TABLE 135
2015 + PROJECT ALTERNATIVE 4Bi INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Bi			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.3	B	0.0	No
	PM		19.5	B	19.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	20.3	C	20.3	C	0.0	No
	PM		18.6	B	18.6	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.8	B	18.8	B	0.0	No
	PM		20.4	C	20.4	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.2	B	16.2	B	0.0	No
	PM		22.5	C	22.5	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	4.1	A	4.1	A	0.0	No
	PM		11.7	B	11.7	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.7	A	9.7	A	0.0	No
	PM	NA	11.2	B	11.2	B	0.0	No
	Eastbound Left							
	AM		13.5	B	13.5	B	0.0	No
	PM		33.1	D	33.1	D	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	2.9	A	2.9	A	0.0	No
	PM		4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		28.4	C	28.4	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		9.5	A	9.5	A	0.0	No
	PM		17.4	C	17.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	28.9	C	28.9	C	0.0	No
	PM		23.9	C	23.9	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		14.7	B	14.7	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.6	B	15.6	B	0.0	No
	PM		15.6	B	15.6	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.3	A	8.3	A	0.0	No
	PM		8.9	A	8.9	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	23.4	C	23.4	C	0.0	No
	PM		31.1	C	31.1	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.6	A	0.0	No
	PM		12.6	B	12.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	15.3	B	15.3	B	0.0	No
	PM		13.9	B	13.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.2	B	13.2	B	0.0	No
	PM		15.7	B	15.7	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.3	B	10.3	B	0.0	No
	PM		13.4	B	13.4	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		11.3	B	11.3	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	12.3	B	12.3	B	0.0	No
	PM		13.2	B	13.2	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	12.8	B	12.8	B	0.0	No
	PM		16.6	B	16.6	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	11.6	B	11.6	B	0.0	No
	PM		15.6	B	15.6	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.1	A	8.1	A	0.0	No
	PM		12.0	B	12.0	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 136
2015 + PROJECT ALTERNATIVE 4Bi INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Bi			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	15.0	B	15.0	B	0.0	No
	PM		14.5	B	14.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.3	C	24.3	C	0.0	No
	PM		19.6	B	19.6	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.5	B	17.5	B	0.0	No
	PM		20.2	C	20.2	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	27.2	C	27.2	C	0.0	No
	PM		24.0	C	24.0	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	21.3	C	21.3	C	0.0	No
	PM		16.6	B	16.6	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		13.9	B	13.9	B	0.0	No
	PM	NA	13.9	B	13.9	B	0.0	No
	Eastbound Left							
	AM		112.7	**F**	112.7	**F**	0.0	No
	PM		44.6	**E**	44.6	**E**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.9	A	3.9	A	0.0	No
	PM		3.8	A	3.8	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	31.3	C	31.3	C	0.0	No
	PM		52.4	D	52.4	D	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		12.4	B	12.4	B	0.0	No
	PM		22.4	C	22.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	25.1	C	25.1	C	0.0	No
	PM		18.5	B	18.5	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	13.3	B	13.3	B	0.0	No
	PM		14.6	B	14.6	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.7	B	13.7	B	0.0	No
	PM		13.6	B	13.6	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	11.5	B	11.5	B	0.0	No
	PM		9.3	A	9.3	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	37.2	D	37.2	D	0.0	No
	PM		30.5	C	30.5	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.3	A	0.0	No
	PM		11.6	B	11.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	17.6	B	17.6	B	0.0	No
	PM		16.5	B	16.5	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.1	B	15.1	B	0.0	No
	PM		15.0	B	15.0	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.6	B	11.6	B	0.0	No
	PM		12.0	B	12.0	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.7	B	11.7	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	10.2	B	10.2	B	0.0	No
	PM		9.5	A	9.5	A	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	12.2	B	12.2	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 137
2015 + PROJECT ALTERNATIVE 4Bi
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2015 No Project			2015 + Project Alternative 4Bi				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	15,000	1.000	**E**	15,000	1.000	**E**	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	A	13,800	0.345	A	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	B	19,000	0.475	B	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	B	18,100	0.453	B	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	B	19,100	0.478	B	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	C	23,000	0.575	C	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	B	18,900	0.473	B	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	23,100	0.770	D	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	C	17,900	0.597	C	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	C	14,600	0.487	C	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	B	12,300	0.410	B	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	12,100	0.538	C	12,100	0.538	C	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10000	1,600	0.160	A	1,600	0.160	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	A	1,800	0.180	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	B	4,500	0.450	B	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	**F**	11,500	1.150	**F**	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	11,300	0.753	D	11,300	0.753	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	B	5,100	0.510	B	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	C	6,400	0.640	C	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	6,500	0.650	C	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	8,100	0.810	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	B	4,100	0.410	B	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	C	7,000	0.700	C	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,300	0.902	**E**	20,300	0.902	**E**	0.000	NO
30	Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,300	0.730	C	0.000	NO
31	Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	**E**	5,710	0.571	C	-0.376	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	6,500	0.650	C	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

- Park Boulevard between Robinson Avenue and Upas Street (LOS E)
- A Street between 6th Avenue and Park Boulevard (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)

No impacts were calculated based on the current significance thresholds.

Table 138 shows all the Saturday internal study intersections to operate at LOS D or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS E)

2030

Exhibit 85 and Exhibit 86 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 139 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 140 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS E, AM peak and LOS F, PM peak)
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 141 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson and Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- El Prado between 6th Avenue and Balboa Drive (LOS E)
- El Prado between Balboa Drive and Plaza De Panama (LOS F)
- A Street between 6th and Park Boulevard (LOS F)
- The Mall (Esplanade) south of El Prado (LOS F)

TABLE 138
2015 + PROJECT ALTERNATIVE 4Bi
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 + Alt 4Bi	
			Control Delay (sec/veh)	LOS
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		41.6	E
	Westbound Left		5.3	A
30	Centennial Road/Parking Garage North Entrance/Exit	Stop		
	AM			
	Northbound Left		8.6	A
	Eastbound Left		12.6	B
31	Centennial Road/Parking Garage South Entrance/Exit	Stop		
	AM			
	Northbound Left		8.8	A
	Eastbound Left		14.2	B
	Eastbound Right		12.4	B
34	Presidents Way/Centennial Road	Stop		
	AM			
	Eastbound Left		8.5	A
	Southbound Left		32.8	D
	Southbound Right		9.8	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 85

2030 WITH ALTERNATIVE 4Bi TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – = PROPOSED DRIVEWAY
▭ = PROPOSED PARKING GARAGE

EXHIBIT 86

2030 WITH ALTERNATIVE 4Bi TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – = PROPOSED DRIVEWAY
▭ = PROPOSED PARKING GARAGE

TABLE 139
2030 + PROJECT ALTERNATIVE 4Bi INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Bi			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	17.5	B	17.5	B	0.0	No
	PM		31.0	C	31.0	C	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.8	C	24.8	C	0.0	No
	PM		24.1	C	24.1	C	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.2	B	19.2	B	0.0	No
	PM		22.6	C	22.6	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		29.3	C	29.3	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	4.6	A	4.6	A	0.0	No
	PM		13.1	B	13.1	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		10.6	B	10.6	B	0.0	No
	PM	NA	12.9	B	12.9	B	0.0	No
	Eastbound Left							
	AM		15.1	C	15.1	C	0.0	No
	PM		112.1	**F**	112.1	**F**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.0	A	3.0	A	0.0	No
	PM		4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		62.0	**E**	62.0	**E**	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.9	B	10.9	B	0.0	No
	PM		28.4	D	28.4	D	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	38.4	D	38.4	D	0.0	No
	PM		43.6	D	43.6	D	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	12.5	B	12.5	B	0.0	No
	PM		20.1	C	20.1	C	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		17.3	B	17.3	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	9.6	A	9.6	A	0.0	No
	PM		10.6	B	10.6	B	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	30.6	C	30.6	C	0.0	No
	PM		103.0	**F**	103.0	**F**	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	11.1	B	11.1	B	0.0	No
	PM		15.3	B	15.3	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	18.7	B	18.7	B	0.0	No
	PM		16.9	B	16.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.7	B	13.7	B	0.0	No
	PM		17.8	B	17.8	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	31.1	C	31.1	C	0.0	No
	PM		17.6	B	17.6	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		11.7	B	11.7	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	13.1	B	13.1	B	0.0	No
	PM		17.6	B	17.6	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	15.7	B	15.7	B	0.0	No
	PM		42.1	D	42.1	D	0.0	No
22	A Street/11th Avenue							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		21.6	C	21.6	C	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.9	A	8.9	A	0.0	No
	PM		27.5	D	27.5	D	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 140
2030 + PROJECT ALTERNATIVE 4Bi INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Bi			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.5	B	16.5	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	51.3	D	51.3	D	0.0	No
	PM		23.3	C	23.3	C	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.3	B	19.3	B	0.0	No
	PM		20.7	C	20.7	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	36.1	D	36.1	D	0.0	No
	PM		27.4	C	27.4	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	37.7	D	37.7	D	0.0	No
	PM		19.3	B	19.3	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		19.4	C	19.4	C	0.0	No
	PM	NA	18.5	C	18.5	C	0.0	No
	Eastbound Left							
	AM		460.8	**F**	460.8	**F**	0.0	No
	PM		168.8	**F**	168.8	**F**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.9	A	4.9	A	0.0	No
	PM		4.0	A	4.0	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	56.4	**E**	56.4	**E**	0.0	No
	PM		126.4	**F**	126.4	**F**	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		15.5	C	15.5	C	0.0	No
	PM		40.7	**E**	40.7	**E**	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	32.6	C	32.6	C	0.0	No
	PM		23.8	C	23.8	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	14.2	B	14.2	B	0.0	No
	PM		16.4	B	16.4	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	14.6	B	14.6	B	0.0	No
	PM		14.4	B	14.4	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	29.2	D	29.2	D	0.0	No
	PM		11.7	B	11.7	B	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	151.7	**F**	151.7	**F**	0.0	No
	PM		75.5	**E**	75.5	**E**	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.5	A	9.5	A	0.0	No
	PM		12.4	B	12.4	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	21.6	C	21.6	C	0.0	No
	PM		20.0	B	20.0	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.7	B	15.7	B	0.0	No
	PM		15.4	B	15.4	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.3	B	11.3	B	0.0	No
	PM		12.5	B	12.5	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		11.9	B	11.9	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	12.5	B	12.5	B	0.0	No
	PM		11.4	B	11.4	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	10.8	B	10.8	B	0.0	No
	PM		10.0	B	10.0	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	24.7	C	24.7	C	0.0	No
	PM		21.9	C	21.9	C	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 141
2030 + PROJECT ALTERNATIVE 4Bi
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2030 No Project			2030 + Project Alternative 4Bi				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	19,100	1.273	**F**	19,100	1.273	**F**	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	B	16,700	0.418	B	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	C	25,600	0.640	C	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,900	0.773	D	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	C	28,800	0.720	C	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	C	24,000	0.600	C	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	**F**	31,200	1.040	**F**	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	24,500	0.817	D	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	C	17,500	0.583	C	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	C	16,100	0.537	C	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,100	0.893	**E**	20,100	0.893	**E**	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	A	2,700	0.270	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	A	3,000	0.300	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	**F**	16,700	1.670	**F**	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	12,800	0.853	D	12,800	0.853	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	**E**	9,100	0.910	**E**	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	10,300	1.030	**F**	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	B	5,400	0.540	B	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	26,300	1.169	**F**	26,300	1.169	**F**	0.000	NO
30	Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	8,320	0.832	D	0.000	NO
31	Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	**E**	6,500	0.650	C	-0.330	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	10,300	1.030	**F**	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

No impacts were calculated at these locations based on the current significance thresholds.

Table 142 shows all the Saturday internal study intersections to operate at LOS C or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS F)
- Presidents Way/Centennial Road (SB left, LOS F)

ALTERNATIVE 4Bii – STOP LIGHT ALTERNATIVE WITH CABRILLO BRIDGE OPEN AND WITHOUT CENTENNIAL BRIDGE, OPERATIONS

Exhibit 87 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 88 shows the percent distribution for this alternative.

Existing

Exhibit 89 and Exhibit 90 show the Existing + Project Alternative 4Bii traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 143 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No impacts were calculated at these locations based on the current significance thresholds.

Table 144 shows all the study area intersections to operate at LOS C or better during the weekend AM and PM peak periods. No impacts were calculated at these locations based on the current significance thresholds.

Table 145 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS E).

Significant impact was calculated at this location based on the current significance thresholds.

Tables 146 and 147 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 91 and Exhibit 92 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 148 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods.

TABLE 142
2030 + PROJECT ALTERNATIVE 4Bi
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 + Alt 4Bi	
			Control Delay (sec/veh)	LOS
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		>50.0	F
	Westbound Left		7.2	A
30	Centennial Road/Parking Garage North Entrance/Exit	Stop		
	AM			
	Northbound Left		9.4	A
	Eastbound Left		17.0	C
31	Centennial Road/Parking Garage South Entrance/Exit	Stop		
	AM			
	Northbound Left		9.7	A
	Eastbound Left		18.3	C
	Eastbound Right		16.1	C
34	Presidents Way/Centennial Road	Stop		
	AM			
	Eastbound Left		9.1	A
	Southbound Left		> 50	F
	Southbound Right		10.4	B

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

BALBOA PARK

ROBINSON AVE
UPAS ST
UPAS ST
QUINCE DR
LAUREL ST
ELM ST
ASH ST
A ST
EL PRADO
RICHMOND ST
BALBOA DR
ZOO DR
ZOO PL
PARK BLVD
MORLEY FIELD DR
VILLAGE PLACE
INSPIRATION PT
PRESIDENTS WAY
SPACE THEATER WAY
PLAZA DE PANAMA
ORGAN PAVILLION LOT
PAN AMERICAN LOT
FEDERAL LOT
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
ORGAN PAVILION LOT DWY
FEDERAL LOT DWY

LEGEND
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY

LEGEND
= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
XU = X LANE UNDIVIDED
XD = X LANE DIVIDED

RICK ENGINEERING COMPANY

EXHIBIT 87

ALTERNATIVE 4Bii TRANSPORTATION CONDITIONS

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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EXHIBIT 88

ALTERNATIVE 4Bii TOTAL TRIP DISTRIBUTION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

- = PERCENT DISTRIBUTION
- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

RICK ENGINEERING COMPANY

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EXHIBIT 89

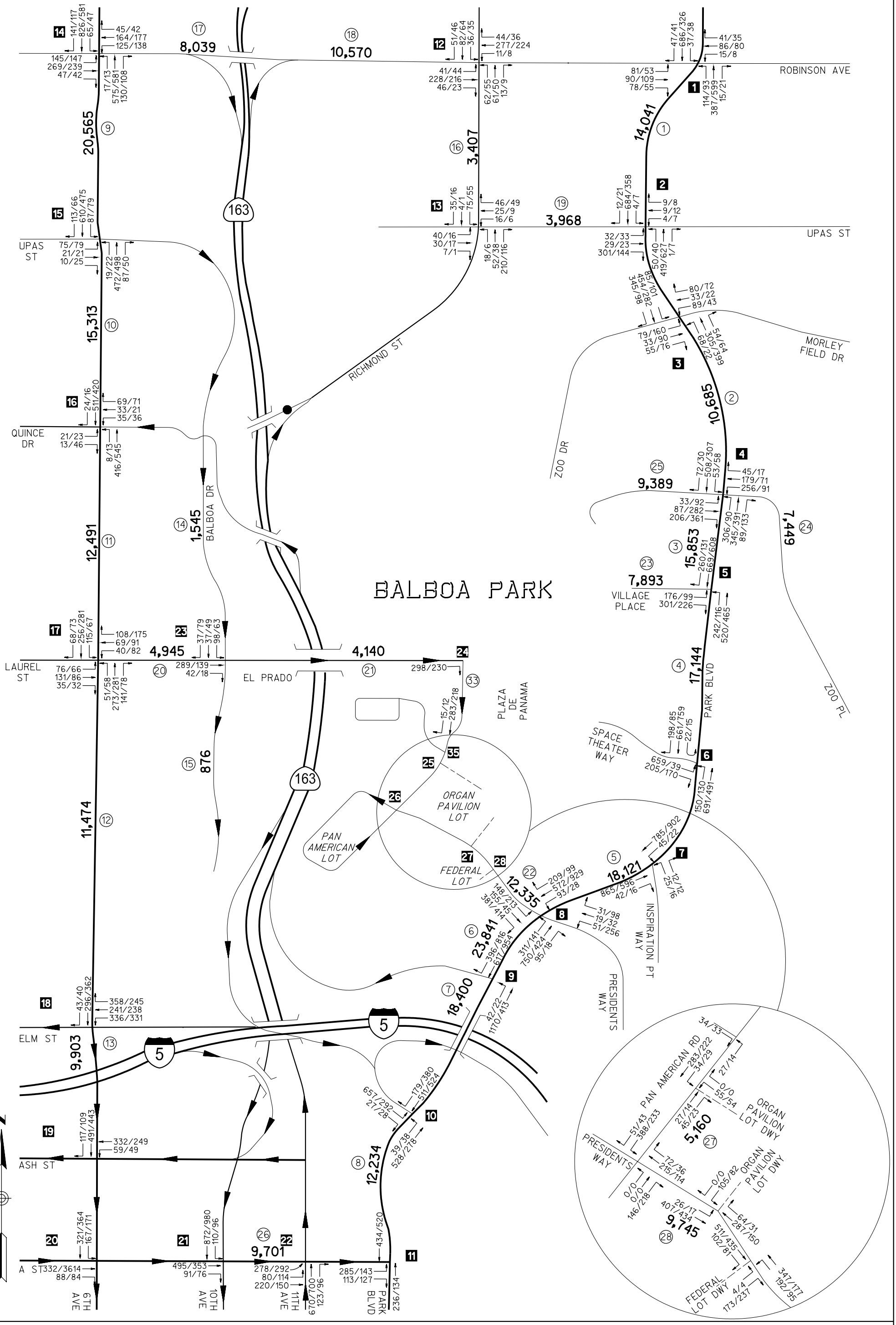
EXISTING WITH ALTERNATIVE 4Bii TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE



RICK ENGINEERING COMPANY

EXHIBIT 90

EXISTING WITH ALTERNATIVE 4Bii TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

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TABLE 143
EXISTING + PROJECT ALTERNATIVE 4Bii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	Existing		Existing + Project Alternative 4Bii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.1	B	-0.2	No
	PM		17.1	B	17.2	B	0.1	No
2	Park Boulevard/Upas Street							
	AM	Signal	18.6	B	18.5	B	-0.1	No
	PM		14.4	B	14.2	B	-0.2	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.6	B	18.5	B	-0.1	No
	PM		19.2	B	19.2	B	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.1	B	20.1	C	4.0	No
	PM		21.5	C	21.8	C	0.3	No
5	Park Boulevard/Village Place							
	AM	Signal	3.9	A	4.0	A	0.1	No
	PM		11.3	B	11.1	B	-0.2	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.0	A	8.7	A	-0.3	No
	PM	NA	9.7	A	9.3	A	-0.4	No
	Eastbound Left							
	AM		12.1	B	11.6	B	-0.5	No
	PM		19.2	C	16.8	C	-2.4	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.1	A	3.2	A	0.1	No
	PM		4.5	A	4.6	A	0.1	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	16.0	B	1.3	No
	PM		21.8	C	22.0	C	0.2	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		8.8	A	8.8	A	0.0	No
	PM		12.8	B	12.8	B	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	26.2	C	26.0	C	-0.2	No
	PM		19.9	B	19.7	B	-0.2	No
11	Park Boulevard/A Street							
	AM	Signal	11.5	B	11.3	B	-0.2	No
	PM		13.3	B	13.0	B	-0.3	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.0	B	15.0	B	0.0	No
	PM		14.5	B	14.5	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	7.7	A	7.7	A	0.0	No
	PM		8.0	A	8.0	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	20.5	C	20.0	C	-0.5	No
	PM		22.6	C	22.6	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.3	A	-0.3	No
	PM		11.7	B	11.5	B	-0.2	No
16	6th Avenue/Quince Drive							
	AM	Signal	12.1	B	12.4	B	0.3	No
	PM		12.1	B	14.1	B	2.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.0	B	12.9	B	-0.1	No
	PM		15.0	B	14.9	B	-0.1	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	8.6	A	9.3	A	0.7	No
	PM		12.8	B	13.0	B	0.2	No
19	6th Avenue/Ash Street							
	AM	Signal	11.5	B	11.8	B	0.3	No
	PM		10.9	B	10.5	B	-0.4	No
20	6th Avenue/A Street							
	AM	Signal	11.8	B	11.7	B	-0.1	No
	PM		11.5	B	11.6	B	0.1	No
21	A Street/10th Avenue							
	AM	Signal	11.9	B	11.2	B	-0.7	No
	PM		14.0	B	14.1	B	0.1	No
22	A Street/11th Avenue							
	AM	Signal	11.0	B	10.4	B	-0.6	No
	PM		13.9	B	13.3	B	-0.6	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	7.8	A	7.6	A	-0.2	No
	PM		10.8	B	9.2	B	-1.6	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 144
EXISTING + PROJECT ALTERNATIVE 4Bii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	Existing		Existing + Project Alternative 4Bii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	14.5	B	14.4	B	-0.1	No
	PM		13.8	B	13.7	B	-0.1	No
2	Park Boulevard/Upas Street							
	AM	Signal	19.2	B	18.8	B	-0.4	No
	PM		15.5	B	15.3	B	-0.2	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.0	B	16.9	B	-0.1	No
	PM		20.0	C	20.0	B	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	30.0	C	29.6	C	-0.4	No
	PM		24.0	C	24.2	C	0.2	No
5	Park Boulevard/Village Place							
	AM	Signal	18.5	B	18.2	B	-0.3	No
	PM		15.5	B	15.6	B	0.1	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		11.3	B	10.6	B	-0.7	No
	PM	NA	11.1	B	10.4	B	-0.7	No
	Eastbound Left							
	AM		31.2	D	23.7	C	-7.5	No
	PM		20.3	C	17.4	C	-2.9	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.1	A	4.1	A	0.0	No
	PM		4.1	A	4.3	A	0.2	No
8	Park Boulevard/Presidents Way							
	AM	Signal	25.0	C	25.7	C	0.7	No
	PM		26.8	C	26.9	C	0.1	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.5	B	10.5	B	0.0	No
	PM		15.4	C	15.8	C	0.4	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	21.8	C	21.8	C	0.0	No
	PM		16.2	B	16.1	B	-0.1	No
11	Park Boulevard/A Street							
	AM	Signal	12.8	B	12.7	B	-0.1	No
	PM		13.8	B	13.6	B	-0.2	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		12.7	B	12.7	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.8	A	8.8	A	0.0	No
	PM		7.7	A	7.7	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	24.3	C	24.5	C	0.2	No
	PM		24.8	C	25.2	C	0.4	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.0	A	-0.3	No
	PM		11.1	B	10.7	B	-0.4	No
16	6th Avenue/Quince Drive							
	AM	Signal	13.9	B	14.2	B	0.3	No
	PM		13.5	B	13.7	B	0.2	No
17	6th Avenue/Laurel Street							
	AM	Signal	14.8	B	14.6	B	-0.2	No
	PM		14.7	B	14.7	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.9	B	10.9	B	0.0	No
	PM		11.5	B	11.6	B	0.1	No
19	6th Avenue/Ash Street							
	AM	Signal	11.2	B	12.5	B	1.3	No
	PM		10.7	B	10.3	B	-0.4	No
20	6th Avenue/A Street							
	AM	Signal	11.4	B	11.3	B	-0.1	No
	PM		11.3	B	11.1	B	-0.2	No
21	A Street/10th Avenue							
	AM	Signal	11.4	B	10.8	B	-0.6	No
	PM		10.4	B	9.8	A	-0.6	No
22	A Street/11th Avenue							
	AM	Signal	9.8	A	9.3	A	-0.5	No
	PM		9.2	A	8.9	A	-0.3	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	10.5	B	7.0	A	-3.5	No
	PM		10.3	B	7.0	A	-3.3	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 145
EXISTING + PROJECT ALTERNATIVE 4Bii
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	Existing			Existing + Project Alternative 4Bii				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	12,549	0.837	D	13,214	0.881	**E**	0.044	**YES**
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	A	10,498	0.262	A	-0.042	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	A	12,726	0.318	A	-0.044	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	B	13,175	0.329	A	-0.046	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	B	14,912	0.373	A	-0.051	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	B	19,123	0.478	B	0.002	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	B	16,570	0.414	B	-0.021	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	B	13,420	0.335	A	-0.049	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	C	20,577	0.686	D	0.086	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	B	15,789	0.526	C	0.071	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	B	14,528	0.484	C	0.050	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	B	10,537	0.351	B	0.016	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	9,893	0.440	B	10,952	0.487	C	0.047	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	A	1,300	0.130	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	A	637	0.064	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	A	3,856	0.386	A	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	8,204	0.820	D	0.021	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	10,344	0.690	D	10,623	0.708	D	0.019	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	A	3,880	0.388	A	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	C	4,553	0.455	B	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C	3,512	0.351	A	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	8,834	0.883	D	0.097	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	A	4,063	0.406	B	0.010	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	C	6,549	0.655	C	0.089	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	C	5,818	0.582	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	16,655	0.740	D	14,273	0.634	C	-0.106	NO
27	Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,767	0.577	C	4,340	0.434	B	-0.143	NO
28	Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	6,980	0.698	C	-0.158	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C	3,512	0.351	A	-0.220	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 146
EXISITING + PROJECT ALTERNATIVE 4Bii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

	Intersection	Control	Existing + Alt 4Bii	
			Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.0	A
	Westbound Shared Left-Right		9.5	A
26	Pan American Road/Presidents Way	All Way Stop		
	AM		8.0	A
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		9.7	A
	Eastbound Left		1.0	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		9.1	A
	Westbound Left		3.0	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 147
EXISITING + PROJECT ALTERNATIVE 4Bii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	Existing + Alt 4Bii	
			Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.0	A
	Westbound Shared Left-Right		12.1	B
26	Pan American Road/Presidents Way	All Way Stop		
	AM		15.0	C
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		20.7	C
	Eastbound Left		0.7	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		18.3	C
	Westbound Left		5.5	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 91

2015 WITH ALTERNATIVE 4Bii TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- O O O = NO VEHICULAR ACCESS
- — — - = PROPOSED ROADWAY
- - - - - = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

EXHIBIT 92

2015 WITH ALTERNATIVE 4Bii TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – – = PROPOSED DRIVEWAY
▭ = PROPOSED PARKING GARAGE

TABLE 148
2015 + PROJECT ALTERNATIVE 4Bii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Bii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.0	B	-0.3	No
	PM		19.5	B	19.2	B	-0.3	No
2	Park Boulevard/Upas Street							
	AM	Signal	20.3	C	19.3	B	-1.0	No
	PM		18.6	B	15.4	B	-3.2	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.8	B	18.6	B	-0.2	No
	PM		20.4	C	19.6	B	-0.8	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.2	B	15.6	B	-0.6	No
	PM		22.5	C	19.9	B	-2.6	No
5	Park Boulevard/Village Place							
	AM	Signal	4.1	A	3.8	A	-0.3	No
	PM		11.7	B	11.1	B	-0.6	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.7	A	9.1	A	-0.6	No
	PM	NA	11.2	B	9.8	A	-1.4	No
	Eastbound Left							
	AM		13.5	B	12.2	B	-1.3	No
	PM		33.1	D	20.2	C	-12.9	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	2.9	A	3.2	A	0.3	No
	PM		4.7	A	4.6	A	-0.1	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		28.4	C	24.8	C	-3.6	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		9.5	A	9.3	A	-0.2	No
	PM		17.4	C	15.6	C	-1.8	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	28.9	C	27.8	C	-1.1	No
	PM		23.9	C	21.6	C	-2.3	No
11	Park Boulevard/A Street							
	AM	Signal	11.8	B	11.6	B	-0.2	No
	PM		14.7	B	14.0	B	-0.7	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.6	B	15.6	B	0.0	No
	PM		15.6	B	15.3	B	-0.3	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.3	A	8.1	A	-0.2	No
	PM		8.9	A	8.4	A	-0.5	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	23.4	C	22.8	C	-0.6	No
	PM		31.1	C	30.2	C	-0.9	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.3	A	-0.3	No
	PM		12.6	B	12.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	15.3	B	15.6	B	0.3	No
	PM		13.9	B	13.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.2	B	13.0	B	-0.2	No
	PM		15.7	B	15.4	B	-0.3	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.3	B	12.0	B	1.7	No
	PM		13.4	B	13.8	B	0.4	No
19	6th Avenue/Ash Street							
	AM	Signal	12.1	B	12.4	B	0.3	No
	PM		11.3	B	10.8	B	-0.5	No
20	6th Avenue/A Street							
	AM	Signal	12.3	B	12.1	B	-0.2	No
	PM		13.2	B	12.9	B	-0.3	No
21	A Street/10th Avenue							
	AM	Signal	12.8	B	12.2	B	-0.6	No
	PM		16.6	B	16.2	B	-0.4	No
22	A Street/11th Avenue							
	AM	Signal	11.6	B	11.0	B	-0.6	No
	PM		15.6	B	14.6	B	-1.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.1	A	8.0	A	-0.1	No
	PM		12.0	B	9.9	A	-2.1	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

Table 149 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No impacts were calculated at these locations based on the current significance thresholds.

Table 150 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- Presidents Way west of Park Boulevard (LOS E)
- 6th Avenue between Robinson and Upas Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F).

Significant impacts were calculated based on the current significance thresholds.

Tables 151 and 152 show all the weekday and Saturday internal study intersections to operate acceptably at LOS D or better.

2030

Exhibit 93 and Exhibit 94 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 153 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)*

Significant impacts were calculated at these "*" locations.

Table 154 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and LOS E, PM peak)
- Park Boulevard/Presidents Way (LOS F, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM and PM peaks)*

Significant impacts were calculated at these "*" locations.

Table 155 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)*
- 6th Avenue between Upas Street and Quince Street (LOS E)*
- 6th Avenue between Elm Street and Ash Street (LOS F)*
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)*
- Robinson Avenue between Vermont Street and Park Boulevard (LOS E)*

TABLE 149
2015 + PROJECT ALTERNATIVE 4Bii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Bii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	15.0	B	14.6	B	-0.4	No
	PM		14.5	B	13.9	B	-0.6	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.3	C	20.6	C	-3.7	No
	PM		19.6	B	16.4	B	-3.2	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.5	B	16.6	B	-0.9	No
	PM		20.2	C	20.1	C	-0.1	No
4	Park Boulevard/Zoo Place							
	AM	Signal	27.2	C	24.9	C	-2.3	No
	PM		24.0	C	22.2	C	-1.8	No
5	Park Boulevard/Village Place							
	AM	Signal	21.3	C	18.9	B	-2.4	No
	PM		16.6	B	15.5	B	-1.1	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		13.9	B	11.6	B	-2.3	No
	PM	NA	13.9	B	11.3	B	-2.6	No
	Eastbound Left							
	AM		112.7	**F**	33.4	D	-79.3	No
	PM		44.6	**E**	21.3	C	-23.3	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.9	A	4.2	A	0.3	No
	PM		3.8	A	4.1	A	0.3	No
8	Park Boulevard/Presidents Way							
	AM	Signal	31.3	C	29.1	C	-2.2	No
	PM		52.4	D	36.4	D	-16.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		12.4	B	11.7	B	-0.7	No
	PM		22.4	C	19.5	C	-2.9	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	25.1	C	23.6	C	-1.5	No
	PM		18.5	B	17.6	B	-0.9	No
11	Park Boulevard/A Street							
	AM	Signal	13.3	B	13.1	B	-0.2	No
	PM		14.6	B	14.2	B	-0.4	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.7	B	13.6	B	-0.1	No
	PM		13.6	B	13.0	B	-0.6	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	11.5	B	10.1	B	-1.4	No
	PM		9.3	A	8.2	A	-1.1	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	37.2	D	40.1	D	2.9	No
	PM		30.5	C	30.1	C	-0.4	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.2	A	-0.1	No
	PM		11.6	B	10.7	B	-0.9	No
16	6th Avenue/Quince Drive							
	AM	Signal	17.6	B	18.2	B	0.6	No
	PM		16.5	B	17.2	B	0.7	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.1	B	14.8	B	-0.3	No
	PM		15.0	B	14.8	B	-0.2	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.6	B	10.0	B	-1.6	No
	PM		12.0	B	12.2	B	0.2	No
19	6th Avenue/Ash Street							
	AM	Signal	11.4	B	11.1	B	-0.3	No
	PM		10.9	B	10.5	B	-0.4	No
20	6th Avenue/A Street							
	AM	Signal	11.7	B	11.4	B	-0.3	No
	PM		11.5	B	11.2	B	-0.3	No
21	A Street/10th Avenue							
	AM	Signal	11.8	B	11.1	B	-0.7	No
	PM		10.7	B	10.1	B	-0.6	No
22	A Street/11th Avenue							
	AM	Signal	10.2	B	9.6	A	-0.6	No
	PM		9.5	A	9.2	A	-0.3	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	12.2	B	9.5	A	-2.7	No
	PM		10.7	B	8.8	A	-1.9	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 150
2015 + PROJECT ALTERNATIVE 4Bii
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2015 No Project			2015 + Project Alternative 4Bii				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	15,000	1.000	**E**	15,800	1.053	**F**	0.053	**YES**
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	A	11,900	0.298	A	-0.048	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	B	16,700	0.418	B	-0.058	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	B	15,900	0.398	B	-0.055	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	B	16,800	0.420	B	-0.058	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	C	23,100	0.578	C	0.003	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	21,200	0.530	C	-0.028	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	B	16,500	0.413	B	-0.060	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	26,400	0.880	**E**	0.110	**YES**
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	C	20,700	0.690	D	0.093	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	C	16,300	0.543	C	0.057	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	B	12,900	0.430	B	0.020	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	12,100	0.538	C	13,400	0.596	C	0.058	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	A	1,700	0.170	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	A	1,000	0.100	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	B	4,500	0.450	B	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	**F**	11,800	1.180	**F**	0.030	**YES**
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	11,300	0.753	D	11,600	0.773	D	0.020	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	B	5,100	0.510	B	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	C	4,800	0.480	B	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	4,000	0.400	B	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	9,100	0.910	**E**	0.100	**YES**
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	B	4,200	0.420	B	0.010	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	C	8,100	0.810	D	0.110	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,300	0.902	**E**	17,400	0.773	D	-0.129	NO
27	Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,700	0.670	C	5,470	0.547	B	-0.123	NO
28	Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	**E**	7,890	0.789	D	-0.158	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	4,000	0.400	B	-0.250	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 151
2015 + PROJECT ALTERNATIVE 4Bii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

	Intersection	Control	2015 + Alt 4Bii	
			Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.0	A
	Westbound Shared Left-Right		9.5	A
26	Pan American Road/Presidents Way	All Way Stop		
	AM		8.1	A
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		9.8	A
	Eastbound Left		1.0	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		9.1	A
	Westbound Left		3.0	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 152
2015 + PROJECT ALTERNATIVE 4Bii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 + Alt 4Bii	
			Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.0	A
	Westbound Shared Left-Right		13.1	B
26	Pan American Road/Presidents Way	All Way Stop		
	AM		18.8	C
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		30.0	D
	Eastbound Left		0.8	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		20.2	C
	Westbound Left		6.2	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 93

2030 WITH ALTERNATIVE 4Bii TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

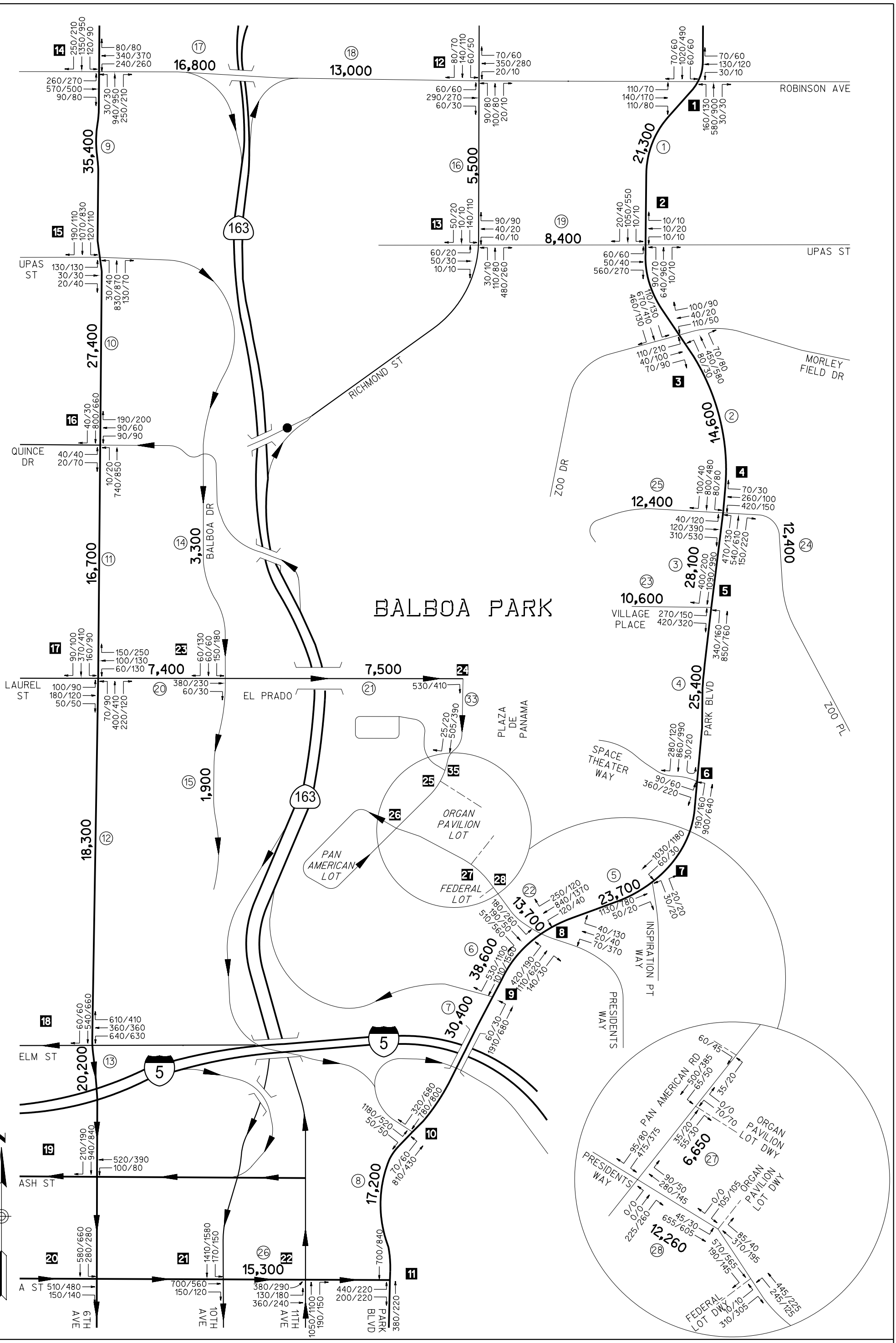

EXHIBIT 94

2030 WITH ALTERNATIVE 4Bii TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- O O O = NO VEHICULAR ACCESS
- — — - = PROPOSED ROADWAY
- - - - - = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

RICK ENGINEERING COMPANY

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TABLE 153
2030 + PROJECT ALTERNATIVE 4Bii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Bii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	17.5	B	17.3	B	-0.2	No
	PM		31.0	C	34.8	C	3.8	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.8	C	22.9	C	-1.9	No
	PM		24.1	C	19.5	B	-4.6	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.2	B	18.9	B	-0.3	No
	PM		22.6	C	20.8	C	-1.8	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.7	B	16.1	B	-0.6	No
	PM		29.3	C	22.5	C	-6.8	No
5	Park Boulevard/Village Place							
	AM	Signal	4.6	A	4.0	A	-0.6	No
	PM		13.1	B	11.8	B	-1.3	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		10.6	B	9.7	A	-0.9	No
	PM	NA	12.9	B	10.8	B	-2.1	No
	Eastbound Left							
	AM		15.1	C	13.3	B	-1.8	No
	PM		112.1	**F**	35.8	**E**	-76.3	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.0	A	2.9	A	-0.1	No
	PM		4.7	A	4.9	A	0.2	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		62.0	**E**	40.9	D	-21.1	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.9	B	10.4	B	-0.5	No
	PM		28.4	D	23.3	C	-5.1	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	38.4	D	33.8	C	-4.6	No
	PM		43.6	D	28.9	C	-14.7	No
11	Park Boulevard/A Street							
	AM	Signal	12.5	B	12.1	B	-0.4	No
	PM		20.1	C	16.3	B	-3.8	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		17.3	B	16.9	B	-0.4	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	9.6	A	9.3	A	-0.3	No
	PM		10.6	B	9.8	A	-0.8	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	30.6	C	30.4	C	-0.2	No
	PM		103.0	**F**	104.1	**F**	1.1	**Yes**
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	11.1	B	10.9	B	-0.2	No
	PM		15.3	B	15.2	B	-0.1	No
16	6th Avenue/Quince Drive							
	AM	Signal	18.7	B	19.2	B	0.5	No
	PM		16.9	B	18.0	B	1.1	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.7	B	13.4	B	-0.3	No
	PM		17.8	B	17.0	B	-0.8	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	31.1	C	63.9	**E**	32.8	**Yes**
	PM		17.6	B	19.9	B	2.3	No
19	6th Avenue/Ash Street							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		11.7	B	11.1	B	-0.6	No
20	6th Avenue/A Street							
	AM	Signal	13.1	B	12.8	B	-0.3	No
	PM		17.6	B	15.6	B	-2.0	No
21	A Street/10th Avenue							
	AM	Signal	15.7	B	15.3	B	-0.4	No
	PM		42.1	D	28.0	C	-14.1	No
22	A Street/11th Avenue							
	AM	Signal	13.0	B	12.0	B	-1.0	No
	PM		21.6	C	18.7	B	-2.9	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.9	A	8.1	A	-0.8	No
	PM		27.5	D	12.4	B	-15.1	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 154
2030 + PROJECT ALTERNATIVE 4Bii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Bii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.5	B	16.0	B	-0.5	No
	PM		15.5	B	15.3	B	-0.2	No
2	Park Boulevard/Upas Street							
	AM	Signal	51.3	D	31.6	C	-19.7	No
	PM		23.3	C	19.2	B	-4.1	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.3	B	17.7	B	-1.6	No
	PM		20.7	C	20.3	C	-0.4	No
4	Park Boulevard/Zoo Place							
	AM	Signal	36.1	D	28.1	C	-8.0	No
	PM		27.4	C	24.1	C	-3.3	No
5	Park Boulevard/Village Place							
	AM	Signal	37.7	D	23.7	C	-14.0	No
	PM		19.3	B	16.9	B	-2.4	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		19.4	C	13.3	B	-6.1	No
	PM	NA	18.5	C	12.5	B	-6.0	No
	Eastbound Left							
	AM		460.8	**F**	99.9	**F**	-360.9	No
	PM		168.8	**F**	36.6	**E**	-132.2	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.9	A	4.6	A	-0.3	No
	PM		4.0	A	4.4	A	0.4	No
8	Park Boulevard/Presidents Way							
	AM	Signal	56.4	**E**	46.5	D	-9.9	No
	PM		126.4	**F**	87.0	**F**	-39.4	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		15.5	C	14.5	B	-1.0	No
	PM		40.7	**E**	32.6	D	-8.1	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	32.6	C	28.4	C	-4.2	No
	PM		23.8	C	20.7	C	-3.1	No
11	Park Boulevard/A Street							
	AM	Signal	14.2	B	13.6	B	-0.6	No
	PM		16.4	B	14.8	B	-1.6	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	14.6	B	14.6	B	0.0	No
	PM		14.4	B	14.0	B	-0.4	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	29.2	D	19.4	C	-9.8	No
	PM		11.7	B	9.6	A	-2.1	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	151.7	**F**	168.4	**F**	16.7	**Yes**
	PM		75.5	**E**	86.7	**F**	11.2	**Yes**
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.5	A	9.4	A	-0.1	No
	PM		12.4	B	11.6	B	-0.8	No
16	6th Avenue/Quince Drive							
	AM	Signal	21.6	C	22.1	C	0.5	No
	PM		20.0	B	20.9	C	0.9	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.7	B	15.2	B	-0.5	No
	PM		15.4	B	15.1	B	-0.3	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.3	B	11.9	B	0.6	No
	PM		12.5	B	13.1	B	0.6	No
19	6th Avenue/Ash Street							
	AM	Signal	11.8	B	11.3	B	-0.5	No
	PM		10.9	B	10.4	B	-0.5	No
20	6th Avenue/A Street							
	AM	Signal	12.1	B	11.8	B	-0.3	No
	PM		11.9	B	11.5	B	-0.4	No
21	A Street/10th Avenue							
	AM	Signal	12.5	B	11.8	B	-0.7	No
	PM		11.4	B	10.8	B	-0.6	No
22	A Street/11th Avenue							
	AM	Signal	10.8	B	10.2	B	-0.6	No
	PM		10.0	B	9.6	A	-0.4	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	24.7	C	12.0	B	-12.7	No
	PM		21.9	C	10.1	B	-11.8	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 155
2030 + PROJECT ALTERNATIVE 4Bii
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2030 No Project			2030 + Project Alternative 4Bii				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	19,100	1.273	**F**	20,100	1.340	**F**	0.067	**YES**
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	B	14,400	0.360	A	-0.058	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	C	22,500	0.563	C	-0.078	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	19,600	0.490	B	-0.068	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	19,600	0.490	B	-0.068	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	31,100	0.778	D	0.005	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	C	27,400	0.685	C	-0.035	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	C	20,900	0.523	B	-0.078	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	**F**	35,600	1.187	**F**	0.147	**YES**
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	28,400	0.947	**E**	0.130	**YES**
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	C	19,500	0.650	C	0.067	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	C	16,900	0.563	C	0.027	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,100	0.893	**E**	22,200	0.987	**E**	0.093	**YES**
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	A	2,800	0.280	A	0.010	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	A	1,700	0.170	A	-0.130	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	**F**	17,100	1.710	**F**	0.040	**YES**
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	12,800	0.853	D	13,100	0.873	**E**	0.020	**YES**
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	**E**	6,800	0.680	C	-0.230	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	6,400	0.640	C	-0.390	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	9,900	0.990	**E**	0.110	**YES**
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	B	5,500	0.550	B	0.010	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	10,200	1.020	**F**	0.140	**YES**
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	26,300	1.169	**F**	22,500	1.000	**E**	-0.169	NO
27	Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,220	0.822	D	6,290	0.629	C	-0.193	NO
28	Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	**E**	9,000	0.900	D	-0.080	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	6,400	0.640	C	-0.390	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

- A Street between 6th and Park Boulevard (LOS E)
- Presidents Way west of Park Boulevard (LOS E)*
- Zoo Place east of Park Boulevard (LOS F)*

Significant impacts were calculated at these "*" locations based on the current significance thresholds.

