LINSCOTT LAW & GREENSPAN engineers

TRANSPORTATION IMPACT ANALYSIS
OCEAN KAMP PROJECT

Oceanside, California
December 18, 2019

LLG Ref. 3-19-3145

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1.0 INTRODUCTION

The following transportation study has been prepared to determine and evaluate the traffic impacts on the local circulation system due to the development of the Ocean Kamp Project (proposed "Project") in the City of Oceanside. The purpose of this transportation study is to assess the potential impacts to the local circulation system as a result of the Project.

Included in this traffic study are the following:

- Project Description
- Existing Conditions Discussion
- Analysis Approach & Methodology
- Significance Criteria
- Analysis of Existing Weekday Conditions
- Trip Generation, Distribution & Assignment
- Analysis of Weekday Existing + Project Scenarios
- Near-Term Cumulative Projects Conditions Discussion
- Analysis of Weekday Near-Term Scenarios
- Analysis of Weekend Conditions
- Year 2035 Discussion
- Access Assessment and On-Site Circulation
- Significance of Impacts & Mitigation Measures

2.0 PROJECT DESCRIPTION

2.1 Project Location

The approximately 92-acre project site is located north of Mission Avenue and State Route 76 (SR 76), immediately east of Foussat Road and west of Fireside Street in the City of Oceanside. Surrounding land uses include the San Luis Rey River located north and west of the property, the Oceanside Municipal Airport to the west, Oceanside Fire Department Station No. 7 to the south (between SR 76 and Mission Avenue), the City of Oceanside's Mission Basin Groundwater Purification Facility located to the northeast, and a combination of single-family residential and commercial development and open space located to the east and south. A portion of the San Diego Gas & Electric (SDG&E) transmission line easement traverses the center of site in a north-south trend. The site has previously been used as a drive-in movie theater and swap meet.

Figure 2–1 shows the vicinity map. ***Figure 2–2*** shows a more detailed Project area map.

2.2 Project Background

An Environmental Impact Report (EIR) addressing development of the site was certified by the City of Oceanside in 2008 (State Clearinghouse No. 2006111033). The Pavilion at Oceanside project described in the EIR consisted of a 950,000-square foot (SF) shopping center with a variety of retail uses. The project application included a Tentative Parcel Map, Development Plan, five Conditional Use Permits (movie theater, health club, and three drive-through uses), and an Underground Waiver request for the existing high-voltage electrical transmission lines located on the site. The Tentative Parcel Map proposed to divide the project site into 10 parcels for leasing purposes, where each commercial parcel included building, hardscape/landscape, and parking areas.

A Traffic Impact Analysis Report dated March 2008 was prepared by RBF Consulting in conjunction with the certified EIR in which the Pavilion at Oceanside project was calculated to generate 32,175 Average Daily Trips (ADT). Mitigation measures were identified to address potential impacts to the surrounding street system.

The site is currently being graded pursuant to the conditions of the previously approved Pavilion at Oceanside project. Since this traffic study is tiering off the approved EIR for the site, the significance criteria utilized in that study was also utilized in this study.

2.3 Project Description

The Ocean Kamp Project proposes a mix of commercial and residential uses. Commercial uses would be located within the central/southwestern portion of the site, and are proposed to include a 300-key resort hotel; approximately 126,000 SF of retail / commercial uses; and a wave lagoon. Multi-family residential uses are proposed to include approximately 700 units within the northern and eastern portions of the project site.

Access to the site is proposed primarily via Foussat Road at SR 76 and via Ocean Puente at Mission Avenue.

Figure 2–3 shows the conceptual site plan.

The Project proposes a reduced density of commercial uses compared to the 950,000 SF of commercial uses proposed under the approved Pavilion at Oceanside project and will generate significantly fewer ADT than the approved Pavilion project as discussed further in *Section 7* of this study. However, in order to provide a comprehensive assessment of the Project in relation to Existing conditions, the following transportation study has been prepared.

