criteria to the "Year 2017 With Project" scenario indicates that the proposed SMC Career & Educational Facilities Master Plan 2010 Update is expected to create significant impacts at 13 of the 66 study street segments during the weekday conditions as listed below:

- Seg. No. 16: 14th Street, between Pico Boulevard and Bay Street
- Seg. No. 17: 14th Street, between Pacific Street and Pearl Street
- Seg. No. 18: 14th Street, between Pearl Street and Cedar Street
- Seg. No. 28: Pearl Street, between 16th Street and 17th Street
- Seg. No. 33: Pearl Street, between 17th Street and SMC Main Campus Driveway
- Seg. No. 36: Pearl Street, between SMC Main Campus Driveway and 20th Street
- Seg. No. 39: 20th Street, between Virginia Avenue and Pico Boulevard
- Seg. No. 51: 23rd Street, between Ocean Park Boulevard and Ocean Park Place South
- Seg. No. 55: Pennsylvania Avenue, between 26th Street and Stewart Street
- Seg. No. 57: Colorado Avenue, between Harvard Street and Stewart Street
- Seg. No. 60: Stewart Street, between Nebraska Avenue and Olympic Boulevard

Table 11-2
SUMMARY OF STREET SEGMENT ANALYSIS
WEEKDAY AND WEEKEND CONDITIONS

Street Segment Location	Class	Day	[1] Year 2008 Existing ADT	[2] Year 2017 Pre-Project ADT	[2] Year 2017 Pre-Project ADT Increase	[3] Year 2017 With Project ADT	[3] Year 2017 With Project Project Volumes	[3] Year 2017 With Project % ADT Increase	[3] Year 2017 With Project Impact
1. Arizona Avenue, between 9th Street and 10th Street	Feeder	Weekday	6,140	6,596	456	6,596	0	0.0%	NO
	Feeder	Weekend	4,706	5,056	350	5,070	14	0.3%	NO
2. 10th Street, between California Avenue and Wilshire Boulevard	Local	Weekday	2,139	2,298	159	2,298	0	0.0%	NO
	Local	Weekend	2,211	2,375	164	2,375	0	0.0%	NO
3. 10th Street, between Wilshire Boulevard and Arizona Avenue	Local	Weekday	1,548	1,663	115	1,674	11	0.7%	NO
	Local	Weekend	1,424	1,530	106	1,530	0	0.0%	NO
4. 10th Street, between Arizona Avenue and Santa Monica Boulevard	Local	Weekday	1,459	1,567	108	1,578	11	0.7%	NO
	Local	Weekend	994	1,068	74	1,075	7	0.7%	NO
5. 10th Street, between Santa Monica Boulevard and Broadway	Local	Weekday	1,561	1,677	116	1,677	0	0.0%	NO
	Local	Weekend	869	934	65	962	28	3.0%	NO
6. Arizona Avenue, between 10th Street and 11th Street	Feeder	Weekday	5,928	6,369	441	6,369	0	0.0%	NO
	Feeder	Weekend	4,235	4,550	315	4,557	7	0.2%	NO
7. 11th Street, between California Avenue and Wilshire Boulevard	Collector	Weekday	8,423	9,049	626	9,088	39	0.4%	NO
	Collector	Weekend	7,022	7,544	522	7,586	42	0.6%	NO
8. 11th Street, between Wilshire Boulevard and Arizona Avenue	Collector	Weekday	9,782	10,509	727	10,646	137	1.3%	NO
	Collector	Weekend	7,848	8,431	583	8,685	254	3.0%	NO
9. 11th Street, between Arizona Avenue and SMC PAC Campus driveway	Collector	Weekday	11,100	11,925	825	12,150	225	1.9%	NO
	Collector	Weekend	8,599	9,238	639	9,527	289	3.1%	NO
10. 11th Street, between SMC PAC Campus driveway and Santa Monica Boulevard	Collector	Weekday	11,790	12,667	877	13,176	509	4.0%	NO
	Collector	Weekend	8,772	9,424	652	9,812	388	4.1%	NO
11. 11th Street, between Santa Monica Boulevard and Broadway	Collector	Weekday	12,206	13,113	907	13,435	322	2.5%	NO
	Collector	Weekend	9,336	10,030	694	10,284	254	2.5%	NO
12. Arizona Avenue, between 11th Street and 12th Street	Feeder	Weekday	5,072	5,449	377	5,537	88	1.6%	NO
	Feeder	Weekend	4,454	4,785	331	4,813	28	0.6%	NO

Table 11-2 (Continued)
SUMMARY OF STREET SEGMENT ANALYSIS
WEEKDAY AND WEEKEND CONDITIONS

Street Segment Location	Class	Day	[1] Year 2008 Existing ADT	[2] Year 2017 Pre-Project ADT	[2] Year 2017 Pre-Project ADT Increase	[3] Year 2017 With Project ADT	[3] Year 2017 With Project Project Volumes	[3] Year 2017 With Project % ADT Increase	[3] Year 2017 With Project Impact
13. Pearl Street, between Euclid Street and 14th Street	Feeder	Weekday	2,009	2,158	149	2,164	6	0.3%	NO
14. Cedar Street, between Euclid Street and 14th Street	Local	Weekday	329	353	24	353	0	0.0%	NO
15. 14th Street, between Delaware Avenue and Pico Boulevard	Collector	Weekday	10,126	10,879	753	10,885	6	0.1%	NO
16. 14th Street, between Pico Boulevard and Bay Street	Feeder	Weekday	7,667	8,237	570	8,281	44	0.5%	YES
17. 14th Street, between Pacific Street and Pearl Street	Feeder	Weekday	7,083	7,610	527	7,654	44	0.6%	YES
18. 14th Street, between Pearl Street and Cedar Street	Feeder	Weekday	6,329	6,800	471	6,844	44	0.6%	YES
19. 14th Street, between Ocean Park Boulevard and Ocean Park Place South	Local	Weekday	3,275	3,518	243	3,518	0	0.0%	NO
20. Pearl Street, between 14th Street and 16th Street	Feeder	Weekday	3,082	3,311	229	3,317	6	0.2%	NO
21. Maple Street, between 14th Street and 16th Street	Local	Weekday	531	570	39	570	0	0.0%	NO
22. 16th Street, between Pico Boulevard and Bay Street	Local	Weekday	5,750	6,177	427	6,177	0	0.0%	NO
23. 16th Street, between Pacific Street and Pearl Street	Local	Weekday	5,574	5,988	414	5,988	0	0.0%	NO
24. 16th Street, between Pearl Street and Maple Street	Local	Weekday	3,989	4,286	297	4,286	0	0.0%	NO
25. 16th Street, between Ocean Park Boulevard and Ocean Park Place South	Local	Weekday	3,458	3,715	257	3,715	0	0.0%	NO
26. Michigan Avenue, between 16th Street and 17th Street	Local	Weekday	1,968	2,114	146	2,114	0	0.0%	NO
27. Delaware Avenue, between 16th Street and 17th Street	Local	Weekday	1,078	1,158	80	1,158	0	0.0%	NO
28. Pearl Street, between 16th Street and 17th Street	Feeder	Weekday	6,381	6,855	474	6,861	6	0.1%	YES
29. 17th Street, between Delaware Avenue and Pico Boulevard	Feeder	Weekday	6,009	6,456	447	6,462	6	0.1%	NO
30. 17th Street, between Pearl Street and Ocean Park Boulevard	Feeder	Weekday	2,773	2,979	206	2,979	0	0.0%	NO
31. 17th Street, between Ocean Park Boulevard and Ocean Park Place South	Feeder	Weekday	4,921	5,287	366	5,287	0	0.0%	NO
32. Delaware Avenue, between 17th Street and 18th Street	Local	Weekday	2,540	2,729	189	2,729	0	0.0%	NO
33. Pearl Street, between 17th Street and SMC Main Campus Driveway	Feeder	Weekday	6,950	7,467	517	7,473	6	0.1%	YES
34. 18th Street, between Delaware Avenue and Pico Boulevard	Local	Weekday	1,052	1,130	78	1,130	0	0.0%	NO
35. 18th Street, between Ocean Park Boulevard and Ocean Park Place South	Local	Weekday	246	264	18	264	0	0.0%	NO

Table 11-2 (Continued)
SUMMARY OF STREET SEGMENT ANALYSIS
WEEKDAY AND WEEKEND CONDITIONS

Street Segment Location	Class	Day	[1] Year 2008 Existing ADT	[2] Year 2017 Pre-Project ADT	[2] Year 2017 Pre-Project ADT Increase	[3] Year 2017 With Project ADT	[3] Year 2017 With Project Project Volumes	[3] Year 2017 With Project % ADT Increase	[3] Year 2017 With Project Impact
36. Pearl Street, between SMC Main Campus Driveway and 20th Street	Feeder	Weekday	7,355	7,902	547	7,966	64	0.8%	YES
37. 19th Street, between Delaware Avenue and Pico Boulevard	Local	Weekday	919	987	68	987	0	0.0%	NO
38. Delaware Avenue, between 19th Street and 20th Street	Local	Weekday	2,874	3,088	214	3,088	0	0.0%	NO
39. 20th Street, between Virginia Avenue and Pico Boulevard	Collector	Weekday	15,685	16,851	1,166	16,937	86	0.5%	YES
40. 20th Street, between Pico Boulevard and Pearl Street	Collector	Weekday	9,634	10,350	716	10,402	52	0.5%	NO
41. 20th Street, between Pearl Street and Ocean Park Boulevard North	Collector	Weekday	6,119	6,574	455	6,596	22	0.3%	NO
42. Pearl Street, between 20th Street and 21st Street	Feeder	Weekday	5,543	5,955	412	5,997	42	0.7%	NO
43. 21st Street, between Pico Boulevard and Pearl Street	Local	Weekday	2,000	2,149	149	2,149	0	0.0%	NO
44. 21st Street, between Pearl Street and Ocean Park Boulevard North	Local	Weekday	2,245	2,412	167	2,412	0	0.0%	NO
45. 21st Street, between Ocean Park Boulevard and Ocean Park Place South	Local	Weekday	4,038	4,338	300	4,338	0	0.0%	NO
46. 22nd Street, between Pico Boulevard and Pearl Street	Local	Weekday	723	777	54	777	0	0.0%	NO
47. 22nd Street, between Pearl Street and Ocean Park Boulevard North	Local	Weekday	657	706	49	706	0	0.0%	NO
48. Virginia Avenue, between 22nd Street and Cloverfield Boulevard	Local	Weekday	2,370	2,546	176	2,546	0	0.0%	NO
49. 23rd Street, between Pico Boulevard and Pearl Street	Collector	Weekday	7,404	7,954	550	7,954	0	0.0%	NO
50. 23rd Street, between Pearl Street and Ocean Park Boulevard	Collector	Weekday	8,722	9,370	648	9,370	0	0.0%	NO
51. 23rd Street, between Ocean Park Boulevard and Ocean Park Place South	Collector	Weekday	16,300	17,512	1,212	17,702	190	1.1%	YES
52. Pearl Street, between 23rd Street and Cloverfield Boulevard	Feeder	Weekday	5,593	6,009	416	6,051	42	0.7%	NO
53. Cloverfield Boulevard, between Pico Boulevard and Pearl Street	Collector	Weekday	5,738	6,165	427	6,424	259	4.2%	NO
54. Cloverfield Boulevard, between Pearl Street and Ocean Park Boulevard	Collector	Weekday	6,012	6,459	447	6,688	229	3.5%	NO
55. Pennsylvania Avenue, between 26th Street and Stewart Street	Local	Weekday	2,149	2,309	160	3,050	741	32.1%	YES
56. Harvard Street, between Broadway and Colorado Avenue	Local	Weekday	1,135	1,219	84	1,219	0	0.0%	NO
57. Colorado Avenue, between Harvard Street and Stewart Street	Collector	Weekday	16,629	17,865	1,236	18,188	323	1.8%	YES
58. Stewart Street, between Colorado Avenue and Pennsylvania Avenue	Collector	Weekday	9,354	10,049	695	10,442	393	3.9%	NO

