

**BALBOA PARK PLAZA DE PANAMA
CIRCULATION & PARKING STRUCTURE PROJECT
TRAFFIC ANALYSIS
PTS #233958**

JANUARY 12, 2012

(JOB NUMBER 16325)

Rick
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**Balboa Park Plaza De Panama
Circulation & Parking Structure Project
Traffic Analysis**

PTS-233958

January 12, 2012

Prepared for:

**Plaza De Panama Committee
KCM Group**

Prepared by:



(Job Number 16325)

EXECUTIVE SUMMARY

Balboa Park Plaza De Panama Circulation & Parking Structure Project Traffic Analysis

January 12, 2012

INTRODUCTION

The following study has been prepared to determine any traffic-related impacts within the study area roadways and intersections due to the proposed Balboa Park Plaza de Panama Circulation and Parking Structure project in the Central Mesa area of Balboa Park within the City of San Diego. The project site is located east of 6th Avenue and west of Park Boulevard and is generally bounded by Interstate 5 to the south and Upas Street to the north. **Exhibit 1** shows the project vicinity map. **Exhibit 2** shows the project study area map with the surrounding street network system.

PROJECT DESCRIPTION

The proposed project is intended to restore pedestrian use and remove vehicular traffic and parking from the Plaza de California, West Prado, the Plaza de Panama, and Pan American Road, consistent with the original vision for the Central Mesa. This would be accomplished through the construction of a new by-pass road and bridge, which would divert eastbound vehicular traffic from the Park's western entrance on Cabrillo Bridge south to a new 265,242-square-foot underground parking structure with 797 parking spaces (net gain of 260 spaces) located in the area of an existing surface parking lot behind the Organ Pavilion. An additional 97,000 square feet of park space would be created on top of the parking structure. The project proposes to continue to utilize the existing access points to/from the site via 6th Avenue/Laurel Street-El Prado, Park Boulevard/Village Place, Park Boulevard/Theatre Way and Park Boulevard/Presidents Way.

The project is proposed to be constructed in the following four phases with planned completion by December 2015:

Phase I – Utility Infrastructure and Road Construction (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)

Phase I - 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

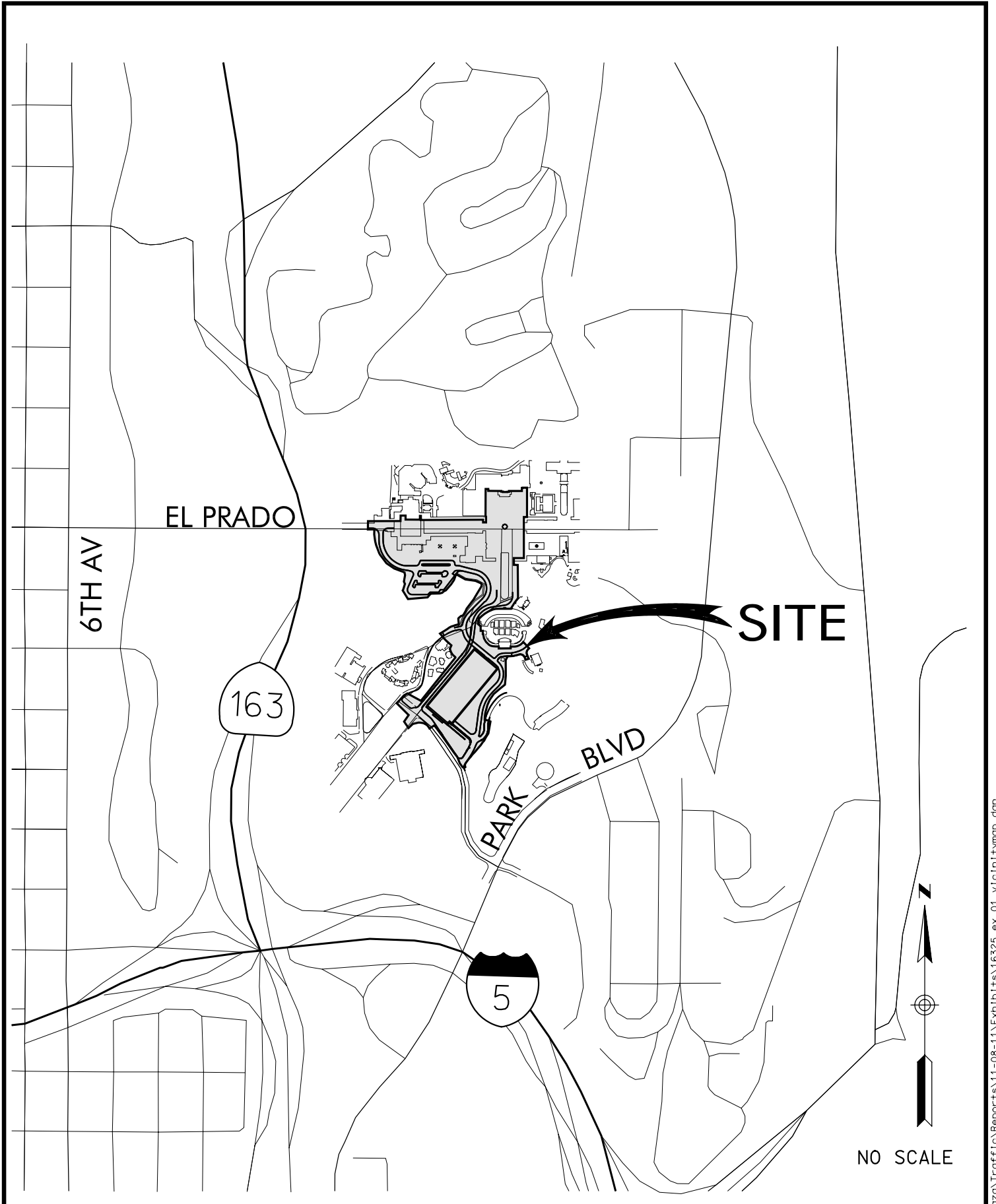
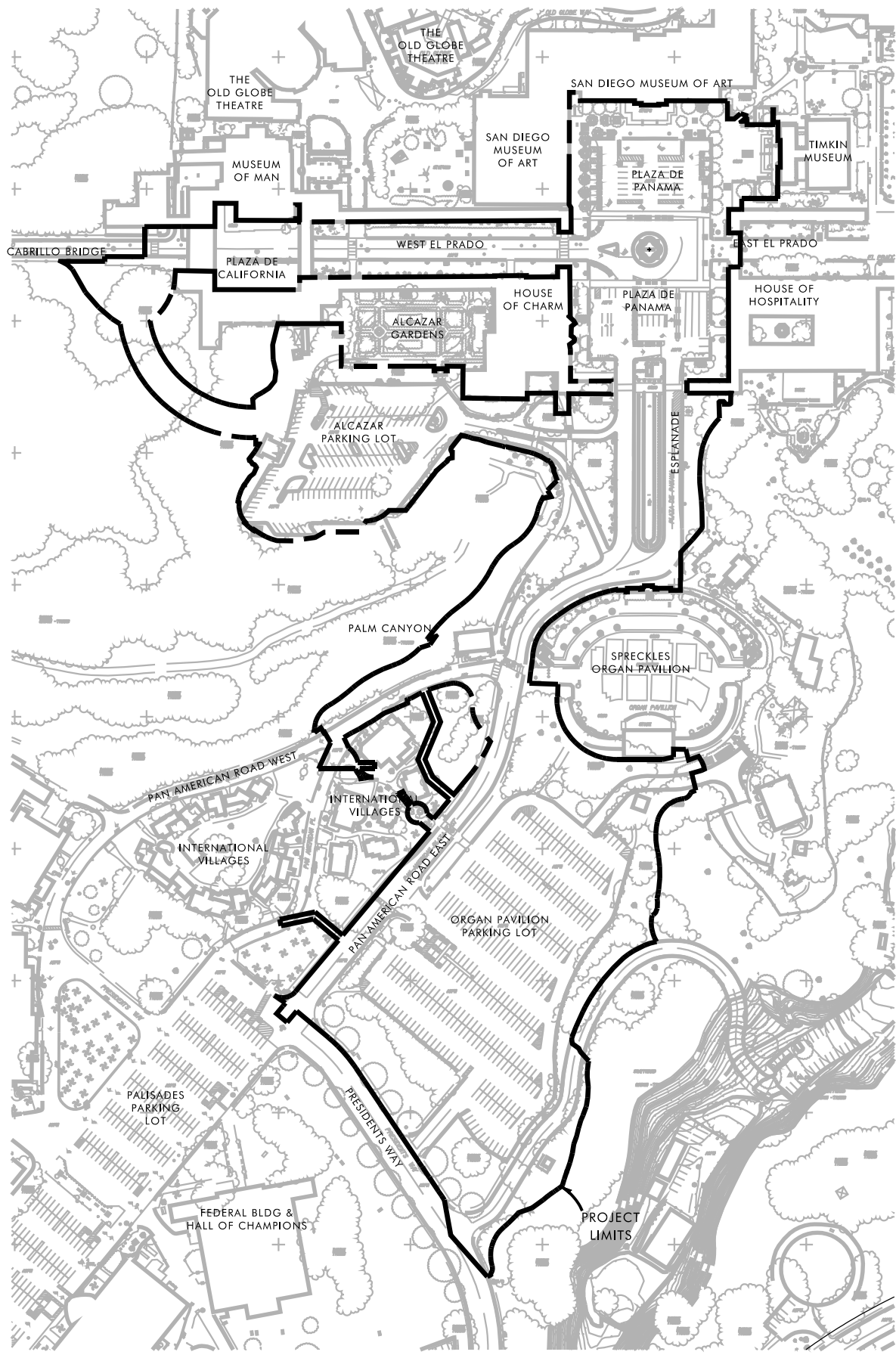


EXHIBIT 1
PROJECT VICINITY MAP
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS



NO SCALE

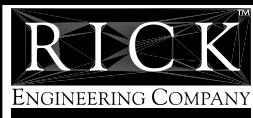


EXHIBIT 2
 PROJECT AREA MAP
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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 southeast corner of the intersection of President's Way and Pan American Road East.

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 125,000 cubic yards of soil is to be removed from the footprint of the current Organ Pavilion lot. 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-in-place 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 to expedite the start of Phase III, anticipates a Temporary Certificate of Occupancy (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.

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.

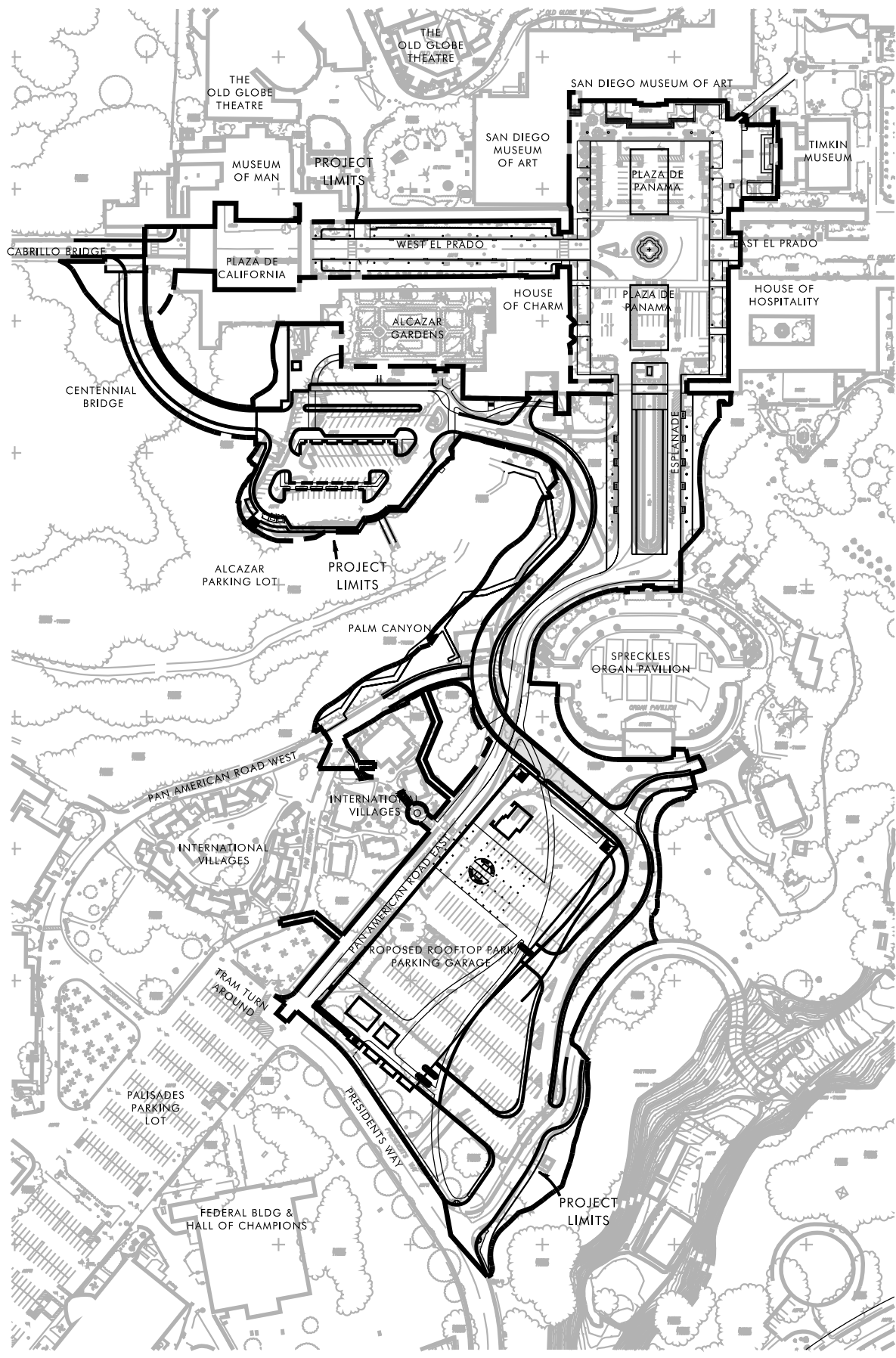
Phase IV – Pedestrian Tram/Promenade, Esplanade and Plaza Improvements: This phase of the project consists of demolition of existing pavement, hardscape, landscape, and fixtures; finish grading; site utilities, and site improvements including hardscape and landscape to rehabilitate the Plaza de California, 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.

TRAFFIC ANALYSIS

The following intersections and roadways were assessed as part of this analysis, **Exhibit A** shows the locations:

INTERSECTIONS

1. Park Boulevard/Robinson Avenue (signalized)
2. Park Boulevard/Upas Street (signalized)
3. Park Boulevard/Morley Field Drive (signalized)
4. Park Boulevard/Zoo Place (signalized)
5. Park Boulevard/Village Place (signalized)
6. Park Boulevard/Space Theatre Way (unsignalized)
7. Park Boulevard/Inspiration Way (signalized)
8. Park Boulevard/Presidents Way (signalized)
9. Park Boulevard/SR 163 NB on Ramp (unsignalized)
10. Park Boulevard/I-5 SB on and off Ramps (signalized)
11. Park Boulevard/A Street (signalized)
12. Richmond Street/Robinson Avenue (signalized)
13. Richmond Street/Upas Street (unsignalized)
14. 6th Avenue/Robinson Avenue (signalized)
15. 6th Avenue/Upas Street-Balboa Drive (signalized)
16. 6th Avenue/Quince Drive (signalized)
17. 6th Avenue/Laurel Street (signalized)
18. 6th Avenue/Elm St –I-5 NB off ramp (signalized)
19. 6th Avenue/Ash Street (signalized)
20. 6th Avenue/A Street (signalized)
21. A Street/10th Avenue
22. A Street/11th Avenue
23. Balboa Drive/El Prado (unsignalized)



NO SCALE



EXHIBIT 3
 CONCEPTUAL SITE PLAN
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

24. El Prado/Plaza De Panama (unsignalized)
25. Pan American Road/Organ Pavilion Lot (unsignalized)
26. Pan American Road/Presidents Way (unsignalized)
27. Presidents Way/Organ Pavilion Lot (unsignalized)
28. Presidents Way/Federal-Aerospace Lot (unsignalized)

ROADWAY SEGMENTS

Park Boulevard

1. Robinson Avenue to Upas Street
2. Upas Street to Zoo Place
3. Zoo Place to Village Place
4. Village Place to Space Theater Way
5. Space Theater Way to Presidents Way
6. Presidents Way to SR 163 NB ramps
7. SR 163 NB Ramps to SR 163 SB Ramps
8. SR 163 SB Ramps to A Street

6th Avenue

9. Robinson Avenue to Upas Street
10. Upas Street to Quince Drive
11. Quince Drive to El Prado
12. El Prado to Elm Street-I-5 NB ramps
13. Elm Street-I-5 NB ramps to Ash Street

Balboa Drive

14. Quince Drive to El Prado
15. El Prado to Juniper Road

Richmond Street

16. Robinson Avenue to Upas Street

Robinson Avenue

17. 6th Avenue to Vermont Street
18. Vermont Street to Park Boulevard

Upas Street

19. Richmond Street to Park Boulevard

El Prado

20. 6th Avenue to Balboa Drive
21. Balboa Drive to Plaza de Panama

Presidents Way

22. West of Park Boulevard
28. East of Pan American Road

Village Place

23. West of Park Boulevard

Zoo Place

- 24. East of Park Boulevard
- 25. West of Park Boulevard

A Street

- 26. 6th Avenue to Park Boulevard

Pan American Road

- 27. North of Presidents Way

The following scenarios have been analyzed for the Proposed Project conditions:

- Existing
- Existing + Proposed Project
- 2015 without project
- 2015 + Proposed Project
- 2030 without project
- 2030 + Proposed Project

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.

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.

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	-	-	-	-	-	-

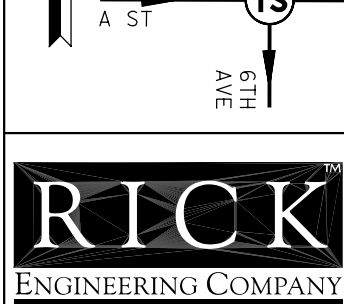
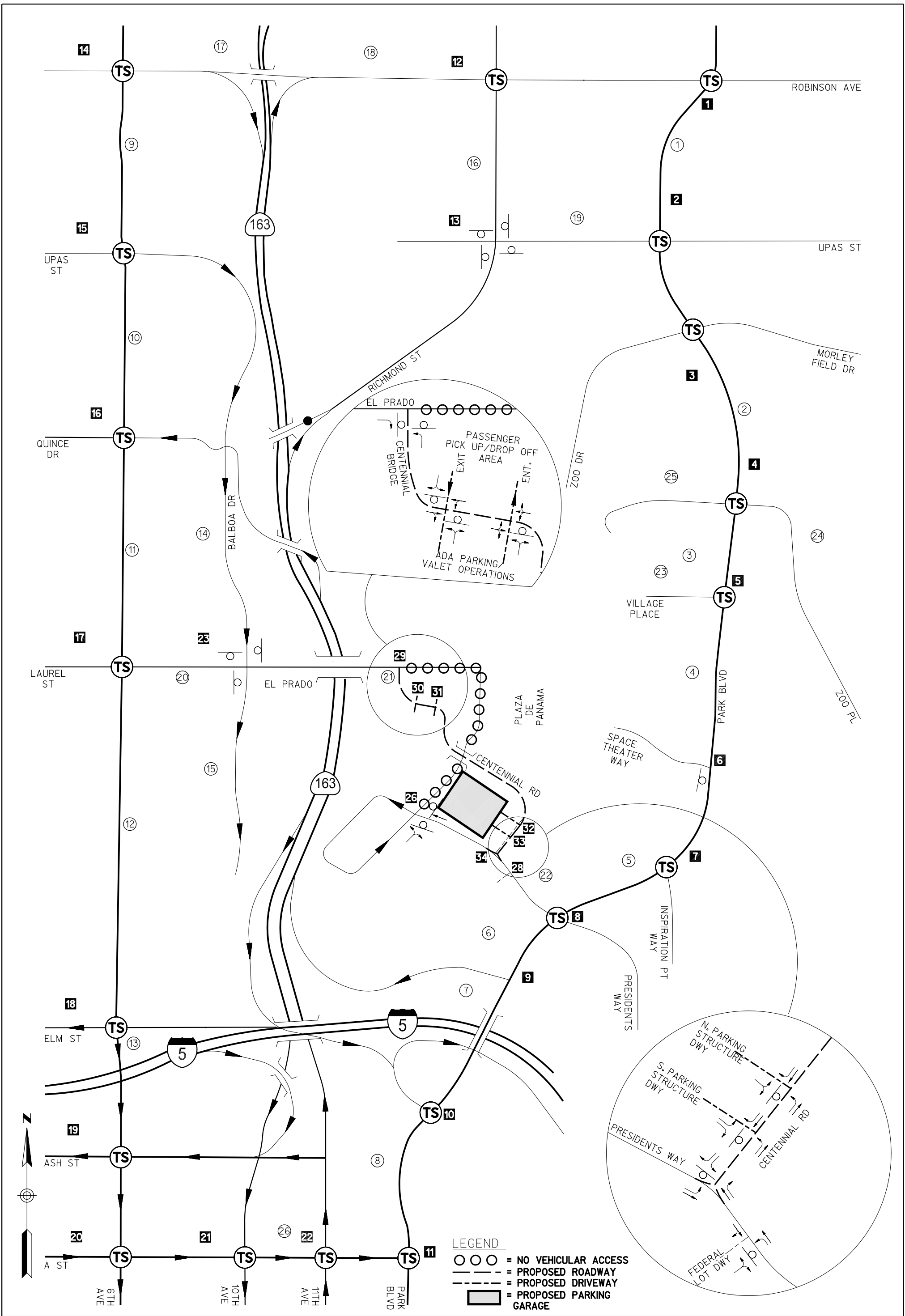


EXHIBIT 130

2015 PROPOSED PROJECT TRAFFIC MITIGATION

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

LEGEND

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

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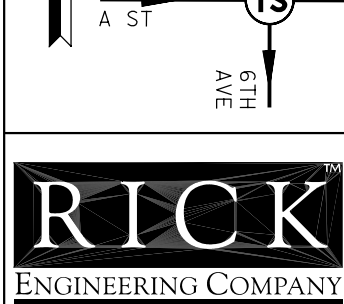
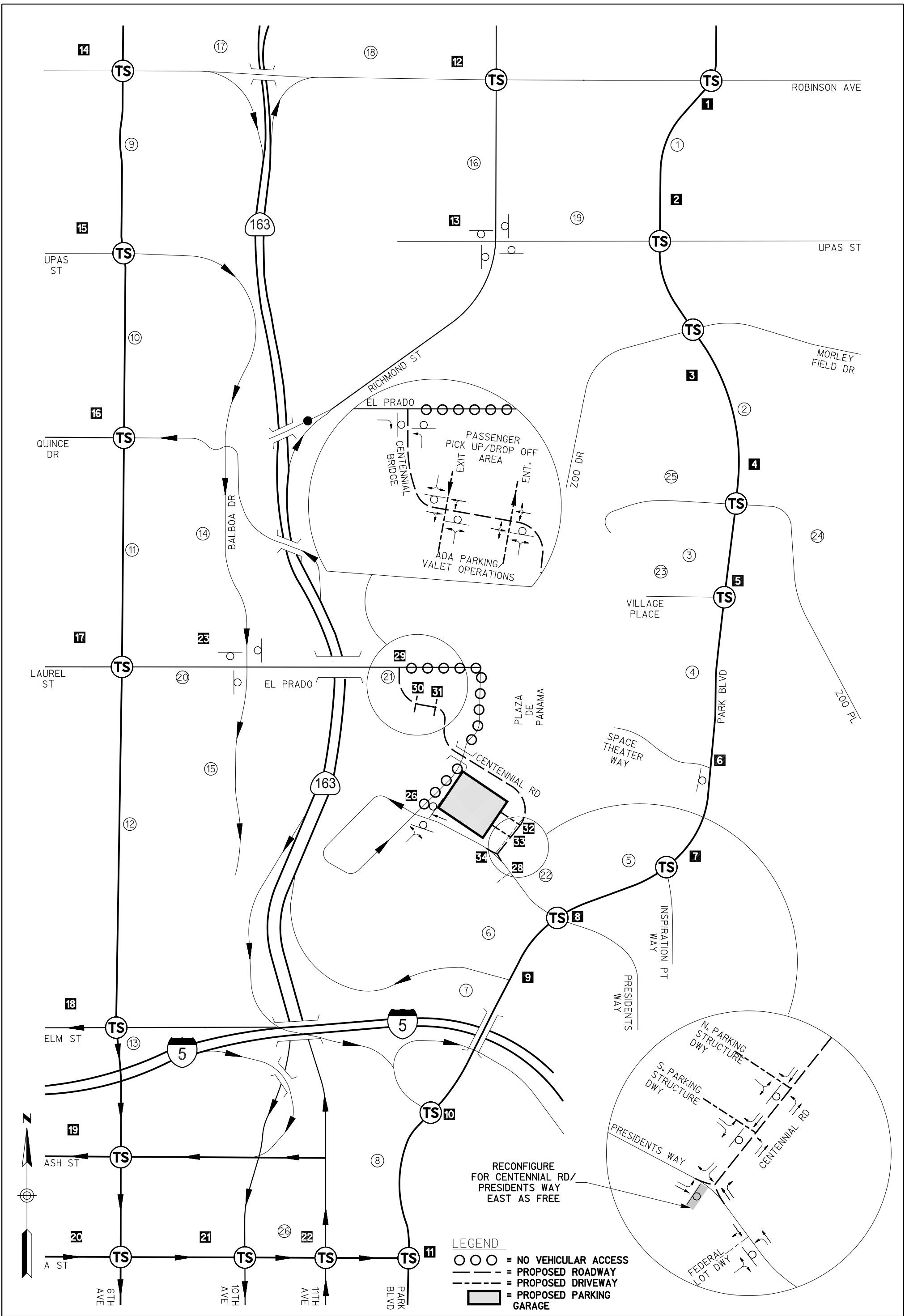


EXHIBIT 131

2030 PROPOSED PROJECT TRAFFIC MITIGATION

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

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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ALTERNATIVES

As part of the EIR Alternatives to the proposed project, the following alternatives were also considered and their traffic related impacts, evaluated and discussed:

- No Project Alternative
- Alternative 2 – Central Mesa Precise Plan
- Alternative 3A – Pedestrianize Cabrillo Bridge with No New Parking
- Alternative 3B – Pedestrianize Cabrillo Bridge with Organ Pavilion Parking Structure
- Alternative 3C - Pedestrianize Cabrillo Bridge with West Mesa Parking Structure
- Alternative 3D – Pedestrianize Cabrillo Bridge with Inspiration Point Parking Structure
- Alternative 4Ai - Cabrillo Bridge Open – with Centennial Bridge Gold Gulch Parking Structure Alternative
- Alternative 4Aii –Cabrillo Bridge Open – with Centennial Bridge – No Paid Parking Alternative
- Alternative 4Bi –Cabrillo Bridge Open without Centennial Bridge – Tunnel Alternative
- Alternative 4Bii - Cabrillo Bridge Open without Centennial Bridge – Stop Light Alternative
- Alternative 4Biii - Cabrillo Bridge Open without Centennial Bridge – Modified Precise Plan without Parking Structure
- Alternative 4Biv - Cabrillo Bridge Open without Centennial Bridge – Half Plaza Alternative
- Alternative 5 – Phased Alternative

Each of these Alternatives was evaluated for the following scenarios:

- Existing + Project Alternative
- 2015 + Project Alternative
- 2030 + Project Alternative

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

NO PROJECT ALTERNATIVE

This Alternative maintains the current traffic conditions as it exists today.

In 2015, the No project alternative shows all the study area intersections and roadway segments to operate at LOS D or better during the 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)
- El Prado/Plaza de Panama (NB, LOS F)
- Presidents Way/Federal-Aerospace Lot (NB shared left-right, LOS E)
- 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 Road (LOS E)

In 2030, the No project alternative shows all the study area intersections and roadway segments to operate at LOS D or better during the 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, LOS F, PM peak)
- Park Boulevard/SR 163 NB on Ramp (NB left turn, LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak and LOS E, PM peak)
- El Prado/Plaza de Panama (NB, LOS F)
- 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)
- 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 Road (LOS E)

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

For the No project alternative and similar scenarios, the El Prado/Plaza De Panama intersection will continue to operate at LOS F due to the high vehicular and pedestrian conflicts at the Plaza de Panama.

ALTERNATIVE 2 (CENTRAL MESA PRECISE PLAN)

This alternative is consistent with the Balboa Park Central Mesa Precise Plan with the addition of a new parking structure at the Organ Pavilion lot. This plan allows for vehicles on the Cabrillo Bridge (one way eastbound during peak hours), pedestrianizes a portion of Plaza de Panama, but allows for vehicle traffic routed through the southwest corner of Plaza de Panama (one way eastbound).

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.

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

**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	-
-	-	-	-	-	-	-	-

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

PEDESTRIANIZE CABRILLO BRIDGE ALTERNATIVES

ALTERNATIVE 3A (NO NEW PARKING)

This alternative essentially closes the Cabrillo Bridge to vehicular traffic, just east of the El Prado/Balboa Drive intersection and removes parking in the Plaza de Panama. All other existing parking lots will be retained. Vehicular access to the site will primarily be provided to the east of the park (via Presidents Way/Park Boulevard intersection).

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.

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

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

ALTERNATIVE 3B (ORGAN PAVILLION PARKING STRUCTURE)

This alternative essentially closes the Cabrillo Bridge to vehicular traffic, just east of the El Prado/Balboa Drive intersection and provides a parking structure at the Organ Pavilion lot, similar to the proposed project. Therefore the vehicular access to the site will primarily be provided to the east of the park (via Presidents Way/Park Boulevard intersection).

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.

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

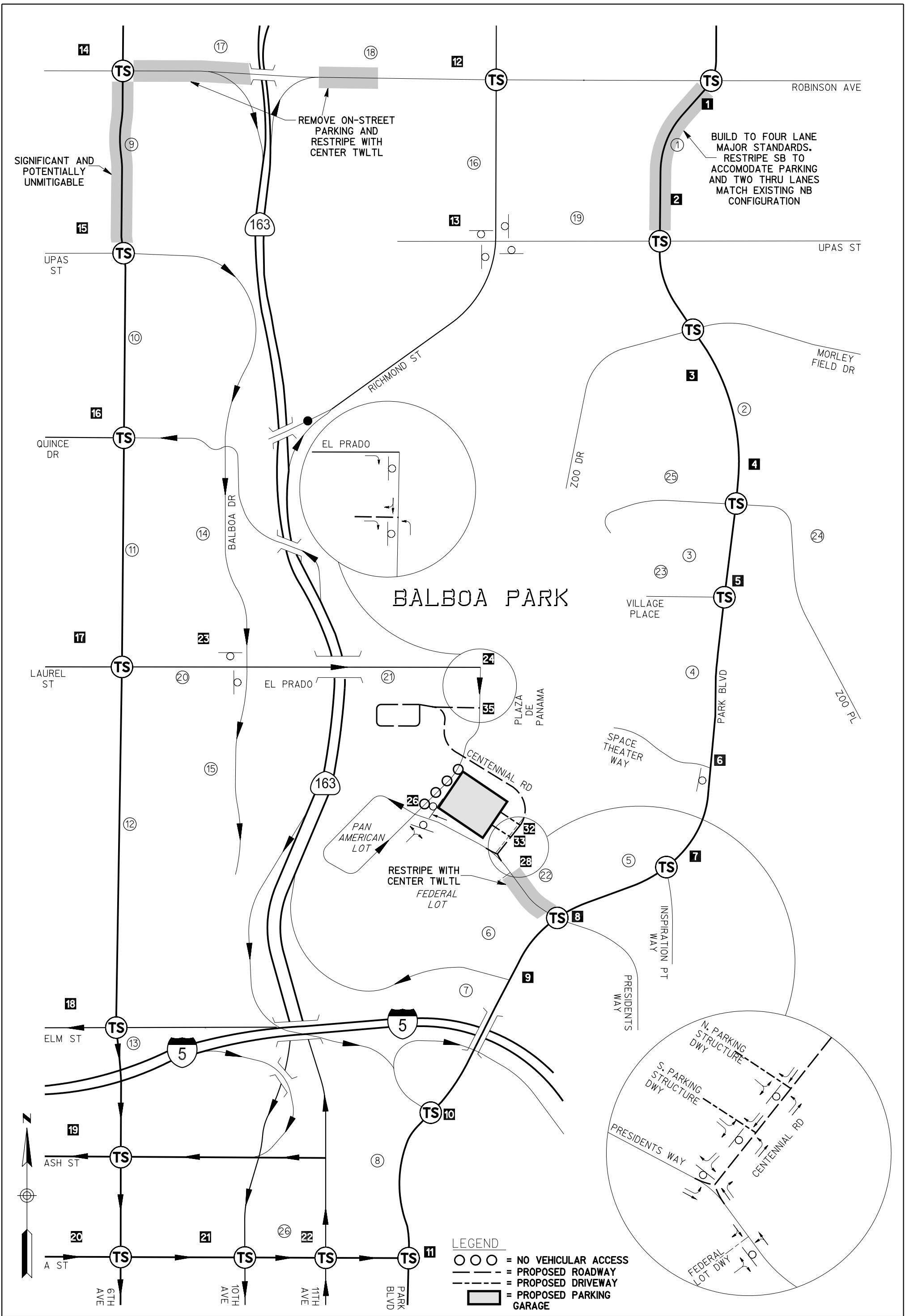
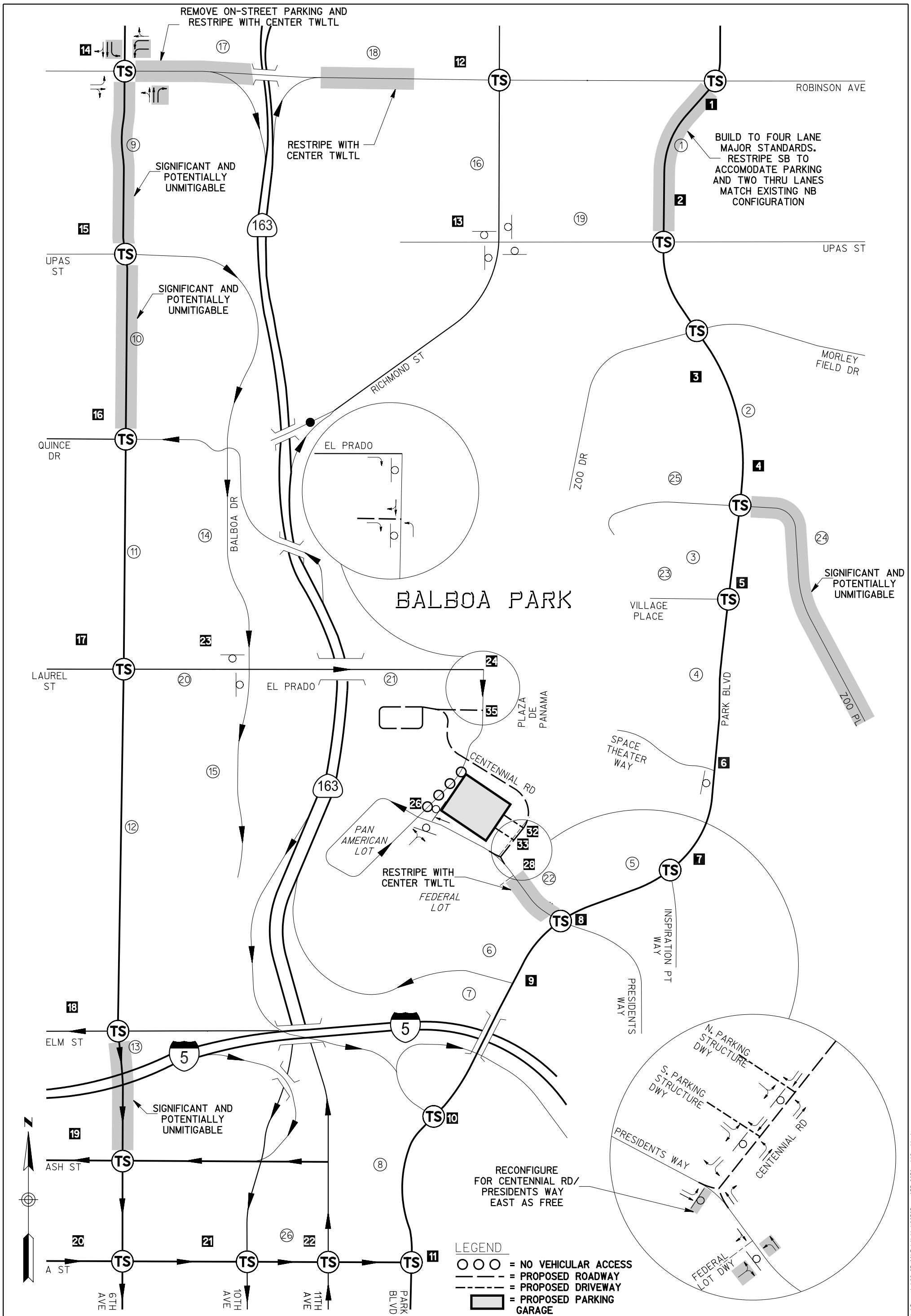


EXHIBIT 132

2015 ALTERNATIVE 2 TRAFFIC MITIGATION

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

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EXHIBIT 133

2030 ALTERNATIVE 2 TRAFFIC MITIGATION

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

- LEGEND**
- ○ ○ = NO VEHICULAR ACCESS
 - - - = PROPOSED ROADWAY
 - · - · - = PROPOSED DRIVEWAY
 - = PROPOSED PARKING GARAGE

- LEGEND**
- TS = TRAFFIC SIGNAL
 - = STOP SIGN
 - X = INTERSECTION NUMBER
 - ⊗ = SEGMENT NUMBER
 - XU = X LANE UNDIVIDED
 - XD = X LANE DIVIDED

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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 unmitigable	-
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 unmitigable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	F	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	-
-	-	-	-	-	-	-	-

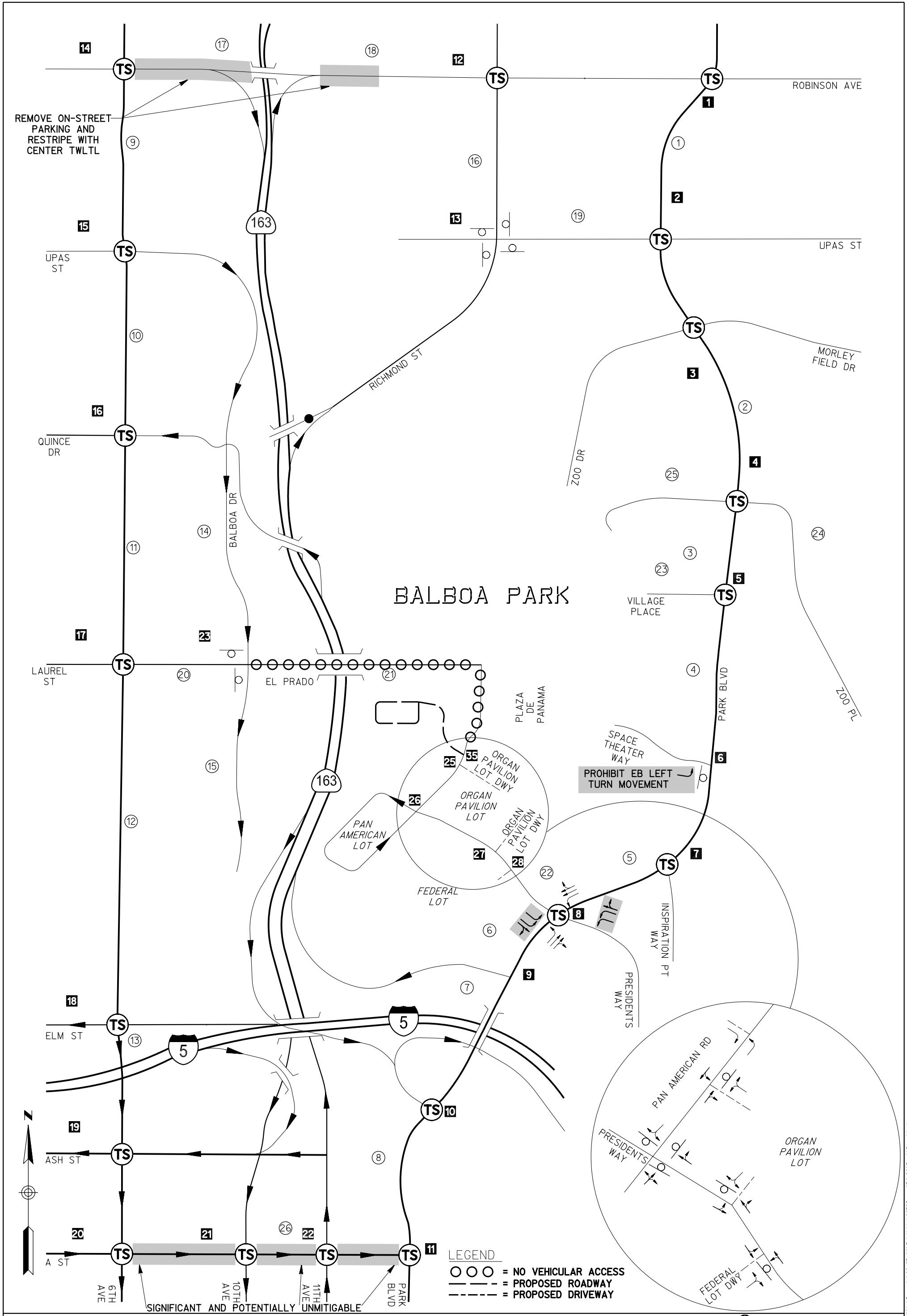


EXHIBIT 134

2015 ALTERNATIVE 3A 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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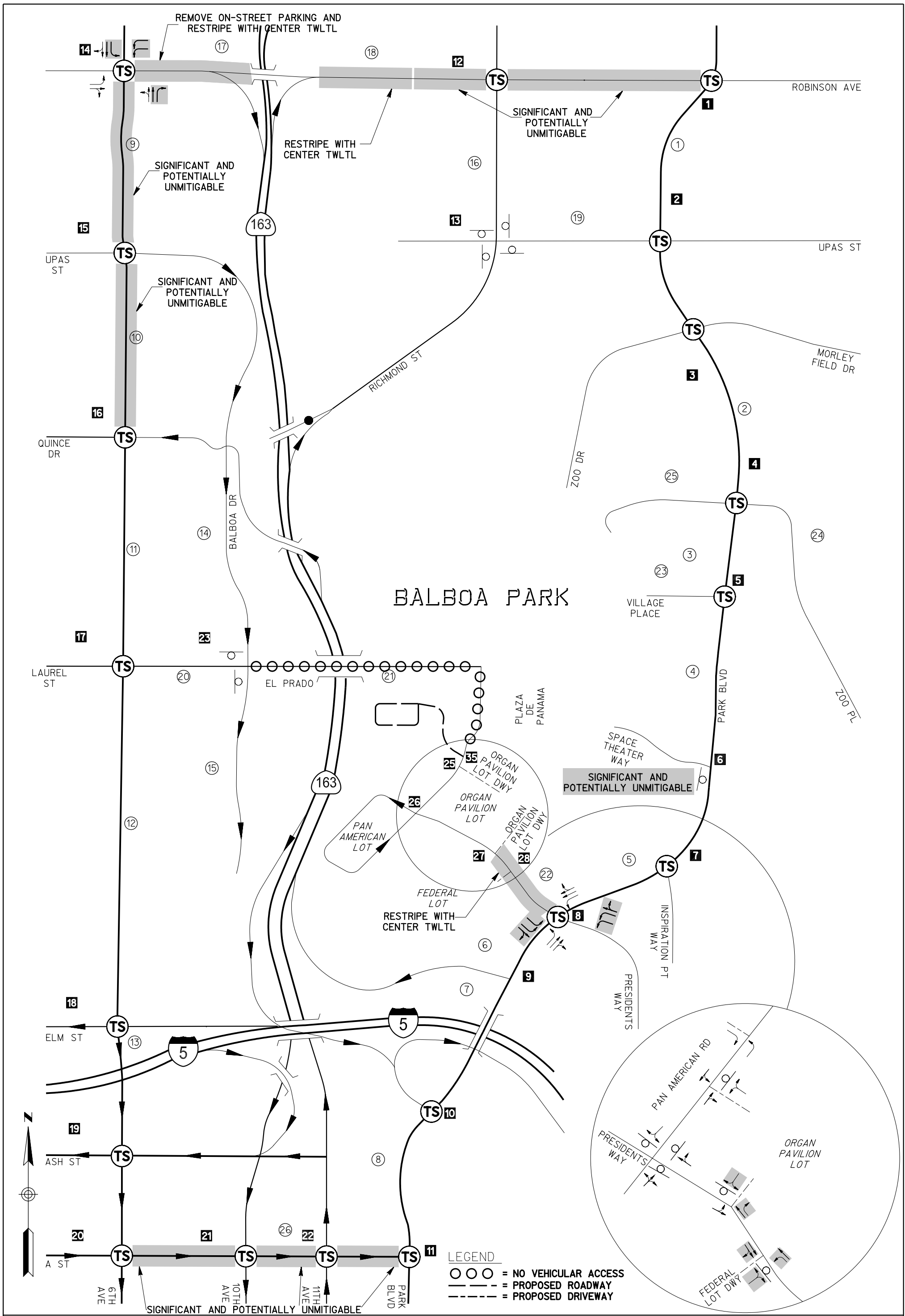







EXHIBIT 135

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	-
-	-	-	-	-	-	-	-

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

ALTERNATIVE 3C (WEST MESA PARKING STRUCTURE)

Site access to the alternative is similar to Alternative 3B, however a parking structure is proposed at the West Mesa (lawn bowling area), instead of the Organ Pavilion lot. The existing Organ Pavilion parking lot would remain as it exists today. Vehicular traffic looking to access the Central Mesa would enter from the east via the Park Boulevard/Presidents Way intersection.