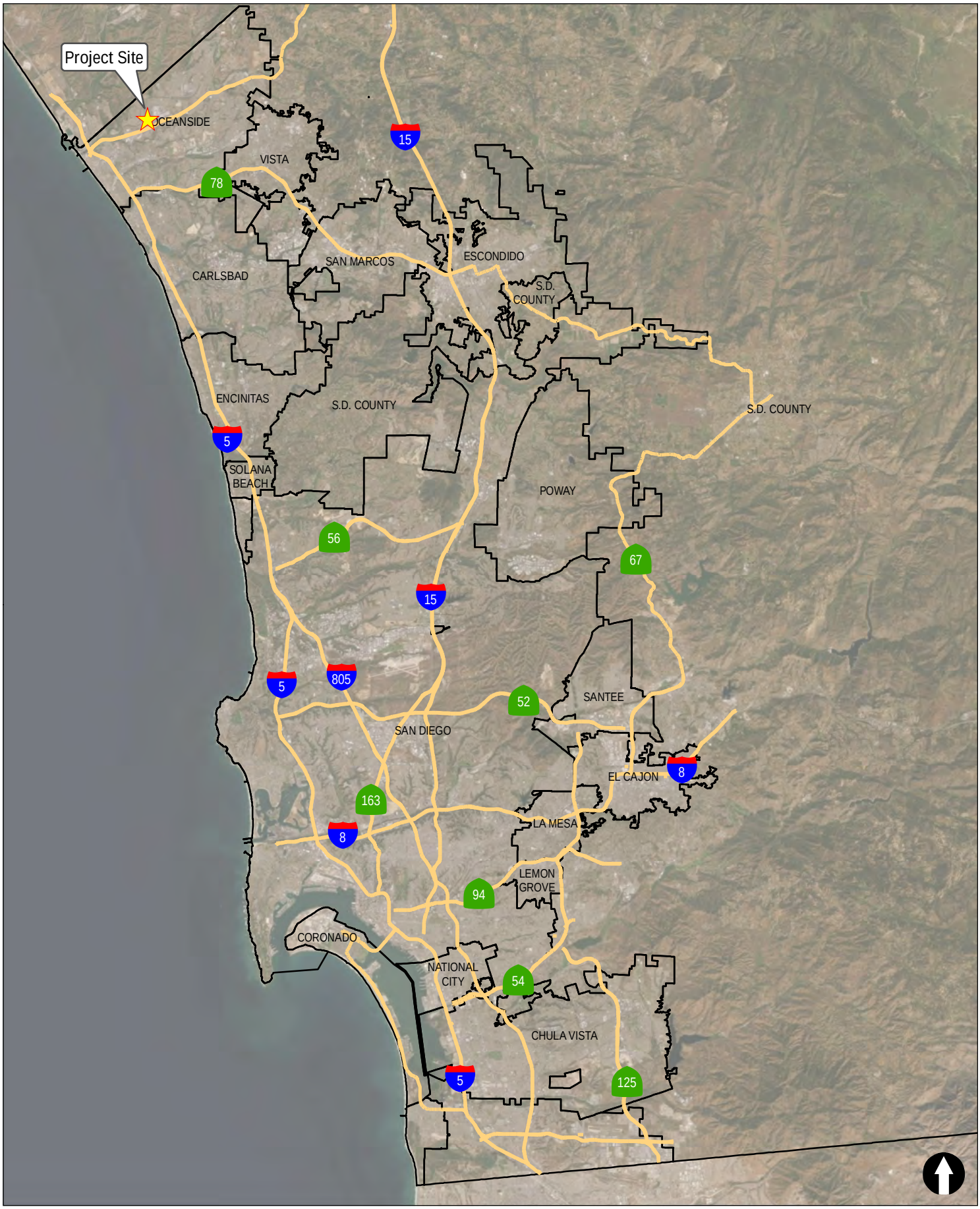

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Figure 2-1

Vicinity Map

Ocean Kamp

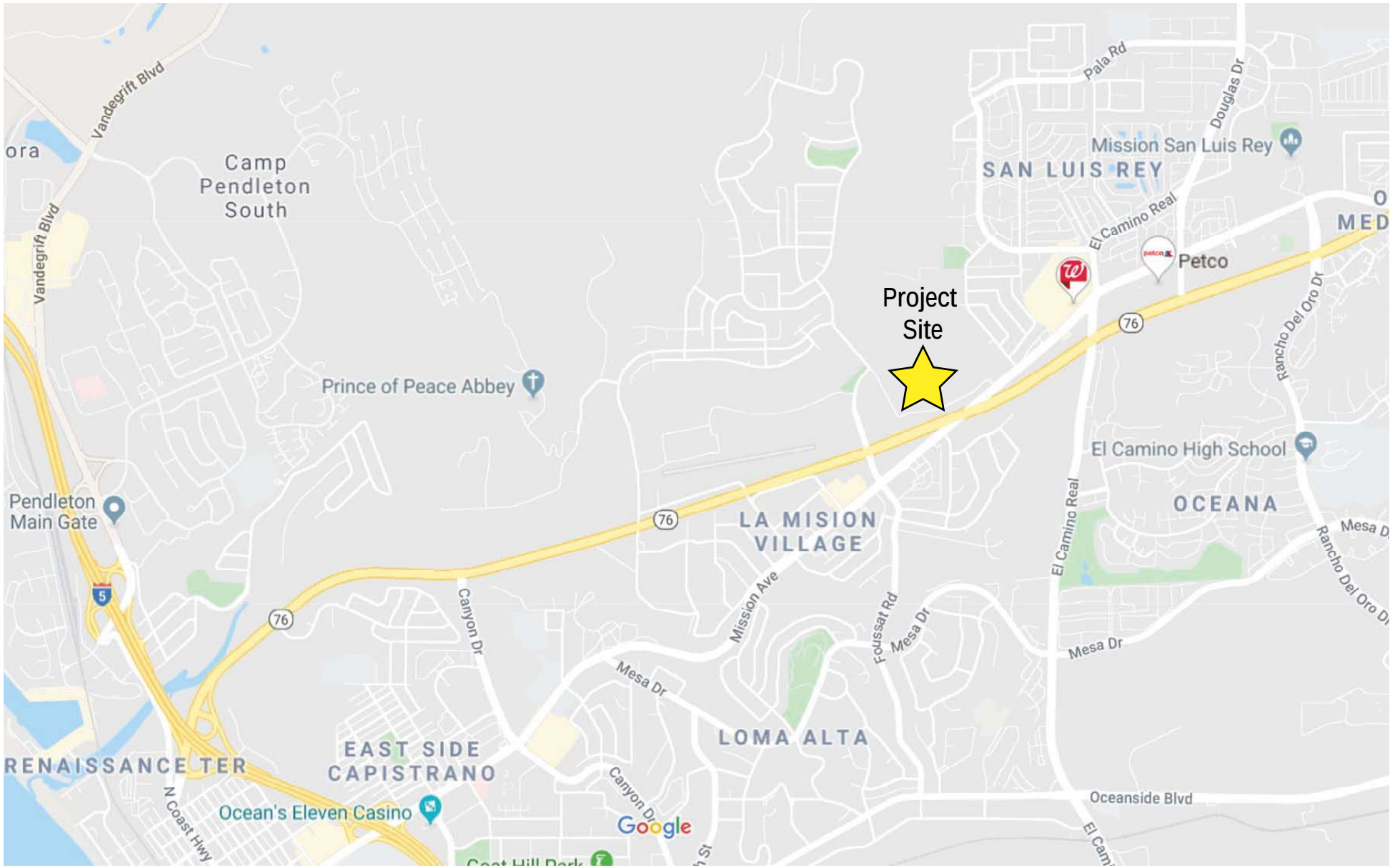

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Figure 2-2

Project Area Map

Ocean Kamp

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Figure 2-3

Site Plan

OCEAN KAMP

3.0 EXISTING CONDITIONS

3.1 Existing Street System

The following provides a brief description of the street system in the Project area. ***Figures 3–1a*** and ***3-1b*** illustrate the existing street segment and intersection conditions, respectively, in terms of traffic lanes and intersection controls.

State Route 76 (SR 76) is classified on the City of Oceanside Circulation Element as a Four-Lane Expressway from Interstate 5 to Rancho Del Oro Drive. It is generally an east-west facility and is currently built as a four-lane divided expressway in the Project study area. The posted speed limit is 55 mph. SR 76 does not provide sidewalk, bike lanes, or curbside parking.

Interstate 5 (I 5) is classified on the City of Oceanside Circulation Element as an 8-Lane Freeway. It is generally a north-south roadway built with four northbound lanes and four southbound lanes in the Project study area. The posted speed limit is 65 mph. Bike lanes are not provided on either sides of the roadway and on-street parking is prohibited.

Loretta Street is a Collector Road and currently built as a 2-Lane roadway between SR 76 and Wynn Street, within the study area. The posted speed limit is 25 mph. Bike lanes are not provided on either sides of the roadway. On-street parking and sidewalks are provided along certain parts of the street.

Canyon Drive is classified as a secondary collector between SR 76 and Mission Avenue on the City of Oceanside Circulation Element. It is currently built as a four-lane undivided roadway in the Project study area. The posted speed limit is 45 mph. Class II Bike lanes are striped along both sides of the street and on-street parking is not permitted within the study area.

Benet Road is classified and built as a 2-Lane Secondary Collector between Via Del Monte and Foussat Road on the City of Oceanside Circulation Element. The posted speed limit is 45 mph. Class II Bike lanes are provided on both sides of the roadway and on-street parking is prohibited.

Airport Road is a Collector Road and currently built as a 2-Lane roadway between Benet Road and Roymar Road. The posted speed limit is 30 mph. There are no designated bicycle lanes, but on-street parking is permitted along certain parts of the street.