Tables 156 and 157 shows all the Saturday internal study intersections to operate at LOS C or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS E)
- Presidents Way/Organ Pavilion Lot (SB shared left-right, LOS F)
- Presidents Way/Pan American Road (LOS E)

ALTERNATIVE 4Biii – MODIFIED PRECISE PLAN WITHOUT PARKING STRUCTURE ALTERNATIVE, CABRILLO BRIDGE OPEN WITHOUT CENTENNIAL BRIDGE, OPERATIONS

Exhibit 95 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 96 shows the percent distribution for this alternative.

Existing

Exhibit 97 and Exhibit 98 show the Existing + 4Biii traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 158 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 159 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 160 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Tables 161 and 162 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 99 and Exhibit 100 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 163 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

TABLE 156
2030 + PROJECT ALTERNATIVE 4Bii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

	Intersection	Control	2030 + Alt 4Bii	
			Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.1	A
	Westbound Shared Left-Right		9.8	A
26	Pan American Road/Presidents Way	All Way Stop		
	AM		8.4	A
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		10.2	B
	Eastbound Left		0.9	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		9.5	A
	Westbound Left		2.9	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 157
2030 + PROJECT ALTERNATIVE 4Bii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 + Alt 4Bii	
			Control Delay (sec/veh)	LOS
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.3	A
	Westbound Shared Left-Right		17.6	C
26	Pan American Road/Presidents Way	All Way Stop		
	AM		45.0	E
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		>50	F
	Eastbound Left		1.2	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		46.7	E
	Westbound Left		7.6	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 95

ALTERNATIVE 4Biii TRANSPORTATION CONDITIONS

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

BALBOA PARK

ROBINSON AVE
UPAS ST
MORLEY FIELD DR
ZOO DR
ZOO PL
PARK BLVD
VILLAGE PLACE
SPACE THEATER WAY
PLAZA DE PANAMA
EL PRADO
RICHMOND ST
BALBOA DR
PRESIDENTS WAY
INSPIRATION PT
PAN AMERICAN RD
ORGAN PAVILION LOT DWY
FEDERAL LOT DWY
ORGAN PAVILION LOT
PAN AMERICAN LOT
FEDERAL LOT
QUINCE DR
LAUREL ST
ASH ST
ELM ST
A ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
XU = X LANE UNDIVIDED
XD = X LANE DIVIDED

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EXHIBIT 96

ALTERNATIVE 4Biii TOTAL TRIP DISTRIBUTION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- XXX% = PERCENT DISTRIBUTION
- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

EXHIBIT 97

EXISTING WITH ALTERNATIVE 4Biii TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

BALBOA PARK

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

RICK ENGINEERING COMPANY

EXHIBIT 98

EXISTING WITH ALTERNATIVE 4Biii TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – = PROPOSED DRIVEWAY
▭ = PROPOSED PARKING GARAGE

TABLE 158
EXISTING + PROJECT ALTERNATIVE 4Biii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	Existing		Existing + Project Alternative 4Biii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.3	B	0.0	No
	PM		17.1	B	17.1	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	18.6	B	18.6	B	0.0	No
	PM		14.4	B	14.4	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.6	B	18.6	B	0.0	No
	PM		19.2	B	19.2	B	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.1	B	16.1	B	0.0	No
	PM		21.5	C	21.5	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	3.9	A	3.9	A	0.0	No
	PM		11.3	B	11.3	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.0	A	9.0	A	0.0	No
	PM	NA	9.7	A	9.7	A	0.0	No
	Eastbound Left							
	AM		12.1	B	12.1	B	0.0	No
	PM		19.2	C	19.2	C	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.1	A	3.1	A	0.0	No
	PM		4.5	A	4.5	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		21.8	C	21.8	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		8.8	A	8.8	A	0.0	No
	PM		12.8	B	12.8	B	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	26.2	C	26.2	C	0.0	No
	PM		19.9	B	19.9	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	11.5	B	11.5	B	0.0	No
	PM		13.3	B	13.3	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.0	B	15.0	B	0.0	No
	PM		14.5	B	14.5	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	7.7	A	7.7	A	0.0	No
	PM		8.0	A	8.0	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	20.5	C	20.5	C	0.0	No
	PM		22.6	C	22.6	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.6	A	0.0	No
	PM		11.7	B	11.7	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		12.1	B	12.1	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		15.0	B	15.0	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	8.6	A	8.6	A	0.0	No
	PM		12.8	B	12.8	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.5	B	11.5	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.9	B	11.9	B	0.0	No
	PM		14.0	B	14.0	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	11.0	B	11.0	B	0.0	No
	PM		13.9	B	13.9	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	7.8	A	7.8	A	0.0	No
	PM		10.8	B	10.8	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 159
EXISTING + PROJECT ALTERNATIVE 4Biii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	Existing		Existing + Project Alternative 4Biii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	14.5	B	14.5	B	0.0	No
	PM		13.8	B	13.8	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	19.2	B	19.2	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.0	B	17.0	B	0.0	No
	PM		20.0	C	20.0	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	30.0	C	30.0	C	0.0	No
	PM		24.0	C	24.0	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	18.5	B	18.5	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		11.3	B	11.3	B	0.0	No
	PM	NA	11.1	B	11.1	B	0.0	No
	Eastbound Left							
	AM		31.2	D	31.2	D	0.0	No
	PM		20.3	C	20.3	C	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.1	A	4.1	A	0.0	No
	PM		4.1	A	4.1	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	25.0	C	25.0	C	0.0	No
	PM		26.8	C	26.8	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.5	B	10.5	B	0.0	No
	PM		15.4	C	15.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	21.8	C	21.8	C	0.0	No
	PM		16.2	B	16.2	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	12.8	B	12.8	B	0.0	No
	PM		13.8	B	13.8	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		12.7	B	12.7	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.8	A	8.8	A	0.0	No
	PM		7.7	A	7.7	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	24.3	C	24.3	C	0.0	No
	PM		24.8	C	24.8	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.3	A	0.0	No
	PM		11.1	B	11.1	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	13.9	B	13.9	B	0.0	No
	PM		13.5	B	13.5	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	14.8	B	14.8	B	0.0	No
	PM		14.7	B	14.7	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.9	B	10.9	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.2	B	11.2	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		11.3	B	11.3	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		10.4	B	10.4	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	9.8	A	9.8	A	0.0	No
	PM		9.2	A	9.2	A	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	10.5	B	10.5	B	0.0	No
	PM		10.3	B	10.3	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 160
EXISTING + PROJECT ALTERNATIVE 4Biii
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	Existing			Existing + Project Alternative 4Biii				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	12,549	0.837	D	12,549	0.837	D	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	A	12,179	0.304	A	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	A	14,478	0.362	A	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	B	15,006	0.375	B	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	B	16,946	0.424	B	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	B	19,047	0.476	B	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	B	17,424	0.436	B	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	B	15,372	0.384	B	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	C	18,003	0.600	C	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	B	13,658	0.455	B	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	B	13,018	0.434	B	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	B	10,045	0.335	B	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	9,893	0.440	B	9,893	0.440	B	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	A	1,223	0.122	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	A	1,146	0.115	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	A	3,856	0.386	A	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	7,996	0.800	D	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	10,344	0.690	D	10,344	0.690	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	A	3,880	0.388	A	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	C	6,070	0.607	C	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C	5,710	0.571	C	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	7,866	0.787	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	A	3,968	0.397	A	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	C	5,660	0.566	C	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	C	5,818	0.582	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	16,655	0.740	D	16,655	0.740	D	0.000	NO
27	Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,767	0.577	C	5,590	0.559	C	-0.018	NO
28	Presidents Way east of Pan American Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	7,400	0.740	C	-0.116	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C	5,710	0.571	C	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 161
EXISTING + PROJECT ALTERNATIVE 4Biii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

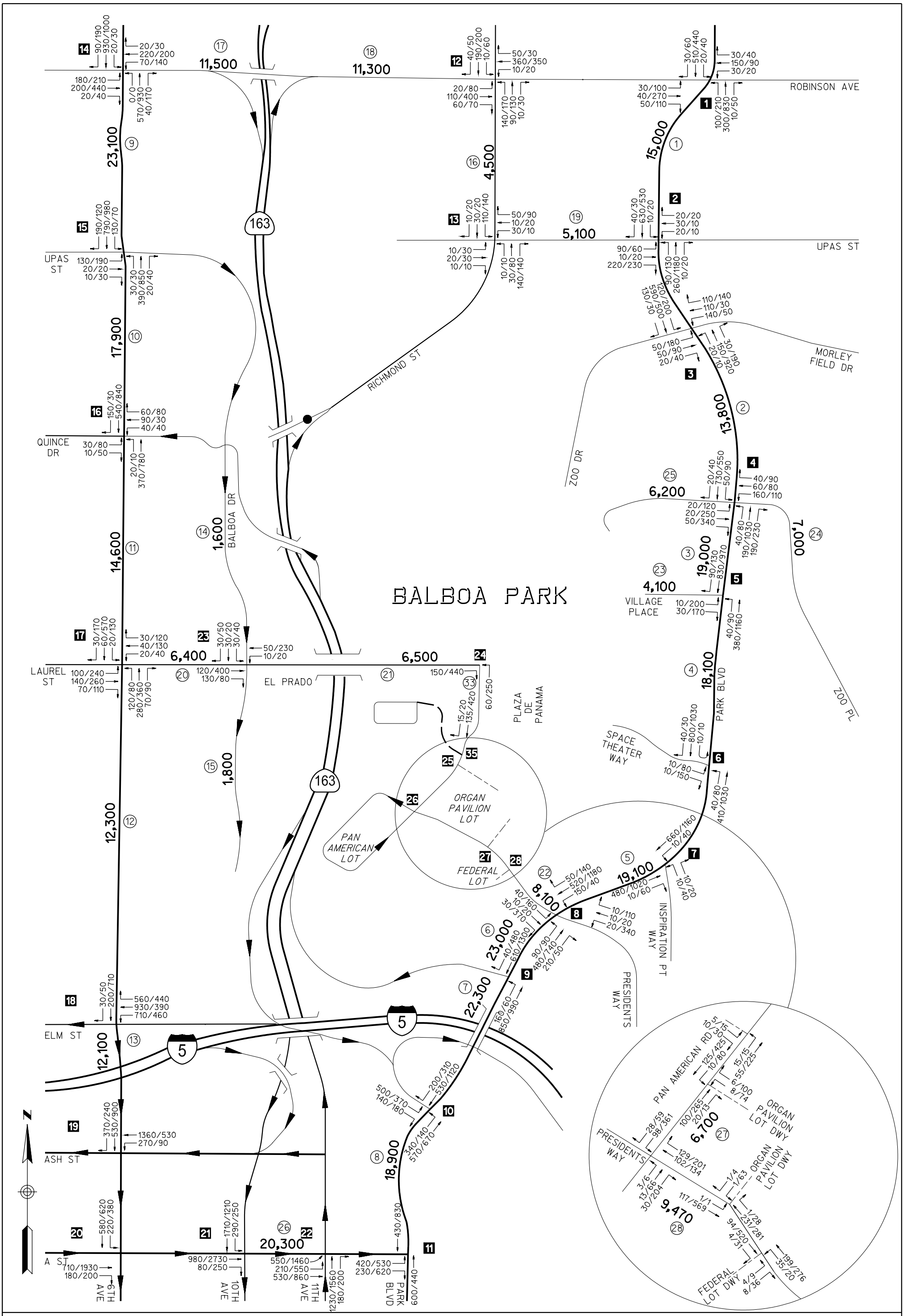
	Intersection	Control	Existing + Alt 4Biii	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	All Way Stop		
	AM		7.2	A
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		0.6	A
	Westbound Shared Left-Right		9.4	A
26	Pan American Road/Presidents Way	All Way Stop		
	AM		8.0	A
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		9.8	A
	Eastbound Left		0.1	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		9.3	A
	Westbound Left		1.3	A
35	Alcazar Entry/Esplanade	Stop		
	AM			
	Eastbound Left		9.2	A
	Northbound Left		1.6	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 162
EXISTING + PROJECT ALTERNATIVE 4Biii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	Existing + Alt 4Biii	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	All Way Stop		
	AM		10.0	A
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.5	A
	Westbound Shared Left-Right		16.0	C
26	Pan American Road/Presidents Way	All Way Stop		
	AM		17.9	C
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		16.1	C
	Eastbound Left		0.3	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		22.4	C
	Westbound Left		3.4	A
35	Alcazar Entry/Esplanade	Stop		
	AM			
	Eastbound Left		11.6	B
	Northbound Left		1.1	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F



RICK ENGINEERING COMPANY

EXHIBIT 99

2015 WITH ALTERNATIVE 4Biii TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- O O O = NO VEHICULAR ACCESS
- — — — = PROPOSED ROADWAY
- - - - - = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

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EXHIBIT 100

2015 WITH ALTERNATIVE 4Biii TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – = PROPOSED DRIVEWAY
▭ = PROPOSED PARKING GARAGE

TABLE 163
2015 + PROJECT ALTERNATIVE 4Biii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Biii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.3	B	0.0	No
	PM		19.5	B	19.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	20.3	C	20.3	C	0.0	No
	PM		18.6	B	18.6	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.8	B	18.8	B	0.0	No
	PM		20.4	C	20.4	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.2	B	16.2	B	0.0	No
	PM		22.5	C	22.5	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	4.1	A	4.1	A	0.0	No
	PM		11.7	B	11.7	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.7	A	9.7	A	0.0	No
	PM	NA	11.2	B	11.2	B	0.0	No
	Eastbound Left							
	AM		13.5	B	13.5	B	0.0	No
	PM		33.1	D	33.1	D	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	2.9	A	2.9	A	0.0	No
	PM		4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		28.4	C	28.4	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		9.5	A	9.5	A	0.0	No
	PM		17.4	C	17.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	28.9	C	28.9	C	0.0	No
	PM		23.9	C	23.9	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		14.7	B	14.7	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.6	B	15.6	B	0.0	No
	PM		15.6	B	15.6	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.3	A	8.3	A	0.0	No
	PM		8.9	A	8.9	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	23.4	C	23.4	C	0.0	No
	PM		31.1	C	31.1	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.6	A	0.0	No
	PM		12.6	B	12.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	15.3	B	15.3	B	0.0	No
	PM		13.9	B	13.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.2	B	13.2	B	0.0	No
	PM		15.7	B	15.7	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.3	B	10.3	B	0.0	No
	PM		13.4	B	13.4	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		11.3	B	11.3	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	12.3	B	12.3	B	0.0	No
	PM		13.2	B	13.2	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	12.8	B	12.8	B	0.0	No
	PM		16.6	B	16.6	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	11.6	B	11.6	B	0.0	No
	PM		15.6	B	15.6	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.1	A	8.1	A	0.0	No
	PM		12.0	B	12.0	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

Table 164 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 165 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS E)
- A Street between 6th Avenue and Park Boulevard (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- Presidents Way east of Pan American Way (LOS E)

No impacts were calculated based on the current significance thresholds.

Tables 166 and 167 shows all the Saturday internal study intersections to operate at LOS D or better, with the exception of:

- Presidents Way/Federal Lot (NB shared left-right, LOS E)

2030

Exhibit 101 and Exhibit 102 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 168 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 169 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS E, AM peak and LOS F, PM peak)
- Park Boulevard/SR 163 NB on Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

TABLE 164
2015 + PROJECT ALTERNATIVE 4Biii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Biii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	15.0	B	15.0	B	0.0	No
	PM		14.5	B	14.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.3	C	24.3	C	0.0	No
	PM		19.6	B	19.6	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.5	B	17.5	B	0.0	No
	PM		20.2	C	20.2	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	27.2	C	27.2	C	0.0	No
	PM		24.0	C	24.0	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	21.3	C	21.3	C	0.0	No
	PM		16.6	B	16.6	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		13.9	B	13.9	B	0.0	No
	PM	NA	13.9	B	13.9	B	0.0	No
	Eastbound Left							
	AM		112.7	**F**	112.7	**F**	0.0	No
	PM		44.6	**E**	44.6	**E**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.9	A	3.9	A	0.0	No
	PM		3.8	A	3.8	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	31.3	C	31.3	C	0.0	No
	PM		52.4	D	52.4	D	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		12.4	B	12.4	B	0.0	No
	PM		22.4	C	22.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	25.1	C	25.1	C	0.0	No
	PM		18.5	B	18.5	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	13.3	B	13.3	B	0.0	No
	PM		14.6	B	14.6	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.7	B	13.7	B	0.0	No
	PM		13.6	B	13.6	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	11.5	B	11.5	B	0.0	No
	PM		9.3	A	9.3	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	37.2	D	37.2	D	0.0	No
	PM		30.5	C	30.5	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.3	A	0.0	No
	PM		11.6	B	11.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	17.6	B	17.6	B	0.0	No
	PM		16.5	B	16.5	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.1	B	15.1	B	0.0	No
	PM		15.0	B	15.0	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.6	B	11.6	B	0.0	No
	PM		12.0	B	12.0	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.7	B	11.7	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	10.2	B	10.2	B	0.0	No
	PM		9.5	A	9.5	A	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	12.2	B	12.2	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 165
2015 + PROJECT ALTERNATIVE 4Biii
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2015 No Project			2015 + Project Alternative 4Biii				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	15,000	1.000	**E**	15,000	1.000	**E**	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	A	13,800	0.345	A	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	B	19,000	0.475	B	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	B	18,100	0.453	B	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	B	19,100	0.478	B	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	C	23,000	0.575	C	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	B	18,900	0.473	B	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	23,100	0.770	D	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	C	17,900	0.597	C	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	C	14,600	0.487	C	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	B	12,300	0.410	B	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	12,100	0.538	C	12,100	0.538	C	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	A	1,600	0.160	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	A	1,800	0.180	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	B	4,500	0.450	B	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	**F**	11,500	1.150	**F**	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	11,300	0.753	D	11,300	0.753	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	B	5,100	0.510	B	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	C	6,400	0.640	C	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	6,500	0.650	C	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	8,100	0.810	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	B	4,100	0.410	B	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	C	7,000	0.700	C	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,300	0.902	**E**	20,300	0.902	**E**	0.000	NO
27	Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,700	0.670	C	6,700	0.670	C	0.000	NO
28	Presidents Way east of Pan American Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	**E**	9,470	0.947	**E**	0.000	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	6,500	0.650	C	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 166
2015 + PROJECT ALTERNATIVE 4Biii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

	Intersection	Control	2015 + Alt 4Biii	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	All Way Stop		
	AM		7.3	A
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		0.6	A
	Westbound Shared Left-Right		9.7	A
26	Pan American Road/Presidents Way	All Way Stop		
	AM		8.5	A
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		10.2	B
	Eastbound Left		0.1	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		9.6	A
	Westbound Left		1.3	A
35	Alcazar Entry/Esplanade	Stop		
	AM			
	Eastbound Left		9.4	A
	Northbound Left		1.7	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 167
2015 + PROJECT ALTERNATIVE 4Biii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 + Alt 4Biii	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	All Way Stop		
	AM		11.4	B
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		1.7	A
	Westbound Shared Left-Right		20.1	C
26	Pan American Road/Presidents Way	All Way Stop		
	AM		34.3	D
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		20.6	C
	Eastbound Left		0.4	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		39.5	E
	Westbound Left		4.3	A
35	Alcazar Entry/Esplanade	Stop		
	AM			
	Eastbound Left		12.6	B
	Northbound Left		1.2	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 101

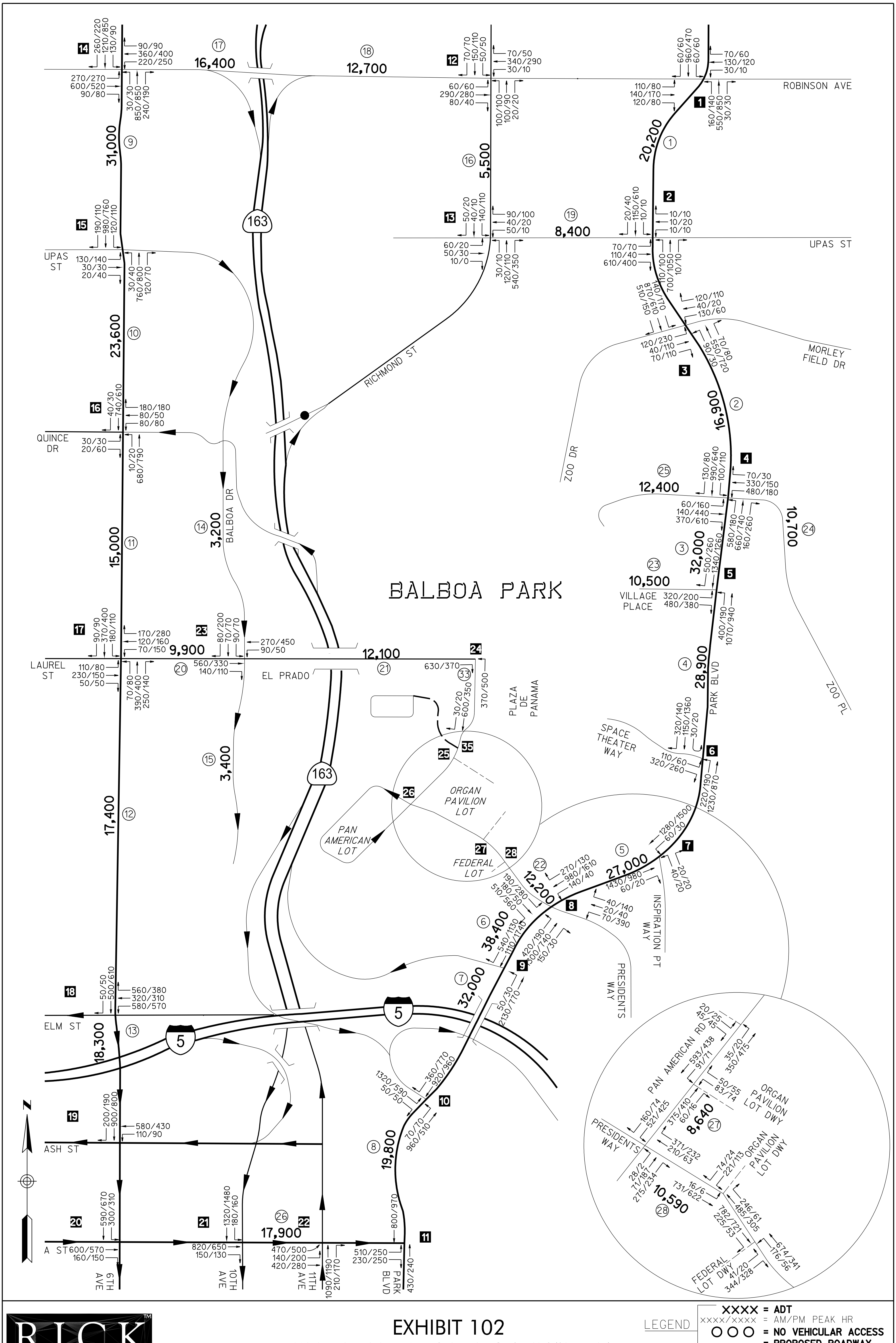
2030 WITH ALTERNATIVE 4Biii TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE



RICK ENGINEERING COMPANY

EXHIBIT 102

2030 WITH ALTERNATIVE 4Biii TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- ○○○ = NO VEHICULAR ACCESS
- — — - = PROPOSED ROADWAY
- - - - - = PROPOSED DRIVEWAY
- ▭ = PROPOSED PARKING GARAGE

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TABLE 168
2030 + PROJECT ALTERNATIVE 4Biii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Biii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	17.5	B	17.5	B	0.0	No
	PM		31.0	C	31.0	C	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.8	C	24.8	C	0.0	No
	PM		24.1	C	24.1	C	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.2	B	19.2	B	0.0	No
	PM		22.6	C	22.6	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		29.3	C	29.3	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	4.6	A	4.6	A	0.0	No
	PM		13.1	B	13.1	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		10.6	B	10.6	B	0.0	No
	PM	NA	12.9	B	12.9	B	0.0	No
	Eastbound Left							
	AM		15.1	C	15.1	C	0.0	No
	PM		112.1	**F**	112.1	**F**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.0	A	3.0	A	0.0	No
	PM		4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		62.0	**E**	62.0	**E**	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.9	B	10.9	B	0.0	No
	PM		28.4	D	28.4	D	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	38.4	D	38.4	D	0.0	No
	PM		43.6	D	43.6	D	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	12.5	B	12.5	B	0.0	No
	PM		20.1	C	20.1	C	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		17.3	B	17.3	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	9.6	A	9.6	A	0.0	No
	PM		10.6	B	10.6	B	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	30.6	C	30.6	C	0.0	No
	PM		103.0	**F**	103.0	**F**	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	11.1	B	11.1	B	0.0	No
	PM		15.3	B	15.3	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	18.7	B	18.7	B	0.0	No
	PM		16.9	B	16.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.7	B	13.7	B	0.0	No
	PM		17.8	B	17.8	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	31.1	C	31.1	C	0.0	No
	PM		17.6	B	17.6	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		11.7	B	11.7	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	13.1	B	13.1	B	0.0	No
	PM		17.6	B	17.6	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	15.7	B	15.7	B	0.0	No
	PM		42.1	D	42.1	D	0.0	No
22	A Street/11th Avenue							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		21.6	C	21.6	C	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.9	A	8.9	A	0.0	No
	PM		27.5	D	27.5	D	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 169
2030 + PROJECT ALTERNATIVE 4Biii INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Biii			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.5	B	16.5	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	51.3	D	51.3	D	0.0	No
	PM		23.3	C	23.3	C	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.3	B	19.3	B	0.0	No
	PM		20.7	C	20.7	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	36.1	D	36.1	D	0.0	No
	PM		27.4	C	27.4	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	37.7	D	37.7	D	0.0	No
	PM		19.3	B	19.3	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		19.4	C	19.4	C	0.0	No
	PM	NA	18.5	C	18.5	C	0.0	No
	Eastbound Left							
	AM		460.8	**F**	460.8	**F**	0.0	No
	PM		168.8	**F**	168.8	**F**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.9	A	4.9	A	0.0	No
	PM		4.0	A	4.0	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	56.4	**E**	56.4	**E**	0.0	No
	PM		126.4	**F**	126.4	**F**	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		15.5	C	15.5	C	0.0	No
	PM		40.7	**E**	40.7	**E**	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	32.6	C	32.6	C	0.0	No
	PM		23.8	C	23.8	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	14.2	B	14.2	B	0.0	No
	PM		16.4	B	16.4	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	14.6	B	14.6	B	0.0	No
	PM		14.4	B	14.4	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	29.2	D	29.2	D	0.0	No
	PM		11.7	B	11.7	B	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	151.7	**F**	151.7	**F**	0.0	No
	PM		75.5	**E**	75.5	**E**	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.5	A	9.5	A	0.0	No
	PM		12.4	B	12.4	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	21.6	C	21.6	C	0.0	No
	PM		20.0	B	20.0	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.7	B	15.7	B	0.0	No
	PM		15.4	B	15.4	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.3	B	11.3	B	0.0	No
	PM		12.5	B	12.5	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		11.9	B	11.9	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	12.5	B	12.5	B	0.0	No
	PM		11.4	B	11.4	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	10.8	B	10.8	B	0.0	No
	PM		10.0	B	10.0	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	24.7	C	24.7	C	0.0	No
	PM		21.9	C	21.9	C	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

Table 170 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- El Prado between 6th Avenue and Balboa Drive (LOS E)
- El Prado between Balboa Drive and Plaza De Panama (LOS F)
- A Street between 6th and Park Boulevard (LOS F)
- Presidents Way east of Pan American Way (LOS E)
- The Mall (Esplanade) south of El Prado (LOS F)

No impacts were calculated at these locations based on the current significance thresholds.

Tables 171 and 172 shows all the Saturday internal study intersections to operate at LOS D or better, with the exception of:

- Pan American Road/Organ Pavilion Lot (WB shared left-right, LOS E)
- Pan American Road/Presidents Way (LOS F)
- Presidents Way/Organ Pavilion Lot (SB shared left-right, LOS F)
- Presidents Way/Federal-Aerospace Lot (NB shared left-right, LOS F)

ALTERNATIVE 4Biv – HALF PLAZA ALTERNATIVE, CABRILLO BRIDGE OPEN WITHOUT CENTENNIAL BRIDGE, OPERATIONS

Exhibit 103 shows the intersection lane geometry and configurations of the study area intersections.

Exhibit 104 shows the percent distribution for this alternative.

Existing

Exhibit 105 and Exhibit 106 show the Existing + 4Biv traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 173 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods. No significant impacts were calculated.

Table 174 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods. No significant impacts were calculated.

Table 175 shows that all study area roadways to operate at LOS D or better on a daily basis. No significant impacts were calculated.

Table 176 shows all the Saturday internal study intersections to operate acceptably at LOS D or better.

TABLE 170
2030 + PROJECT ALTERNATIVE 4Biii
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2030 No Project			2030 + Project Alternative 4Biii				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	19,100	1.273	**F**	19,100	1.273	**F**	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	B	16,700	0.418	B	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	C	25,600	0.640	C	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,900	0.773	D	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	C	28,800	0.720	C	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	C	24,000	0.600	C	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	**F**	31,200	1.040	**F**	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	24,500	0.817	D	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	C	17,500	0.583	C	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	C	16,100	0.537	C	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,100	0.893	**E**	20,100	0.893	**E**	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	A	2,700	0.270	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	A	3,000	0.300	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	**F**	16,700	1.670	**F**	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	12,800	0.853	D	12,800	0.853	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	**E**	9,100	0.910	**E**	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	10,300	1.030	**F**	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	B	5,400	0.540	B	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	26,300	1.169	**F**	26,300	1.169	**F**	0.000	NO
27	Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,220	0.822	D	8,220	0.822	D	0.000	NO
28	Presidents Way east of Pan American Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	**E**	9,800	0.980	**E**	0.000	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	10,300	1.030	**F**	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 171
2030 + PROJECT ALTERNATIVE 4Biii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

	Intersection	Control	2030 + Alt 4Biii	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	All Way Stop		
	AM		7.9	A
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		0.6	A
	Westbound Shared Left-Right		10.1	B
26	Pan American Road/Presidents Way	All Way Stop		
	AM		9.2	A
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		10.8	B
	Eastbound Left		0.1	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		10.1	B
	Westbound Left		1.4	A
35	Alcazar Entry/Esplanade	Stop		
	AM			
	Eastbound Left		10.3	B
	Northbound Left		1.7	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 172
2030 + PROJECT ALTERNATIVE 4Biii
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 + Alt 4Biii	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	All Way Stop		
	AM		26.1	D
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		2.2	A
	Westbound Shared Left-Right		44.5	E
26	Pan American Road/Presidents Way	All Way Stop		
	AM		>50.0	F
27	Presidents Way/Organ Pavilion Lot	Stop		
	AM			
	Southbound Shared Left-Right		>50.0	F
	Eastbound Left		0.6	A
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		>50.0	F
	Westbound Left		8.2	A
35	Alcazar Entry/Esplanade	Stop		
	AM			
	Eastbound Left		18.3	C
	Northbound Left		1.3	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 103

ALTERNATIVE 4Biv TRANSPORTATION CONDITIONS

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- TS = TRAFFIC SIGNAL
- O = STOP SIGN
- X = INTERSECTION NUMBER
- (X) = SEGMENT NUMBER
- XU = X LANE UNDIVIDED
- XD = X LANE DIVIDED

LEGEND

- O O O = NO VEHICULAR ACCESS
- — — — = PROPOSED ROADWAY
- - - - - = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

BALBOA PARK

ROBINSON AVE
UPAS ST
UPAS ST
QUINCE DR
LAUREL ST
ELM ST
ASH ST
A ST
RICHMOND ST
BALBOA DR
EL PRADO
PLAZA DE PANAMA
CENTENNIAL RD
PAN AMERICAN LOT
FEDERAL LOT
ZOO DR
MORLEY FIELD DR
VILLAGE PLACE
PARK BLVD
SPACE THEATER WAY
ZOO PL
PRESIDENTS WAY
INSPIRATION PT
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
FEDERAL LOT DWY

EXHIBIT 104

ALTERNATIVE 4Biv TOTAL TRIP DISTRIBUTION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- XXX = PERCENT DISTRIBUTION
- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

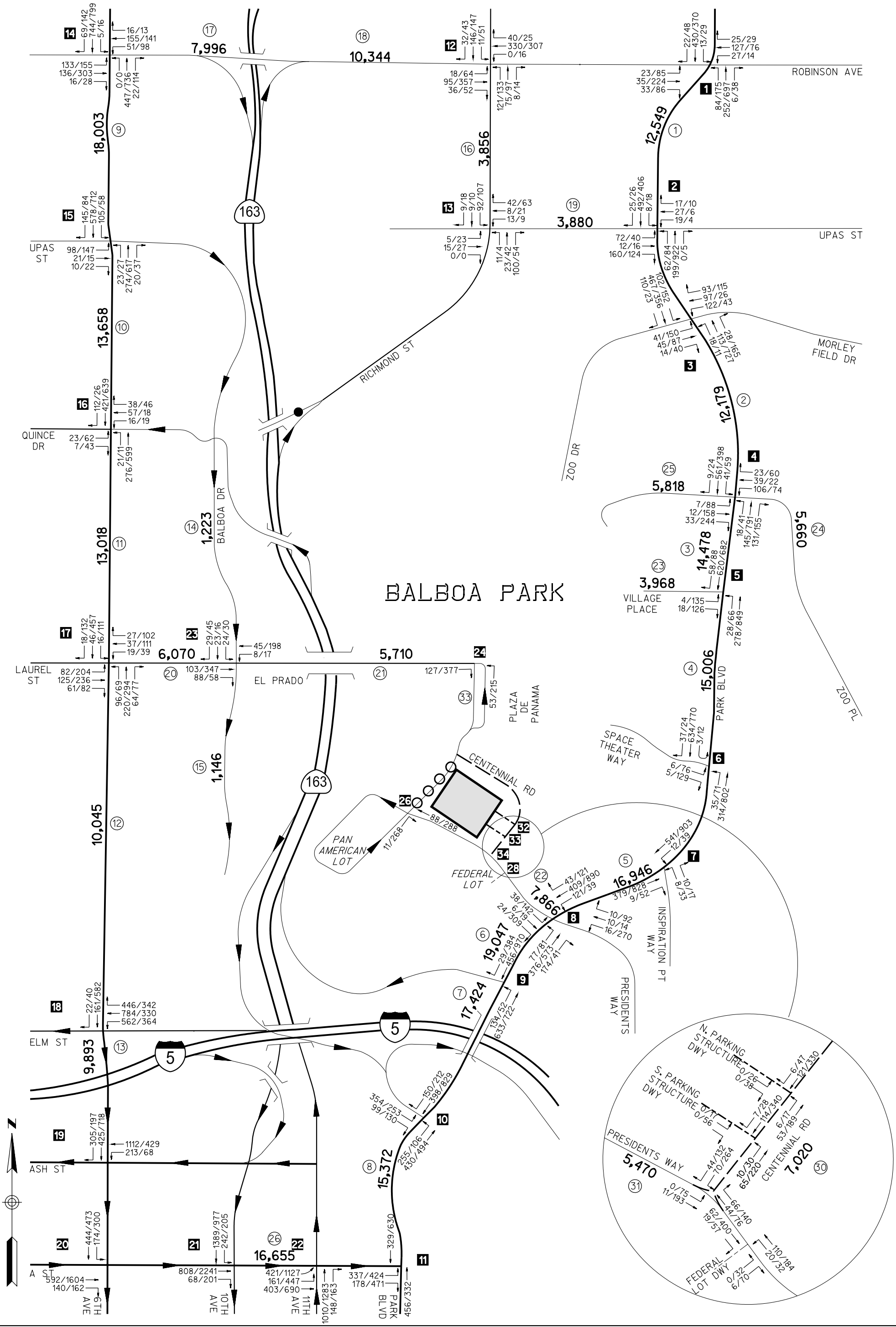
ROBINSON AVE
UPAS ST
MORLEY FIELD DR
ZOO DR
ZOO PL
RICHMOND ST
BALBOA DR
BALBOA PARK
QUINCE DR
LAUREL ST
EL PRADO
PLAZA DE PANAMA
PARK BLVD
SPACE THEATER WAY
CENTENNIAL RD
PAN AMERICAN LOT
FEDERAL LOT
INSPIRATION PT
PRESIDENTS WAY
VILLAGE PLACE
ELM ST
ASH ST
A ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
FEDERAL LOT DWY
N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
163
5
12,549
18,003
3,856
3,880
12,179
5,660
14,478
3,968
15,006
5,818
7,996
10,344
6,070
5,710
1,223
1,146
13,658
13,018
10,045
9,893
15,372
7,866
16,946
19,047
17,424
16,655
7,020
5,470
N
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EXHIBIT 105
EXISTING WITH ALTERNATIVE 4Biv TOTAL TRAFFIC VOLUMES (WEEKDAY)
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS
LEGEND
XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE
J:\BalboaParkPlazaTraffic\Reports\12-23-11\Exhibits\16325_ex_105_travolumes_weekday_existalt4biv.dgn
\\sr-v-trn1\RICK\Standards\Bentley_2006\workspace\projects\CorpStds_2005_SD\pilot\CorpStds_2005_SD.pen
11-JAN-2012 15:17

EXHIBIT 106

EXISTING WITH ALTERNATIVE 4Biv TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – = PROPOSED DRIVEWAY
▭ = PROPOSED PARKING GARAGE

TABLE 173
EXISTING + PROJECT ALTERNATIVE 4Biv INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	Existing		Existing + Project Alternative 4Biv			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.3	B	0.0	No
	PM		17.1	B	17.1	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	18.6	B	18.6	B	0.0	No
	PM		14.4	B	14.4	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.6	B	18.6	B	0.0	No
	PM		19.2	B	19.2	B	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.1	B	16.1	B	0.0	No
	PM		21.5	C	21.5	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	3.9	A	3.9	A	0.0	No
	PM		11.3	B	11.3	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.0	A	9.0	A	0.0	No
	PM	NA	9.7	A	9.7	A	0.0	No
	Eastbound Left							
	AM		12.1	B	12.1	B	0.0	No
	PM		19.2	C	19.2	C	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.1	A	3.1	A	0.0	No
	PM		4.5	A	4.5	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		21.8	C	21.8	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		8.8	A	8.8	A	0.0	No
	PM		12.8	B	12.8	B	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	26.2	C	26.2	C	0.0	No
	PM		19.9	B	19.9	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	11.5	B	11.5	B	0.0	No
	PM		13.3	B	13.3	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.0	B	15.0	B	0.0	No
	PM		14.5	B	14.5	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	7.7	A	7.7	A	0.0	No
	PM		8.0	A	8.0	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	20.5	C	20.5	C	0.0	No
	PM		22.6	C	22.6	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.6	A	0.0	No
	PM		11.7	B	11.7	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		12.1	B	12.1	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		15.0	B	15.0	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	8.6	A	8.6	A	0.0	No
	PM		12.8	B	12.8	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.5	B	11.5	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.9	B	11.9	B	0.0	No
	PM		14.0	B	14.0	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	11.0	B	11.0	B	0.0	No
	PM		13.9	B	13.9	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	7.8	A	7.8	A	0.0	No
	PM		10.8	B	10.8	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 174
EXISTING + PROJECT ALTERNATIVE 4Biv INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	Existing		Existing + Project Alternative 4Biv			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	14.5	B	14.5	B	0.0	No
	PM		13.8	B	13.8	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	19.2	B	19.2	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.0	B	17.0	B	0.0	No
	PM		20.0	C	20.0	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	30.0	C	30.0	C	0.0	No
	PM		24.0	C	24.0	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	18.5	B	18.5	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		11.3	B	11.3	B	0.0	No
	PM	NA	11.1	B	11.1	B	0.0	No
	Eastbound Left							
	AM		31.2	D	31.2	D	0.0	No
	PM		20.3	C	20.3	C	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.1	A	4.1	A	0.0	No
	PM		4.1	A	4.1	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	25.0	C	25.0	C	0.0	No
	PM		26.8	C	26.8	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.5	B	10.5	B	0.0	No
	PM		15.4	C	15.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	21.8	C	21.8	C	0.0	No
	PM		16.2	B	16.2	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	12.8	B	12.8	B	0.0	No
	PM		13.8	B	13.8	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		12.7	B	12.7	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.8	A	8.8	A	0.0	No
	PM		7.7	A	7.7	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	24.3	C	24.3	C	0.0	No
	PM		24.8	C	24.8	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.3	A	0.0	No
	PM		11.1	B	11.1	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	13.9	B	13.9	B	0.0	No
	PM		13.5	B	13.5	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	14.8	B	14.8	B	0.0	No
	PM		14.7	B	14.7	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.9	B	10.9	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.2	B	11.2	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		11.3	B	11.3	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		10.4	B	10.4	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	9.8	A	9.8	A	0.0	No
	PM		9.2	A	9.2	A	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	10.5	B	10.5	B	0.0	No
	PM		10.3	B	10.3	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 175
EXISTING + PROJECT ALTERNATIVE 4Biv
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	Existing			Existing + Project Alternative 4Biv				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	12,549	0.837	D	12,549	0.837	D	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	A	12,179	0.304	A	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	A	14,478	0.362	A	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	B	15,006	0.375	B	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	B	16,946	0.424	B	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	B	19,047	0.476	B	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	17,424	0.436	B	17,424	0.436	B	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	B	15,372	0.384	B	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	C	18,003	0.600	C	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	B	13,658	0.455	B	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	B	13,018	0.434	B	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	10,045	0.335	B	10,045	0.335	B	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	9,893	0.440	B	9,893	0.440	B	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	A	1,223	0.122	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	A	1,146	0.115	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	A	3,856	0.386	A	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D	7,996	0.800	D	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	10,344	0.690	D	10,344	0.690	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	A	3,880	0.388	A	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	C	6,070	0.607	C	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C	5,710	0.571	C	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D	7,866	0.787	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	A	3,968	0.397	A	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	C	5,660	0.566	C	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	C	5,818	0.582	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	16,655	0.740	D	16,655	0.740	D	0.000	NO
30	Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,020	0.702	C	0.000	NO
31	Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D	5,470	0.547	B	-0.309	NO
33	The Mall (Elplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C	5,710	0.571	C	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 176
EXISTING + PROJECT ALTERNATIVE 4Biv
INTERSECTION LOS ANALYSIS (SATURDAY)

	Intersection	Control	Existing + Alt 4Biv	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound Right		27.3	D
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		24.1	C
	Westbound Left		4.4	A
32	Centennial Road/Parking Garage North Entrance/Exit	Stop		
	AM			
	Northbound Left		8.3	A
	Eastbound Left		11.7	B
33	Centennial Road/Parking Garage South Entrance/Exit	Stop		
	AM			
	Northbound Left		8.4	A
	Eastbound Left		12.6	B
	Eastbound Right		11.3	B
34	Presidents Way/Centennial Road	Stop		
	AM			
	Eastbound Left		8.3	A
	Southbound Left		23.2	C
	Southbound Right		9.9	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

2015

Exhibit 107 and Exhibit 108 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 177 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

Table 178 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 179 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS E)
- A Street between 6th Avenue and Park Boulevard (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)

No impacts were calculated based on the current significance thresholds.