Table 11-2 (Continued)
SUMMARY OF STREET SEGMENT ANALYSIS
WEEKDAY AND WEEKEND CONDITIONS

Street Segment Location	Class	Day	[1] Year 2008 Existing ADT	[2] Year 2017 Pre-Project ADT	[2] Year 2017 Pre-Project ADT Increase	[3] Year 2017 With Project ADT	[3] Year 2017 With Project Project Volumes	[3] Year 2017 With Project % ADT Increase	[3] Year 2017 With Project Impact
59. Stewart Street, between Pennsylvania Avenue and Nebraska Avenue	Collector	Weekday	11,607	12,470	863	13,114	644	5.2%	NO
60. Stewart Street, between Nebraska Avenue and Olympic Boulevard	Collector	Weekday	13,056	14,027	971	14,672	645	4.6%	YES
61. Stewart Street, between Olympic Boulevard and Exposition Boulevard	Collector	Weekday	9,746	10,471	725	11,764	1,293	12.3%	NO
62. Stewart Street, between Exposition Boulevard and Delaware Avenue	Collector	Weekday	8,854	9,512	658	10,052	540	5.7%	NO
63. Colorado Avenue, between Stewart Street and Yale Street	Collector	Weekday	16,754	18,000	1,246	18,352	352	2.0%	YES
64. Yale Street, between Broadway and Colorado Avenue	Local	Weekday	3,208	3,447	239	3,605	158	4.6%	YES
65. Nebraska Avenue, between Stewart Street and Stanford Street	Local	Weekday	3,003	3,226	223	3,226	0	0.0%	NO
66. Exposition Boulevard, between Stewart Street and Yorkshire Avenue	Local	Weekday	1,503	1,615	112	1,738	123	7.6%	NO

[a] Note: City of Santa Monica street impact threshold criteria is as follows:

Street Class	Future Base Scenario	Future Plus Project Scenario
Collector Street	If ADT > 13,500	ADT net increase >= 1 trip
	If ADT > 7,500 and < 13,500	ADT increase > 12.5% or ADT becomes 13,500 or more
	If ADT < 7,500	ADT increase > 25%
Feeder Street	If ADT > 6,750	ADT net increase >= 1 trip
	If ADT > 3,750 and < 6,750	ADT increase > 12.5% or ADT becomes 6,750 or more
	If ADT < 3,750	ADT increase > 25%
Local Street	If ADT > 2,250	ADT net increase >= 1 trip
	If ADT > 1,250 and < 2,250	ADT increase > 12.5% or ADT becomes 2,250 or more
	If ADT < 1,250	ADT increase > 25%

- Seg. No. 63: Colorado Avenue, between Stewart Street and Yale Street
- Seg. No. 64: Yale Street, between Broadway and Colorado Avenue

The Project is not expected to create any significant impacts at any of the 12 study street segments during the weekend conditions.

11.3 20th Street Evaluation

Based on comments received at the time of the NOP, concerns were expressed regarding overall current traffic levels on the segment of 20th Street between Pico Boulevard and Pearl Street. Specific comments were made regarding the number of buses that travel on this segment of 20th Street, as well as the Project's impact to this street. As presented in *Table 11-2*, the segment of 20th Street between Pico Boulevard and Pearl Street was evaluated in the street segment analysis (Seg. No. 40) and is designated as a Collector Street in the City of Santa Monica's Land Use and Circulation Element (LUCE). Existing daily traffic volumes on 20th Street, between Pico Boulevard and Pearl Street is observed to be 9,634 trips. The future pre-Project ADT volume for the subject street segment is forecast to be 10,350 trips. The forecast future with Project ADT volume for the subject street segment is 10,402 trips. As shown in *Table 11-2*, the existing and forecast future daily traffic volumes on this segment of 20th Street are well below the designated 13,500 ADT "capacity" assigned to designated Collector Streets by the City of Santa Monica. Further, the estimated relative change in daily traffic on 20th Street due to the Project is less than the thresholds of significance used by the City of Santa Monica for purposes of determining significant traffic impacts.

Two public transit routes (i.e., Mini Blue Bus - Sunset Ride and Mini Blue Bus - Crosstown Ride) provide service for this segment of 20th Street (southbound direction only) with headways of approximately 15 to 20 minutes per line. Thus, six to eight bus trips are observed to travel on 20th Street during the AM and PM peak hours (approximately one bus every 7.5 minutes on average). While it does not appear to be practical to alter the current route of the Sunset Ride, the route of the Crosstown Ride could be altered by the Santa Monica BBB. Currently, the route consists of a loop whereby buses proceed south on 20th Street and north on 14th Street. Currently, the southerly terminus of the Crosstown Ride route is Ocean Park Boulevard; however, it may be feasible to use Pico Boulevard as the southerly terminus. In this way, the Crosstown Ride would not need to use 20th Street south of Pico Boulevard. SMC will coordinate with the Santa Monica BBB regarding the feasibility of this route change.

12.0 TRANSPORTATION IMPROVEMENT MEASURES

The following sections provide an overview of transportation improvement measures that are anticipated to address impacts to the local roadway network associated with the proposed SMC Career & Educational Facilities Master Plan 2010 Update. The Project is expected to create significant impacts at 29 of the 117 City of Santa Monica study intersections during weekday conditions. The Project is also expected to create significant impacts at four of the City of Santa Monica study intersections located in the vicinity of the PAC Campus during the weekend conditions. In addition, the Project is expected to create significant impacts at ten of the 23 City of Los Angeles study intersections during weekday conditions. It should be noted that three of the ten study intersections (Nos. 112, 113 and 114) forecast to be impacted based on the City of Los Angeles methodology also are forecast to be impacted based on City of Santa Monica methodology. Overall, the Project is expected to create significant impacts at 36 study intersections. It is important to note that the traffic analysis has been based on a conservative approach with respect to the analysis of potential Project-related impacts. The HCM and CMA worksheets for future with Project plus mitigation conditions are provided in ***Appendix J***.

There are generally two approaches in developing potential measures to mitigate a project's potentially significant traffic impact at a study intersection. One approach is to identify measures to increase the capacity of an intersection (e.g., through the addition of travel lanes, changes in traffic signal operations, etc.) such that the intersection would be able to accommodate the additional vehicular traffic generated by the project. Such potential capacity enhancement measures have been identified herein for the study intersections determined to be significantly impacted by the Project. It is noted that the study intersections are under the jurisdiction of the City of Santa Monica, the City of Los Angeles, and/or Caltrans. Thus, while the measures proposed herein are considered reasonable and feasible, the Lead Agency cannot control the actual implementation of these measures as the permitting and construction is under the jurisdiction of other agencies. Thus, should the other jurisdictions not permit the implementation of the capacity enhancement measures identified herein, a significant and unavoidable impact at the affected intersection(s) would result.

The second approach to mitigating a Project's potentially significant traffic impact is through the development and implementation of demand management measures to limit or reduce the Project's potential contribution of vehicular traffic to a study intersection. Commonly called a Transportation Demand Management or TDM plan, such measures are designed to reduce the amount of vehicular traffic that would be generated by a project as compared to an unmanaged condition. For the TDM plan measures outlined herein, many would be under the jurisdiction of the Lead Agency (e.g., developing a parking permit rate structure to create disincentives to driving) while other measures are outside the control of the Lead Agency (e.g., providing additional bike lanes on local streets).

12.1 Potential Traffic Mitigation – Capacity Enhancement Measures

Measures have been considered to reduce the significant transportation impacts forecast through the provision of additional intersection capacity under either the weekday AM and PM peak hour, or weekend mid-day peak hour conditions to less than significant levels. The discussion of the capacity enhancement measures at the study intersections is provided in ***Appendix K***.

The prior section discussion of potential capacity enhancement measures provided in *Appendix K* outlines measures which could be implemented at the study intersections with potential significant traffic impacts due to the Project. As described, the measures primarily focus to increasing the capacity of the affected intersections through improvements such as roadway restriping, roadway widening, changes in existing traffic signal operations, and/or installation of new traffic signals. However, it is recommended that the capacity enhancement measures not be considered as potential traffic mitigation for the affected study intersections based on the following:

- Implementation of the potential measures is beyond the control of the Lead Agency (and therefore is not a certainty) as the improvements would require approval from the City of Santa Monica, the City of Los Angeles, and/or Caltrans in order to permit construction;

- Many of the potential measures would require the removal of existing curbside parking spaces, which could result in secondary adverse impacts due to the loss of curbside parking, which is heavily utilized in an urban area such as Santa Monica;

- The City of Santa Monica by practice typically does not allow street widening, particularly if it causes a reduction in sidewalk/parkway width; and

- The relatively high costs of implementing the potential capacity enhancement measures substantially outweigh the relative low severity of the potential traffic impacts due to the Project.