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.

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

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

ALTERNATIVE 3D (INSPIRATION POINT PARKING STRUCTURE)

Site access is similar to Alternative 3B, however a parking structure is proposed at the Inspiration Point lot. The Organ Pavilion lot would be converted to park land.

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.

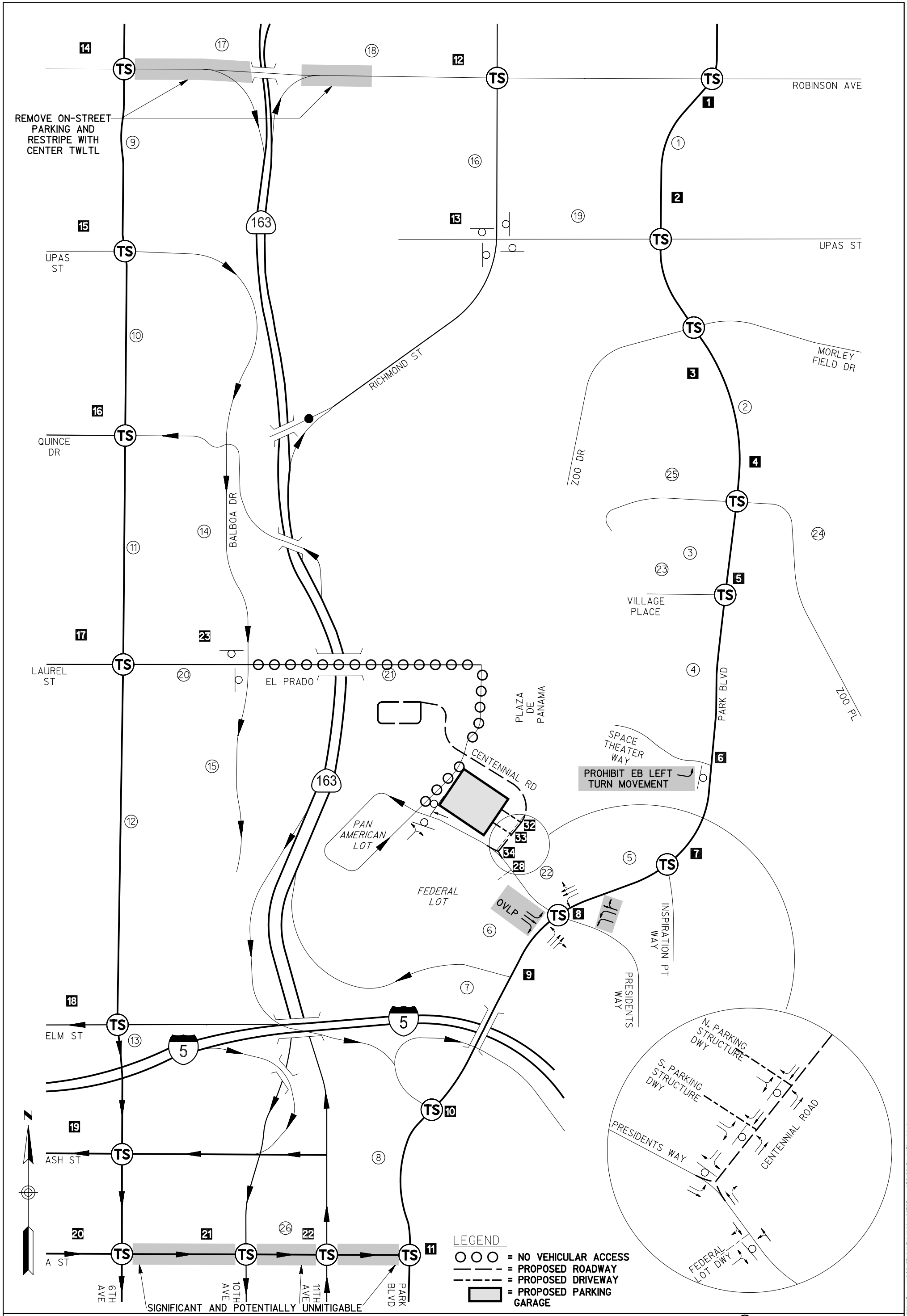


EXHIBIT 136

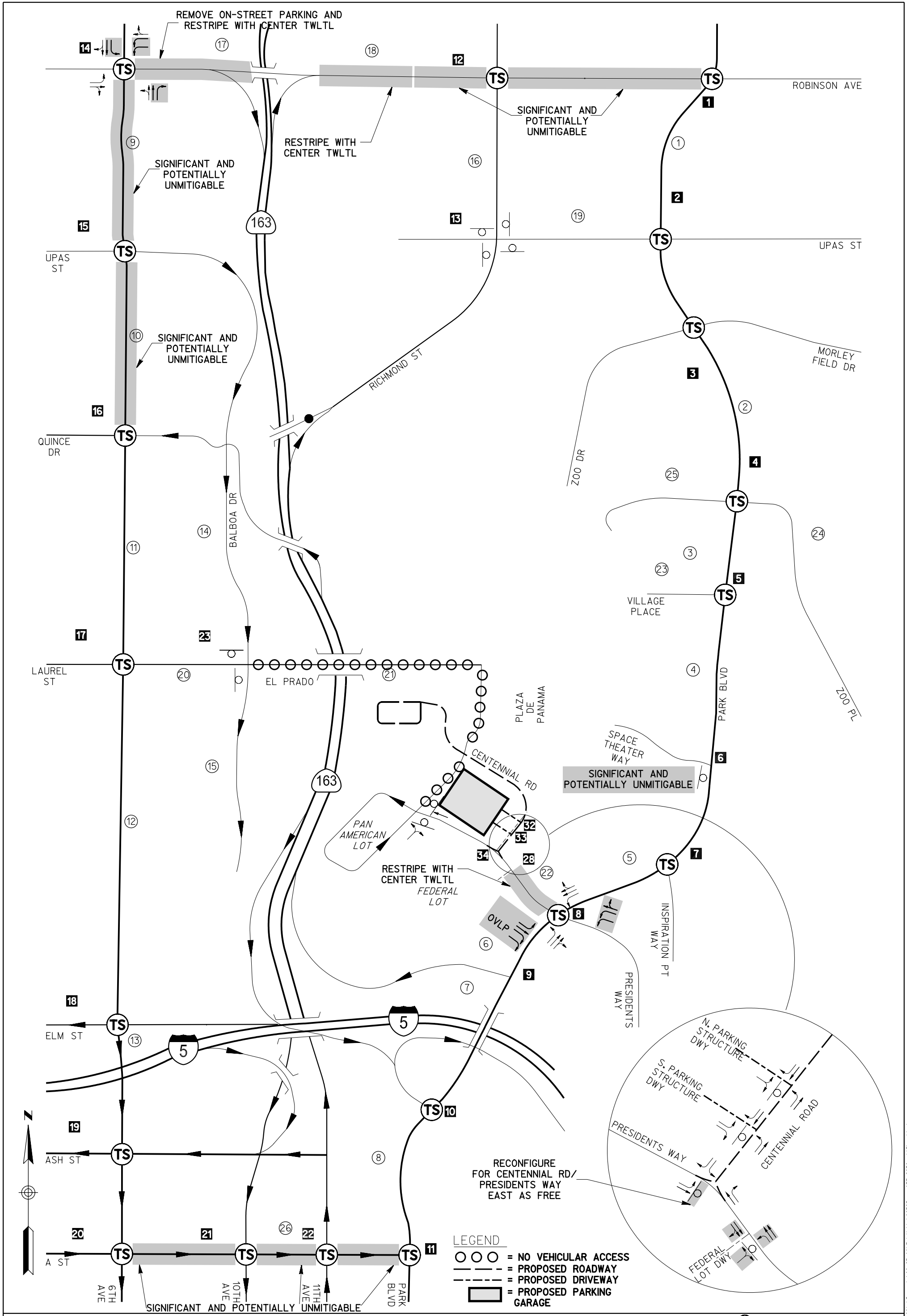
2015 ALTERNATIVE 3B TRAFFIC MITIGATION

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



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EXHIBIT 137

2030 ALTERNATIVE 3B TRAFFIC MITIGATION

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

- 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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**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	-
-	-	-	-	-	-	-	-

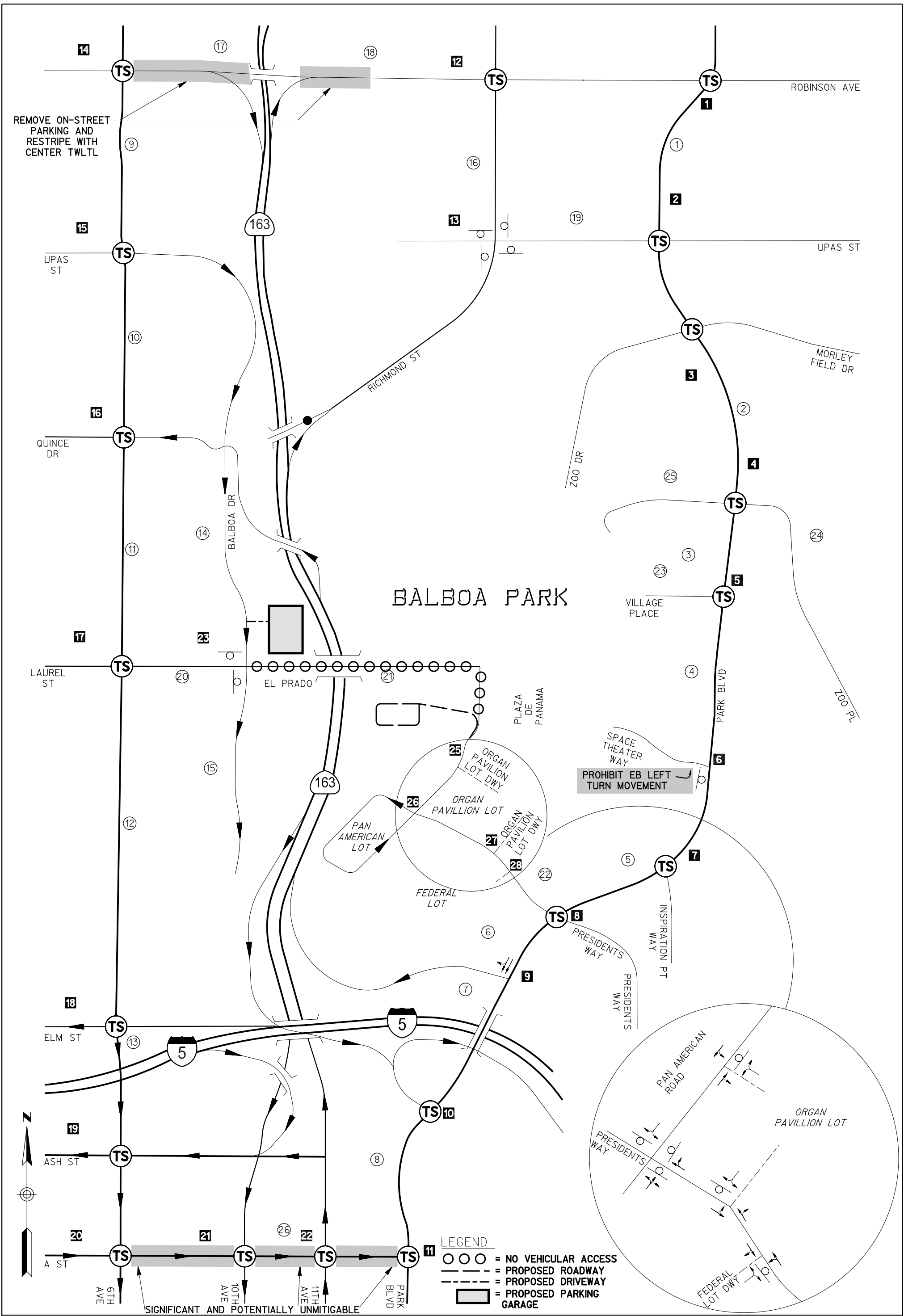


EXHIBIT 138

2015 ALTERNATIVE 3C TRAFFIC MITIGATION

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



LEGEND	
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	= STOP SIGN
	= INTERSECTION NUMBER
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	= PROPOSED MITIGATION

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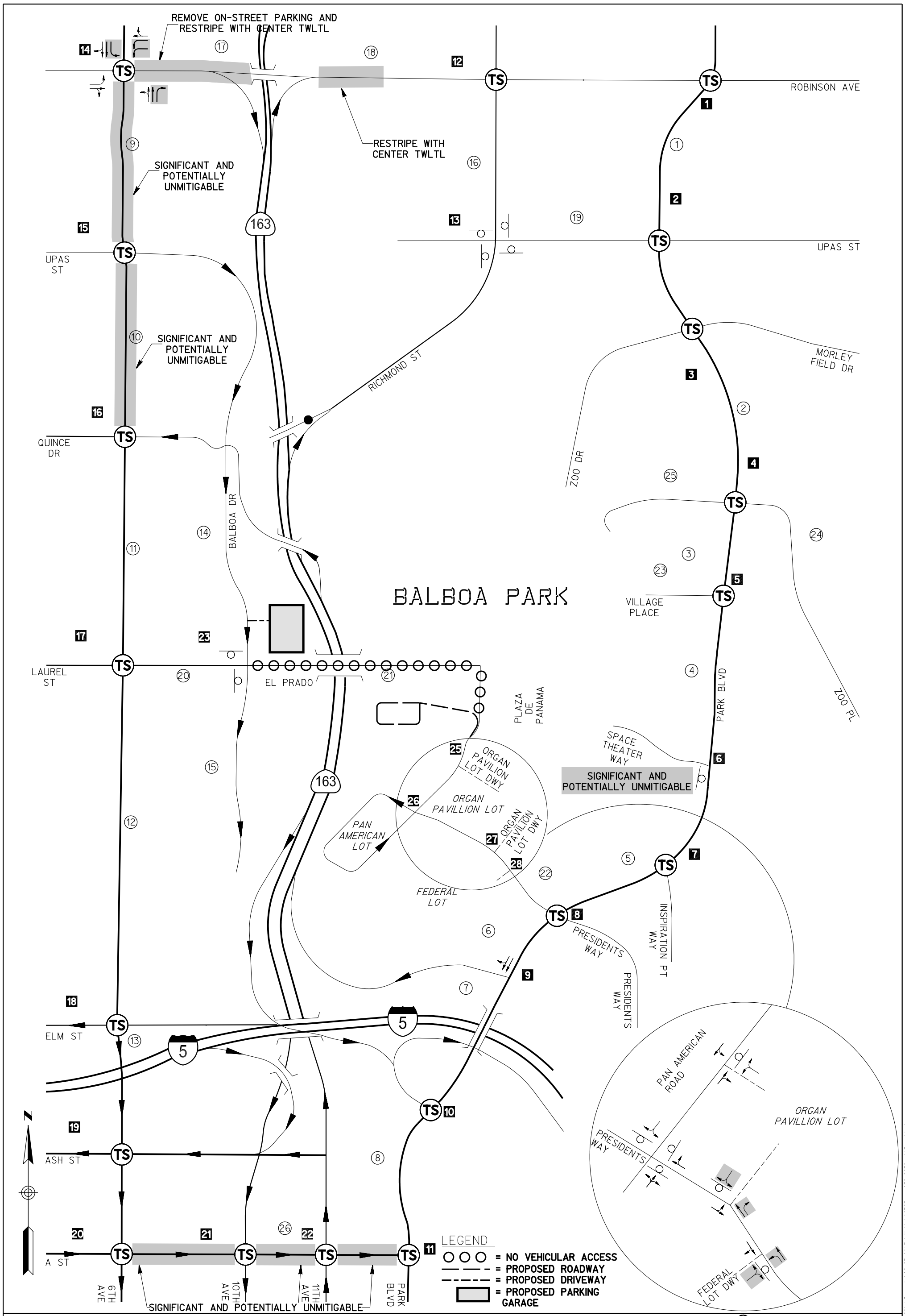


EXHIBIT 139

2030 ALTERNATIVE 3C TRAFFIC MITIGATION

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

LEGEND

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- = STOP SIGN
- = INTERSECTION NUMBER
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Table 198 summarizes the 2015 and 2030 mitigation measures for Alternative 3D.

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

CABRILLO BRIDGE OPEN WITH CENTENNIAL BRIDGE ALTERNATIVES

ALTERNATIVE 4Ai (GOLD GULCH PARKING STRUCTURE)

This alternative is similar to the proposed project, as it includes the proposed Centennial Road, however a parking structure is proposed at the Gold Gulch, with access to this parking structure taken at both Park Boulevard and Presidents Way.

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)

This alternative has the same features of the proposed project, except parking in the new Organ Pavilion parking structure would be free (in perpetuity).

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.

CABRILLO BRIDGE OPEN WITHOUT CENTENNIAL BRIDGE ALTERNATIVES

ALTERNATIVE 4Bi (TUNNEL ALTERNATIVE)

**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
-	-	-	-	-	-	-	-

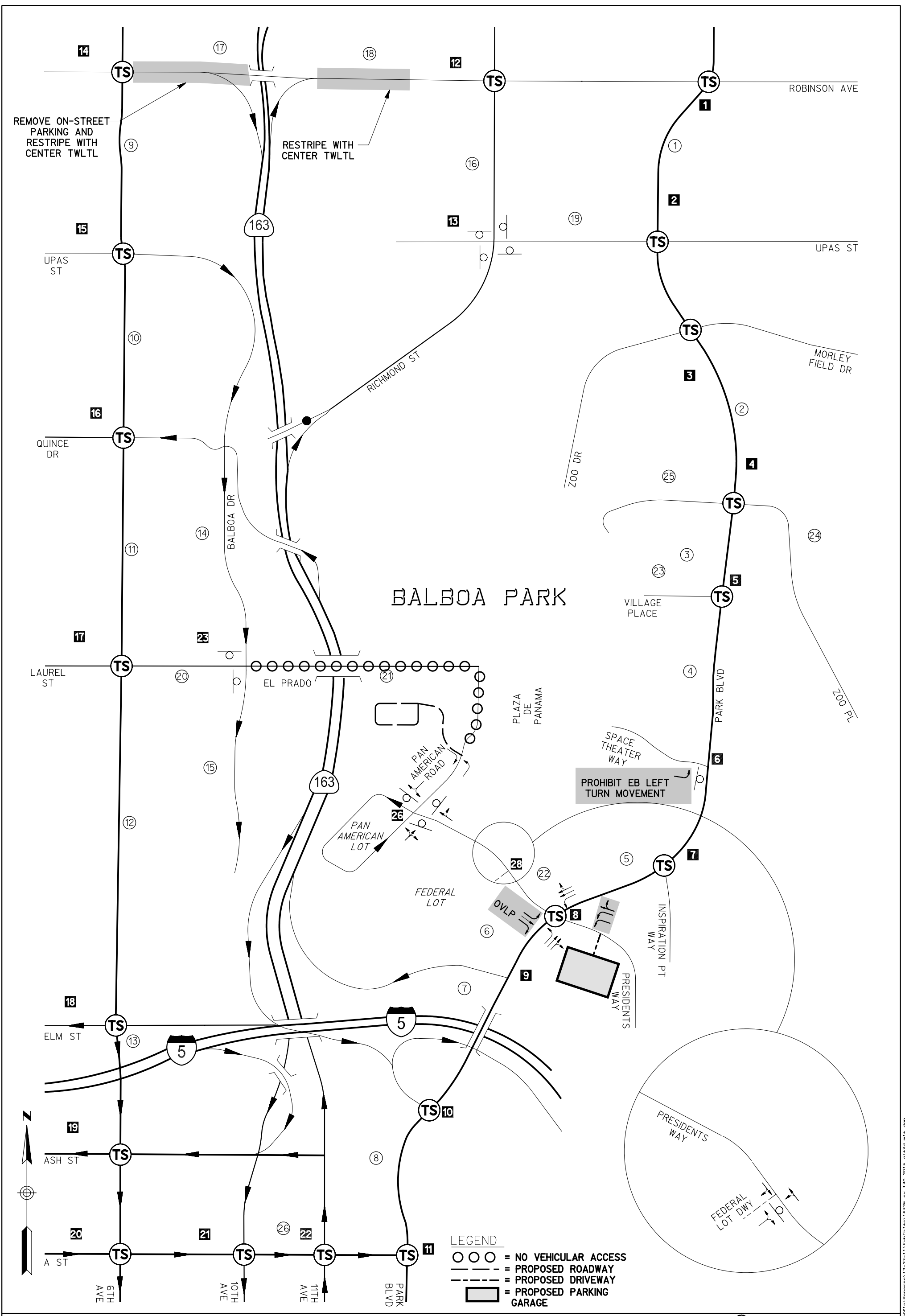


EXHIBIT 140

2015 ALTERNATIVE 3D TRAFFIC MITIGATION

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

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- = INTERSECTION NUMBER
- = SEGMENT NUMBER
- = PROPOSED MITIGATION



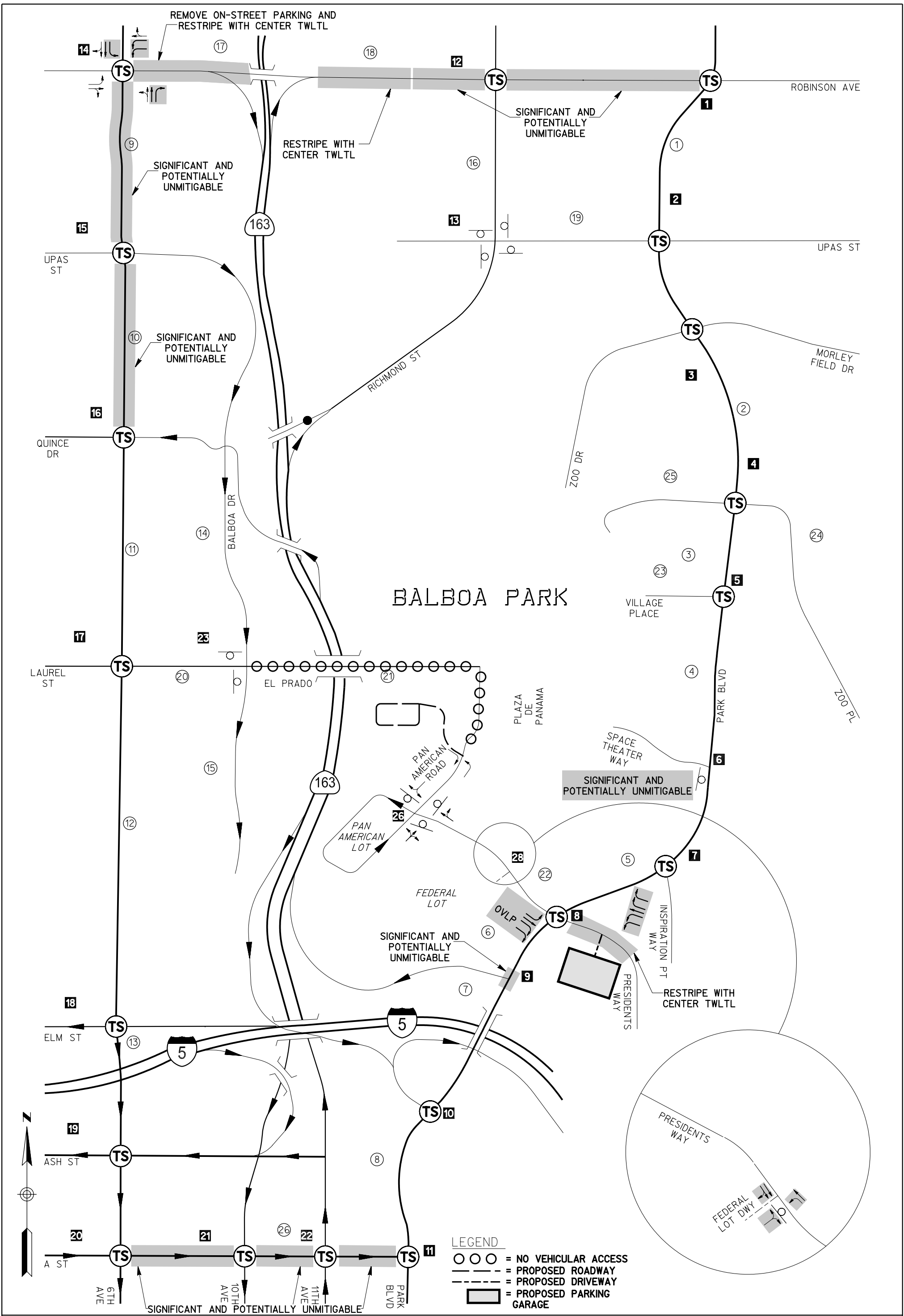


EXHIBIT 141

2030 ALTERNATIVE 3D TRAFFIC MITIGATION

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

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- = INTERSECTION NUMBER
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**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.

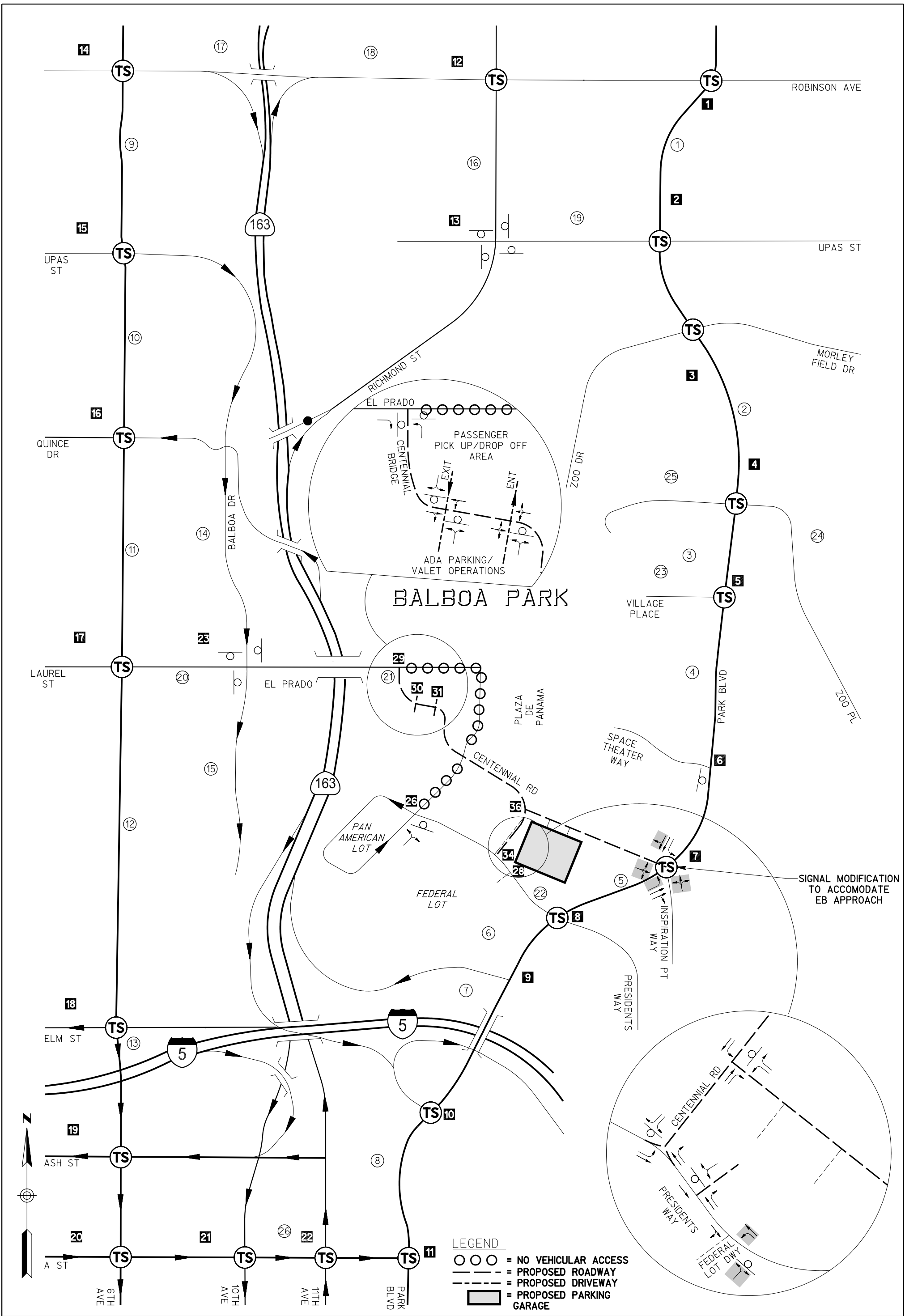
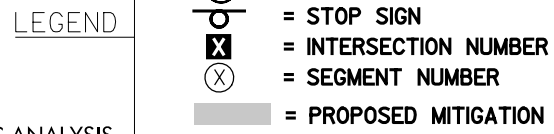


EXHIBIT 142

2015 ALTERNATIVE 4a TRAFFIC MITIGATION

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



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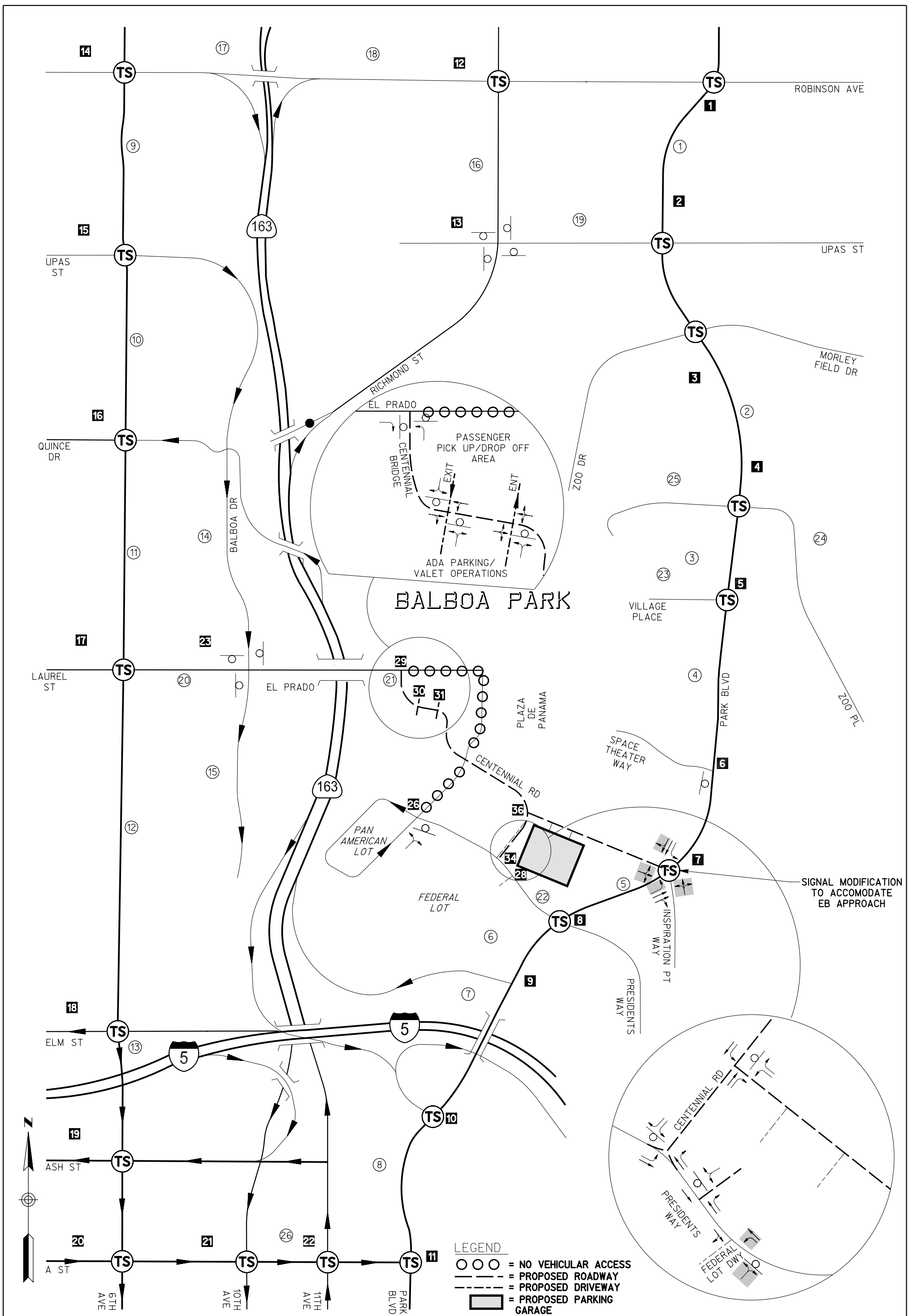
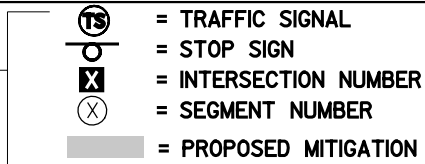


EXHIBIT 143

2030 ALTERNATIVE 4aI TRAFFIC MITIGATION

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

LEGEND



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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	-	-	-	-	-	-

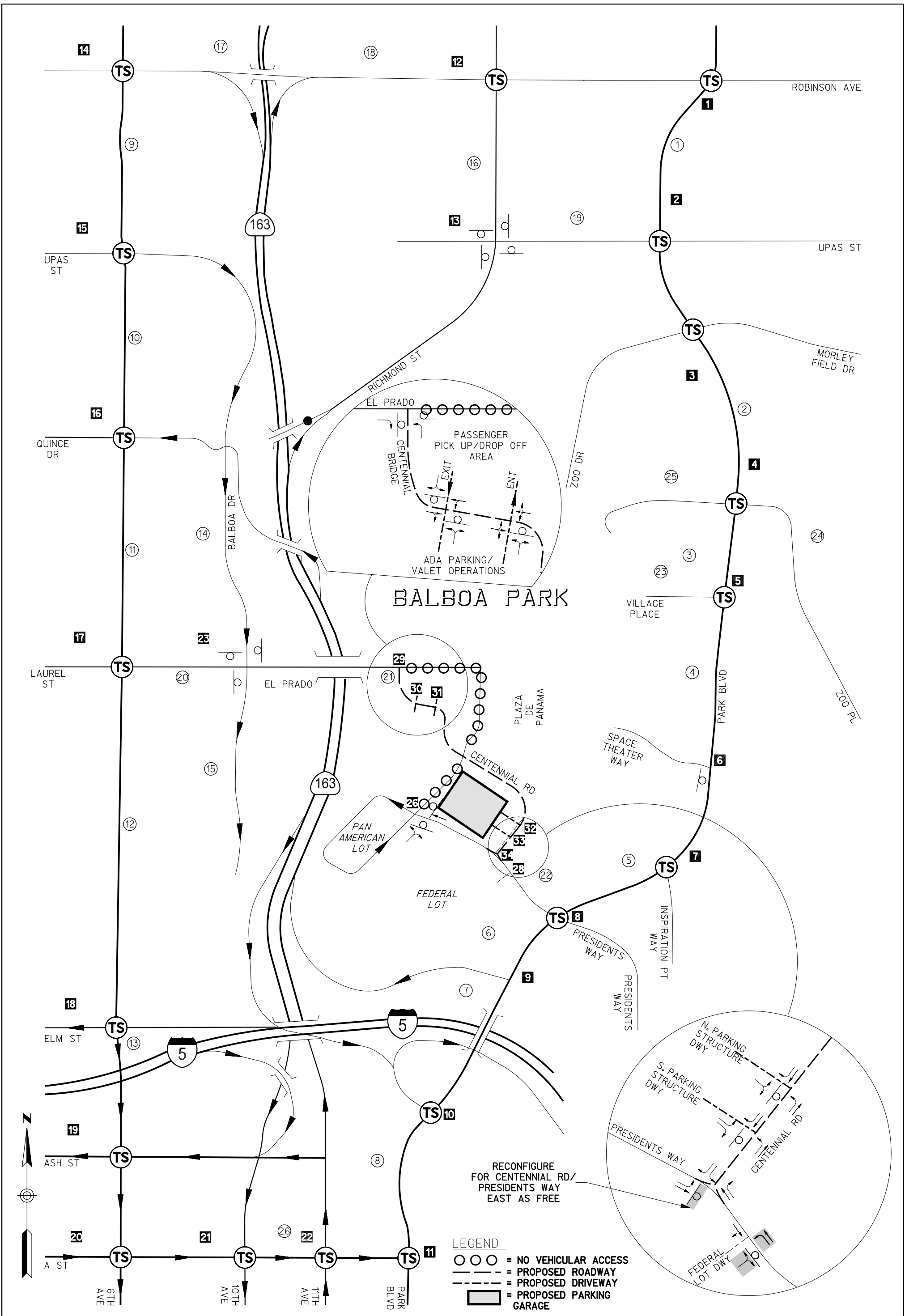


EXHIBIT 144
 2015 ALTERNATIVE 4Aii TRAFFIC MITIGATION
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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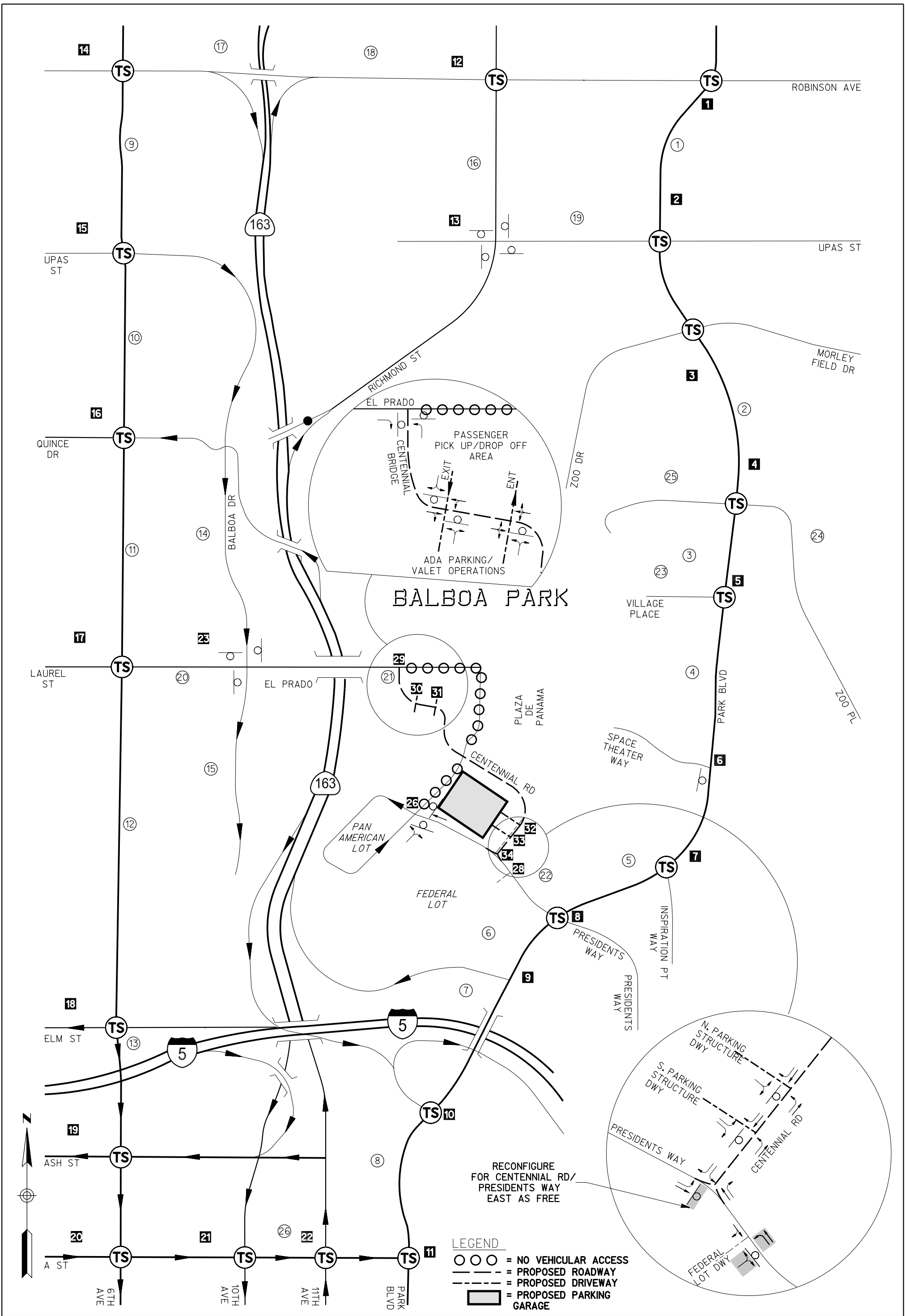


EXHIBIT 145
2030 ALTERNATIVE 4Aii TRAFFIC MITIGATION
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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This alternative pedestrianizes the Plaza de Panama by undergrounding a portion of the roadway. The underground roadway would connect with a separate roadway near the Organ Pavilion with access to a parking structure south of the Organ Pavilion.