Table 180 shows all the Saturday internal study intersections to operate acceptably at LOS D or better, with the exception of:

- El Prado/Plaza De Panama (EB right, LOS E)
- Presidents Way/Federal Lot (NB shared left-right, LOS E)

2030

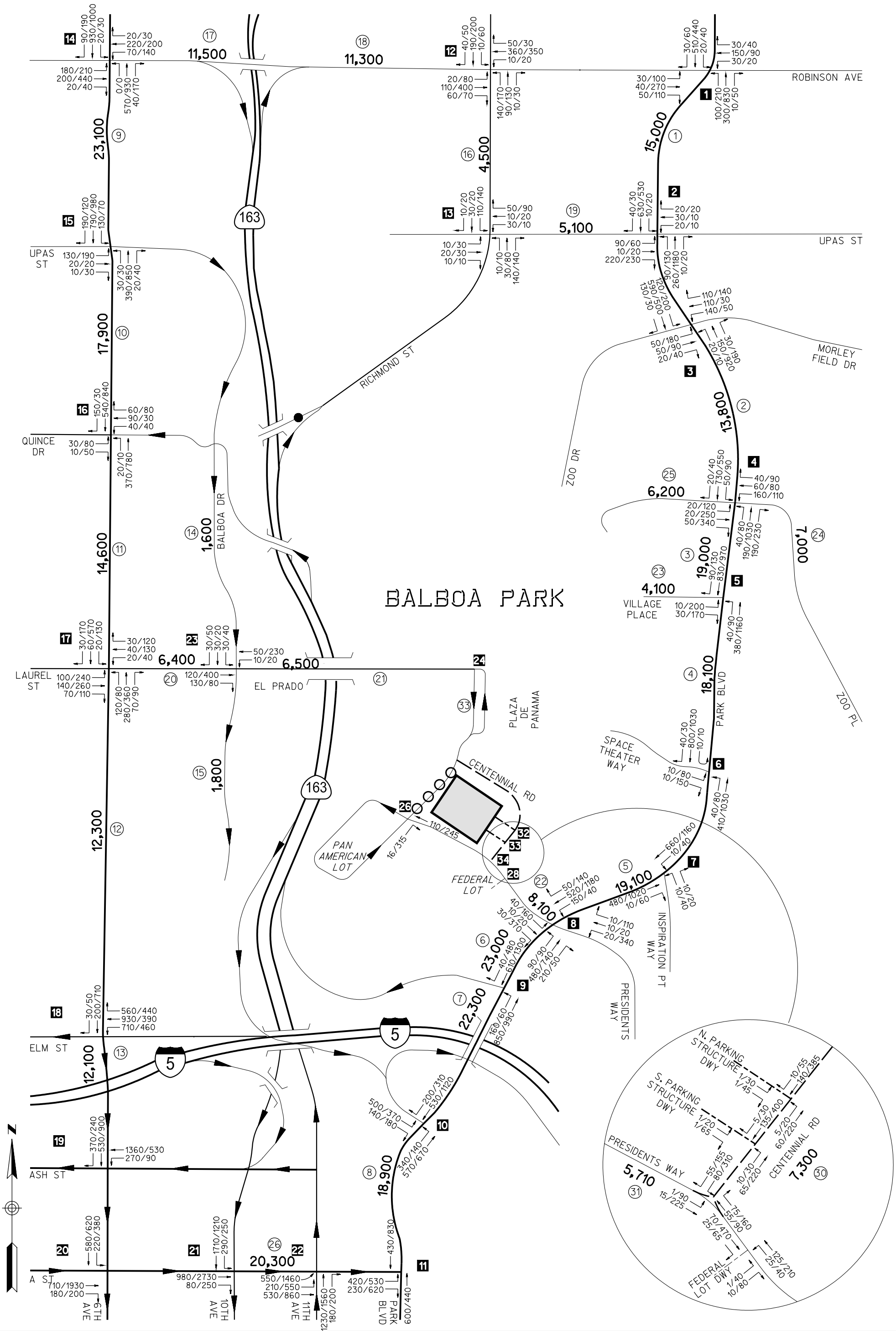
Exhibit 109 and Exhibit 110 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 181 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods, with the exception of:

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, PM peak)
- Park Boulevard/Presidents Way (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 182 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods with the exception of:



RICK ENGINEERING COMPANY

EXHIBIT 107

2015 WITH ALTERNATIVE 4Biv TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

- XXXX = ADT
- XXXX/XXXX = AM/PM PEAK HR
- O O O = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

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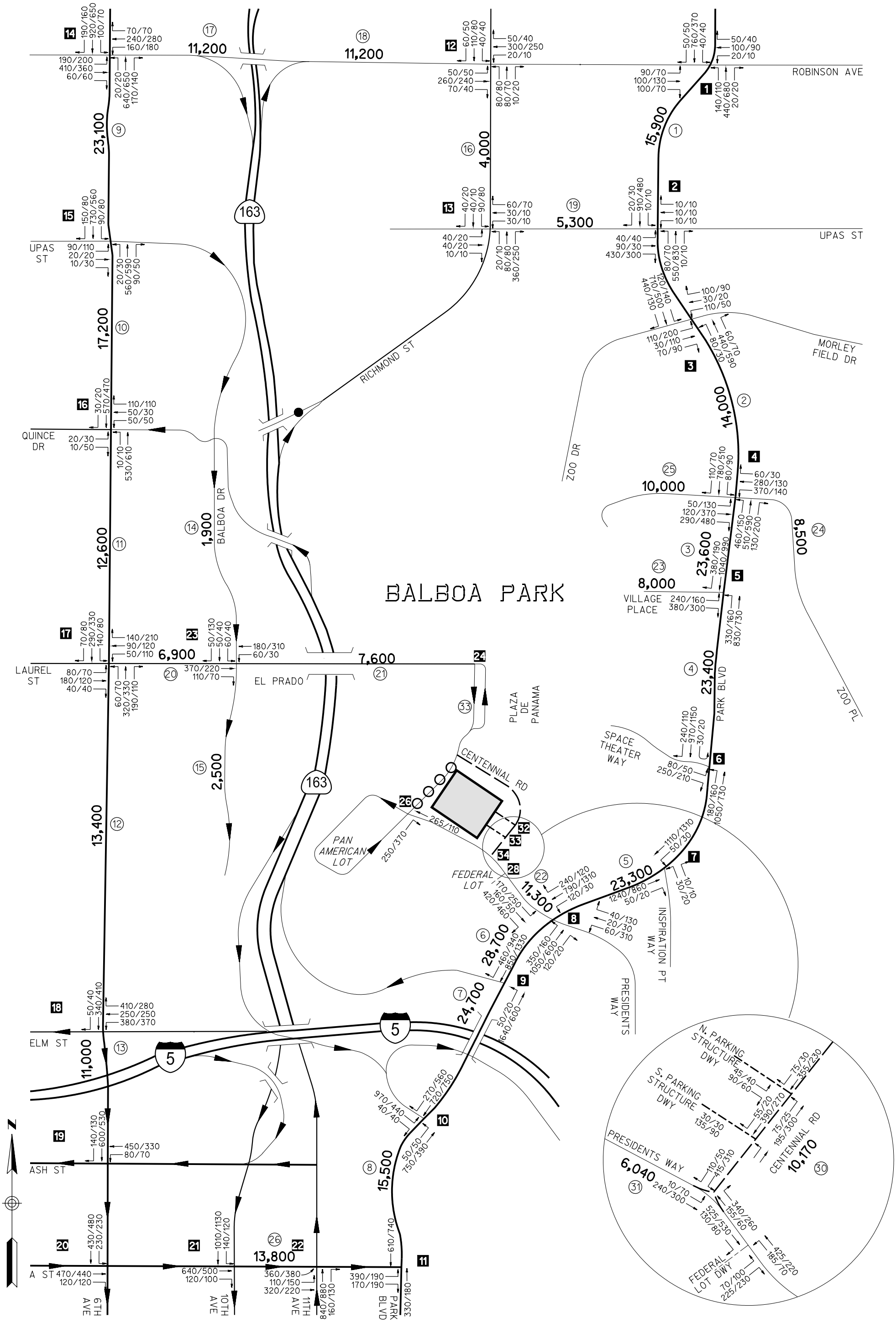

RICK ENGINEERING COMPANY

EXHIBIT 108

2015 WITH ALTERNATIVE 4Biv TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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TABLE 177
2015 + PROJECT ALTERNATIVE 4Biv INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Biv			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.3	B	16.3	B	0.0	No
	PM		19.5	B	19.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	20.3	C	20.3	C	0.0	No
	PM		18.6	B	18.6	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	18.8	B	18.8	B	0.0	No
	PM		20.4	C	20.4	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.2	B	16.2	B	0.0	No
	PM		22.5	C	22.5	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	4.1	A	4.1	A	0.0	No
	PM		11.7	B	11.7	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		9.7	A	9.7	A	0.0	No
	PM	NA	11.2	B	11.2	B	0.0	No
	Eastbound Left							
	AM		13.5	B	13.5	B	0.0	No
	PM		33.1	D	33.1	D	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	2.9	A	2.9	A	0.0	No
	PM		4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		28.4	C	28.4	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		9.5	A	9.5	A	0.0	No
	PM		17.4	C	17.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	28.9	C	28.9	C	0.0	No
	PM		23.9	C	23.9	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		14.7	B	14.7	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	15.6	B	15.6	B	0.0	No
	PM		15.6	B	15.6	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	8.3	A	8.3	A	0.0	No
	PM		8.9	A	8.9	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	23.4	C	23.4	C	0.0	No
	PM		31.1	C	31.1	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.6	A	9.6	A	0.0	No
	PM		12.6	B	12.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	15.3	B	15.3	B	0.0	No
	PM		13.9	B	13.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.2	B	13.2	B	0.0	No
	PM		15.7	B	15.7	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	10.3	B	10.3	B	0.0	No
	PM		13.4	B	13.4	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		11.3	B	11.3	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	12.3	B	12.3	B	0.0	No
	PM		13.2	B	13.2	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	12.8	B	12.8	B	0.0	No
	PM		16.6	B	16.6	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	11.6	B	11.6	B	0.0	No
	PM		15.6	B	15.6	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.1	A	8.1	A	0.0	No
	PM		12.0	B	12.0	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 178
2015 + PROJECT ALTERNATIVE 4Biv INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 No Project		2015 + Project Alternative 4Biv			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	15.0	B	15.0	B	0.0	No
	PM		14.5	B	14.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.3	C	24.3	C	0.0	No
	PM		19.6	B	19.6	B	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	17.5	B	17.5	B	0.0	No
	PM		20.2	C	20.2	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	27.2	C	27.2	C	0.0	No
	PM		24.0	C	24.0	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	21.3	C	21.3	C	0.0	No
	PM		16.6	B	16.6	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		13.9	B	13.9	B	0.0	No
	PM	NA	13.9	B	13.9	B	0.0	No
	Eastbound Left							
	AM		112.7	**F**	112.7	**F**	0.0	No
	PM		44.6	**E**	44.6	**E**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.9	A	3.9	A	0.0	No
	PM		3.8	A	3.8	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	31.3	C	31.3	C	0.0	No
	PM		52.4	D	52.4	D	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		12.4	B	12.4	B	0.0	No
	PM		22.4	C	22.4	C	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	25.1	C	25.1	C	0.0	No
	PM		18.5	B	18.5	B	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	13.3	B	13.3	B	0.0	No
	PM		14.6	B	14.6	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	13.7	B	13.7	B	0.0	No
	PM		13.6	B	13.6	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	11.5	B	11.5	B	0.0	No
	PM		9.3	A	9.3	A	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	37.2	D	37.2	D	0.0	No
	PM		30.5	C	30.5	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	8.3	A	8.3	A	0.0	No
	PM		11.6	B	11.6	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	17.6	B	17.6	B	0.0	No
	PM		16.5	B	16.5	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.1	B	15.1	B	0.0	No
	PM		15.0	B	15.0	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.6	B	11.6	B	0.0	No
	PM		12.0	B	12.0	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.4	B	11.4	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	11.7	B	11.7	B	0.0	No
	PM		11.5	B	11.5	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	10.2	B	10.2	B	0.0	No
	PM		9.5	A	9.5	A	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	12.2	B	12.2	B	0.0	No
	PM		10.7	B	10.7	B	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 179
2015 + PROJECT ALTERNATIVE 4Biv
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2015 No Project			2015 + Project Alternative 4Biv				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	15,000	1.000	**E**	15,000	1.000	**E**	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	13,800	0.345	A	13,800	0.345	A	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	19,000	0.475	B	19,000	0.475	B	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	18,100	0.453	B	18,100	0.453	B	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	19,100	0.478	B	19,100	0.478	B	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	23,000	0.575	C	23,000	0.575	C	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	18,900	0.473	B	18,900	0.473	B	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	23,100	0.770	D	23,100	0.770	D	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	17,900	0.597	C	17,900	0.597	C	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	14,600	0.487	C	14,600	0.487	C	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	12,300	0.410	B	12,300	0.410	B	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	12,100	0.538	C	12,100	0.538	C	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,600	0.160	A	1,600	0.160	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,800	0.180	A	1,800	0.180	A	0.000	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	4,500	0.450	B	4,500	0.450	B	0.000	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	11,500	1.150	**F**	11,500	1.150	**F**	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	11,300	0.753	D	11,300	0.753	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,100	0.510	B	5,100	0.510	B	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,400	0.640	C	6,400	0.640	C	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	6,500	0.650	C	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,100	0.810	D	8,100	0.810	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	4,100	0.410	B	4,100	0.410	B	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	7,000	0.700	C	7,000	0.700	C	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,200	0.620	C	6,200	0.620	C	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,300	0.902	**E**	20,300	0.902	**E**	0.000	NO
30	Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	7,300	0.730	C	0.000	NO
31	Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,470	0.947	**E**	5,710	0.571	C	-0.376	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,500	0.650	C	6,500	0.650	C	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 180
2015 + PROJECT ALTERNATIVE 4Biv
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2015 + Alt 4Biv	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound Right		42.1	E
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		41.6	E
	Westbound Left		5.3	A
32	Centennial Road/Parking Garage North Entrance/Exit	Stop		
	AM			
	Northbound Left		8.6	A
	Eastbound Left		12.6	B
33	Centennial Road/Parking Garage South Entrance/Exit	Stop		
	AM			
	Northbound Left		8.8	A
	Eastbound Left		14.2	B
	Eastbound Right		12.4	B
34	Presidents Way/Centennial Road	Stop		
	AM			
	Eastbound Left		8.5	A
	Southbound Left		32.8	D
	Southbound Right		9.8	A

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

EXHIBIT 109

2030 WITH ALTERNATIVE 4Biv TOTAL TRAFFIC VOLUMES (WEEKDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – – = PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

BALBOA PARK

ROBINSON AVE
UPAS ST
MORLEY FIELD DR
ZOO DR
ZOO PL
RICHMOND ST
BALBOA DR
QUINCE DR
LAUREL ST
EL PRADO
PLAZA DE PANAMA
PARK BLVD
SPACE THEATER WAY
CENTENNIAL RD
PRESIDENTS WAY
INSPIRATION PT
VILLAGE PLACE
PAN AMERICAN LOT
FEDERAL LOT
N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
FEDERAL LOT DWY
ELM ST
ASH ST
A ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
163
5

EXHIBIT 110

2030 WITH ALTERNATIVE 4Biv TOTAL TRAFFIC VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

BALBOA PARK

LEGEND

XXXX = ADT
XXXX/XXXX = AM/PM PEAK HR
O O O = NO VEHICULAR ACCESS
— — — = PROPOSED ROADWAY
– – – – = PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

RICK ENGINEERING COMPANY

TABLE 181
2030 + PROJECT ALTERNATIVE 4Biv INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Biv			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	17.5	B	17.5	B	0.0	No
	PM		31.0	C	31.0	C	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	24.8	C	24.8	C	0.0	No
	PM		24.1	C	24.1	C	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.2	B	19.2	B	0.0	No
	PM		22.6	C	22.6	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		29.3	C	29.3	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	4.6	A	4.6	A	0.0	No
	PM		13.1	B	13.1	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		10.6	B	10.6	B	0.0	No
	PM	NA	12.9	B	12.9	B	0.0	No
	Eastbound Left							
	AM		15.1	C	15.1	C	0.0	No
	PM		112.1	**F**	112.1	**F**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	3.0	A	3.0	A	0.0	No
	PM		4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		62.0	**E**	62.0	**E**	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		10.9	B	10.9	B	0.0	No
	PM		28.4	D	28.4	D	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	38.4	D	38.4	D	0.0	No
	PM		43.6	D	43.6	D	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	12.5	B	12.5	B	0.0	No
	PM		20.1	C	20.1	C	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	16.7	B	16.7	B	0.0	No
	PM		17.3	B	17.3	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	9.6	A	9.6	A	0.0	No
	PM		10.6	B	10.6	B	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	30.6	C	30.6	C	0.0	No
	PM		103.0	**F**	103.0	**F**	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	11.1	B	11.1	B	0.0	No
	PM		15.3	B	15.3	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	18.7	B	18.7	B	0.0	No
	PM		16.9	B	16.9	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	13.7	B	13.7	B	0.0	No
	PM		17.8	B	17.8	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	31.1	C	31.1	C	0.0	No
	PM		17.6	B	17.6	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	14.7	B	14.7	B	0.0	No
	PM		11.7	B	11.7	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	13.1	B	13.1	B	0.0	No
	PM		17.6	B	17.6	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	15.7	B	15.7	B	0.0	No
	PM		42.1	D	42.1	D	0.0	No
22	A Street/11th Avenue							
	AM	Signal	13.0	B	13.0	B	0.0	No
	PM		21.6	C	21.6	C	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	8.9	A	8.9	A	0.0	No
	PM		27.5	D	27.5	D	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

TABLE 182
2030 + PROJECT ALTERNATIVE 4Biv INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 No Project		2030 + Project Alternative 4Biv			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue							
	AM	Signal	16.5	B	16.5	B	0.0	No
	PM		15.5	B	15.5	B	0.0	No
2	Park Boulevard/Upas Street							
	AM	Signal	51.3	D	51.3	D	0.0	No
	PM		23.3	C	23.3	C	0.0	No
3	Park Boulevard/Morley Field Drive							
	AM	Signal	19.3	B	19.3	B	0.0	No
	PM		20.7	C	20.7	C	0.0	No
4	Park Boulevard/Zoo Place							
	AM	Signal	36.1	D	36.1	D	0.0	No
	PM		27.4	C	27.4	C	0.0	No
5	Park Boulevard/Village Place							
	AM	Signal	37.7	D	37.7	D	0.0	No
	PM		19.3	B	19.3	B	0.0	No
6	Park Boulevard/Space Theatre Way							
	Northbound Left							
	AM		19.4	C	19.4	C	0.0	No
	PM	NA	18.5	C	18.5	C	0.0	No
	Eastbound Left							
	AM		460.8	**F**	460.8	**F**	0.0	No
	PM		168.8	**F**	168.8	**F**	0.0	No
7	Park Boulevard/Inspiration Way							
	AM	Signal	4.9	A	4.9	A	0.0	No
	PM		4.0	A	4.0	A	0.0	No
8	Park Boulevard/Presidents Way							
	AM	Signal	56.4	**E**	56.4	**E**	0.0	No
	PM		126.4	**F**	126.4	**F**	0.0	No
9	Park Boulevard/SR 163 NB Ramps							
	Northbound Left	NA						
	AM		15.5	C	15.5	C	0.0	No
	PM		40.7	**E**	40.7	**E**	0.0	No
10	Park Boulevard/I-5 Ramps							
	AM	Signal	32.6	C	32.6	C	0.0	No
	PM		23.8	C	23.8	C	0.0	No
11	Park Boulevard/A Street							
	AM	Signal	14.2	B	14.2	B	0.0	No
	PM		16.4	B	16.4	B	0.0	No
12	Richmond Street/Robinson Avenue							
	AM	Signal	14.6	B	14.6	B	0.0	No
	PM		14.4	B	14.4	B	0.0	No
13	Richmond Street/Upas Street							
	AM	All Way Stop	29.2	D	29.2	D	0.0	No
	PM		11.7	B	11.7	B	0.0	No
14	6th Avenue/Robinson Avenue							
	AM	Signal	151.7	**F**	151.7	**F**	0.0	No
	PM		75.5	**E**	75.5	**E**	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive							
	AM	Signal	9.5	A	9.5	A	0.0	No
	PM		12.4	B	12.4	B	0.0	No
16	6th Avenue/Quince Drive							
	AM	Signal	21.6	C	21.6	C	0.0	No
	PM		20.0	B	20.0	B	0.0	No
17	6th Avenue/Laurel Street							
	AM	Signal	15.7	B	15.7	B	0.0	No
	PM		15.4	B	15.4	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp							
	AM	Signal	11.3	B	11.3	B	0.0	No
	PM		12.5	B	12.5	B	0.0	No
19	6th Avenue/Ash Street							
	AM	Signal	11.8	B	11.8	B	0.0	No
	PM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street							
	AM	Signal	12.1	B	12.1	B	0.0	No
	PM		11.9	B	11.9	B	0.0	No
21	A Street/10th Avenue							
	AM	Signal	12.5	B	12.5	B	0.0	No
	PM		11.4	B	11.4	B	0.0	No
22	A Street/11th Avenue							
	AM	Signal	10.8	B	10.8	B	0.0	No
	PM		10.0	B	10.0	B	0.0	No
23	Balboa Drive/El Prado							
	AM	All Way Stop	24.7	C	24.7	C	0.0	No
	PM		21.9	C	21.9	C	0.0	No

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

- Park Boulevard/Space Theatre Way (EB left turn, LOS F, AM and PM peak)
- Park Boulevard/Presidents Way (LOS E, AM peak and LOS F, PM peak)
- Park Boulevard/SR 163 on NB Ramp (LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak and LOS E, PM peak)

No impacts were calculated at these locations based on the current significance thresholds.

Table 183 shows that all study area roadways to operate at LOS D or better on a daily basis with the exception of:

- Park Boulevard between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Robinson Avenue and Upas Street (LOS F)
- 6th Avenue between Elm Street and Ash Street (LOS E)
- Robinson Avenue between 6th Avenue and Vermont Street (LOS F)
- El Prado between 6th Avenue and Balboa Drive (LOS E)
- El Prado between Balboa Drive and Plaza De Panama (LOS F)
- A Street between 6th and Park Boulevard (LOS F)
- The Mall (Esplanade) south of El Prado (LOS F)

No impacts were calculated at these locations based on the current significance thresholds.

Table 184 shows all the Saturday internal study intersections to operate acceptably at LOS C or better, with the exception of:

- El Prado/Plaza De Panama (EB right, LOS F)
- Presidents Way/Centennial Road (SB left, LOS F)
- Presidents Way/Federal Lot (NB shared left-right, LOS F)

ALTERNATIVE 5 OPERATIONS

The four different phases have been assessed based on various analysis components of the other alternatives. The following is a summary of each phase:

The following were the assumed triggers for each Phase:

- For Phase 1, if park core area parking is anticipated to continue to be over capacity (85%) , then go to Phase 2
- For Phase 2, if pedestrian/vehicular conflicts are not reduced by at least 50%, then go to Phase 3
- For Phase 3, If internal roadways and intersections are calculated to operate poorly (LOS E and LOS F), then go to Phase 4

Phase 1: Based on the parking demand studies, elimination of parking and valet operations within the Plaza de Panama, indicate parking occupancies at/or over capacity (85%) in the core area.
Phase 2: Adding the Organ Pavilion structure will increase parking supply within the core area, however, pedestrian and vehicular conflicts at the Plaza de Panama would still remain.

TABLE 183
2030 + PROJECT ALTERNATIVE 4Biv
ROADWAY SEGMENT ANALYSIS (WEEKDAY)

	Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2030 No Project			2030 + Project Alternative 4Biv				
					ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	Incremental V/C Ratio	Significant Project Impact Yes/No
1	Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector[1]	4 Lane Major	15,000	19,100	1.273	**F**	19,100	1.273	**F**	0.000	NO
2	Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	16,700	0.418	B	16,700	0.418	B	0.000	NO
3	Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	25,600	0.640	C	25,600	0.640	C	0.000	NO
4	Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
5	Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	22,300	0.558	C	22,300	0.558	C	0.000	NO
6	Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	30,900	0.773	D	30,900	0.773	D	0.000	NO
7	Park Boulevard between SR 163 NB Ramps and SR 163 SB Ramps	4 Lane Major	4 Lane Major	40,000	28,800	0.720	C	28,800	0.720	C	0.000	NO
8	Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	24,000	0.600	C	24,000	0.600	C	0.000	NO
9	6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	31,200	1.040	**F**	31,200	1.040	**F**	0.000	NO
10	6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	24,500	0.817	D	24,500	0.817	D	0.000	NO
11	6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	17,500	0.583	C	17,500	0.583	C	0.000	NO
12	6th Avenue between El Prado and Elm Street-I-5 NB Off Ramp	4 Lane Collector	4 Lane Major	30,000	16,100	0.537	C	16,100	0.537	C	0.000	NO
13	6th Avenue between Elm Street-I-5 NB Off Ramp and Ash Street	3 Lane One Way[2]	3 Lane One Way[2]	22,500	20,100	0.893	**E**	20,100	0.893	**E**	0.000	NO
14	Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	2,700	0.270	A	2,700	0.270	A	0.000	NO
15	Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,000	0.300	A	1,800	0.180	A	-0.120	NO
16	Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	6,200	0.620	C	3,000	0.300	A	-0.320	NO
17	Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	16,700	1.670	**F**	16,700	1.670	**F**	0.000	NO
18	Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector[1]	3 Lane Collector	15,000	12,800	0.853	D	12,800	0.853	D	0.000	NO
19	Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	8,200	0.820	D	8,200	0.820	D	0.000	NO
20	El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,100	0.910	**E**	9,100	0.910	**E**	0.000	NO
21	El Prado between Balboa Drive and Plaza De Panama*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	10,300	1.030	**F**	0.000	NO
22	Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,800	0.880	D	8,800	0.880	D	0.000	NO
23	Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,400	0.540	B	5,400	0.540	B	0.000	NO
24	Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	C	5,660	0.566	C	0.000	NO
25	Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,700	0.770	D	7,700	0.770	D	0.000	NO
26	A Street between 6th Avenue and Park Boulevard	3 Lane One Way[2]	3 Lane One Way[2]	22,500	26,300	1.169	**F**	26,300	1.169	**F**	0.000	NO
30	Centennial Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	8,320	0.832	D	0.000	NO
31	Presidents Way west of Centennial Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	9,800	0.980	**E**	6,500	0.650	C	-0.330	NO
33	The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	10,300	1.030	**F**	10,300	1.030	**F**	0.000	NO

LOS = Level of Service
Segments with Significant Impacts Shown in **Bold**

Significant Impact: LOS D or Better to LOS E or Worse
Incremental V/C Ratio ≥ 0.02 for LOS E
Incremental V/C Ratio ≥ 0.01 for LOS F

DNE = Does not exist

* Park roads (maximum capacity estimated at 10,000 ADT)
[1] with Two-way left turn lane
[2] Estimated capacity (3/4 of 4 lane collector)

TABLE 184
2030 + PROJECT ALTERNATIVE 4Biv
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

	Intersection	Control	2030 + Alt 4Biv	
			Control Delay (sec/veh)	LOS
24	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound Right		>50.0	F
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right		>50.0	F
	Westbound Left		7.2	A
32	Centennial Road/Parking Garage North Entrance/Exit	Stop		
	AM			
	Northbound Left		9.4	A
	Eastbound Left		17.0	C
33	Centennial Road/Parking Garage South Entrance/Exit	Stop		
	AM			
	Northbound Left		9.7	A
	Eastbound Left		19.3	C
	Eastbound Right		16.1	C
34	Presidents Way/Centennial Road	Stop		
	AM			
	Eastbound Left		9.1	A
	Southbound Left		>50	F
	Southbound Right		10.4	B

LOS = Level of Service; Minor approach delay reported for unsignalized intersections
Intersections with significant project impacts (AM and PM) and mitigated LOS shown in Bold
Significant Impact: 1) LOS D or better to LOS E or worse
2) Incremental Delay ≥ 2 seconds for LOS E
3) Incremental Delay ≥ 1 second for LOS F

Phase 3: Closing the Cabrillo Bridge is anticipated to reroute park destined trips to the Park Boulevard/Presidents Way intersection as the core of the park would be limited to one access point at this location.
Phase 4: Construct Centennial Bridge (proposed project)

PARKING

Existing parking occupancy counts were also collected at all the park's internal parking lots (14 lots) as well as the Zoo parking lot. This data was collected on Saturday, March 19, 2011 as well as on Tuesday, March 22, 2011 (7:00 am to 900 pm). **Exhibit 111** identifies the parking locations that were counted. **Exhibit 112** shows the parking supply for each of the locations. A total parking supply was inventoried at 6,378 spaces (includes 2,924 spaces in the Zoo lot). The total parking supply not including the Zoo lot is 3,454 parking spaces. Existing overall parking occupancies were calculated for the weekday and Saturday, for with and without Zoo parking. **Table 185** shows the overall weekday peak occupancy to occur at 2:00pm (81%) and **Table 186** shows the overall Saturday peak occupancy to occur at 2:00pm (71%) taking account the Zoo parking. **Table 187** shows the overall weekday peak occupancy to occur at 1:00pm (74%) and **Table 188** shows the overall Saturday peak occupancy to occur at 11:00am (50%) not including the Zoo parking. A graphical summary of these peak occupancies are shown in **Exhibit 113**, **Exhibit 114**, **Exhibit 115** and **Exhibit 116**. Although ample parking is provided overall, the parking areas within the core of the park are at capacity during the peak periods. **Appendix H** contains the parking count datasheets for the surveyed parking areas.

Based on the review of the forecasted traffic volumes and current parking occupancies, it is anticipated that adequate parking will be provided for the park, based on the overall parking supply. A parking demand and tram operations study prepared by PCI also makes this similar conclusion (**See Appendix I**) However, the parking occupancies show that the parking lots located within the core of the park (Organ Pavilion, Plaza de Panama, Pan American Plaza, and Alcazar Garden) to be close to fully occupied during the Saturday peak. The Federal/Aerospace lot and Inspiration lot are the ones most underutilized. This is more likely due to their locations in relation to the core of the park (lots furthest away). The proposed project will create an additional 260 parking spaces at the proposed by the Organ Pavilion parking structure. This will increase the parking supply in the parks core area (where demand is greater). The following summarizes this net gain of 260 parking spaces:

LOT LOCATION	EXISTING SPACES	PROPOSED SPACES
Plaza de Panama	54	0
Alcazar	136	32
Organ Pavilion	367	797
Presidents Way (On Street)	22	10
Total:	579	839
Net Gain:	839-579= 260 spaces	

For the proposed project (with paid parking at structure), it is estimated that about 125 patrons would be circulating within the core of the park to find free parking spaces at either the Federal or Inspiration lots (assuming the Pan American Lot would be full). This estimate takes into account the total number of spaces proposed by the project, the location of the free parking lots, actual parking occupancy counts, and estimated number of employees. It was also conservatively estimated that about 50 patrons who would normally park within the core lots,

LEGEND:

1 - PLAZA DE PANAMA LOT (NORTH/SOUTH)
2 - ALCAZAR GARDEN LOT
3 - ORGAN PAVILLION LOTS
4 - PAN AMERICAN PLAZA LOTS
5 - FEDERAL/AEROSPACE LOTS
6 - INSPIRATION POINT LOT (NORTH/SOUTH)
7 - GOLD GULCH LOT
8 - PEPPER GROVE LOT
9 - FLEET SPACE THEATRE LOT
10 - CASA DE BALBOA LOT
11 - NATURAL MUSEUM LOT
12 - SOUTH CAROUSEL LOT
13 - NORTH CAROUSEL LOT
14 - BOTANICAL BUILDING LOT
15 - ZOO LOT

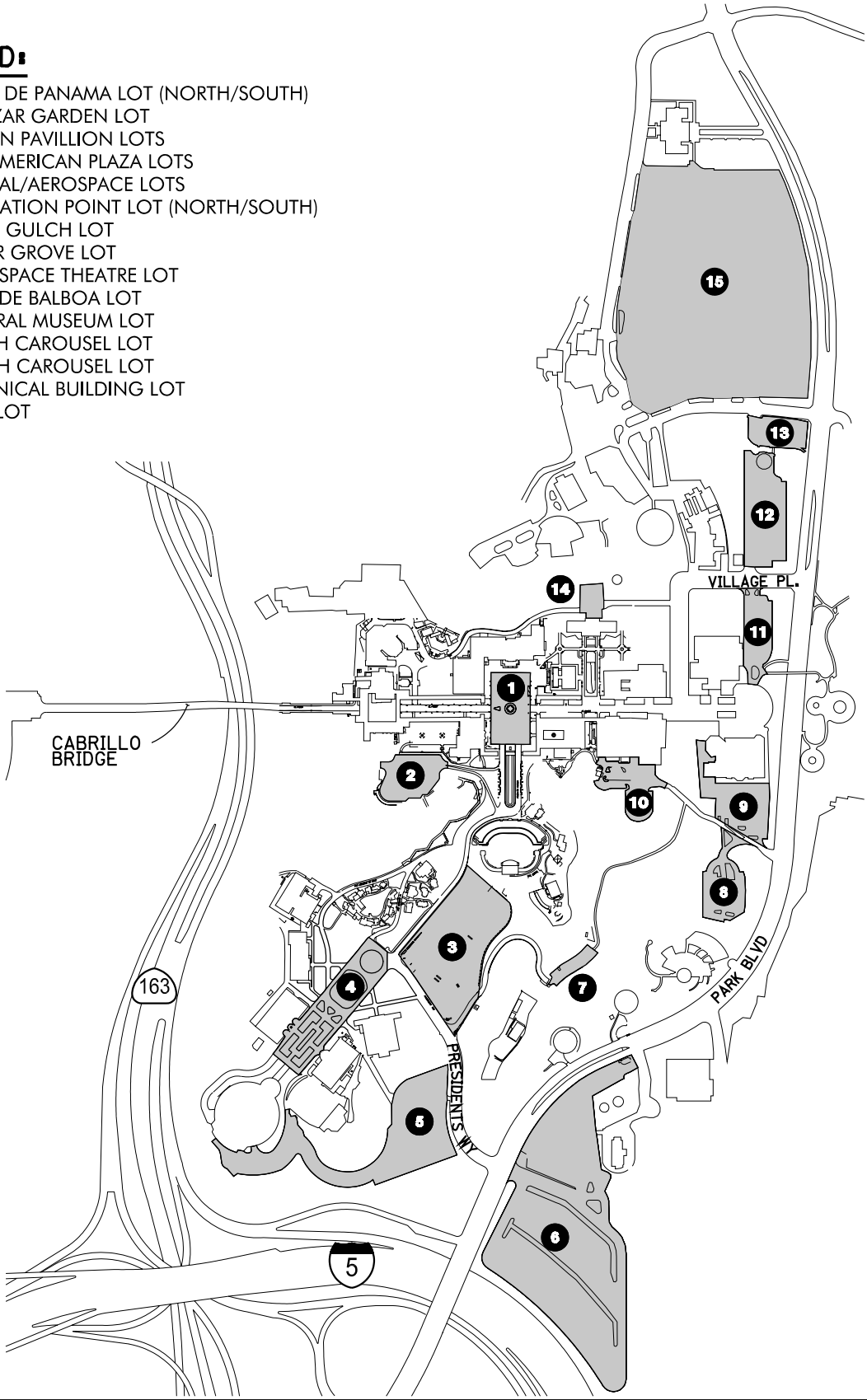

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EXHIBIT 111

BALBOA PARK PARKING LOCATION MAP (EXISTING)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND: X = PARKING LOCATION

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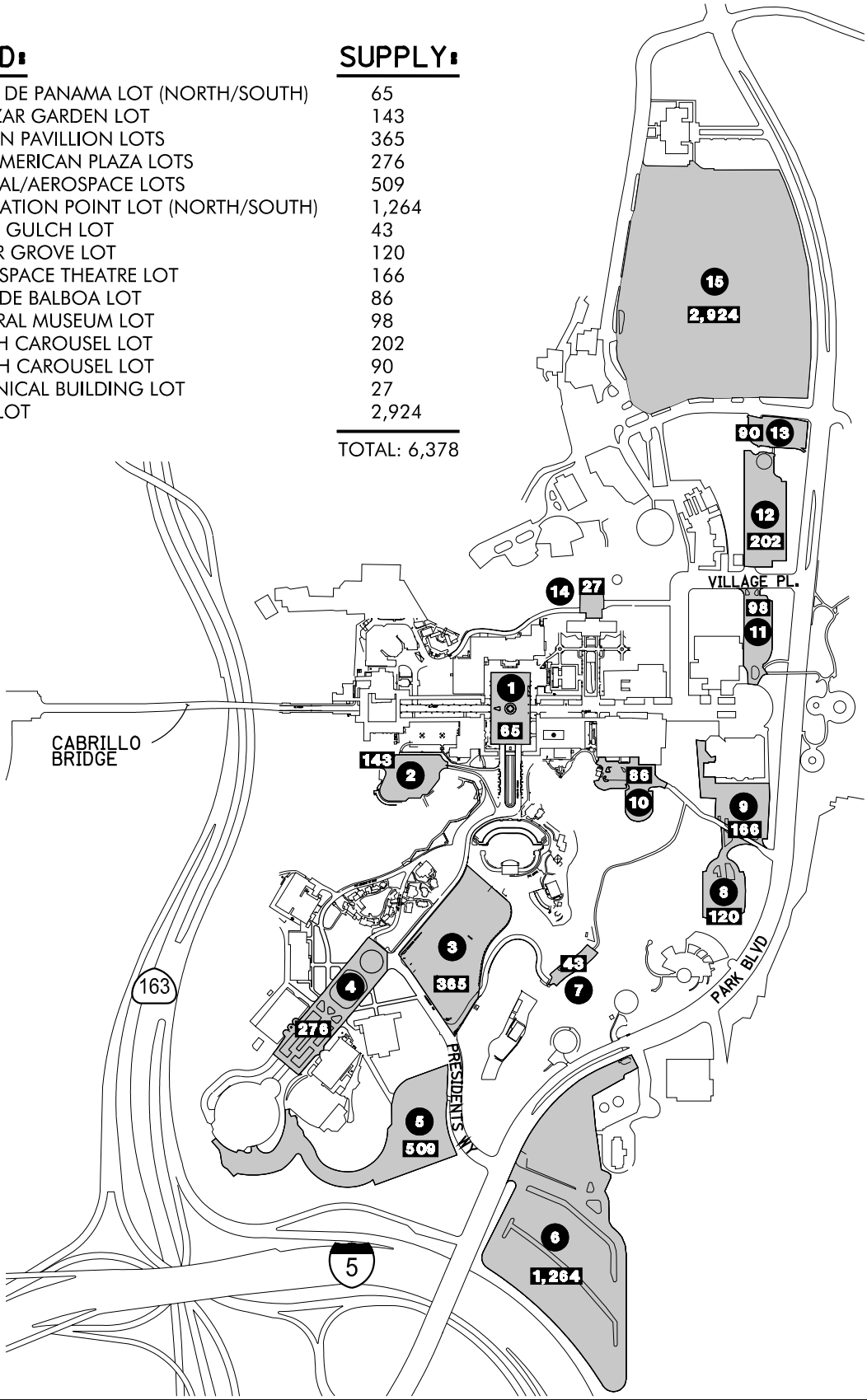
22-DEC-2011 17:06

LEGEND:

		SUPPLY:
1	- PLAZA DE PANAMA LOT (NORTH/SOUTH)	65
2	- ALCAZAR GARDEN LOT	143
3	- ORGAN PAVILLION LOTS	365
4	- PAN AMERICAN PLAZA LOTS	276
5	- FEDERAL/AEROSPACE LOTS	509
6	- INSPIRATION POINT LOT (NORTH/SOUTH)	1,264
7	- GOLD GULCH LOT	43
8	- PEPPER GROVE LOT	120
9	- FLEET SPACE THEATRE LOT	166
10	- CASA DE BALBOA LOT	86
11	- NATURAL MUSEUM LOT	98
12	- SOUTH CAROUSEL LOT	202
13	- NORTH CAROUSEL LOT	90
14	- BOTANICAL BUILDING LOT	27
15	- ZOO LOT	2,924
		TOTAL: 6,378



RICK ENGINEERING COMPANY

EXHIBIT 112

BALBOA PARK PARKING SUPPLY MAP (EXISTING)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
X = PARKING LOCATION
XX = PARKING LOT SPACES

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TABLE 185
BALBOA PARK PARKING OCCUPANCY SURVEY
WEEKDAY (INCLUDING ZOO LOT)

Location: Central Parking
Survey Date: 03/22/2011, Tuesday

	Plaza De Panama Lots		Alcazar Garden Lots		Organ Pavillion Lots		Pan American Plaza Lot		Federal/ Aerospace Lots		Inspiration Point Lots		Gold Gluch Lot		Pepper Grove Lot	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	65		143		365		276		509		1264		43		120	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	9	14%	12	8%	15	4%	23	8%	54	11%	208	16%	0	0%	0	0%
8:00 AM	21	32%	87	61%	21	6%	34	12%	64	13%	400	32%	0	0%	19	16%
9:00 AM	25	38%	107	75%	41	11%	64	23%	61	12%	732	58%	1	2%	25	21%
10:00 AM	23	35%	128	90%	32	9%	154	56%	128	25%	817	65%	1	2%	29	24%
11:00 AM	38	58%	139	97%	159	44%	211	76%	201	39%	992	78%	2	5%	54	45%
12:00 PM	48	74%	143	100%	267	73%	263	95%	228	45%	740	59%	2	5%	104	87%
1:00 PM	50	77%	140	98%	362	99%	276	100%	254	50%	742	59%	2	5%	117	98%
2:00 PM	50	77%	136	95%	348	95%	266	96%	269	53%	652	52%	3	7%	117	98%
3:00 PM	45	69%	128	90%	336	92%	224	81%	304	60%	518	41%	3	7%	98	82%
4:00 PM	45	69%	104	73%	259	71%	201	73%	211	41%	341	27%	2	5%	76	63%
5:00 PM	48	74%	92	64%	211	58%	192	70%	147	29%	225	18%	2	5%	32	27%
6:00 PM	47	72%	82	57%	164	45%	121	44%	27	5%	171	14%	2	5%	7	6%
7:00 PM	53	82%	71	50%	131	36%	110	40%	19	4%	99	8%	1	2%	3	3%
8:00 PM	46	71%	89	62%	128	35%	64	23%	6	1%	52	4%	2	5%	4	3%
9:00 PM	49	75%	119	83%	117	32%	79	29%	1	0%	23	2%	1	2%	4	3%

	Fleet Space Theatre Lot		Casa De Balboa Lot		Natural Museum Lot		South Carousel Lot		North Carousel Lot		Botanical Building Lot		Zoo Lot		Total Parking	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces			
	166		86		98		202		90		27		2924		6378	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	5	3%	49	57%	76	78%	64	32%	9	10%	19	70%	101	3%	644	10%
8:00 AM	36	22%	76	88%	82	84%	82	41%	12	13%	21	78%	322	11%	1277	20%
9:00 AM	98	59%	82	95%	98	100%	136	67%	17	19%	23	85%	650	22%	2160	34%
10:00 AM	111	67%	82	95%	98	100%	200	99%	28	31%	24	89%	1157	40%	3012	47%
11:00 AM	121	73%	81	94%	98	100%	202	100%	70	78%	24	89%	1547	53%	3939	62%
12:00 PM	138	83%	82	95%	98	100%	202	100%	90	100%	23	85%	2070	71%	4498	71%
1:00 PM	166	100%	82	95%	98	100%	161	80%	86	96%	24	89%	2437	83%	4997	78%
2:00 PM	163	98%	81	94%	94	96%	174	86%	81	90%	23	85%	2719	93%	5176	81%
3:00 PM	144	87%	63	73%	95	97%	177	88%	80	89%	24	89%	2037	70%	4276	67%
4:00 PM	101	61%	64	74%	87	89%	104	51%	54	60%	20	74%	1421	49%	3090	48%
5:00 PM	59	36%	59	69%	86	88%	54	27%	22	24%	14	52%	628	21%	1871	29%
6:00 PM	26	16%	52	60%	80	82%	35	17%	12	13%	17	63%	246	8%	1089	17%
7:00 PM	24	14%	58	67%	97	99%	72	36%	5	6%	20	74%	66	2%	829	13%
8:00 PM	21	13%	49	57%	90	92%	74	37%	2	2%	21	78%	37	1%	685	11%
9:00 PM	10	6%	50	58%	73	74%	62	31%	3	3%	16	59%	17	1%	624	10%