For the street segments with potential significant Project-related impacts, measures considered for implementation could include installation of traffic calming measures, such as speed bumps, curb extensions, narrowed travel lanes, and enhanced crosswalks. These mitigation measures would likely reduce, but not eliminate the impact. Additionally, such mitigation measures would create inconveniences to local residents, essentially shifting cut-through traffic to other local streets and potentially creating secondary impacts by limiting access. Thus, these measures are not recommended for mitigation of the street segment impacts.

12.2 Recommended Traffic Mitigation - Transportation Demand Management Measures

Accordingly, an aggressive Transportation Demand Management (TDM) plan is recommended for SMC in conjunction with the Project so as to reduce vehicular traffic and parking generated at the various campuses. As part of the TDM plan, it is recommended that vehicle trip reduction

performance targets be established for the morning and afternoon peak commute travel periods, such that the aggregate existing level of trip generation at the SMC campuses is not exceeded.

The SMC Main Campus has been identified by the City of Santa Monica as one of the Demand Management Districts with the highest goals for vehicle trip reduction in the current City of Santa Monica Draft Land Use and Circulation Element (LUCE) Update. The AET Campus and Olympic Shuttle Lot are identified by the City of Santa Monica as one of the Demand Management Districts with higher goals for vehicle trip reduction in the current City of Santa Monica Draft LUCE Update. The PAC Campus is situated between Wilshire Boulevard and Santa Monica Boulevard, which are identified as District-wide Mode Split corridors, and adjacent to the Downtown District. The locations of the Demand Management Districts set forth in the Santa Monica Draft LUCE Update and the subject SMC campuses are illustrated in ***Figure 12-1***.

The TDM measures implemented as part of the Project will be aimed at decreasing the number of vehicular trips generated by persons traveling to/from the site by offering specific facilities, services and actions designed to increase the use of alternative transportation modes (e.g., transit, rail, walking, bicycling, etc.) and ridesharing.

12.2.1 *TDM Programming Measures*

The following measures are intended to establish the basis for TDM programming to affect all travelers to the SMC campuses.

- *Transportation Demand Management Association*. As part of the LUCE Update process, the City of Santa Monica has identified that a Transportation Demand Management Association (TMA) should be established for the SMC Main Campus. Santa Monica College shall participate in the establishment of a geographic-based TMA for its Main Campus by providing information and sending representatives to the TMA meetings if such a TMA is organized by the City of Santa Monica. If and when formed, the TMA is expected to provide faculty/staff, students, and visitors with resources to increase the amount of trips taken by transit, walking, bicycling, and ridesharing. This mitigation measure does not commit SMC to funding such resources.

- *Employee Transportation Coordinator*. An Employee Transportation Coordinator (ETC) shall be designated for SMC. The ETC shall manage all aspects of this TDM program and participate in City-sponsored workshops and information roundtables. While the Project encompasses multiple sites, the ETC shall be responsible for TDM activities at all campuses.

- *Performance Monitoring and Targets*. SMC shall seek to ensure that cumulative vehicular trip generation for the Proposed Project does not exceed current levels at the Main Campus, AET Campus, Olympic Shuttle Lot Campus, and PAC Campus. Consistent with the objectives of the City's Draft LUCE, trip generation shall be

SOURCE: CITY OF SANTA MONICA LAND USE AND CIRCULATION ELEMENT

LEGEND:

1. SMC MAIN CAMPUS
2. SMC AET CAMPUS
3. SMC OLYMPIC SHUTTLE LOT
4. SMC PAC CAMPUS

- HIGHEST GOAL
- HIGHER GOAL
- DISTRICT WIDE MODE SPLIT GOAL

FIGURE 12-1
DEMAND MANAGEMENT DISTRICTS

monitored during the weekday PM peak hour. SMC shall contract with a licensed traffic engineer to monitor compliance with the PM peak hour trip reduction target. A baseline PM peak hour trip generation target shall be established following completion and occupancy of the new Student Services Building by counting traffic at the driveways serving the Main Campus, AET Campus, Olympic Shuttle Lot Campus and PAC Campus. The baseline target shall be determined by summing the trip generation counted at each campus during one common hour (e.g., 5:00 – 6:00 PM). Thereafter, once every two years, beginning in the first full school year following the occupancy of the first building greater than 20,000 ASF constructed under this Master Plan, the traffic engineer shall conduct weekday PM peak hour monitoring counts at the SMC campus driveways and prepare a report on compliance for SMC's Board of Trustees. The traffic monitoring should generally be conducted on a mid-weekday (Tuesday, Wednesday or Thursday) in the middle of the Fall semester (e.g., October) corresponding with the methodology used in establishing the baseline. In the event that the target is not reached in a two year period, SMC shall make modifications to the TDM conditions to more effectively achieve, through reasonable and feasible measures that will not substantially increase the cost of mitigation, the performance target herein. Should the PM peak hour trip generation target be reached in two successive reporting periods (i.e., over four years total), no additional monitoring shall be required. In no event shall the monitoring conclude prior to year 2017 (the anticipated build-out of the Master Plan).

- *Transportation Information Centers.* SMC shall provide on-site information at its Main Campus for employees, students, and visitors about local public transit services (including bus lines, future light rail lines, bus fare programs, rideshare programs and shuttles) and bicycle facilities (including routes, rental and sales locations, on-site bicycle racks and showers [at the Main Campus only in the Physical Education building]). SMC shall also provide walking and biking maps for employees, visitors and residents, which shall include but not be limited to information about convenient local services and restaurants within walking distance of the SMC campuses. SMC shall provide information to students and employees of the campuses regarding local rental housing agencies. Such transportation information may be provided through a computer terminal with access to the Internet, as well as through the office of the ETC located at the SMC Main Campus. Transportation information may also be maintained at the administrative offices of the SMC satellite campuses, or by directing inquiries to the Main Campus or SMC web site.

- *TDM Web Site Information*. SMC shall be required to provide transportation information in a highly visible and accessible location on the school's web site, including links to local transit providers, area walking, bicycling maps, etc., to inform employees, students and visitors of available alternative transportation modes to access the campuses and travel in the area. The web site should highlight the environmental benefits of utilization of alternative transportation modes.

- *TDM Promotional Material*. SMC shall be required to provide and exhibit in public places information materials on options for alternative transportation modes and opportunities. In addition, transit fare media and day/month passes will be made available to employees, students and visitors during typical business hours.

- *Transit Welcome Package*. SMC shall provide all new students and employees of the college with a Transit Welcome Package (TWP). The TWP at a minimum will include information regarding SMC's arrangement for free or discounted use of the Big Blue Bus, area bus/rail transit route information, bicycle facilities (including routes, rental and sales locations, on-site bicycle racks, walking and biking maps), and convenient local services and restaurants within walking distance of the SMC campuses.

- *Expanded SMC Inter-Campus Shuttle*. The existing SMC inter-campus shuttle shall be expanded to connect all SMC campuses, including the subject Main Campus, AET Campus, Olympic Shuttle Lot and PAC Campus. Additionally, the SMC Shuttle System route alignments and schedules shall be expanded in the future to connect with planned Metro Exposition Corridor Transit Project Phase 2 stations located within the City of Santa Monica (i.e., 26th Street/Olympic Boulevard Station, 17th Street/Colorado Boulevard Station and 4th Street/Colorado Boulevard Station). Such shuttle services can be provided by vehicles operated by SMC, or through agreement with a public transit agency such as the Santa Monica BBB. Such expanded shuttle service shall be free or discounted to students and employees of SMC.

- *Internet-Based/Independent Study Education*. SMC shall continue to expand its offering of internet-based and independent study classes which allows for a portion or all of the education activities to occur without students and faculty needing to be physically on-site at an SMC facility.

- *Public Transit Passes*. To the extent feasible, SMC will continue to offer free public transit coordination with the Santa Monica BBB for all students and staff. To the extent feasible, SMC will seek to expand this benefit to other transit providers (i.e., Metro). Should the program whereby students and staff are able to use their SMC identification card for free transit be discontinued or unavailable, SMC will work with the transit agencies to make available the purchase of a transit pass at a highly discounted rate (e.g., 50 percent).

- *Employee Pay for Parking Program*. SMC shall continue to require that employees pay for their own parking.

- *Carpool Program for Employees*. SMC shall provide preferential parking within the parking garage for SMC employees who commute to work in SMC registered carpools. An employee who drives to work with at least one other employee to the SMC campuses

may register as a carpool entitled to preferential parking within the meaning of this provision.

- *Public Transit Stop Enhancements.* Working in cooperation with other transit agencies and the City of Santa Monica, SMC shall seek to improve existing bus stops with shelters and transit information within the immediate vicinity of the SMC campuses. Enhancements could include weather protection, lighting, benches, telephones, and trash receptacles. These improvements would be intended to make riding the bus a safer and more attractive alternative. This mitigation measure does not commit SMC to fund any particular improvements.

- *Convenient Parking for Bicycle Riders*. SMC shall provide locations at all four campuses for convenient parking for bicycle commuters for employees working at the sites, students attending classes at the sites, and visitors to the sites. The bicycle parking will be located within the SMC campuses and/or in the public right-of-way adjacent to the commercial uses such that long-term and short-term parkers can be accommodated. For purposes of this requirement, bicycle parking may mean bicycle racks, a locked cage, or other similar parking area. SMC shall observe utilization of the bicycle parking at the Main Campus and satellite campuses each semester and, if necessary, make arrangements for additional bicycle parking if the demand for bicycle parking spaces exceeds the supply.

- *Compressed Work Week Schedule*. When feasible, a Compressed Work Week schedule shall be offered to employees whereby their hours of employment may be scheduled in a manner which reduces trips to/from the worksite during peak hours for the surrounding streets.

- *Flex-Time Schedule*. When feasible, SMC shall permit its employees within the Project to adjust their work hours in order to accommodate public transit schedules, rideshare arrangements, or off-peak hour commuting.

- *Guaranteed Return Trip for Employees*. SMC shall provide vanpool and carpool reliant employees with a free return trip (or to the point of commute origin), when a personal emergency situation requires it.

- *Student Parking Pricing*. SMC shall continue to require that students pay for their own parking.

- *Student Hiring Policies*. To the extent feasible, SMC shall provide preferential consideration to hiring current SMC students for part-time employment based on satisfaction of other requirements of the available positions.

- *Local Hiring Program*. To the extent feasible, when hiring SMC shall conduct outreach to residents who live within one mile of the SMC campus (or other facility to where the

position of employment is offered), based on satisfaction of other requirements of the available positions.

- *Expanded Bicycle Routes*. SMC shall coordinate with the City of Santa Monica in an effort to enhance and expand the current network of bicycle routes serving the SMC campuses.