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)

This alternative is similar to the Precise Plan except that a traffic signal would be installed (for pedestrian safety) at the California Building. Replace Plaza de Panama parking spaces by grading the lawn at the southwest corner of President's Way and Park Blvd.

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.

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

For this alternative, the Cabrillo Bridge would be open to vehicles; two-lane vehicle traffic routed to corner of Plaza de Panama; remove parking from Plaza de Panama; valet, tram, drop off and pick up would be within the Plaza de Panama; no parking structure at Organ Pavilion Lot. Replacement of Plaza parking spaces through limited grading and reconfiguration of existing parking lots behind institutions and streets.

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.

ALTERNATIVE 4Biv ("HALF PLAZA" ALTERNATIVE)

For this alternative, the Cabrillo Bridge would be open to vehicles; remove parking from Plaza de Panama and a parking structure at Organ Pavilion Lot with rooftop park. The Alcazar lot would be converted to green space and the underground Organ Pavilion lot would be designed to be large enough to hold displaced Alcazar and Plaza de Panama parking. The south half of Plaza de Panama would be integrated with the Esplanade into a one way looped "El Cid Island" with a narrow alley or tunnel of trees that screen and shade drop off zones.

**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	-	-	-	-	-	-

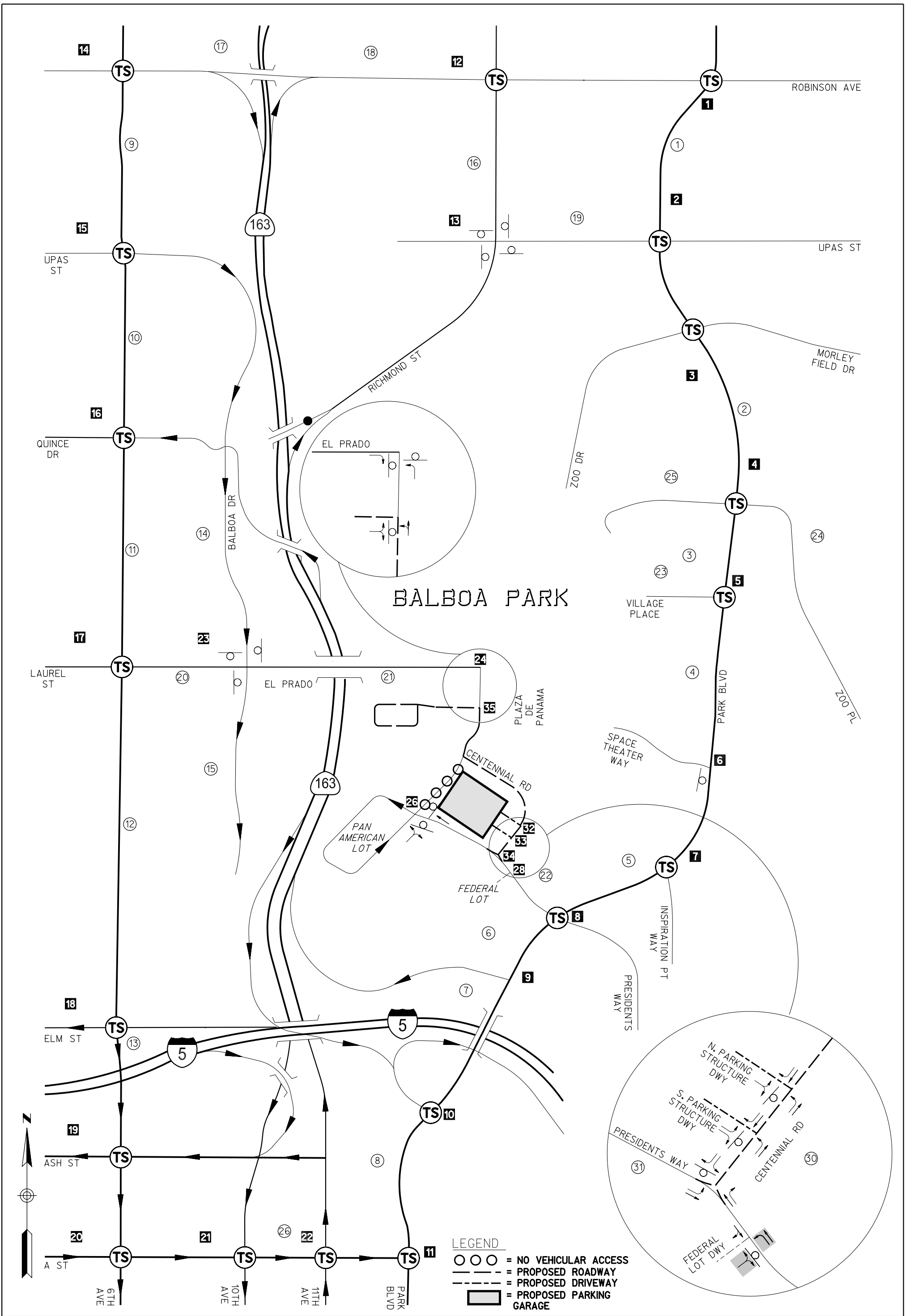


EXHIBIT 146

2015 ALTERNATIVE 4Bi TRAFFIC MITIGATION

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

LEGEND

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- = INTERSECTION NUMBER
- = SEGMENT NUMBER
- = PROPOSED MITIGATION



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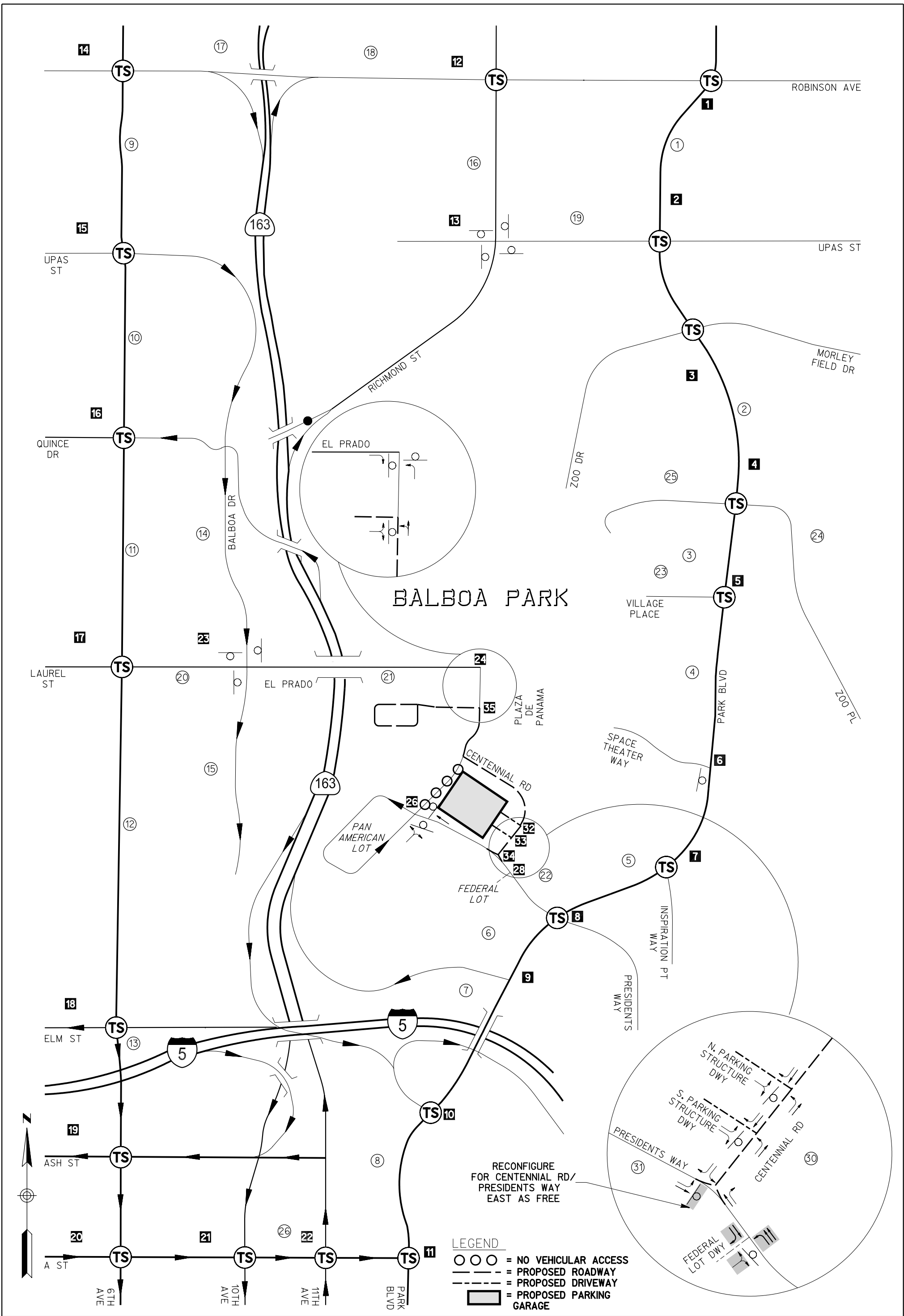


EXHIBIT 147

2030 ALTERNATIVE 4Bi TRAFFIC MITIGATION

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

LEGEND

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- = STOP SIGN
- = INTERSECTION NUMBER
- = SEGMENT NUMBER
- = PROPOSED MITIGATION



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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 unmitigable	-	F	Significant and potentially unmitigable	-
10	Sixth Avenue between Upas Street and Quince Street	-	-	-	E	Significant and potentially unmitigable	-
13	Sixth Avenue between Elm Street and Ash Street	-	-	-	F	Significant and potentially unmitigable	-
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 unmitigable	-
-	-	-	-	-	-	-	-

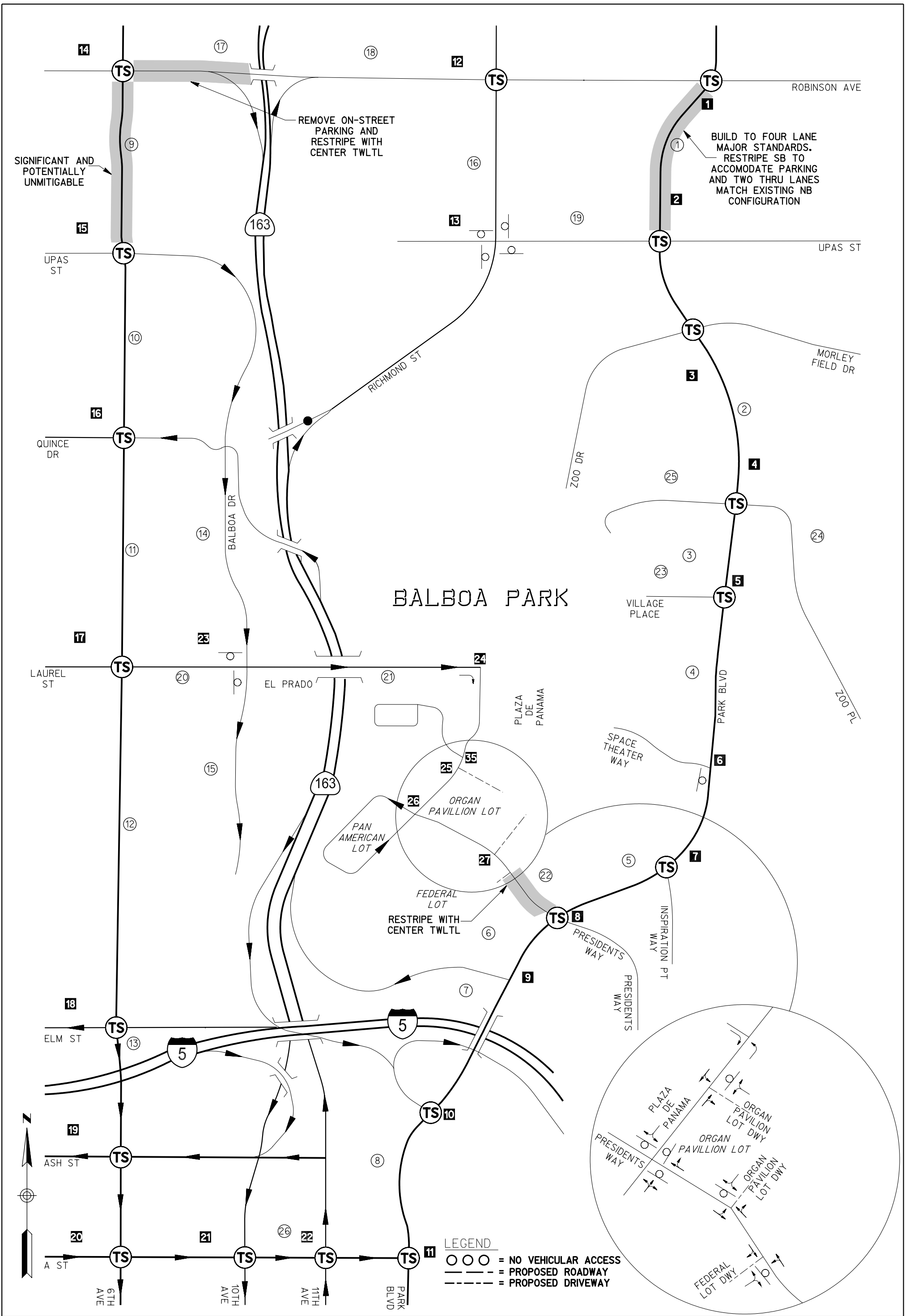


EXHIBIT 148

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



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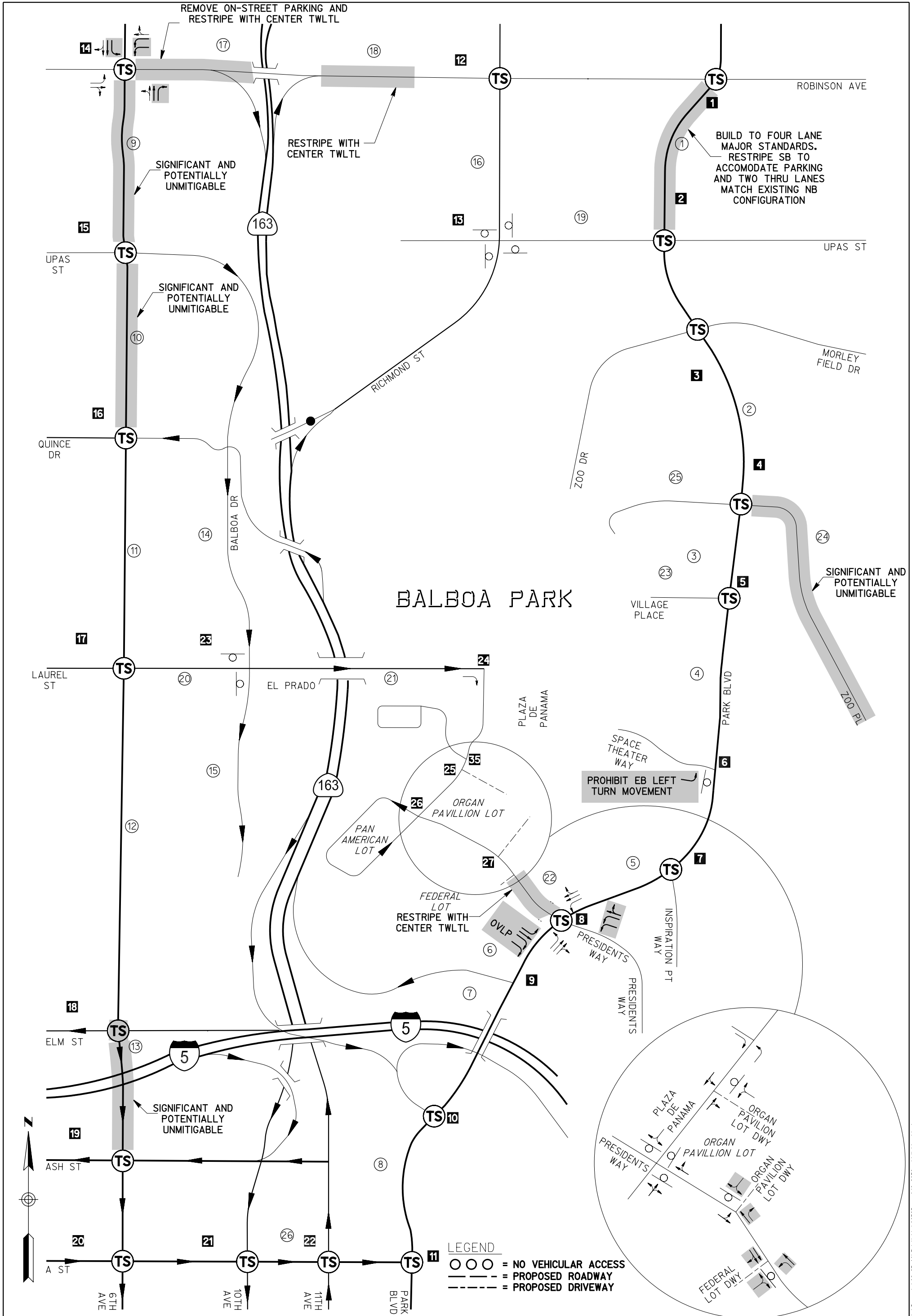


EXHIBIT 149

2030 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

LEGEND

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



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**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

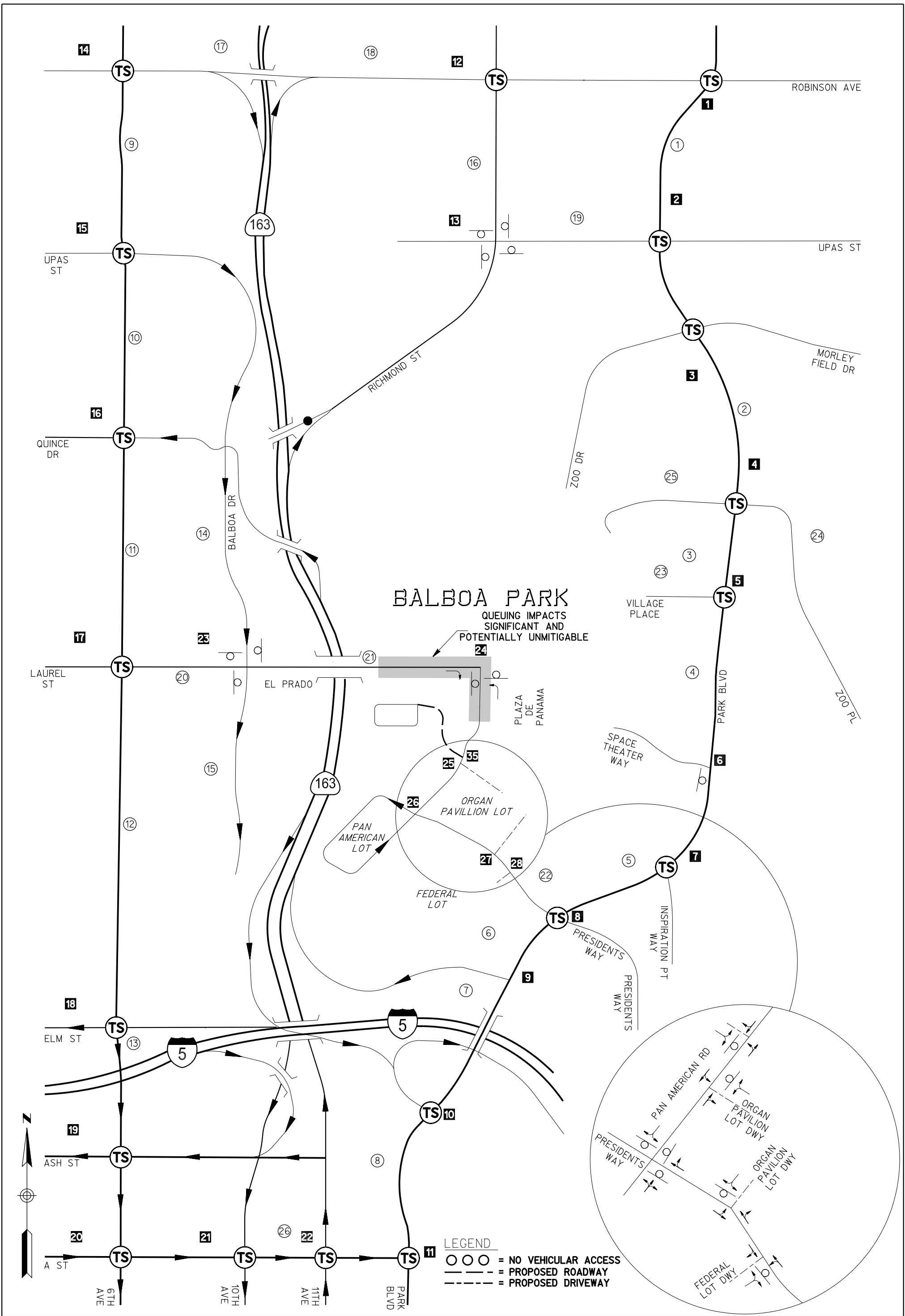


EXHIBIT 150

2015 ALTERNATIVE 4Bii TRAFFIC MITIGATION

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



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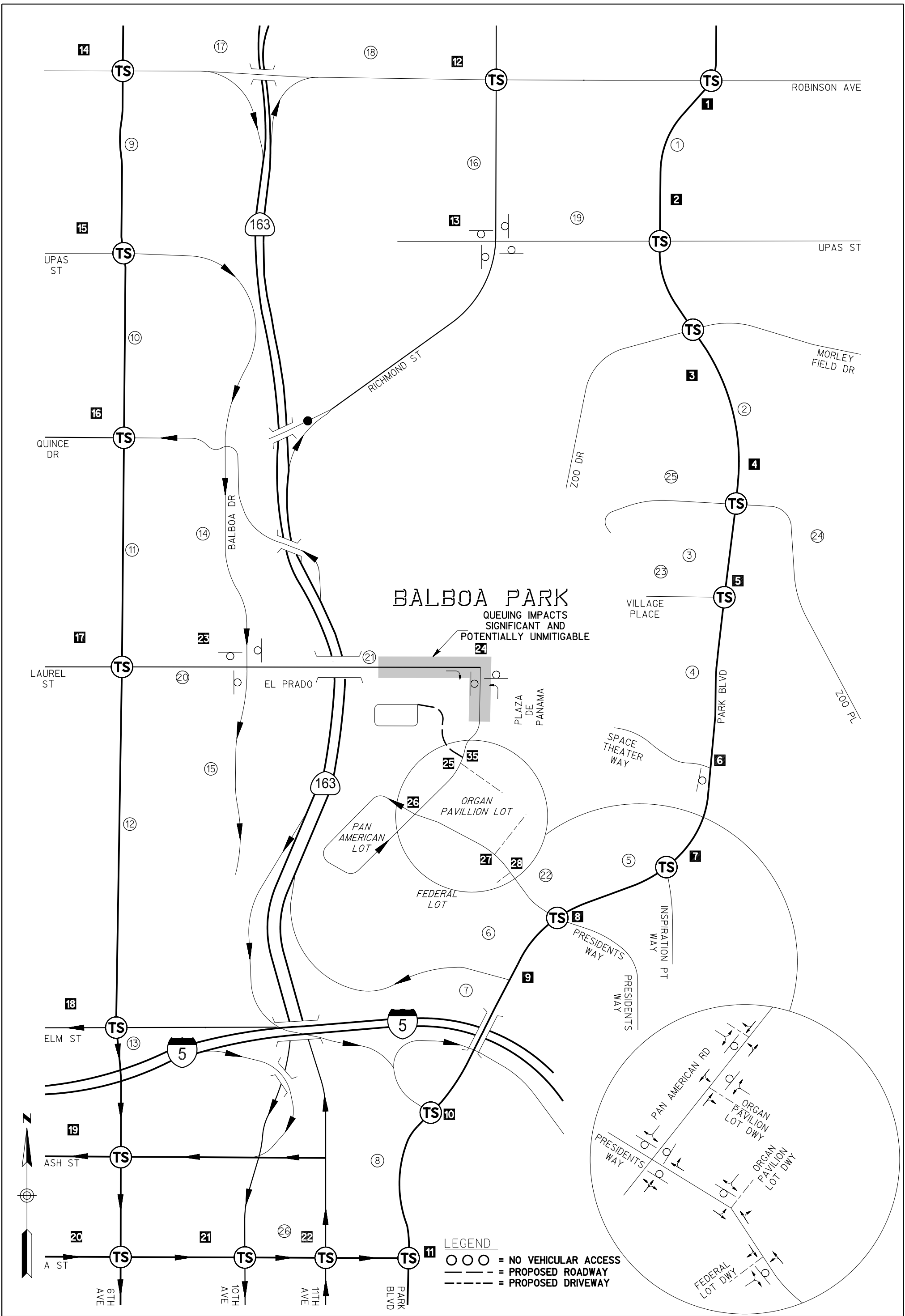
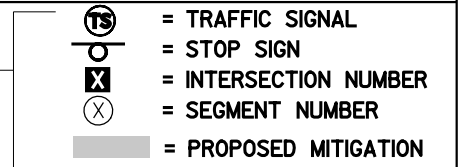


EXHIBIT 151

2030 ALTERNATIVE 4Bii TRAFFIC MITIGATION

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

LEGEND



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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)

This alternative assumes a phased approach of the proposed project as outlined in the following four phases:

Phase 1: Eliminate parking and valet operations within Plaza de Panama and maintain through vehicle traffic; reconfigure Alcazar lot for ADA and valet. If parking is determined to be insufficient then;

Phase 2: Add parking structure south of Organ Pavilion with rooftop park and grade separated roadway. Activate tram loop from parking structure to Plaza de Panama. If traffic/pedestrian conflicts are determined to be problematic then;

Phase 3: Close the Cabrillo Bridge to vehicular traffic (emergency access allowed). If too great impact on institution and park use then;

Phase 4: Construct Centennial bridge/road

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.

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)

**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.

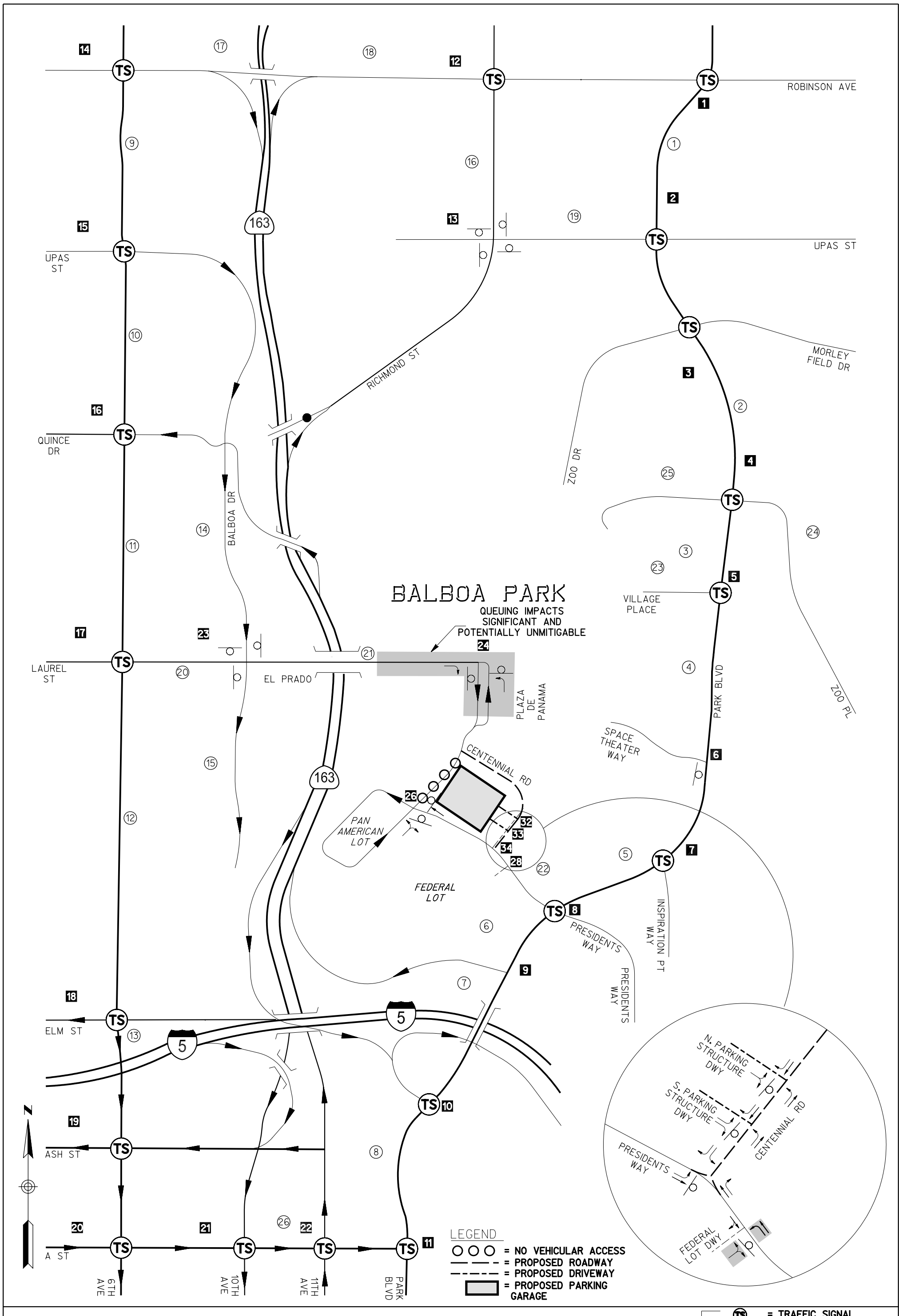


EXHIBIT 152

2015 ALTERNATIVE 4Biv TRAFFIC MITIGATION

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

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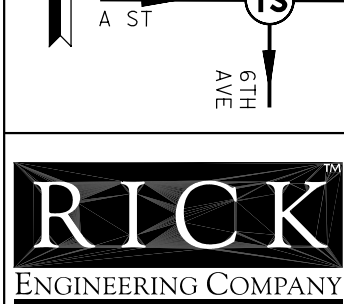
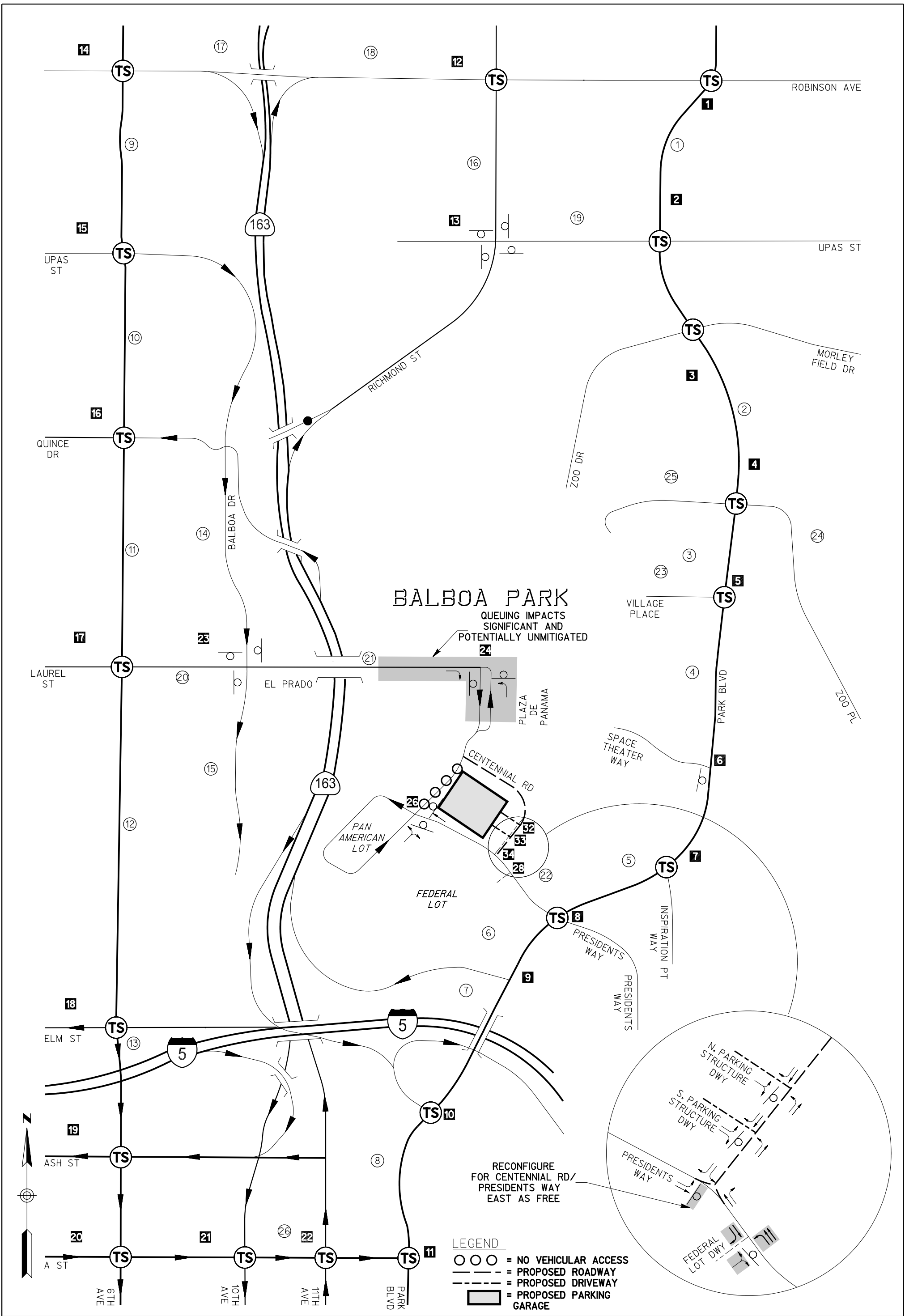


EXHIBIT 153

2030 ALTERNATIVE 4Biv 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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PARKING DEMAND

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:

<u>LOT LOCATION</u>	<u>EXISTING SPACES</u>	<u>PROPOSED SPACES</u>
Plaza de Panama	54	0
Alcazar	136	32
Organ Pavilion	367	797
Presidents Way (On Street)	<u>22</u>	<u>10</u>
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 the 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. 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. It was also conservatively estimated that about 50 patrons who would normally park within the core lots, would circulate within the West Mesa (would not enter the park) to find free parking. Based on current parking occupancy counts in the West Mesa area (primarily along Balboa Drive), ample parking can be provided for these 50 patrons.

For the Cabrillo Bridge Closure options (Alternatives 3B, 3C and 3D) it is estimated that about 100 vehicles during the peak hour 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.

BALBOA PARK VEHICLE/PEDESTRIAN CONFLICT AREAS

A primary goal of the proposed project is to reduce existing traffic conflicts between pedestrians and vehicles. It is proposed to achieve this by removing vehicular traffic from the heavily used pedestrian areas (such as the Plaza de Panama, as discussed earlier). Conflict areas are defined as locations where vehicle paths and pedestrian paths cross.

There are currently 19 conflict areas identified within the park with the highest conflict area occurring at midblock crosswalk along Pan American Road, just west of the Organ Pavilion. 602 vehicles and 426 pedestrians (1,028 combined) were counted at this specific location between 4pm and 5pm on a Saturday.

The proposed internal roadway network was examined to identify the conflict areas, and relevant vehicular/pedestrian volumes estimated at these locations based on the current data that was collected. **Exhibit 117** shows a summary of the vehicle/pedestrian counts for the proposed project. This exhibit identifies there will be 6 conflict areas within the park with the highest conflict area occurring at the intersection of El Prado and the proposed Centennial bridge roadway. 522 vehicles and 245 pedestrians (767 combined) is estimated at this specific location between 4pm and 5pm. The proposed project is estimated to reduce the conflict areas from 19 to 6 within the park's internal roadways, which represents about a 70% reduction in total vehicle/pedestrian conflict volumes, as compared to the existing conditions.