TABLE 186
BALBOA PARK PARKING OCCUPANCY SURVEY
SATURDAY (INCLUDING ZOO LOT)

Location: Central Parking
Survey Date: 03/19/2011, Saturday

	Plaza De Panama Lots		Alcazar Garden Lots		Organ Pavillion Lots		Pan American Plaza Lot		Federal/ Aerospace Lots		Inspiration Point Lots		Gold Gluch Lot		Pepper Grove Lot	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	65		143		365		276		509		1264		43		120	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	0	0%	0	0%	5	1%	2	1%	2	0%	6	0%	0	0%	0	0%
8:00 AM	0	0%	0	0%	6	2%	1	0%	2	0%	8	1%	0	0%	0	0%
9:00 AM	6	9%	70	49%	235	64%	252	91%	23	5%	74	6%	0	0%	6	5%
10:00 AM	58	89%	106	74%	360	99%	272	99%	56	11%	92	7%	0	0%	37	31%
11:00 AM	53	82%	110	77%	364	100%	264	96%	181	36%	97	8%	3	7%	39	33%
12:00 PM	56	86%	121	85%	339	93%	228	83%	162	32%	120	9%	4	9%	43	36%
1:00 PM	46	71%	101	71%	304	83%	210	76%	171	34%	143	11%	9	21%	38	32%
2:00 PM	49	75%	98	69%	298	82%	167	61%	143	28%	171	14%	7	16%	37	31%
3:00 PM	36	55%	87	61%	234	64%	139	50%	139	27%	175	14%	8	19%	40	33%
4:00 PM	45	69%	69	48%	201	55%	109	39%	131	26%	175	14%	10	23%	41	34%
5:00 PM	34	52%	49	34%	190	52%	128	46%	120	24%	166	13%	8	19%	39	33%
6:00 PM	54	83%	95	66%	126	35%	157	57%	70	14%	72	6%	2	5%	23	19%
7:00 PM	56	86%	123	86%	133	36%	196	71%	47	9%	28	2%	2	5%	6	5%
8:00 PM	58	89%	125	87%	128	35%	213	77%	43	8%	29	2%	2	5%	7	6%
9:00 PM	43	66%	92	64%	105	29%	197	71%	39	8%	17	1%	2	5%	8	7%
10:00 PM	26	40%	20	14%	44	12%	24	9%	34	7%	12	1%	2	5%	6	5%
11:00 PM	14	22%	13	9%	9	2%	3	1%	28	6%	13	1%	1	2%	5	4%

	Fleet Space Theatre Lot		Casa De Balboa Lot		Natural Museum Lot		South Carousel Lot		North Carousel Lot		Botanical Building Lot		Zoo Lot		Total Parking	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces			
	166		86		98		202		90		27		2924		6378	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	1	1%	14	16%	14	14%	0	0%	1	1%	4	15%	105	4%	154	2%
8:00 AM	3	2%	13	15%	28	29%	3	1%	4	4%	10	37%	142	5%	220	3%
9:00 AM	94	57%	81	94%	92	94%	49	24%	14	16%	23	85%	554	19%	1573	25%
10:00 AM	166	100%	80	93%	94	96%	201	100%	46	51%	24	89%	1280	44%	2872	45%
11:00 AM	164	99%	79	92%	96	98%	202	100%	52	58%	22	81%	1431	49%	3157	49%
12:00 PM	159	96%	81	94%	97	99%	200	99%	87	97%	23	85%	1965	67%	3685	58%
1:00 PM	138	83%	80	93%	96	98%	202	100%	79	88%	24	89%	2248	77%	3889	61%
2:00 PM	122	73%	79	92%	90	92%	202	100%	90	100%	27	100%	2918	100%	4498	71%
3:00 PM	104	63%	64	74%	89	91%	196	97%	77	86%	21	78%	2811	96%	4220	66%
4:00 PM	97	58%	68	79%	76	78%	122	60%	69	77%	19	70%	1964	67%	3196	50%
5:00 PM	96	58%	65	76%	84	86%	106	52%	72	80%	15	56%	1475	50%	2647	42%
6:00 PM	76	46%	71	83%	95	97%	62	31%	44	49%	20	74%	626	21%	1593	25%
7:00 PM	32	19%	46	53%	95	97%	157	78%	12	13%	22	81%	127	4%	1082	17%
8:00 PM	29	17%	75	87%	95	97%	161	80%	2	2%	23	85%	45	2%	1035	16%
9:00 PM	22	13%	60	70%	90	92%	148	73%	2	2%	20	74%	23	1%	868	14%
10:00 PM	11	7%	43	50%	55	56%	59	29%	2	2%	7	26%	5	0%	350	5%
11:00 PM	6	4%	21	24%	14	14%	3	1%	2	2%	3	11%	4	0%	139	2%

TABLE 187
BALBOA PARK PARKING OCCUPANCY SURVEY
WEEKDAY (EXCLUDING ZOO LOT)

Location: Central Parking
Survey Date: 03/22/2011, Tuesday

	Plaza De Panama Lots		Alcazar Garden Lots		Organ Pavillion Lots		Pan American Plaza Lot		Federal/ Aerospace Lots		Inspiration Point Lots		Gold Gluch Lot		Pepper Grove Lot	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	65		143		365		276		509		1264		43		120	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	9	14%	12	8%	15	4%	23	8%	54	11%	208	16%	0	0%	0	0%
8:00 AM	21	32%	87	61%	21	6%	34	12%	64	13%	400	32%	0	0%	19	16%
9:00 AM	25	38%	107	75%	41	11%	64	23%	61	12%	732	58%	1	2%	25	21%
10:00 AM	23	35%	128	90%	32	9%	154	56%	128	25%	817	65%	1	2%	29	24%
11:00 AM	38	58%	139	97%	159	44%	211	76%	201	39%	992	78%	2	5%	54	45%
12:00 PM	48	74%	143	100%	267	73%	263	95%	228	45%	740	59%	2	5%	104	87%
1:00 PM	50	77%	140	98%	362	99%	276	100%	254	50%	742	59%	2	5%	117	98%
2:00 PM	50	77%	136	95%	348	95%	266	96%	269	53%	652	52%	3	7%	117	98%
3:00 PM	45	69%	128	90%	336	92%	224	81%	304	60%	518	41%	3	7%	98	82%
4:00 PM	45	69%	104	73%	259	71%	201	73%	211	41%	341	27%	2	5%	76	63%
5:00 PM	48	74%	92	64%	211	58%	192	70%	147	29%	225	18%	2	5%	32	27%
6:00 PM	47	72%	82	57%	164	45%	121	44%	27	5%	171	14%	2	5%	7	6%
7:00 PM	53	82%	71	50%	131	36%	110	40%	19	4%	99	8%	1	2%	3	3%
8:00 PM	46	71%	89	62%	128	35%	64	23%	6	1%	52	4%	2	5%	4	3%
9:00 PM	49	75%	119	83%	117	32%	79	29%	1	0%	23	2%	1	2%	4	3%

	Fleet Space Theatre Lot		Casa De Balboa Lot		Natural Museum Lot		South Carousel Lot		North Carousel Lot		Botanical Building Lot			
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Parking	
	166		86		98		202		90		27		3454	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	5	3%	49	57%	76	78%	64	32%	9	10%	19	70%	543	16%
8:00 AM	36	22%	76	88%	82	84%	82	41%	12	13%	21	78%	955	28%
9:00 AM	98	59%	82	95%	98	100%	136	67%	17	19%	23	85%	1510	44%
10:00 AM	111	67%	82	95%	98	100%	200	99%	28	31%	24	89%	1855	54%
11:00 AM	121	73%	81	94%	98	100%	202	100%	70	78%	24	89%	2392	69%
12:00 PM	138	83%	82	95%	98	100%	202	100%	90	100%	23	85%	2428	70%
1:00 PM	166	100%	82	95%	98	100%	161	80%	86	96%	24	89%	2560	74%
2:00 PM	163	98%	81	94%	94	96%	174	86%	81	90%	23	85%	2457	71%
3:00 PM	144	87%	63	73%	95	97%	177	88%	80	89%	24	89%	2239	65%
4:00 PM	101	61%	64	74%	87	89%	104	51%	54	60%	20	74%	1669	48%
5:00 PM	59	36%	59	69%	86	88%	54	27%	22	24%	14	52%	1243	36%
6:00 PM	26	16%	52	60%	80	82%	35	17%	12	13%	17	63%	843	24%
7:00 PM	24	14%	58	67%	97	99%	72	36%	5	6%	20	74%	763	22%
8:00 PM	21	13%	49	57%	90	92%	74	37%	2	2%	21	78%	648	19%
9:00 PM	10	6%	50	58%	73	74%	62	31%	3	3%	16	59%	607	18%

TABLE 188
BALBOA PARK PARKING OCCUPANCY SURVEY
SATURDAY (EXCLUDING ZOO LOT)

Location: Central Parking
Survey Date: 03/19/2011, Saturday

	Plaza De Panama Lots		Alcazar Garden Lots		Organ Pavillion Lots		Pan American Plaza Lot		Federal/ Aerospace Lots		Inspiration Point Lots		Gold Gluch Lot		Pepper Grove Lot	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	65		143		365		276		509		1264		43		120	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	0	0%	0	0%	5	1%	2	1%	2	0%	6	0%	0	0%	0	0%
8:00 AM	0	0%	0	0%	6	2%	1	0%	2	0%	8	1%	0	0%	0	0%
9:00 AM	6	9%	70	49%	235	64%	252	91%	23	5%	74	6%	0	0%	6	5%
10:00 AM	58	89%	106	74%	360	99%	272	99%	56	11%	92	7%	0	0%	37	31%
11:00 AM	53	82%	110	77%	364	100%	264	96%	181	36%	97	8%	3	7%	39	33%
12:00 PM	56	86%	121	85%	339	93%	228	83%	162	32%	120	9%	4	9%	43	36%
1:00 PM	46	71%	101	71%	304	83%	210	76%	171	34%	143	11%	9	21%	38	32%
2:00 PM	49	75%	98	69%	298	82%	167	61%	143	28%	171	14%	7	16%	37	31%
3:00 PM	36	55%	87	61%	234	64%	139	50%	139	27%	175	14%	8	19%	40	33%
4:00 PM	45	69%	69	48%	201	55%	109	39%	131	26%	175	14%	10	23%	41	34%
5:00 PM	34	52%	49	34%	190	52%	128	46%	120	24%	166	13%	8	19%	39	33%
6:00 PM	54	83%	95	66%	126	35%	157	57%	70	14%	72	6%	2	5%	23	19%
7:00 PM	56	86%	123	86%	133	36%	196	71%	47	9%	28	2%	2	5%	6	5%
8:00 PM	58	89%	125	87%	128	35%	213	77%	43	8%	29	2%	2	5%	7	6%
9:00 PM	43	66%	92	64%	105	29%	197	71%	39	8%	17	1%	2	5%	8	7%
10:00 PM	26	40%	20	14%	44	12%	24	9%	34	7%	12	1%	2	5%	6	5%
11:00 PM	14	22%	13	9%	9	2%	3	1%	28	6%	13	1%	1	2%	5	4%

	Fleet Space Theatre Lot		Casa De Balboa Lot		Natural Museum Lot		South Carousel Lot		North Carousel Lot		Botanical Building Lot			
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Parking	
	166		86		98		202		90		27		3454	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	1	1%	14	16%	14	14%	0	0%	1	1%	4	15%	49	1%
8:00 AM	3	2%	13	15%	28	29%	3	1%	4	4%	10	37%	78	2%
9:00 AM	94	57%	81	94%	92	94%	49	24%	14	16%	23	85%	1019	30%
10:00 AM	166	100%	80	93%	94	96%	201	100%	46	51%	24	89%	1592	46%
11:00 AM	164	99%	79	92%	96	98%	202	100%	52	58%	22	81%	1726	50%
12:00 PM	159	96%	81	94%	97	99%	200	99%	87	97%	23	85%	1720	50%
1:00 PM	138	83%	80	93%	96	98%	202	100%	79	88%	24	89%	1641	48%
2:00 PM	122	73%	79	92%	90	92%	202	100%	90	100%	27	100%	1580	46%
3:00 PM	104	63%	64	74%	89	91%	196	97%	77	86%	21	78%	1409	41%
4:00 PM	97	58%	68	79%	76	78%	122	60%	69	77%	19	70%	1232	36%
5:00 PM	96	58%	65	76%	84	86%	106	52%	72	80%	15	56%	1172	34%
6:00 PM	76	46%	71	83%	95	97%	62	31%	44	49%	20	74%	967	28%
7:00 PM	32	19%	46	53%	95	97%	157	78%	12	13%	22	81%	955	28%
8:00 PM	29	17%	75	87%	95	97%	161	80%	2	2%	23	85%	990	29%
9:00 PM	22	13%	60	70%	90	92%	148	73%	2	2%	20	74%	845	24%
10:00 PM	11	7%	43	50%	55	56%	59	29%	2	2%	7	26%	345	10%
11:00 PM	6	4%	21	24%	14	14%	3	1%	2	2%	3	11%	135	4%

LEGEND:

1 - PLAZA DE PANAMA LOT (NORTH/SOUTH)	50	(77%)
2 - ALCAZAR GARDEN LOT	136	(95%)
3 - ORGAN PAVILLION LOTS	348	(95%)
4 - PAN AMERICAN PLAZA LOTS	266	(96%)
5 - FEDERAL/AEROSPACE LOTS	269	(53%)
6 - INSPIRATION POINT LOT (NORTH/SOUTH)	652	(52%)
7 - GOLD GULCH LOT	3	(7%)
8 - PEPPER GROVE LOT	117	(98%)
9 - FLEET SPACE THEATRE LOT	163	(98%)
10 - CASA DE BALBOA LOT	81	(94%)
11 - NATURAL MUSEUM LOT	94	(96%)
12 - SOUTH CAROUSEL LOT	174	(86%)
13 - NORTH CAROUSEL LOT	81	(90%)
14 - BOTANICAL BUILDING LOT	23	(85%)
15 - ZOO LOT	2,719	(93%)
	TOTAL: 5,176	(81%)

OCCUPIED (%)

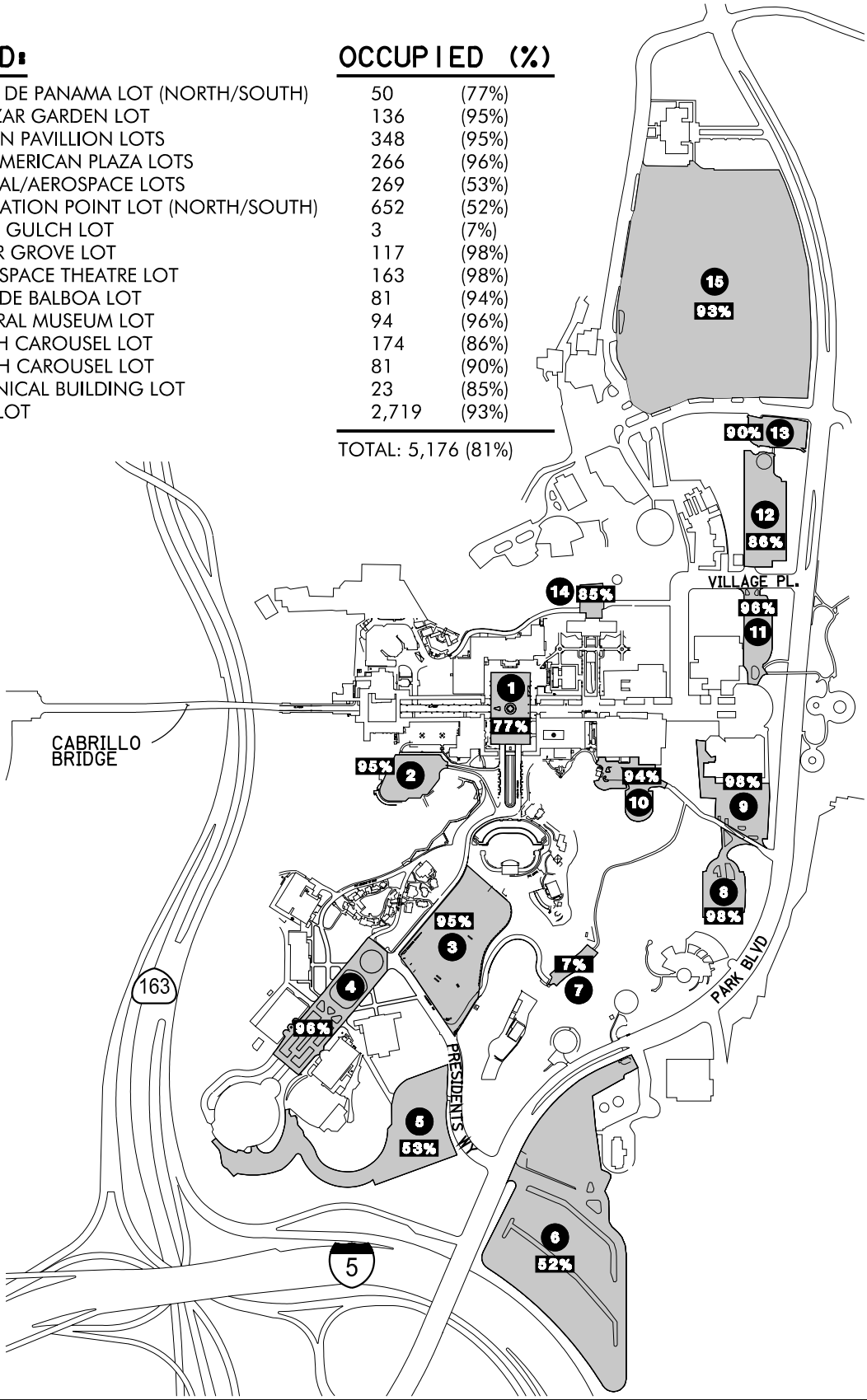

EXHIBIT 113

TUESDAY PEAK OCCUPANCY 2:00 PM (WITH ZOO)(EXISTING)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
X = PARKING LOCATION
X% = % SPACES OCCUPIED

RICK ENGINEERING COMPANY

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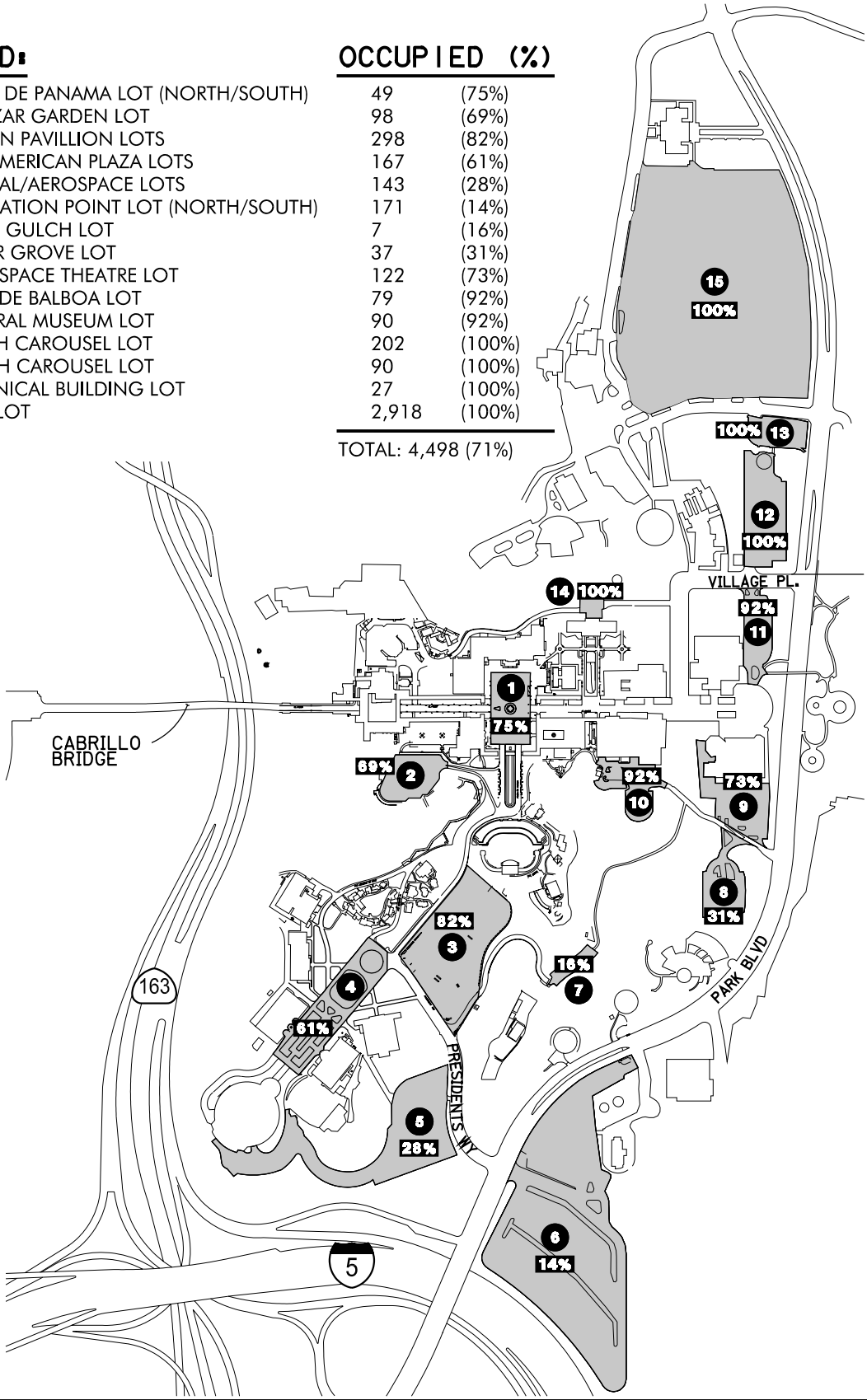
\\srv_trn1\RickStandards\Bentley_2006\workspace\projects\CorpStds_2005_SD\plot\CorpStds_2005_SD.pen
21-NOV-2011 13:25

LEGEND:

1 - PLAZA DE PANAMA LOT (NORTH/SOUTH)	49	(75%)
2 - ALCAZAR GARDEN LOT	98	(69%)
3 - ORGAN PAVILLION LOTS	298	(82%)
4 - PAN AMERICAN PLAZA LOTS	167	(61%)
5 - FEDERAL/AEROSPACE LOTS	143	(28%)
6 - INSPIRATION POINT LOT (NORTH/SOUTH)	171	(14%)
7 - GOLD GULCH LOT	7	(16%)
8 - PEPPER GROVE LOT	37	(31%)
9 - FLEET SPACE THEATRE LOT	122	(73%)
10 - CASA DE BALBOA LOT	79	(92%)
11 - NATURAL MUSEUM LOT	90	(92%)
12 - SOUTH CAROUSEL LOT	202	(100%)
13 - NORTH CAROUSEL LOT	90	(100%)
14 - BOTANICAL BUILDING LOT	27	(100%)
15 - ZOO LOT	2,918	(100%)

OCCUPIED (%)

TOTAL: 4,498 (71%)



RICK ENGINEERING COMPANY

EXHIBIT 114

SATURDAY PEAK OCCUPANCY 2:00 PM (WITH ZOO)(EXISTING)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
X = PARKING LOCATION
X% = % SPACES OCCUPIED

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\\srv_trn1\RickStandards\Bentley_2006\workspace\projects\CorpStds_2005_SD\plot\CorpStds_2005_SD.pen
21-NOV-2011 13:26

LEGEND:

1 - PLAZA DE PANAMA LOT (NORTH/SOUTH)	50	(77%)
2 - ALCAZAR GARDEN LOT	140	(98%)
3 - ORGAN PAVILLION LOTS	362	(99%)
4 - PAN AMERICAN PLAZA LOTS	276	(100%)
5 - FEDERAL/AEROSPACE LOTS	254	(50%)
6 - INSPIRATION POINT LOT (NORTH/SOUTH)	742	(59%)
7 - GOLD GULCH LOT	2	(5%)
8 - PEPPER GROVE LOT	117	(98%)
9 - FLEET SPACE THEATRE LOT	166	(100%)
10 - CASA DE BALBOA LOT	82	(95%)
11 - NATURAL MUSEUM LOT	98	(100%)
12 - SOUTH CAROUSEL LOT	161	(80%)
13 - NORTH CAROUSEL LOT	86	(96%)
14 - BOTANICAL BUILDING LOT	24	(89%)
	TOTAL: 2,560	(74%)

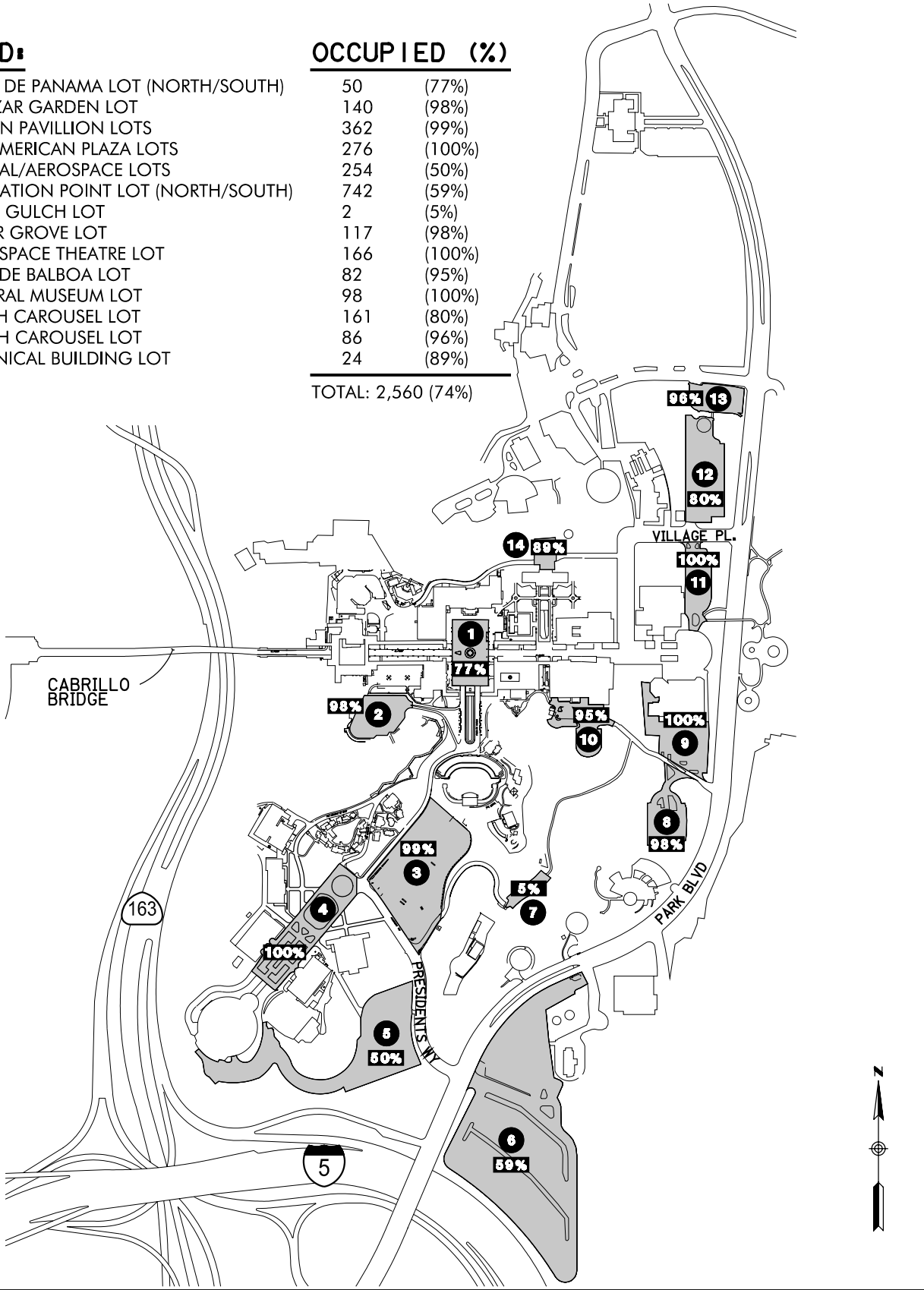

EXHIBIT 115

TUESDAY PEAK OCCUPANCY 1:00 PM (WITHOUT ZOO)(EXISTING)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
X = PARKING LOCATION
X% = % SPACES OCCUPIED

RICK ENGINEERING COMPANY

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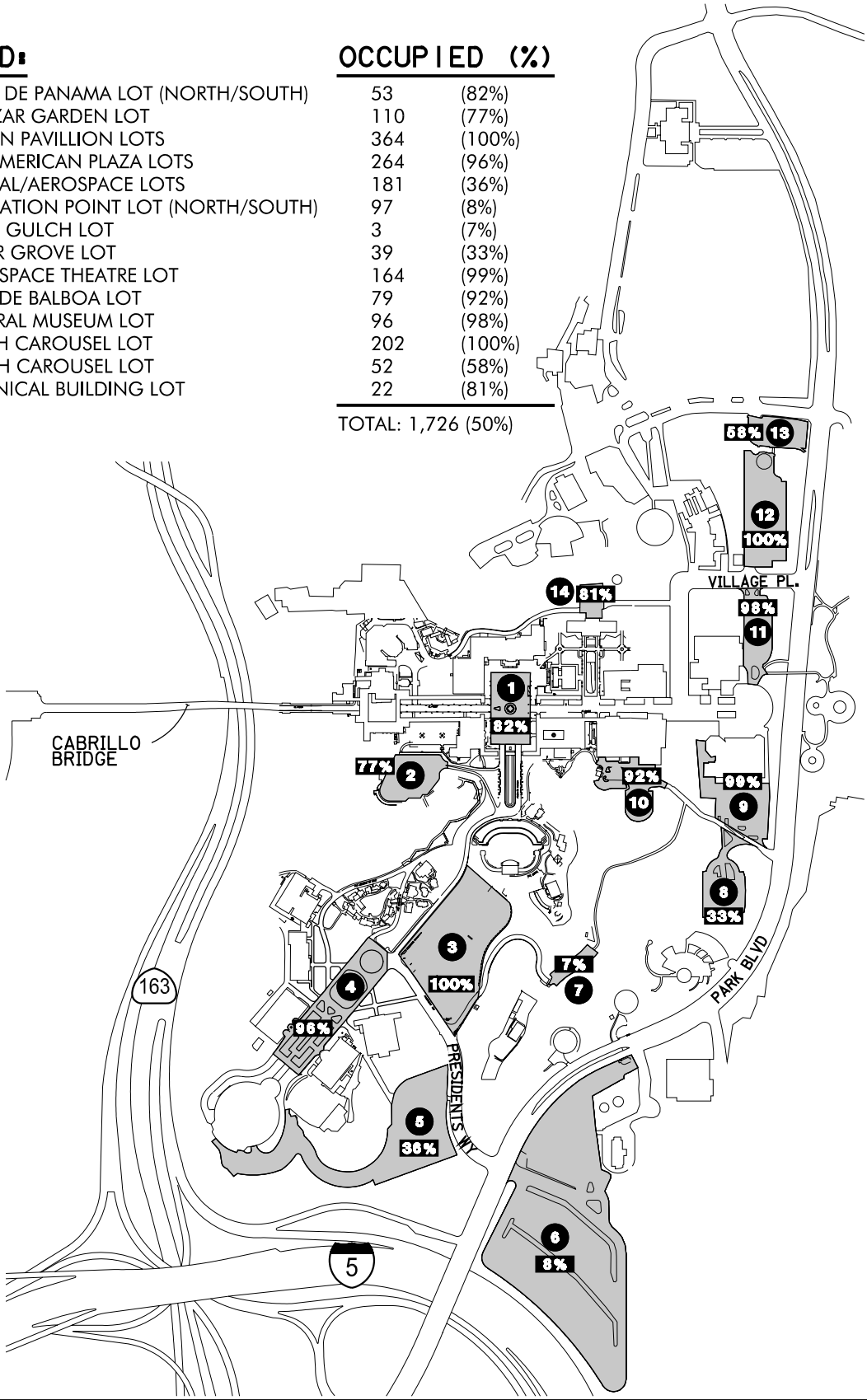
21-NOV-2011 13:27

LEGEND:

	OCCUPIED	(%)
1 - PLAZA DE PANAMA LOT (NORTH/SOUTH)	53	(82%)
2 - ALCAZAR GARDEN LOT	110	(77%)
3 - ORGAN PAVILLION LOTS	364	(100%)
4 - PAN AMERICAN PLAZA LOTS	264	(96%)
5 - FEDERAL/AEROSPACE LOTS	181	(36%)
6 - INSPIRATION POINT LOT (NORTH/SOUTH)	97	(8%)
7 - GOLD GULCH LOT	3	(7%)
8 - PEPPER GROVE LOT	39	(33%)
9 - FLEET SPACE THEATRE LOT	164	(99%)
10 - CASA DE BALBOA LOT	79	(92%)
11 - NATURAL MUSEUM LOT	96	(98%)
12 - SOUTH CAROUSEL LOT	202	(100%)
13 - NORTH CAROUSEL LOT	52	(58%)
14 - BOTANICAL BUILDING LOT	22	(81%)
TOTAL:	1,726	(50%)



RICK ENGINEERING COMPANY

EXHIBIT 116

SATURDAY PEAK OCCUPANCY 11:00 AM (WITHOUT ZOO)(EXISTING)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
X = PARKING LOCATION
X% = % SPACES OCCUPIED

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\\srv_trn1\RickStandards\Bentley_2006\workspace\projects\CorpStds_2005_SD\plot\CorpStds_2005_SD.pen
21-NOV-2011 13:28

would circulate within the West Mesa (would not enter the park) to find free parking. This was estimated based on actual traffic coming to the park from the West Mesa (via El Prado), parking occupancies within the core of the park and the walking distance required from the West Mesa to the center of Plaza de Panama. Based on current parking occupancy counts in the West Mesa area (primarily along Balboa Drive), ample parking can be provided for these 50 patrons. This is not anticipated to affect the circulation and parking within the core area.

For Alternative 4Aii (No Paid Parking Alternative), less vehicle recirculation is estimated to occur as patrons are anticipated to park at the free paid parking structure prior to searching for spaces at either the Pan American, Federal and Inspiration lots, since the structure location is the closest to the core of the park.

For the Cabrillo Bridge Closure options (Alternatives 3B, 3C and 3D) it is estimated that about 100 vehicles during the peak will tend to find parking on the West Mesa and walk to the site versus accessing the site via Park Boulevard/Presidents Way. This was estimated based on actual traffic coming to the park from the West Mesa (via El Prado), parking occupancies within the core of the park and the walking distance required from the West Mesa to the center of Plaza de Panama. The estimated walking distance from the proposed West Mesa Structure (Alternative 3C) to the Plaza de Panama is 2,200 feet. 2,000 feet (LOS D) is generally considered the maximum walking distance from a parking facility, based on Urban Land Institutes (ULI) Level of Service Conditions for Walking Distance from Parking Tables (See **Appendix J).** Additional nearby parking would need to be provided in the West Mesa area to accommodate this increased parking demand as on-street parking in the immediate area (Balboa Drive and 6th Avenue) is currently at capacity during the Saturday peaks. The West Mesa parking structure for the Alternative 3C should be able to accommodate this increased demand. Potential parking impacts in the West Mesa area are anticipated with Alternative 3A and 3B as no additional parking is proposed in the West Mesa area for these two alternatives. **Table 189** and **Table 190** summarize the parking occupancies for the West Mesa area for the weekday and Saturday, respectively. These tables show the high parking occupancies along 6th Avenue and Balboa Drive in the immediate vicinity.

PARKING DEMAND/TRAM OPERATIONS FOR ALTERNATIVES

The following section summarizes the parking demand and tram related issues for each of the alternatives, as identified in the PCI study.

No Project

2015

- Does not meet the existing or 2015 Central Mesa parking needs (no new structures)
- Does not remove vehicle parking from the Plaza de Panama and Plaza de California
- Does not address the mis-match between the location of parking demand and parking supply
- Does not meet the projected weekday afternoon parking demand for events in excess of 2,000 attendees
- Traffic will continue to re-circulate throughout the center of the park looking for available parking spaces

TABLE 189
BALBOA PARK PARKING OCCUPANCY SURVEY
WEST SIDE PARKING (WEEKDAY)

Location: West Side Parking
Survey Date: 03/22/2011, Tuesday

	6th Avenue between Upas and Elm St.		Balboa Drive between 6th Ave. and Quince Dr.		Balboa Drive between Quince Dr. and Juniper St.		Balboa Drive between Juniper St. and Cobblestone Dr.		Marston Point Parking Lot		8th Avenue between Balboa Dr. and Cobblestone Dr.		5th Avenue between Quince Dr. and Grape St.		4th Avenue betweenQuince Dr. and Grape St.		3rd Avenue between Olive St. and Grape St.		2nd Avenue between Nutmeg St. and Grape St.		1st Avenue between Nutmeg St. and Grape St.	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	333		142		238		122		67		100		189		201		203		189		128	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	111	33%	0	0%	4	2%	2	2%	2	3%	2	2%	86	46%	91	45%	139	68%	171	90%	88	69%
8:00 AM	154	46%	22	15%	52	22%	63	52%	42	63%	21	21%	89	47%	102	51%	148	73%	176	93%	92	72%
9:00 AM	198	59%	35	25%	62	26%	99	81%	64	96%	30	30%	90	48%	117	58%	155	76%	177	94%	111	87%
10:00 AM	267	80%	41	29%	144	61%	116	95%	67	100%	59	59%	124	66%	110	55%	155	76%	158	84%	117	91%
11:00 AM	269	81%	45	32%	156	66%	115	94%	64	96%	66	66%	136	72%	134	67%	199	98%	183	97%	116	91%
12:00 PM	273	82%	61	43%	157	66%	116	95%	66	99%	71	71%	132	70%	145	72%	177	87%	187	99%	112	88%
1:00 PM	257	77%	81	57%	167	70%	120	98%	66	99%	81	81%	137	72%	147	73%	183	90%	184	97%	106	83%
2:00 PM	249	75%	56	39%	154	65%	110	90%	65	97%	54	54%	139	74%	144	72%	184	91%	187	99%	104	81%
3:00 PM	239	72%	60	42%	150	63%	102	84%	65	97%	48	48%	125	66%	125	62%	178	88%	183	97%	103	80%
4:00 PM	235	71%	62	44%	138	58%	98	80%	63	94%	46	46%	109	58%	116	58%	175	86%	169	89%	94	73%
5:00 PM	211	63%	54	38%	128	54%	43	35%	42	63%	21	21%	112	59%	119	59%	168	83%	167	88%	91	71%
6:00 PM	166	50%	33	23%	100	42%	16	13%	6	9%	11	11%	124	66%	128	64%	160	79%	153	81%	87	68%
7:00 PM	175	53%	34	24%	61	26%	5	4%	1	1%	1	1%	127	67%	132	66%	160	79%	153	81%	89	70%
8:00 PM	174	52%	23	16%	34	14%	2	2%	1	1%	0	0%	133	70%	129	64%	155	76%	155	82%	89	70%
9:00 PM	188	56%	10	7%	15	6%	1	1%	1	1%	1	1%	141	75%	133	66%	151	74%	158	84%	92	72%

	Quince Drive between 4th Ave. and 6th Ave.		Palm Street between 4th Ave. and 6th Ave.		Olive Street between 3rd Ave. and 6th Ave.		Nutmeg Street between 1st Ave. and 6th Ave.		Maple Street between 1st Ave. and 6th Ave.		Laurel Street/El Prado between 1st Ave. and 6th Ave.		Kalima Street between 1st Ave. and 6th Ave.		Juniper Street between 1st Ave. and 6th Ave.		Ivy Street between 1st Ave. and 6th Ave.		Hawthorn Street between 1st Ave. and 6th Ave.		Grape Street between 1st Ave. and 6th Ave.	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	27		36		59		82		74		58		84		103		78		77		98	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	8	30%	9	25%	47	80%	47	57%	26	35%	18	31%	83	99%	89	86%	59	76%	53	69%	78	80%
8:00 AM	13	48%	16	44%	49	83%	52	63%	35	47%	25	43%	74	88%	87	84%	62	79%	54	70%	87	89%
9:00 AM	14	52%	24	67%	53	90%	59	72%	52	70%	25	43%	66	79%	95	92%	66	85%	56	73%	87	89%
10:00 AM	17	63%	31	86%	59	100%	76	93%	50	68%	33	57%	73	87%	95	92%	62	79%	65	84%	92	94%
11:00 AM	18	67%	40	111%	55	93%	71	87%	58	78%	39	67%	67	80%	101	98%	65	83%	65	84%	91	93%
12:00 PM	20	74%	42	117%	56	95%	78	95%	60	81%	44	76%	78	93%	99	96%	66	85%	62	81%	85	87%
1:00 PM	19	70%	41	114%	54	92%	68	83%	58	78%	45	78%	74	88%	96	93%	68	87%	63	82%	85	87%
2:00 PM	20	74%	36	100%	53	90%	60	73%	50	68%	40	69%	70	83%	94	91%	68	87%	59	77%	81	83%
3:00 PM	21	78%	34	94%	53	90%	61	74%	50	68%	37	64%	67	80%	93	90%	64	82%	59	77%	81	83%
4:00 PM	20	74%	32	89%	52	88%	60	73%	49	66%	33	57%	66	79%	92	89%	67	86%	61	79%	83	85%
5:00 PM	10	37%	22	61%	52	88%	60	73%	45	61%	35	60%	71	85%	89	86%	62	79%	53	69%	74	76%
6:00 PM	15	56%	19	53%	53	90%	60	73%	43	58%	40	69%	78	93%	84	82%	58	74%	44	57%	63	64%
7:00 PM	17	63%	13	36%	53	90%	60	73%	40	54%	40	69%	77	92%	83	81%	63	81%	42	55%	63	64%
8:00 PM	19	70%	10	28%	46	78%	60	73%	35	47%	39	67%	77	92%	84	82%	62	79%	42	55%	62	63%
9:00 PM	23	85%	10	28%	45	76%	55	67%	32	43%	40	69%	79	94%	84	82%	74	95%	44	57%	70	71%

	Total Parking	
	1678	
Time	Parked	% Occupied
7:00 AM	636	38%
8:00 AM	887	53%
9:00 AM	1055	63%
10:00 AM	1288	77%
11:00 AM	1319	79%
12:00 PM	1363	81%
1:00 PM	1362	81%
2:00 PM	1265	75%
3:00 PM	1236	74%
4:00 PM	1211	72%
5:00 PM	1051	63%
6:00 PM	878	52%
7:00 PM	827	49%
8:00 PM	770	46%
9:00 PM	771	46%

TABLE 190
BALBOA PARK PARKING OCCUPANCY
WEST SIDE PARKING (SATURDAY)