12.2.2 *Effect of Transportation Demand Management Measures*

As previously noted, the goal of the SMC TDM plan is to control the total aggregate trip generation of the SMC Main Campus, AET, Olympic Shuttle Lot, and PAC campuses such that the AM and PM peak hour trip generation would not exceed pre-Project levels. While the overall SMC system would be "traffic neutral" the actual trip reductions measured at each campus may vary considerably, and may not be equivalent to the potential increases otherwise forecasted for each campus as shown in *Table 7-1*. Thus, even if the aggregate trip reduction targets are attained, some campuses may generate additional trips as compared to current conditions following Project completion while other campuses may experience a relative decrease in trips. Accordingly, due to the high sensitivity of the City of Santa Monica's significant traffic impact thresholds utilized in the assessment of impacts at the study intersections and street segments, it is likely that some locations would still experience traffic increases due to the Project that would cause traffic impacts to be deemed significant. Nevertheless, the implementation of the SMC TDM plan is recommended to eliminate the significant traffic impacts at some locations and reduce the level of severity of the significant traffic impacts at other locations.

13.0 PENNSYLVANIA AVENUE TWO-WAY ALTERNATIVE ANALYSIS

The following alternative analysis evaluates the SMC Career & Educational Facilities Master Plan 2010 Update with the assumption that the two-way conversion of Pennsylvania Avenue may be implemented in the Bergamot Transit Village District by the Project build out year of 2017. As part of the City of Santa Monica's Land Use and Circulation Element (LUCE) Update, the Bergamot Transit Village District was established. The Bergamot Transit Village District will create a high-quality, mixed-use creative arts/entertainment Transit Village centered on the new Expo Light Rail station in the eastern end of the City of Santa Monica.

Some goals identified for planning the Bergamot Transit Village District include the enhancement of circulation and transportation in the district with pedestrian, vehicular and transit improvements and the creation of a new roadway grid in this formerly large-parcel industrial area to reconnect the areas to the other uniform street grid in the City. Adjacent to the AET campus frontage, these improvements may potentially include the conversion of the segment of Pennsylvania Avenue between 26th Street and Stewart Street from a one-way eastbound travel only roadway to a two-way travel roadway. As the conversion of Pennsylvania Avenue may occur during the period of implementation of the Project, an analysis has been provided of the potential Project-related impacts assuming Pennsylvania Avenue becomes a two-way street. The following seven (7) study intersections in the vicinity of the AET Campus may potentially be affected by the two-way conversion of Pennsylvania Avenue and are included in this alternative analysis.

- Study Intersection No. 99 26th Street/Colorado Avenue
- Study Intersection No. 100 26th Street/Pennsylvania Avenue
- Study Intersection No. 101 26th Street/Olympic Boulevard
- Study Intersection No. 102 Stewart Street/Colorado Avenue
- Study Intersection No. 103 Stewart Street/Pennsylvania Avenue
- Study Intersection No. 104 Stewart Street/Nebraska Avenue
- Study Intersection No. 105 Stewart Street/Olympic Boulevard

The alternative two-way analysis includes traffic adjustments to future traffic in order to account for the shift of traffic due to the potential two-way operation of Pennsylvania Avenue. The Pennsylvania Avenue two-way alternative analysis was prepared for these seven City of Santa Monica study intersections using the HCM methodology with application of the City of Santa Monica significant traffic impact criteria and is summarized in ***Table 13-1*** for weekday conditions. The HCM data worksheets for the analyzed seven intersections for the Pennsylvania Avenue two-way alternative analysis are contained in ***Appendix L.***

Table 13-1

SUMMARY OF VOLUME TO CAPACITY RATIOS/DELAY VALUES AND LEVELS OF SERVICE

CITY OF SANTA MONICA INTERSECTIONS

WEEKDAY AM AND PM PEAK HOURS - PENNSYLVANIA AVENUE TWO-WAY ALTERNATIVE

No.	Key Intersection	Class.	Time Period	[1] Year 2017 Background Traffic Conditions			[2] Year 2017 Plus Project Traffic Conditions			Change in V/C or Delay	Signif. Impact
				Delay*	V/C	LOS	Delay*	V/C	LOS	([3]-[2])	Yes/No [a]
99	26th Street/ Colorado Avenue	Arterial	AM	19	0.740	B	19	0.742	B	0	NO
			PM	29	0.962	C	29	0.957	C	0	NO
100	26th Street/ Pennsylvania Avenue	Arterial	AM	10	0.448	A	10	0.456	B	0	NO
			PM	20	0.580	B	20	0.608	C	0	NO
101	26th Street/ Olympic Boulevard	Arterial	AM	24	0.812	C	26	0.849	C	2	NO
			PM	30	0.874	C	31	0.898	C	1	NO
102	Stewart Street/ Colorado Avenue	Collector	AM	28	0.921	C	27	0.918	C	-1	NO
			PM	25	0.927	C	26	0.934	C	1	NO
103	Stewart Street/ Pennsylvania Avenue [b]	Collector	AM	30	n/a	D	49	n/a	E	19	YES
			PM	46	n/a	E	91	n/a	F	45	YES
104	Stewart Street/ Nebraska Avenue [b]	Collector	AM	35	n/a	E	36	n/a	E	1	YES
			PM	37	n/a	E	40	n/a	E	3	YES
105	Stewart Street/ Olympic Boulevard	Arterial	AM	38	1.055	D	34	1.034	C	-4	NO
			PM	30	0.896	C	31	0.897	C	1	NO

* Reported average control delay values in seconds per vehicle.

[a] Note: City of Santa Monica intersection impact threshold criteria is as follows:

Future Base Scenario	Intersection Class	Future Plus Project Scenario
If LOS = A, B, or C and	Is a Collector Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes D, E, or F
	Is an Arterial Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes E or F
If LOS = D and	Is a Collector Street Intersection	Average delay (sec/veh) increases by ANY amount
	Is an Arterial Street Intersection	Average delay (sec/veh) increases by 15 seconds or more, OR LOS becomes E or F
If LOS = E and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Average delay (sec/veh) increases by ANY amount
If LOS = F and	Is a Collector Street Intersection OR Is an Arterial Street Intersection	Net HCM V/C ratio increases by 0.005 or more

[b] Stop controlled intersection on the minor approaches.

13.1 Weekday Future Pre-Project Conditions With Two-Way Conversion

The *v/c* ratios at the seven study intersections are incrementally increased with the addition of traffic generated by the related projects shown in *Figure 6-1* and listed in *Appendix F*. As presented in column [1] of *Table 13-1*, five of the seven study intersections are expected to continue operating at LOS D or better during the weekday AM and PM peak hours with the addition of ambient traffic growth and traffic due to the related projects and the two-way conversion of Pennsylvania Avenue. The remaining two study intersections are expected to operate at LOS E during the peak hours shown in *Table 13-1* with the addition of ambient traffic and traffic due to the related projects.

13.2 Weekday Future With Project Conditions With Two-Way Conversion

As shown in column [2] of *Table 13-1*, application of the City of Santa Monica's threshold criteria to the "Year 2017 Plus Project Traffic Conditions" scenario indicates that the Project is expected to create significant impacts at two of the seven study intersections (study intersection nos. 103 and 104) during weekday conditions with the two-way conversion of Pennsylvania Avenue. The two study intersections were not previously identified as significantly impacted, but now would be impacted with the potential two-way operation of Pennsylvania Avenue. Incremental but not significant impacts are noted at the remaining five study intersections as presented in *Table 13-1*.

14.0 CONGESTION MANAGEMENT PROGRAM TRAFFIC IMPACT ASSESSMENT

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the 2004 Congestion Management Program for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures outlined in the *2004 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, July 2004.

According to Section B.9.1 (Appendix B, page B-6) of the 2004 CMP manual, the criteria for determining a significant transportation impact is listed below:

> "A significant transportation impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity ($v/c \geq 0.02$), causing or worsening LOS F ($v/c \geq 1.00$)."

The CMP impact criteria apply for analysis of both freeway and intersection monitoring locations.

14.1 Intersections

The following CMP intersection monitoring locations in the Project vicinity have been identified with the corresponding forecast Project-related trips attributable to the intersection during the AM and PM peak hours summarized in ***Table 14-1***:

- CMP Station — Intersection

  No. 50 — Lincoln Boulevard/Venice Boulevard

  No. 55 — Pacific Coast Highway/Chatauqua Boulevard

  No. 59 — Santa Monica Boulevard/Bundy Drive

  No. 62 — Santa Monica Boulevard/Westwood Boulevard

  No. 70 — Venice Boulevard/Centinela Boulevard

  No. 88 — Wilshire Boulevard/Sepulveda Boulevard

  No. 138 — Lincoln Boulevard/Pico Boulevard

  No. 139 — Santa Monica Boulevard/Cloverfield Boulevard

Table 14-1
CMP TRAFFIC IMPACT ASSESSMENT [1]

CMP STATION	LOCATION	PEAK HOUR	FORECAST PROJECT TRIPS	CMP TRAFFIC IMPACT ASSESSMENT THRESHOLD	CMP TRAFFIC IMPACT ASSESSMENT REQUIRED
No. 50	Lincoln Boulevard/ Venice Boulevard	Weekday AM Weekday PM	17 13	50 50	NO NO
No. 55	Pacific Coast Highway/ Chatauqua Boulevard	Weekday AM Weekday PM	29 22	50 50	NO NO
No. 59	Santa Monica Boulevard/ Bundy Drive	Weekday AM Weekday PM	47 35	50 50	NO NO
No. 62	Santa Monica Boulevard/ Westwood Boulevard	Weekday AM Weekday PM	10 8	50 50	NO NO
No. 70	Venice Boulevard/ Centinela Boulevard	Weekday AM Weekday PM	23 17	50 50	NO NO
No. 88	Wilshire Boulevard/ Sepulveda Boulevard	Weekday AM Weekday PM	9 7	50 50	NO NO
No. 138	Lincoln Boulevard/ Pico Boulevard	Weekday AM Weekday PM	20 17	50 50	NO NO
No. 139	Santa Monica Boulevard/ Cloverfield Boulevard	Weekday AM Weekday PM	49 34	50 50	NO NO
No. 140	Santa Monica Boulevard/ Lincoln Boulevard	Weekday AM Weekday PM	64 67	50 50	YES [2] YES [2]
No. 141	Wilshire Boulevard/ 26th Street	Weekday AM Weekday PM	19 15	50 50	NO NO

[1] Based on procedures outlined in the "2004 Congestion Management Program for Los Angeles County", County of Los Angeles Metropolitan Transportation Authority, July 2004.