Vehicle/pedestrian conflict areas were also estimated for all the other Alternatives as shown in **Exhibits 118** 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

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

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

Time	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 between Quince 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	
	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
	333		142		238		122		67		100		189		201		203		189		128	
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%

Time	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	
	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied	Parked	% Occupied
	27		36		59		82		74		58		84		103		78		77		98	
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%

Time	Total Parking	
	Parked	% Occupied
	1678	
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

Time	6th Avenue between Upas and Elm St.		Balboa Drive between 6th Ave. and 6th Ave.		Balboa Drive between 6th Ave. and Juniper Dr.		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 between Quince 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	
	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%

Time	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/EI 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	
	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%

Time	Total Parking	
	Parked	% Occupied
	1678	
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%

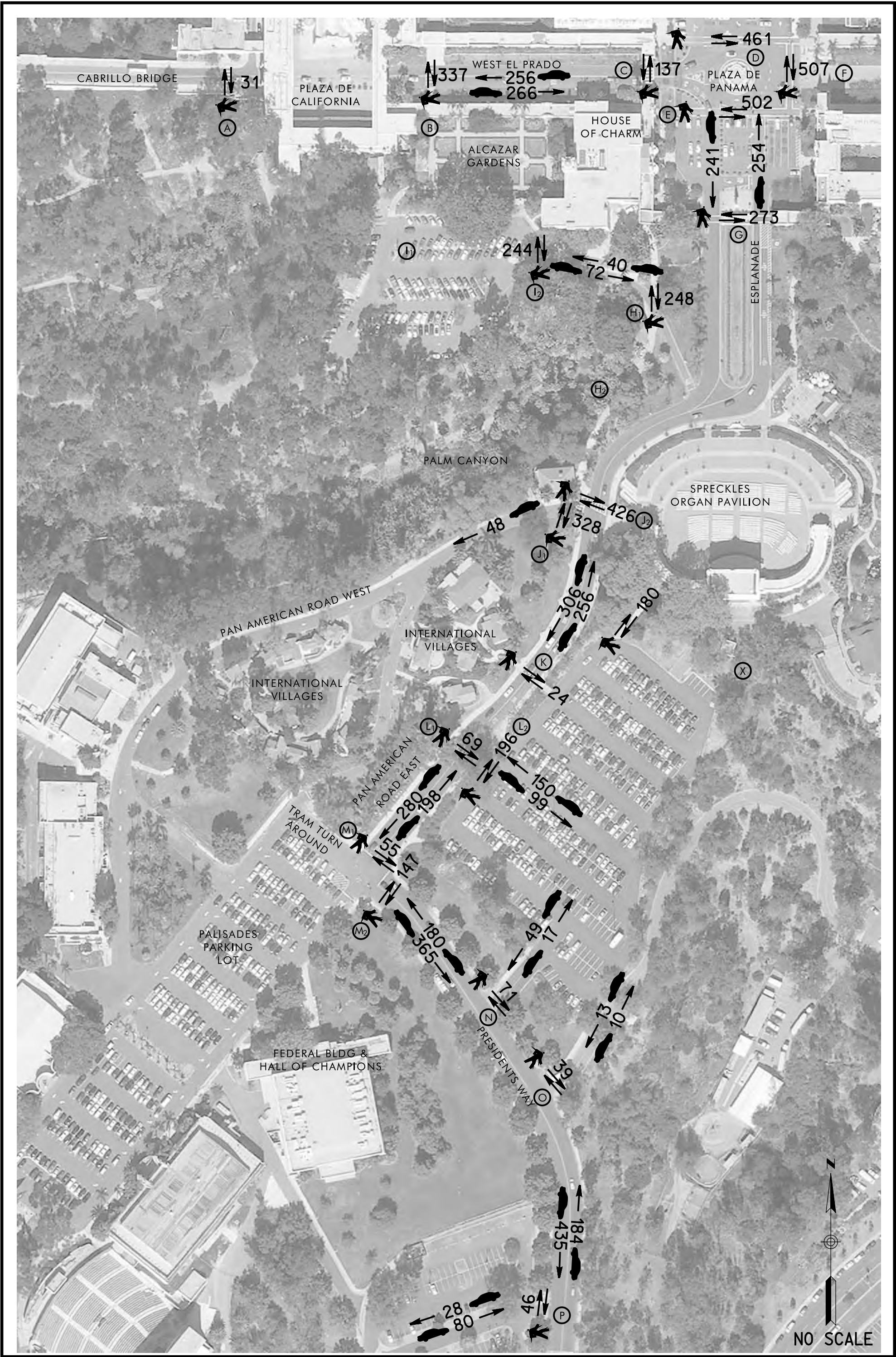


EXHIBIT 117

EXISTING PEAK HOUR VOLUMES (SATURDAY)



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

LEGEND

= PEDESTRIANS PER HOUR
 = VEHICLES PER HOUR

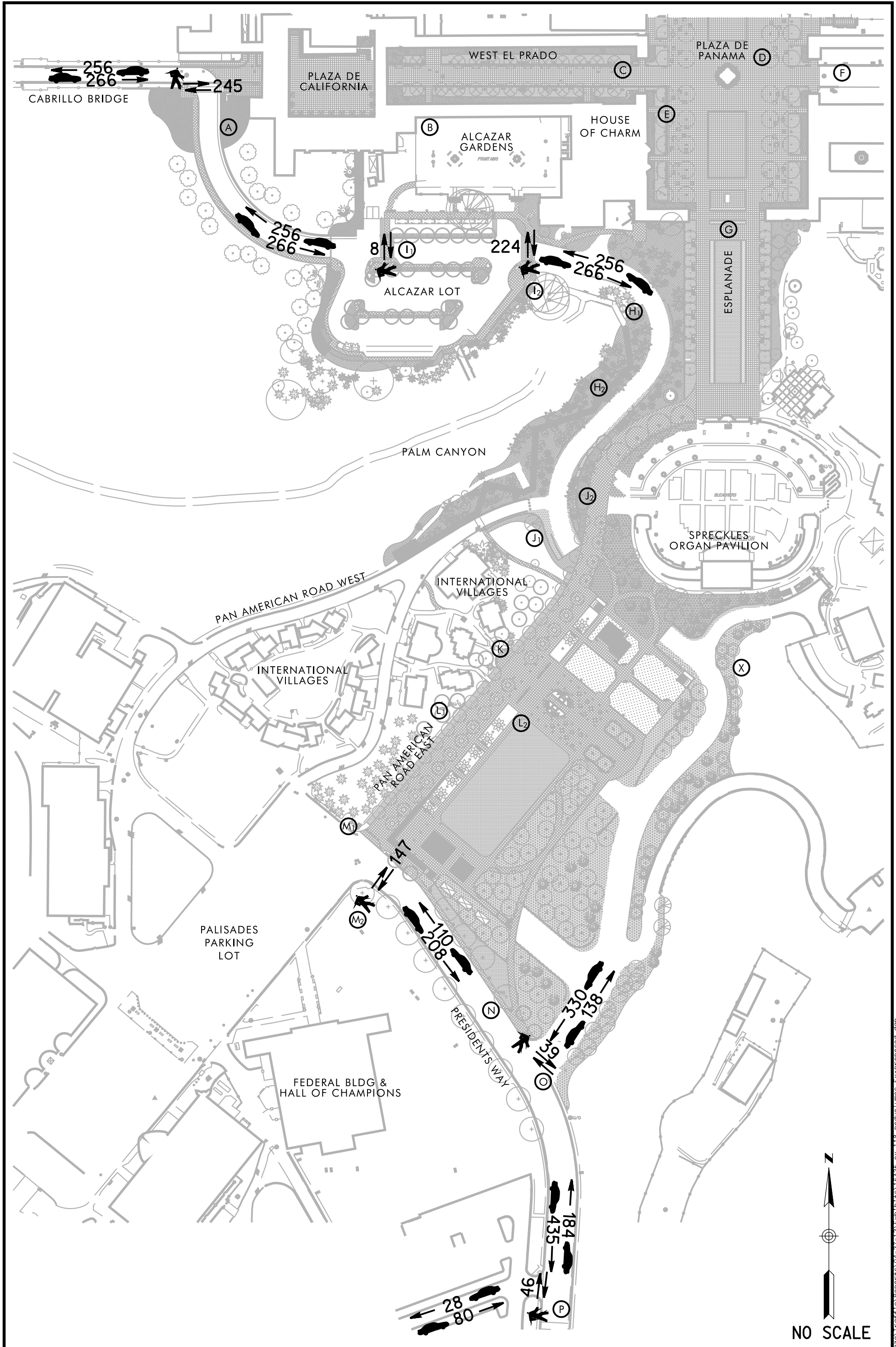


EXHIBIT 118

EXISTING WITH PROPOSED PROJECT PEAK HOUR VOLUMES (SATURDAY)