Location: West Side Parking
Survey Date: 03/19/2011, Saturday

	6th Avenue between Upas and Elm St.		Balboa Drive between 6th Ave. and Quince Dr.		Balboa Drive between Quince Dr. and Juniper St.		Balboa Drive between Juniper St. and Cobblestone Dr.		Marston Point Parking Lot		8th Avenue between Balboa Dr. and Cobblestone Dr.		5th Avenue between Quince Dr. and Grape St.		4th Avenue betweenQuince Dr. and Grape St.		3rd Avenue between Olive St. and Grape St.		2nd Avenue between Nutmeg St. and Grape St.		1st Avenue between Nutmeg St. and Grape St.	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	333		142		238		122		67		100		189		201		203		189		128	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	147	44%	7	5%	4	2%	0	0%	0	0%	1	1%	68	36%	93	46%	150	74%	196	104%	98	77%
8:00 AM	144	43%	15	11%	28	12%	2	2%	1	1%	1	1%	67	35%	91	45%	170	84%	141	75%	95	74%
9:00 AM	181	54%	51	36%	58	24%	12	10%	8	12%	5	5%	76	40%	93	46%	147	72%	153	81%	97	76%
10:00 AM	189	57%	52	37%	61	26%	13	11%	9	13%	4	4%	81	43%	90	45%	152	75%	165	87%	99	77%
11:00 AM	223	67%	59	42%	88	37%	39	32%	10	15%	18	18%	87	46%	75	37%	150	74%	153	81%	102	80%
12:00 PM	256	77%	71	50%	142	60%	70	57%	13	19%	26	26%	100	53%	80	40%	166	82%	158	84%	94	73%
1:00 PM	289	87%	75	53%	166	70%	80	66%	19	28%	26	26%	117	62%	84	42%	153	75%	150	79%	84	66%
2:00 PM	288	86%	78	55%	201	84%	95	78%	23	34%	41	41%	101	53%	88	44%	156	77%	150	79%	80	63%
3:00 PM	269	81%	59	42%	177	74%	65	53%	22	33%	32	32%	109	58%	91	45%	157	77%	157	83%	117	91%
4:00 PM	202	61%	40	28%	120	50%	41	34%	10	15%	17	17%	123	65%	94	47%	160	79%	159	84%	91	71%
5:00 PM	166	50%	33	23%	98	41%	23	19%	8	12%	10	10%	128	68%	90	45%	144	71%	128	68%	101	79%
6:00 PM	210	63%	18	13%	81	34%	10	8%	3	4%	4	4%	104	55%	110	55%	158	78%	157	83%	94	73%
7:00 PM	159	48%	5	4%	23	10%	1	1%	1	1%	0	0%	150	79%	129	64%	174	86%	138	73%	88	69%
8:00 PM	173	52%	5	4%	26	11%	3	2%	1	1%	0	0%	156	83%	120	60%	165	81%	147	78%	91	71%
9:00 PM	178	53%	3	2%	16	7%	0	0%	1	1%	0	0%	153	81%	123	61%	164	81%	158	84%	85	66%
10:00 PM	132	40%	1	1%	6	3%	0	0%	0	0%	0	0%	133	70%	119	59%	161	79%	153	81%	83	65%
11:00 PM	119	36%	0	0%	0	0%	0	0%	0	0%	0	0%	125	66%	110	55%	149	73%	148	78%	79	62%

	Quince Drive between 4th Ave. and 6th Ave.		Palm Street between 4th Ave. and 6th Ave.		Olive Street between 3rd Ave. and 6th Ave.		Nutmeg Street between 1st Ave. and 6th Ave.		Maple Street between 1st Ave. and 6th Ave.		Laurel Street/El Prado between 1st Ave. and 6th Ave.		Kalima Street between 1st Ave. and 6th Ave.		Juniper Street between 1st Ave. and 6th Ave.		Ivy Street between 1st Ave. and 6th Ave.		Hawthorn Street between 1st Ave. and 6th Ave.		Grape Street between 1st Ave. and 6th Ave.	
	Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces		Total Spaces	
	27		36		59		82		74		58		84		103		78		77		98	
Time	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
7:00 AM	8	30%	6	17%	46	78%	42	51%	35	47%	23	40%	63	75%	82	80%	57	73%	47	61%	73	74%
8:00 AM	9	33%	7	19%	48	81%	48	59%	38	51%	21	36%	60	71%	88	85%	57	73%	47	61%	71	72%
9:00 AM	11	41%	20	56%	52	88%	48	59%	44	59%	20	34%	61	73%	84	82%	56	72%	46	60%	71	72%
10:00 AM	11	41%	18	50%	49	83%	49	60%	41	55%	22	38%	62	74%	86	83%	56	72%	48	62%	72	73%
11:00 AM	12	44%	20	56%	50	85%	57	70%	40	54%	20	34%	61	73%	81	79%	56	72%	46	60%	75	77%
12:00 PM	15	56%	19	53%	51	86%	61	74%	47	64%	29	50%	53	63%	87	84%	59	76%	54	70%	76	78%
1:00 PM	13	48%	19	53%	49	83%	50	61%	39	53%	31	53%	59	70%	83	81%	49	63%	59	77%	83	85%
2:00 PM	14	52%	21	58%	50	85%	60	73%	39	53%	34	59%	58	69%	85	83%	57	73%	52	68%	74	76%
3:00 PM	13	48%	15	42%	51	86%	58	71%	42	57%	36	62%	59	70%	93	90%	54	69%	48	62%	73	74%
4:00 PM	15	56%	15	42%	53	90%	62	76%	39	53%	29	50%	61	73%	77	75%	60	77%	54	70%	72	73%
5:00 PM	16	59%	15	42%	50	85%	61	74%	41	55%	32	55%	60	71%	87	84%	67	86%	48	62%	75	77%
6:00 PM	20	74%	18	50%	53	90%	58	71%	45	61%	42	72%	71	85%	84	82%	76	97%	48	62%	70	71%
7:00 PM	22	81%	28	78%	58	98%	62	76%	54	73%	39	67%	78	93%	89	86%	77	99%	47	61%	67	68%
8:00 PM	17	63%	19	53%	54	92%	60	73%	51	69%	39	67%	76	90%	85	83%	68	87%	46	60%	65	66%
9:00 PM	18	67%	19	53%	55	93%	59	72%	50	68%	40	69%	70	83%	79	77%	70	90%	45	58%	64	65%
10:00 PM	16	59%	15	42%	53	90%	57	70%	45	61%	35	60%	71	85%	79	77%	68	87%	43	56%	65	66%
11:00 PM	15	56%	10	28%	49	83%	56	68%	50	68%	33	57%	71	85%	77	75%	67	86%	43	56%	64	65%

	Total Parking	
	1678	
Time	Parked	% Occupied
7:00 AM	567	34%
8:00 AM	613	37%
9:00 AM	752	45%
10:00 AM	766	46%
11:00 AM	862	51%
12:00 PM	1027	61%
1:00 PM	1080	64%
2:00 PM	1155	69%
3:00 PM	1061	63%
4:00 PM	878	52%
5:00 PM	805	48%
6:00 PM	837	50%
7:00 PM	743	44%
8:00 PM	723	43%
9:00 PM	703	42%
10:00 PM	621	37%
11:00 PM	590	35%

- Does not provide a high capacity, more user-friendly (including improved ADA accessibility) tram system
- Does not manage or address employee parking demand in the Central Mesa

2030

- Parking supply will be deficient by 30% more than existing conditions per SANDAG projections
- Mis-match between parking supply and parking demand will be much more acute

Alternative 2 – Central Mesa Precise Plan

2015

- CMPP would provide a greater number of parking spaces in the Central Mesa compared to the Project
- Larger parking structure in the CMPP would initially operate at a lower occupancy percentage and may not meet the financial model requirements (63% versus 80% for the Project parking structure)
- Would not be financially capable of funding a new high capacity tram system
- Parking structure demand and occupancy levels could be impacted by the implementation of one-way eastbound only traffic on El Prado and Pan American
- Park visitors may choose to park in the residential areas west of Balboa Park due to the new traffic patterns associated with one-way eastbound traffic
- Exit queuing from parking structure after large events could be unacceptable due to the one-way design of Presidents Way. This could affect guest service, future parking demand for the structure, and ultimately, the financial viability of the CMPP project.
- Does not improve ADA access visitor drop off, or valet loading to the Central Mesa

2030

- CMPP would address Central Mesa parking requirements in terms of number of stalls better than the Project
- One-way traffic pattern would impact available parking to a greater degree in residential areas west of Balboa Park

Alternative 3A – Pedestrianize Cabrillo Bridge with No New Parking

2015

- Loss of up to 54 parking stalls in the Central Mesa (and Balboa Park overall) and a loss of close to 800 stalls compared to the Project
- Does not present a plan to accommodate the displaced ADA stalls and valet loading area currently located in the Plaza de Panama

- Achieves the goal of eliminating public vehicle traffic from the Plaza de Panama and West Prado
- Alternative does not address the improvement in the tram system to accommodate more passengers. Also, does not identify how current tram system would operate to the West Mesa
- Does not address where guest and valet drop off areas would be located
- Of the 6,000 to 8,000 visitor vehicles that currently utilize the Cabrillo Bridge to enter the park, an undetermined number of these visitors may choose to park in the residential neighborhoods on the west side of the park due to the closing of the Cabrillo Bridge
- Does not manage or address employee parking demand in the Central Mesa

2030

- The loss of at least 54 stalls (and net loss of 800 stalls) in the Central Mesa will create additional parking supply issues in the Central Mesa since the demand is expected to increase by over 30%
- Does not address how to provide transportation to the West Mesa, which is expected to increase by 30%
- Traffic re-circulation issues in the parking lots will increase substantially due to the lack of additional parking supply in the Central Mesa.

Alternative 3B – Pedestrianize Cabrillo Bridge with Organ Pavilion Parking Structure

2015

- Meets the goal of reducing pedestrian and vehicle conflicts in the Plaza de Panama and West Prado
- Meets the goal of increasing the number of parking spaces in the Central Mesa
- Does not present a plan to accommodate the displaced ADA stalls and valet loading area currently located in the Plaza de Panama
- Does not present a new tram plan to transport visitors to the West Mesa
- Parking structure rates would to be higher than Project fees due to the increased tram route from the Plaza de Panama to the West Mesa.
- Of the 6,000 to 8,000 visitor vehicles that currently utilize the Cabrillo Bridge to enter the park, an undetermined number of these visitors may choose to park in the residential neighborhoods on the west side of the park due to the closing of the Cabrillo Bridge.
- Since all vehicles exiting the new parking structure would be directed to Presidents Way and onto Park Boulevard, customer service levels in the parking structure could suffer and affect the overall garage occupancy, especially during large events. This could lead to lower occupancy levels due to visitors using other parking options.

2030

- Balboa Park visitor parking in the residential areas on the west side of the park will increase due to the project 30% increase in overall park traffic.
- Backups and long queue's leaving the parking structure will occur more frequently due to the 30%+ increase in overall parking demand in the park.

Alternative 3C - Pedestrianize Cabrillo Bridge West Mesa Parking Structure

2015

- Does not meet the goal of providing additional parking supply in the Central Mesa
- Meets the goal of reducing pedestrian and vehicle conflicts in the Plaza de Panama and West Prado
- Does not present a new tram plan is proposed to transport visitors from the West Mesa to the Central Mesa, however the existing trolley will be operational but anticipated to be at capacity.
- Even though the location of this Alternative project parking structure is less desirable from a "proximity to the Central Mesa" standpoint, the parking rates would need to be higher than Project fees due to the increased tram operating and maintenance costs based on the extended tram route from the Plaza de Panama to the West Mesa parking structure.
- Does not manage or address employee parking demand in the Central Mesa
- Does not address the relocation of ADA and valet loading zone stalls currently located in the Plaza de Panama. The ADA stalls would need to be in close proximity to the Central Plaza.
- Does not provide a solution to valet staging area due to the distance and return route required if Cabrillo Bridge is closed to traffic.

2030

- Would increase the amount of on-street parking west of the park due to the 30%+ increase in both ADT's and over 50% increase in peak hourly traffic.
- Tram system would be required to provide much more capacity due to the number of non-parking structure passengers using the service. Operating expenses would exceed the amount of operating funds required to provide the service.

Alternative 3D – Pedestrianize Cabrillo Bridge with Inspiration Point Parking Structure

2015

- Does not meet the goal of providing additional parking supply in the Central Mesa
- This project would produce the lowest garage occupancy since the location is the most distant parking structure option from the Central Mesa. The financial model would not support the revenue bond requirements or the garage/tram operating and maintenance expenses.

- Meets the goal of reducing pedestrian and vehicle conflicts in the Plaza de Panama and West Prado
- Does not present a new tram plan to transport visitors from the Inspiration Point parking structure to the Central Mesa
- Does not present a new tram plan to transport visitors from the West Mesa to the Central Mesa
- Even though the location of this Alternative project parking structure is less desirable from a "proximity to the Central Mesa" standpoint, the parking rates would need to be higher than Project fees due to the increased tram operating and maintenance costs based on the extended tram route from the Plaza de Panama to the Inspiration Point parking structure and, in addition, to the West Mesa since the Cabrillo Bridge would not be available to vehicular traffic.
- Does not manage or address employee parking demand in the Central Mesa, and this plan would exacerbate the current situation since the "paid" parking option would be the least convenient of almost all parking options
- Does not address the relocation of ADA and valet loading zone stalls currently located in the Plaza de Panama. The ADA stalls would need to be in close proximity to the Central Plaza.
- Does not provide a solution to valet staging area due to the distance and return route required to and from the Inspiration Point parking structure and the Central Mesa
- Does not address the effects of the availability of free surface lot parking in the other areas of the Inspiration Point Lots, since the parking structure would not occupy the entire site.

2030

- Employee parking, ADA accessible space availability, visitor parking close to the Central Mesa and financial viability of the tram service would all be much more critical needs.

Alternative 4Ai - Cabrillo Bridge Open – with Centennial Bridge Gold Gulch Parking Structure Alternative

2015

- Meets the goal of reducing pedestrian and vehicle conflicts in the Plaza de Panama and West Prado
- Meets the goal of increasing the number of parking spaces in the Central Mesa
- Does not present a new tram plan to transport visitors to the Plaza de Panama
- Since all vehicles exiting the new parking structure would be directed to Park Boulevard, queuing into and out of the parking structure could cause customer service levels in the parking structure to suffer and affect the overall garage occupancy, especially during large events and other peak periods.
- Access to the parking structure from the west side of the park would not be convenient. Way finding for infrequent park visitors would be a problem, due to the limited access

from the interior of the park. This could cause a larger number of park visitors to utilize on-street parking west of the park or circulate throughout other lots looking for available parking.

2030

- Balboa Park visitor parking in the residential areas on the west side of the park will increase due to the project 30% increase in overall park traffic.

Backups and long queue's leaving the parking structure will occur more frequently due to the 30%+ increase in overall parking demand in the park.

Alternative 4Aii –Cabrillo Bridge Open – with Centennial Bridge – No Paid Parking Alternative

2015

- Does not address a funding plan including revenue bonds, that provides for a self-sustaining parking structure, including the garage and tram service operating and maintenance expenses.
- Meets the goal of reducing pedestrian and vehicle conflicts in the Plaza de Panama and West Prado
- Meets the goal of increasing the number of parking spaces in the Central Mesa
- Meets the goal of providing ADA and valet spaces near the Plaza de Panama
- Does not address the employee parking issues associated with the unavailability of convenient parking near the Prado for visitor parking. Employees would utilize the free parking in the new parking structure, leaving less desirable space in other lots for visitor parking.

2030

- Same as above

Alternative 4Bi –Cabrillo Bridge Open without Centennial Bridge – Tunnel Alternative

2015

- No parking impacts.

2030

- Same as above

Alternative 4Bii - Cabrillo Bridge Open without Centennial Bridge – Stop Light Alternative

2015

- Does not meet the goal of providing additional parking supply in the Central Mesa
- This project would produce lower garage occupancy than the Project since the location of the parking structure is more distant from the Central Mesa and less desirable. The

financial model would not support the revenue bond requirements or the garage/tram operating and maintenance expenses.

- Does not reduce as many of the pedestrian and vehicle conflicts in the Plaza de Panama as the Project.
- Does not present a new tram plan to transport visitors from the Federal Building parking structure to the Central Mesa
- Even though the location of this Alternative project parking structure is less desirable from a "proximity to the Central Mesa" standpoint compared to the Project, the parking rates would need to be higher than Project fees due to the increased tram operating and maintenance costs based on the extended tram route from the Plaza de Panama to the Federal Building parking structure.
- Does not manage or address employee parking demand in the Central Mesa, and this plan would exacerbate the current situation since the "paid" parking option would be less convenient of almost all other parking options except the Inspiration Point Lots.
- Does not address the relocation of ADA and valet loading zone stalls currently located in the Plaza de Panama. The ADA stalls would need to be in close proximity to the Central Plaza.
- Does not provide a solution to valet staging area due to the distance and return route required to and from the Federal Building parking structure and the Central Mesa

<u>2030</u>

- Employee parking, ADA accessible space availability, visitor parking close to the Central Mesa and financial viability of the tram service would all be much more critical needs.

<u>Alternative 4Biii - Cabrillo Bridge Open without Centennial Bridge – Modified Precise Plan without Parking Structure</u>

<u>2015</u>

- Does not meet the goal of increasing the number of parking availability in the Central Mesa. Net loss of up to 420 parking stalls in the Central Mesa (and Balboa Park overall) compared to the Project.
- Does not present a plan to accommodate the displaced ADA stalls and valet loading area currently located in the Plaza de Panama
- Does not achieve the goal of eliminating public vehicle traffic from the Plaza de Panama and West Prado
- Does not address where guest and valet drop off areas would be located
- Does not manage or address employee parking demand in the Central Mesa and creating additional convenient parking spaces that would be used by park visitors arriving after park employees and staff
- Plaza de Panama replacement stalls would be scattered over a number of locations and would not be readily accessible for park visitors and ADA parkers.

- Way finding to replacement stalls would be very difficult due to the low number of stalls at each potential designated area.

2030

- The net loss of at least 420 stalls in the Central Mesa (compared to the Project) will create additional parking supply issues in the Central Mesa since the demand is expected to increase by over 30%
- Traffic re-circulation issues in the parking lots will increase substantially due to the lack of additional parking supply in the Central Mesa.

Alternative 4Biv - Cabrillo Bridge Open without Centennial Bridge – Half Plaza Alternative

2015

- Meets the goal of providing additional parking supply in the Central Mesa
- This project would produce lower garage occupancy levels than the Project since the parking structure would need to be larger to offset the loss of the Alcazar Lot spaces. The extra spaces in this Alternative parking structure would require a number of design changes that would increase the "cost per space" in the financial model. The increased costs may not support the revenue bond requirements or the garage/tram operating and maintenance expenses.
- Does not reduce as many of the pedestrian and vehicle conflicts in the Plaza de Panama as the Project.
- Does not present a new tram plan to transport visitors from the Organ Pavilion parking structure to the Central Mesa
- Does not address the relocation of ADA stalls currently located in the Plaza de Panama and the Alcazar Lot, or the valet loading zone in the Plaza de Panama Lot. The replacement ADA stalls would need to be in closer proximity to the Central Plaza.
- Does not provide a solution for valet due to the lack of a dedicated area for the valet zone. Any proposal that does not include one contiguous area that is convenient for patrons would not be operationally feasible or provide minimum level of customer service.

2030

- Same as above.

Alternative 5 – Phased Alternative

2015

Phase I

- Does not create an additional parking in the Central Mesa. It would result in a net decrease of at least 54 spaces in the Plaza de Panama.
- Valet operation would be very inefficient due to the limited access of Palm Canyon Drive in and out of the reconfigured Alcazar Lot to the valet storage area.
- Does not address the employee parking issues and would result in visitors being pushed further out from the Plaza de Panama

Phase II (In addition to above)

- Alternative does not provide a dedicated tram/pedestrian roadway that is separated from vehicular traffic.

Phase III

- Does not present a new tram plan to transport visitors to the West Mesa
- Parking structure rates would to be higher than Project fees due to the increased tram route from the Plaza de Panama to the West Mesa.
- Since all vehicles exiting the new parking structure would be directed to Presidents Way and onto Park Boulevard, customer service levels in the parking structure could suffer and affect the overall garage occupancy, especially during large events. This could lead to lower occupancy levels due to visitors using other parking options.

Phase IV

- No parking impacts

2030

- Same as Project

The following provides a general summary of the parking components for each alternative:

ALTERNATIVE	PARKING REMOVED FROM PDP	INCREASED PARKING SUPPLY IN PARK CORE	PLAN TO ACCOMMODATE DISPLACED ADA STALLS/VALET
No Project	No	No	N/A
Alternative 2	Yes	Yes	No
Alternative 3A	Yes	No	No
Alternative 3B	Yes	Yes	Yes
Alternative 3C	Yes	No	No
Alternative 3D	Yes	No	No
Alternative 4Ai	Yes	Yes	Yes
Alternative 4Aii	Yes	Yes	Yes
Alternative 4Bi	Yes	Yes	Yes
Alternative 4Bii	Yes	Yes	No
Alternative 4Biii	Yes	No	No
Alternative 4Biv	No	Yes	No

TRANSIT AND BICYCLE ACCESSIBILITY

BICYCLES

A designated class I bikeway is provided north of the project site on Upas Street from Balboa Drive west of SR-163 to Vermont Street east of SR-163. There is also a designated bike route (class III) along 6th Avenue between Upas Street and A Street; Balboa Drive; Laurel Street/El Prado between 4th Avenue and Village Place; Juniper Street between 5th Avenue and 8th Avenue; Upas Street between Vermont Street and Park Boulevard. Per the City of San Diego Bicycle Master Plan, there are a few proposed bikeways in the project vicinity. A class I bike path is proposed from south end of Zoo Drive to Village Place. A class II bike lane is proposed on Park Boulevard from A Street to Upas Street. A class III bike route is proposed along Pan American Road, Presidents Way, Zoo Drive and Zoo Place. **Appendix K** show the existing and proposed bicycle facilities map within the study area.

TRANSIT

The San Diego Metropolitan Transit System (SDMTS) provides bus service in the vicinity of the project site. In the immediate study area, there is one bus route servicing the area. This route is Route 7 running primarily northbound and southbound along Park Boulevard, which provides access to the site with bus stops located at the intersections of Park Boulevard/Presidents Way, Park Boulevard/Morley Field Drive-Zoo Drive, and numerous stops along Park Boulevard within the study segment from A Street to Robinson Avenue. This route provides service seven days a week.

Other transit routes in the area include Route 3, Route 120, Route 1, Route 10 and Route 11. Both Route 120 and Route 3, both travel along 4th and 5th Avenue. Route 1, Route 10 and Route 11 traverse through University Avenue. **Appendix L** shows the current transit routes within the study area.

CONSTRUCTION ACTIVITIES

The Plaza de Panama project involves conventional construction processes and activities to safely complete demolition, site utilities, shoring, excavation, grading, structural additions, and site improvements. This includes construction of a new (Centennial) bridge, parking structure with a rooftop park, parking lot improvements, roadway improvements, elevated pedestrian/tram promenade, wet and dry underground utilities, and associated landscaping and hardscape improvements to rehabilitate the Plaza de California, West El Prado, Plaza de Panama, Esplanade, and Pan-American Road East.

The project will be constructed in the following four contiguous phases with overlap for expediency. The project is scheduled for a twenty four (24) month overall construction duration with start date pending, but intending to finish by no later than December 2014. The preliminary project schedule with proposed phasing has been evaluated by a third-party reputable San Diego general contractor and confirmed to be achievable, including additional opportunities for acceleration.

Phase I – Utility Infrastructure and Restroom Demolition (2 months)
Phase II – Centennial Bridge and Parking Structure with Rooftop Park (14 months)

Phase III – Utility Relocation, Restroom Demolition and Alcazar Lot Construction (4 months)
Phase IV - Pedestrian Tram/Promenade, Esplanade and Plazas (4 months)

The Project schedule anticipates standard working hours to be 7:00am to 3:30pm within park roads and 8:30 am to 3:30 pm within public roads, Monday through Friday, with anticipated variances from the San Diego Municipal Code for after-hours or multiple shift work (see Phasing Description below for current anticipation of these impacts and Project Schedule), though relevance of the Park as a "residential" area should be considered. Certain activities, i.e. underground utility tie-ins, shutdowns, and roadway crossings will need to occur after-hours, as scheduled, to avoid disruptions to Park activities and events. Currently, those occurrences are forecasted to be few and of minimal duration. Furthermore, the project schedule anticipates the shutdown of all construction activities during major Park events which typically occur on weekends including St. Patrick's Day Festival/Parade, Earth Fair, Rock & Roll Marathon, and December Nights. Also, in light of the Project goal of completion by the 2015 Park Centennial and other potential schedule constraints including delays caused by litigation, schedule options have been identified that require overtime and/or dual-shift activities; thus allowing mitigation of these possible impacts.

The Cabrillo Bridge is tentatively scheduled to be closed by Caltrans from January 2014 to April 2014 as part of their seismic retrofit project. Based on coordination with Caltrans' project staff to coordinate construction schedules, access and activities between the projects, it has been confirmed, by comparing the current preliminary schedules for both projects, that the timelines of each work together and avoid conflict between activities, thus minimizing impacts to each project, the Park, and Park visitors.

The Plaza de Panama preliminary Project Schedule includes the Centennial Bridge construction as one component of Phase II (the other component being the parking structure) with an overall phase duration of fourteen (14) months, or 12/12 through 01/14. However, the governing component of Phase II is the parking structure with rooftop park, which drives the overall fourteen (14) month duration, whereas, the Centennial Bridge component is only twelve (12) months of the total phase. Thus, avoiding conflict with the Caltrans activities that require closure of the Cabrillo Bridge that begin in January 2014, as the Centennial Bridge is scheduled to complete in December 2013, i.e. twelve (12) months - 12/12 to 12/13.

It is also anticipated that there would be no access related issues between the two projects. Caltrans will utilize existing access roads that front the SR 163, and the Plaza de Panama project site of the Centennial Bridge will be accessed via a separate existing route that avoids the Caltrans project limits. Both projects would share the existing access gate from SR 163 and will coordinate accordingly, but for see no conflict at this point.

As both projects proceed through the planning process, each has agreed to continue the joint project meetings/discussions in order to further refine coordination and confirm project requirements in an ongoing effort to minimize impacts to each venture, the Park, and Park visitors.

The following provides a brief description of each phase as well as the planned construction activities as it relates to access, circulation and parking. It should be noted that the following information is based on the current project design documents and is provided to assess potential construction related impacts, but is not intended to be a detailed logic schedule of activities, means, and methods.

Phase l - Utility Relocation and Road Construction: Phase I focus is on underground wet and dry utility relocation with emphasis on maintaining, at all Park operating hours or, as otherwise necessary, required services for Park institutions, activities, and visitor/employee amenities. The existing public restroom structure across from the Organ Pavilion and North of the International Cottages will be demolished. Removal of the existing restrooms then allows for partial grading of the new roadway and installation of wet and dry utilities along its alignment just East of Palm Canyon. This requires the closing of Pan American Road West from the Organ Pavilion intersection to its intersection with Pan American Place for realignment of wet utilities and natural gas. Additionally, grading will occur at the East side of the existing Organ Pavilion lot resulting in the loss of approximately seventy (70) parking stalls. Relocated electrical service will then be installed along the East edge of the new parking structure adjacent to the new roadway along the rim of Gold Gulch and up President's Way to be joined to existing utility service at the South-East corner of the intersection of President's Way and Pan American Road East.

- **Vehicular Access:** Two-way vehicular traffic will be maintained at all Park operating hours along Pan American Road East and through the Esplanade to the Plaza de Panama. Existing access in and out of the Alcazar Lot will not be impacted in this Phase. Required access to electrical switchgear and including the Japanese Friendship Gardens' Administration Building behind the Organ Pavilion, as well as, Gold Gulch, though interrupted for not longer than eight (8) hour durations at scheduled points, will otherwise be maintained.

- **Pedestrian Access:** Pedestrian access will be maintained along Pan American Road East at all Park operating hours, but diverted from the West sidewalk to the East at the intersection adjacent to the Organ Pavilion where the sidewalk continues uninterrupted along the Esplanade to the Plaza de Panama. If necessary, the sidewalk could be temporarily widened to allow for increased pedestrian capacity. In the event it is necessary to impede established pedestrian access, these activities would be coordinated with City Park and Recreation, as indicated above, to occur between the hours of 1:00 AM and 7:00 AM, and ceasing prior to start of the following work day, in order to minimize impacts to visitors and Park operations.

- **Loss of Parking:** Based on Park records, previous studies (Tilghman 2006), and most recent parking occupancy counts, there is sufficient current capacity at the Federal and Inspiration Point lots (about 770 parking spaces available on a typical weekday, based on recent parking occupancy counts) to handle the temporary loss of seventy (70) parking stalls from the Organ Pavilion lot.

- **Construction Personnel Parking:** The maximum number of construction personnel onsite during this phase would be between 25 and 30 at the peak of activity. All construction trade workers will be required to park at the lower Inspiration Point lot and be shuttled via a contractor supplied shuttle separate from the Park visitor trolley. As the lower Inspiration Point lot does not fill to capacity, except during the Park's largest events (documented at less than ten (10) per year and occurring on weekends), no ascertainable parking capacity will be lost. Based on the proposed Project working hours (7:00am to 3:30pm within park roads and 8:30 am to 3:30 pm within public roads) construction traffic will occur during non-peak park hours, thus traffic impacts will be insignificant, as the majority of "traffic" during this phase will be personnel commute and equipment will be off-roadway.

- **Construction Staging and Access:** Construction staging location will ultimately be determined upon further coordination with Park & Recreation. Several locations currently under consideration are Gold Gulch adjacent to the vacant horse stables or in a fenced area of the existing parking lot behind the Starlight Bowl (with one-way traffic maintained). All construction equipment access to the site will be from President's Way for Phase I work to avoid the public plazas. Also, standard safety practices of flagmen and signals for equipment and material movements when entering and/or crossing public areas will be strictly enforced.

- **Roadway Work**: Required activities (utility crossings, tie-ins, and kills) occurring in operational roadways will be scheduled for after-hours, coordinated with Park Administration, and in consideration of scheduled Park activities and events.

- **Way Finding:** Signage and traffic control measures will be provided throughout the impacted areas with additional notice throughout the Park as coordinated with Park Administration and Enforcement.

Phase II – Bridge and Parking Structure Construction: Phase II includes the construction of the new Centennial bypass bridge off of the existing Cabrillo (Laurel Street) Bridge and a new three-level 797-stall cast-in-place concrete parking structure at the location of the current Organ Pavilion parking lot. The proposed parking structure is three-levels or approximately 35 feet below the current grade of Pan American Road East, therefore, approximately 126,000 cubic yards of soil is to be removed from the footprint of the current Organ Pavilion lot, requiring roughly 10,400 truck-hauls of export or two months of excavation and hauling. Activity begins with demolition of existing pavement and start of excavation at the existing Organ Pavilion parking lot. Concurrent with excavation will be slope stabilization/shoring of the West elevation along Pan American Road East, this process will proceed in lifts, i.e. as levels of the exposed slope are stabilized, excavation will proceed to the next incremental level. As excavation proceeds the existing utilities, rerouted and abandoned in Phase I, will be removed as required (typical throughout all Phases). Once excavation is complete, the West elevation stabilization is complete, and the grade is certified, structural work on the parking structure begins. The parking structure construction will follow standard practices and sequencing for elevated cast-inplace concrete structures. Foundations will be earth-formed steel reinforced (rebar) concrete and the moment-frame structure will be steel reinforced concrete. Conventional formwork will lead the structure vertically and rotated for optimal material re-use. The most labor intensive activity will

be the cyclical sequence of slab/deck placement requiring large crews for placement and finishing of the concrete. Following the rise of the structure will be the less labor and equipment intensive activities of plumbing, mechanical, and electrical rough-in and finish.

The Phase II schedule, in order expedite the start of Phase III, anticipates a TCO for the parking structure once the structure is complete, operational, and life safety systems are inspected/approved. This allows relocation of visitor services from the existing Alcazar parking lot to the new parking structure and, thus, commencement of Phase III activities. At the same time, pedestrian promenade connection, finish work, landscaping, and ancillary structures will continue at the rooftop level of the parking structure. Also significant to Phase II is the Centennial Bridge construction at Cabrillo Canyon. Construction of the bridge will require access to Cabrillo Canyon from the existing gate off of State Route 163, and includes traversing existing access routes in the Canyon regularly utilized by the Archery Club. Foundation and abutment stabilization for the bridge will require removal of undocumented topsoil/fill. With grade preparation complete foundations and structure will proceed vertically. Once the vertical structure (columns) is in place, construction of the roadway section will proceed from above, however, formwork and shoring systems will continue to extend to the grade below requiring landscape restoration upon completion the bridge and removal of supports.

Depending on the magnitude of prior and/or anticipated schedule impacts, certain activities in the Phase II parking structure and bridge construction provide opportunities for recovery by utilization of overtime or dual-shift measures, as coordinated and approved by Park & Recreation, and conforming with variance requirements of the City's Municipal Code. These activities include formwork construction and placement, reinforcing steel installation, and mechanical/electrical rough-in. Also, early morning concrete placement allows opportunity for acceleration, as well as, reduction of traffic and visual impacts during prime Park hours.

- **Vehicular Access:** With continued activities (completion of retaining walls, establishment of grade, and new roadway improvements) along Pan American Road West, two-way vehicular traffic will continue along Pan American Road East and through the Esplanade to the Plaza de Panama. Existing access in and out of the Alcazar Lot will be maintained during this Phase. Construction access, access to electrical switchgear and including the Japanese Friendship Gardens' Administration Building behind the Organ Pavilion, as well as, Gold Gulch, though interrupted for not longer than eight (8) hour durations at scheduled points, will otherwise be provided along the East side of the parking structure site.

- **Pedestrian Access:** Pedestrian access will be protected and maintained along Pan American Road East at all Park operating hours, but diverted from the West sidewalk to the East at the intersection adjacent to the Organ Pavilion where the sidewalk continues uninterrupted along the East side of the Esplanade to the Plaza de Panama. Pedestrian access along the Cabrillo (Laurel Street) Bridge will be protected and maintained, with only minimal diversion during removal of the existing railing, tie-in of the new roadway, and associated improvements. . In the event it is necessary to impede established pedestrian access, these activities would be coordinated with City Park and Recreation, as indicated above, to occur between the hours of 1:00 AM and 7:00 AM.

- **Loss of Parking:** Based on Park records and previous parking studies (Tilghman 2006), and recent parking occupancy studies, there is sufficient current capacity at the Federal and Inspiration Point lots (about 770 parking spaces available on a typical weekday, based on recent parking occupancy counts) to handle the temporary loss of an additional 297 parking stalls from the Organ Pavilion lot. In the event overtime or dual-shift activities are incorporated, it would be proposed that these activities take place ahead of standard working hours, i.e. 11:00pm to 7:30am, to lessen the impact to evening Park activities and parking demands.

- **Tram Service:** In order to further accommodate visitor and employee parking displaced to the Inspiration Point lot, a tram operation will be implemented in Phase II, as part of the project cost, to ferry employees and visitors back-and-forth from the Inspiration Point lot to the Plaza de Panama with stops at the Pan-American Lot for those parking at the Federal and Pan-American lots. Hours of operation for the tram, though yet to be finalized with Park & Recreation, will be between the hours of 6:30am and midnight daily with flexibility in consideration of weekday versus weekend and special event scheduling (for extending beyond these hours). Signage indicating tram routes, hours, and services will be provided throughout the park.

- **Construction Personnel Parking:** The maximum number of construction personnel onsite at any one time during this phase would be between 120 and 135 at the peak of activity. All construction trade workers will be required to park at the lower Inspiration Point lot and shuttled via contractor supplied shuttle, separate from the Park visitor trolley and trams. As the lower Inspiration Point lot does not fill to capacity, except during the Park's largest events (documented at less than ten (10) per year and occurring on weekends), no ascertainable parking capacity will be lost.

- **Construction Staging and Access:** Construction staging will remain as determined during Phase I, unless otherwise relocated per Park & Recreation direction. All construction equipment access to the site will be from President's Way, to avoid the public plazas, with the exception of Bridge construction which may be more effectively accessed via Laurel Street. Access by construction equipment from Laurel Street across the Cabrillo Bridge would occur after-hours. Otherwise, standard safety practices of flagmen and signals for equipment and material movements when entering and/or crossing public areas will be strictly enforced.

- **Export Hauling:** The hauling of spoils export is scheduled to occur during a two month period with minimal impact to the Park core activities and Institutions as the majority of the material is coming from the Organ Pavilion lot with immediate access to President's Way and Park Boulevard. The operation currently anticipates fleets of 20 to 25 on-road haul trucks cycling every 45 to 60 minutes between the project site and the Arizona Landfill. This equates to about 400 daily truck trips (200 inbound/200 outbound) along Park Boulevard, Zoo Place, Florida Drive and Pershing Drive. No significant impacts were calculated at the key haul route intersections due to the additional 400 daily truck

trips during construction. No truck traffic within morning or afternoon commute hours will be allowed. The truck trips related to concrete pouring for the construction of Centennial Bridge and parking structure occur at different stages than the export hauling operations and are estimated to generate less than 400 ADT's (approx.. 126 ADT's) thus no additional impacts were calculated on the roadways. **Appendix M** contains the project area haul route intersection analysis.

- **Roadway Work**: Required activities occurring in operational roadways will be scheduled for after-hours, coordinated with Park administration, and in consideration of scheduled Park activities and events.

- **Way Finding:** Signage and traffic control measures will be provided throughout the impacted areas with additional notice throughout the Park as coordinated with Park Administration and Enforcement.

Phase III – Utility Relocation, Restroom Demolition and Alcazar Lot Construction: Phase III begins once the new parking structure is operational. This phase of the project will involve demolition, re-grading for ADA, and replacement of the existing Alcazar parking lot, including tie-in to the new bypass bridge roadway; realignment of the connector road from the Alcazar lot to Pan-American Road; associated retaining walls to allow grade separation between the vehicular roadway and pedestrian/tram promenade; and improvements to Pan-American Road East fronting the new Parking Structure which includes the pedestrian promenade bypass from the Parking Structure rooftop level to the Esplanade.

- **Vehicular Access:** Two-way traffic would be maintained along Pan-American Road East, along the Pedestrian/Tram Promenade, and over the tunnel. Access to the Alcazar parking lot would be closed during this phase.

- **Pedestrian Access:** Pedestrian access will be through the new rooftop park above the parking structure past the Organ Pavilion where the sidewalk continues uninterrupted along the East side of Esplanade to the Plaza de Panama. Pedestrian access along the Cabrillo (Laurel Street) Bridge will be not be impacted during this face, though the new Centennial bypass bridge will not yet be open and all pedestrian access will be through the West El Prado and Plazas.

- **Loss of Parking:** With the new parking structure open, there will be no impact to available parking capacity and ADA parking removed from the Alcazar parking lot will be available in the Plaza de Panama, Pan-American lot, various ancillary lots, or the new parking structure. It should be noted that access to the parking structure during this phase will be only from Park Boulevard/Presidents Way.

- **Tram Service:** The tram will continue operation during Phase III with service between the Inspiration Point lot and the Plaza de Panama for those not choosing to pay for parking in the new parking structure and including stops at the Pan-American lot for those parking at the Federal and Pan-American lots. Hours of operation for the tram, though yet to be finalized with Park & Recreation, will be between the hours of 6:30am and midnight daily with flexibility in consideration of weekday versus weekend and special event scheduling. Signage indicating tram routes, hours, and services will be provided throughout the park.

- **Construction Personnel Parking:** The maximum number of construction personnel onsite at any one time during this phase would be approximately 100 during the first 1-1/5 months while the rooftop park is completed then drop to approximately 30 to 40 for remaining Alcazar lot improvements. All construction trade workers will be required to park at the lower Inspiration Point lot and shuttled via contractor supplied shuttle, separate from the Park visitor trolley and trams. As the lower Inspiration Point lot does not fill to capacity, except during the Park's largest events (documented at less than ten (10) per year and occurring on weekends), no ascertainable parking capacity will be lost. Based on the proposed Project working hours (7:00am to 3:30pm within park roads and 8:30 am to 3:30 pm within public roads) construction commute traffic will occur during non-peak park hours. (Reference: Tilghman 2006)

- **Construction Staging and Access:** Construction staging will remain as determined during Phase I, unless otherwise relocated per Park & Recreation direction. All construction equipment access to the site will be from President's Way, to avoid the public plazas. Access for construction equipment to the Alcazar lot would occur after-hours. Otherwise, standard safety practices of flagmen and signals for equipment and material movements when entering and/or crossing public areas will be strictly enforced.

- **Roadway Work**: Required activities occurring in operational roadways will be scheduled for after-hours, coordinated with Park administration, and in consideration of scheduled Park activities and events.

- **Way Finding:** Signage and traffic control measures will be provided throughout the impacted areas with additional notice throughout the Park as coordinated with Park Administration and Enforcement.

Phase IV – Pedestrian/Tram Promenade Esplanade and Plaza Improvements: This phase of the project consists of demolition of existing pavement, hardscape, landscape, and fixtures; finish grading; site utilities, and site improvements including hardscape and landscape to rehabilitate the Plaza de California, El Prado West, Plaza de Panama, and the Esplanade. This work, to be completed successfully and with minimal impacts to the visitor experience and Institutions operations, will need to be tightly coordinated and executed in phases as determined based on the final design and input from the Institutions and Park & Recreation.

- **Vehicular Access:** With the completion of Phase III improvements, permanent vehicular circulation through the Park will be restored along the new roadway. Public vehicular traffic will be eliminated from the Plaza de California, West El Prado, Plaza de Panama, and Esplanade. Public access heading East from the Cabrillo (Laurel Street) Bridge will now divert, via the Centennial Bridge, passed the new Alcazar ADA parking lot, along the grade separated roadway, under the pedestrian/tram promenade, behind the Organ Pavilion, around the East side of the new parking structure, intersect with President's Way, and, from there, East to Park Boulevard or West to Pan-American Plaza.

- **Pedestrian Access:** Pedestrian access from President's Way and the Pan American lot at the South will be across the new rooftop park and through the Organ Pavilion. Continuing North, pedestrian access will be diverted to the East side of the Esplanade and up through the perimeter and existing arcades bordering the Plaza de Panama, West El Prado, and Plaza de California. Pedestrian routes through the Plaza de Panama, West El Prado, and Plaza de California will alternate with the phasing of this work, but the phasing is intended to maintain continuous, protected access to the Institutions during Phase IV. Additionally, pedestrian access across the new Centennial Bridge and through the Alcazar lot will allow visitors to divert the Plazas altogether for direct access to Palm Canyon and the Palisades area of the Park.

- **Loss of Parking:** ADA and standard parking lost in the Plaza de Panama will be increased by the completed Alcazar ADA lot and the new parking structure. Valet and visitor drop-off will also occur in the completed Alcazar lot.

- **Tram Service:** The tram will continue operation during Phase IV with service between the Inspiration Point lot and the Plaza de Panama for those not choosing to pay for parking in the new parking structure and including stops at the Pan-American Lot for those parking at the new parking structure, Federal and Pan-American lots. Phasing of construction activities along the Esplanade and in the Plaza de Panama will allow for required and continuous tram access. Hours of operation for the tram, though yet to be finalized with Park and Recreation, will be between the hours of 6:30am and midnight daily with flexibility in consideration of weekday versus weekend and special event scheduling. Signage indicating tram routes, hours, and services will be provided throughout the park.

- **Construction Personnel Parking:** The maximum number of construction personnel onsite at any one time during this phase would be approximately 40 to 50. All construction trade workers will be required to park at the lower Inspiration Point lot and shuttled via contractor supplied shuttle, separate from the Park visitor trolley and trams. As the lower Inspiration Point lot does not fill to capacity, except during the Park's largest events (documented at less than ten (10) per year and occurring on weekends), no ascertainable parking capacity will be lost. Based on the proposed Project working hours (7:00am to 3:30pm within park roads and 8:30 am to 3:30 pm within public roads) construction commute traffic will occur during non-peak Park hours. (Reference Tilghman 2006)

- **Vehicular Access:** With the completion of Phase III improvements, permanent vehicular circulation through the Park will be restored along the new roadway. Public vehicular traffic will be eliminated from the Plaza de California, West El Prado, Plaza de Panama, and Esplanade. Public access heading East from the Cabrillo (Laurel Street) Bridge will now divert, via the Centennial Bridge, passed the new Alcazar ADA parking lot, along the grade separated roadway, under the pedestrian/tram promenade, behind the Organ Pavilion, around the East side of the new parking structure, intersect with President's Way, and, from there, East to Park Boulevard or West to Pan-American Plaza.

- **Pedestrian Access:** Pedestrian access from President's Way and the Pan American lot at the South will be across the new rooftop park and through the Organ Pavilion. Continuing North, pedestrian access will be diverted to the East side of the Esplanade and up through the perimeter and existing arcades bordering the Plaza de Panama, West El Prado, and Plaza de California. Pedestrian routes through the Plaza de Panama, West El Prado, and Plaza de California will alternate with the phasing of this work, but the phasing is intended to maintain continuous, protected access to the Institutions during Phase IV. Additionally, pedestrian access across the new Centennial Bridge and through the Alcazar lot will allow visitors to divert the Plazas altogether for direct access to Palm Canyon and the Palisades area of the Park.

- **Loss of Parking:** ADA and standard parking lost in the Plaza de Panama will be increased by the completed Alcazar ADA lot and the new parking structure. Valet and visitor drop-off will also occur in the completed Alcazar lot.

- **Tram Service:** The tram will continue operation during Phase IV with service between the Inspiration Point lot and the Plaza de Panama for those not choosing to pay for parking in the new parking structure and including stops at the Pan-American Lot for those parking at the new parking structure, Federal and Pan-American lots. Phasing of construction activities along the Esplanade and in the Plaza de Panama will allow for required and continuous tram access. Hours of operation for the tram, though yet to be finalized with Park and Recreation, will be between the hours of 6:30am and midnight daily with flexibility in consideration of weekday versus weekend and special event scheduling. Signage indicating tram routes, hours, and services will be provided throughout the park.