[2] See Table 14-2 for summary of CMP traffic impact assessment.

No. 140 Santa Monica Boulevard/Lincoln Boulevard

No. 141 Wilshire Boulevard/26th Street

The CMP TIA guidelines require that intersection monitoring locations must be examined if the proposed project will add 50 or more trips during either the AM or PM weekday peak hours. As shown in *Table 14-1*, the Project is anticipated to add 64 and 67 trips during the AM and PM peak hours, respectively at CMP monitoring intersection No. 140 (Santa Monica Boulevard/Lincoln Boulevard), which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Accordingly, this monitoring intersection was evaluated based on criteria set forth in the CMP manual. In addition, as previously discussed, the Santa Monica Boulevard/Lincoln Boulevard intersection was included as one (referred to as study intersection number 8) of the 134 study intersections evaluated in this traffic study.

14.1.1 *Intersection Monitoring Locations Levels of Service and Thresholds of Significance*

Pursuant to the Los Angeles County CMP requirements, the Santa Monica Boulevard/Lincoln Boulevard intersection was evaluated using the Intersection Capacity Utilization (ICU) method of analysis. The ICU method is intended for signalized intersection analysis and determines the *v/c* ratios on a critical lane basis (i.e., based on the individual *v/c* ratios for key conflicting traffic movements). The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The overall intersection *v/c* ratio is subsequently assigned a LOS value to describe intersection operations. The Levels of Service vary from LOS A (free flow) to LOS F (jammed condition). A description of the ICU method and corresponding Levels of Service is provided in ***Appendix M***.

Designated CMP intersection monitoring locations have been evaluated in accordance with the standards included in the *2004 Congestion Management Program for Los Angeles County* (CMP), Los Angeles County Metropolitan Transportation Authority, July, 2004. A significant impact on the CMP intersection monitoring location is defined as follows (CMP Criteria for Determining a Significant Impact):

> "For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (*v/c* greater than or equal to 0.02), causing LOS F (*v/c* >1.00); if the facility is already LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (*v/c* greater than or equal to 0.02)."

14.1.2 *Intersection Monitoring Locations Impact Analysis*

The ICU data worksheets for the subject intersection are also contained in *Appendix M*. Additionally, a summary of the *v/c* ratios and LOS values for the analyzed intersection during the weekday AM and PM peak hours is shown in ***Table 14-2***. As shown in *Table 14-2*, application of the CMP threshold criteria to the "With Proposed Project" scenario indicates that the Project is not expected to create a significant impact at the Santa Monica Boulevard/Lincoln Boulevard intersection monitoring location during both the weekday AM and PM peak hours.

14.2 Freeways

The following CMP freeway monitoring locations in the Project vicinity have been identified:

- CMP Station Segment

  No. 1010 I-10 Freeway at Lincoln Boulevard

  No. 1011 I-10 Freeway east of Overland Avenue

  No. 1070 I-405 Freeway north of Venice Boulevard

  No. 1071 I-405 Freeway south of Mulholland Drive

The impact of the Project on the regional mainline freeway system has been determined based on the existing peak hour traffic volumes data published in the *2007 Traffic Volumes on California State Highways*, State of California Department of Transportation (Caltrans), 2008. Pursuant to the *2004 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, July, 2004, the year 2007 freeway mainline traffic volumes were increased by Caltrans' annual average growth rate of 0.92 percent (0.92%) per year to reflect existing conditions. Refer to Subsection 6.2 for a discussion regarding the growth rate factors as applied to the arterial street system. The selected freeway segment lane configurations used in the analysis is based on information obtained from field reviews. The freeway impact analysis is based on the number of mainline freeway lanes only, including High Occupancy Vehicle lanes. Along some freeway segments, auxiliary lanes are provided to facilitate entering and exiting freeway traffic to and from the freeway mainline. Although some of the freeway auxiliary lanes accommodate through traffic, these have not been considered so as to provide a conservative analysis of freeway impacts due to the Project.

The freeway lane capacity has been assumed at 2,000 vehicles per lane per hour, although the *Highway Capacity Manual,* published by the Transportation Research Board, year 2000, indicates that through recent research a capacity of 2,200 vehicles per hour per lane for four lane freeways and 2,300 vehicles per hour per lane for six or more lane freeways can be expected.

The Caltrans traffic volume data is presented in several ways. The total daily and peak hour traffic volumes for various freeway segments statewide are noted (i.e., non-directional). In

Table 14-2
CMP MONITORING INTERSECTION LEVEL OF SERVICE SUMMARY
WEEKDAY AM AND PM PEAK HOURS

NO.	INTERSECTION	PEAK HOUR	[1] YEAR 2008 EXISTING V/C	LOS	[2] YEAR 2017 PRE-PROJECT CONDITIONS V/C	LOS	[3] YEAR 2017 WITH PROJECT CONDITIONS V/C	LOS	CHANGE V/C [(3)-(2)]	SIGNIF. IMPACT
8	Lincoln Boulevard/ Santa Monica Boulevard	AM	0.633	B	0.800	C	0.807	D	0.007	NO
		PM	0.726	C	0.938	E	0.966	E	0.028	NO

CMP intersection impact threshold criteria is as follows:

Final v/c	LOS	Project Related Increase in v/c
> 1.000	F	equal to or greater than 0.02

addition, factors are included in the Caltrans document which indicates the direction and magnitude of the peak-hour traffic volumes. These factors are then utilized to convert the Annual Average Daily Traffic (AADT) volumes to directional peak hour traffic volumes for each of the analysis freeway segments in the vicinity of the Project site.

14.2.1 *Freeway Segment Levels of Service and Thresholds of Significance*

The Lead Agency has determined that the freeway segment Levels of Service shall be calculated in accordance with the definitions included in the *2004 Congestion Management Program for Los Angeles County*. The demand/capacity (D/C) ratios and Level of Service relationships are defined in the CMP document and presented in ***Table 14-3.***

Table 14-3
FREEWAY SEGMENT
LEVEL OF SERVICE DESIGNATIONS

D/C	LOS	D/C	LOS
0.00 - 0.35	A	> 1.00 - 1.25	F(0)
> 0.35 - 0.54	B	>1.25 - 1.35	F(1)
>0.54 - 0.77	C	>1.35 - 1.45	F(2)
>0.77 - 0.93	D	> 1.45	F(3)
>0.93 - 1.00	E	-	-

The Lead Agency has determined that the relative significance of the Project-related impacts would be assessed for the freeway segments in accordance with the thresholds of significance included in the *2004 Congestion Management Program for Los Angeles County*. A significant impact on the freeway system is defined as follows (CMP Criteria for Determining a Significant Impact):

> "For purposes of the CMP, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (*v/c* greater than or equal to 0.02), causing LOS F (*v/c* >1.00); if the facility is already LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (*v/c* greater than or equal to 0.02)."

The CMP document also states the following:

> "Calculation of LOS based on D/C ratios is a surrogate for the speed-based LOS used by Caltrans for traffic operational analysis. LOS F(1) through F(3) designations are assigned where severely congested (less than 25 mph) conditions prevail for more than one hour, converted to an estimate of peak hour demand in the table above. Note that calculated LOS F traffic demands may therefore be greater than observed traffic volumes."

14.2.2 *Freeway Segment Impact Analysis*

Based on the above information, the results of the freeway impact analysis associated with the AM and PM peak hours for the Project are summarized in ***Table 14-4***. As presented in *Table 14-4*, the maximum increase in the freeway mainline traffic during the AM peak hour due to the Project is estimated to be 124 vehicles on a portion of the I-10 (Santa Monica) Freeway. During the PM peak hour time period, the maximum increase in the freeway mainline traffic is estimated to be 60 vehicles on a portion of the I-10 Freeway. Similarly, the maximum increase in the freeway mainline traffic during the AM peak hour due to the Project is estimated to be 77 vehicles on a portion of the I-405 (San Diego) Freeway. During the PM peak hour, the maximum increase in the freeway mainline traffic is estimated to be 37 vehicles on a portion of the I-405 Freeway. These increases in overall mainline freeway traffic volumes correspond to a D/C increase of 0.016, or less than two percent of the total capacity of the segments included in the analysis. Increases of this magnitude are likely not to be discernible to typical motorists. Thus, no significant Project-related mainline freeway impacts are anticipated along the I-10 and I-405 Freeways.

The CMP TIA guidelines require that freeway monitoring locations must be examined if the proposed project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. As shown in *Table 14-4*, the Project will not add 150 or more trips (in either direction), during either the AM or PM weekday peak hours to the CMP freeway monitoring locations, which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

14.3 Transit Impact Review

As required by the 2004 Congestion Management Program for Los Angeles County, a review has been made of the CMP transit service. Based on the data previously shown on *Table 4-5*, the SMC campuses generate a relatively high proportion of its trips via public transit.[8] For example, the following provides a comparison of existing vehicular trips to existing trips by public transit at the SMC Main Campus:

- 7:00 – 8:00 AM: 980 public transit trips (36%)
1,722 vehicular trips (64%)
- 8:00 – 9:00 AM: 756 public transit trips (46%)
899 vehicular trips (54%)
- 9:00 – 10:00 AM: 1,186 public transit trips (51%)
1,118 vehicular trips (49%)

[8] A substantial number of trips are made to and from the SMC campuses via walking and bicycling, but they were not required for documentation as part of this analysis.