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

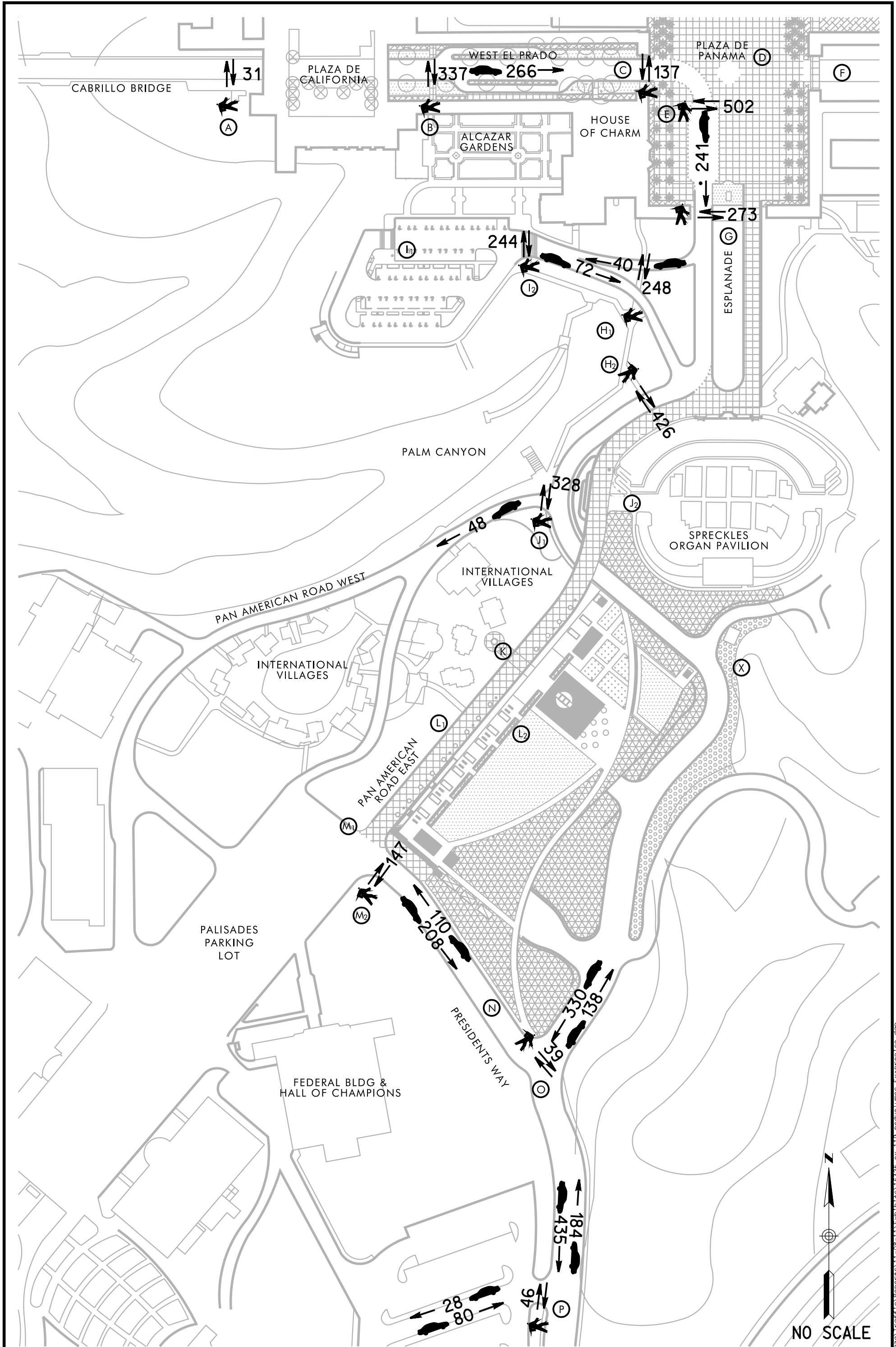


EXHIBIT 119

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

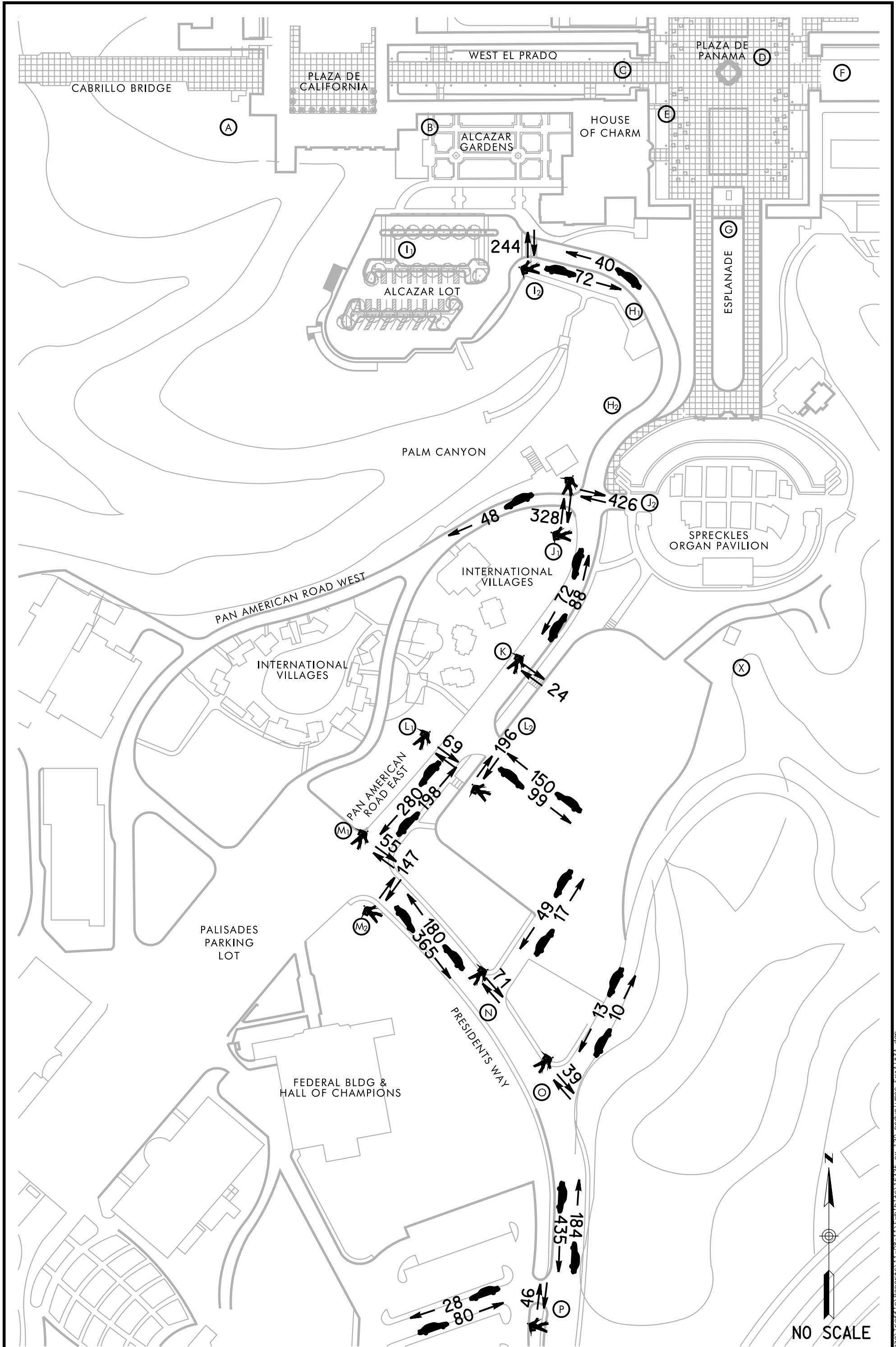


EXHIBIT 120

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

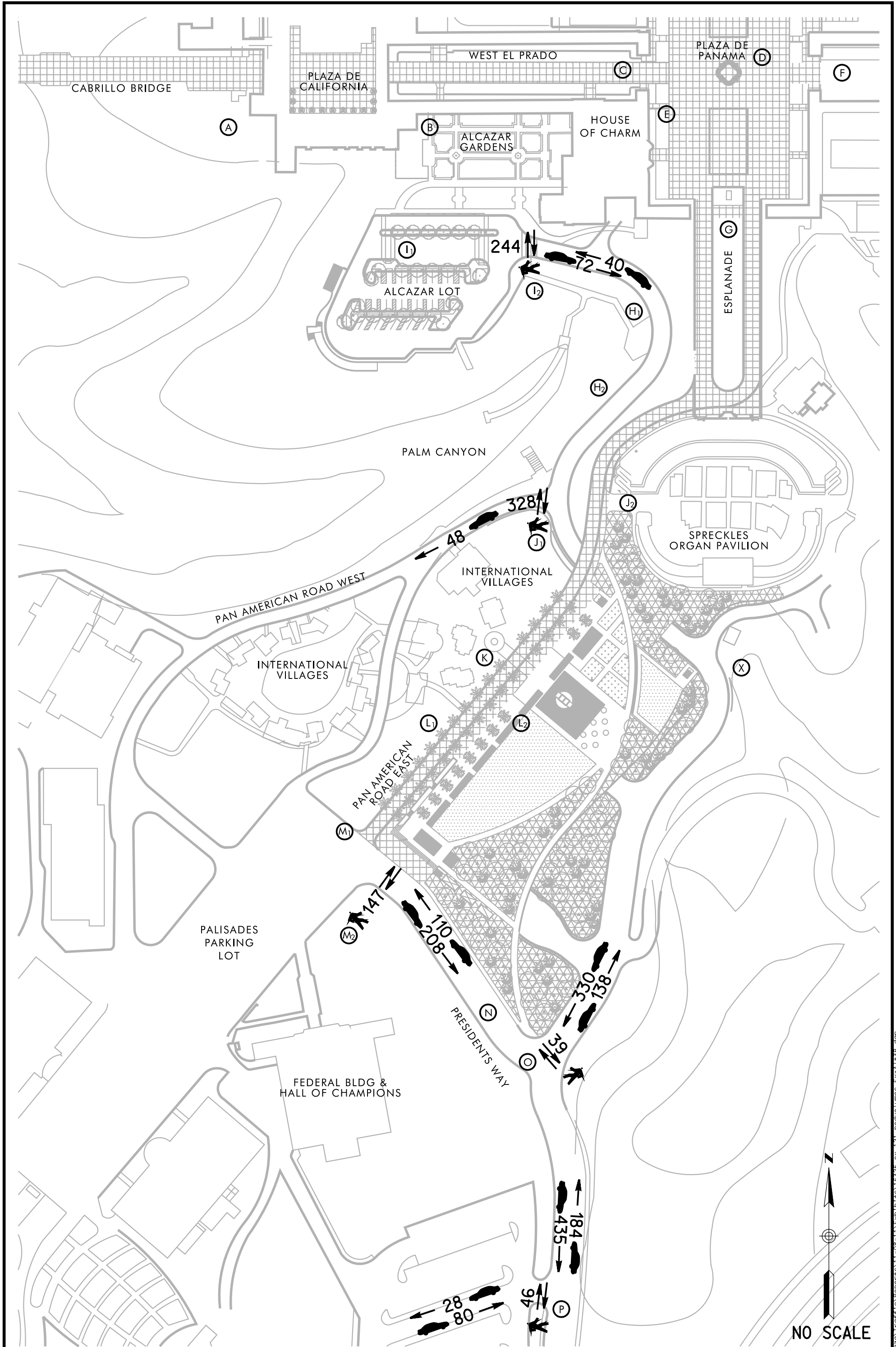


EXHIBIT 121

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

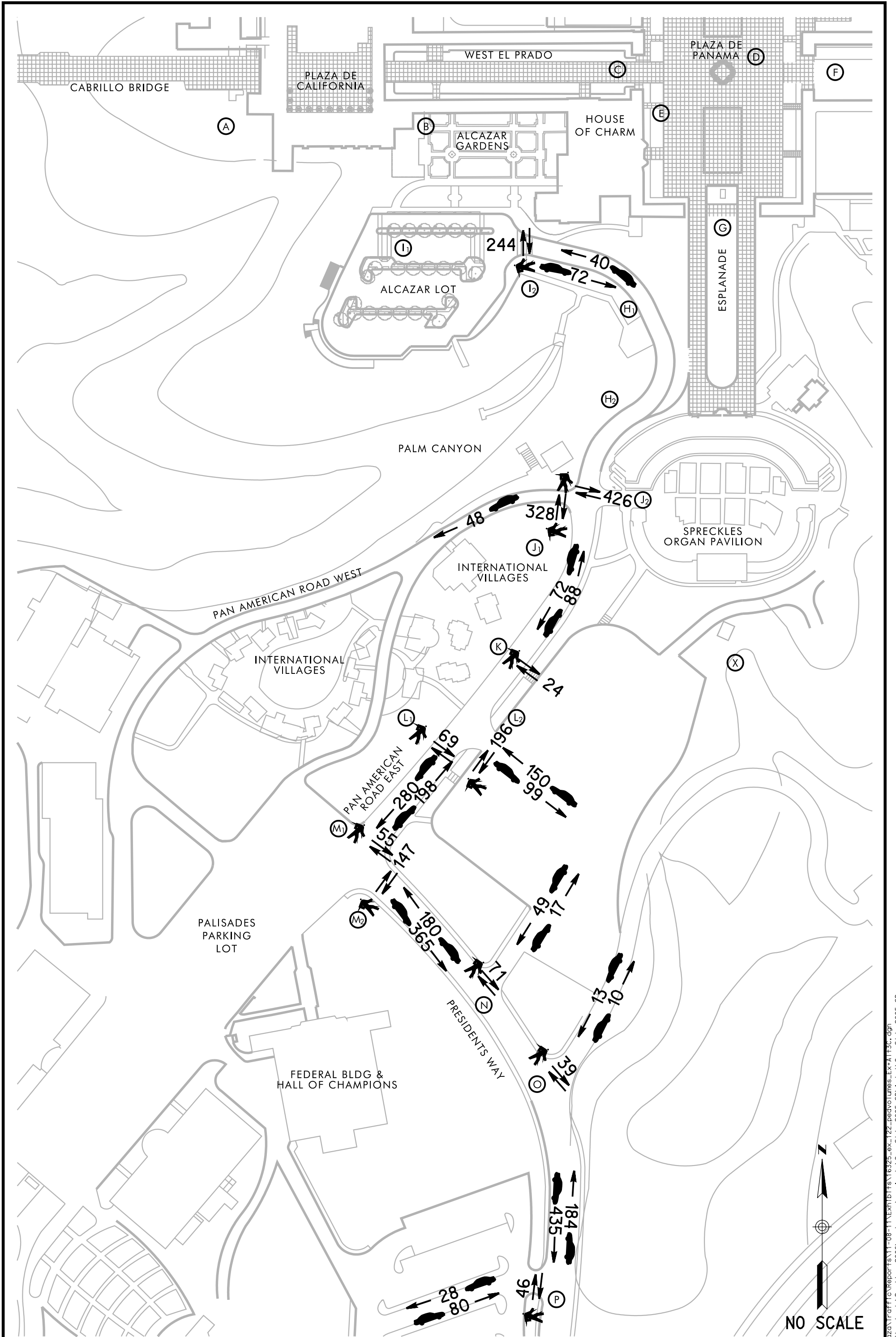


EXHIBIT 122

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

NO SCALE

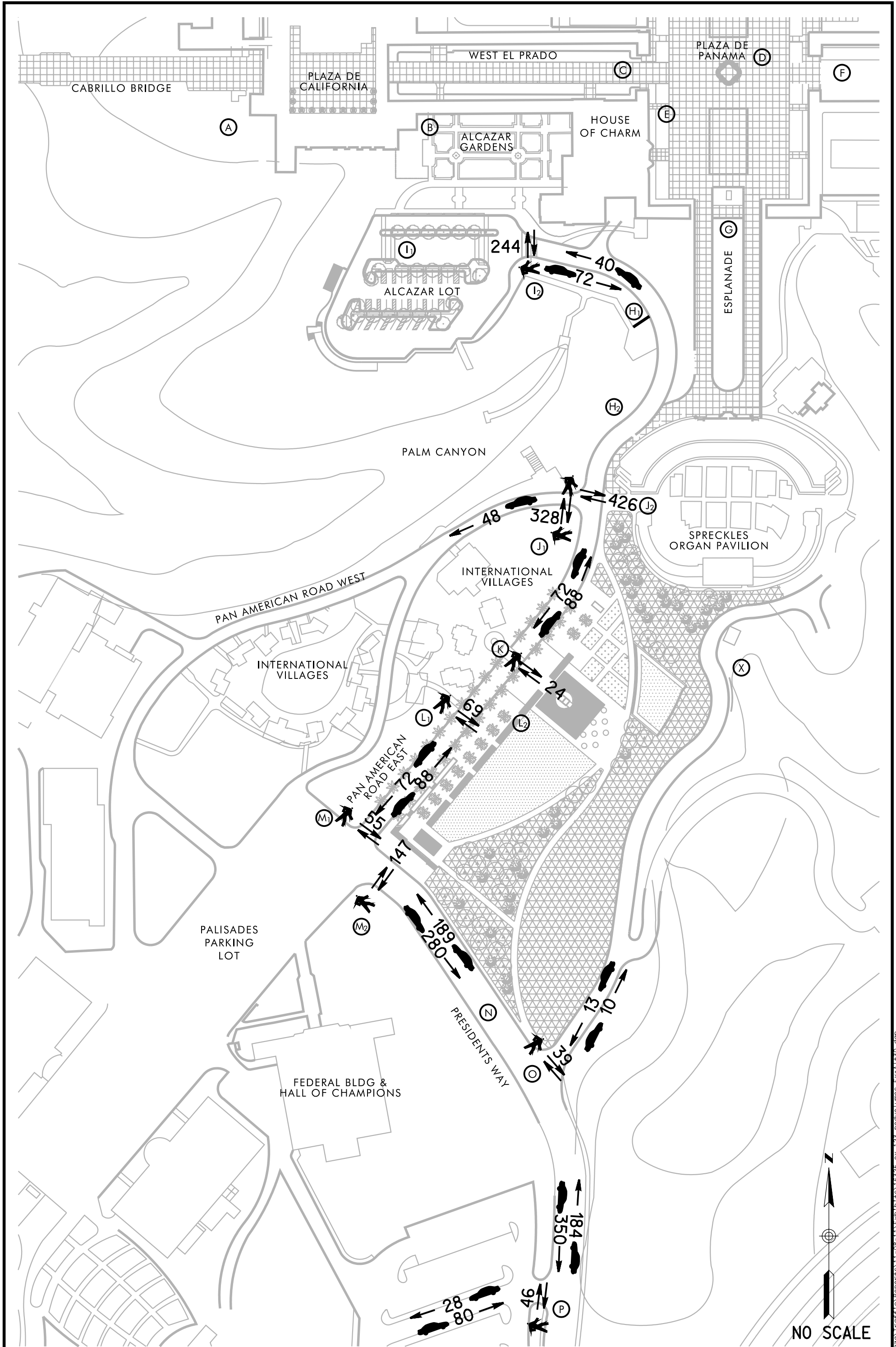


EXHIBIT 123

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

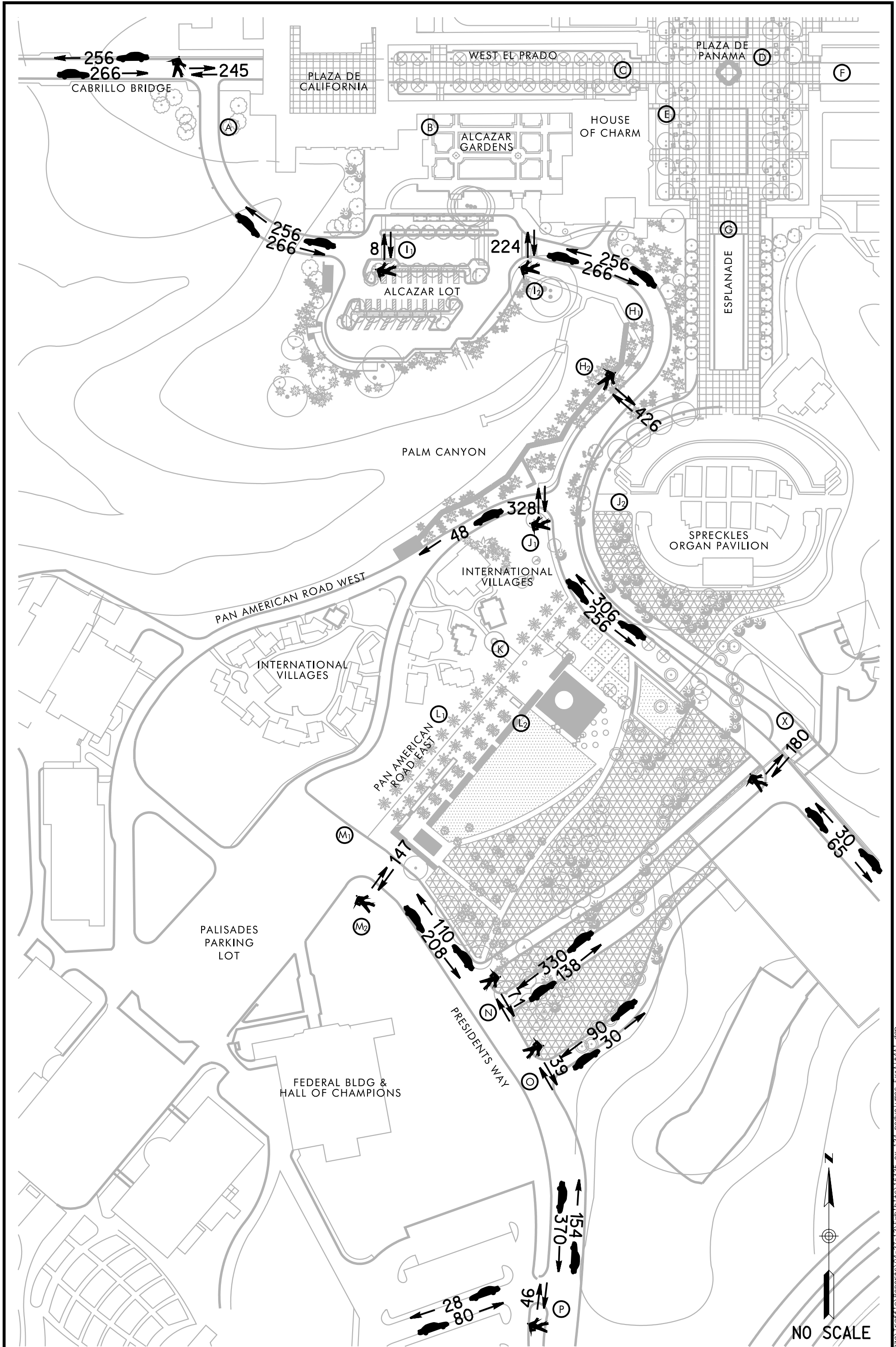


EXHIBIT 124

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

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

LEGEND

-  = PEDESTRIANS PER HOUR
-  = VEHICLES PER HOUR

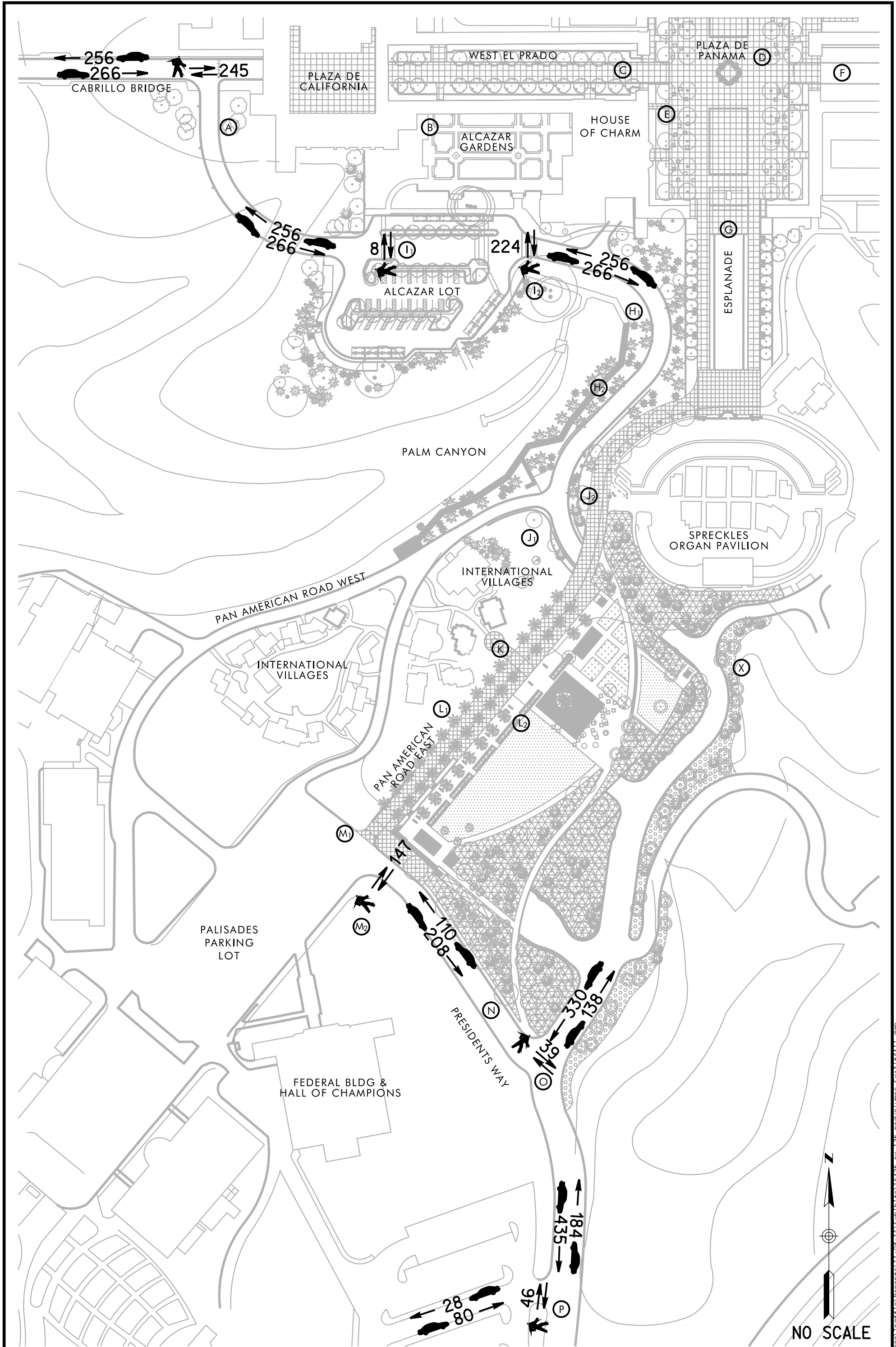


EXHIBIT 125

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

NO SCALE

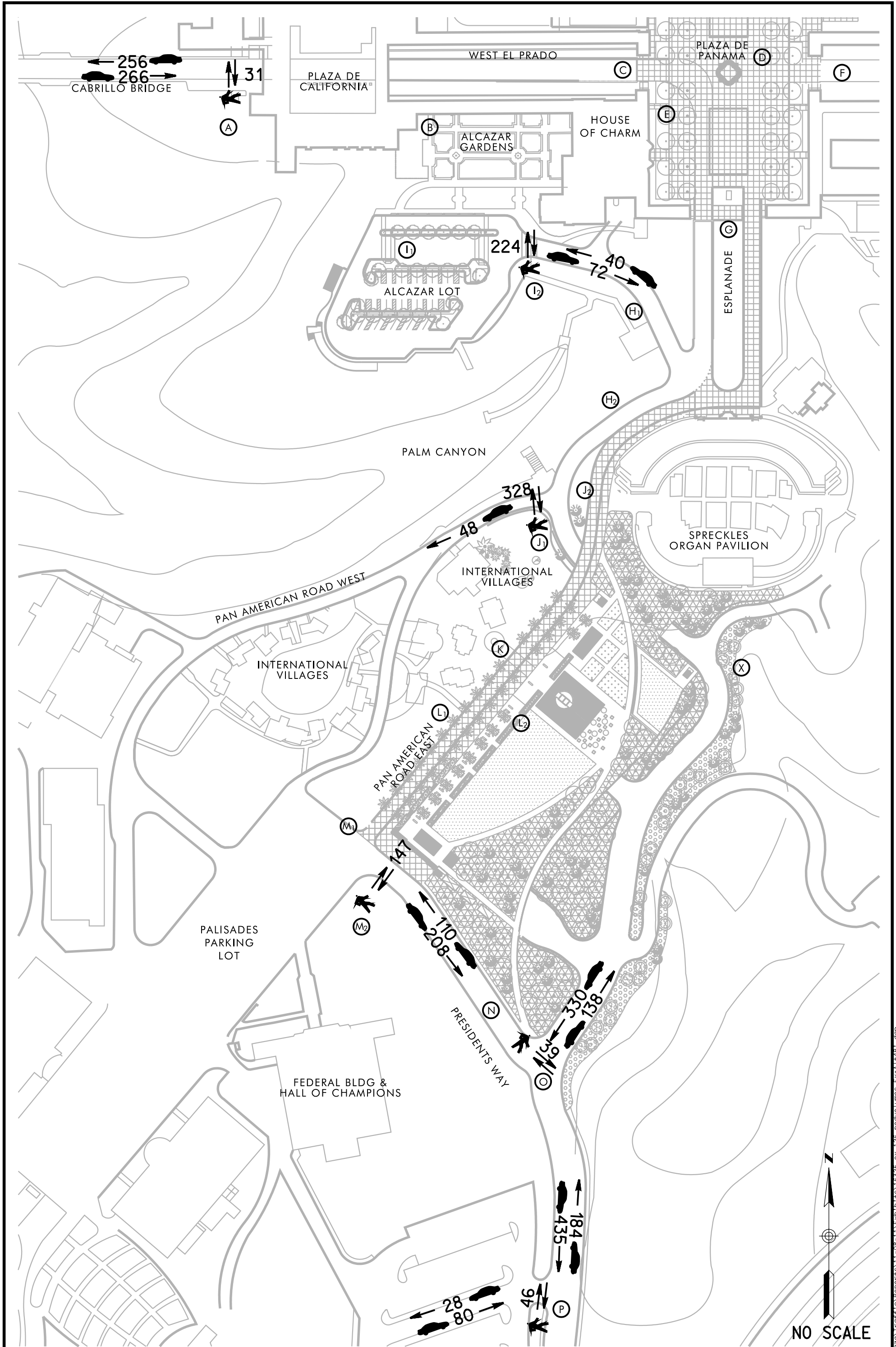


EXHIBIT 126

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

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

LEGEND

-  = PEDESTRIANS PER HOUR
-  = VEHICLES PER HOUR

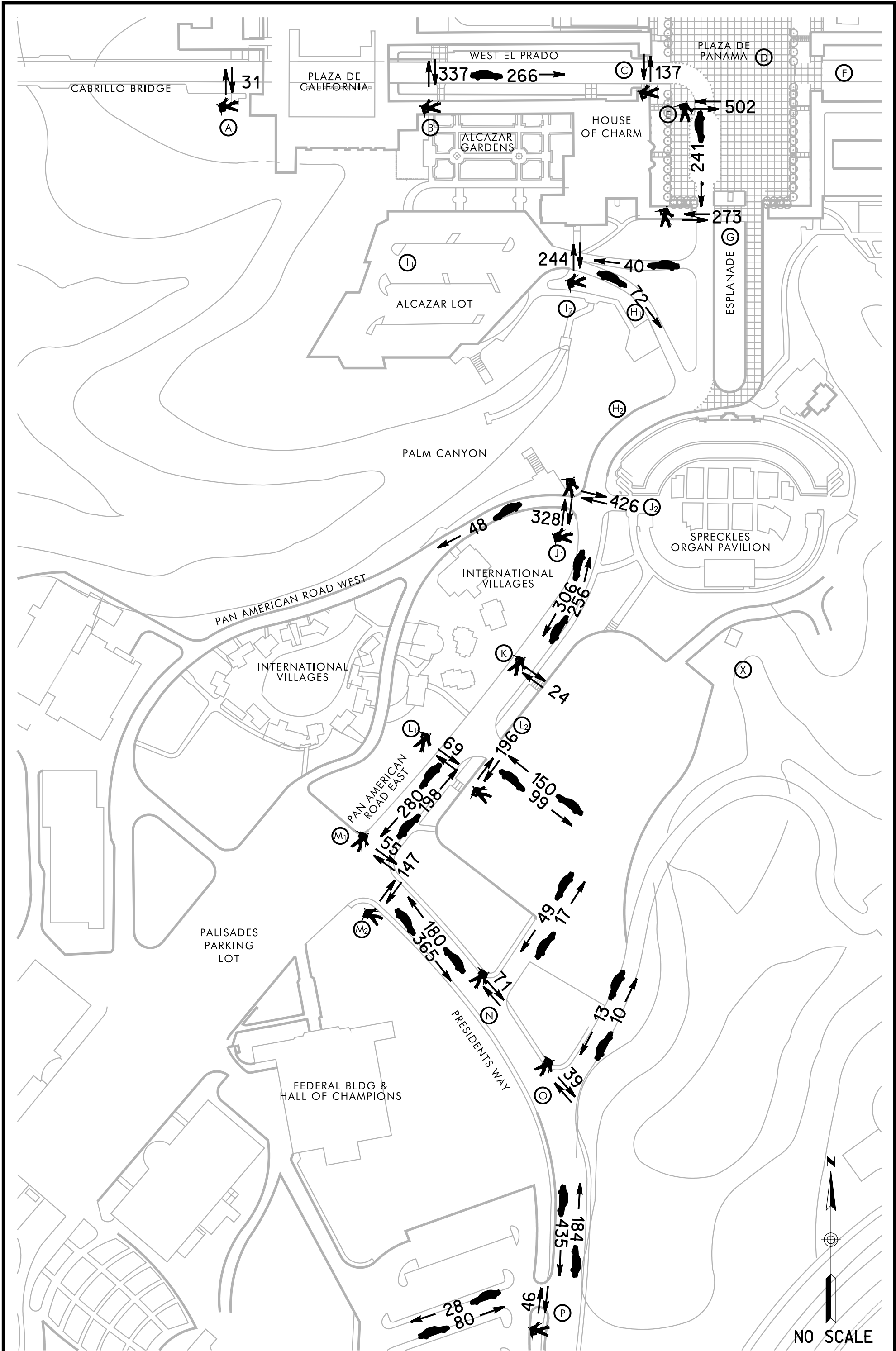


EXHIBIT 127

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

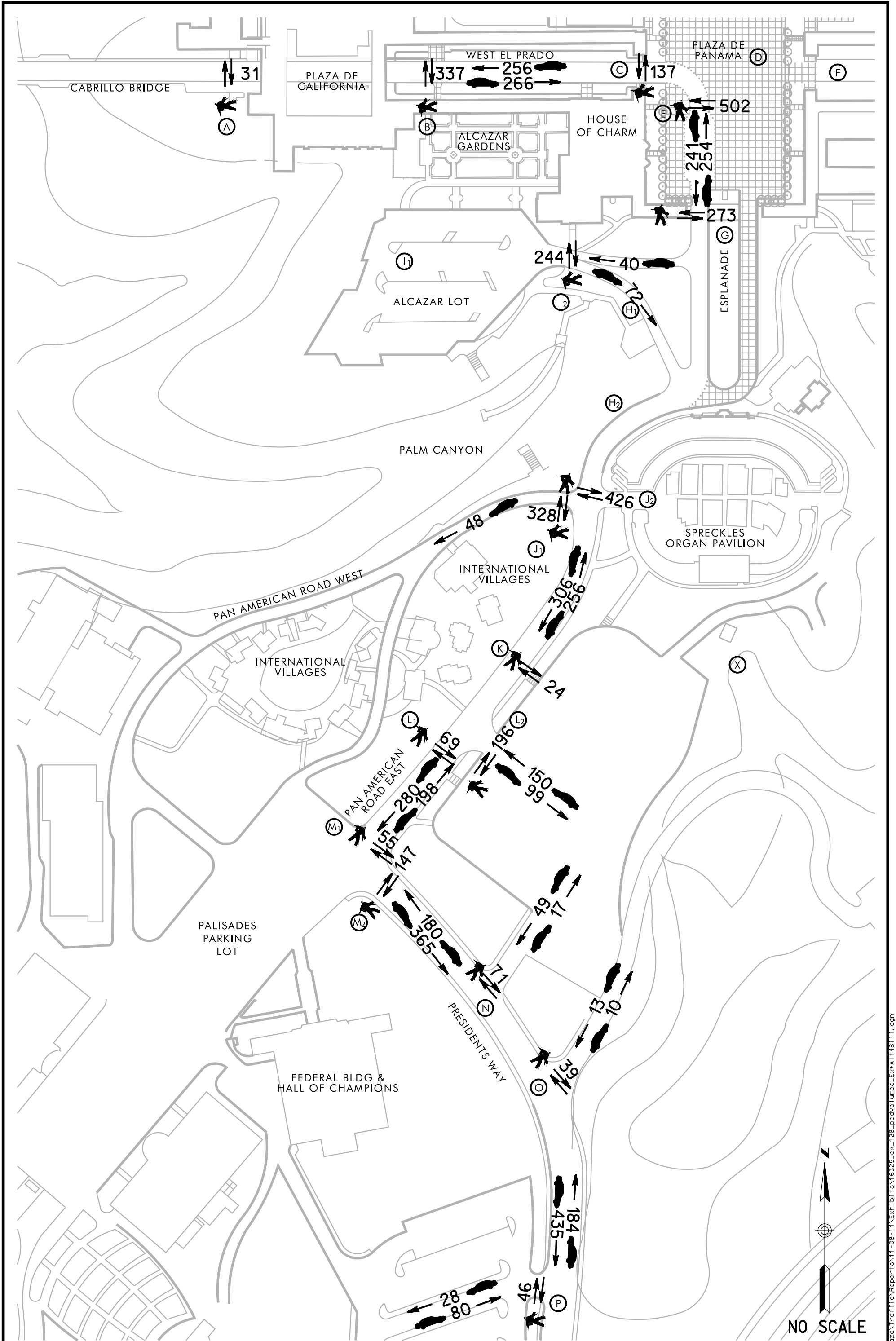


EXHIBIT 128

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

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



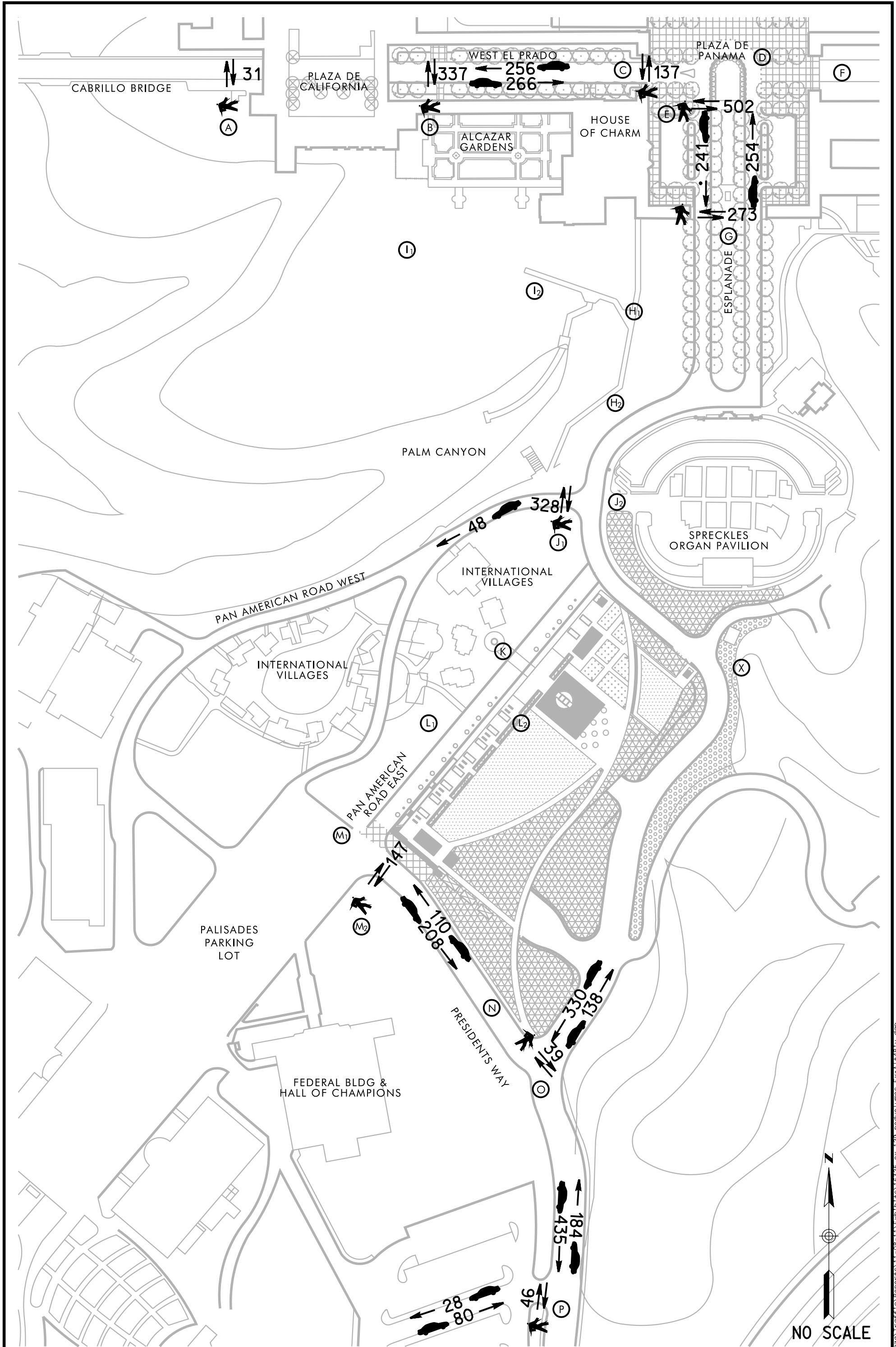


EXHIBIT 129

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

NO SCALE

**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%

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.

CONSTRUCTION ACTIVITIES

The project is proposed to be constructed in four phases. Phase I consists of utility infrastructure and Restroom Demolition, Phase II constructs the Centennial Bridge and parking structure with rooftop park, Phase III replaces the Alcazar Lot and constructs the Pedestrian/Tram Promenade, and Phase IV focuses on the Esplanade and Plazas. Of the proposed four phases of construction, it is anticipated that Phase II would generate the most traffic, as that phase includes the most employees and the soil export operation. This construction related traffic was estimated to be about 500 ADT (approximately 400 ADT related to truck trips associated with soil export operations). 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. 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.

**TABLE 192
 QUEUE LENGTH SUMMARY
 2015
 SATURDAY AM PEAK**

Intersection	No Project ²			Proposed Project			Alternative 2			Alternative 3A			Alternative 3B			Alternative 3C			Alternative 3D		
	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/Centennial Bridge	-	-	-	92'	142'	No	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
El Prado/Plaza De Panama	231'	374'	Yes	-	-	-	-	106'	No	-	-	-	-	-	-	-	-	-	-	-	-

Intersection	Alternative 4Ai			Alternative 4Aii			Alternative 4Bi			Alternative 4Bii			Alternative 4Biii ²			Alternative 4Biv ²		
	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/Centennial 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 specified alternatives

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Appendices

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Appendix B – Roadway Classifications, LOS and ADT Worksheets

Appendix C – Significance Determination Thresholds, Roadway Classifications, ADT, LOS Thresholds and 2000 HCM LOS Tables

Appendix D – Traffic Analysis Calculation Sheets

Appendix E – SANDAG Forecasts

Appendix F – Cumulative Projects Traffic Data

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Appendix J – ULI – Level of Service for Walking Distance

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Appendix L – Central Region Bus Routes

Appendix M – Haul Route Intersection Analysis

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Appendix O – Existing Vehicle/Pedestrian Conflict Count Data

Appendix P – El Prado Queue Calculation Sheets

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**Balboa Park Plaza De Panama
Circulation & Parking Structure Project
Traffic Analysis**

January 12, 2012

INTRODUCTION

The following study has been prepared to determine any traffic-related impacts within the study area roadways and intersections due to the proposed Balboa Park Plaza de Panama Circulation and Parking Structure project in the Central Mesa area of Balboa Park within the City of San Diego. The project site is located east of 6th Avenue and west of Park Boulevard and is generally bounded by Interstate 5 to the south and Upas Street to the north. **Exhibit 1** shows the project vicinity map. **Exhibit 2** shows the project study area map with the surrounding street network system.

PROJECT DESCRIPTION

The proposed project is intended to restore pedestrian use and remove vehicular traffic and parking from the Plaza de California, West Prado, the Plaza de Panama, and Pan American Road, consistent with the original vision for the Central Mesa. This would be accomplished through the construction of a new by-pass road and bridge, which would divert eastbound vehicular traffic from the Park's western entrance on Cabrillo Bridge south to a new 265,242-square-foot underground parking structure with 797 parking spaces (net gain of 260 spaces) located in the area of an existing surface parking lot behind the Organ Pavilion. An additional 97,000 square feet of park space would be created on top of the parking structure. The project proposes to continue to utilize the existing access points to/from the site via 6th Avenue/Laurel Street-El Prado, Park Boulevard/Village Place, Park Boulevard/Theatre Way and Park Boulevard/Presidents Way.

The project is proposed to be constructed in the following four phases with planned completion by December 2015:

Phase I – Utility Infrastructure and Road Construction (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)

Phase I - 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

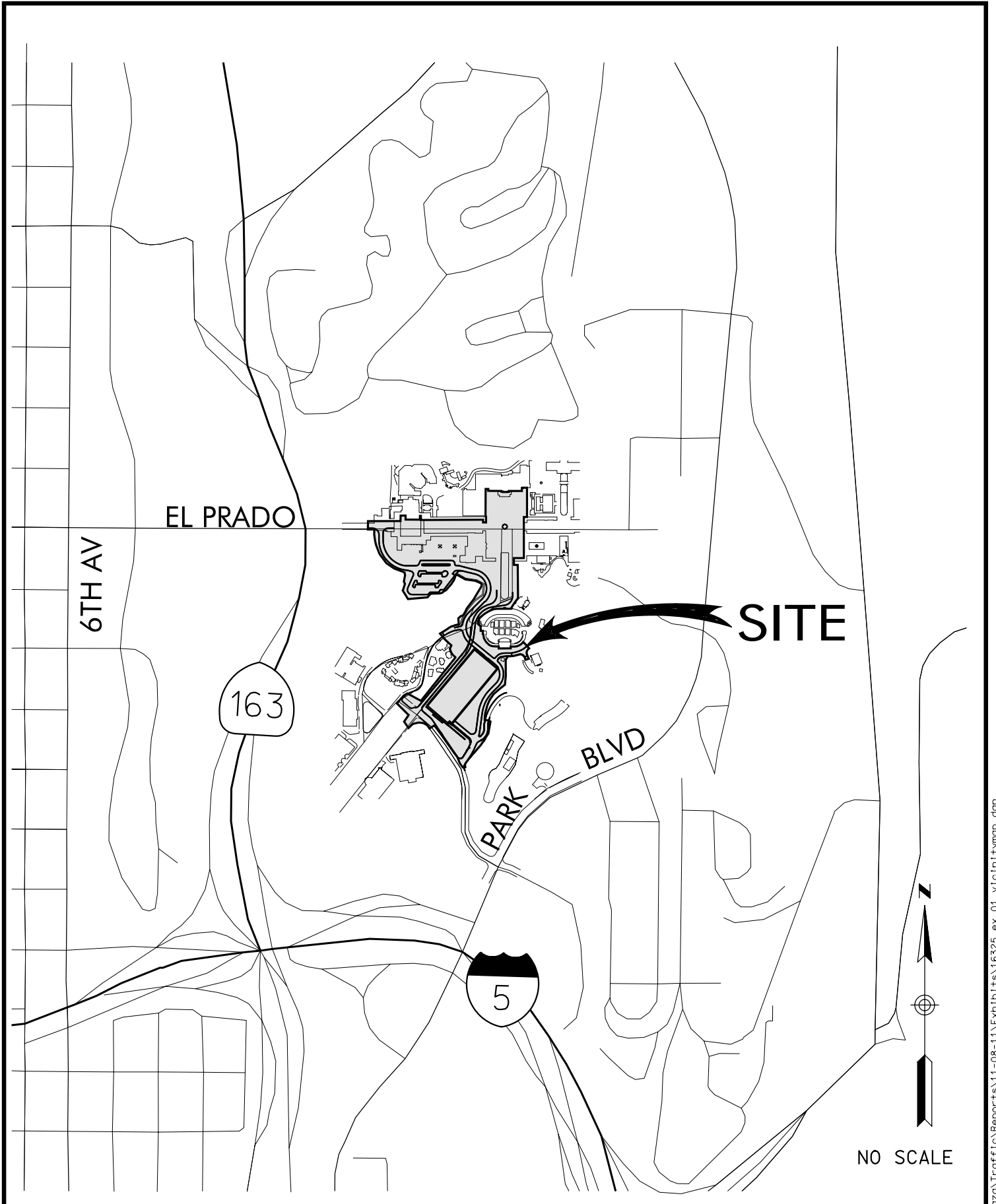


EXHIBIT 1
PROJECT VICINITY MAP
BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

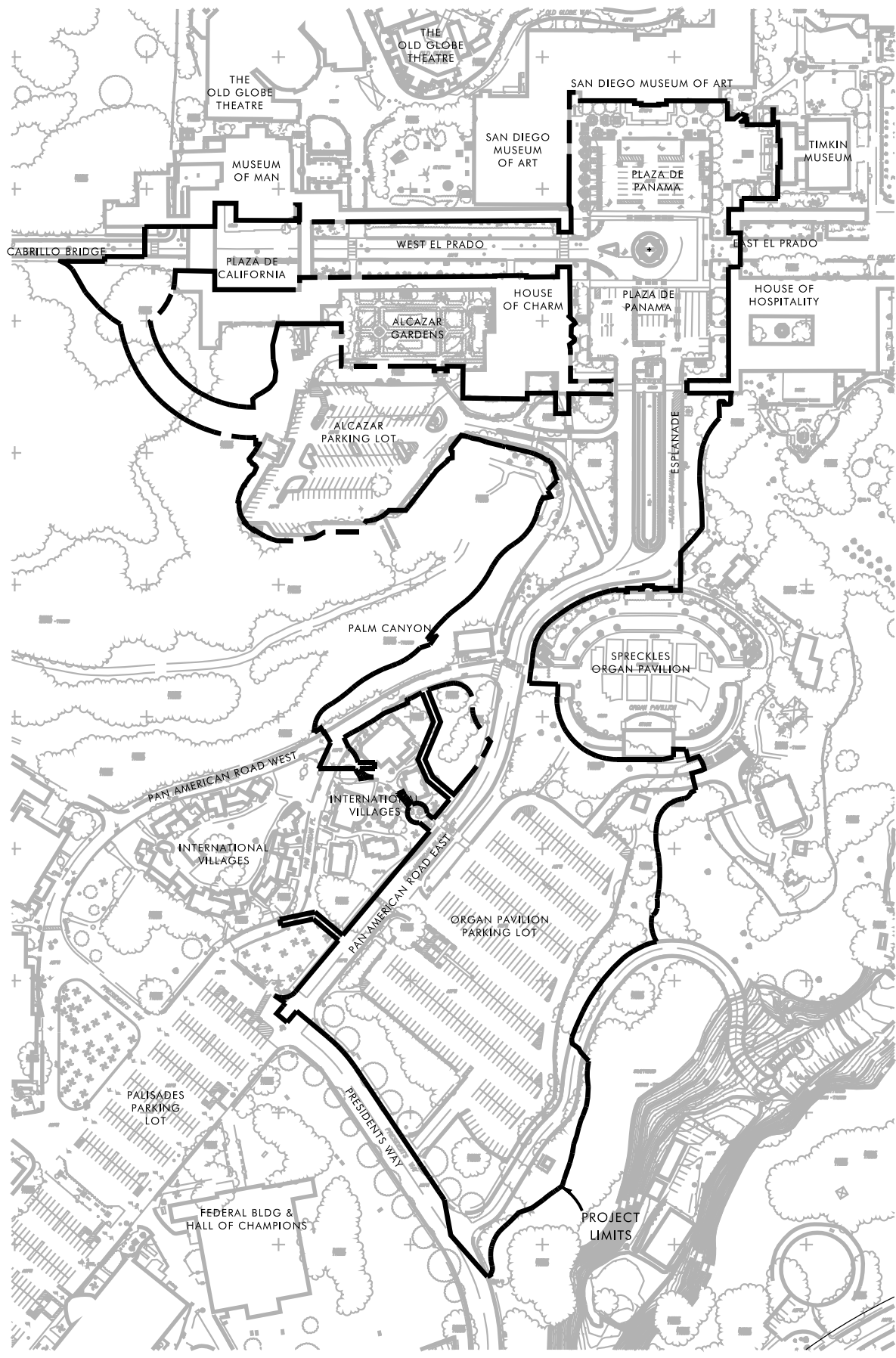


EXHIBIT 2
 PROJECT AREA MAP
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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 southeast corner of the intersection of President's Way and Pan American Road East.

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 125,000 cubic yards of soil is to be removed from the footprint of the current Organ Pavilion lot. 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-in-place 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 to 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.

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.

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.

Exhibit 3 shows the conceptual site plan.

EXISTING TRANSPORTATION CONDITIONS

The following is a brief description of the City of San Diego roadways within the study area.

In general, all roads within the park are considered park roadways and are substandard (compared to City standard collector roadways).

Park Boulevard is classified as a four-lane major roadway (per the Central Mesa Precise Plan) that runs north-south and is located east of the project site. Park Boulevard north of Upas Street is ultimately classified as a four lane major roadway north of Upas Street per the Uptown Community Plan. The posted speed limit within this segment is 40 miles per hour from A Street to Upas Street and 35 miles per hour from Upas Street to Robinson Avenue. On street parking is generally provided on both sides of Park Boulevard. Park Boulevard serves as the major roadway providing access points east of the project site. Access points to/from Balboa Park are at the intersections of Park Boulevard/Presidents Way, Park Boulevard/Space Theatre Way and Park Boulevard/Village Place. Park Boulevard is currently built as a four-lane roadway, which functions as a four-lane major.

Upas Street is classified as a two-lane collector (per the Uptown Community Plan) that runs east-west and is located north of the project site. The posted speed limit within the study segment is 25 miles per hour. On street parking is generally permitted on both sides of the street. An existing bike route (class III) is provided on this roadway from Vermont Street to Park Boulevard and an existing class I bikeway connects Upas Street west of SR-163 to Upas Street east of SR-163. Upas Street also provides vehicular access to the project site via Balboa Drive

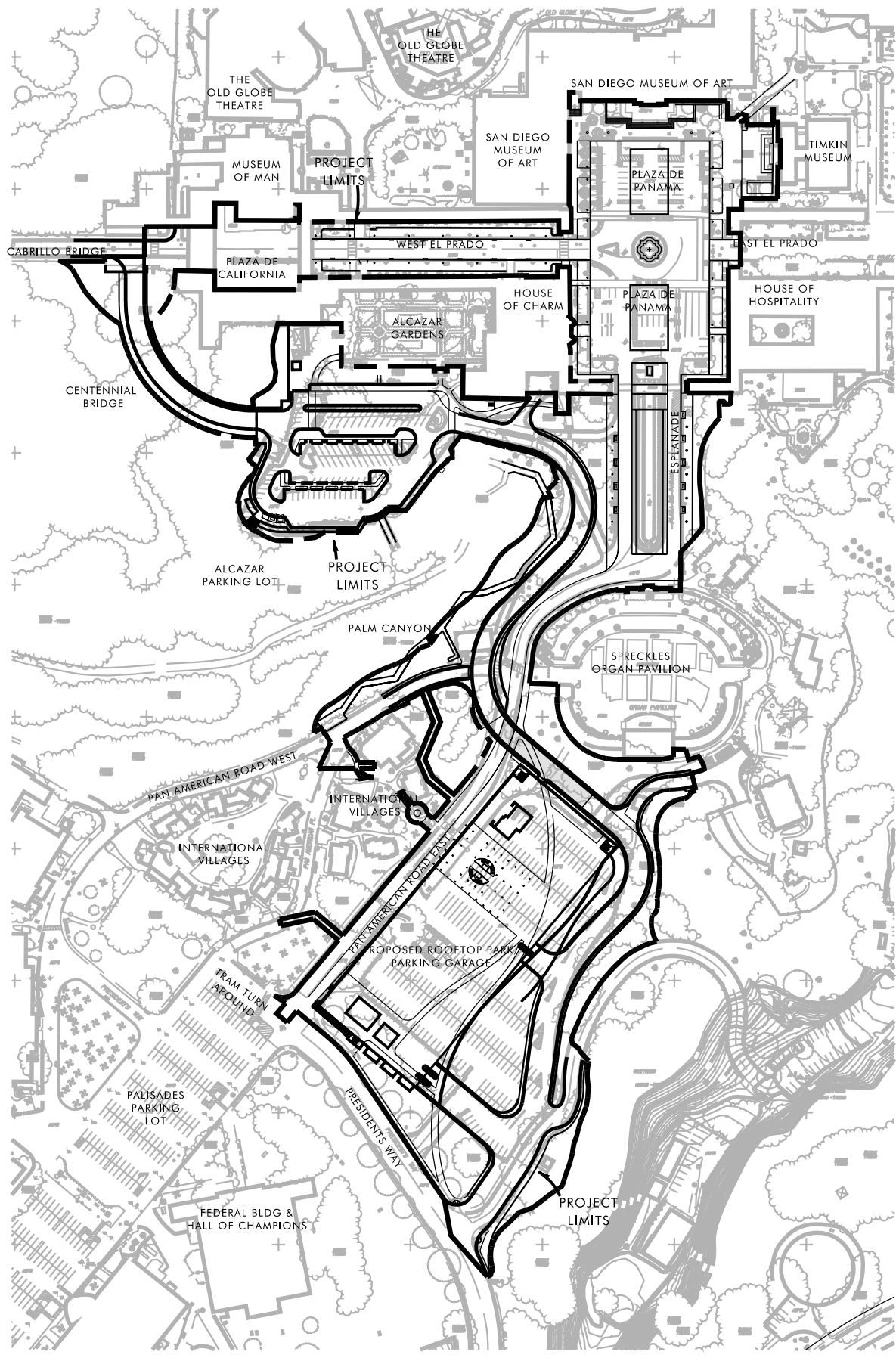


EXHIBIT 3
 CONCEPTUAL SITE PLAN
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

west of the project site. Upas Street is currently built as a two-lane undivided roadway which functions as a two-lane collector.

Morley Field Drive/ Zoo Drive is designated as a two-lane park roadway (per the East Mesa Precise Plan) and is located north of the project site. Morley Field Drive runs east of Park Boulevard with posted speed limit of 35 miles per hour and Zoo Drive west of Park Boulevard with the posted speed limit of 25 miles per hour. On street parking is prohibited on Morley Field Drive but permitted on both sides of the street on Zoo Drive. Morley Field Drive/Zoo Drive is built as a two-lane undivided roadway that functions as a two-lane collector.

Zoo Place is classified as a 2-lane collector that runs from Park Boulevard to Florida Drive and is located east of the project site. On street parking is prohibited. Zoo Place west of Park Boulevard serves as the main access to the San Diego Zoo parking lot. Zoo Place is built as a two-lane undivided roadway that functions as a two-lane collector.

Presidents Way is a two-lane park roadway that runs east-west and is located south of the project site. The posted speed limit is 15 miles per hour. On street parking is generally prohibited; however there is limited on-street parking on the south side of Presidents Way, just east of the Palisades lot. Presidents Way provides access to Federal and Aerospace parking lots. The roadway is also one of the major access points to the project site. Presidents Way is built as a two-lane undivided roadway that functions as a two-lane collector.

Robinson Avenue is classified as a three-lane collector (per the Uptown Community Plan) that runs east-west and is located north of the project site. The posted speed limit within the studied segment between 6th Avenue and Park Boulevard is 30 miles per hour. On street parking is generally permitted on both sides of the street. Robinson Avenue provides access to residential and commercial uses. Robinson Avenue between 6th Avenue and Vermont Street is currently built as a two-lane undivided roadway that functions as a two-lane collector. Robinson Avenue between Vermont Street and Park Boulevard is currently built as a two-lane roadway with a center two-way left turn lane that functions as a three-lane collector.

Richmond Street is classified as a two-lane collector (per the Uptown Community Plan) that runs north-south and is located northwest of the project site. The roadway is a one-way northbound off-ramp from SR-163. Southbound Richmond Street dead-ends before reaching SR-163 with no on-ramp access to freeway. On street parking is prohibited on this roadway. Richmond Street is currently built as a two-lane roadway that functions as a two-lane collector.

6th Avenue is classified as a four-lane major roadway (per the Uptown Community Plan) that runs north-south from the SR-163 to Elm Street and a three-lane one-way (southbound) street south of Elm Street. 6th Avenue is located west of the project site with access points to Balboa Park at Upas Street, Laurel Street/El Prado, and Juniper Street. On street parking is permitted on both sides of the street and the posted speed limit is 30 miles per hour. An existing bike route (class III) is provided within the study segment from Upas Street to A Street. 6th Avenue within the project area is currently built as a four-lane roadway and functions as a four-lane collector.

Laurel Street is classified as a two-lane collector (per the Uptown Community Plan) that runs east-west and extends from west of I-5 to 6th Avenue, with a speed limit of 30 miles per hour. Laurel Street becomes El Prado east of 6th Avenue. Parking is provided on both sides of the

street. An existing class III bike route is provided on Laurel Street from 4th Avenue to 6th Avenue and on El Prado from 6th Avenue to Village Place. Laurel Street is currently built as a two lane roadway and functions as a two lane collector.

El Prado is a two-lane park roadway between Balboa Drive to Plaza de Panama, which provides access to the Balboa Park. It currently is built as a two lane undivided roadway and functions as a two-lane collector.

Balboa Drive is a two-lane one-way park roadway west of the project site. The posted speed limit is 25 miles per hour with on street parking on both sides of the street. An existing bike route (class III) is provided. It is currently built as a two lane undivided roadway and functions as a two-lane collector.

Pan American Road is a two-lane park roadway that runs north-south and is located west of the project site. The posted speed limit is 15 miles per hour. On street parking is prohibited, however, Pan American Road provides access to Organ Pavilion and Pan American parking lots. It is currently built as a two lane undivided roadway and functions as a two-lane collector.

A Street is a three-lane one way roadway that runs east-west bounded by Kettner Boulevard and Park Boulevard. A Street is located south of the project site. On street parking is generally permitted on both sides of the street.

Village Place is a two-lane park roadway that runs east-west and is located west of Park Boulevard and north of the project site. Village Place provides access to Natural Museum and Carousel parking lots.

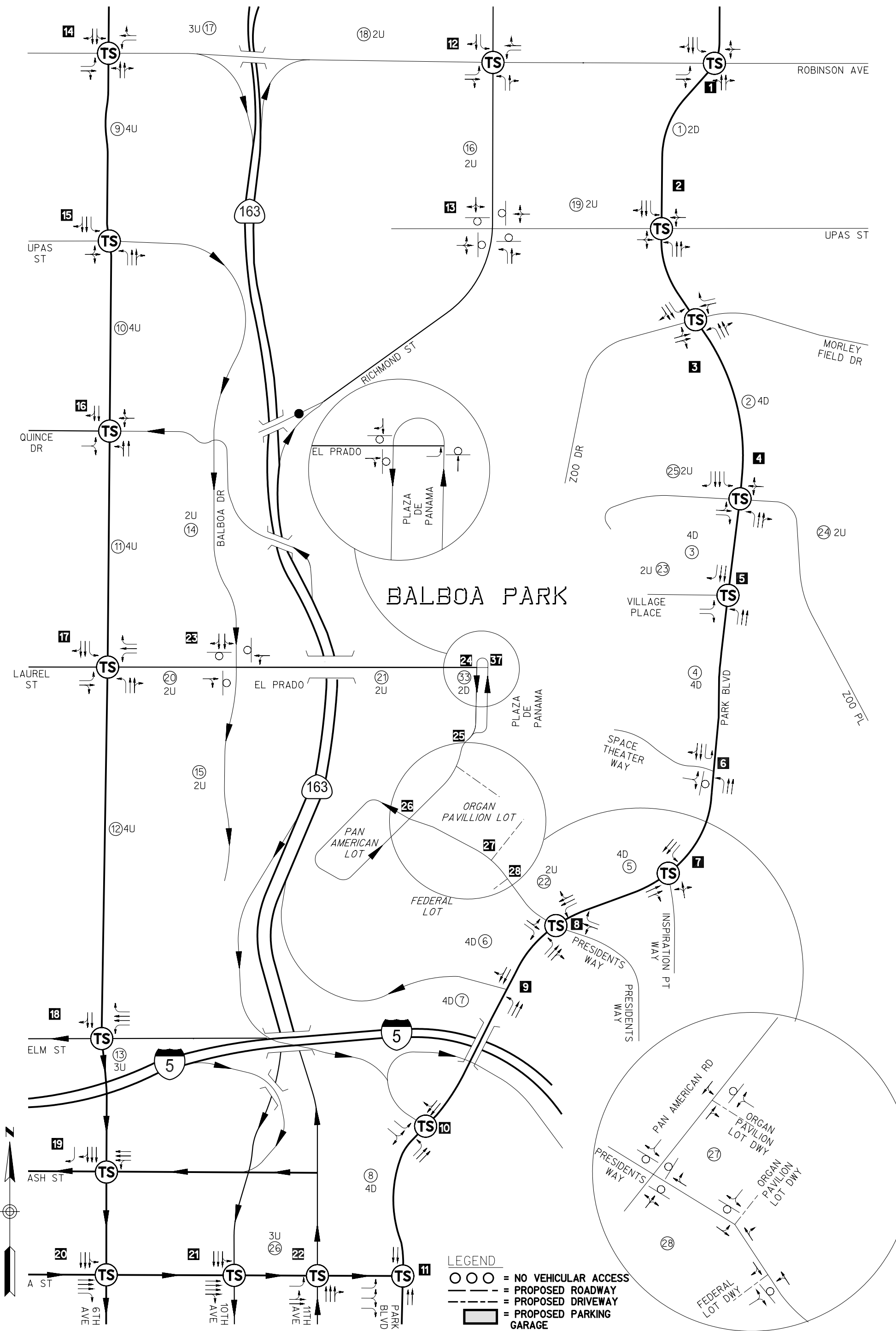
Exhibit 4 shows the intersection lane geometry and configuration of the study area intersections.

EXISTING TRAFFIC VOLUMES

Existing intersection turning movement volumes and roadway segment volumes within the study area were obtained from traffic counts that were conducted by Field Data Services during the third and fourth weeks of March 2011. Both A.M. (7:00-9:00) and P.M. (4:00-6:00) peak turning movement counts were conducted on Tuesday and Midday (11:00–1:00) and P.M. (3:00-5:00) peak turning movement counts were conducted on Saturday at the study area intersections as well as 24-hour roadway machine counts at the study area roadways. The peak weekday hours utilized in the analysis represent the typical commuter peaks while the Saturday peak hours were selected based on the typical inbound and outbound peaks of the park and surrounding area, which generally occur within the parks general operating hours. The calculated peak hour volumes within the count period of each studied intersection were utilized in the analysis. **Exhibit 5 and Exhibit 6** show the existing traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively. **Appendix A** contains the traffic count datasheets for intersections as well as roadways.

The following intersections and roadways were assessed as part of this analysis:

INTERSECTIONS



BALBOA PARK

EXHIBIT 4

EXISTING TRANSPORTATION CONDITIONS

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

- 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



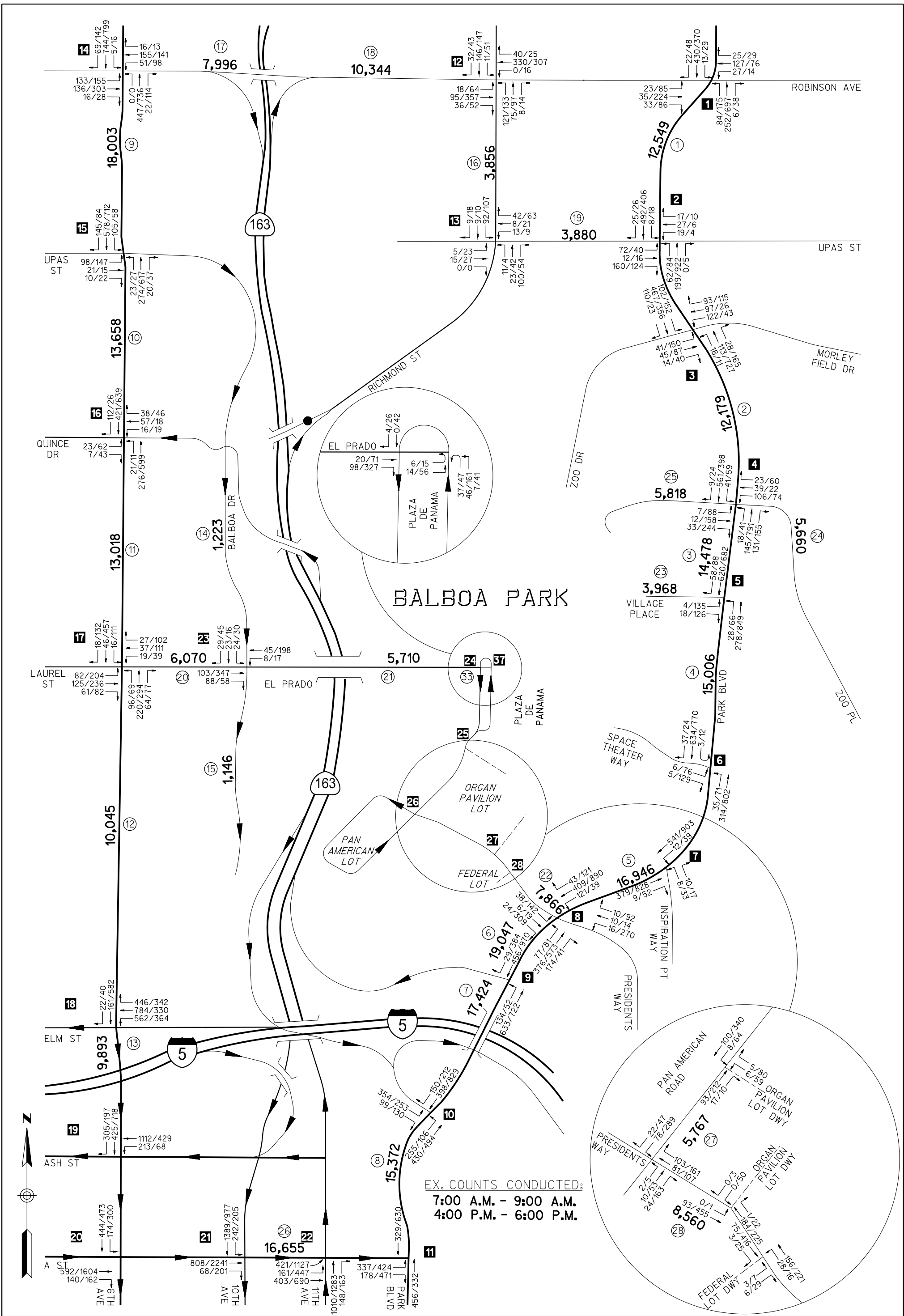
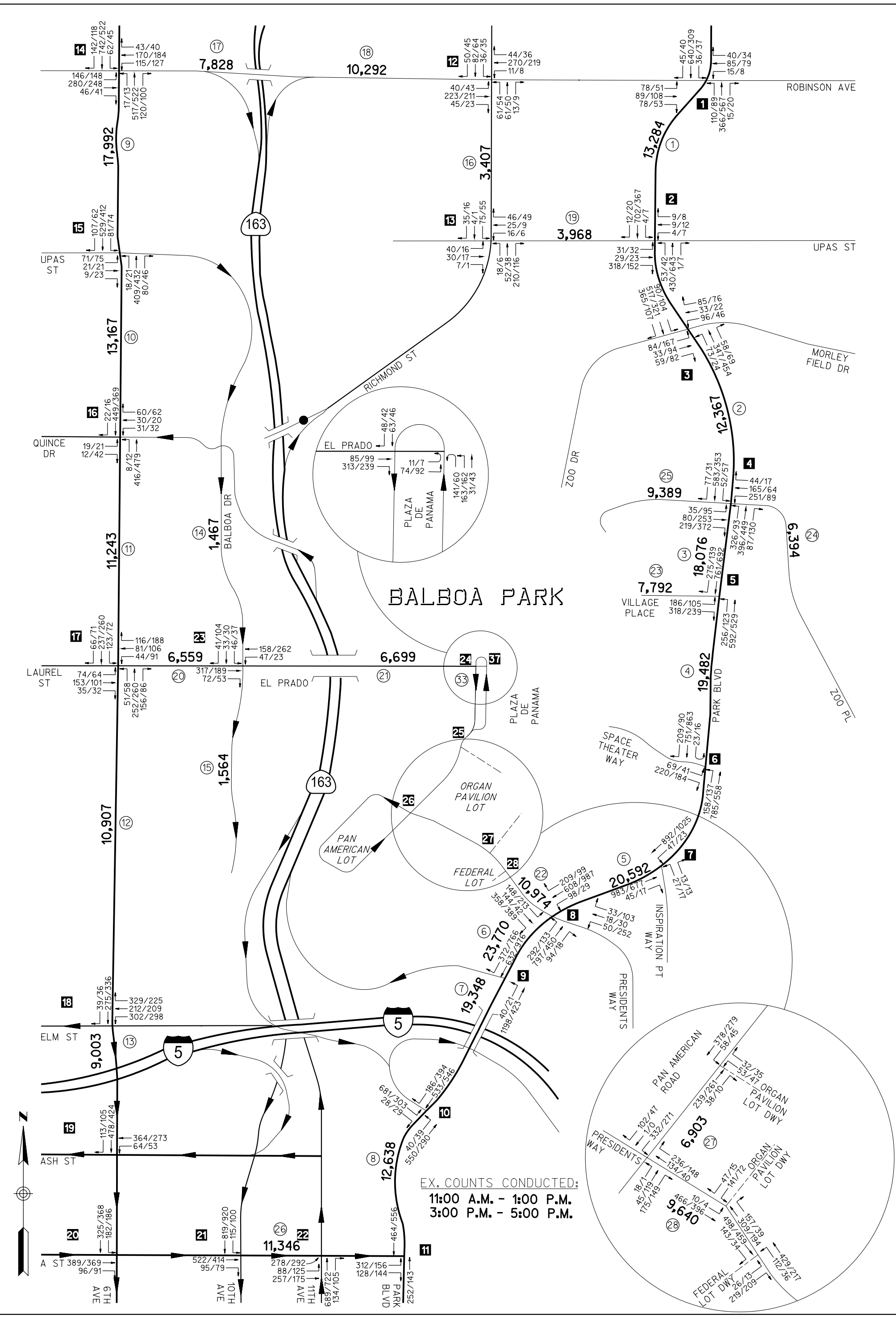


EXHIBIT 5
 EXISTING TRAFFIC VOLUMES (WEEKDAY)
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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EX. COUNTS CONDUCTED:
 11:00 A.M. - 1:00 P.M.
 3:00 P.M. - 5:00 P.M.



EXHIBIT 6

EXISTING TRAFFIC VOLUMES (SATURDAY)

LEGEND

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

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



1. Park Boulevard/Robinson Avenue (signalized)
2. Park Boulevard/Upas Street (signalized)
3. Park Boulevard/Morley Field Drive (signalized)
4. Park Boulevard/Zoo Place (signalized)
5. Park Boulevard/Village Place (signalized)
6. Park Boulevard/Space Theatre Way (unsignalized)
7. Park Boulevard/Inspiration Way (signalized)
8. Park Boulevard/Presidents Way (signalized)
9. Park Boulevard/SR 163 NB on Ramp (unsignalized)
10. Park Boulevard/I-5 SB on and off Ramps (signalized)
11. Park Boulevard/A Street (signalized)
12. Richmond Street/Robinson Avenue (signalized)
13. Richmond Street/Upas Street (unsignalized)
14. 6th Avenue/Robinson Avenue (signalized)
15. 6th Avenue/Upas Street-Balboa Drive (signalized)
16. 6th Avenue/Quince Drive (signalized)
17. 6th Avenue/Laurel Street (signalized)
18. 6th Avenue/Elm St –I-5 NB off ramp (signalized)
19. 6th Avenue/Ash Street (signalized)
20. 6th Avenue/A Street (signalized)
21. A Street/10th Avenue
22. A Street/11th Avenue
23. Balboa Drive/El Prado (unsignalized)
24. El Prado/Plaza De Panama (unsignalized)
25. Pan American Road/Organ Pavilion Lot (unsignalized)
26. Pan American Road/Presidents Way (unsignalized)
27. Presidents Way/Organ Pavilion Lot (unsignalized)
28. Presidents Way/Federal-Aerospace Lot (unsignalized)

ROADWAY SEGMENTS

Park Boulevard

1. Robinson Avenue to Upas Street
2. Upas Street to Zoo Place
3. Zoo Place to Village Place
4. Village Place to Space Theater Way
5. Space Theater Way to Presidents Way
6. Presidents Way to SR 163 NB ramps
7. SR 163 NB Ramps to SR 163 SB Ramps
8. SR 163 SB Ramps to A Street

6th Avenue

9. Robinson Avenue to Upas Street
10. Upas Street to Quince Drive
11. Quince Drive to El Prado
12. El Prado to Elm Street-I-5 NB ramps
13. Elm Street-I-5 NB ramps to Ash Street

Balboa Drive

- 14. Quince Drive to El Prado
- 15. El Prado to Juniper Road

Richmond Street

- 16. Robinson Avenue to Upas Street

Robinson Avenue

- 17. 6th Avenue to Vermont Street
- 18. Vermont Street to Park Boulevard

Upas Street

- 19. Richmond Street to Park Boulevard

El Prado

- 20. 6th Avenue to Balboa Drive
- 21. Balboa Drive to Plaza de Panama

Presidents Way

- 22. West of Park Boulevard
- 28. East of Pan American Road

Village Place

- 23. West of Park Boulevard

Zoo Place

- 24. East of Park Boulevard
- 25. West of Park Boulevard

A Street

- 26. 6th Avenue to Park Boulevard

Pan American Road

- 27. North of Presidents Way

FREEWAYS

The nearby freeways segments (SR 163 and I-5) were not analyzed based on CMP compliance as later mentioned in this report. However, the following project area SR 163 and I-5 on and off ramps were assessed as part of this analysis; these intersections are also listed above:

- 9. Park Boulevard/SR 163 NB on Ramp (unsignalized)
- 10. Park Boulevard/I-5 SB on and off Ramps (signalized)
- 18. 6th Avenue/Elm St –I-5 NB off ramp (signalized)

TRAFFIC ANALYSIS METHODOLOGY

The project driveways, study area intersections and roadway segments were analyzed for the existing, near-term (Year 2015) and horizon year (Year 2030) scenarios.