- **Construction Personnel Parking:** The maximum number of construction personnel onsite at any one time during this phase would be approximately 40 to 50. All construction trade workers will be required to park at the lower Inspiration Point lot and shuttled via contractor supplied shuttle, separate from the Park visitor trolley and trams. As the lower Inspiration Point lot does not fill to capacity, except during the Park's largest events (documented at less than ten (10) per year and occurring on weekends), no ascertainable parking capacity will be lost. Based on the proposed Project working hours (7:00am to 3:30pm within park roads and 8:30 am to 3:30 pm within public roads) construction commute traffic will occur during non-peak Park hours. (Reference Tilghman 2006)

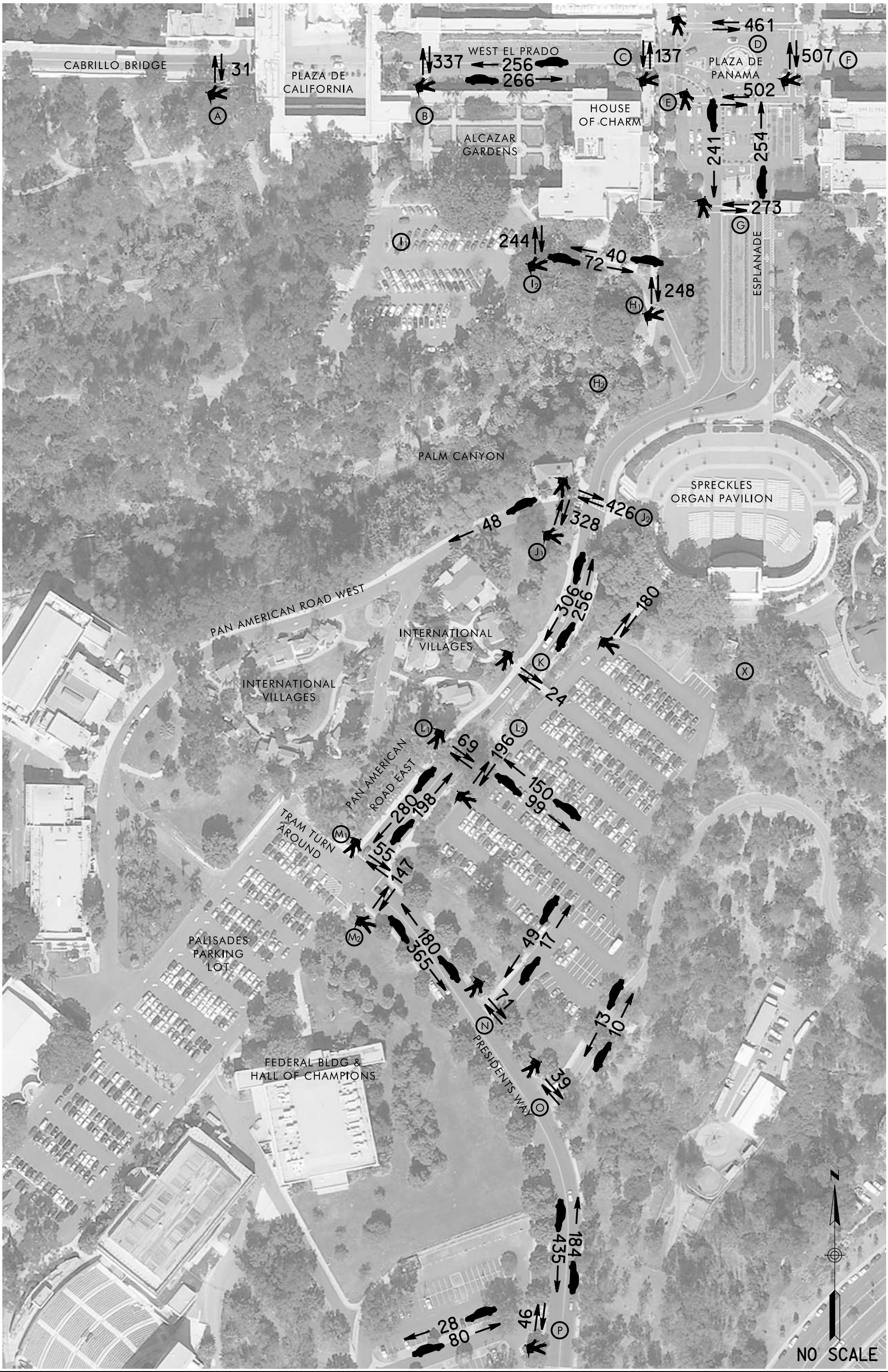

EXHIBIT 117

EXISTING PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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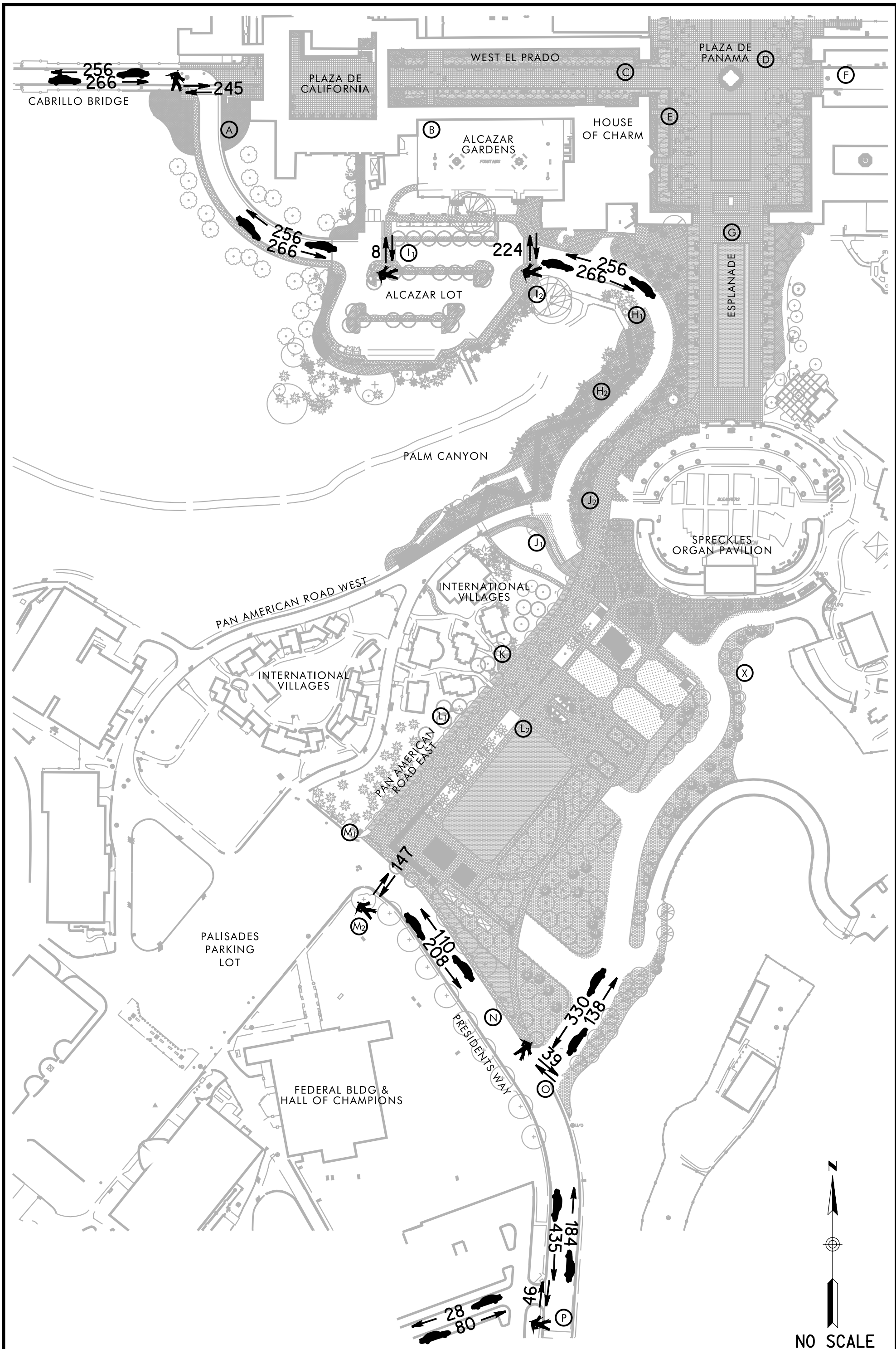

EXHIBIT 118

EXISTING WITH PROPOSED PROJECT PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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Vehicle/pedestrian conflict areas were also estimated for all the other Alternatives as shown in **Exhibits 119** through **Exhibit 129.** A tabular summary of the existing, proposed project and project alternatives are shown in **Table 191.** This table shows the greatest reduction in vehicle/pedestrian conflict volumes (as compared to existing) for Alternative 3B (86% reduction) and the smallest reduction for Alternative 4Biii (6% reduction).

In addition to the goal of reducing pedestrian and vehicle conflicts within the park, an assessment of vehicular queuing was also conducted for all the alternatives at the El Prado/Plaza de Panama and El Prado/Centennial Road intersections, where applicable to determine if extensive queues would affect the overall circulation within these areas. For this queuing assessment, this would only apply to the proposed project and the following alternatives, where either of these two intersections exist/are proposed:

- Alternative 2
- Alternative 4Ai
- Alternative 4Aii
- Alternative 4Bii
- Alternative 4Biii
- Alternative 4Biv

The results of this assessment show that the queues at the El Prado/Centennial Bridge intersection were estimated to be a little less than 150 feet for the northbound and eastbound approaches of this intersection for the proposed project. This same also applies to Alternative 4Ai and Alternative 4Aii.

Alternative 2 and Alternative 4Bii showed an estimated queue of about 110 feet for the eastbound approach of the El Prado/Plaza de Panama intersection.

Alternative 4Biii had an estimated queue of about 300 feet for the northbound approach and over 1300 feet for the eastbound approach of the El Prado/Plaza de Panama intersection. These extensive queues are primarily due to the vehicle and pedestrians conflicts introduced at this intersection, as well as the additional intersection conflicts created by the nearby tram stops and valet areas for this particular scenario.

Alternative 4Biv had an estimated queue of 60 feet for the northbound approach and about 180 feet for the eastbound approach of the El Prado/Plaza de Panama intersection.

Table 192 shows the queue summary at the El Prado/Plaza de Panama intersection. **Appendix P** contains these El Prado/Centennial Bridge and El Prado/Plaza de Panama queue calculation sheets.

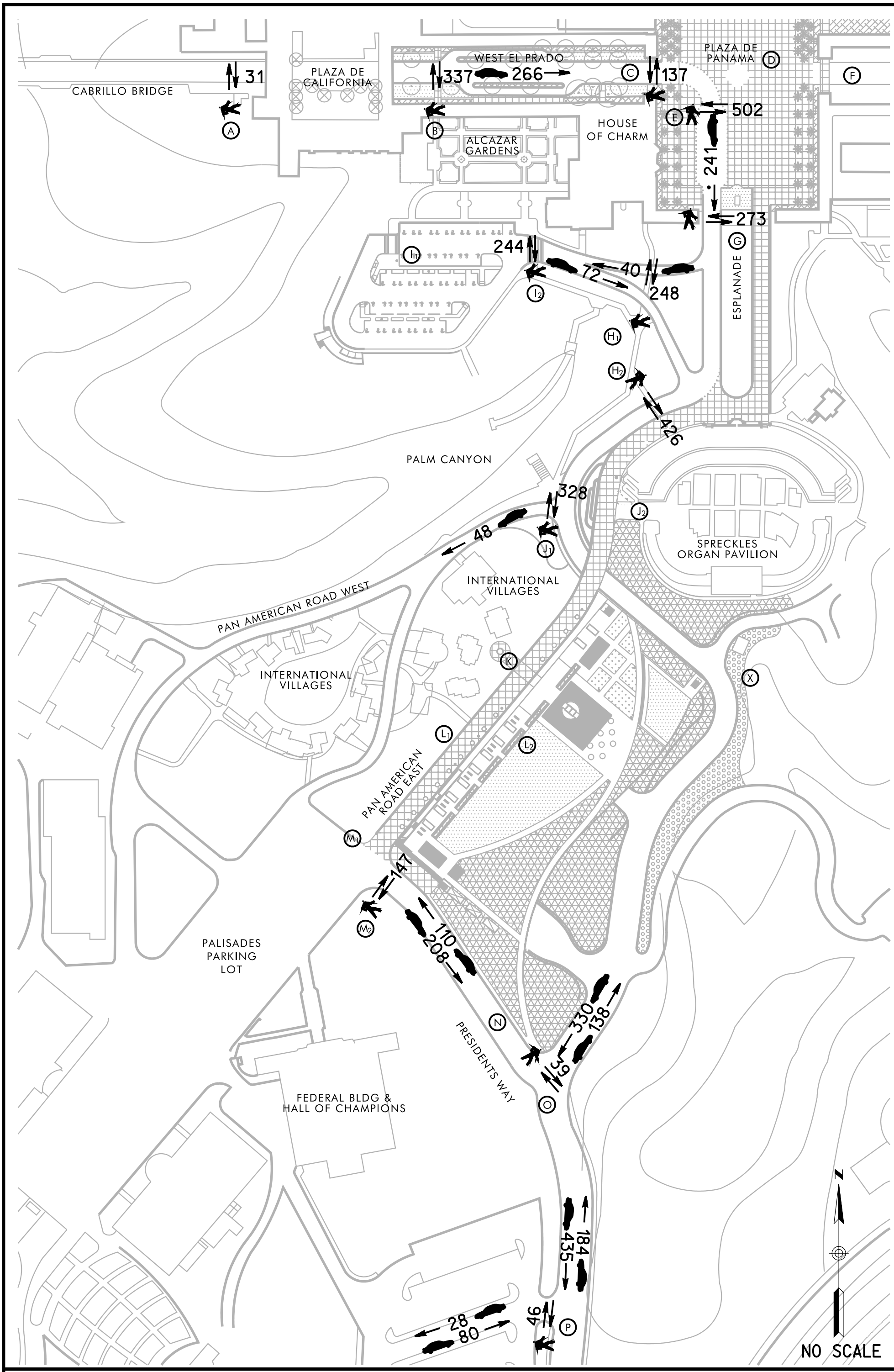

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EXHIBIT 119

EXISTING WITH PRECISE PLAN PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

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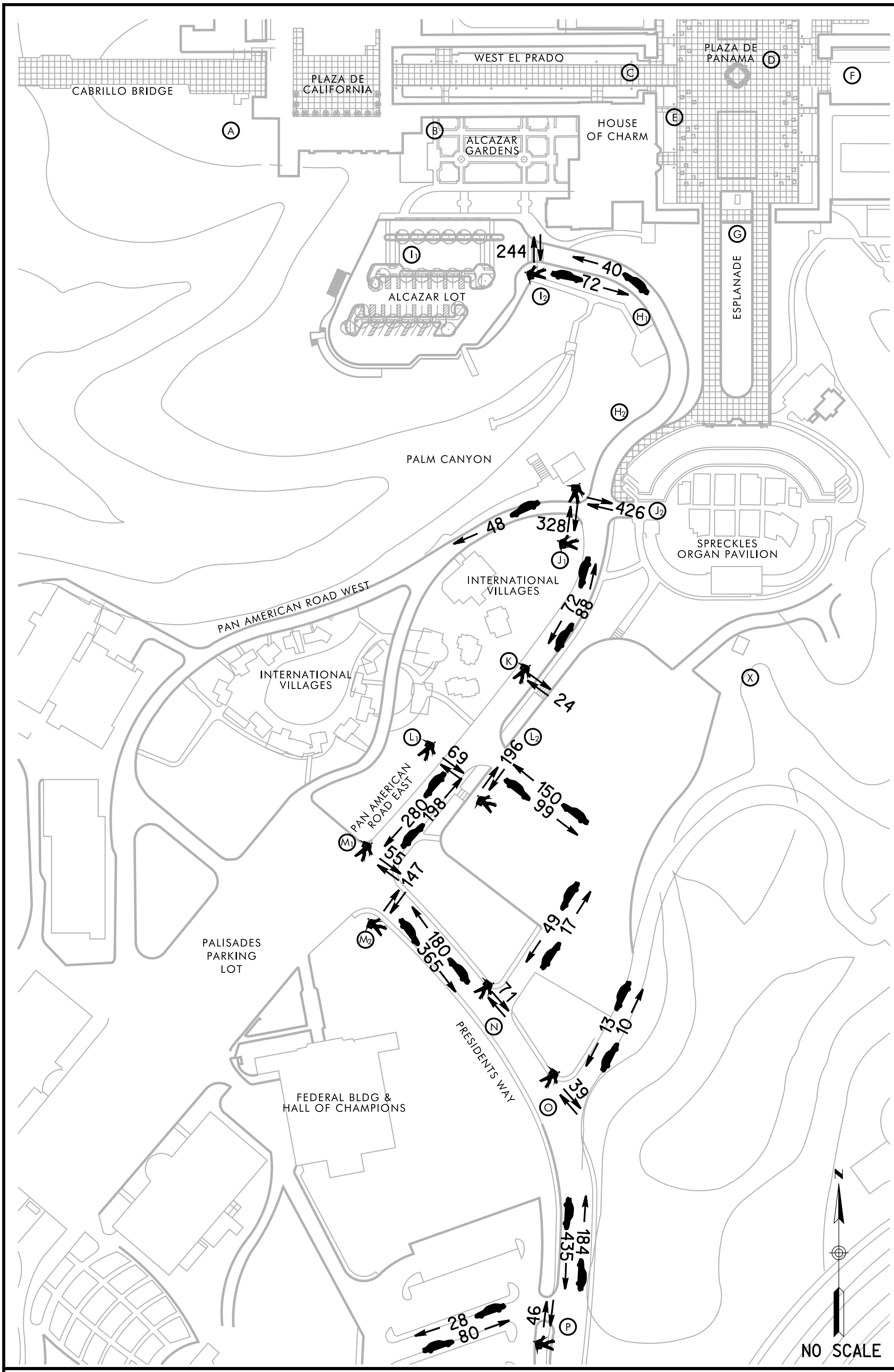

EXHIBIT 120

EXISTING WITH PROJECT ALTERNATIVE 3A PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

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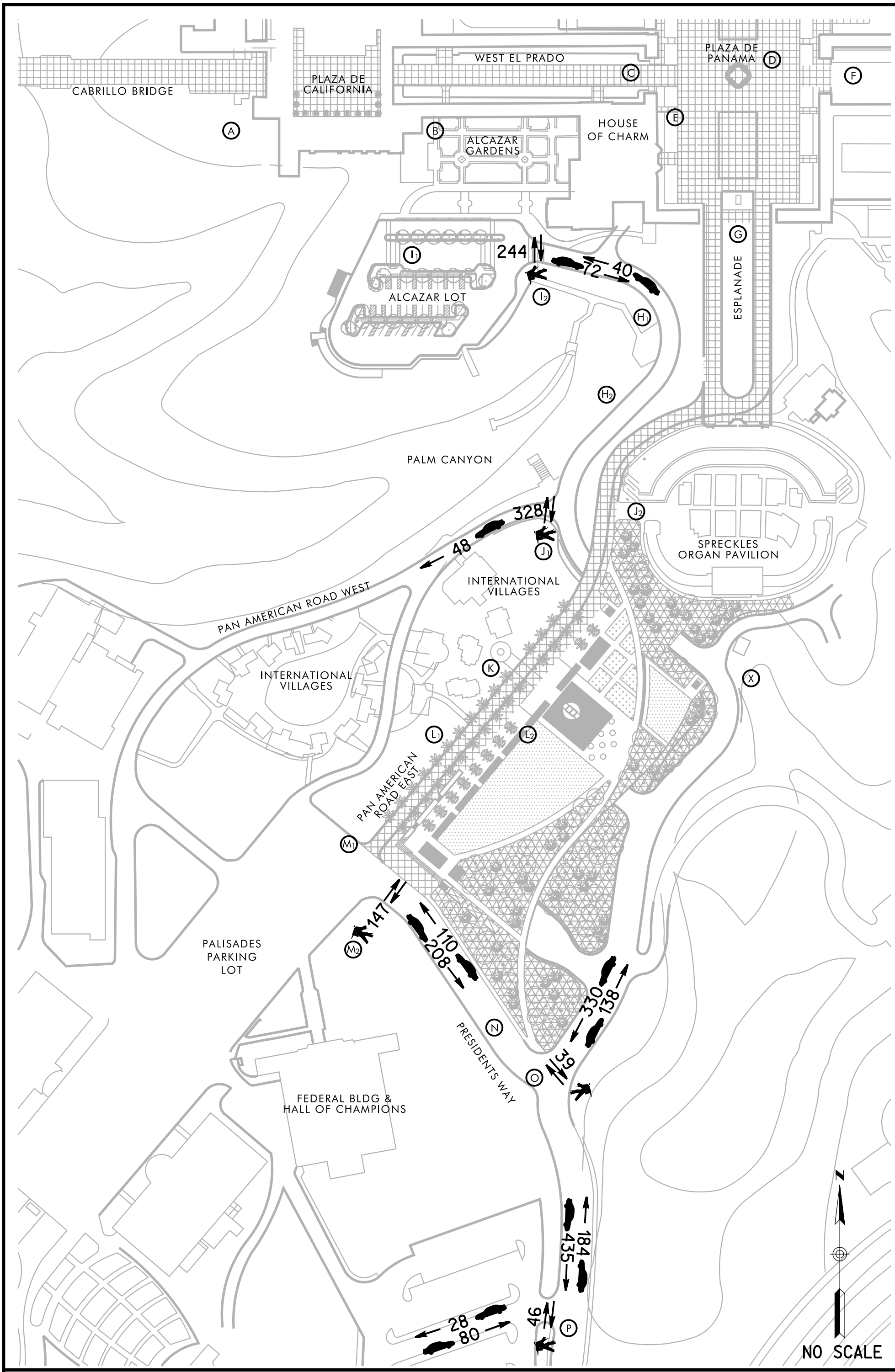

EXHIBIT 121

EXISTING WITH PROJECT ALTERNATIVE 3B PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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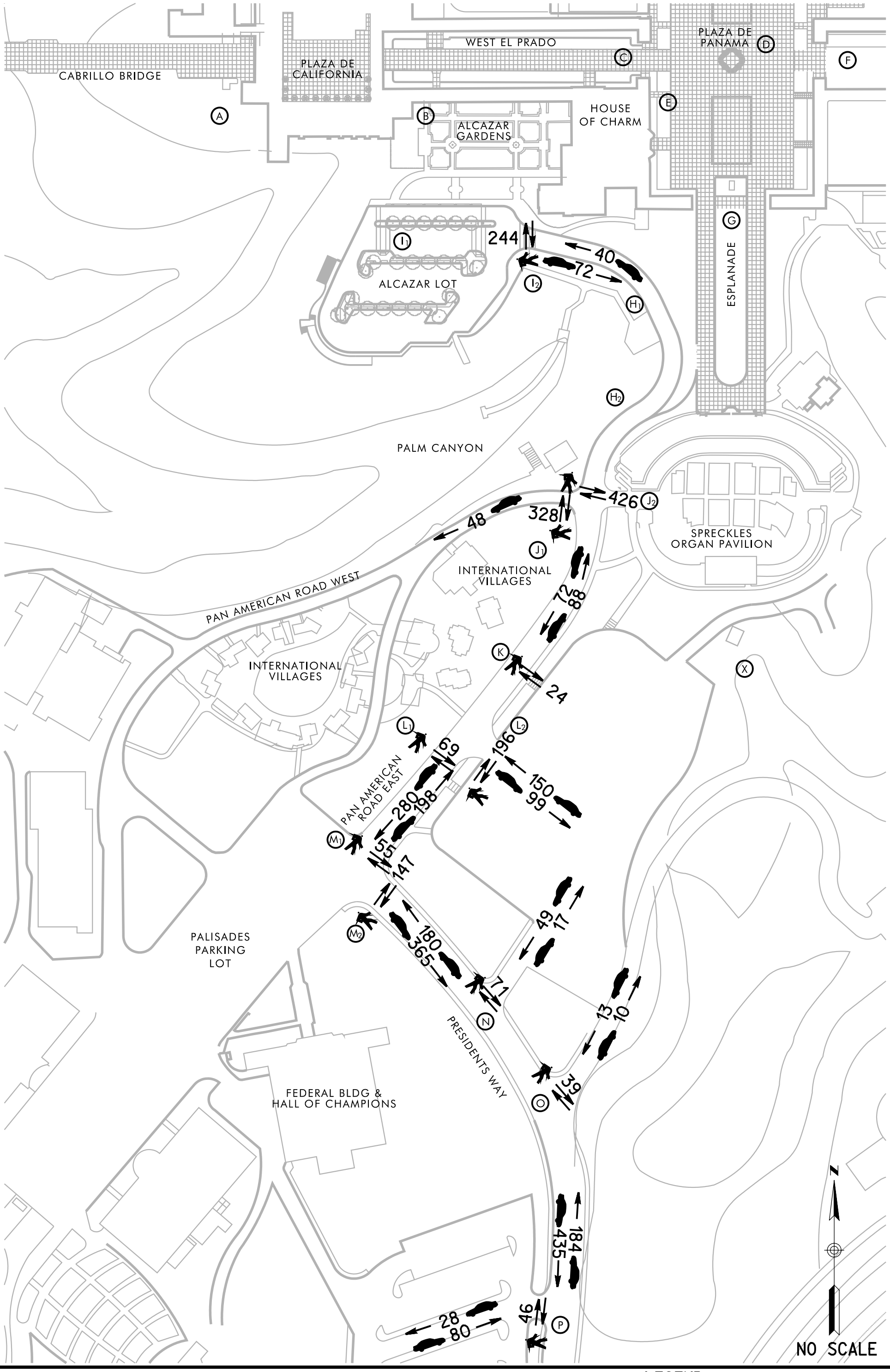

EXHIBIT 122

EXISTING WITH PROJECT ALTERNATIVE 3C PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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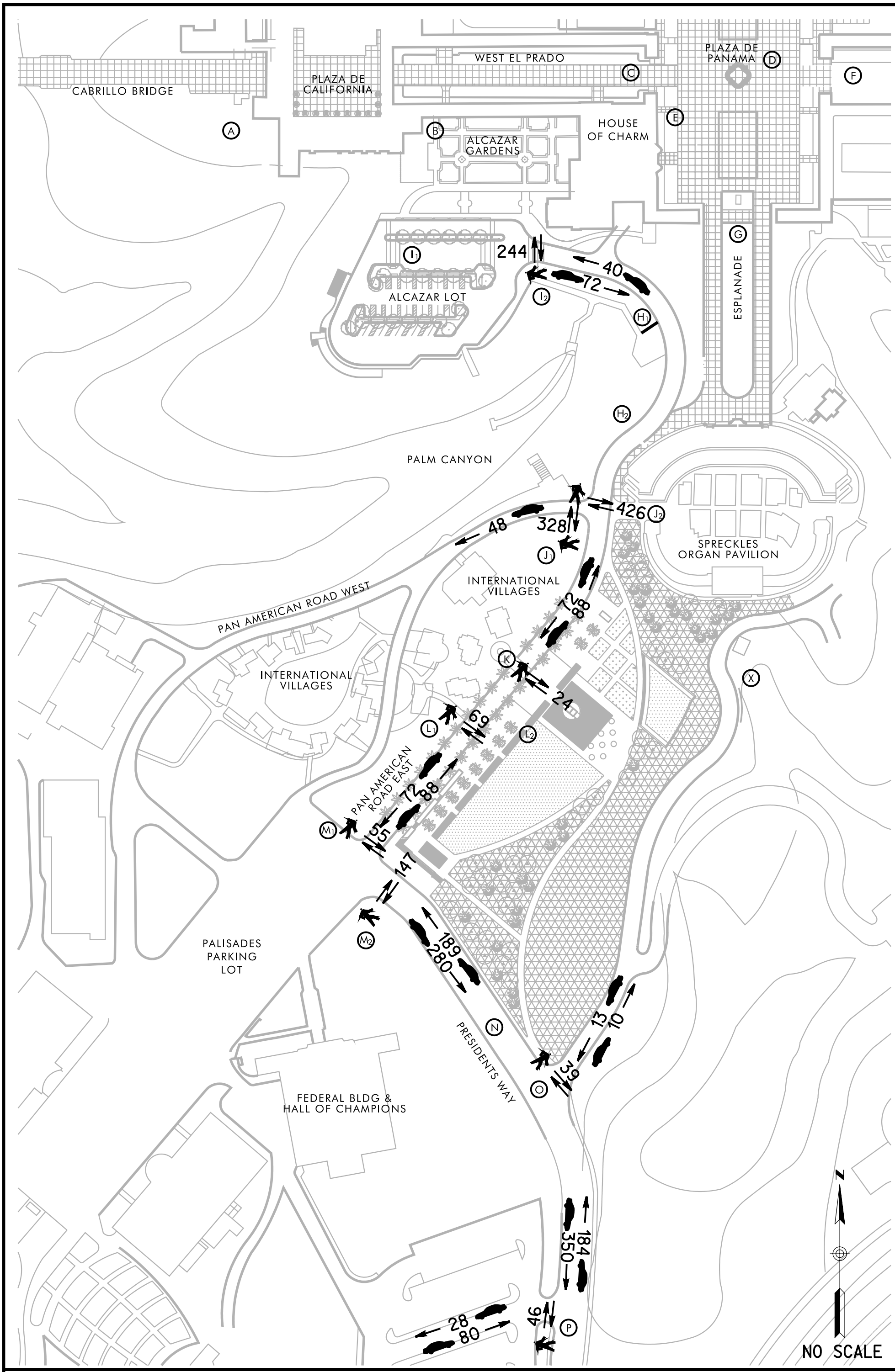

EXHIBIT 123

EXISTING WITH PROJECT ALTERNATIVE 3D PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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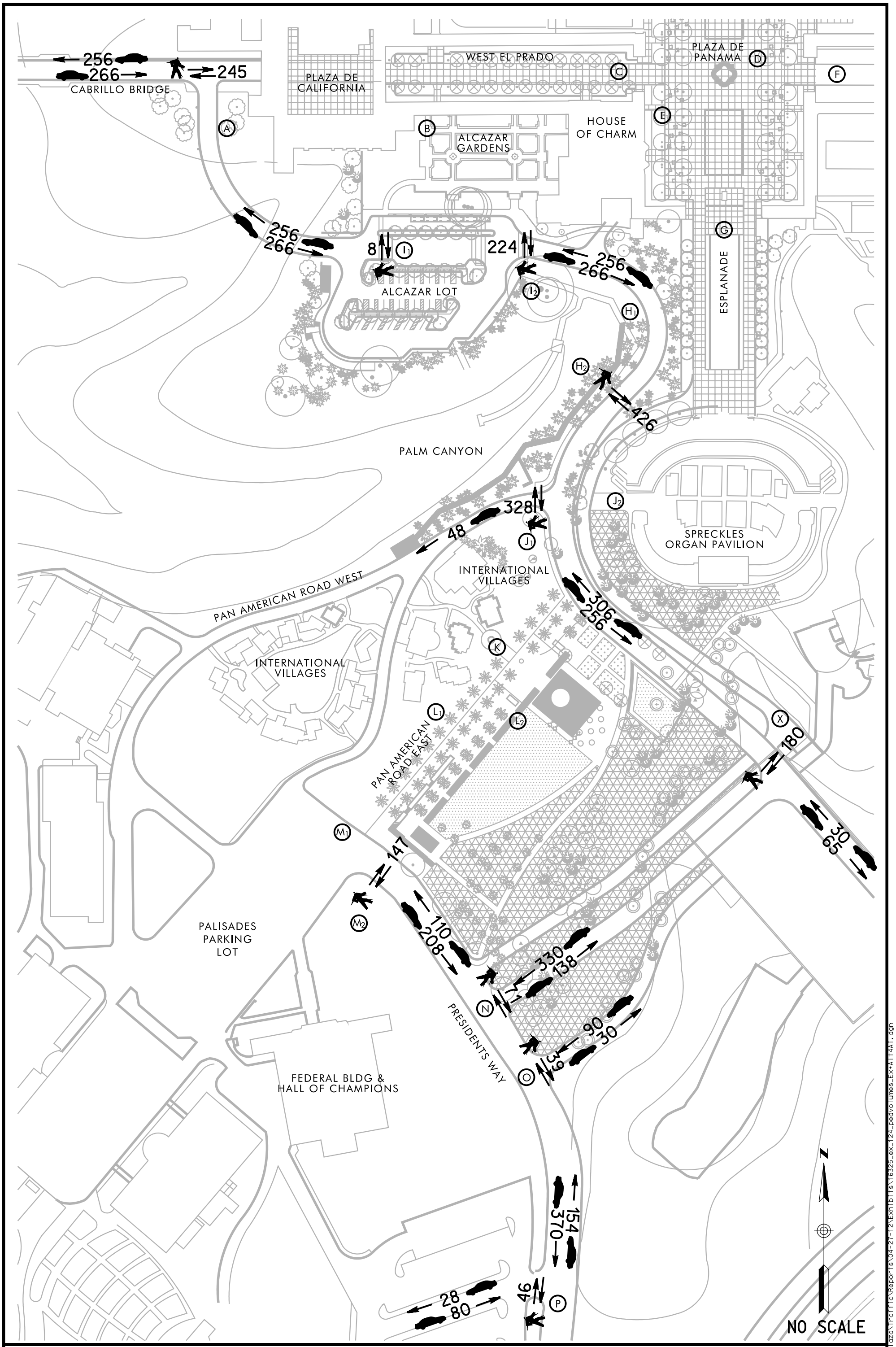

EXHIBIT 124

EXISTING WITH PROJECT ALTERNATIVE 4Ai PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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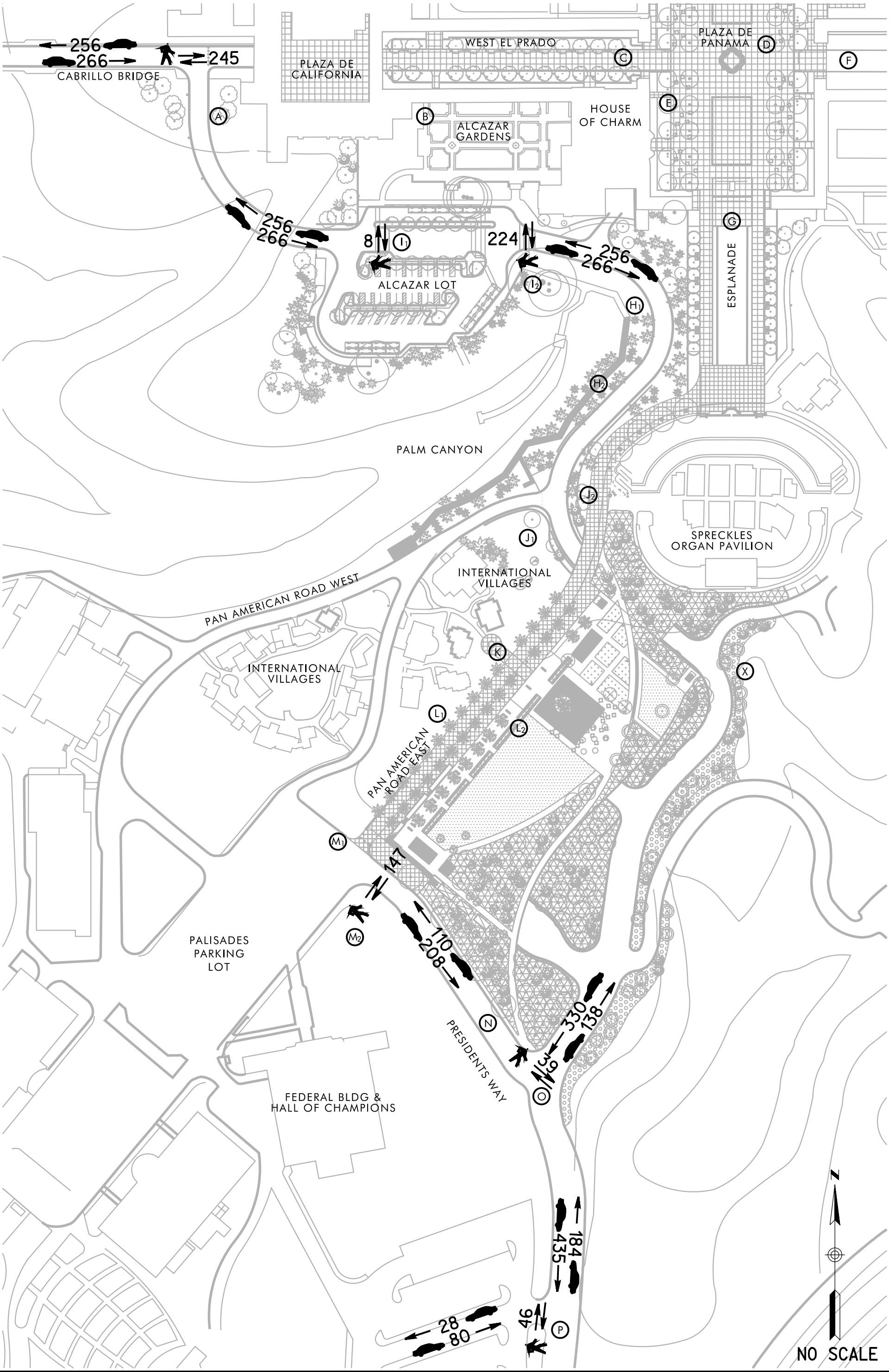

EXHIBIT 125

EXISTING WITH PROJECT ALTERNATIVE 4Aii PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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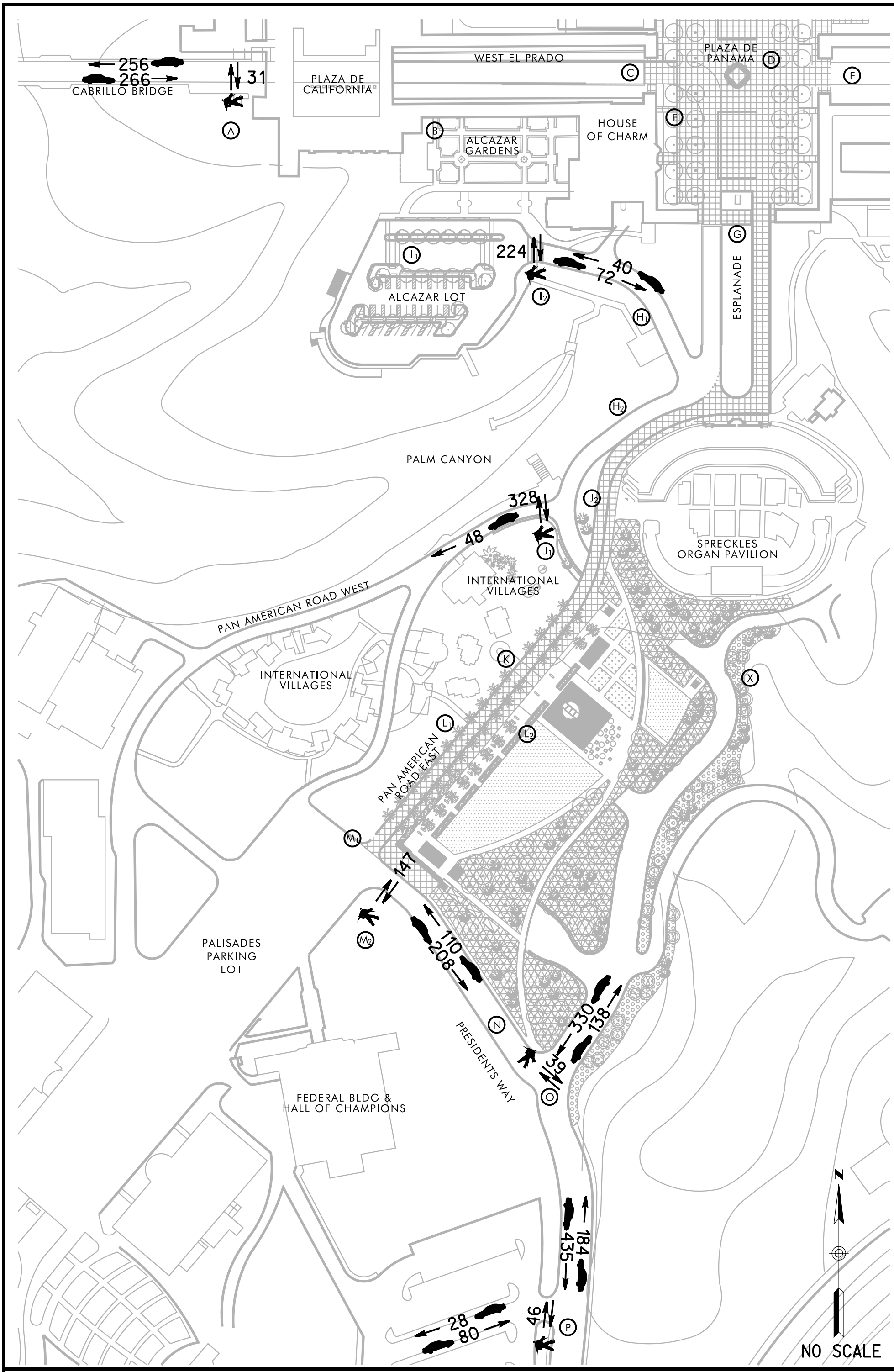

EXHIBIT 126

EXISTING WITH PROJECT ALTERNATIVE 4Bi PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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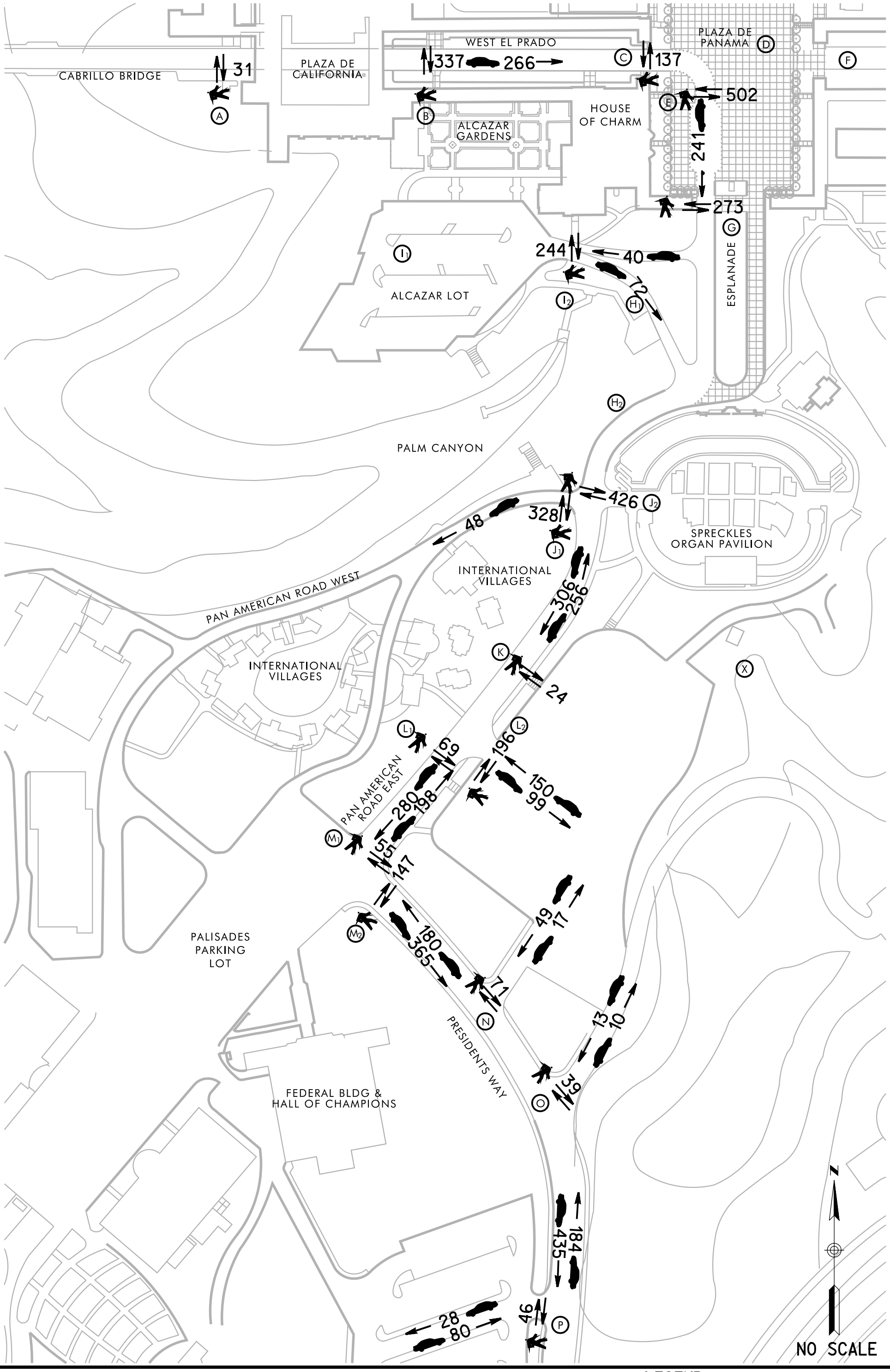