Table 14-4
CONGESTION MANAGEMENT PROGRAM
FREEWAY IMPACT ANALYSIS

CMP STATION NO.	FREEWAY SEGMENT	PEAK HOUR	DIR	PEAK HOUR CAPACITY	2008 EXISTING [1] DEMAND	[2] D/C	[3] LOS	2017 FUTURE PRE-PROJECT [4] DEMAND	[2] D/C	[3] LOS	[5] PROJECT TRIP ENDS	2017 FUTURE W/ PROPOSED PROJECT [6] DEMAND	[2] D/C	[3] LOS	[7] D/C INCREASE WITH PROJECT	[8] IMPACT
1010	I-10 Freeway at Lincoln Boulevard (R 2.17)	AM	EB	6,000	5,480	0.913	D	5,930	0.988	E	24	5,954	0.992	E	0.004	NO
			WB	6,000	5,970	0.995	E	6,460	1.077	F(0)	4	6,464	1.077	F(0)	0.000	NO
		PM	EB	6,000	5,440	0.907	D	5,890	0.982	E	9	5,899	0.983	E	0.001	NO
			WB	6,000	4,810	0.802	D	5,210	0.868	D	12	5,222	0.870	D	0.002	NO
1011	I-10 Freeway east of Overland Avenue (R 6.75)	AM	EB	10,000	9,590	0.959	E	10,380	1.038	F(0)	24	10,404	1.040	F(0)	0.002	NO
			WB	8,000	10,450	1.306	F(1)	11,320	1.415	F(2)	124	11,444	1.431	F(2)	0.016	NO
		PM	EB	10,000	9,530	0.953	E	10,320	1.032	F(0)	60	10,380	1.038	F(0)	0.006	NO
			WB	8,000	8,430	1.054	F(0)	9,130	1.141	F(0)	50	9,180	1.148	F(0)	0.007	NO
1070	I-405 Freeway north of Venice Boulevard (R 28.30)	AM	NB	11,000	5,330	0.485	B	5,770	0.525	B	63	5,833	0.530	B	0.005	NO
			SB	11,000	10,550	0.959	E	11,420	1.038	F(0)	12	11,432	1.039	F(0)	0.001	NO
		PM	NB	11,000	9,960	0.905	D	10,780	0.980	E	25	10,805	0.982	E	0.002	NO
			SB	11,000	6,490	0.590	C	7,030	0.639	C	30	7,060	0.642	C	0.003	NO
1071	I-405 Freeway south of Mulholland Drive (R 35.81)	AM	NB	10,000	5,370	0.537	B	5,810	0.581	C	15	5,825	0.583	C	0.002	NO
			SB	9,000	10,620	1.180	F(0)	11,500	1.278	F(1)	77	11,577	1.286	F(1)	0.008	NO
		PM	NB	10,000	10,030	1.003	F(0)	10,860	1.086	F(0)	37	10,897	1.090	F(0)	0.004	NO
			SB	9,000	6,530	0.726	C	7,070	0.786	D	31	7,101	0.789	D	0.003	NO

[1] Source: "2007 Traffic Volumes on California State Highways", Caltrans, 2008. The year 2007 volumes were increased by an annual average growth rate of 0.92% per year to reflect year 2008 existing conditions.
[2] Demand-to-Capacity ratio (D/C) calculated based on a capacity of 2,000 vehicles per lane per hour applied to the through freeway lanes, and 1,000 vehicles per lane per hour for HOV lanes. Auxiliary lanes are excluded.
[3] Freeway mainline Levels of Service were based on the following D/C scale:

D/C Ratio	LOS	D/C Ratio	LOS
0.000-0.350	A	1.001-1.250	F(0)
0.351-0.540	B	1.251-1.350	F(1)
0.541-0.770	C	1.351-1.450	F(2)
0.771-0.930	D	>1.450	F(3)
0.931-1.000	E		

[4] An ambient growth rate of 0.92% per year was assumed to derive the year 2017 traffic volumes.
[5] Based on the project trip generation and trip distribution for the proposed SMC Facilities Master Plan Project for each campus.
[6] Derived by combining the future pre-project traffic volumes and the proposed project volumes.
[7] Derived by subtracting the D/C ratio of the future with project conditions with the future pre-project conditions.
[8] Pursuant to the "2004 Congestion Management Program for Los Angeles County," July 2004, a significant impact occurs when the proposed project increases traffic demand on the freeway system by 2% of capacity (D/C > 0.02), causing or worsening LOS F (D/C > 1.00).

- 4:00 – 5:00 PM: 665 public transit trips (37%)
  1,114 vehicular trips (63%)
- 5:00 – 6:00 PM: 558 public transit trips (29%)
  1,365 vehicular trips (71%)
- 6:00 – 7:00 PM: 382 public transit trips (24%)
  1,224 vehicular trips (76%)

It is noted that during the 8:00 AM to 10:00 AM period, public transit accounts for approximately half of the trips made to and from the SMC Main Campus. During the earlier 7:00 AM to 8:00 AM hour, a relatively higher percentage of trips are made by vehicles. The greater public transit utilization in the 8:00 AM to 10:00 AM period may be due in part to the difficulty in finding on-campus parking during the later morning hours, thereby making public transit a relatively more convenient alternative for travel.

In the afternoon period, the relative utilization of public transit decreases with each hour. This may be due to various factors such as: 1) the greater availability of on-campus parking in the late afternoon and evening hours; 2) reduced public transit service in the later evening hours (possibly affecting the mode choice for students arriving in the late afternoon for evening classes); 3) perceived safety issues related to using public transit in the evening; and 4) a significant number of students arriving for evening classes who are commuting in their vehicles from daytime jobs.

Public transit utilization counts were not conducted at the AET, Olympic Shuttle Lot and PAC campuses; however, it is reasonable to assume that the relative percentage of public transit users as compared to trips made by private vehicles is lower at these satellite campuses due to a reduced level of public transit services and a greater availability of on-site parking. However, it is reasonable to assume that public transit would still comprise a significant portion of trips to and from the satellite campuses (e.g., 20%).

It is shown on *Table 7-1* that the Project is forecast to generate 572 net new AM peak hour trips and 426 net new PM peak hour trips. As previously noted, the trip generation forecasts are based on the actual driveway counts conducted at the existing SMC campuses, and therefore account for some level of public transit usage. Thus, assuming the current mode choice distribution (i.e., there is one public transit trip made for every four trips made by private vehicles), the resulting generation of new public transit trips would be 143 AM peak hour transit trips and 107 PM peak hour transit trips.

Additionally, as previously noted in the Transportation Demand Management (TDM) plan, the Project proposes to implement measures such that the aggregate trip generation for the SMC campuses would not increase beyond current levels. Accordingly, the 572 net new AM peak hour trips and 426 net new PM peak hour trips forecast in *Table 7-1* for the Project would need to be eliminated. While the TDM plan proposes a menu-based approach to attaining the desired

trip reductions, it could be assumed that approximately 50% of the potential vehicle trips would need to be converted to transit trips. This would result in an additional 286 AM peak hour transit trips (572/2 = 286) and 213 additional PM peak hour transit trips (426/2 = 213). Taken together, the Project and recommended TDM plan mitigation could result in 429 new AM peak hour transit trips (143 + 286 = 429) and 320 new PM peak hour transit trips (107 + 213 = 320).

The additional public transit trips generated by the Project would cause a significant impact to public transit services, prior to consideration of potential mitigation measures. Accordingly, the following measures are recommended to mitigate the Project-related impacts to public transit services:

- To the extent feasible, SMC shall continue its program with the Santa Monica Big Blue Bus to provide free public transit services to all SMC students and staff. If this is not feasible or practical, SMC shall work with Santa Monica Big Blue Bus to offer reduced rate transportation to SMC students and staff.

- To the extent feasible, SMC shall work with other public transit providers (e.g., Metro) to offer free public transit services to all SMC students and staff. If this is not feasible or practical, SMC shall work with the public transit providers to offer reduced rate transportation to SMC students and staff.

- SMC shall seek to expand shuttle connections (either through SMC-operated vehicles and/or in coordination with the Santa Monica Big Blue Bus) between campuses, including future connections to the Expo Light Rail Line stations in Santa Monica.

- SMC shall work with the City of Santa Monica, Santa Monica Big Blue Bus and Metro to enhance the Pico Boulevard transit plaza including providing expanded sidewalk areas, shelters, lighting, and other passenger enhancement and safety features for both eastbound and westbound transit vehicles.

15.0 PROJECT PARKING

This section summarizes the review of the existing and future parking conditions at the SMC Main Campus, AET Campus, Olympic Shuttle Lot, and the PAC Campus for the weekday conditions. In addition, a focused study of the existing and future weekend parking conditions at the PAC Campus is also included.

15.1 Existing Parking Supply

The existing parking supply serving the subject SMC campuses was field inventoried in October 2008 as summarized below. Approximately 3,270 spaces are provided on-campus between the SMC Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC campus as shown in ***Appendix N*** (refer to Appendix Tables N-1 and N-3 through N-5, respectively). In addition, approximately 250 public on-street spaces (refer to Appendix Table N-2) are provided on the roadways immediately adjacent to the Main Campus (i.e., south side of Pico Boulevard between 16th Street and the public alley west of 20th Street, east side of 16th Street between Pico Boulevard and Pearl Street, both sides of Pearl Street between 16th Street and the public alley west of 20th Street). The approximate existing parking supply by individual campuses is summarized in ***Table 15-1*** and detailed further below.

- *Main Campus Parking:*

  The Main Campus currently provides a total of 2,519 spaces on campus within its two parking structures and seven surface parking lots. Of the 2,519 spaces, approximately 567 spaces are reserved for faculty/staff or SMC-related vehicles, and 70 spaces are reserved for the handicapped. The remaining 1,882 spaces are available to students and visitors to the Main Campus. In addition, a total of 250 public on-street spaces are provided on roadways immediately adjacent to the Main Campus (i.e., south side of Pico Boulevard between 16th Street and the public alley west of 20th Street, east side of 16th Street between Pico Boulevard and Pearl Street, both sides of Pearl Street between 16th Street and the public alley west of 20th Street). The existing Main Campus parking areas are shown in ***Figure 15-1***.

- *AET Campus Parking:*

  The AET Campus currently provides a total of 255 spaces on campus in the surface parking lot. A total of 24 spaces are reserved for faculty/staff members, SMC-related vehicles, and 17 spaces are reserved for the handicapped at the AET Campus. The remaining 214 spaces are available to students and visitors to the AET campus with a parking permit. The existing AET Campus parking area is shown in ***Figure 15-2***.