The traffic analysis was prepared based on the City of San Diego Traffic Impact Study Manual, dated 1998, and CEQA Significance Determination Thresholds outlined by City of San Diego Development Services Department, dated January 2011.

The level of service (LOS) for roadway operations was calculated based on information provided in **Appendix B**, Roadway Classifications, Levels of Service and Average Daily Traffic as part of the City of San Diego Traffic Impact Study Manual, dated 1998. Level of Service A-D is considered acceptable for urbanized areas where further improvement in level of service is not feasible or practical. For the traffic analysis, the roadway segments, impacts were evaluated based on weekday daily impacts.

The operating conditions at the signalized study intersections were evaluated based on methodologies described in the 2000 Highway Capacity Manual (HCM) for Signalized Intersections. Peak hour intersection conditions are reported as average delay in seconds per vehicle with corresponding levels of service (LOS). The signalized project study intersections utilized cycle lengths and phasing based on signal timing sheets obtained from City of San Diego Traffic Operations Division. The unsignalized study intersections were analyzed utilizing the 2000 HCM Unsignalized (Two-Way Stop Controlled) methodology, with peak hour intersection conditions reported as average delay in seconds per vehicle for the critical movements (minor street and major street lefts) with corresponding levels of service. The operating conditions at the all-way stop controlled study intersections were evaluated using the 2000 HCM All-Way STOP Controlled methodology. Peak hour intersection conditions for all-way stop controlled intersections are reported as average delay in seconds per vehicle with corresponding levels of service (LOS). For the traffic analysis, intersections, external intersections were analyzed for both weekday and Saturday, and Saturday only for the internal intersections (as this would represent worst case scenario).

A level of service rating is a qualitative description of intersection operations and is reported using an A through F letter rating system to describe travel delay and congestion. Level of Service A indicates free flow conditions with little or no delay and LOS F indicates jammed conditions with excessive delays and long back-ups. **Appendix C** contains the January 2011 City of San Diego Significance Determination Thresholds, Table X - Roadway Classification, ADT and LOS thresholds, 2000 HCM LOS tables for signalized and two-way stop controlled intersections. **Appendix D** contains the traffic analysis calculation sheets.

The following scenarios will be analyzed as part of this traffic analysis:

- Existing Conditions
- 2015 without project
- 2030 without project
- Existing + Proposed project

- 2015 + Proposed project
- 2030 + Proposed project
- Existing + Project Alternative 2
- 2015 + Project Alternative 2
- 2030 + Project Alternative 2
- Existing + Project Alternative 3A
- 2015 + Project Alternative 3A
- 2030 + Project Alternative 3A
- Existing + Project Alternative 3B
- 2015 + Project Alternative 3B
- 2030 + Project Alternative 3B
- Existing + Project Alternative 3C
- 2015 + Project Alternative 3C
- 2030 + Project Alternative 3C
- Existing + Project Alternative 3D
- 2015 + Project Alternative 3D
- 2030 + Project Alternative 3D
- Existing + Project Alternative 4Ai
- 2015 + Project Alternative 4Ai
- 2030 + Project Alternative 4Ai
- Existing + Project Alternative 4Aii
- 2015 + Project Alternative 4Aii
- 2030 + Project Alternative 4Aii
- Existing + Project Alternative 4Bi
- 2015 + Project Alternative 4Bi
- 2030 + Project Alternative 4Bi
- Existing + Project Alternative 4Bii
- 2015 + Project Alternative 4Bii
- 2030 + Project Alternative 4Bii
- Existing + Project Alternative 4Biii
- 2015 + Project Alternative 4Biii
- 2030 + Project Alternative 4Biii
- Existing + Project Alternative 4Biv
- 2015 + Project Alternative 4Biv
- 2030 + Project Alternative 4Biv
- Existing + Project Alternative 5
- 2015 + Project Alternative 5
- 2030 + Project Alternative 5

CONGESTION MANAGEMENT PROGRAM COMPLIANCE

The Congestion Management Program (CMP), adopted on November 2, 1991, is intended to link land use, transportation and air quality through level of service performance. The CMP requires an enhanced CEQA review for projects that are expected to generate more than 2,400 ADT or more than 200 peak hour trips. As the proposed project is not anticipated to add additional trips to the project area (project traffic already within the street system), a CMP analysis would not be required. The CMP facilities within the nearby area are SR 163 and I-5.

SIGNIFICANCE IMPACT CRITERIA

The following significance impact criteria and significance thresholds were based on the guidelines provided in the Significance Determination Thresholds document prepared by City's Development Services Department (dated January 2011).

Direct traffic impacts are those projected to occur at the time a proposed development becomes operational, including other developments not presently operational but which are anticipated to be operational at that time (opening year/near term).

Cumulative traffic impacts are those projected to occur at some point after a proposed development becomes operational, such as during subsequent phases of a project and when additional proposed developments in the area become operational (short-term cumulative) or when the affected community plan area reaches full planned build out (long-term cumulative).

For intersections and roadway segments affected by a project, level of service (LOS) D or better is considered acceptable under both direct and cumulative conditions. If a proposed project's traffic causes the level of service to deteriorate from LOS D or better to LOS E or worse, the impacts are determined to be significant. For intersections that are already operating at LOS E or LOS F, the impacts are determined to be significant if the project's traffic causes an incremental delay of greater than or equal to 2.0 seconds and 1.0 second for LOS E and LOS F, respectively.

For roadway segments that are already operating at LOS E or LOS F, the impacts are determined to be significant if project's traffic causes an incremental increase in the Volume/Capacity (V/C) ratio of greater than or equal to 0.02 and 0.01 for LOS E and LOS F, respectively.

Roadway segments were evaluated and mitigated for weekday impacts only, as roadway segments are typically mitigated for weekday conditions. However, the intersections were evaluated for weekday and weekend, but mitigated for weekend/Saturday (worst case) impacts only, since this park use normally peaks during the weekends and peak hour intersections are typically a more accurate indicator of actual traffic operations as compared to daily roadway segments. This is consistent with previous traffic analyses studied within the Balboa Park area. Also, the internal intersections were evaluated during the AM peak periods only, as volumes for these periods are generally higher than the PM peak periods, thus representing a worse case analysis. The evaluated peak hours were from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM during the weekday and 11:00 AM to 1:00 PM and 3:00 PM to 5:00 PM during the weekend.

Appendix C contains the January 2011 City of San Diego Significance Determination Thresholds for Traffic.

EXISTING OPERATIONS

Table 1 shows all the study area intersections to currently operate at LOS C or better during the weekday AM and PM peak periods.

Table 2 shows all the study area intersections to currently operate at LOS D or better during the weekend AM and PM peak periods.

**TABLE 1
EXISTING INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)**

	Intersection	Control	Existing		
			Control Delay (sec/veh)	LOS	
1	Park Boulevard/Robinson Avenue	Signal	AM	16.3	B
			PM	17.1	B
2	Park Boulevard/Upas Street	Signal	AM	18.6	B
			PM	14.4	B
3	Park Boulevard/Morley Field Drive	Signal	AM	18.6	B
			PM	19.2	B
4	Park Boulevard/Zoo Place	Signal	AM	16.1	B
			PM	21.5	C
5	Park Boulevard/Village Place	Signal	AM	3.9	A
			PM	11.3	B
6	Park Boulevard/Space Theatre Way	Unsignalized	Northbound Left		
			AM	9.0	A
			PM	9.7	A
			Eastbound Left		
			AM	12.1	B
			PM	19.2	C
7	Park Boulevard/Inspiration Way	Signal	AM	3.1	A
			PM	4.5	A
8	Park Boulevard/Presidents Way	Signal	AM	14.7	B
			PM	21.8	C
9	Park Boulevard/SR 163 NB Ramps	Unsignalized	Northbound Left		
			AM	8.8	A
			PM	12.8	B
10	Park Boulevard/I-5 Ramps	Signal	AM	26.2	C
			PM	19.9	B
11	Park Boulevard/A Street	Signal	AM	11.5	B
			PM	13.3	B
12	Richmond Street/Robinson Avenue	Signal	AM	15.0	B
			PM	14.5	B
13	Richmond Street/Upas Street	All Way Stop	AM	7.7	A
			PM	8.0	A
14	6th Avenue/Robinson Avenue	Signal	AM	20.5	C
			PM	22.6	C
15	6th Avenue/ Upas Street-Balboa Drive	Signal	AM	9.6	A
			PM	11.7	B
16	6th Avenue/Quince Drive	Signal	AM	12.1	B
			PM	12.1	B
17	6th Avenue/Laurel Street	Signal	AM	13.0	B
			PM	15.0	B
18	6th Avenue/Elm Street-I-5 NB Off Ramp	Signal	AM	8.6	A
			PM	12.8	B
19	6th Avenue/Ash Street	Signal	AM	11.5	B
			PM	10.9	B
20	6th Avenue/A Street	Signal	AM	11.8	B
			PM	11.5	B
21	A Street/10th Avenue	Signal	AM	11.9	B
			PM	14.0	B
22	A Street/11th Avenue	Signal	AM	11.0	B
			PM	13.9	B
23	Balboa Drive/El Prado	All Way Stop	AM	7.8	A
			PM	10.8	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 2
EXISTING INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)**

	Intersection	Control	Existing		
			Control Delay (sec/veh)	LOS	
1	Park Boulevard/Robinson Avenue	AM	Signal	14.5	B
		PM		13.8	B
2	Park Boulevard/Upas Street	AM	Signal	19.2	B
		PM		15.5	B
3	Park Boulevard/Morley Field Drive	AM	Signal	17.0	B
		PM		20.0	C
4	Park Boulevard/Zoo Place	AM	Signal	30.0	C
		PM		24.0	C
5	Park Boulevard/Village Place	AM	Signal	18.5	B
		PM		15.5	B
6	Park Boulevard/Space Theatre Way	Northbound Left	Unsignalized		
		AM		11.3	B
		PM		11.1	B
		Eastbound Left			
		AM		31.2	D
7	Park Boulevard/Inspiration Way	AM	Signal	4.1	A
		PM		4.1	A
8	Park Boulevard/Presidents Way	AM	Signal	25.0	C
		PM		26.8	C
9	Park Boulevard/SR 163 NB Ramps	Northbound Left	Unsignalized		
		AM		10.5	B
		PM		15.4	C
10	Park Boulevard/I-5 Ramps	AM	Signal	21.8	C
		PM		16.2	B
11	Park Boulevard/A Street	AM	Signal	12.8	B
		PM		13.8	B
12	Richmond Street/Robinson Avenue	AM	Signal	13.0	B
		PM		12.7	B
13	Richmond Street/Upas Street	AM	All Way Stop	8.8	A
		PM		7.7	A
14	6th Avenue/Robinson Avenue	AM	Signal	24.3	C
		PM		24.8	C
15	6th Avenue/ Upas Street-Balboa Drive	AM	Signal	8.3	A
		PM		11.1	B
16	6th Avenue/Quince Drive	AM	Signal	13.9	B
		PM		13.5	B
17	6th Avenue/Laurel Street	AM	Signal	14.8	B
		PM		14.7	B
18	6th Avenue/Elm Street-I-5 NB Off Ramp	AM	Signal	10.9	B
		PM		11.5	B
19	6th Avenue/Ash Street	AM	Signal	11.2	B
		PM		10.7	B
20	6th Avenue/A Street	AM	Signal	11.4	B
		PM		11.3	B
21	A Street/10th Avenue	AM	Signal	11.4	B
		PM		10.4	B
22	A Street/11th Avenue	AM	Signal	9.8	A
		PM		9.2	A
23	Balboa Drive/El Prado	AM	All Way Stop	10.5	B
		PM		10.3	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

Table 3 shows that all study area roadways to currently operate at LOS D or better on a daily basis.

Table 4 shows all the internal park study area intersections to currently operate at LOS B during the weekday AM peak periods

Table 5 shows all the internal park study area intersections to currently operate at LOS C or better during the weekend AM peak period with the exception of the northbound approach of the El Prado/Plaza de Panama intersection (LOS F).

PLAZA DE PANAMA

The Plaza de Panama currently has a high amount of vehicular and pedestrian conflicts. This is more evident during the weekend peak periods. This is mainly due to the vehicular access, ADA parking, valet and tram pick-up/drop off operations being confined into this single area with high pedestrian traffic. The tram pick-up drop off operations is located in the northeast portion of the plaza and the valet operation is situated at the southeast portion of the plaza. ADA parking is generally located at the south half of the plaza. Pedestrian activity is generally centralized with perimetering crosswalks. **Exhibit 7** shows the current pedestrian/vehicle conflicts within the Plaza De Panama. **Exhibit 8** and **Exhibit 9** show the current vehicle and pedestrian traffic volumes during a typical weekday and Saturday, respectively. Exhibit 9 shows that over 1000 pedestrians were counted to traverse through the Plaza de Panama during the AM peak period and over 1600 pedestrians during the PM peak. Just south of the existing fountain, close to 600 pedestrians per hour were counted during the PM peak period. These hourly pedestrian volumes were higher than the vehicular volumes (300 vph during the peak period) observed at the intersections within this area.

An analysis of the intersection at El Prado/Plaza De Panama which accounts for both vehicular and pedestrian traffic shows this intersection to operate at LOS F during the Saturday peak. This poor operation is due primarily to the high pedestrian and vehicular conflicts within the area.

Tables 4 and 5 show the operations of the key intersections within the park for weekday and Saturday respectively.

Appendix D contains the traffic analysis calculation sheets.

2015 and 2030 TRAFFIC VOLUMES

The 2015 and 2030 traffic volumes were estimated based on forecasts provided by SANDAG's Series 11 forecasts. The 2015 volumes were interpolated between the current 2011 counts and SANDAG's 2020 forecasts. Peak hour turning volumes for the 2015 and 2030 conditions were estimated based on techniques described in the National Highway Cooperative Research Program (NCHRP) 255 report, *Highway Traffic Data for Urbanized Area Project Planning and Design, Chapter 8*. This essentially estimates future turn volumes utilizing existing turn volumes, existing ADT's and future ADT's. **Appendix E** contains a copy of the SANDAG forecasts utilized for this analysis. In addition, the following five cumulative projects were also included in the 2015 and 2030 scenarios.

**TABLE 3
EXISTING ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	Existing		
				ADT	V/C Ratio	LOS
1 Park Boulevard between Robinson Avenue and Upas Street	2 Lane Collector ¹	4 Lane Major	15,000	12,549	0.837	D
2 Park Boulevard between Upas Street and Zoo Place	4 Lane Major	4 Lane Major	40,000	12,179	0.304	A
3 Park Boulevard between Zoo Place and Village Place	4 Lane Major	4 Lane Major	40,000	14,478	0.362	A
4 Park Boulevard between Village Place and Space Theater Way	4 Lane Major	4 Lane Major	40,000	15,006	0.375	B
5 Park Boulevard between Space Theater Way and Presidents Way	4 Lane Major	4 Lane Major	40,000	16,946	0.424	B
6 Park Boulevard between Presidents Way and SR 163 NB Ramps	4 Lane Major	4 Lane Major	40,000	19,047	0.476	B
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
8 Park Boulevard between SR 163 SB Ramps and A Street	4 Lane Major	4 Lane Major	40,000	15,372	0.384	B
9 6th Avenue between Robinson Avenue and Upas Street	4 Lane Collector	4 Lane Major	30,000	18,003	0.600	C
10 6th Avenue between Upas Street and Quince Drive	4 Lane Collector	4 Lane Major	30,000	13,658	0.455	B
11 6th Avenue between Quince Drive and El Prado	4 Lane Collector	4 Lane Major	30,000	13,018	0.434	B
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
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
14 Balboa Drive between Quince Drive and El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,223	0.122	A
15 Balboa Drive between El Prado and Juniper Road*	2 Lane Park Road*	2 Lane Park Road*	10,000	1,146	0.115	A
16 Richmond Street between Robinson Avenue and Upas Street	2 Lane Collector	2 Lane Collector	10,000	3,856	0.386	A
17 Robinson Avenue between 6th Avenue and Vermont Street	2 Lane Collector	3 Lane Collector	10,000	7,996	0.800	D
18 Robinson Avenue between Vermont Street and Park Boulevard	2 Lane Collector ¹	3 Lane Collector	15,000	10,344	0.690	D
19 Upas Street between Richmond Street and Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	3,880	0.388	A
20 El Prado between 6th Avenue and Balboa Drive*	2 Lane Park Road*	2 Lane Park Road*	10,000	6,070	0.607	C
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
22 Presidents Way west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	7,866	0.787	D
23 Village Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	3,968	0.397	A
24 Zoo Place east of Park Boulevard	2 Lane Collector	2 Lane Collector	10,000	5,660	0.566	C
25 Zoo Place west of Park Boulevard*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,818	0.582	C
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
27 Pan American Road north of Presidents Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,767	0.577	C
28 Presidents Way east of Pan American Way*	2 Lane Park Road*	2 Lane Park Road*	10,000	8,560	0.856	D
33 The Mall (Esplanade) south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	5,710	0.571	C

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 4
EXISTING INTERSECTION LOS ANALYSIS INTERNAL STREETS
(WEEKDAY)**

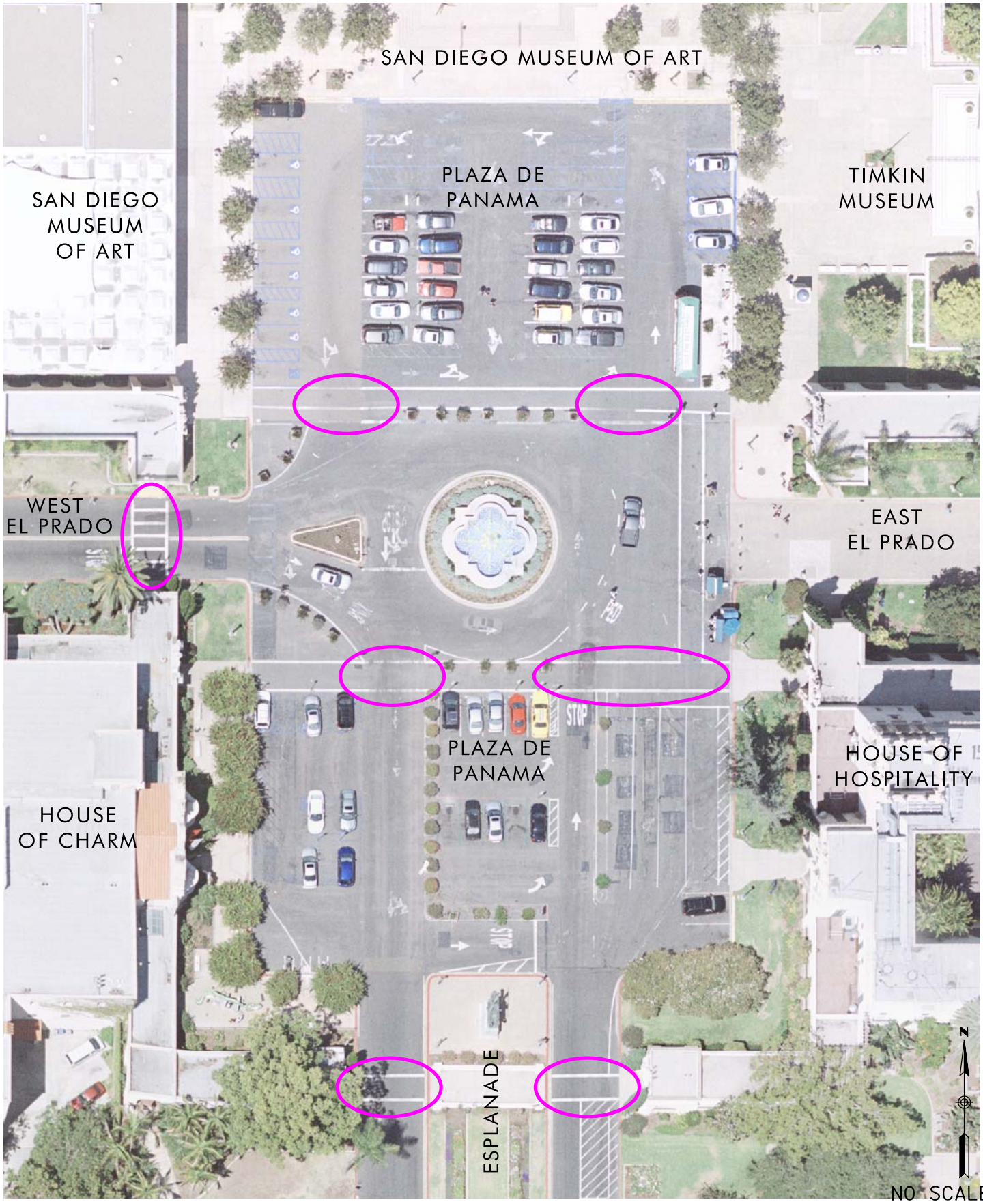
Intersection		Control	Existing	
			Control Delay (sec/veh)	LOS
24/37	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound		7.2	A
	Southbound		7.3	A
	Northbound	10.3	B	
25	Pan American Road/Organ Pavilion Lot	Stop		
	AM			
	Southbound Left		0.6	A
	Westbound Shared Left-Right		9.4	A
26	Pan American Road/Presidents 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

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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 5
EXISTING INTERSECTION LOS ANALYSIS INTERNAL STREETS
(SATURDAY)**

Intersection		Control	Existing	
			Control Delay (sec/veh)	LOS
24/37	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound		13.4	B
	Southbound		15.1	C
	Northbound	>50	F	
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	

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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F



NO SCALE



EXHIBIT 7

EXISTING PLAZA DE PANAMA CONFLICT AREAS

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

LEGEND


 = EXISTING PEDESTRIAN/VEHICLE CONFLICT AREAS



EXHIBIT 8

EXISTING PLAZA DE PANAMA TRAFFIC VOLUMES (WEEKDAY)

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

LEGEND

- XX/XX = AM/PM PEDESTRIANS PER HOUR
- XX/XX = AM/PM VEHICLES PER HOUR



EXHIBIT 9

EXISTING PLAZA DE PANAMA TRAFFIC VOLUMES (SATURDAY)

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

LEGEND

- XX/XX = AM/PM PEDESTRIANS PER HOUR
- XX/XX = AM/PM VEHICLES PER HOUR

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CUMULATIVE PROJECTS

Per coordination with City of San Diego Transportation Development staff, four cumulative projects within the study area were included as part of the near-term cumulative analysis. Traffic data for these projects were obtained from the city and utilized to estimate cumulative project trips that would be assigned to the nearby study area roadways and intersections.

The following is a brief description of the cumulative projects within the area:

Upas Street Jack-In-The-Box project is a proposed redevelopment of the existing 1,944 square feet of the fast food restaurant to a 2,491 square feet restaurant located at the intersection of Upas Street and Dale Street south of 30th Street. The project redevelopment using driveway trip rates will approximately add 380 net ADT's with 15 (9 IN, 6 OUT) A.M. Peak hour trips and 32 (16 IN, 16 OUT) P.M. Peak hour trips to the existing site. The project using cumulative trip rate will approximately add 230 net ADT's with 9 (5 IN, 4 OUT) A.M. Peak hour trips and 18 (9 IN, 9 OUT) P.M. Peak hour trips.

The St. Paul's Cathedral and Residences project includes renovation of the existing Cathedral facilities and the development of mixed-used residential, office, and retail buildings. The project site contains a total of 1.76 acres just east of Balboa Park and bounded by Fifth Avenue on the west, Sixth Avenue on the east, Nutmeg Street on the south, and Olive Street on the north. A total of 110 dwelling units, 20,027 square feet of office space, and 6,109 square feet of retail/restaurant space in two high-rise mixed use residential buildings are proposed on the project site. The project site also includes three levels of below-grade parking and extensive landscaping along Sixth Avenue adjacent to Balboa Park. The net trips generated from this project are 1,193 ADT's with 68 (26 IN, 42 OUT) A.M. Peak hour trips and 104 (62 IN, 42 OUT) P.M. Peak hour trips.

Park Boulevard Promenade project involves the San Diego zoological gardens expansion, the proposed San Diego Zoo employee parking lot and the proposed Park Boulevard Promenade. The project consists of amendments to the Balboa Park Master Plan and Central Mesa Precise Plan, San Diego Zoo leasehold revisions, Provision of public parking spaces, provision of parking for San Diego Zoo employees and storm water and sewer infrastructure improvements. In 2015, the project is estimated to generate 4,755 ADT with 195 (153 IN, 42 OUT) A.M. Peak hour trips and 382 (154 IN, 228 OUT) P.M. Peak hour trips during the weekdays and 5,475 ADT with 434 (306 IN, 128 OUT) A.M. Peak hour trips and 459 (189 IN, 270 OUT) P.M. Peak hour trips during the weekend. These 2015 volumes were estimated by interpolating between the 2010 and 2020 trip generation volumes provided in the relevant traffic study.

Cabrillo Bridge Seismic Retrofit project is a Caltrans project which involves the seismic retrofitting efforts of the existing Cabrillo Bridge over SR 163. This construction related project is anticipated to not add any additional trips to the nearby local roadways. It is anticipated that this project would be completed prior to 2015.

Cabrillo Bridge Lighting project is a Caltrans TEA (Transportation Enhancement Activities) project which involves the installation of up-lighting on the columns and abutments of the Cabrillo Bridge. 18 canister type light standards will be directed up the column and allowed to

light the under structure of the bridge. Underground electrical conduit will extend from the bridge columns and abutments to each light standard. This work will be coordinated with the Cabrillo Bridge Seismic Retrofit project. This project is not anticipated to add any additional trips to the nearby local roadways.

Appendix F shows the traffic data for each cumulative project utilized in this analysis.

2015 NO PROJECT OPERATIONS

Exhibit 10 shows the intersection lane geometry and configuration of the study area intersections.

Exhibit 11 and Exhibit 12 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 6 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

Table 7 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)

Table 8 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 Road (LOS E)

Table 9 shows all the internal park study area intersections to operate at LOS B or better during the weekday AM peak period.

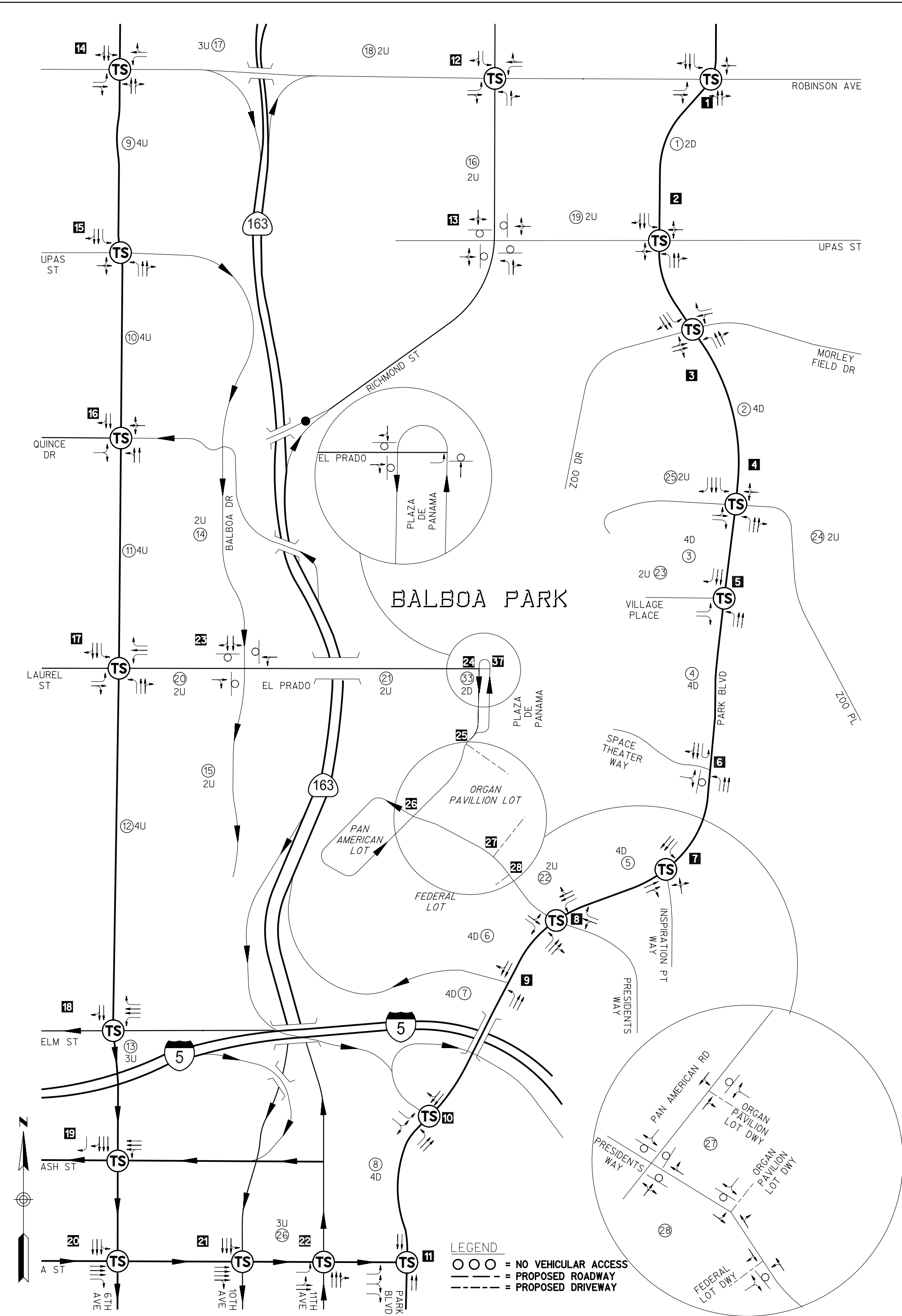
Table 10 shows all the internal park study area intersections to operate at LOS D or better during the Saturday AM peak period with the exception of:

- El Prado/Plaza de Panama (NB, LOS F)
- Presidents Way/Federal-Aerospace Lot (NB shared left-right, LOS E)

2030 NO PROJECT OPERATIONS

Exhibit 13 and Exhibit 14 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 11 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:



LEGEND
 ○ ○ ○ = NO VEHICULAR ACCESS
 - - - = PROPOSED ROADWAY
 - - - = PROPOSED DRIVEWAY

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



EXHIBIT 10
 2015 AND 2030 NO PROJECT TRANSPORTATION CONDITIONS
 BALBOA PARK PLAZA DE PANAMA, CIRCULATION & PARKING STRUCTURE PROJECT TRAFFIC ANALYSIS

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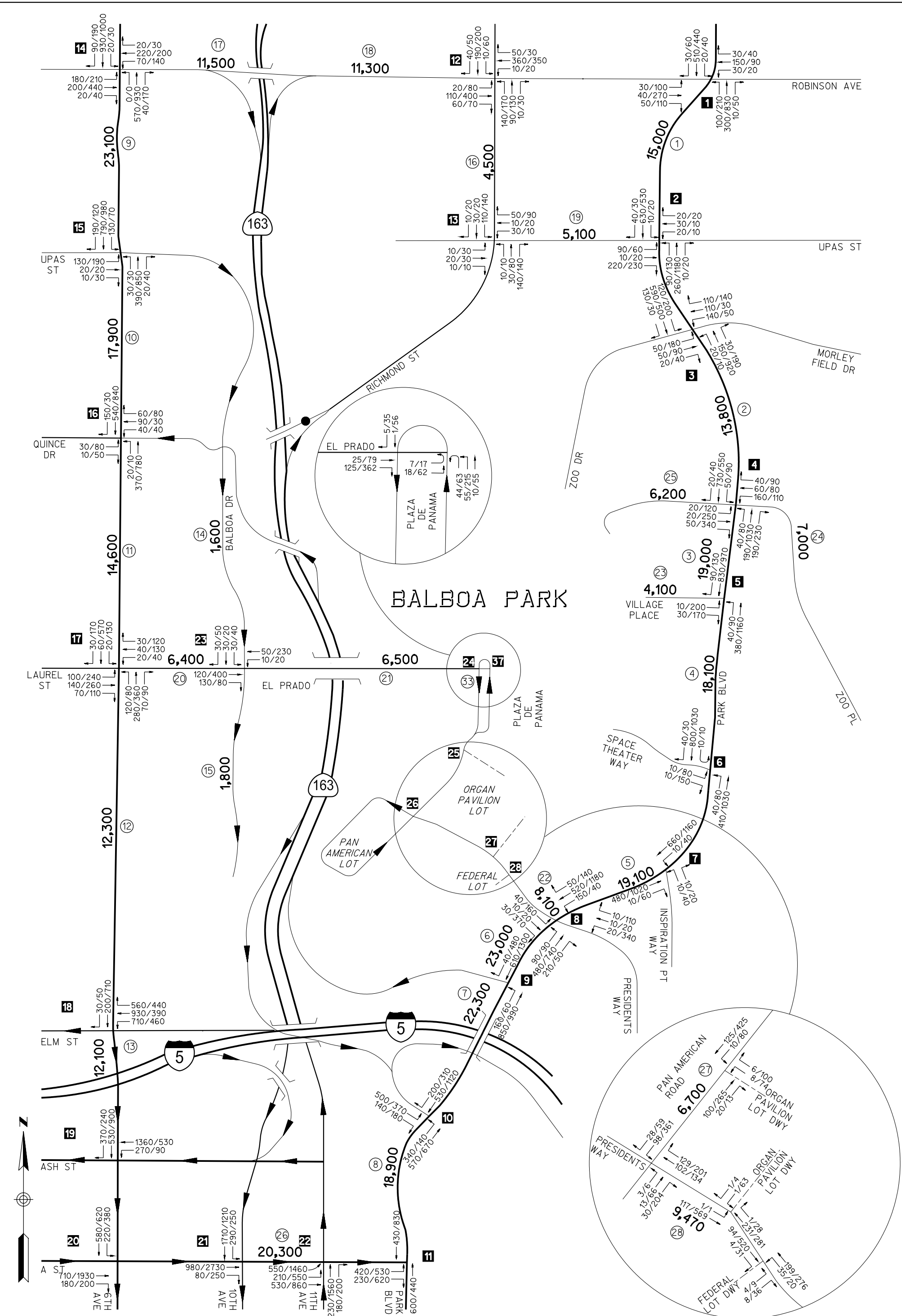


EXHIBIT 11

2015 NO PROJECT TOTAL TRAFFIC VOLUMES (WEEKDAY)

LEGEND

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



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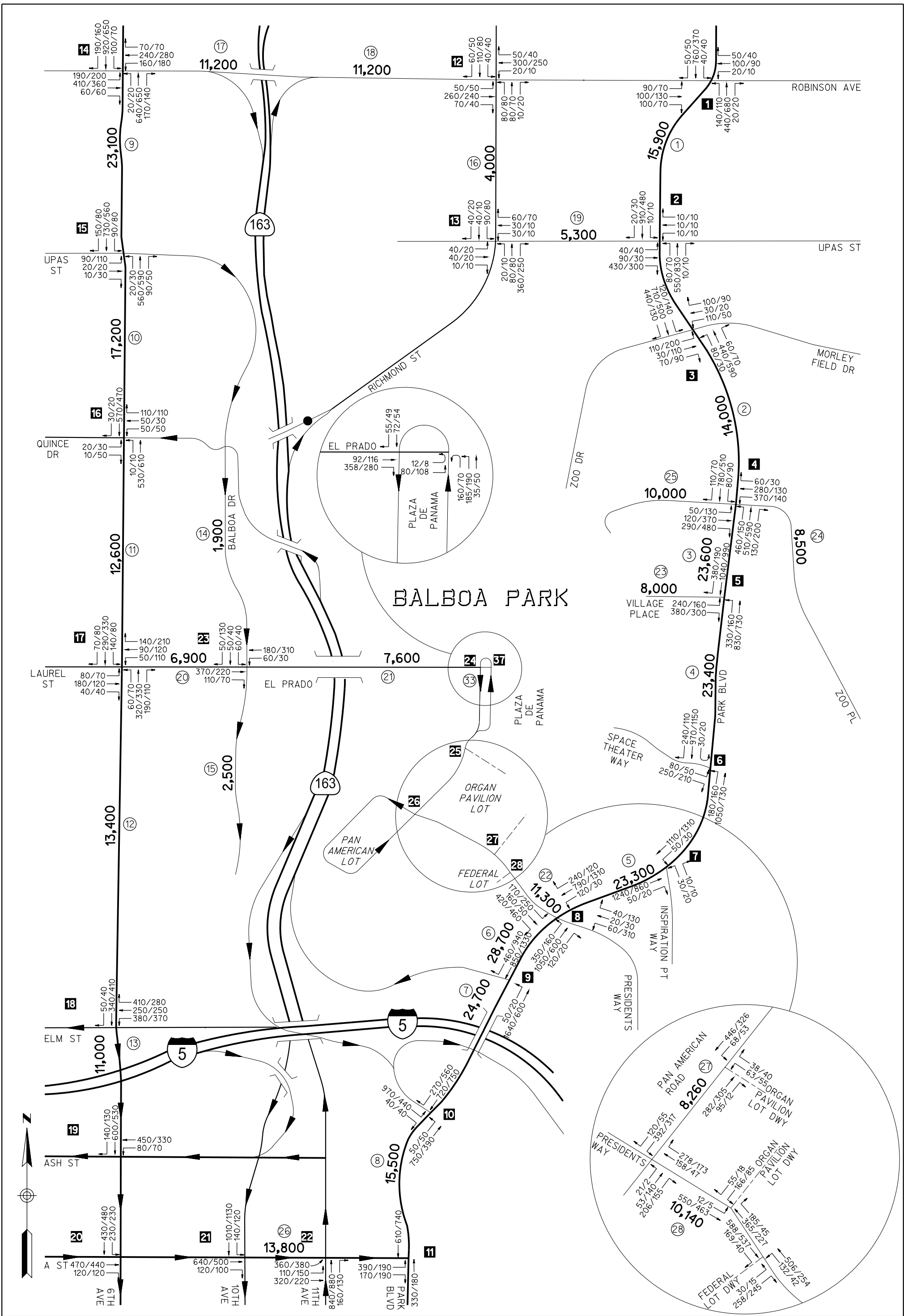


EXHIBIT 12

2015 NO PROJECT 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 6
2015 NO PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)**

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

**TABLE 7
2015 NO PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)**

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

**TABLE 8
2015 NO PROJECT
ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

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

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 \geq 0.02 for LOS E

Incremental V/C Ratio \geq 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 9
2015 NO PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)**

Intersection		Control	2015 No Project	
			Control Delay (sec/veh)	LOS
24/37	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound		7.4	A
	Southbound		7.5	A
	Northbound	10.8	B	
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

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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 10
2015 NO PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)**

Intersection		Control	2015 No Project	
			Control Delay (sec/veh)	LOS
24/37	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound		15.2	C
	Southbound		17.7	C
	Northbound	>50	F	
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	

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 \geq 2 seconds for LOS E
 3) Incremental Delay \geq 1 second for LOS F