EXHIBIT 127

EXISTING WITH PROJECT ALTERNATIVE 4Bii PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

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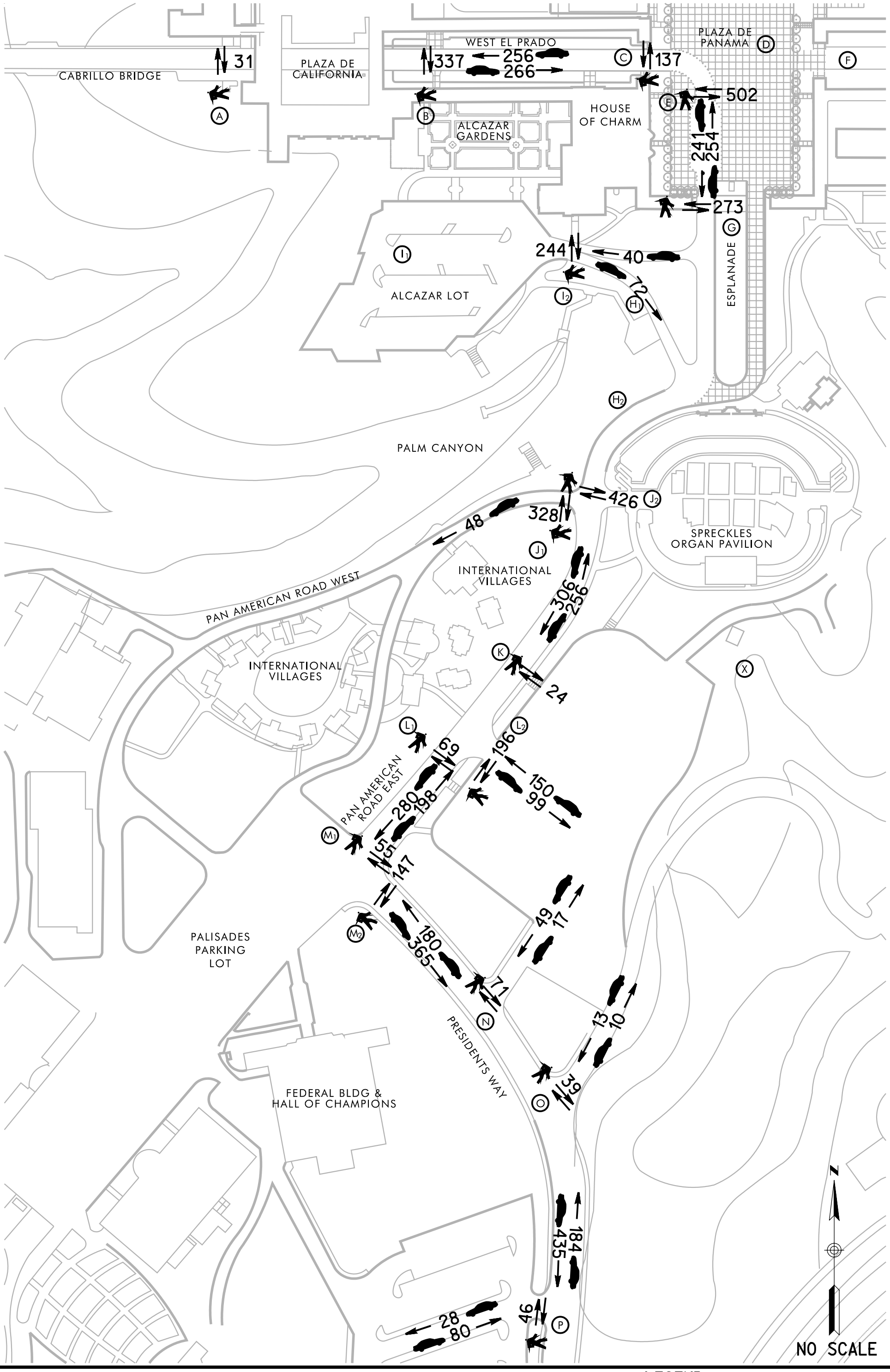

EXHIBIT 128

EXISTING WITH PROJECT ALTERNATIVE 4Biii PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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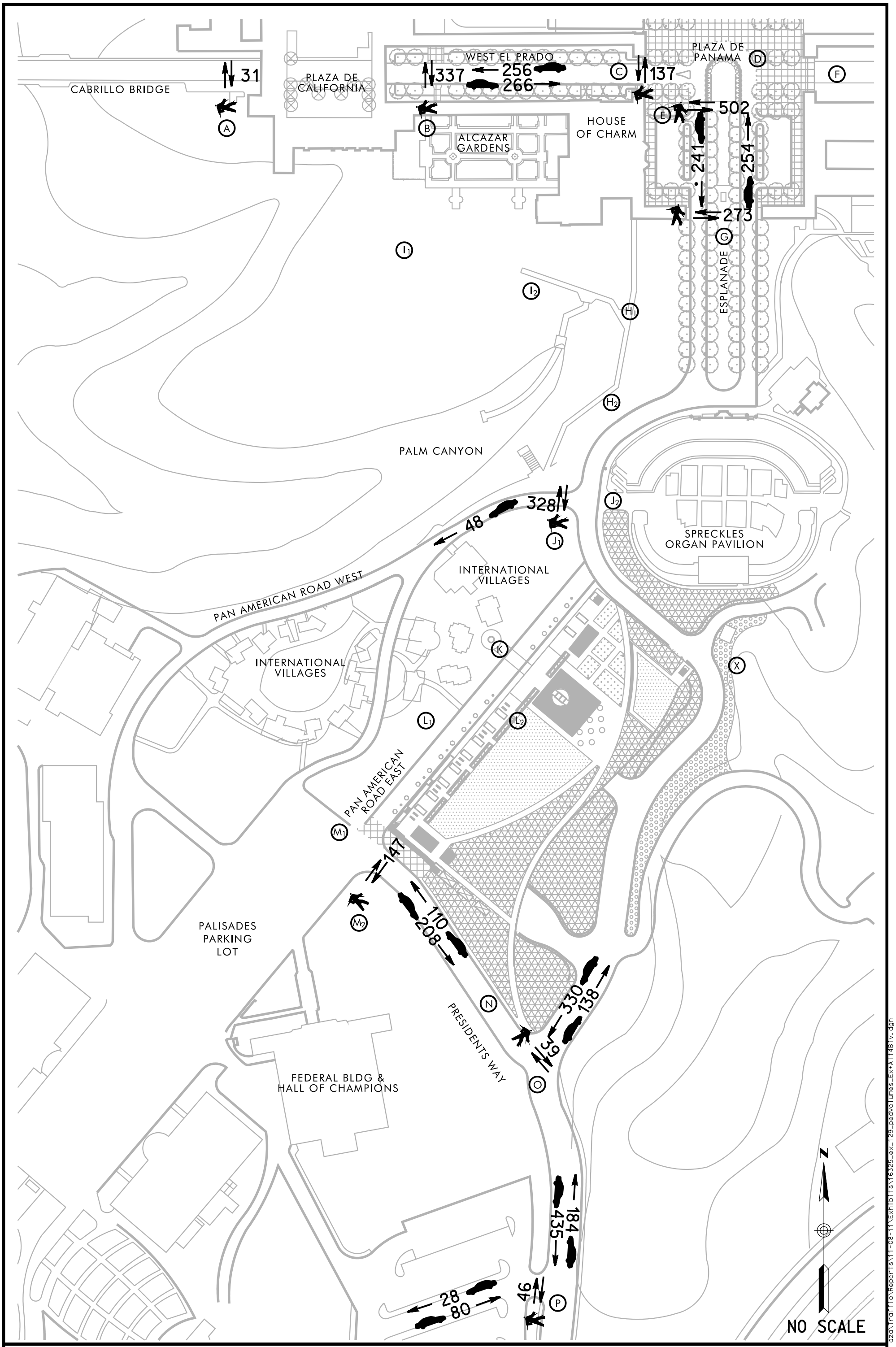

EXHIBIT 129

EXISTING WITH PROJECT ALTERNATIVE 4Biv PEAK HOUR VOLUMES (SATURDAY)

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= PEDESTRIANS PER HOUR

= VEHICLES PER HOUR

RICK ENGINEERING COMPANY

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21-NOV-2011 13:37

TABLE 191
VEHICLE/PEDESTRIAN CONFLICT SUMMARY
SATURDAY 4PM - 5PM

Location		Existing			Proposed Project			Alternative 2			Alternative 3A			Alternative 3B			Alternative 3C			Alternative 3D		
Area	**Description**	**Veh**	**Ped**	**Total**	**Veh**	**Ped**	**Total**	**Veh**	**Ped**	**Total**	**Veh**	**Ped**	**Total**	**Veh**	**Ped**	**Total**	**Veh**	**Ped**	**Total**	**Veh**	**Ped**	**Total**
A	El Prado just east of Cabrillo Bridge	522	31	553	522	245	767	266	31	297	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
B	El Prado just east of Plaza de California	522	337	859	NA	NA	NA	241	337	578	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C	El Prado just west of Plaza de Panama	522	137	659	NA	NA	NA	241	137	378	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
D	North portion of Plaza de Panama	155	461	616	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E_1	South portion of Plaza de Panama crossing the southbound traffic	241	502	743	NA	NA	NA	241	502	743	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E_2	South portion of Plaza de Panama crossing the northbound traffic	254	502	756	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F	East of Plaza de Panama	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G_1	South of Plaza de Panama crossing the southbound traffic	241	273	514	NA	NA	NA	241	273	514	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G_2	South of Plaza de Panama crossing the northbound traffic	254	273	527	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_1	West of Alcazar Garden Lot Driveway entrance	112	248	360	NA	NA	NA	112	248	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
H_2	Palm Canyon to Spreckles Organ Pavilion crossing	NA	NA	NA	NA	NA	NA	241	426	667	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I_1	Alcazar Garden Lot West Crossing	NA	NA	NA	522	8	530	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I_2	East of Alcazar Garden Lot Driveway exit	112	244	356	522	224	746	112	244	356	112	244	356	112	244	356	112	244	356	112	244	356
J_1	Crossing Pan American Road West at corner of Pan American Road and Pan American Road West	48	328	376	NA	NA	NA	48	328	376	48	328	376	NA	NA	NA	48	328	376	48	328	376
J_2	Crossing Pan American Road at corner of Pan American Road and Pan American Road West	602	426	1028	NA	NA	NA	NA	NA	NA	160	426	586	NA	NA	NA	160	426	586	160	426	586
K	Crossing Pan American Road north of Organ Pavilion Lot northwest entrance	508	24	532	NA	NA	NA	NA	NA	NA	508	24	532	NA	NA	NA	508	24	532	160	24	184
L_1	Crossing Pan American Road at the northwest entrance of Organ Pavilion Lot	508	69	577	NA	NA	NA	NA	NA	NA	508	69	577	NA	NA	NA	508	69	577	160	69	229
L_2	Crossing Organ Pavilion Lot entrance	249	196	445	NA	NA	NA	NA	NA	NA	249	196	445	NA	NA	NA	249	196	445	NA	NA	NA
M_1	Crossing Pan American Road at corner of Presidents Way and Pan American Road	481	55	536	NA	NA	NA	NA	NA	NA	481	55	536	NA	NA	NA	481	55	536	160	55	215
M_2	Crossing Presidents Way at corner of Presidents Way and Pan American Road	548	147	695	318	147	465	318	147	465	548	147	695	318	147	465	548	147	695	469	147	616
N	Southeast entrance of Organ Pavilion Lot	66	71	137	NA	NA	NA	NA	NA	NA	66	71	137	NA	NA	NA	66	71	137	NA	NA	NA
O	Gold Gulch and Presidents Way	23	39	62	468	39	507	468	39	507	23	39	62	468	39	507	22	39	61	23	39	62
P	Federal/Aerospace Lot	108	46	154	108	46	154	108	46	154	108	46	154	108	46	154	108	46	154	108	46	154
X	New Park to Spreckles Organ Pavilion crossing	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CONFLICT AREAS				**20**			**6**			**12**			**11**			**4**			**11**			**9**
TOTAL (VOLUMES)		6076	4409	10485	2460	709	3169	2637	2758	5395	2811	1645	4456	1006	476	1482	2810	1645	4455	1400	1378	2778
Percent Increase/Decrease from Existing (VOLUMES)				**0%**			**-70%**			**-49%**			**-58%**			**-86%**			**-58%**			**-74%**

TABLE 191
VEHICLE/PEDESTRIAN CONFLICT SUMMARY
SATURDAY 4PM - 5PM

Location		Alternative 4Ai			Alternative 4Aii			Alternative 4Bi			Alternative 4Bii			Alternative 4Biii			Alternative 4Biv		
Area	Description	Veh	Ped	Total	Veh	Ped	Total	Veh	Ped	Total	Veh	Ped	Total	Veh	Ped	Total	Veh	Ped	Total
A	El Prado just east of Cabrillo Bridge	522	245	767	522	245	767	522	31	553	266	31	297	522	31	553	522	31	553
B	El Prado just east of Plaza de California	NA	NA	NA	NA	NA	NA	522	337	859	241	337	578	522	337	859	522	337	859
C	El Prado just west of Plaza de Panama	NA	NA	NA	NA	NA	NA	NA	NA	NA	241	137	378	522	137	659	522	137	659
D	North portion of Plaza de Panama	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
E_1	South portion of Plaza de Panama crossing the southbound traffic	NA	NA	NA	NA	NA	NA	NA	NA	NA	241	502	743	495	502	997	241	502	743
E_2	South portion of Plaza de Panama crossing the northbound traffic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	254	502	756
F	East of Plaza de Panama	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
G_1	South of Plaza de Panama crossing the southbound traffic	NA	NA	NA	NA	NA	NA	NA	NA	NA	241	273	514	495	273	768	241	273	514
G_2	South of Plaza de Panama crossing the northbound traffic	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	254	273	527
H_1	West of Alcazar Garden Lot Driveway entrance	NA	NA	NA	NA	NA	NA	112	248	360	112	248	360	NA	NA	NA	NA	NA	NA
H_2	Palm Canyon to Spreckles Organ Pavilion crossing	522	426	948	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I_1	Alcazar Garden Lot West Crossing	522	8	530	522	8	530	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
I_2	East of Alcazar Garden Lot Driveway exit	522	224	746	522	224	746	112	244	356	112	244	356	112	244	356	NA	NA	NA
J_1	Crossing Pan American Road West at corner of Pan American Road and Pan American Road West	48	328	376	NA	NA	NA	NA	NA	NA	48	328	376	48	328	376	NA	NA	NA
J_2	Crossing Pan American Road at corner of Pan American Road and Pan American Road West	NA	NA	NA	NA	NA	NA	NA	NA	NA	602	426	1028	602	426	1028	NA	NA	NA
K	Crossing Pan American Road north of Organ Pavilion Lot northwest entrance	NA	NA	NA	NA	NA	NA	NA	NA	NA	508	24	532	508	24	532	NA	NA	NA
L_1	Crossing Pan American Road at the northwest entrance of Organ Pavilion Lot	NA	NA	NA	NA	NA	NA	NA	NA	NA	508	69	577	508	69	577	NA	NA	NA
L_2	Crossing Organ Pavilion Lot entrance	NA	NA	NA	NA	NA	NA	NA	NA	NA	249	196	445	249	196	445	NA	NA	NA
M_1	Crossing Pan American Road at corner of Presidents Way and Pan American Road	NA	NA	NA	NA	NA	NA	NA	NA	NA	481	55	536	481	55	536	NA	NA	NA
M_2	Crossing Presidents Way at corner of Presidents Way and Pan American Road	318	147	465	318	147	465	318	147	465	548	147	695	548	147	695	318	147	465
N	Southeast entrance of Organ Pavilion Lot	71	468	539	NA	NA	NA	NA	NA	NA	66	71	137	66	71	137	NA	NA	NA
O	Gold Gulch and Presidents Way	120	39	159	468	39	507	468	39	507	23	39	62	23	39	62	468	39	507
P	Federal/Aerospace Lot	46	108	154	108	46	154	108	46	154	108	46	154	108	46	154	108	46	154
X	New Park to Spreckles Organ Pavilion crossing	562	180	742	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTAL CONFLICT AREAS				**10**			**6**			**7**			**19**			**16**			**10**
TOTAL (VOLUMES)		3253	2173	5426	2460	709	3169	2162	1092	3254	4595	3173	7768	5809	2925	8734	3450	2287	5737
Percent Increase/Decrease from Existing (VOLUMES)				**-48%**			**-70%**			**-69%**			**-26%**			**-17%**			**-45%**

TABLE 192
QUEUE LENGTH SUMMARY
2015
SATURDAY AM PEAK

	No Project [2]			Proposed Project			Alternative 2			Alternative 3A			Alternative 3B			Alternative 3C			Alternative 3D		
Intersection	**NB**	**EB**	**Significant Impact[1]**	**NB**	**EB**	**Significant Impact[1]**	**NB**	**EB**	**Significant Impact[1]**	**NB**	**EB**	**Significant Impact[1]**	**NB**	**EB**	**Significant Impact[1]**	**NB**	**EB**	**Significant Impact[1]**	**NB**	**EB**	**Significant Impact[1]**
El Prado/Centenial Bridge	-	-	-	92'	142'	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
El Prado/Plaza De Panama	231'	374'	Yes	-	-	-	-	106'	No	-	-	-	-	-	-	-	-	-	-	-	-

	Alternative 4Ai			Alternative 4Aii			Alternative 4Bi			Alternative 4Bii			Alternative 4Biii [2]			Alternative 4Biv [2]		
Intersection	**NB**	**EB**	**Significant Impacts[1]**	**NB**	**EB**	**Significant Impacts[1]**	**NB**	**EB**	**Significant Impacts[1]**	**NB**	**EB**	**Significant Impacts[1]**	**NB**	**EB**	**Significant Impacts[1]**	**NB**	**WB**	**Significant Impacts[1]**
El Prado/Centenial Bridge	92'	142'	No	92'	142'	No	-	-	-	-	-	-	-	-	-	-	-	-
El Prado/Plaza De Panama	-	-	-	-	-	-	-	-	-	-	106'	No	328'	1343'	Yes	183	61	Yes

Notes: [1] Significant Impacts occur when queue spillback to adjacent intersections and/or poor intersection LOS (E or F)
[2] Shaded areas represent significant impacts for the specfied alternatives

CONCLUSIONS

Based on the results of the traffic operations analysis, no roadways or intersections were calculated to have significant impacts for the Proposed project with the exception of the Presidents Way/Centennial Road intersection (southbound left, LOS F) in 2030. This impact can be mitigated by reconfiguring the intersection of Presidents Way and Centennial Road to make westbound Presidents Way as well as the southbound Centennial Road as the major street approaches. The eastbound Presidents Way approach would become the minor street approach and be stop-signed controlled. This mitigation will improve the intersection to an acceptable LOS C. It is anticipated that the traffic volumes at this intersection will cause the intersection to operate poorly starting in 2027. **Table 205** summarizes the results. As a result, this intersection shall be monitored with relevant traffic analyses starting in 2026 and at two year increments thereafter until 2030, to check intersection failure. If the intersection is failing (LOS E or F), it will be reconfigured as described above. This intersection is to be monitored to check future intersection failure at this location, rather than reconfigured immediately, since the traffic circulation associated with the future plans per the Central Mesa Precise Plan (i.e. converting Palisades area to parkland) may not warrant this mitigation.

In addition to Balboa Park's internal roadway improvements proposed by the project, the following are recommendations to mitigate impacted internal locations: **Appendix Q** also contains conceptual exhibits of the mitigations for the proposed project and alternatives:

PROPOSED PROJECT

Similar to a no-project condition, the intersection of Presidents Way/Federal-Aerospace Lot operates poorly at LOS F in 2030; to improve the intersection operations the project is including an improvement in the near term to restripe Presidents Way with a separate westbound left turn lane on in to the Federal Aerospace lot. Also the northbound approach of the Federal Lot driveway will be restriped for a wider northbound approach to accommodate exiting traffic.

2015

No significant impacts were calculated.

2030

- **Presidents Way/Centennial Road**

Mitigation: Reconfigure the intersection of Presidents Way and Centennial Road to make the westbound Presidents Way as well as the southbound Centennial Road as the major street approaches. The eastbound Presidents Way approach would be the minor street approach and be stop-signed controlled.

Table 193 summarizes the 2015 and 2030 mitigation measures for the proposed project.

Exhibits 130 and **Exhibit 131** show graphical representation of the 2015 and 2030 mitigation measures respectively.

Table 205
Proposed Project
2027 Intersection Operations

		2015		2027 *		2030	
		LOS	Intersection Approach Volumes (vehicles per hour)	LOS	Intersection Approach Volumes (vehicles per hour)	LOS	Intersection Approach Volumes (vehicles per hour)
Intersections							
34	Presidents Way/Centennial Road	C	1280	E *	1560 *	F	1630

* Presidents Way/Centennial Road intersection is estimated to operate poorly (LOS E) in the year 2027. This is to occur when peak hour intersection volumes reach 1560 vph

Table 193
Proposed Project
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
34	Presidents Way/Centennial Road	-	-	-	F	Reconfigure for Centennial Road/Presidents Way east as free	C
Roadway Segments							
-	None	-	-	-	-	-	-

EXHIBIT 130

2015 PROPOSED PROJECT TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- TS = TRAFFIC SIGNAL
- = STOP SIGN
- X = INTERSECTION NUMBER
- (X) = SEGMENT NUMBER
- = PROPOSED MITIGATION

LEGEND

- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

EXHIBIT 131

2030 PROPOSED PROJECT TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND
- TS = TRAFFIC SIGNAL
- = STOP SIGN
- X = INTERSECTION NUMBER
- (X) = SEGMENT NUMBER
- = PROPOSED MITIGATION

LEGEND
- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

RECONFIGURE FOR CENTENNIAL RD/ PRESIDENTS WAY EAST AS FREE

Significant impacts were calculated for some of the Alternatives assessed. The following outlines the impacted locations and associated mitigation measures.

ALTERNATIVE 2 (CENTRAL MESA PRECISE PLAN)

Table 194 summarizes the 2015 and 2030 mitigation measures for Alternative 2.

Roadway segments 9, 10 and 13 along Sixth Avenue are listed as significant and unmitigable. For those segments to operate acceptably, the mitigation measure would be to widen the road. This is not feasible due to the locations of existing buildings on the west side of Sixth Avenue restricting any widening, thus unmitigable.

The roadway segment on Zoo place east of Park Boulevard is also unmitigable, the road is currently built to its graded two lane road and any potential widening to accommodate more traffic will require extensive grading (cut/fill), constructing retaining walls, right of way acquisitions and high cost of construction.

Exhibits 132 and **Exhibit 133** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 3A (NO NEW PARKING)

Table 195 summarizes the 2015 and 2030 mitigation measures for Alternative 3A.

Roadway segments 9, 10, 18 and 26 along Sixth Avenue, Robinson Avenue, and A Street are listed as significant and unmitigable. For those segments to operate acceptably, the mitigation measure would be to widen the road. This is not feasible due to the locations of existing buildings restricting widening on any of those segments, thus unmitigable.

The unsignalized intersection of Park Boulevard/Space Theatre Way is also significant and unmitigable in 2030. Although the mitigation measure for Park Boulevard/Space Theatre Way intersection is to restrict EB left movements, there is still a high number of conflicting southbound through volumes (over 1200 vph) in 2030, resulting in a failing EB right movement, thus unmitigable.

Exhibits 134 and **Exhibit 135** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 3B (ORGAN PAVILLION PARKING STRUCTURE)

Table 196 summarizes the 2015 and 2030 mitigation measures for Alternative 3B.

Roadway segments 9, 10, 18 and 26 along Sixth Avenue, Robinson Avenue, and A Street are listed as significant and unmitigable. For those segments to operate acceptably, the mitigation measure would be to widen the road. This is not feasible due to the locations of existing buildings restricting widening on any of those segments, thus unmitigable.

Table 194
Precise Plan
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
14	Sixth Avenue/Robinson Avenue	-	-	-	F	Widen intersection approach and modify traffic signal. Add thru and right NB lanes, left and thru SB lanes, and two left WB lanes	D
28	Presidents Way/Federal-Aerospace Lot	-	-	-	E	Restripe a westbound left turn lane and driveway for a wider northbound approach	D
34	Presidents Way/Centennial Road	-	-	-	F	Reconfigure for Centennial Road/ Presidents Way east as free	E
Roadway Segments							
1	Park Boulevard between Robinson Avenue and Upas Street	F	Build to four lane major standards. Restripe SB to accommodate parking and two thru lanes matching existing NB configuration	B	F	Build to four lane major standards. Restripe SB to accommodate parking and two thru lanes matching existing NB configuration	B
9	Sixth Avenue between Robinson Avenue and Upas Street	E	Significant and potentially unmitagable	-	F	Significant and potentially unmitagable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	E	Significant and potentially unmitagable	-
13	Sixth Avenue between Elm Street and Ash Street	-	-	-	E	Significant and potentially unmitagable	-
17	Robinson Avenue between Sixth Avenue and Vermont Street	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	C	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	D
22	Presidents Way west of Park Boulevard	E	Restripe with center TWLTL	B	E	Restripe with center TWLTL	B
24	Zoo Place east of Park Boulevard	-	-	-	F	Significant and potentially unmitagable	-
-	-	-	-	-	-	-	-

EXHIBIT 132

2015 ALTERNATIVE 2 TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

BUILD TO FOUR LANE MAJOR STANDARDS. RESTRIPE SB TO ACCOMODATE PARKING AND TWO THRU LANES MATCH EXISTING NB CONFIGURATION

RESTRIPE WITH CENTER TWLTL

BALBOA PARK

ROBINSON AVE

UPAS ST

QUINCE DR

EL PRADO

LAUREL ST

ELM ST

ASH ST

A ST

RICHMOND ST

BALBOA DR

ZOO DR

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

ZOO PL

INSPIRATION PT

PRESIDENTS WAY

SPACE THEATER WAY

CENTENNIAL RD

PLAZA DE PANAMA

PAN AMERICAN LOT

FEDERAL LOT

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

N. PARKING STRUCTURE DWY

S. PARKING STRUCTURE DWY

FEDERAL LOT DWY

LEGEND

= NO VEHICULAR ACCESS

= PROPOSED ROADWAY

= PROPOSED DRIVEWAY

= PROPOSED PARKING GARAGE

LEGEND

= TRAFFIC SIGNAL

= STOP SIGN

= INTERSECTION NUMBER

= SEGMENT NUMBER

= PROPOSED MITIGATION

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REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

RESTRIPE WITH CENTER TWLTL

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

BUILD TO FOUR LANE MAJOR STANDARDS. RESTRIPE SB TO ACCOMODATE PARKING AND TWO THRU LANES MATCH EXISTING NB CONFIGURATION

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

RESTRIPE WITH CENTER TWLTL

RECONFIGURE FOR CENTENNIAL RD/ PRESIDENTS WAY EAST AS FREE

BALBOA PARK

ROBINSON AVE

UPAS ST

UPAS ST

QUINCE DR

LAUREL ST

ELM ST

ASH ST

A ST

EL PRADO

EL PRADO

RICHMOND ST

BALBOA DR

ZOO DR

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

ZOO PL

PLAZA DE PANAMA

CENTENNIAL RD

SPACE THEATER WAY

PAN AMERICAN LOT

FEDERAL LOT

INSPIRATION PT

PRESIDENTS WAY

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

163

5

N. PARKING STRUCTURE DWY

S. PARKING STRUCTURE DWY

PRESIDENTS WAY

CENTENNIAL RD

FEDERAL LOT DWY

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
XU = X LANE UNDIVIDED
XD = X LANE DIVIDED

RICK ENGINEERING COMPANY

EXHIBIT 133

2030 ALTERNATIVE 2 TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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Table 195
Alternative 3A
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
6	Park Boulevard/Space Theatre Way	F	Prohibit EB left turn movement with installation of a center raised median still allowing the existing NB left and SB U-turn movements	D	F	Significant and potentially unmitagable	-
8	Presidents Way/Park Boulevard	F	Widen intersection approach and modify traffic signal. Restripe to accommodate two left and one thru-right EB lanes, and two left turn lanes and shared thru-right WB lanes	D	F	Widen intersection approach and modify traffic signal. Restripe to accommodate two left and one thru-right EB lanes, and double left-turn lane and shared thru-right WB lanes	D
14	Sixth Avenue/Robinson Avenue	-	-	-	F	Widen intersection approach and modify traffic signal. Add thru and right NB lanes, left and thru SB lanes, and restripe to accommodate two left WB lanes	D
27	Presidents Way/Organ Pavilion Lot	-	-	-	F	Restripe a westbound right lane and driveway for a wider southbound approach.	B
28	Presidents Way/Federal-Aerospace Lot	-	-	-	F	Restripe a westbound left turn lane, eastbound thru and thru-right lane and widen northbound approach dwy	D
Roadway Segments							
9	Sixth Avenue between Robinson Avenue and Upas Street	-	-	-	F	Significant and potentially unmitagable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	F	Significant and potentially unmitagable	-
18	Robinson Avenue between Vermont Street and Park Boulevard	-	-	-	E	Significant and potentially unmitagable	-
17	Robinson Avenue between Sixth Avenue and Vermont Street	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	C	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	D
22	Presidents Way west of Park Boulevard	-	-	-	F	Restripe with center TWLTL	C
26	A Street between Sixth Avenue and Park Boulevard	E	Significant and potentially unmitagable	-	F	Significant and potentially unmitagable	-
-	-	-	-	-	-	-	-

REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

ROBINSON AVE

UPAS ST

UPAS ST

QUINCE DR

LAUREL ST

ELM ST

ASH ST

A ST

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

EL PRADO

RICHMOND ST

BALBOA DR

ZOO DR

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

ZOO PL

INSPIRATION PT

PRESIDENTS WAY

PLAZA DE PANAMA

SPACE THEATER WAY

PROHIBIT EB LEFT TURN MOVEMENT

ORGAN PAVILION LOT DWY

ORGAN PAVILION LOT

ORGAN PAVILION LOT DWY

PAN AMERICAN LOT

FEDERAL LOT

PAN AMERICAN RD

PRESIDENTS WAY

ORGAN PAVILION LOT

FEDERAL LOT DWY

BALBOA PARK

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

LEGEND

= NO VEHICULAR ACCESS

= PROPOSED ROADWAY

= PROPOSED DRIVEWAY

LEGEND

= TRAFFIC SIGNAL

= STOP SIGN

= INTERSECTION NUMBER

= SEGMENT NUMBER

= PROPOSED MITIGATION

RICK ENGINEERING COMPANY

EXHIBIT 134

2015 ALTERNATIVE 3A TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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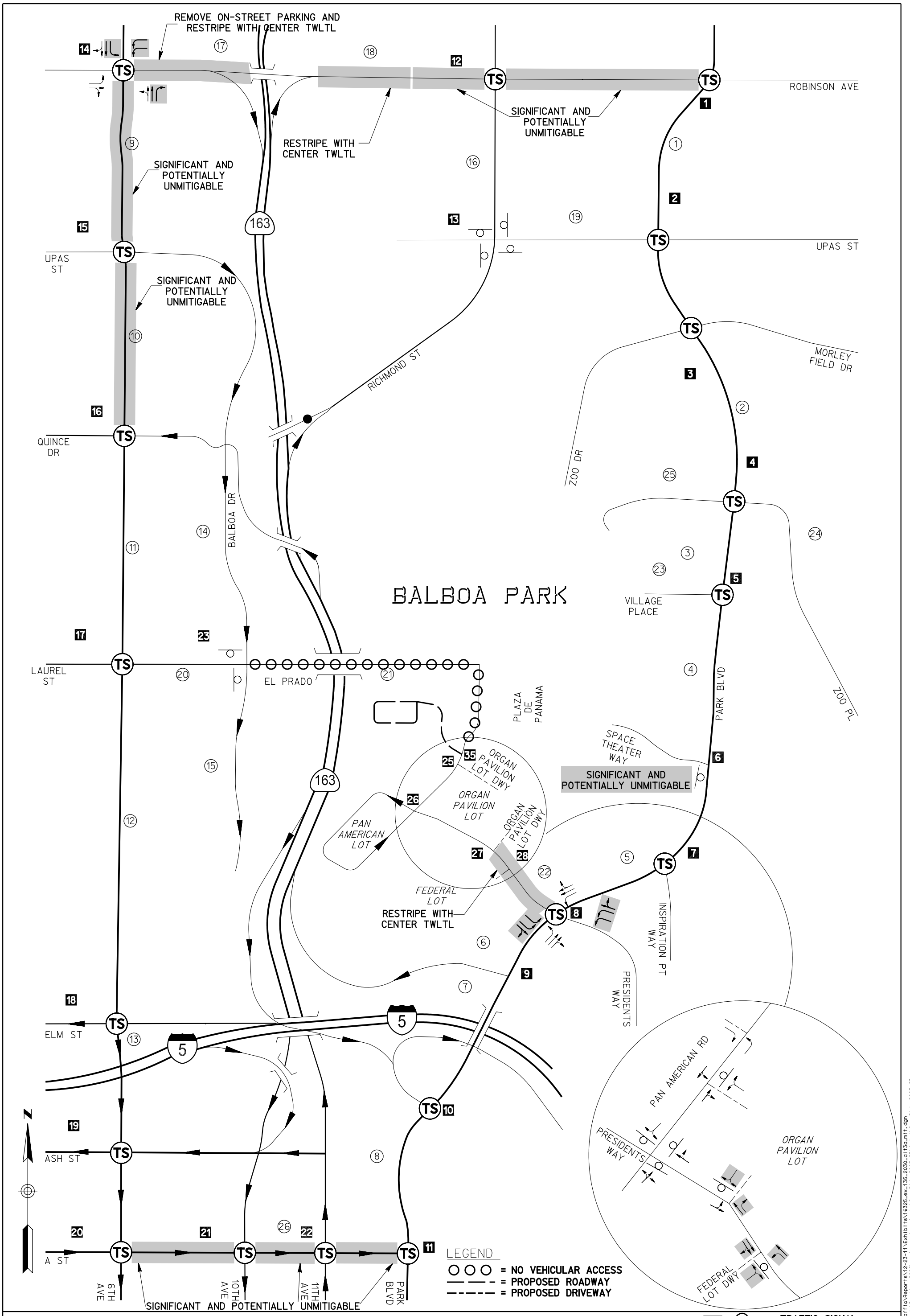

RICK ENGINEERING COMPANY

EXHIBIT 135

2030 ALTERNATIVE 3A TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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Table 196
Alternative 3B
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
6	Park Boulevard/Space Theatre Way	F	Prohibit EB left turn movement with installation of a center raised median still allowing the existing NB left and SB U-turn movements	D	F	Significant and potentially unmitigable	-
8	Presidents Way/Park Boulevard	F	Widen intersection approach and modify traffic signal. Restripe to accommodate EB one left, one thru, and one right with overlap lanes, and two left-turn lanes and shared thru-right WB lanes	C	F	Widen intersection approach and modify traffic signal. Restripe for two EB right turn lanes with overlap, one thru, and one left turn lanes, and two WB left and thru-right lanes	D
14	Sixth Avenue/Robinson Avenue	-	-	-	F	Widen intersection and modify traffic signal. Add thru and right NB lanes, left and thru SB lanes, and restripe to accommodate two left WB lanes	D
28	Presidents Way/Federal-Aerospace Lot	-	-	-	F	Widen intersection and restripe for EB thru and thru-right lanes. WB two thru and left turn lanes	D
34	Presidents Way/Centennial Road	-	-	-	F	Reconfigure for Centennial Road/Presidents Way east as free	E
Roadway Segments							
9	Sixth Avenue between Robinson Avenue and Upas Street	-	-	-	F	Significant and potentially unmitigable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	E	Significant and potentially unmitigable	-
18	Robinson Avenue between Vermont Street and Park Boulevard	-	-	-	E	Significant and potentially unmitigable	-
17	Robinson Avenue between Sixth Avenue and Vermont Street	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	C	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	D
22	Presidents Way west of Park Boulevard	-	-	-	F	Restripe with center TWLTL	C
26	A Street between Sixth Avenue and Park Boulevard	E	Significant and potentially unmitigable	-	F	Significant and potentially unmitigable	-
-	-	-	-	-	-	-	-

The unsignalized intersection of Park Boulevard/Space Theatre Way is also significant and unmitigable in 2030. Although the mitigation measure for Park Boulevard/Space Theatre Way intersection is to restrict EB left movements, there is still a high number of conflicting southbound through volumes (over 1200 vph) in 2030, resulting in a failing EB right movement, thus unmitigable.

Exhibits 136 and **Exhibit 137** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 3C (WEST MESA PARKING STRUCTURE)

Table 197 summarizes the 2015 and 2030 mitigation measures for Alternative 3C.

Roadway segments 9, 10, 18 and 26 along Sixth Avenue, Robinson Avenue, and A Street are listed as significant and unmitigable. For those segments to operate acceptably, the mitigation measure would be to widen the road. This is not feasible due to the locations of existing buildings restricting widening on any of those segments, thus unmitigable.

The unsignalized intersection of Park Boulevard/Space Theatre Way is also significant and unmitigable in 2030. Although the mitigation measure for Park Boulevard/Space Theatre Way intersection is to restrict EB left movements, there is still a high number of conflicting southbound through volumes (over 1200 vehicles per hour) in 2030, resulting in a failing EB right movement, thus unmitigable.

Exhibits 138 and **Exhibit 139** show graphical representation of the 2015 and 2030 mitigation measures respectively.

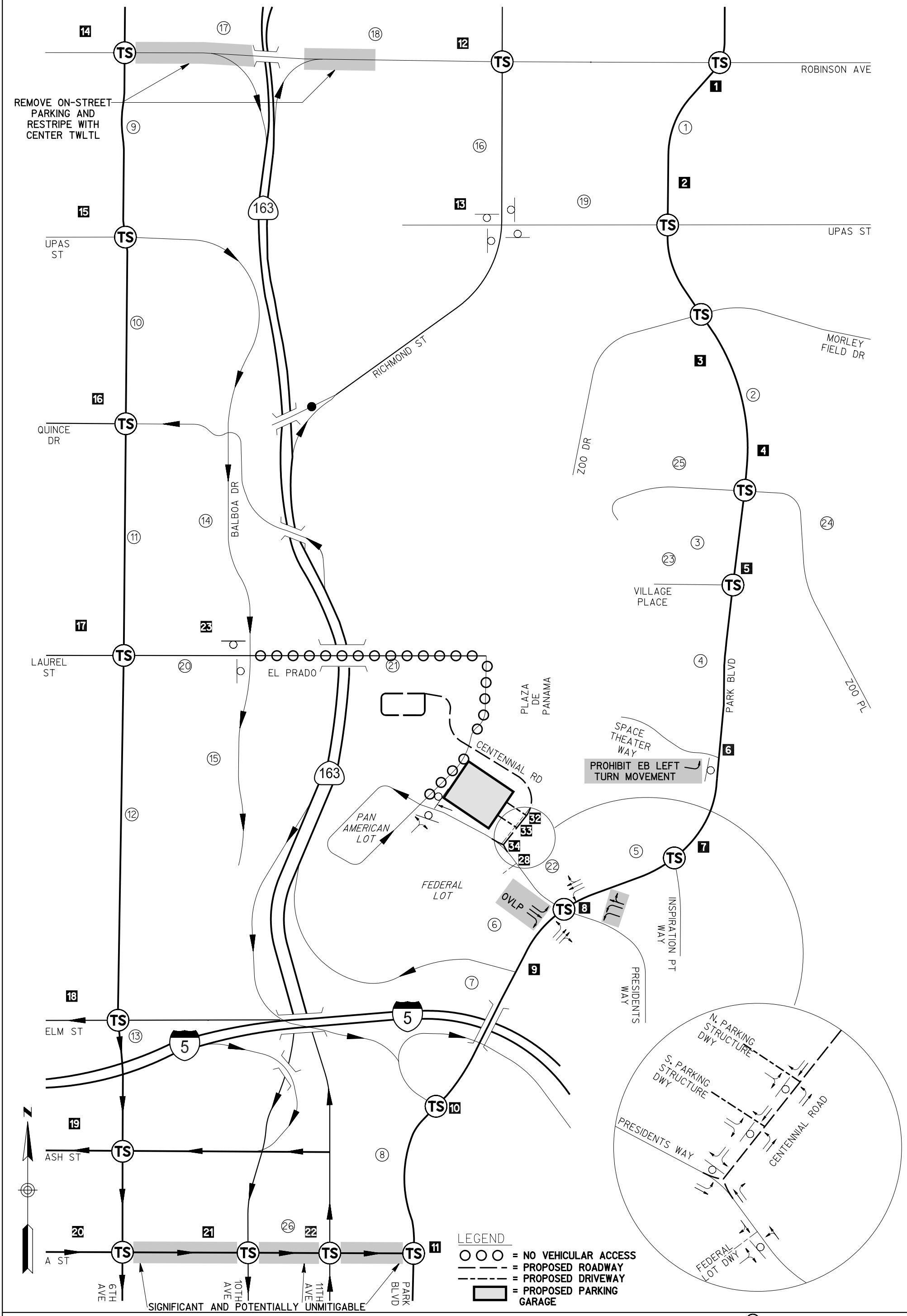
ALTERNATIVE 3D (INSPIRATION POINT PARKING STRUCTURE)

Table 198 summarizes the 2015 and 2030 mitigation measures for Alternative 3D.

Roadway segments 9, 10, 18 and 26 along Sixth Avenue, Robinson Avenue, and A Street are listed as significant and unmitigable. For those segments to operate acceptably, the mitigation measure would be to widen the road. This is not feasible due to the locations of existing buildings restricting widening on any of those segments, thus unmitigable.

The unsignalized intersections of Park Boulevard/SR-163 NB on-ramp and Park Boulevard/Space Theatre Way are also significant and unmitigable in 2030. Mitigation measure for Park Boulevard/SR-163 NB on-ramp would be to install a traffic signal or to restrict northbound left turn to the ramp. These are infeasible due to the close proximity to another signalized intersection (Park Boulevard/Presidents Way) and if restricting a northbound left movement the traffic volumes re-routed to Park Boulevard/Presidents Way would worsen the conditions of an already failing intersection in 2030, thus unmitigable.

Although the mitigation measure for Park Boulevard/Space Theatre Way intersection is to restrict EB left movements, there is still a high number of conflicting southbound through volumes (over 1200 vph) in 2030, resulting in a failing EB right movement, thus unmitigable.