Table 15-1
SUMMARY OF EXISTING AND FUTURE WEEKDAY PARKING DEMAND [1]

	EXISTING CONDITIONS					NET INCREASE			FUTURE CONDITIONS				
LAND USE	PARKING SUPPLY [3] (SPACES)	PEAK PARKING DEMAND [4] (SPACES)	%	SURPLUS OR (SHORTFALL) SPACES	%	CAMPUS SIZE	PARKING SUPPLY [3] (SPACES)	PEAK PARKING DEMAND [5] (SPACES)	PARKING SUPPLY [3] (SPACES)	PEAK PARKING DEMAND (SPACES)	%	SURPLUS OR (SHORTFALL) SPACES	%
Main Campus [2]	2,769	2,655	96%	114	4%	11,296 GSF	453	38	3,222	2,693	84%	529	16%
AET Campus	255	217	85%	38	15%	63,608 GSF	195	214	450	431	96%	19	4%
Olympic Shuttle Lot	211	138	65%	73	35%	75,000 GSF	419	253	630	391	62%	239	38%
PAC Campus	285	160	56%	125	44%	93,722 GSF	365	316	650	476	73%	174	27%
Total SMC Campus Project	**3,520**	**3,170**	**90%**	**350**	**10%**	**243,626 GSF**	**1,432**	**821**	**4,952**	**3,991**	**81%**	**961**	**19%**

[1] Parking demand ratios for the SMC project campuses were derived based on the existing parking utilization surveys conducted at the Main Campus (excluding the 14th/Pico Lot which was not constructed at the time of the parking surveys), the AET Campus, the PAC Campus, and the Olympic Shuttle Lot as well as the vehicles occupying the on-street parking spaces adjacent to the Main Campus. The existing weekday parking utilization surveys were conducted by the Traffic Solution, on Tuesday, October 14, 2008 and Wednesday, October 15, 2008. Refer to Appendix M for a summary of the existing SMC project campuses parking utilization surveys.
The overall peak parking demand ratio for the SMC campuses is listed below:
- Weekday Peak Parking Demand Ratio: 3.37 parking spaces / 1,000 GSF of building area

[2] Includes on-street spaces located on the south side of Pico Boulevard between 16th Street and the public alley west of 20th Street, east side of 16th Street between Pico Boulevard and Pearl Street, and both sides of Pearl Street between 16th Street and the public alley west of 20th Street.

[3] Existing parking spaces inventoried by LLG Engineers in October 2008. Future parking supply provided by the project applicant.

[4] Reported values represent peak parking utilization/demand across all four campuses/parking areas which occur at 11:00 AM on weekdays.

[5] Net increase in peak parking demand for each campus was calculated by applying the overall peak parking demand ratio (3.37 spaces/1,000 GSF) to the corresponding net increase in campus size.

NOT TO SCALE

MAP SOURCE: GOOGLE EARTH

PARKING LOCATION

(X) PARKING LOT/STRUCTURE NUMBER

FIGURE 15-1
EXISTING PARKING SUPPLY
MAIN CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

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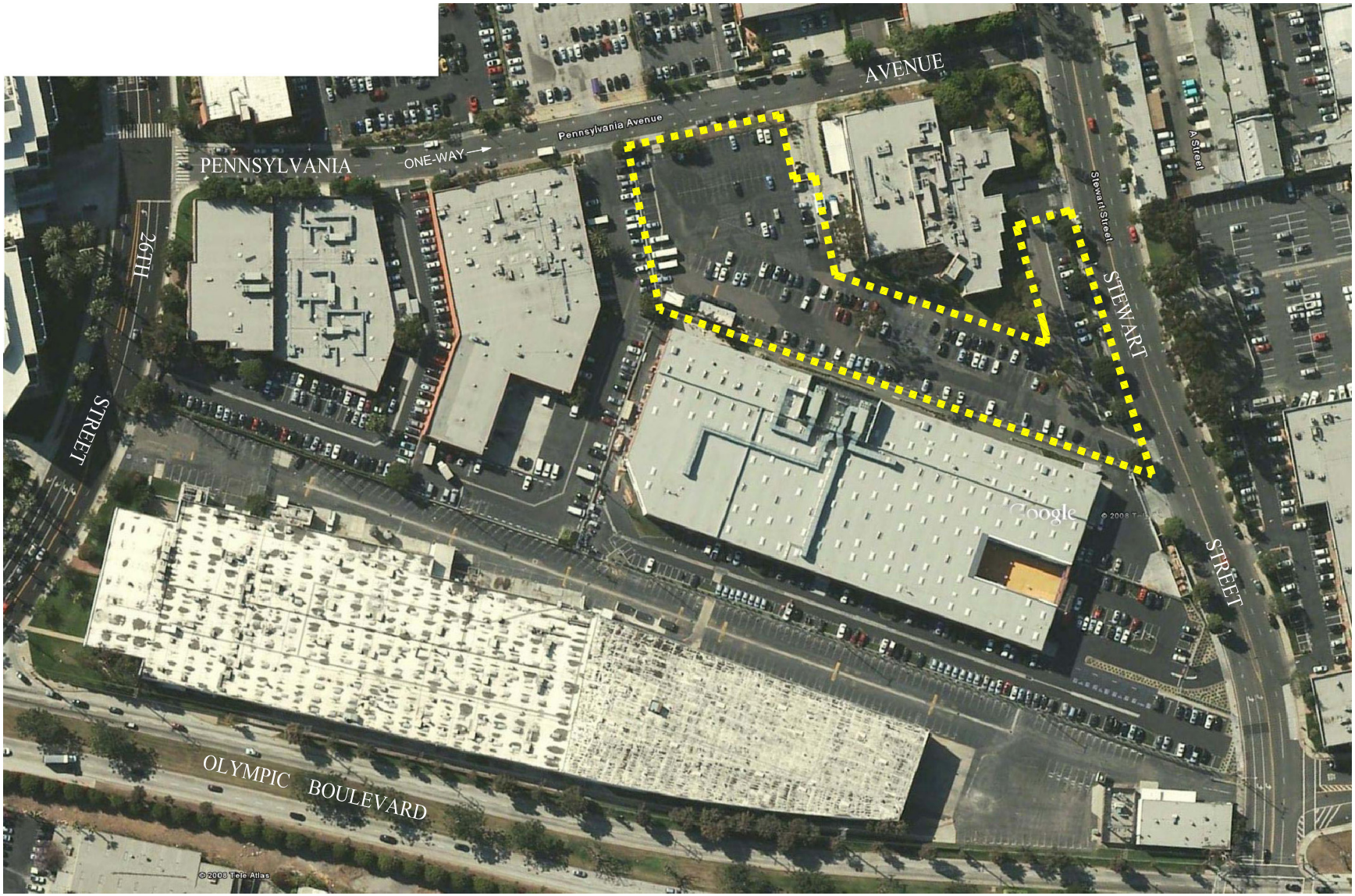

NOT TO SCALE

MAP SOURCE: GOOGLE EARTH

PARKING LOCATION

FIGURE 15-2
EXISTING PARKING SUPPLY
AET CAMPUS

LINSCOTT, LAW & GREENSPAN, engineers

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- *Olympic Shuttle Lot Parking:*

  The Olympic Shuttle Lot currently provides a total of 211 spaces in a surface parking lot within close proximity to the AET Campus. A total of seven spaces are reserved for the handicapped. The remaining 204 spaces are available to students and visitors with a parking permit. The existing Olympic Shuttle Lot parking area is shown in ***Figure 15-3***.

- *PAC Campus Parking:*

  The PAC Campus currently provides a total of 285 spaces on campus in the surface parking lot. A total of 17 spaces are reserved for faculty/staff members, SMC-related vehicles, and eight spaces are reserved for the handicapped at the PAC Campus. The remaining 260 spaces are available to students and visitors to the PAC campus with a parking permit. The existing PAC Campus parking area is shown in ***Figure 15-4***.

15.2 Existing Parking Utilization Surveys

Parking observations were conducted at the SMC Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus to document the current parking demand patterns with respect to parking utilization. Specifically, parking utilization was observed on an hourly basis from 7:00 AM to 11:00 PM on a typical weekday concurrently with the area-wide traffic counts utilized in this traffic study. In addition, a focused weekend parking utilization observation was conducted at the PAC Campus for a Saturday, also on an hourly basis from 7:00 AM to 11:00 PM.

The weekday parking utilization for the existing SMC Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus is presented in *Appendix N* (refer to Appendix Tables N-1 through N-5, respectively. The weekend parking utilization for the existing PAC Campus is shown in *Appendix N* (refer to Appendix Table N-6). The parking utilization is also presented graphically on *Appendix N* (refer to Appendix Figures N-1 through N-5 for weekday conditions for the SMC campuses and Appendix Figure N-6 for weekend conditions).

15.3 Existing Weekday Parking Conditions

The existing weekday peak parking demand for the SMC Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus is presented in *Table 15-1*. As summarized in *Table 15-1*, the combined Project campuses and parking areas were observed to experience a peak weekday parking demand at 11:00 AM whereby a total of 3,170 parking spaces were observed to be utilized (90% utilization of the combined total of 3,520 spaces available). A surplus of 350 parking spaces (10% of the existing parking supply) was observed to be available across the surveyed campuses and parking areas. As the Project campuses may experience different peaking characteristics and time periods, the following paragraphs summarize the corresponding peak parking demand associated with each of the surveyed campuses and parking areas.

NOT TO SCALE

MAP SOURCE: SMCC

PARKING LOCATION

FIGURE 15-3
EXISTING PARKING SUPPLY
OLYMPIC SHUTTLE LOT

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NOT TO SCALE

SOURCE: SMCC

PARKING LOCATION

FIGURE 15-4
EXISTING PARKING SUPPLY
PAC CAMPUS

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MASTER PLAN 2010 UPDATE

LINSCOTT, LAW & GREENSPAN, engineers

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15.3.1 *Main Campus Existing Weekday Parking*

The Main Campus was observed to experience a peak weekday parking demand at 1:00 PM whereby a total of 2,444 parking spaces were observed to be utilized (97% utilization of the combined total of 2,519 spaces available) as summarized in *Appendix N* (refer to Appendix Table N-1 and Appendix Figure N-1).

The weekday on-street parking immediately adjacent to the Main Campus was observed to experience its peak parking demand earlier than the on campus peak parking, at 11:00 AM, whereby a total of 244 parking spaces were observed to be utilized (98% utilization of the 250 spaces available) as shown in *Appendix N* (refer to Appendix Table N-2 and Appendix Figure N-2).

15.3.2 *AET Campus Existing Weekday Parking*

The AET Campus was observed to experience a peak weekday parking demand at 11:00 AM whereby a total of 217 parking spaces were observed to be utilized (85% utilization of the 255 spaces available) as summarized in *Appendix N* (refer to Appendix Table N-3 and Appendix Figure N-3).

15.3.3 *Olympic Shuttle Lot Existing Weekday Parking*

The Olympic Shuttle Lot was observed to experience a peak weekday parking demand at 11:00 AM whereby a total of 138 parking spaces were observed to be utilized (65% utilization of the 211 spaces available) as summarized in *Appendix N* (refer to Appendix Table N-4 and Appendix Figure N-4).

15.3.4 *PAC Campus Existing Weekday Parking*

The PAC Campus was observed to experience a peak weekday parking demand at 11:00 AM whereby a total of 160 parking spaces were observed to be utilized (56% utilization of the 285 spaces available) as summarized in *Appendix N* (refer to Appendix Table N-5 and Appendix Figure N-5).