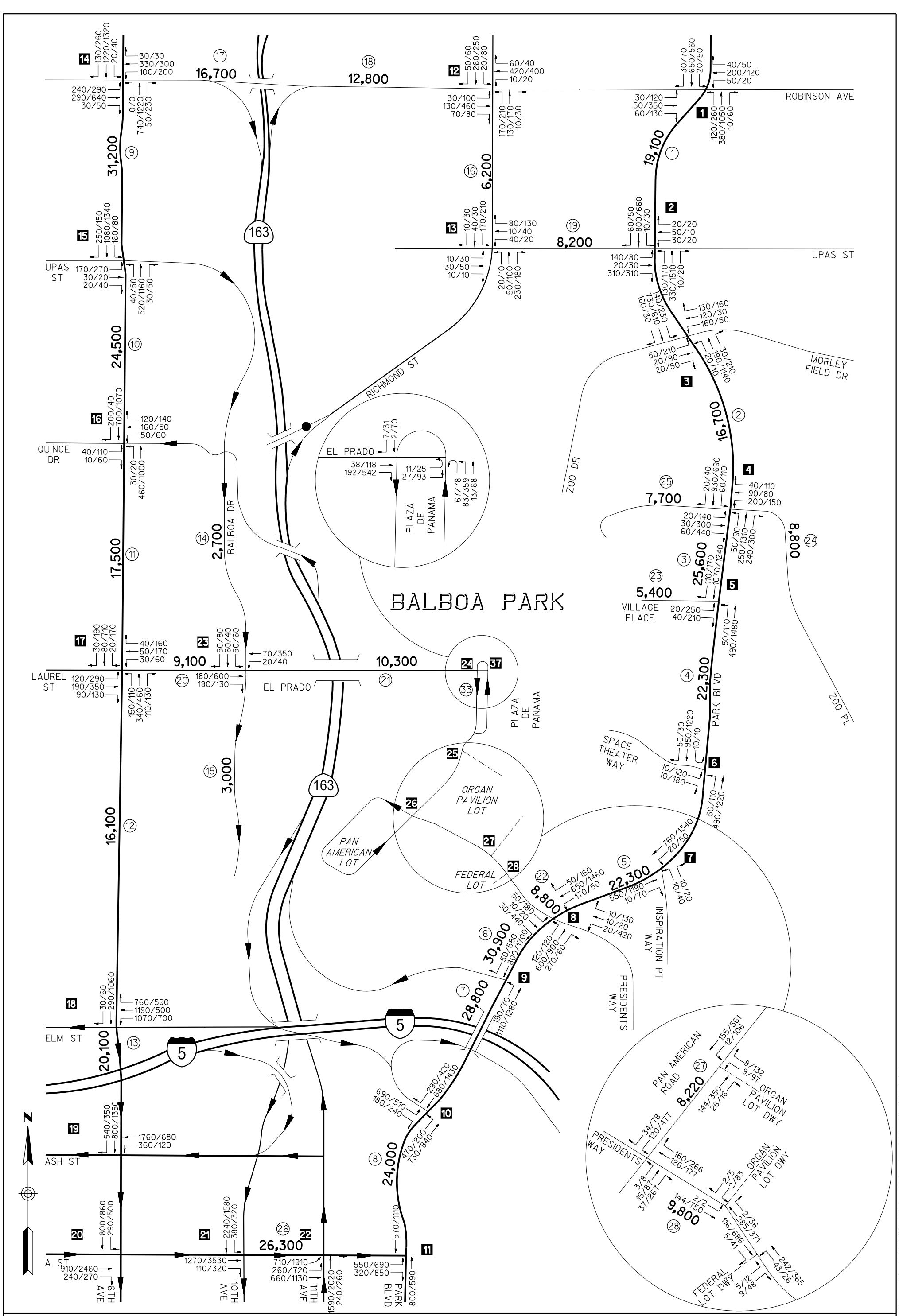


EXHIBIT 13

2030 NO PROJECT TOTAL TRAFFIC VOLUMES (WEEKDAY)

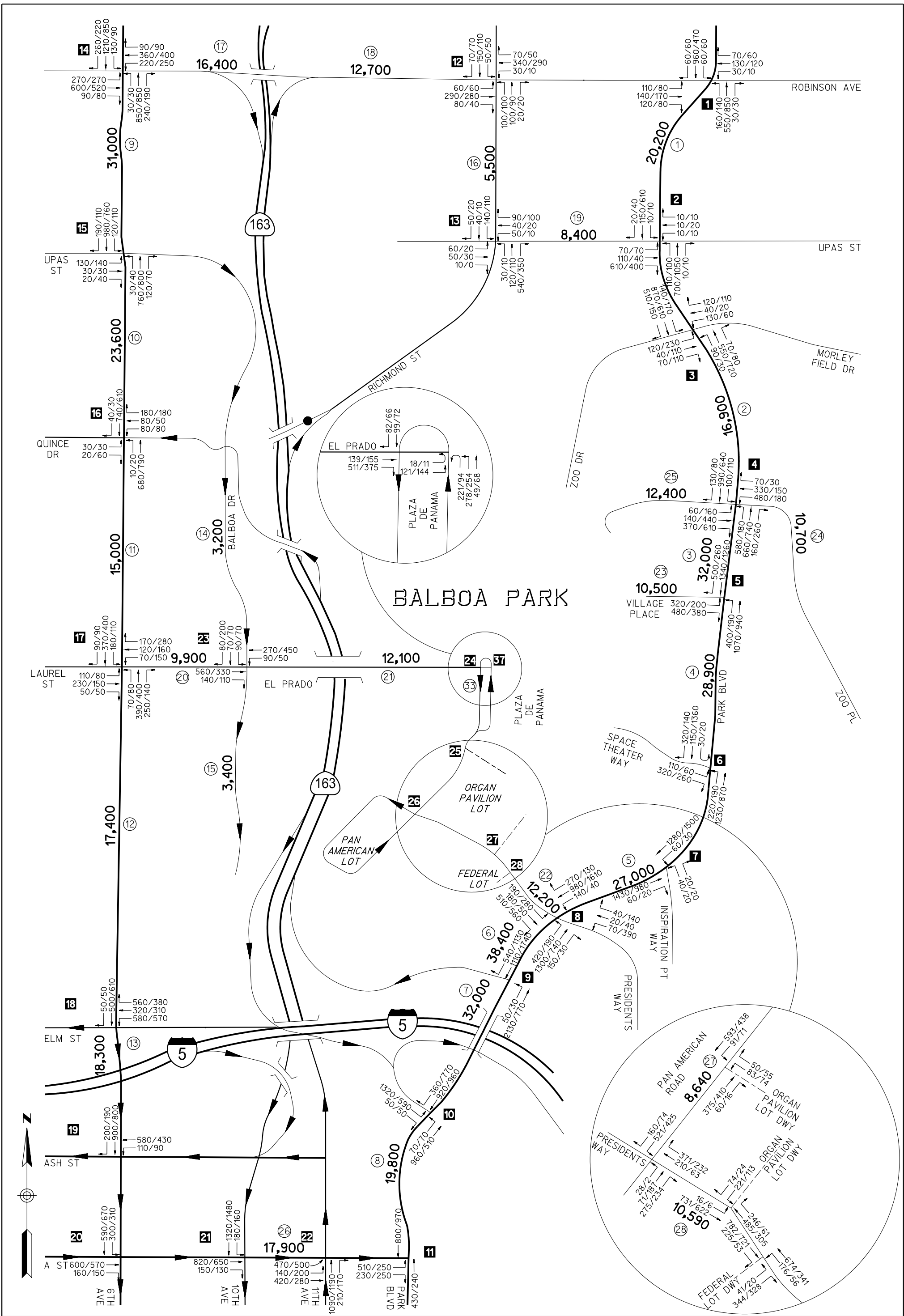
LEGEND

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



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**TABLE 11
2030 NO PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)**

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

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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

- 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)

Table 12 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 (NB left turn, LOS E, PM peak)
- 6th Avenue/Robinson Avenue (LOS F, AM peak and LOS E, PM peak)

Table 13 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 Avenue and Park Boulevard (LOS F)
- Presidents Way east of Pan American Road (LOS E)
- The Mall (Esplanade) south of El Prado (LOS F)

Table 14 shows all the internal park study area intersections to operate at LOS B or better during the weekday AM peak period.

Table 15 shows all the internal park study area intersections to operate at LOS E and LOS F during the Saturday AM peak period:

- El Prado/Plaza de Panama (NB, LOS F)
- 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)

TRAFFIC GENERATION

EXISTING BALBOA PARK TRIP GENERATION

The existing project trip generation is based on the actual traffic counts collected in March 2011 at each of the park's access points (El Prado, Presidents Way, Space Theatre Way and Village Place).

**TABLE 12
2030 NO PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)**

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

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 13
2030 NO PROJECT
ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

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

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 14
2030 NO PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

Intersection		Control	2030 No Project	
			Control Delay (sec/veh)	LOS
24/37	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound		8.2	A
	Southbound		8.1	A
	Northbound	12.4	B	
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

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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 15
2030 NO PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)**

Intersection		Control	2030 No Project	
			Control Delay (sec/veh)	LOS
24/37	El Prado/Plaza De Panama	Stop		
	AM			
	Eastbound		>50	F
	Southbound		>50	F
	Northbound		>50	F
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

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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

Based on this data, the Balboa Park is estimated to currently generate 20,655 ADT (average daily traffic) with 569 AM peak hour trips and 1993 PM peak hour trips on a typical weekday and 31,713 ADT with 3428 AM peak hour trips and 2475 PM peak hour trips on a Saturday. These trips are not generated by the proposed project, but the existing uses within Balboa Park.

FUTURE BALBOA PARK TRIP GENERATION

Based on the SANDAG Series 11 forecasts, the Balboa Park site is estimated to generate 21,900 ADT (average daily traffic) with 710 AM peak hour trips and 2,420 PM peak hour trips on a typical weekday and 33,000 ADT with 4,110 AM peak hour trips and 3,010 PM peak hour trips on a Saturday in 2015. In 2030, Balboa Park is estimated to generate 28,800 ADT (average daily traffic) with 930 AM peak hour trips and 3,170 PM peak hour trips on a typical weekday and 43,400 ADT with 5,300 AM peak hour trips and 3,890 PM peak hour trips on a Saturday. These trips were estimated based on the forecasted traffic at the park's access points (El Prado, Presidents Way, Space Theatre Way and Village Place). It should be noted that the volumes assume a 5% increase to reflect summer conditions. This was based on the review of historical park attendance data and previous summer traffic count data in the area.

Exhibit 15 shows the Proposed Project Transportation conditions. **Exhibit 16** shows the proposed project distribution percentages based on the SANDAG forecasts.

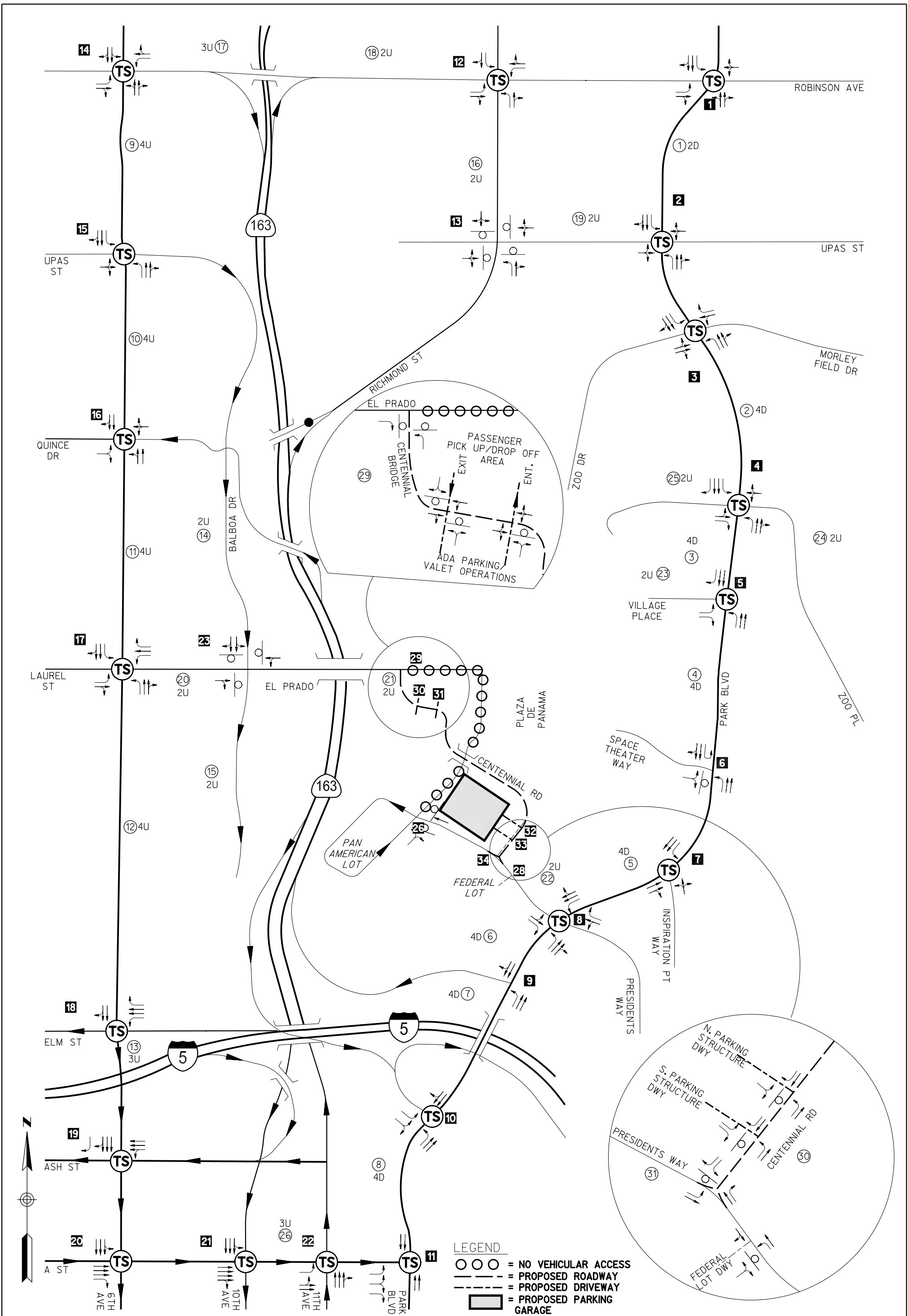
Exhibit 17 and **Exhibit 18** show the Existing + Project traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively. **Exhibit 19** and **Exhibit 20** show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively. **Exhibit 21** and **Exhibit 22** show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

PROPOSED PROJECT TRAFFIC GENERATION

The proposed project traffic volumes are the same as the no project condition. The project would not generate traffic, as proposed parking and roadways would not attract additional visitors to the park. The proposed project does not propose to alter the general external trip distribution patterns within the study area. The internal distribution of traffic would be altered, as the project would reroute vehicular traffic so that it is not within the Plaza de Panama (as shown in Exhibit 3). In addition, the existing travel distance from the west side through the Plaza de Panama to reach the Organ Pavilion parking lot is essentially the same as the travel distance from the west side through the Centennial bridge to reach the proposed parking structure.

Table 16 summarizes the existing, 2015 and 2030 traffic generation during the weekday and Saturday.

EXISTING + PROPOSED PROJECT OPERATIONS



LEGEND

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

LEGEND

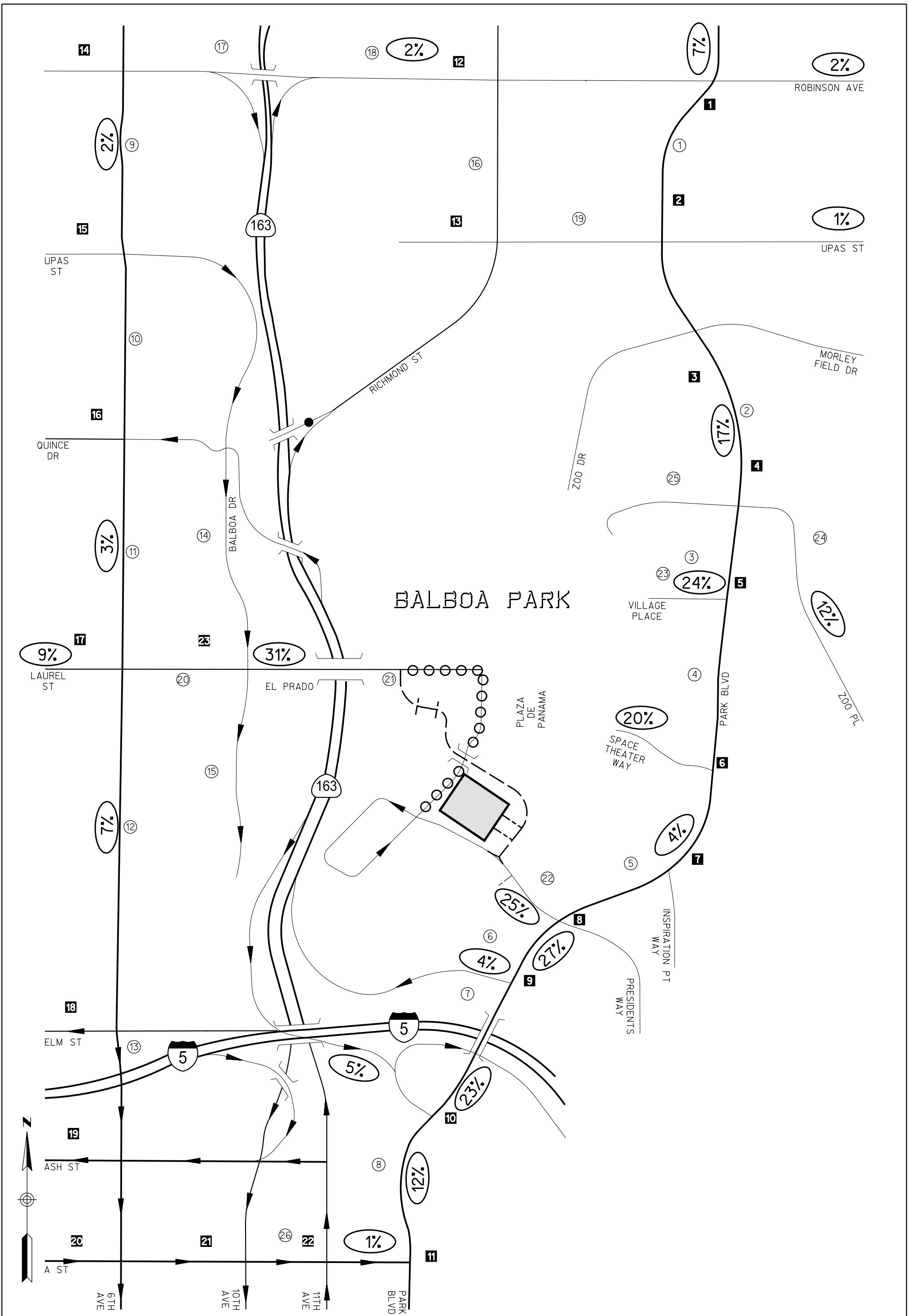
- TS = TRAFFIC SIGNAL
- = STOP SIGN
- X = INTERSECTION NUMBER
- ⊗ = SEGMENT NUMBER
- XU = X LANE UNDIVIDED
- XD = X LANE DIVIDED



EXHIBIT 15

PROPOSED PROJECT TRANSPORTATION CONDITIONS

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



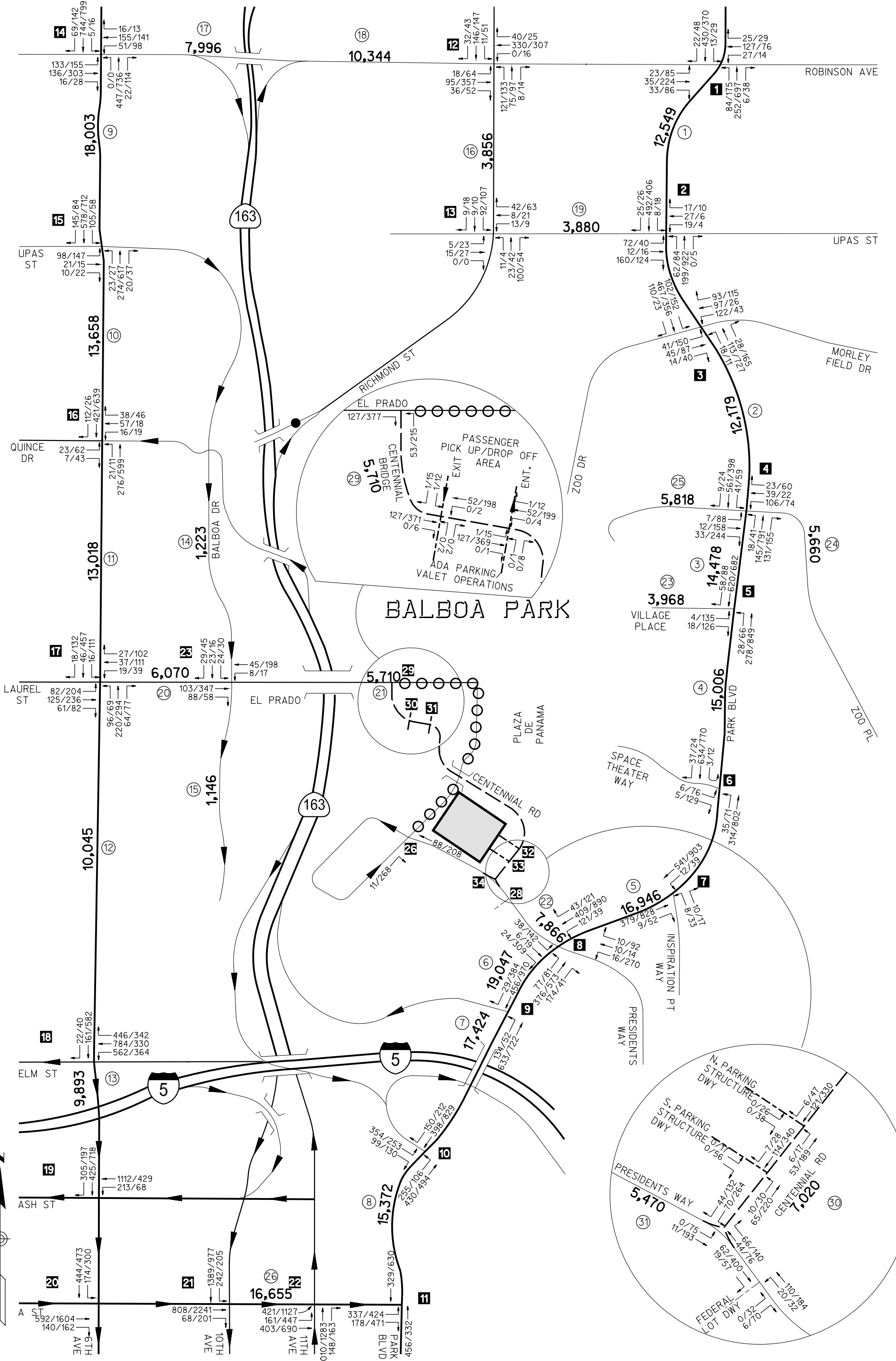


EXHIBIT 17

EXISTING WITH PROPOSED PROJECT TOTAL TRAFFIC VOLUMES (WEEKDAY)

LEGEND

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



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 Date: 11/16/2011 11:15:11 AM
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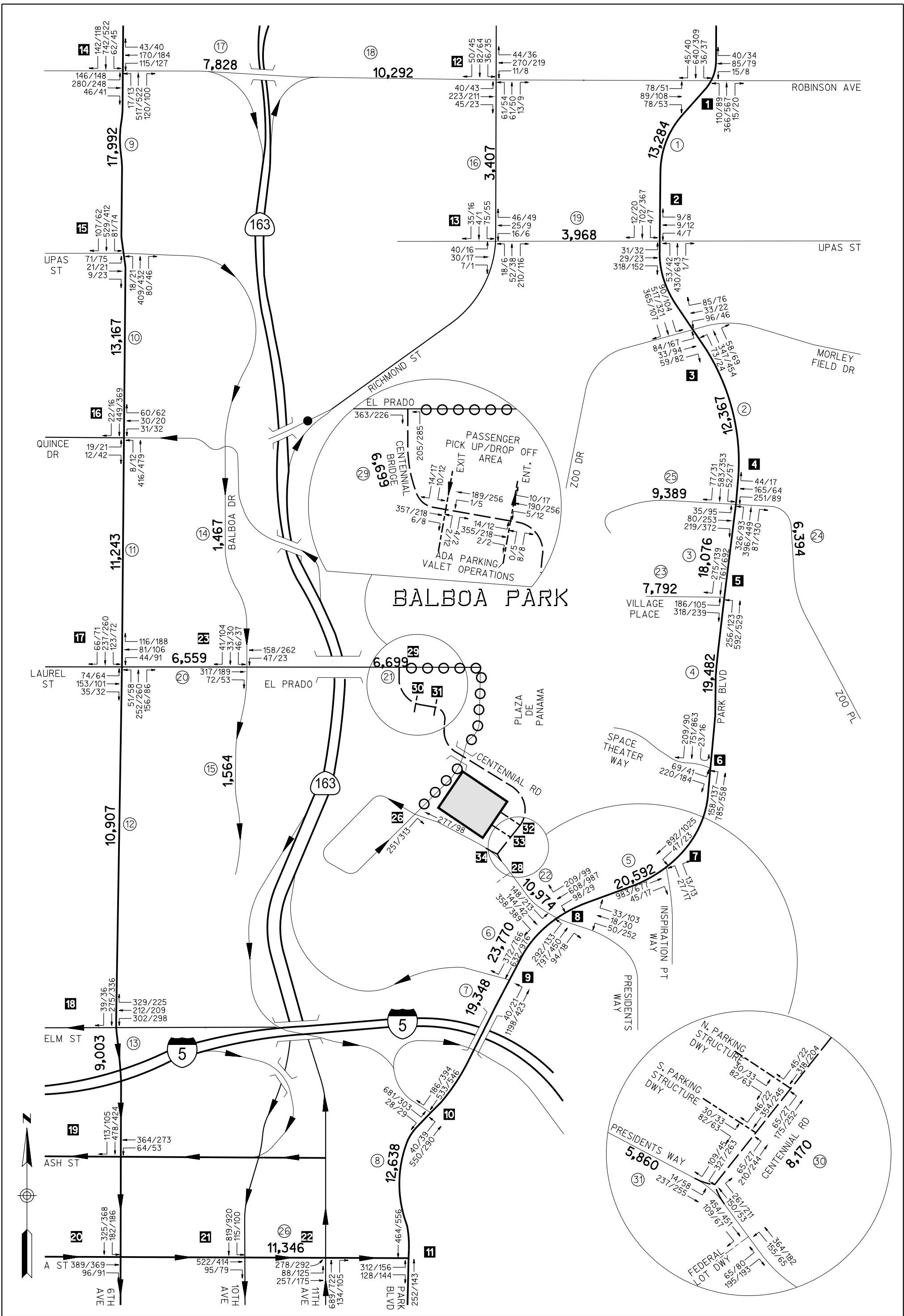


EXHIBIT 18

EXISTING WITH PROPOSED PROJECT 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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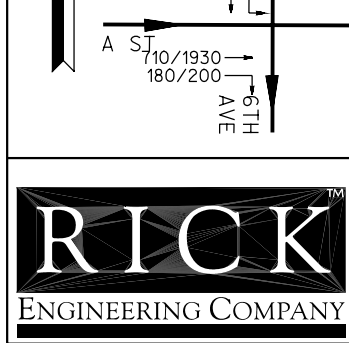
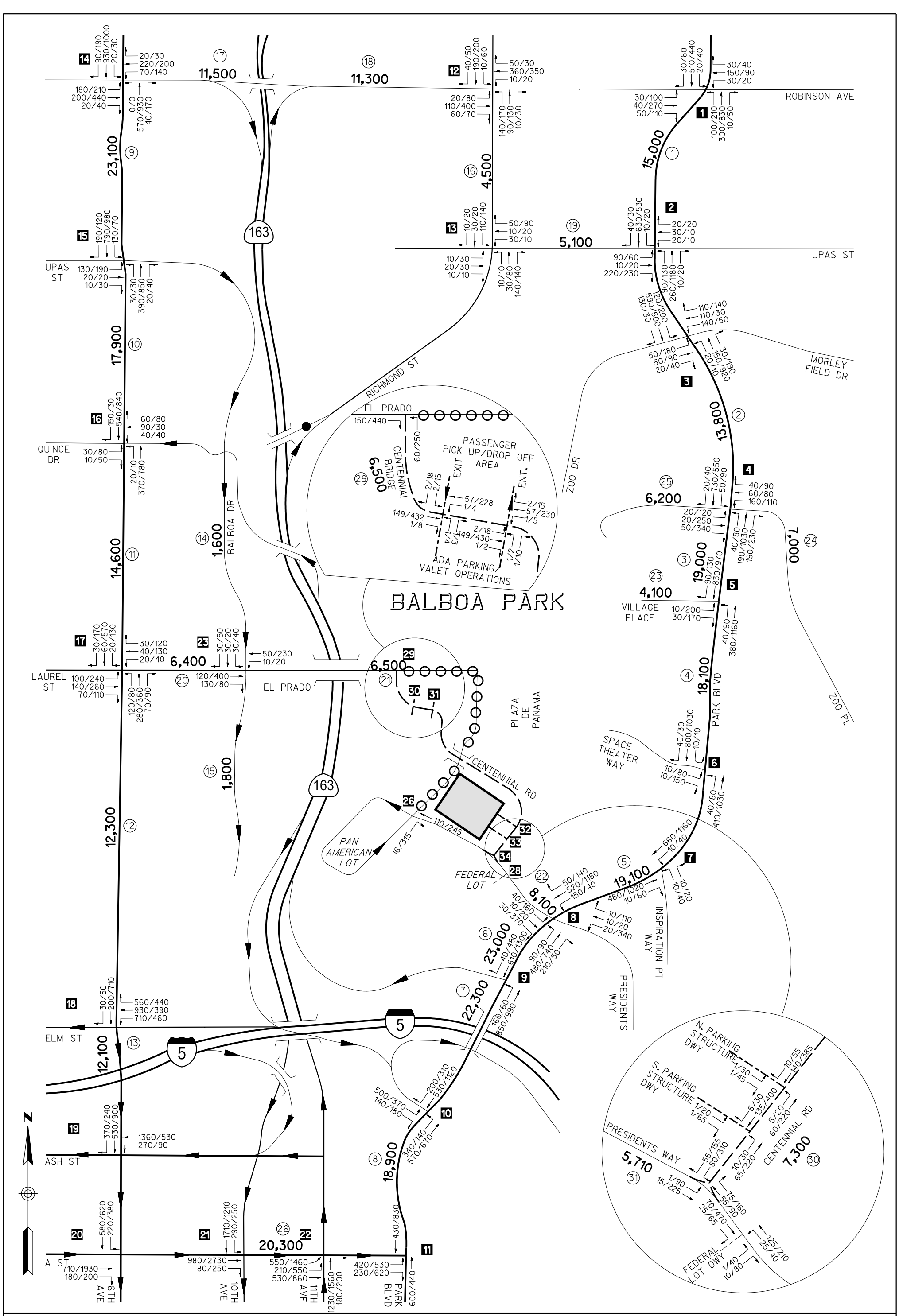


EXHIBIT 19

2015 WITH PROPOSED PROJECT 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

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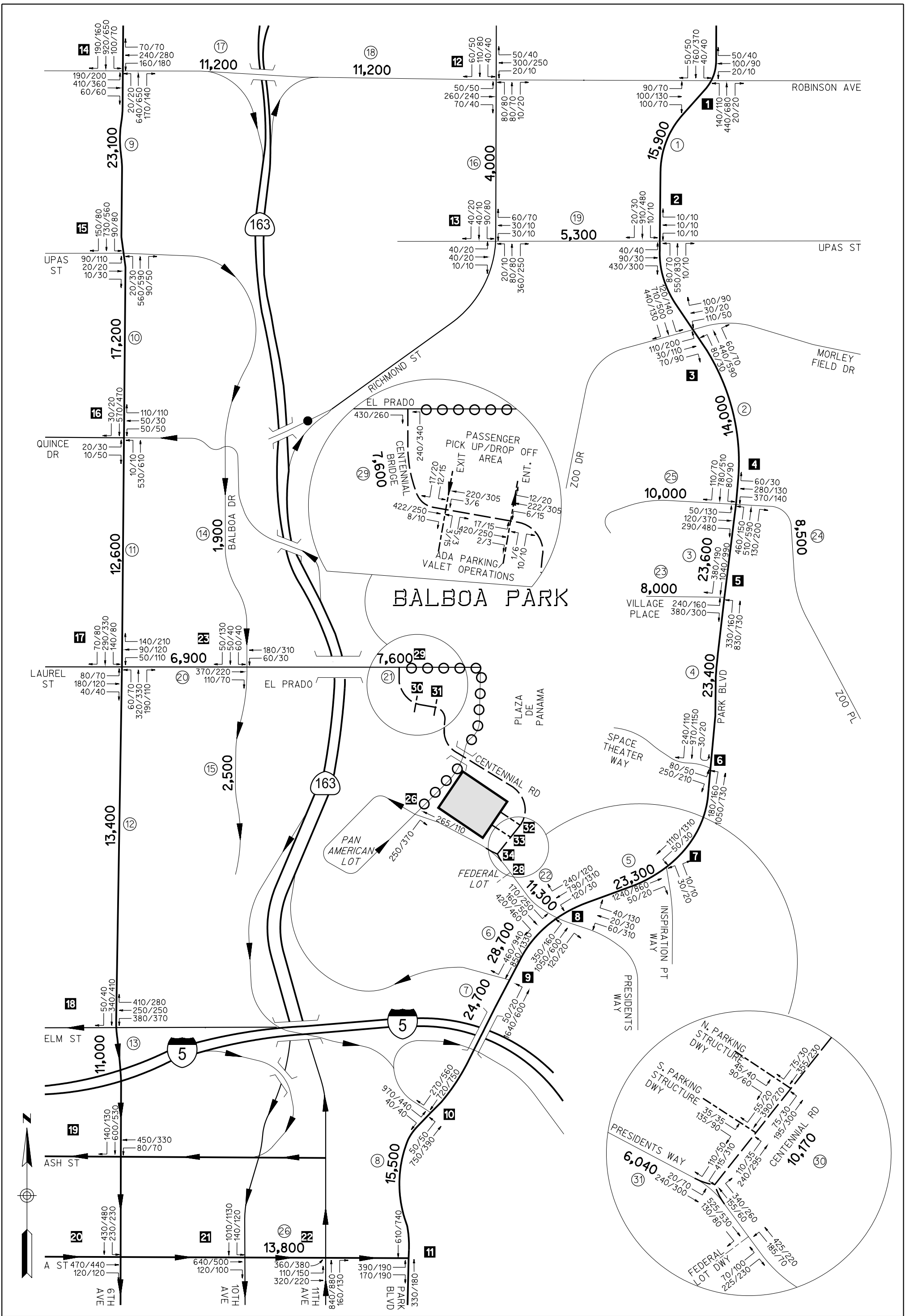


EXHIBIT 20

2015 WITH PROPOSED PROJECT 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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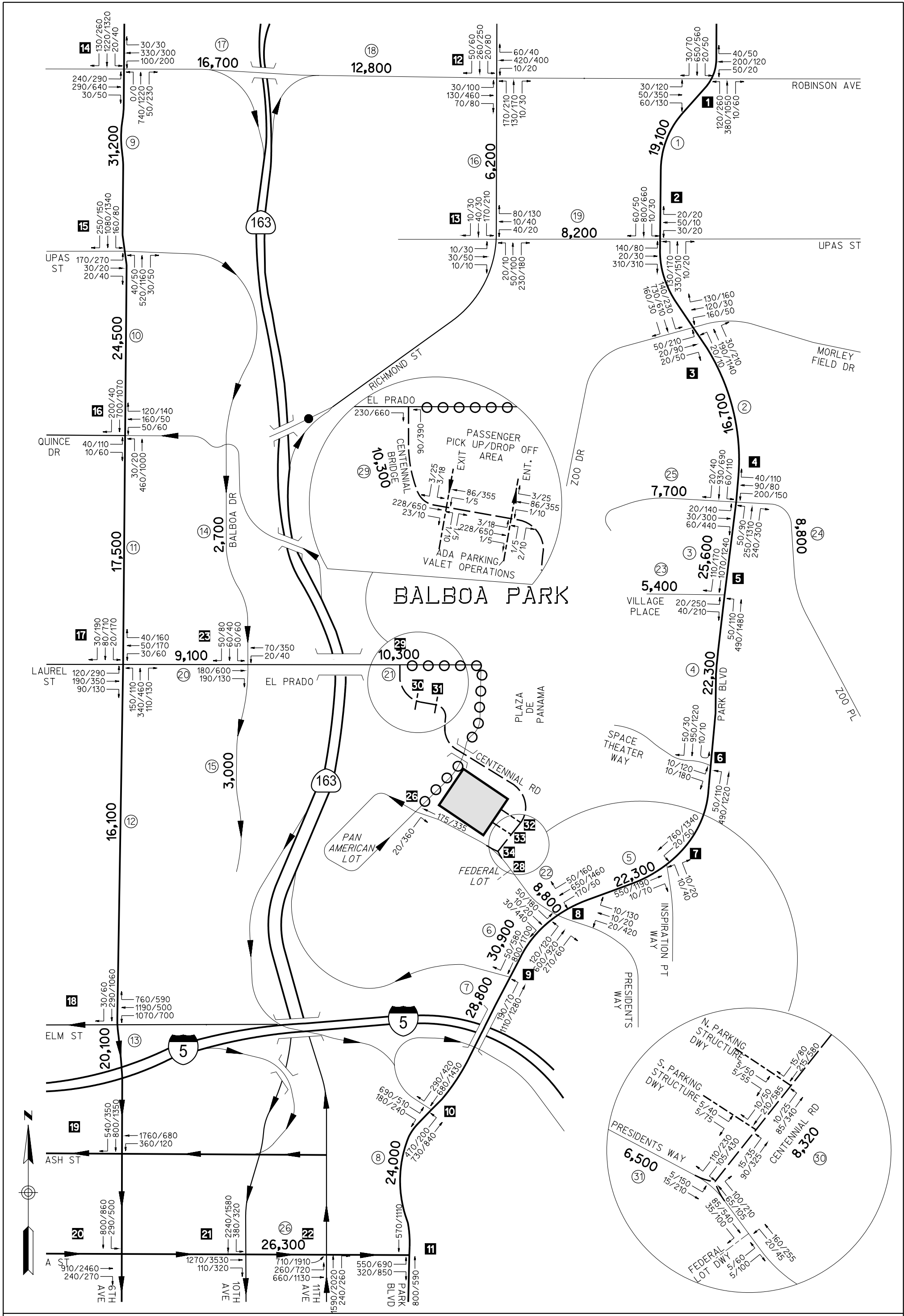


EXHIBIT 21

2030 WITH PROPOSED PROJECT 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



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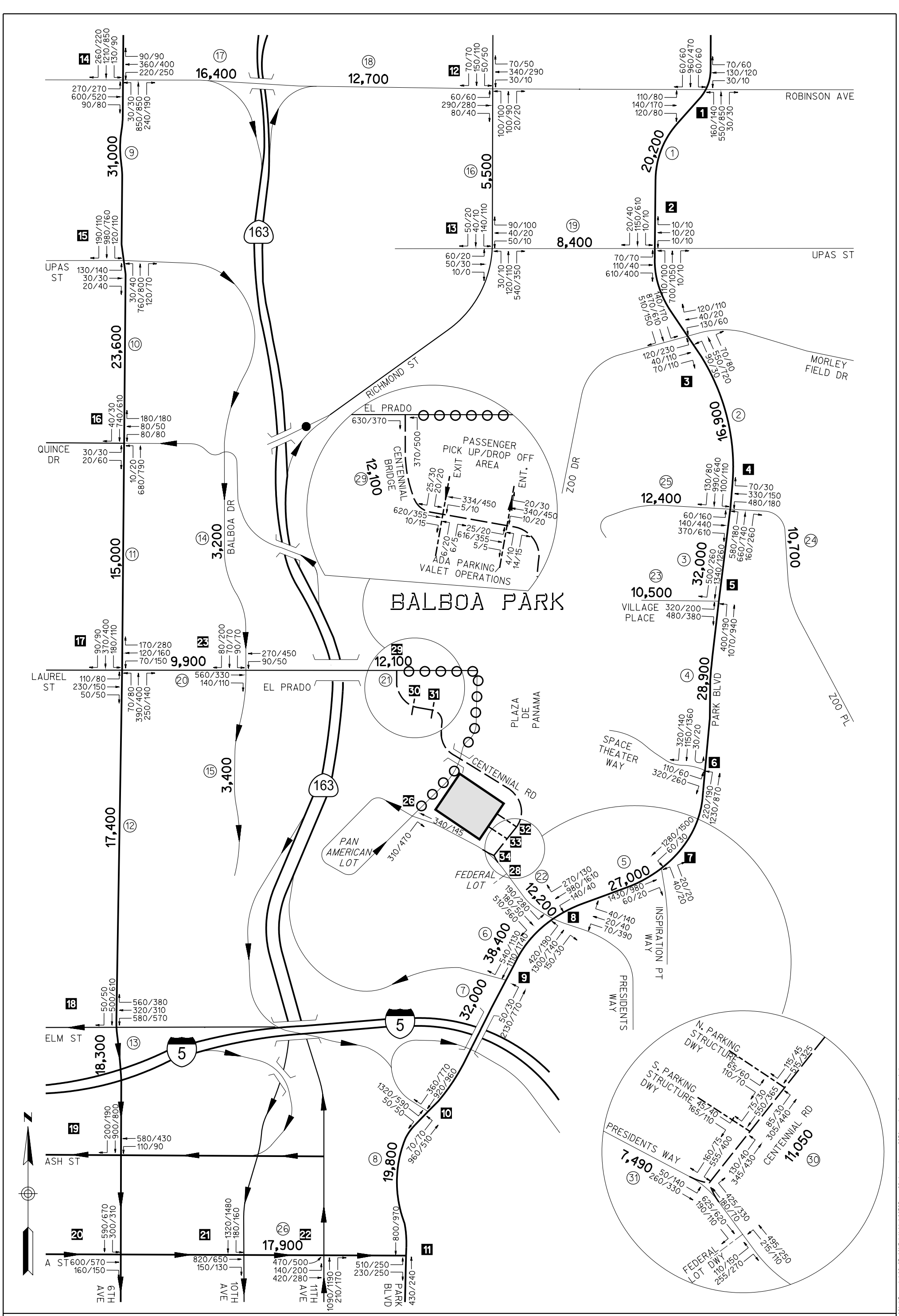


EXHIBIT 22

2030 WITH PROPOSED PROJECT 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



**TABLE 16
BALBOA PARK
EXISTING TRAFFIC GENERATION**

	ADT	AM PEAK		PM PEAK	
		IN	OUT	IN	OUT
WEEKDAY (El Prado, Presidents Way, Village Place, Space Theater Way)	20,655	415	154	842	1,151
SATURDAY (El Prado, Presidents Way, Village Place, Space Theater Way)	31,713	1,780	1,648	977	1,498

**BALBOA PARK
2015 TRAFFIC GENERATION**

	ADT	AM PEAK		PM PEAK	
		IN	OUT	IN	OUT
WEEKDAY (El Prado, Presidents Way, Village Place, Space Theater Way)	21,900	510	200	1,020	1,400
SATURDAY (El Prado, Presidents Way, Village Place, Space Theater Way)	33,000	2,170	1,940	1,190	1,820

**BALBOA PARK
2030 TRAFFIC GENERATION**

	ADT	AM PEAK		PM PEAK	
		IN	OUT	IN	OUT
WEEKDAY (El Prado, Presidents Way, Village Place, Space Theater Way)	28,800	670	260	1,380	1,790
SATURDAY (El Prado, Presidents Way, Village Place, Space Theater Way)	43,400	2,820	2,480	1,560	2,330

Table 17 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods.