RICK ENGINEERING COMPANY

EXHIBIT 136

2015 ALTERNATIVE 3B TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND
= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

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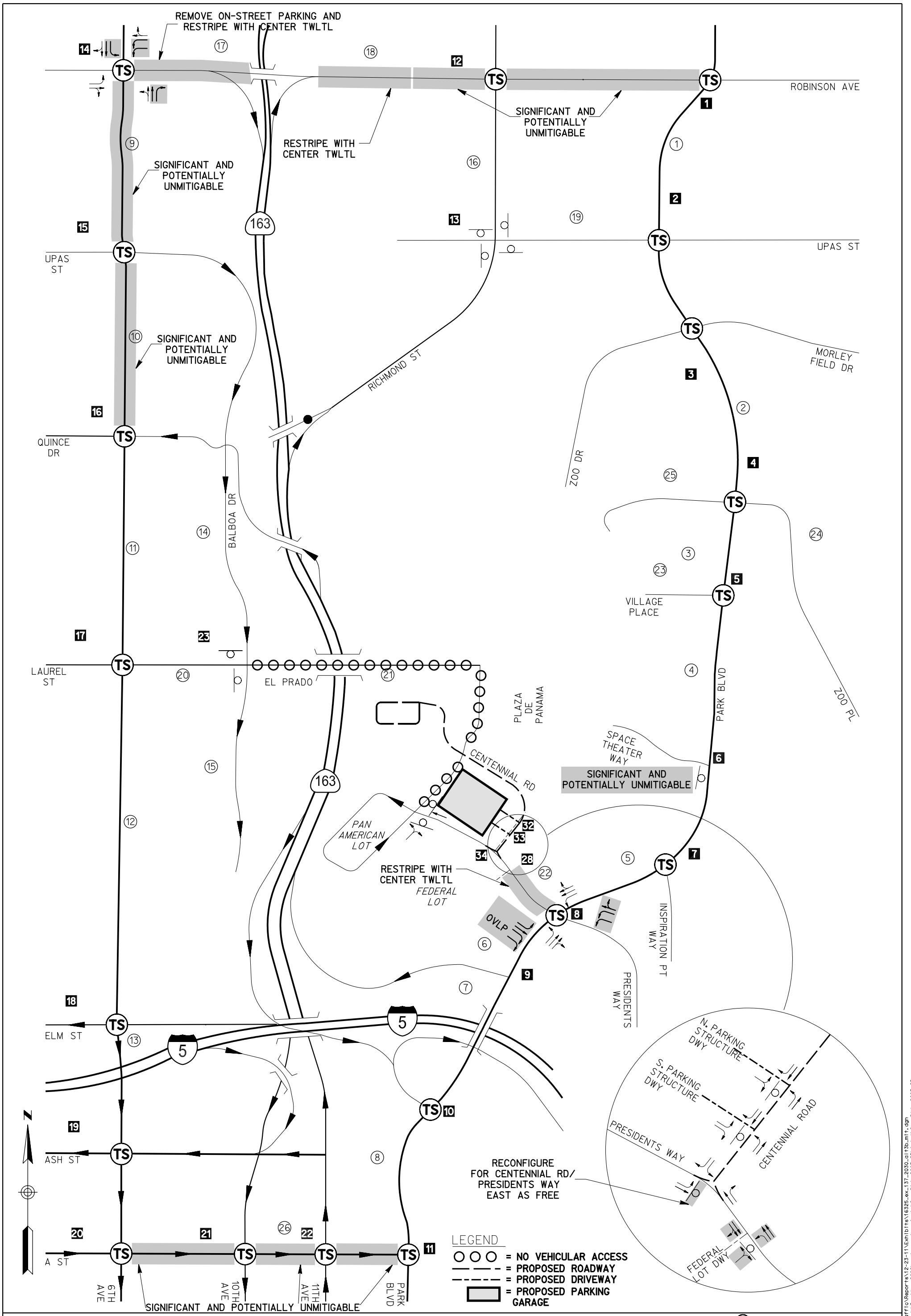

RICK ENGINEERING COMPANY

EXHIBIT 137

2030 ALTERNATIVE 3B TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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Table 197
Alternative 3C
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
6	Park Boulevard/Space Theatre Way	F	Prohibit EB left turn movement with installation of a center raised median still allowing the existing NB left and SB U-turn movements	D	F	Significant and potentially unmitigable	-
14	Sixth Avenue/Robinson Avenue	-	-	-	F	Widen intersection and modify traffic signal. Add thru and right NB lanes, left and thru SB lanes, and restripe to accommodate two left WB lanes	D
27	Presidents Way/Organ Pavilion Lot	-	-	-	E	Restripe a westbound right lane and driveway for a wider southbound approach	D
28	Presidents Way/Federal-Aerospace Lot	-	-	-	F	Restripe a westbound left turn lane and driveway for a wider northbound approach	D
Roadway Segments							
9	Sixth Avenue between Robinson Avenue and Upas Street	-	-	-	F	Significant and potentially unmitigable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	E	Significant and potentially unmitigable	-
17	Robinson Avenue between Sixth Avenue and Vermont Street	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	C	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	D
26	A Street between Sixth Avenue and Park Boulevard	E	Significant and potentially unmitigable	-	F	Significant and potentially unmitigable	-
-	-	-	-	-		-	-

REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

ROBINSON AVE

UPAS ST

UPAS ST

QUINCE DR

RICHMOND ST

ZOO DR

MORLEY FIELD DR

BALBOA DR

BALBOA PARK

VILLAGE PLACE

LAUREL ST

EL PRADO

PLAZA DE PANAMA

PARK BLVD

ZOO PL

SPACE THEATER WAY

PROHIBIT EB LEFT TURN MOVEMENT

ORGAN PAVILION LOT DWY

ORGAN PAVILLION LOT

PAN AMERICAN LOT

FEDERAL LOT

PRESIDENTS WAY

INSPIRATION PT WAY

ELM ST

ASH ST

A ST

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

PAN AMERICAN ROAD

ORGAN PAVILLION LOT

PRESIDENTS WAY

FEDERAL LOT DWY

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

RICK ENGINEERING COMPANY

EXHIBIT 138

2015 ALTERNATIVE 3C TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

RESTRIPE WITH CENTER TWLTL

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

ROBINSON AVE

UPAS ST

UPAS ST

QUINCE DR

LAUREL ST

ELM ST

ASH ST

A ST

EL PRADO

RICHMOND ST

BALBOA DR

ZOO DR

ZOO PL

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

PLAZA DE PANAMA

SPACE THEATER WAY

PRESIDENTS WAY

INSPIRATION PT WAY

PAN AMERICAN ROAD

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

ORGAN PAVILION LOT DWY

ORGAN PAVILLION LOT

PAN AMERICAN LOT

FEDERAL LOT

FEDERAL LOT DWY

BALBOA PARK

163

5

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

EXHIBIT 139

2030 ALTERNATIVE 3C TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

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Table 198
Alternative 3D
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
6	Park Boulevard/Space Theatre Way	F	Prohibit EB left turn movement with installation of a center raised median still allowing the existing NB left and SB U-turn movements	D	F	Significant and potentially unmitigable	-
8	Presidents Way/Park Boulevard	F	Widen intersection and modify traffic signal. Restripe to accommodate one left and one thru, one right with overlap EB lanes, and two left-turn lanes and one thru-right turn WB lanes	C	F	Widen intersection and modify traffic signal. Restripe to accommodate one left, one thru and two right with overlap EB lanes, and double left-turn lane, thru and two right turn WB lanes	D
9	Park Boulevard/SR-163 NB Ramp	-	-	-	E	Significant and potentially unmitigable	-
14	Sixth Avenue/Robinson Avenue	-	-	-	F	Modify traffic signal. Add thru and right NB lanes, left and thru SB lanes, and restripe to accommodate two left WB lanes	D
28	Presidents Way/Federal-Aerospace Lot	-	-	-	F	Restripe a westbound left turn lane, eastbound thru and thru-right lane and widen northbound approach dwy	D
Roadway Segments							
9	Sixth Avenue between Robinson Avenue and Upas Street	-	-	-	F	Significant and potentially unmitigable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	E	Significant and potentially unmitigable	-
17	Robinson Avenue between Sixth Avenue and Vermont Street	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	C	F	Remove on-street parking (approximately 44 spaces) and restripe with center TWLTL	D
18	Robinson Avenue between Vermont Street and Park Boulevard	-	-	-	E	Significant and potentially unmitigable	-
28	A Street between Sixth Avenue and Park Boulevard	-	-	-	F	Significant and potentially unmitigable	-
N/A	Presidents Way east of Park Boulevard	-	-	-	-	Restripe with center TWLTL	A
-	-	-	-	-	-	-	-

Exhibits 140 and **Exhibit 141** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 4Ai (GOLD GULCH PARKING STRUCTURE)

No traffic capacity impacts were calculated for the external roadways and intersections for the 4A and 4B Alternatives, as trip distributions are essentially the same as the no project condition, with the exception of 4Bii which is similar to Alternative 2. However, internal distribution is anticipated to change due to changes in the internal circulation and access points.

One of the proposed improvements for Alternative 4Ai is the modification and realignment to the existing signalized intersection of Park Boulevard/Inspiration Point Way. This Alternative proposes to construct the west leg of Inspiration Point Way by moving the existing intersection approximately 100' south on Park Boulevard. Modification to the traffic signal is needed to accommodate new eastbound approach of this intersection. This will serve as one of the entrances to the proposed parking garage for Alternative 4Ai. However, the development of this alternative would impact existing structures/buildings; a Veteran's Memorial located east of Park Boulevard at the location this alternative proposes or the World Beat Cultural Center building west of Park Boulevard, if connecting to existing Inspiration Point Way. Physical constraints would make this alternative unmitigable.

Table 199 summarizes the 2015 and 2030 mitigation measures for Alternative 4Ai.

Exhibits 142 and **Exhibit 143** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 4Aii (NO PAID PARKING ALTERNATIVE)

Table 200 summarizes the 2015 and 2030 mitigation measures for Alternative 4Aii.

Exhibits 144 and **Exhibit 145** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 4Bi (TUNNEL ALTERNATIVE)

Table 201 summarizes the 2015 and 2030 mitigation measures for Alternative 4Bi.

Exhibits 146 and **Exhibit 147** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 4Bii (STOP LIGHT (ONE-WAY) ALTERNATIVE)

Table 202 summarizes the 2015 and 2030 mitigation measures for Alternative 4Bii.

Exhibits 148 and **Exhibit 149** show graphical representation of the 2015 and 2030 mitigation measures respectively.

EXHIBIT 140

2015 ALTERNATIVE 3D TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

BALBOA PARK

ROBINSON AVE

UPAS ST

QUINCE DR

LAUREL ST

ELM ST

ASH ST

A ST

EL PRADO

PLAZA DE PANAMA

PAN AMERICAN ROAD

PAN AMERICAN LOT

FEDERAL LOT

RICHMOND ST

BALBOA DR

ZOO DR

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

ZOO PL

SPACE THEATER WAY

INSPIRATION PT WAY

PRESIDENTS WAY

FEDERAL LOT DWY

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

OVLP

REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

RESTRIPE WITH CENTER TWLTL

PROHIBIT EB LEFT TURN MOVEMENT

163

5

LEGEND

= NO VEHICULAR ACCESS

= PROPOSED ROADWAY

= PROPOSED DRIVEWAY

= PROPOSED PARKING GARAGE

LEGEND

= TRAFFIC SIGNAL

= STOP SIGN

= INTERSECTION NUMBER

= SEGMENT NUMBER

= PROPOSED MITIGATION

REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

RESTRIPE WITH CENTER TWLTL

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

RESTRIPE WITH CENTER TWLTL

ROBINSON AVE

UPAS ST

UPAS ST

QUINCE DR

LAUREL ST

ELM ST

ASH ST

A ST

EL PRADO

RICHMOND ST

BALBOA DR

ZOO DR

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

ZOO PL

PLAZA DE PANAMA

SPACE THEATER WAY

PAN AMERICAN ROAD

PAN AMERICAN LOT

FEDERAL LOT

OVLP

INSPIRATION PT WAY

PRESIDENTS WAY

FEDERAL LOT DWY

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

163

5

BALBOA PARK

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

EXHIBIT 141

2030 ALTERNATIVE 3D TRAFFIC MITIGATION

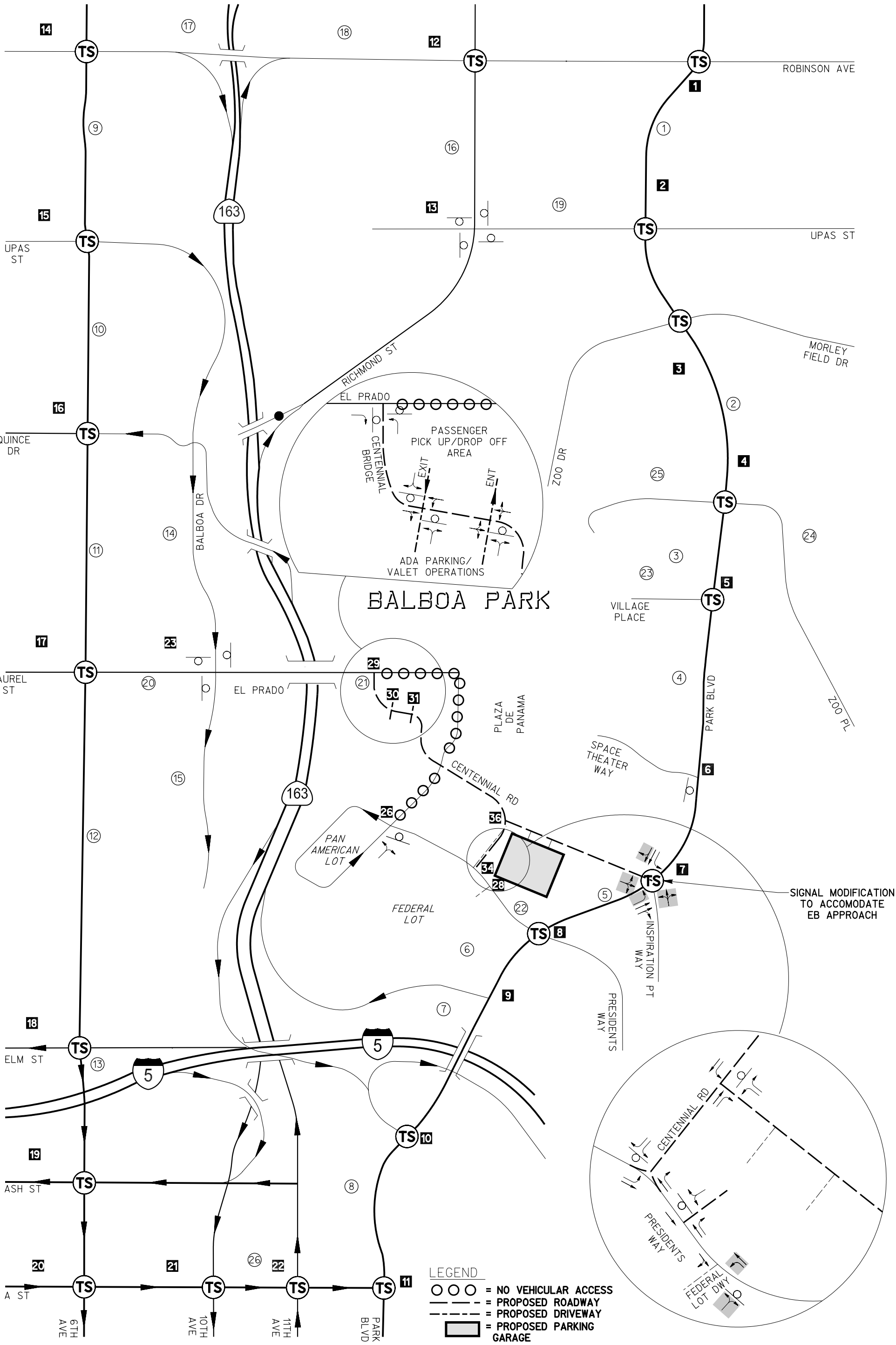
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

Table 199
Alternative 4Ai
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
7	Park Boulevard/Inspiration Way *	B	Significant and potentially unmitigable *	-	B	Significant and potentially unmitigable *	-
28	Presidents Way/Federal-Aerospace Lot	F	Restripe a westbound left turn lane and dwy for a wider northbound approach	C	F	Restripe a westbound left turn lane and driveway for a wider northbound approach	D
Roadway Segments							
-	None	-	-	-	-	-	-

*Note: This intersection operates at LOS B from a traffic capacity standpoint but physical constraints (i.e. existing structures/buildings) would deem this relocated intersection significant and potentially unmitigable. However, if this alternative is chosen, additional analysis is needed to explore other configurations which may include installing an offset traffic signal or potentially limiting left turn movements at the proposed roadway access.



RICK ENGINEERING COMPANY

EXHIBIT 142

2015 ALTERNATIVE 4Ai TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

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ROBINSON AVE
UPAS ST
MORLEY FIELD DR
RICHMOND ST
EL PRADO
PASSENGER PICK UP/DROP OFF AREA
CENTENNIAL BRIDGE
EXIT
ENT
ZOO DR
QUINCE DR
BALBOA DR
BALBOA PARK
VILLAGE PLACE
PARK BLVD
ZOO PL
LAUREL ST
EL PRADO
PLAZA DE PANAMA
SPACE THEATER WAY
CENTENNIAL RD
PAN AMERICAN LOT
FEDERAL LOT
INSPIRATION PT
PRESIDENTS WAY
ELM ST
ASH ST
A ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
163
5
SIGNAL MODIFICATION TO ACCOMODATE EB APPROACH
FEDERAL LOT DWY

LEGEND
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND
= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

EXHIBIT 143

2030 ALTERNATIVE 4Ai TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

Table 200
Alternative 4Aii
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
28	Presidents Way/ Federal Lot	F	Restripe a westbound left turn lane and dwy for a wider northbound approach	C	F	Restripe a westbound left turn lane and dwy for a wider northbound approach	D
34	Presidents Way/Centennial Road	E	Reconfigure for Centennial Road/Presidents Way as free	C	F	Reconfigure for Centennial Road/Presidents Way as free	C
Roadway Segments							
-	None	-	-	-	-	-	-

EXHIBIT 144

2015 ALTERNATIVE 4Aii TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

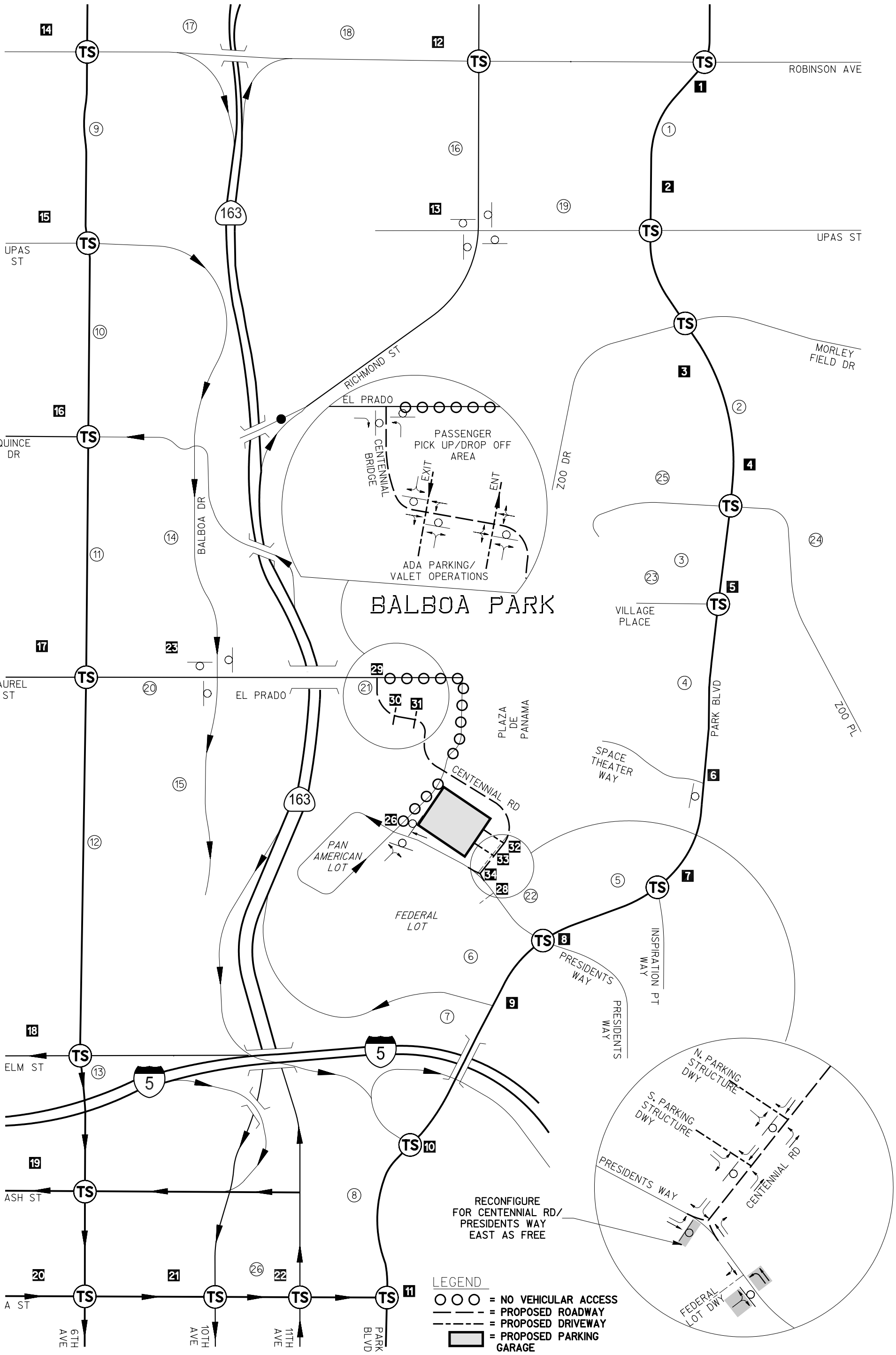
RICK ENGINEERING COMPANY

LEGEND
- TS = TRAFFIC SIGNAL
- = STOP SIGN
- X = INTERSECTION NUMBER
- (X) = SEGMENT NUMBER
- = PROPOSED MITIGATION

LEGEND
- O O O = NO VEHICULAR ACCESS
- — — — = PROPOSED ROADWAY
- - - - - = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

RECONFIGURE FOR CENTENNIAL RD/ PRESIDENTS WAY EAST AS FREE

ROBINSON AVE
UPAS ST
MORLEY FIELD DR
ZOO DR
PASSENGER PICK UP/DROP OFF AREA
CENTENNIAL BRIDGE
EXIT
ENT
ADA PARKING/ VALET OPERATIONS
BALBOA PARK
VILLAGE PLACE
PARK BLVD
ZOO PL
SPACE THEATER WAY
PLAZA DE PANAMA
CENTENNIAL RD
PAN AMERICAN LOT
FEDERAL LOT
PRESIDENTS WAY
INSPIRATION PT
RICHMOND ST
EL PRADO
BALBOA DR
QUINCE DR
LAUREL ST
ASH ST
A ST
ELM ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
163
5
N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
FEDERAL LOT DWY



RICK ENGINEERING COMPANY

EXHIBIT 145

2030 ALTERNATIVE 4Aii TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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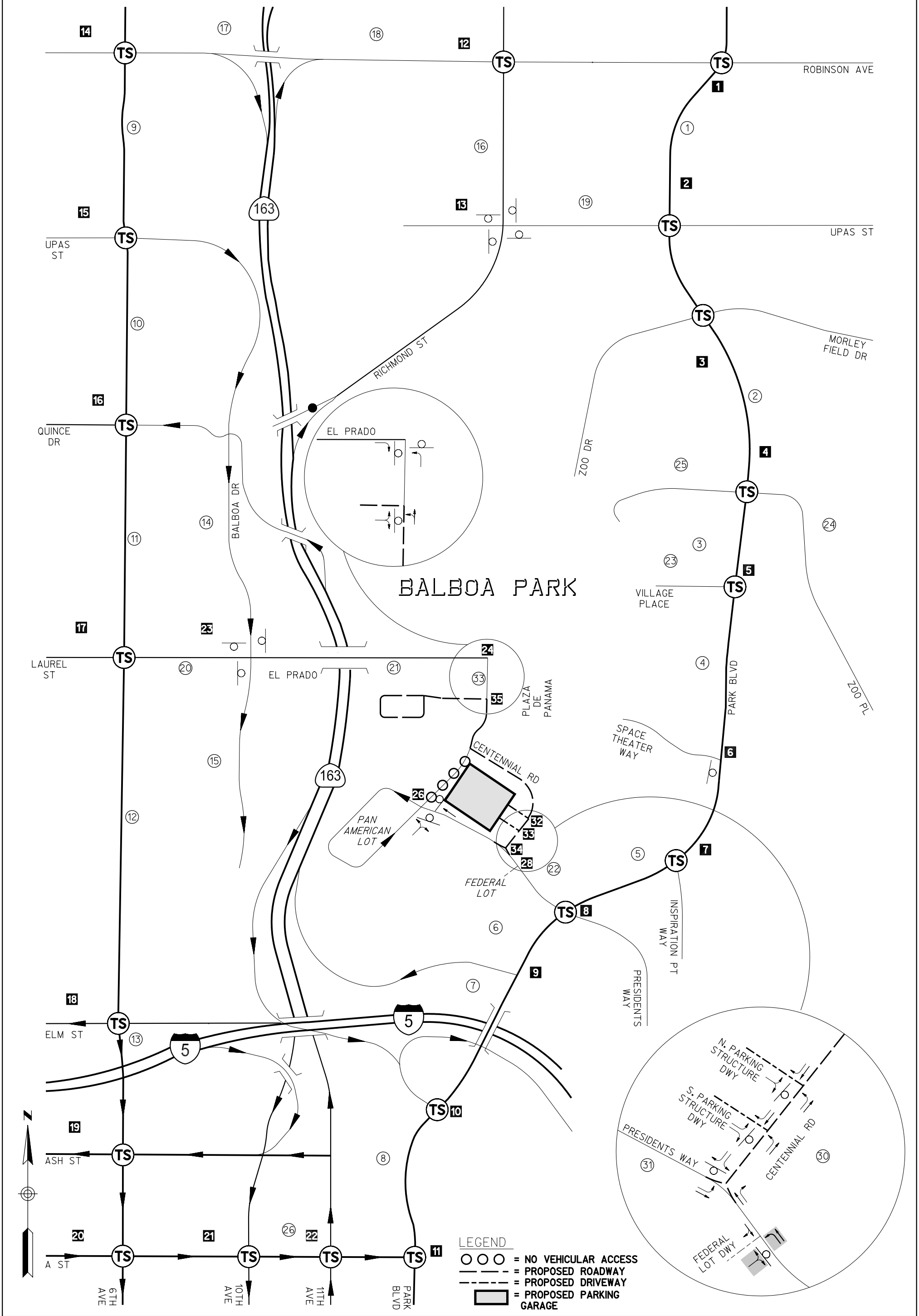
Table 201
Alternative 4Bi
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
28	Presidents Way/Federal-Aerospace Lot	E	Restripe a westbound left turn lane and driveway for a wider northbound approach	C	F	Restripe two westbound thru lanes, westbound left turn lane, eastbound right lane and widen northbound approach dwy	D
34	Presidents Way/Centennial Road	-	-	-	F	Reconfigure for Centennial Road/Presidents Way as free	C
Roadway Segments							
-	None	-	-	-	-	-	-



RICK ENGINEERING COMPANY

EXHIBIT 146

2015 ALTERNATIVE 4Bi TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

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EXHIBIT 147

2030 ALTERNATIVE 4Bi TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

LEGEND

- TS = TRAFFIC SIGNAL
- = STOP SIGN
- X = INTERSECTION NUMBER
- (X) = SEGMENT NUMBER
- = PROPOSED MITIGATION

LEGEND

- = NO VEHICULAR ACCESS
- = PROPOSED ROADWAY
- = PROPOSED DRIVEWAY
- = PROPOSED PARKING GARAGE

RECONFIGURE FOR CENTENNIAL RD/ PRESIDENTS WAY EAST AS FREE

BALBOA PARK

ROBINSON AVE
UPAS ST
MORLEY FIELD DR
ZOO DR
ZOO PL
PARK BLVD
INSPIRATION PT WAY
PRESIDENTS WAY
VILLAGE PLACE
SPACE THEATER WAY
CENTENNIAL RD
PLAZA DE PANAMA
EL PRADO
RICHMOND ST
BALBOA DR
PAN AMERICAN LOT
FEDERAL LOT
QUINCE DR
LAUREL ST
ASH ST
ELM ST
A ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
FEDERAL LOT DWY
163
5

Table 202
Alternative 4Bii
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
14	Sixth Avenue/Robinson Avenue	-	-	-	F	Widen intersection approach and modify traffic signal. Add thru and right NB lanes, left and thru SB lanes, and restripe to accommodate two left WB lanes	D
28	Presidents Way/Federal-Aerospace Lot	-	-	-	E	Restripe a westbound left turn lane, eastbound thru and thru-right lane and widen northbound approach dwy	D
34	President Way/Organ Pavilion Lot	-	-	-	-	Restripe a westbound right lane and driveway for a wider southbound approach	C
Roadway Segments							
1	Park Boulevard between Robinson Avenue and Upas Street	F	Build to four lane major standards. Restripe SB to accommodate parking and two thru lanes matching existing NB configuration	B	F	Build to four lane major standards. Restripe SB to accommodate parking and two thru lanes matching existing NB configuration	B
9	Sixth Avenue between Robinson Avenue and Upas Street	E	Significant and potentially unmitagable	-	F	Significant and potentially unmitagable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	E	Significant and potentially unmitagable	-
13	Sixth Avenue between Elm Street and Ash Street	-	-	-	F	Significant and potentially unmitagable	-
17	Robinson Avenue between Sixth Avenue and Vermont Street	F	Remove on-street parking (approximately 44 spaces) and restripe with a center TWLTL	C	F	Remove on-street parking (approximately 44 spaces) and restripe with a center TWLTL	D
22	Presidents Way west of Park Boulevard	E	Restripe with center TWLTL	B	E	Restripe with center TWLTL	B
24	Zoo Place east of Park Boulevard	-	-	-	F	Significant and potentially unmitagable	-
-	-	-	-	-	-	-	-

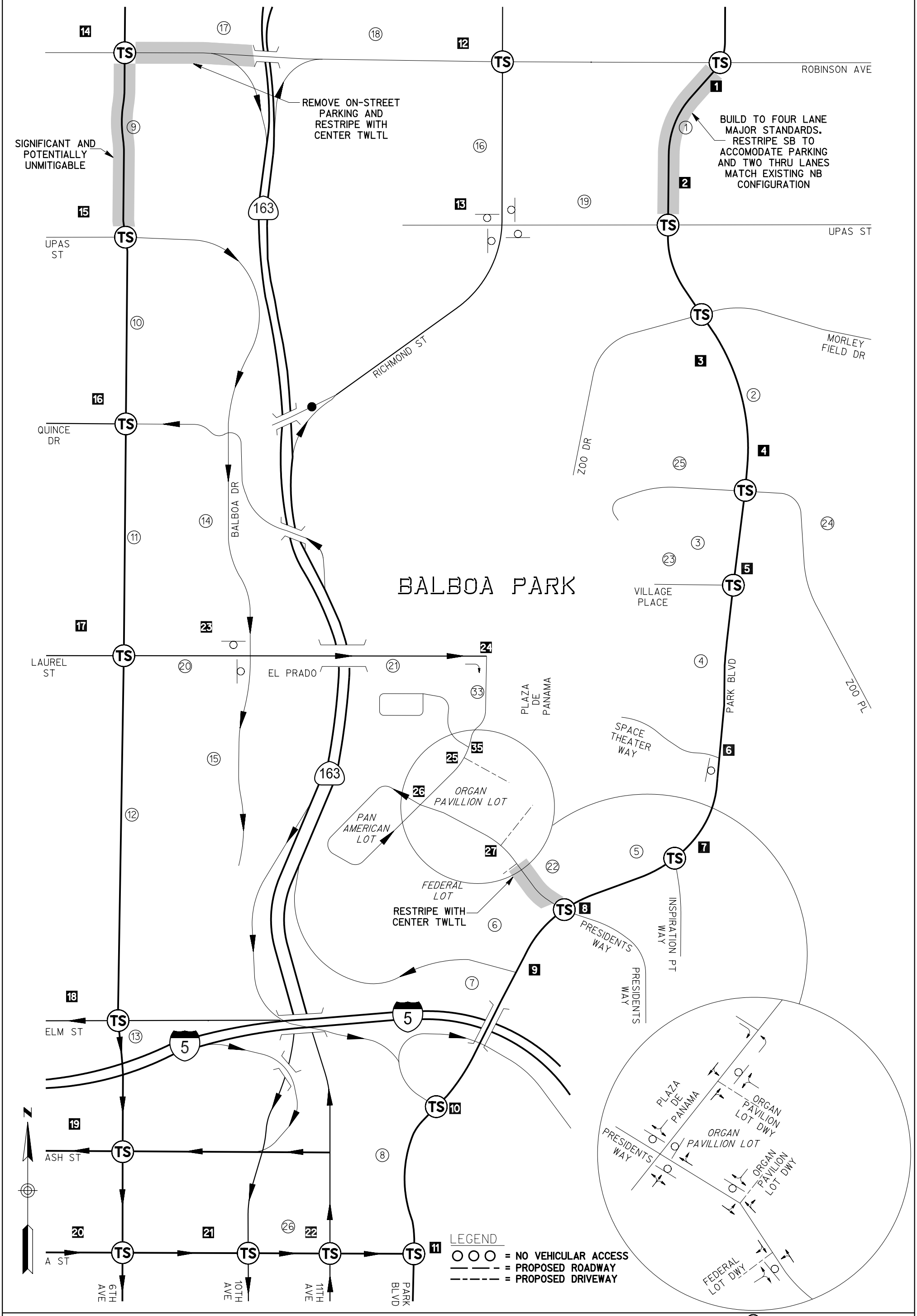

EXHIBIT 148

2015 ALTERNATIVE 4Bii TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

RICK ENGINEERING COMPANY

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REMOVE ON-STREET PARKING AND RESTRIPE WITH CENTER TWLTL

RESTRIPE WITH CENTER TWLTL

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

BUILD TO FOUR LANE MAJOR STANDARDS. RESTRIPE SB TO ACCOMODATE PARKING AND TWO THRU LANES MATCH EXISTING NB CONFIGURATION

PROHIBIT EB LEFT TURN MOVEMENT

FEDERAL LOT RESTRIPE WITH CENTER TWLTL

SIGNIFICANT AND POTENTIALLY UNMITIGABLE

ROBINSON AVE

UPAS ST

UPAS ST

QUINCE DR

LAUREL ST

ELM ST

ASH ST

A ST

EL PRADO

RICHMOND ST

BALBOA DR

ZOO DR

MORLEY FIELD DR

VILLAGE PLACE

PARK BLVD

ZOO PL

SPACE THEATER WAY

PLAZA DE PANAMA

PRESIDENTS WAY

INSPIRATION PT WAY

6TH AVE

10TH AVE

11TH AVE

PARK BLVD

163

5

BALBOA PARK

ORGAN PAVILLION LOT

PAN AMERICAN LOT

FEDERAL LOT

PLAZA DE PANAMA

ORGAN PAVILION LOT DWY

ORGAN PAVILION LOT

PRESIDENTS WAY

ORGAN PAVILION LOT DWY

FEDERAL LOT DWY

N

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

EXHIBIT 149

2030 ALTERNATIVE 4Bii TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

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ALTERNATIVE 4Biii (MODIFIED PRECISE PLAN WITHOUT PARKING STRUCTURE ALTERNATIVE)

Traffic impacts are similar to the proposed project for the external streets and similar to no project for the internal streets, however due to high vehicle/ pedestrian conflict and volumes at the El Prado/Plaza De Panama intersection, with the added adjacent Tram drop-off areas and Valet drop-off areas for this alternative, it is expected to cause considerable queuing and is anticipated to spillback to nearby adjacent intersections.

Table 203 summarizes the 2015 and 2030 mitigation measures for Alternative 4Biii.

Exhibits 150 and **Exhibit 151** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNTIVE 4Biv ("HALF PLAZA" ALTERNATIVE)

Traffic impacts are similar to the proposed project for the external streets and similar to no project for the internal streets, however due to high vehicle/ pedestrian conflict and volumes at the El Prado/Plaza De Panama intersection, with the added adjacent Tram drop-off areas and Valet drop-off areas for this alternative, it is expected to cause considerable queuing and is anticipated to spillback to nearby adjacent intersections.

Table 204 summarizes the 2015 and 2030 mitigation measures for Alternative 4Biv.

Exhibits 152 and **Exhibit 153** show graphical representation of the 2015 and 2030 mitigation measures respectively.

ALTERNATIVE 5 (PHASED ALTERNATIVE)

The following summarizes the four different phases that have been assessed based on various analysis components of the other alternatives. The following is a summary of each phase:

The following were the assumed triggers for each Phase:

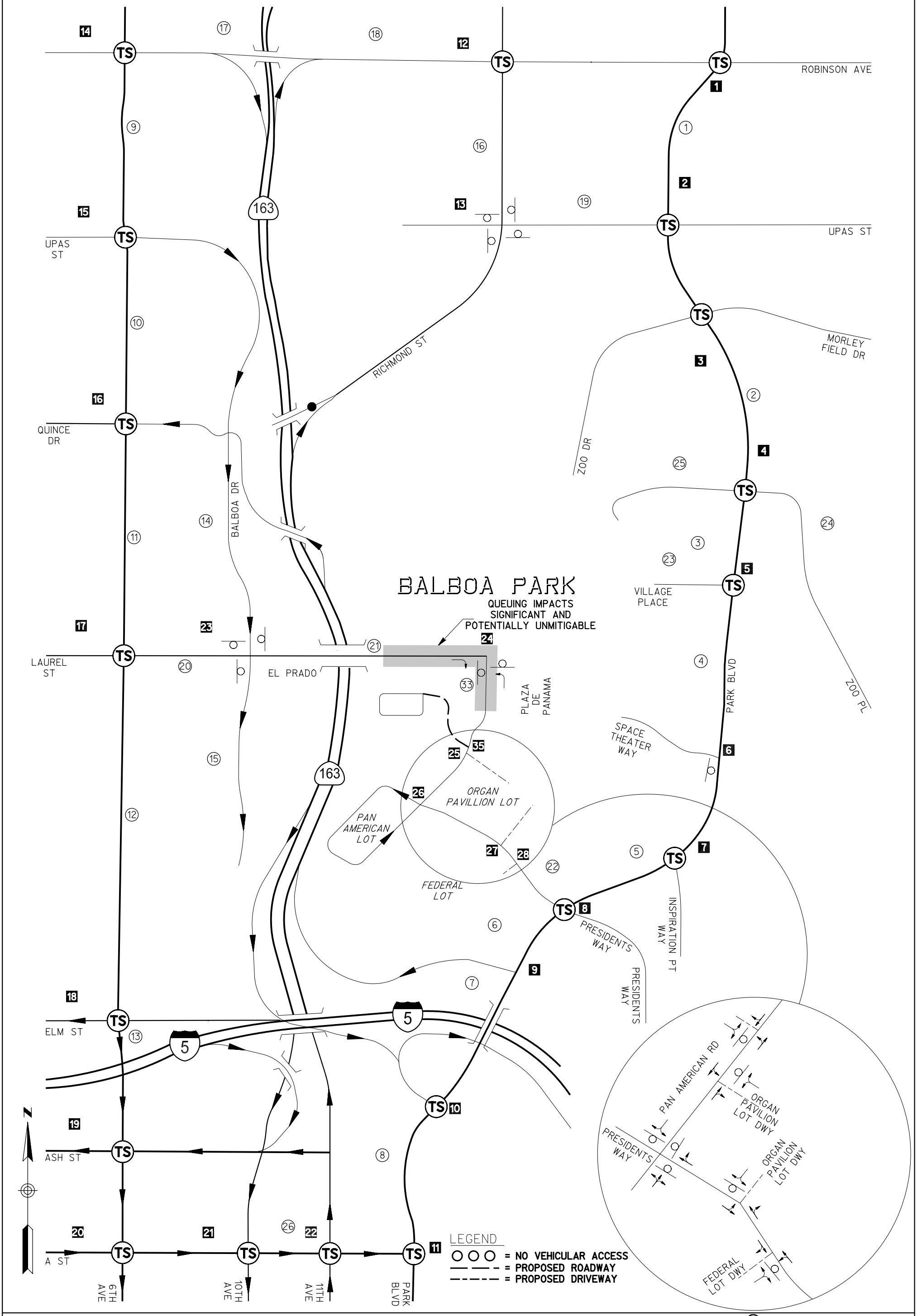
- For Phase 1, if park core area parking is anticipated to continue to be over capacity (85%) , then go to Phase 2
- For Phase 2, if pedestrian/vehicular conflicts are not reduced by at least 50%, then go to Phase 3
- For Phase 3, If internal roadways and intersections are calculated to operate poorly (LOS E and LOS F), then go to Phase 4

Phase 1: Based on the parking demand studies, elimination of parking and valet operations within the Plaza de Panama, indicate parking occupancies at/or over capacity (85%) in the core area.
Phase 2: Adding the Organ Pavilion structure will increase parking supply within the core area, however, pedestrian and vehicular conflicts at the Plaza de Panama would still remain.

Table 203
Alternative 4Biii
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
24	El Prado/Plaza De Panama	*	Significant and potentially unmitigated due to queuing impacts	-	*	Significant and potentially unmitigated due to queuing impacts	-
Roadway Segments							
-	None	-	-	-		-	-

*Note that the intersection movements operate at LOS B in 2015 and LOS D in 2030. However, significant queuing/spillback occurs, per Table 192, to adjacent intersections, thus resulting in poor access/circulation operations



RICK ENGINEERING COMPANY

EXHIBIT 150

2015 ALTERNATIVE 4Biii TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

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BALBOA PARK

QUEUING IMPACTS SIGNIFICANT AND POTENTIALLY UNMITIGABLE

ROBINSON AVE
UPAS ST
UPAS ST
QUINCE DR
LAUREL ST
ELM ST
ASH ST
A ST
EL PRADO
RICHMOND ST
BALBOA DR
ZOO DR
ZOO PL
PARK BLVD
VILLAGE PLACE
PLAZA DE PANAMA
SPACE THEATER WAY
MORLEY FIELD DR
INSPIRATION PT WAY
PRESIDENTS WAY
PRESIDENTS WAY
PAN AMERICAN RD
ORGAN PAVILLION LOT
PAN AMERICAN LOT
FEDERAL LOT
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
ORGAN PAVILION LOT DWY
ORGAN PAVILION LOT DWY
FEDERAL LOT DWY

163
5

LEGEND

= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY

LEGEND

= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

EXHIBIT 151

2030 ALTERNATIVE 4Biii TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

RICK ENGINEERING COMPANY

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Table 204
Alternative 4Biv
Mitigation Summary

Impacted Locations		2015			2030		
		LOS	Mitigation	Mitigated LOS	LOS	Mitigation	Mitigated LOS
Intersections							
24	El Prado/Plaza De Panama	*E	Potentially significant and unmitigated due to queuing impacts		*F	Potentially significant and unmitigated due to queuing impacts	
28	Presidents Way/Federal-Aerospace Lot	E	Restripe a westbound left turn lane and driveway for a wider northbound approach	C	F	Restripe two westbound thru lanes, westbound left turn lane, eastbound right lane and widen northbound approach dwy	D
34	Presidents Way/Centennial Road	-		-	F	Reconfigure for Centennial Road/Presidents Way as free	C
Roadway Segments							
-	None	-	-	-	-	-	-

*See Table 192 for queuing results.

BALBOA PARK

QUEUING IMPACTS SIGNIFICANT AND POTENTIALLY UNMITIGABLE

ROBINSON AVE
UPAS ST
UPAS ST
QUINCE DR
LAUREL ST
ELM ST
ASH ST
A ST
EL PRADO
RICHMOND ST
BALBOA DR
ZOO DR
MORLEY FIELD DR
VILLAGE PLACE
PARK BLVD
ZOO PL
SPACE THEATER WAY
CENTENNIAL RD
PLAZA DE PANAMA
PAN AMERICAN LOT
FEDERAL LOT
PRESIDENTS WAY
INSPIRATION PT
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
163
5

N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
CENTENNIAL RD
PRESIDENTS WAY
FEDERAL LOT DWY

LEGEND
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND
= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

RICK ENGINEERING COMPANY

EXHIBIT 152

2015 ALTERNATIVE 4Biv TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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BALBOA PARK

QUEUING IMPACTS SIGNIFICANT AND POTENTIALLY UNMITIGATED

RECONFIGURE FOR CENTENNIAL RD/ PRESIDENTS WAY EAST AS FREE

ROBINSON AVE
UPAS ST
MORLEY FIELD DR
ZOO DR
ZOO PL
PARK BLVD
VILLAGE PLACE
SPACE THEATER WAY
PLAZA DE PANAMA
EL PRADO
CENTENNIAL RD
PAN AMERICAN LOT
FEDERAL LOT
PRESIDENTS WAY
INSPIRATION PT
BALBOA DR
RICHMOND ST
QUINCE DR
LAUREL ST
ASH ST
A ST
ELM ST
6TH AVE
10TH AVE
11TH AVE
PARK BLVD
N. PARKING STRUCTURE DWY
S. PARKING STRUCTURE DWY
FEDERAL LOT DWY
163
5

LEGEND
= NO VEHICULAR ACCESS
= PROPOSED ROADWAY
= PROPOSED DRIVEWAY
= PROPOSED PARKING GARAGE

LEGEND
= TRAFFIC SIGNAL
= STOP SIGN
= INTERSECTION NUMBER
= SEGMENT NUMBER
= PROPOSED MITIGATION

RICK ENGINEERING COMPANY

EXHIBIT 153

2030 ALTERNATIVE 4Biv TRAFFIC MITIGATION

BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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Phase 3: Closing the Cabrillo Bridge is anticipated to reroute park destined trips to the Park Boulevard/Presidents Way intersection as the core of the park would be limited to one access point at this location.
Phase 4: Construct Centennial Bridge (proposed project)