15.4 Existing Weekend Parking Conditions

15.4.1 *PAC Campus Existing Weekend Parking*

As noted previously, the weekend parking conditions focused on the review of the PAC Campus. Coinciding with a day of relatively low attendance events at the Broad Stage (located on the PAC Campus), the weekend parking conditions at the PAC Campus was observed to experience a peak parking demand during the evening at 8:00 PM, whereby a total of 87 parking spaces were observed to be utilized (31% utilization of the 285 spaces available) as summarized in *Appendix N* (refer to Appendix Table N-6 and Appendix Figure N-6). However, it should be noted that during peak attendance events held at the Broad Stage, parking demand at the PAC Campus is much higher, resulting in nearly all of the on-site parking spaces utilized. Based on

information provided by SMC, these peak attendance events occur approximately 10 evenings per year.

15.5 Future Parking Supply

Listed below is a summary of the proposed net increase in parking for each of the subject SMC campuses in conjunction with the Project:

- Main Campus: Net increase of 453 parking spaces
- AET Campus: Net increase of 195 parking spaces
- Olympic Shuttle Lot: Net increase of 419 parking spaces
- PAC Campus: Net increase of 365 parking spaces

Based on the above, a total of 1,432 parking spaces will be added to the existing total supply of 3,520 spaces across the subject SMC campuses. As a result, with the Project, a total future parking supply of approximately 4,952 parking spaces will be provided at the above campuses.

15.6 Future Weekday Parking Conditions

Parking generation forecasts have been prepared for the SMC Career & Educational Facilities Master Plan 2010 Update. Similar to the Project trip generation forecasts, in preparing parking demand forecasts for development projects, it is common for traffic engineers to consult parking ratios published in the ITE *Parking Generation* manual. The ITE manual contains parking ratios for a variety of land uses (including office buildings, shopping centers, universities, etc.), which have been derived based on parking counts conducted at existing sites. However, the parking count data submitted to ITE is for free-standing sites generally located in suburban locations, which likely do not reflect the parking characteristics for projects located in highly urban areas such as the City of Santa Monica. Thus, the parking ratios provided in the ITE *Parking Generation* manual (derived from parking counts at suburban locations) would substantially overstate the parking generation potential of projects located in the City of Santa Monica, including the proposed SMC Career & Educational Facilities Master Plan 2010 Update.

The area adjacent to the Project site provides public transportation service, as well as enhanced pedestrian and bicycle trip-making opportunities. Therefore, the peak parking demand forecast expected to be generated by the Project was based upon empirical ratios derived from the weekday parking utilization surveys conducted at the subject SMC campuses (i.e., Main Campus, AET Campus, Olympic Shuttle Lot, and PAC Campus).

Summaries of the existing SMC campuses parking utilization surveys conducted during the weekday conditions are provided in *Appendix N*. The parking utilization data were compiled to develop SMC-specific peak parking demand ratio. The peak parking demand ratio, developed based on existing parking characteristics observed at the subject campus, was calculated to be

3.37 parking spaces per 1,000 square feet of gross building floor area (i.e., 3,170 total peak parking demand / 941,467 total gross square feet x 1,000 = 3.37 spaces per 1,000 gross square feet). The peak parking demand ratio was then applied to the proposed net increase in building floor area across the subject SMC campuses.

The future weekday peak parking demand for the Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus is presented in *Table 15-1*. As summarized in *Table 15-1*, the subject SMC campuses and parking areas are expected to generate a combined peak weekday parking demand of 3,991 parking spaces (81% utilization of the proposed total future parking supply of 4,952 spaces). A surplus of 961 parking spaces (19% of the proposed total parking supply) is anticipated to be available during peak conditions across the surveyed campuses and parking areas. The following paragraphs summarize the corresponding forecast peak parking demand associated with each of the surveyed campuses and parking areas under future conditions. If the parking supply at each campus exceeded the forecast peak parking demand, then the proposed amount of parking to be provided was deemed to be adequate.

15.6.1 *Main Campus Future Weekday Parking*

As summarized in *Table 15-1*, the Main Campus is anticipated to experience a peak weekday demand of 2,693 parking spaces (84% utilization of the proposed total parking supply of 3,222 spaces). This includes both Main Campus parking as well as the on-street parking immediately adjacent to the Main Campus. A surplus of 529 parking spaces (16% of the proposed total parking supply) is anticipated to be available during the peak weekday conditions. Therefore, the future parking supply is expected to adequately accommodate the additional parking demand generated by the Project at the Main Campus.

15.6.2 *AET Campus Future Weekday Parking*

As summarized in *Table 15-1*, the AET Campus is anticipated to experience a peak weekday demand of 431 parking spaces (96% utilization of the proposed total parking supply of 450 spaces). A surplus of 19 parking spaces (4% of the proposed total parking supply) is anticipated to be available during the peak weekday conditions. Therefore, the future parking supply is expected to adequately accommodate the additional parking demand generated by the Project at the AET Campus.

15.6.3 *Olympic Shuttle Lot Future Weekday Parking*

As summarized in *Table 15-1*, the Olympic Shuttle Lot is anticipated to experience a peak weekday demand of 391 parking spaces (62% utilization of the proposed total parking supply of 630 spaces). A surplus of 239 parking spaces (38% of the proposed total parking supply) is anticipated to be available during the peak weekday conditions. Therefore, the future parking supply is expected to adequately accommodate the additional parking demand generated by the Project at the Olympic Shuttle Lot.

15.6.4 *PAC Campus Future Weekday Parking*

As summarized in *Table 15-1*, the PAC Campus is anticipated to experience a peak weekday demand of 476 parking spaces (73% utilization of the proposed total parking supply of 650 spaces). A surplus of 174 parking spaces (27% of the proposed total parking supply) is anticipated to be available during the peak weekday conditions. Therefore, the future parking supply is expected to adequately accommodate the additional parking demand generated by the Project at the PAC Campus.

15.7 Future Weekend Parking Conditions

15.7.1 *PAC Campus Future Weekend Parking*

As discussed previously, on weekend days with peak attendance events occurring at the Broad Stage, parking is currently highly utilized at the PAC Campus (approximately 10 evenings per year). In consideration of this, SMC proposes to provide additional parking on-site to accommodate and alleviate the current parking demand generated during peak weekend conditions. The Project will increase the parking supply on the PAC Campus by 365 spaces (from the current 285 parking spaces to a total of 650 parking spaces). This increase in parking supply is anticipated to adequately accommodate the existing and future parking demand expected to be generated at the PAC Campus during the peak weekend conditions.

16.0 CONCLUSIONS

This traffic and parking impact study has been prepared for the Santa Monica College Career & Educational Facilities Master Plan 2010 Update. The Project will involve renovation, new construction and demolition of facilities on the SMC Main Campus, the AET Campus, the Olympic Shuttle Lot, and the PAC Campus. The PAC Campus may also include exhibition/museum type space to be used for academic needs and/or public usage. When accounting for the existing buildings to be demolished, the Project would result in a net increase of approximately 243,626 gross square feet of building area between the four subject campuses. Build-out of the overall Project is anticipated by year 2017.

In order to evaluate the potential impacts to the local street system, a total of 200 locations, including 134 study intersections and 66 street segments, were identified for evaluation to determine changes in operations following occupancy and utilization of the Project. A weekend mid-day peak hour analysis was also conducted for the 42 study intersections and 12 street segments in the vicinity of the PAC Campus. As SMC is the Lead Agency for the proposed SMC Career & Educational Facilities Master Plan 2010 Update, each of the Santa Monica study intersection was evaluated for potential traffic impacts using the City of Santa Monica significant traffic impact thresholds. The 23 study intersections located in the City of Los Angeles (i.e., 17 study intersections situated within the City of Los Angeles and six study intersections shared with the City of Santa Monica) were evaluated for potential traffic impacts using the LADOT significant traffic impact thresholds. Accordingly, each of the six intersections located partially within the City of Santa Monica and the City of Los Angeles was evaluated using the significant traffic impact criteria utilized by both agencies.

Application of the City of Santa Monica's threshold criteria indicates that the Project is expected to create significant impacts at 29 of the 117 City of Santa Monica study intersections during weekday conditions and four of the 42 study intersections during weekend conditions. Application of the City of Los Angeles' threshold criteria indicates that the Project is expected to create significant impacts at ten of the 23 City of Los Angeles study intersections during weekday conditions. Three of the ten study intersections forecast to be significantly impacted based on the City of Los Angeles methodology also are forecast to be significantly impacted based on City of Santa Monica methodology. Overall, the Project is expected to create significant impacts at 36 study intersections during weekday conditions and four study intersections during weekend conditions.

The Project is also expected to create significant impacts at 13 of the 66 study street segments during weekday conditions. No significant street segment impacts are anticipated on the 12 street segments evaluated for weekend conditions.

A comprehensive TDM program is proposed so as to reduce the forecast Project-related vehicular trip generation. Specifically, the goal of the TDM plan is to manage trip generation at the four SMC campuses such that the number of trips generated during the AM and PM peak hours do not exceed current levels (i.e., create a "traffic neutral" project). Even in a traffic

neutral condition as measured on an aggregate basis, it is likely that trip generation at some campuses may exceed current levels at Project build-out while trip generation at other campuses would be less. For those campuses that experience an incremental increase in trip generation, it is likely that some traffic affects associated with the Project would be deemed significant due to the highly sensitive thresholds of significance utilized by the City of Santa Monica, which have been adopted for use in the traffic analysis by the Lead Agency. Accordingly, impacts at some study intersections and street segments would remain significant due to the Project, although the severity of the impacts would be greatly reduced due to implementation of the TDM plan.

A total of four freeway segments and ten CMP monitoring intersection locations were also analyzed based on the 2004 Congestion Management Program for Los Angeles County, and no significant transportation impacts were determined at the regional, local or transit system.

The four SMC Project campuses will provide a total of approximately 4,952 on-site parking spaces upon completion of the SMC Career & Educational Facilities Master Plan 2010 Update. The SMC campuses and parking areas are expected to generate a combined peak weekday parking demand of 3,991 parking spaces (81% utilization of the proposed total parking supply). A surplus of 961 parking spaces (19% of the proposed total parking supply) is anticipated to be available during peak conditions across the surveyed campuses and parking areas. With the proposed on-site parking supply across the four SMC Project campuses, as well as the provision of a TDM program, the supply would be sufficient to accommodate the peak demand.