Table 18 shows all the study area intersections to operate at LOS D or better during the weekend AM and PM peak periods.

Table 19 shows that all study area roadways to operate at LOS D or better on a daily basis

Table 20 shows the Weekday, peak intersection operations of the Existing + Proposed Project. These intersections are anticipated to operate acceptably (LOS A) during the peak period.

Table 21 shows the Saturday, peak intersection operations of the Existing + Proposed Project. These intersections are anticipated to operate acceptably (LOS C or better) during the peak period.

No impacts were calculated at the study area intersections and roadways based on the current significance thresholds.

2015 + PROPOSED PROJECT OPERATIONS

Table 22 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

Table 23 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 24 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 25 shows all the internal park study area intersections to operate at LOS A or better during the weekday AM peak period.

Table 26 shows all the internal park study area intersections to operate at LOS D or better during the Saturday AM peak period.

2030 + PROPOSED PROJECT OPERATIONS

**TABLE 17
EXISTING + PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)**

	Intersection	Control	Existing		Existing + Project			Significant Project Impact Yes/No	
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay		
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	Unsignalized						
		AM		9.0	A	9.0	A	0.0	No
		PM		9.7	A	9.7	A	0.0	No
		Eastbound Left							
		PM		12.1	B	12.1	B	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	Unsignalized						
		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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 18
EXISTING + PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)**

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

Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	Existing			Existing + Project				
				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
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	5,710	0.571	C	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

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 20
EXISTING + PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

	Intersection	Control	Existing + Project	
			Control Delay (sec/veh)	LOS
28	Presidents Way/Federal-Aerospace Lot	Stop		
	AM			
	Northbound Shared Left-Right Westbound Left		9.4 0.0	A A
29	El Prado/Centennial Bridge	All Way Stop		
	AM		7.2	A
30	Centennial Road/ADA Parking & Valet Operations	Stop		
	AM			
	Northbound Shared Left-Right Southbound Shared Left-Right		9.4 9.2	A A
	Westbound Left		0.1	A
31	Centennial Road/ADA Parking & Valet Operations	Stop		
	AM			
	Northbound Shared Left-Right Westbound Left		9.4 0.1	A A
	Eastbound Left		0.1	A
32	Centennial Road/Parking Garage North Entrance/Exit	Stop		
	AM			
	Northbound Left Eastbound Left		7.5 9.1	A A
33	Centennial Road/Parking Garage South Entrance/Exit	Stop		
	AM			
	Northbound Left Eastbound Left		7.5 9.3	A A
	Eastbound Right		8.9	A
34	Presidents Way/Centennial Road	Stop		
	AM			
	Eastbound Left Southbound Left		7.5 9.1	A A
	Southbound Right		8.7	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 21
EXISTING + PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)**

Intersection	Control	Existing + Project	
		Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot	Stop		
AM			
Northbound Shared Left-Right		18.2	C
Westbound Left	9.5	A	
29 El Prado/Centennial Bridge	All Way Stop		
AM		10.1	B
30 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Northbound Shared Left-Right		11.8	B
Southbound Shared Left-Right		11.6	B
Westbound Left	0.1	A	
31 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Northbound Shared Left-Right		11.3	B
Westbound Left		0.2	A
Eastbound Left	0.4	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		11.6	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 22
2015 + PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)**

	Intersection	Control	2015 No Project		2015 + Project			Significant Project Impact Yes/No	
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay		
1	Park Boulevard/Robinson Avenue	AM	Signal	16.3	B	16.3	B	0.0	No
		PM	Signal	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	Signal	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	Signal	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	Signal	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	Signal	11.7	B	11.7	B	0.0	No
6	Park Boulevard/Space Theatre Way	Northbound Left	Unsignalized						
		AM	Unsignalized	9.7	A	9.7	A	0.0	No
		PM	Unsignalized	11.2	B	11.2	B	0.0	No
		Eastbound Left	Unsignalized						
		AM	Unsignalized	13.5	B	13.5	B	0.0	No
7	Park Boulevard/Inspiration Way	AM	Signal	2.9	A	2.9	A	0.0	No
		PM	Signal	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	Signal	28.4	C	28.4	C	0.0	No
9	Park Boulevard/SR 163 NB Ramps	Northbound Left	Unsignalized						
		AM	Unsignalized	9.5	A	9.5	A	0.0	No
		PM	Unsignalized	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	Signal	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	Signal	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	Signal	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	All Way Stop	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	Signal	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	Signal	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	Signal	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	Signal	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	Signal	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	Signal	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	Signal	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	Signal	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	Signal	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	All Way Stop	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

**TABLE 23
2015 + PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)**

	Intersection	Control	2015 No Project		2015 + Project			Significant Project Impact Yes/No
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	
1	Park Boulevard/Robinson Avenue	Signal	15.0	B	15.0	B	0.0	No
	AM		14.5	B	14.5	B	0.0	No
2	Park Boulevard/Upas Street	Signal	24.3	C	24.3	C	0.0	No
	AM		19.6	B	19.6	B	0.0	No
3	Park Boulevard/Morley Field Drive	Signal	17.5	B	17.5	B	0.0	No
	AM		20.2	C	20.2	C	0.0	No
4	Park Boulevard/Zoo Place	Signal	27.2	C	27.2	C	0.0	No
	AM		24.0	C	24.0	C	0.0	No
5	Park Boulevard/Village Place	Signal	21.3	C	21.3	C	0.0	No
	AM		16.6	B	16.6	B	0.0	No
6	Park Boulevard/Space Theatre Way	Unsignalized						
	Northbound Left							
	AM		13.9	B	13.9	B	0.0	No
	PM		13.9	B	13.9	B	0.0	No
	Eastbound Left							
	AM		112.7	F	112.7	F	0.0	No
7	Park Boulevard/Inspiration Way	Signal	3.9	A	3.9	A	0.0	No
	AM		3.8	A	3.8	A	0.0	No
8	Park Boulevard/Presidents Way	Signal	31.3	C	31.3	C	0.0	No
	AM		52.4	D	52.4	D	0.0	No
9	Park Boulevard/SR 163 NB Ramps	Unsignalized						
	Northbound Left							
	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	Signal	25.1	C	25.1	C	0.0	No
	AM		18.5	B	18.5	B	0.0	No
11	Park Boulevard/A Street	Signal	13.3	B	13.3	B	0.0	No
	AM		14.6	B	14.6	B	0.0	No
12	Richmond Street/Robinson Avenue	Signal	13.7	B	13.7	B	0.0	No
	AM		13.6	B	13.6	B	0.0	No
13	Richmond Street/Upas Street	All Way Stop	11.5	B	11.5	B	0.0	No
	AM		9.3	A	9.3	A	0.0	No
14	6th Avenue/Robinson Avenue	Signal	37.2	D	37.2	D	0.0	No
	AM		30.5	C	30.5	C	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive	Signal	8.3	A	8.3	A	0.0	No
	AM		11.6	B	11.6	B	0.0	No
16	6th Avenue/Quince Drive	Signal	17.6	B	17.6	B	0.0	No
	AM		16.5	B	16.5	B	0.0	No
17	6th Avenue/Laurel Street	Signal	15.1	B	15.1	B	0.0	No
	AM		15.0	B	15.0	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp	Signal	11.6	B	11.6	B	0.0	No
	AM		12.0	B	12.0	B	0.0	No
19	6th Avenue/Ash Street	Signal	11.4	B	11.4	B	0.0	No
	AM		10.9	B	10.9	B	0.0	No
20	6th Avenue/A Street	Signal	11.7	B	11.7	B	0.0	No
	AM		11.5	B	11.5	B	0.0	No
21	A Street/10th Avenue	Signal	11.8	B	11.8	B	0.0	No
	AM		10.7	B	10.7	B	0.0	No
22	A Street/11th Avenue	Signal	10.2	B	10.2	B	0.0	No
	AM		9.5	A	9.5	A	0.0	No
23	Balboa Drive/El Prado	All Way Stop	12.2	B	12.2	B	0.0	No
	AM		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 24
2015 + PROJECT
ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2015 No Project			2015 + Project				
				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
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	6,500	0.650	C	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

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 25
2015 + PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

Intersection	Control	2015 + Project	
		Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot	Stop		
AM			
Northbound Shared Left-Right		9.6	A
Westbound Left		7.5	A
29 El Prado/Centennial Bridge	All Way Stop		
AM		7.3	A
30 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Northbound Shared Left-Right		9.5	A
Southbound Shared Left-Right		9.3	A
Westbound Left		0.1	A
31 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Westbound Left		0.1	A
Northbound Shared Left-Right		9.6	A
Eastbound Left		0.1	A
32 Centennial Road/Parking Garage North Entrance/Exit	Stop		
AM			
Northbound Left		7.6	A
Eastbound Left		9.2	A
33 Centennial Road/Parking Garage South Entrance/Exit	Stop		
AM			
Northbound Left		7.5	A
Eastbound Left		9.5	A
Eastbound Right		9.6	A
34 Presidents Way/Centennial Road	Stop		
AM			
Eastbound Left		7.5	A
Southbound Left		9.3	A
Southbound Right		8.8	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

TABLE 26
2015 + PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

Intersection	Control	2015 + Project	
		Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot	Stop		
AM			
Northbound Shared Left-Right		23.4	C
Westbound Left		10.2	B
29 El Prado/Centennial Bridge	All Way Stop		
AM		11.4	B
30 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Southbound Shared Left-Right		12.5	B
Westbound Left		0.1	A
Northbound Left-Right		13.1	B
31 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Northbound Shared Left-Right		12.0	B
Eastbound Left		0.4	A
Westbound left		0.3	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

Table 27 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 28 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 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 29 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)
- Centennial Bridge south of El Prado (LOS F)

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

Table 30 shows all the internal park study area intersections to operate acceptably at LOS B or better during the weekday AM peak period.

Table 31 shows all the internal park study area intersections to operate at LOS D or better during the weekend AM peak period with the exception of:

- Presidents Way/Centennial Road (SB left, LOS F)

SITE ACCESS/CIRCULATION

The proposed project will create a new by-pass road that will form an unsignalized “L” intersection with El Prado. This roadway will also create two new intersections at the ADA access/pick-up/drop off areas in the reconfigured Alcazar lot. In addition, there will be two

**TABLE 27
2030 + PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (WEEKDAY)**

	Intersection	Control	2030 No Project		2030 + Project			
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No
1	Park Boulevard/Robinson Avenue	Signal	17.5	B	17.5	B	0.0	No
			31.0	C	31.0	C	0.0	No
2	Park Boulevard/Upas Street	Signal	24.8	C	24.8	C	0.0	No
			24.1	C	24.1	C	0.0	No
3	Park Boulevard/Morley Field Drive	Signal	19.2	B	19.2	B	0.0	No
			22.6	C	22.6	C	0.0	No
4	Park Boulevard/Zoo Place	Signal	16.7	B	16.7	B	0.0	No
			29.3	C	29.3	C	0.0	No
5	Park Boulevard/Village Place	Signal	4.6	A	4.6	A	0.0	No
			13.1	B	13.1	B	0.0	No
6	Park Boulevard/Space Theatre Way	NA						
	Northbound Left							
	AM		10.6	B	10.6	B	0.0	No
	PM		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	Signal	3.0	A	3.0	A	0.0	No
			4.7	A	4.7	A	0.0	No
8	Park Boulevard/Presidents Way	Signal	14.7	B	14.7	B	0.0	No
			62.0	E	62.0	E	0.0	No
9	Park Boulevard/SR 163 NB Ramps	NA						
	Northbound Left							
	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	Signal	38.4	D	38.4	D	0.0	No
			43.6	D	43.6	D	0.0	No
11	Park Boulevard/A Street	Signal	12.5	B	12.5	B	0.0	No
			20.1	C	20.1	C	0.0	No
12	Richmond Street/Robinson Avenue	Signal	16.7	B	16.7	B	0.0	No
			17.3	B	17.3	B	0.0	No
13	Richmond Street/Upas Street	All Way Stop	9.6	A	9.6	A	0.0	No
			10.6	B	10.6	B	0.0	No
14	6th Avenue/Robinson Avenue	Signal	30.6	C	30.6	C	0.0	No
			103.0	F	103.0	F	0.0	No
15	6th Avenue/ Upas Street-Balboa Drive	Signal	11.1	B	11.1	B	0.0	No
			15.3	B	15.3	B	0.0	No
16	6th Avenue/Quince Drive	Signal	18.7	B	18.7	B	0.0	No
			16.9	B	16.9	B	0.0	No
17	6th Avenue/Laurel Street	Signal	13.7	B	13.7	B	0.0	No
			17.8	B	17.8	B	0.0	No
18	6th Avenue/Elm Street-I-5 NB Off Ramp	Signal	31.1	C	31.1	C	0.0	No
			17.6	B	17.6	B	0.0	No
19	6th Avenue/Ash Street	Signal	14.7	B	14.7	B	0.0	No
			11.7	B	11.7	B	0.0	No
20	6th Avenue/A Street	Signal	13.1	B	13.1	B	0.0	No
			17.6	B	17.6	B	0.0	No
21	A Street/10th Avenue	Signal	15.7	B	15.7	B	0.0	No
			42.1	D	42.1	D	0.0	No
22	A Street/11th Avenue	Signal	13.0	B	13.0	B	0.0	No
			21.6	C	21.6	C	0.0	No
23	Balboa Drive/El Prado	All Way Stop	8.9	A	8.9	A	0.0	No
			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 28
2030 + PROJECT INTERSECTION LOS ANALYSIS
EXTERNAL STREETS (SATURDAY)**

	Intersection	Control	2030 No Project		2030 + Project				
			Control Delay (sec/veh)	LOS	Control Delay (sec/veh)	LOS	Incremental Delay	Significant Project Impact Yes/No	
1	Park Boulevard/Robinson Avenue	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	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	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	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	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	NA							
	Northbound Left								
			AM	19.4	C	19.4	C	0.0	No
			PM	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	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	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	NA							
	Northbound Left								
			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	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	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	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	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	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	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	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	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	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	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	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	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	Signal	10.8	B	10.8	B	0.0	No	
			PM	10.0	B	10.0	B	0.0	No
23	Balboa Drive/EI Prado	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 29
2030 + PROJECT
ROADWAY SEGMENT ANALYSIS (WEEKDAY)**

Roadway Segment	Functional Classification/Lanes	Future Classification/Lanes	LOS E Capacity	2030 No Project			2030 + Project				
				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
29 Centennial Bridge south of El Prado*	2 Lane Park Road*	2 Lane Park Road*	10,000	DNE	DNE	DNE	10,300	1.030	F	0.000	NO ³
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

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)

³ Not considered significant since no increase in traffic volumes or V/C is expected due to project on this road which will be replacing the traffic on the failing segment of El Prado

TABLE 30
2030 + PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (WEEKDAY)

Intersection	Control	2030 + Project	
		Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot	Stop		
AM			
Northbound Shared Left-Right		9.9	A
Westbound Left		7.5	A
29 El Prado/Centennial Road	All Way Stop		
AM		7.9	A
30 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Southbound Shared Left-Right		9.9	A
Westbound Left		0.2	A
Northbound Left-Right		10.3	B
31 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Northbound Shared Left-Right		10.2	B
Eastbound Left		0.1	A
Westbound Left		0.2	A
32 Centennial Road/Parking Garage North Entrance/Exit	Stop		
AM			
Northbound Left		7.8	A
Eastbound Left		9.7	A
33 Centennial Road/Parking Garage South Entrance/Exit	Stop		
AM			
Northbound Left		7.7	A
Eastbound Left		10.1	B
Eastbound Right		9.1	A
34 Presidents Way/Centennial Road	Stop		
AM			
Eastbound Left		7.6	A
Southbound Left		9.6	A
Southbound Right		9.1	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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

TABLE 31
2030 + PROJECT
INTERSECTION LOS ANALYSIS INTERNAL STREETS (SATURDAY)

Intersection	Control	2030 + Project	
		Control Delay (sec/veh)	LOS
28 Presidents Way/Federal-Aerospace Lot	Stop		
AM			
Northbound Shared Left-Right		34.5	D
Westbound Left		10.9	B
29 El Prado/Centennial Road	All Way Stop		
AM		26.1	D
30 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Southbound Shared Left-Right		18.6	C
Westbound Left		0.2	A
Northbound Left-Right		19.7	C
31 Centennial Road/ADA Parking & Valet Operations	Stop		
AM			
Northbound Shared Left-Right		19.9	C
Eastbound Left		0.6	A
Westbound Left		0.4	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		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 \geq 2 seconds for LOS E
3) Incremental Delay \geq 1 second for LOS F

access driveways to the proposed 797 space parking structure. Primary access to the core of the park will continue to be provided via El Prado to the west and Presidents Way to the east.

The high pedestrian and vehicle conflicts that are currently at the Plaza de Panama will essentially be eliminated due to the Centennial Road. Although, there would be some vehicular/pedestrian conflicts at the reconfigured Alcazar lot, they would be much less than the current situation of the Plaza de Panama.

In addition, with peak hour entering volumes estimated to be about 200 vph at either of the two parking structure access driveways, minimal queuing is expected at these parking structure entrances, as the project proposes to utilize a central “pay on foot” technology (No pay gates are proposed at the entrances). This queuing analysis at these access driveways are contained in **Appendix G**. This typically yields a service rate between 380 to 800 vehicles per hour. Additional information on this technology is provided in **Appendix I**.

ALTERNATIVES

As part of the EIR Alternatives to the proposed project, the following alternatives were also considered and their traffic related impacts, evaluated and discussed:

- No Project Alternative
- Alternative 2 – Central Mesa Precise Plan
- Alternative 3A – Pedestrianize Cabrillo Bridge with No New Parking
- Alternative 3B – Pedestrianize Cabrillo Bridge with Organ Pavilion Parking Structure
- Alternative 3C - Pedestrianize Cabrillo Bridge with West Mesa Parking Structure
- Alternative 3D – Pedestrianize Cabrillo Bridge with Inspiration Point Parking Structure
- Alternative 4Ai - Cabrillo Bridge Open – with Centennial Bridge Gold Gulch Parking Structure Alternative
- Alternative 4Aii –Cabrillo Bridge Open – with Centennial Bridge – No Paid Parking Alternative
- Alternative 4Bi –Cabrillo Bridge Open without Centennial Bridge – Tunnel Alternative
- Alternative 4Bii - Cabrillo Bridge Open without Centennial Bridge – Stop Light Alternative
- Alternative 4Biii - Cabrillo Bridge Open without Centennial Bridge – Modified Precise Plan without Parking Structure
- Alternative 4Biv - Cabrillo Bridge Open without Centennial Bridge – Half Plaza Alternative
- Alternative 5 – Phased Alternative

The following is a brief description of each of the Alternatives.

NO PROJECT ALTERNATIVE

This Alternative maintains the current traffic conditions as it exists today.

ALTERNATIVE 2 (CENTRAL MESA PRECISE PLAN)

This alternative is consistent with the Balboa Park Central Mesa Precise Plan with the addition of a new parking structure at the Organ Pavilion lot. This plan allows for vehicles on the Cabrillo

Bridge (one way eastbound during peak hours), pedestrianizes a portion of Plaza de Panama, but allows for vehicle traffic routed through the southwest corner of Plaza de Panama (one way eastbound).

PEDESTRIANIZE CABRILLO BRIDGE ALTERNATIVES

ALTERNATIVE 3A (NO NEW PARKING)

This alternative essentially closes the Cabrillo Bridge to vehicular traffic, just east of the El Prado/Balboa Drive intersection and removes parking in the Plaza de Panama. All other existing parking lots will be retained. Vehicular access to the site will primarily be provided to the east of the park (via Presidents Way/Park Boulevard intersection).

ALTERNATIVE 3B (ORGAN PAVILLION PARKING STRUCTURE)

This alternative essentially closes the Cabrillo Bridge to vehicular traffic, just east of the El Prado/Balboa Drive intersection and provides a parking structure at the Organ Pavilion lot, similar to the proposed project. Therefore the vehicular access to the site will primarily be provided to the east of the park (via Presidents Way/Park Boulevard intersection).

ALTERNATIVE 3C (WEST MESA PARKING STRUCTURE)

Site access to the alternative is similar to Alternative 3B, however a parking structure is proposed at the West Mesa (lawn bowling area), instead of the Organ Pavilion lot. The existing Organ Pavilion parking lot would remain as it exists today. Vehicular traffic looking to access the Central Mesa would enter from the east via the Park Boulevard/Presidents Way intersection.

ALTERNATIVE 3D (INSPIRATION POINT PARKING STRUCTURE)

Site access is similar to Alternative 3B, however a parking structure is proposed at the Inspiration Point lot. The Organ Pavilion lot would be converted to park land.

CABRILLO BRIDGE OPEN WITH CENTENNIAL BRIDGE ALTERNATIVES

ALTERNATIVE 4Ai (GOLD GULCH PARKING STRUCTURE)

This alternative is similar to the proposed project, as it includes the proposed Centennial Road, however a parking structure is proposed at the Gold Gulch, with access to this parking structure taken at both Park Boulevard and Presidents Way.

ALTERNATIVE 4Aii (NO PAID PARKING ALTERNATIVE)

This alternative has the same features of the proposed project, except parking in the new Organ Pavilion parking structure would be free (in perpetuity).

CABRILLO BRIDGE OPEN WITHOUT CENTENNIAL BRIDGE ALTERNATIVES

ALTERNATIVE 4Bi (TUNNEL ALTERNATIVE)

This alternative pedestrianizes the Plaza de Panama by undergrounding a portion of the roadway. The underground roadway would connect with a separate roadway near the Organ Pavilion with access to a parking structure south of the Organ Pavilion.

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

This alternative is similar to the Precise Plan except that a traffic signal would be installed (for pedestrian safety) at the California Building. Replace Plaza de Panama parking spaces by grading the lawn at the southwest corner of President's Way and Park Blvd.

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

For this alternative, the Cabrillo Bridge would be open to vehicles; two-lane vehicle traffic routed to corner of Plaza de Panama; remove parking from Plaza de Panama; valet, tram, drop off and pick up would be within the Plaza de Panama; no parking structure at Organ Pavilion Lot. Replacement of Plaza parking spaces through limited grading and reconfiguration of existing parking lots behind institutions and streets.

ALTERNATIVE 4Biv ("HALF PLAZA" ALTERNATIVE)

For this alternative, the Cabrillo Bridge would be open to vehicles; remove parking from Plaza de Panama and a parking structure at Organ Pavilion Lot with rooftop park. The Alcazar lot would be converted to green space and the underground Organ Pavilion lot would be designed to be large enough to hold displaced Alcazar and Plaza de Panama parking. The south half of Plaza de Panama would be integrated with the Esplanade into a one way looped "El Cid Island" with a narrow alley or tunnel of trees that screen and shade drop off zones.

ALTERNATIVE 5 (PHASED ALTERNATIVE)

This alternative assumes a phased approach of the proposed project as outlined in the following four phases:

Phase 1: Eliminate parking and valet operations within Plaza de Panama and maintain through vehicle traffic; reconfigure Alcazar lot for ADA and valet. If parking is determined to be insufficient then;

Phase 2: Add parking structure south of Organ Pavilion with rooftop park and grade separated roadway. Activate tram loop from parking structure to Plaza de Panama. If traffic/pedestrian conflicts are determined to be problematic then;

Phase 3: Close the Cabrillo Bridge to vehicular traffic (emergency access allowed). If too great impact on institution and park use then;

Phase 4: Construct Centennial bridge/road

NO PROJECT ALTERNATIVE OPERATIONS

Existing

The No Project alternative operations for the roadway and intersections are the same as the Existing conditions.

2015

Exhibit 11 and Exhibit 12 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 6 shows all the study area intersections to operate at LOS D or better during the weekday AM and PM peak periods.

Table 7 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 8 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 Road (LOS E)

No impacts were calculated based on the current significance thresholds.

Table 9 shows all the internal park study area intersections to operate at LOS B or better during the weekday AM peak period.

Table 10 shows all the internal park study area intersections to operate at LOS D or better during the Saturday AM peak period with the exception of:

- El Prado/Plaza de Panama (NB, LOS F)
- Presidents Way/Federal-Aerospace Lot (NB shared left-right, LOS E)

2030

Exhibit 13 and Exhibit 14 show the 2030 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 11 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 12 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, LOS F, PM peak)
- Park Boulevard/SR 163 NB on Ramp (NB left turn, 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 13 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 Road (LOS E)

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

Table 14 shows all the internal park study area intersections to operate at LOS B or better during the weekday AM peak period.

Table 15 shows all the internal park study area intersections to operate at LOS E and LOS F during the Saturday AM peak period:

- El Prado/Plaza de Panama (NB, LOS F)
- 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)

These tables show the El Prado/Plaza De Panama intersection to continue to operate at LOS F. The high vehicular and pedestrian conflicts at the Plaza de Panama will continue to occur with the no project scenarios.

ALTERNATIVE 2 - CENTRAL MESA PRECISE PLAN OPERATIONS

Exhibit 23 shows the intersection lane geometry and configuration of the study area.

Exhibit 24 shows the percent distribution for this alternative.

Existing

Exhibit 25 and Exhibit 26 show the Existing + Project Alternative 2 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 32 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 33 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 34 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 35 and 36 show all the weekday and Saturday internal study intersections to operate acceptably at LOS C or better.

2015

Exhibit 27 and Exhibit 28 show the 2015 traffic volumes at the study intersections and roadway segments for a typical weekday and Saturday, respectively.

Table 37 shows all the study area intersections to operate at LOS C or better during the weekday AM and PM peak periods.

Table 38 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 39 shows that all study area roadways to operate at LOS D or better on a daily basis, with the exception of:

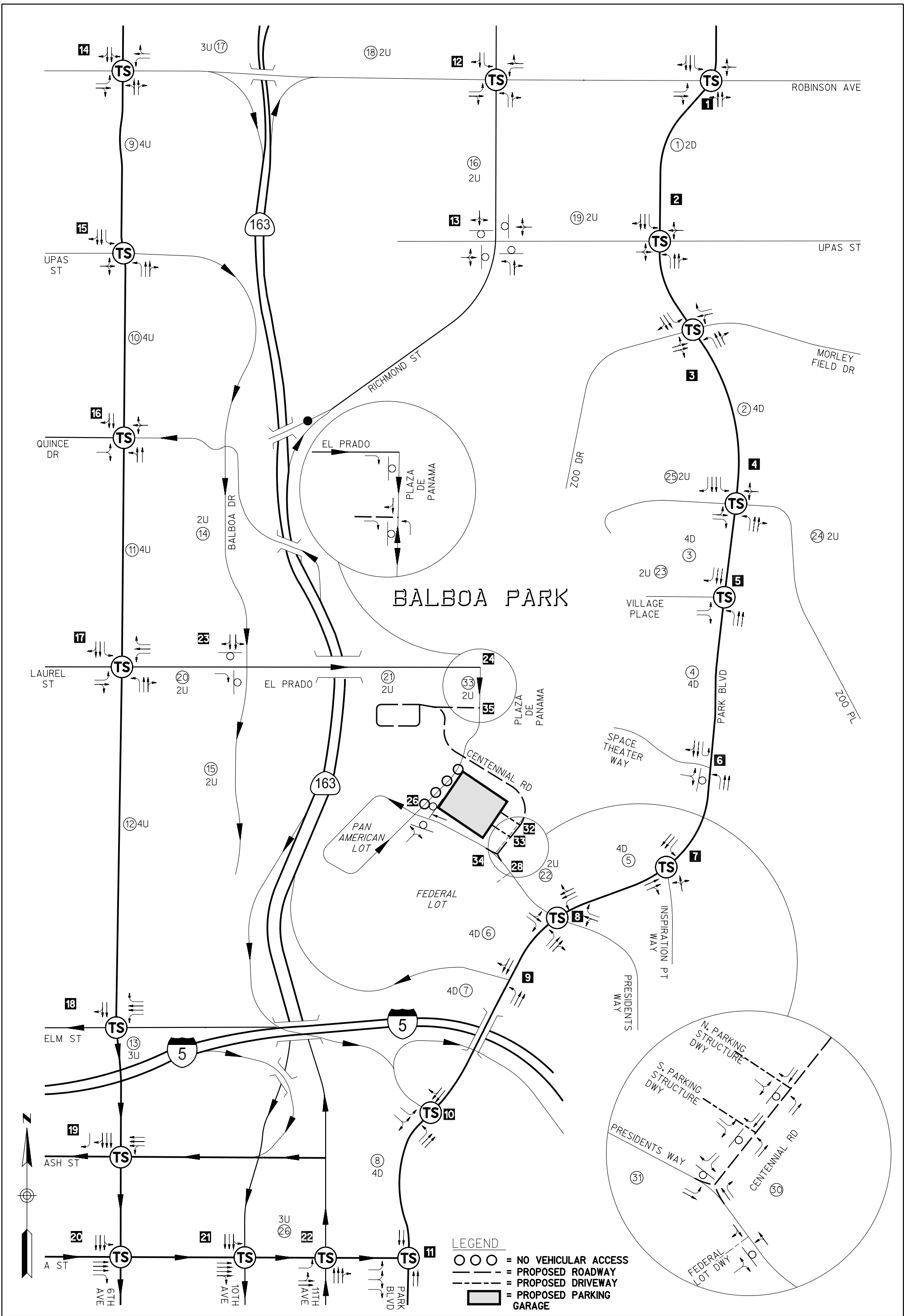


EXHIBIT 23

PRECISE PLAN TRANSPORTATION CONDITIONS

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

LEGEND

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



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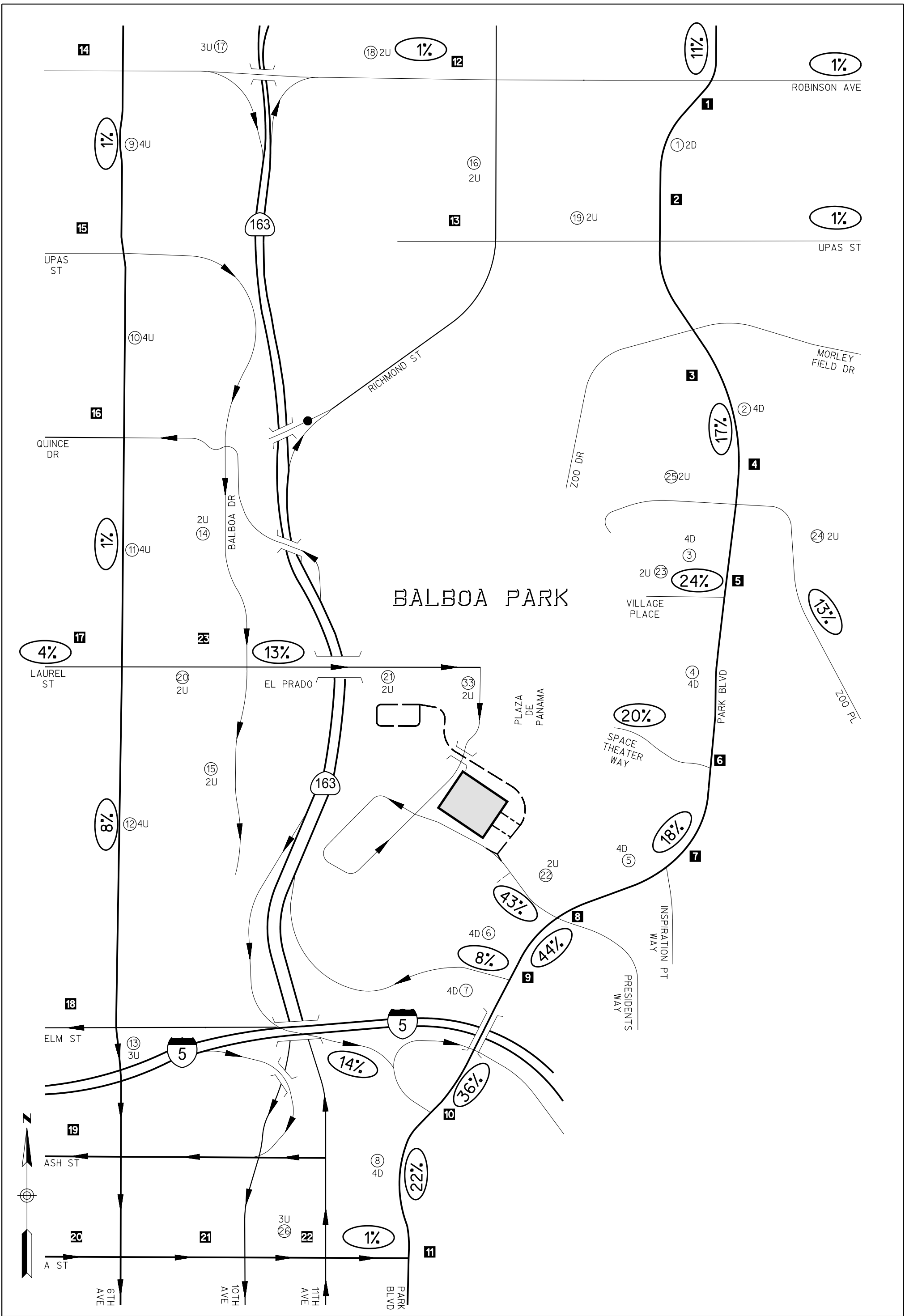


EXHIBIT 24

PRECISE PLAN 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



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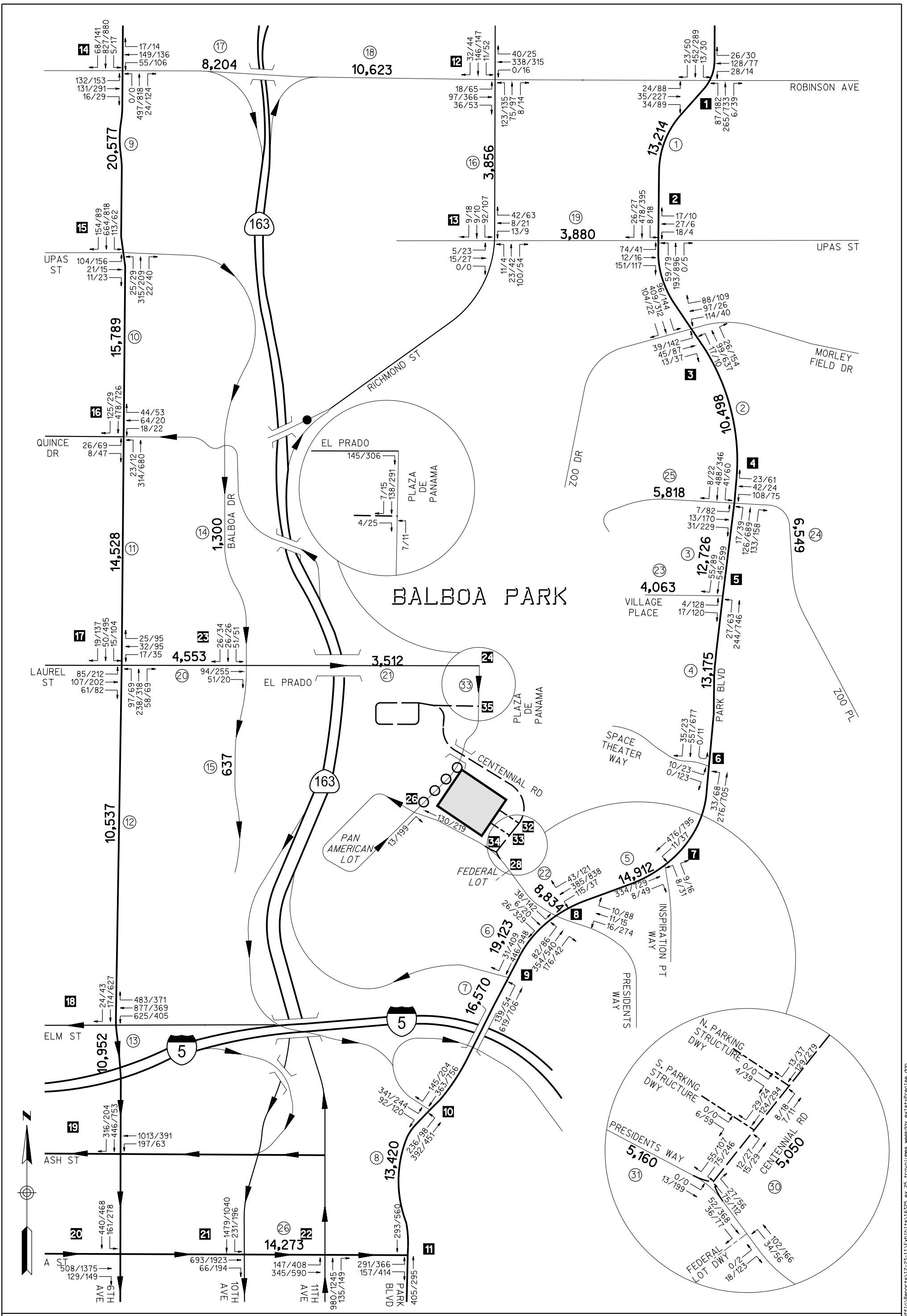


EXHIBIT 25

EXISTING WITH PRECISE PLAN PROJECT 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



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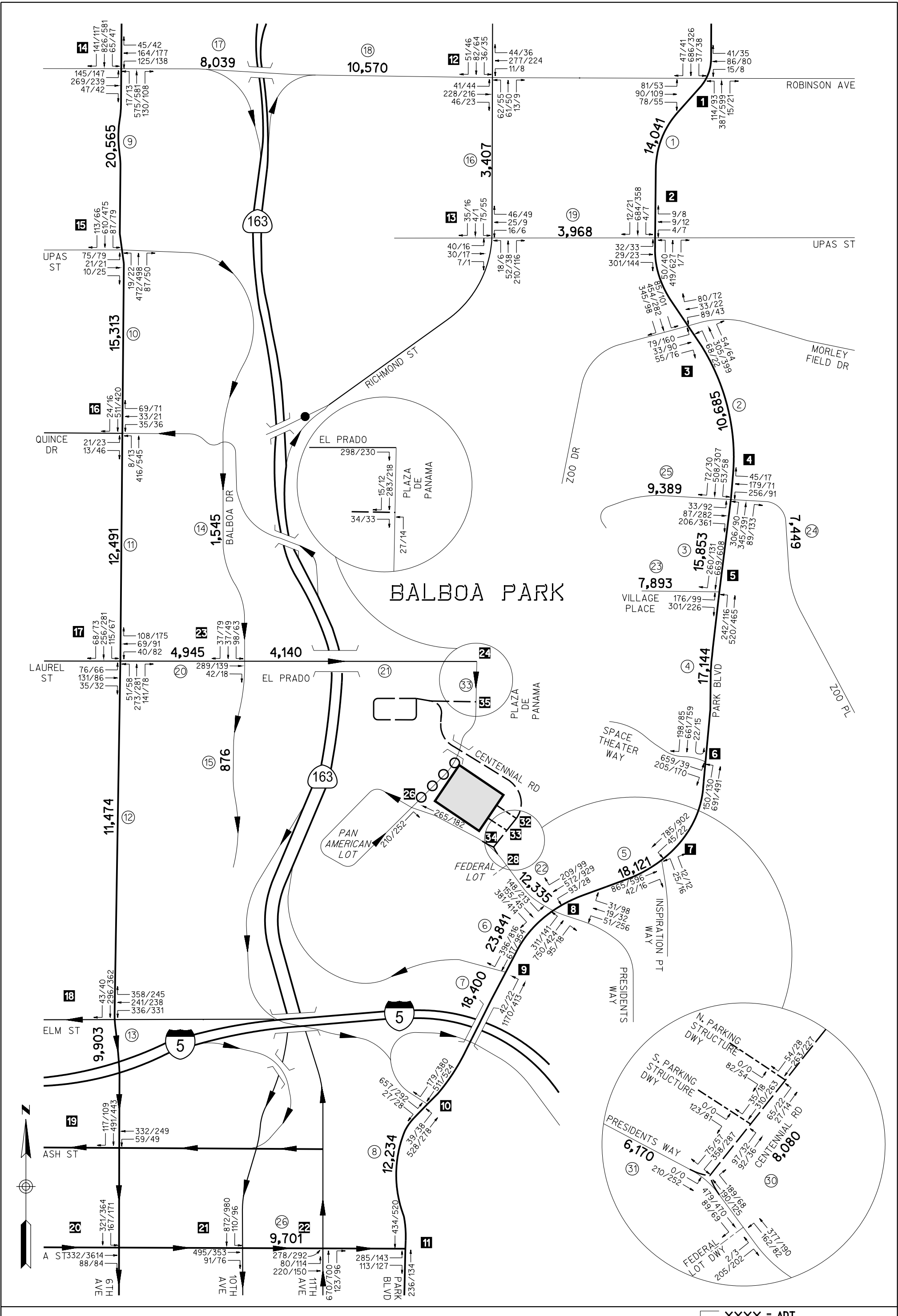


EXHIBIT 26

EXISTING WITH PRECISE PLAN PROJECT 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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