Foussat Road is classified on the City of Oceanside Circulation Element and currently built as a 2-Lane Collector from N. Foussat Road to Mesa Drive. Foussat Road expands to five thru lanes with additional turn lanes as it approaches SR 76. Bike lanes are not provided on either side of the street. On-street parking and sidewalks are provided along certain parts of the study area. The posted speed limit is 35 mph from N. Foussat Road to Mission Avenue and 30 mph from Mission Avenue to Mesa Drive.

Douglas Drive is classified on the City of Oceanside Circulation Element as a 4-Lane Major Arterial from State Route 76 to Mission Avenue. It is constructed as a four-lane undivided roadway in the Project study area. The posted speed limit is 40 mph. Class II bicycle lanes and sidewalks are provided on both sides of the roadway and on-street parking is prohibited.

Rancho Del Oro Drive is built to its City of Oceanside Circulation Element classification as a Four-Lane Major Arterial between Mission Avenue and Mesa Drive. This four-lane divided roadway has Class II bicycle lanes on both sides and on-street parking is prohibited. The posted speed limit is 45 mph and sidewalks are provided along certain parts of the street.

Mission Avenue is classified on the City of Oceanside Circulation Element as a 4-Lane Major Arterial from I-5 to Rancho Del Oro Drive. Currently, Mission Avenue is a four-lane divided roadway with a raised center median from Canyon Drive to Rancho Del Oro Drive. Class II bicycle lanes and sidewalks are provided along both sides of the street. Within the study area, on-street parking is prohibited. The posted speed limit is 40 mph from Canyon Road to Airport Road and 45 mph from Airport Road to Rancho Del Oro Drive.

Mesa Drive is a collector between Mission Avenue and Foussat Road and a secondary collector between Foussat Road and N. Santa Fe Avenue on the City of Oceanside Circulation Element. It is a two-lane undivided roadway between Mission Avenue and just east of Foussat Road, and a two-lane roadway with a continuous two-way left-turn lane east of El Camino Real with raised medians just east and west of Rancho Del Oro Road. Class II bicycle lanes are striped along both sides of the street between Foussat Road and N. Santa Fe Avenue. On-street parking is not permitted. The posted speed limit is 45 mph.

Roymar Road is classified and built as a two-lane collector from Airport Road to Mission Avenue in the City of Oceanside. Bike lanes are not provided within the study area. On-street parking and sidewalk are provided in both direction and the assumed speed limit is 25 mph.

Copperwood Way is a Two-Lane Collector Road from Mission Avenue to this roadway's cul da sac. It is a two-lane undivided roadway that provides access to retail/commercial centers. There are no designated bike lanes, but on-street parking and sidewalks are provided on both sides of the street. The assumed speed limit is 25 mph.

Frontier Drive is a Two-Lane Collector road and currently built as a two-lane undivided roadway from Hacienda Drive to Mission Avenue. Bike lanes are not provided, and the assumed speed limit is 25 mph. On-street parking and sidewalks are provided in both directions.

Ocean Puente is a collector between Mission Avenue and Foussat Road in the City of Oceanside. It is a two-lane undivided roadway with no designated bike lanes, and the assumed speed limit of 25 mph. There are no sidewalks and parking is prohibited on both sides of the street.

Fireside Street is a collector and currently built as a two-lane undivided roadway from Mission Avenue to Los Arbolitos Boulevard. There are no designated bike lanes, but on-street parking and sidewalks are provided in both directions. The posted speed limit is 25 mph.

El Camino Real is classified on the City of Oceanside Circulation Element and currently built as a 4-Lane Major Arterial between Los Arbolitos Boulevard and Mesa Drive, within the study area. It is a 4-lane divided roadway with a raised center median. The posted speed limit is 40 mph from Los Arbolitos to Mission Avenue and 45 mph from Mission Avenue to Mesa Drive. On-street parking is not permitted, and Class II bicycle lanes are striped along both sides of the street within the study area.

Los Arbolitos Boulevard is a collector and currently built as a 2-Lane Undivided roadway with a two-way left-turn lane median between El Camino Real and Pala Road. Bike lanes are not provided within the study area and the posted speed limit is 30 mph. On-street parking and sidewalks are provided on both sides of the roadway.

Pala Road is classified and currently built as a 2-Lane Collector road on the City of Oceanside Circulation Element. From Los Arbolitos Boulevard to Douglas Drive, it is a two-lane roadway with a continuous two-way left turn lane. Class II bike lanes and sidewalks are provided in both directions within the study area. On-street parking is permitted along certain parts of the street and the posted speed limit is 35 mph.

Alex Road is a collector and currently built as a 2-Lane Undivided roadway from Eddy Jones Way to Foussat Road. There are no designated bikes lanes, sidewalks or parking in both travel directions. The assumed speed limit is 25 mph.

Via Del Rancho Road is classified as a collector road on the City of Oceanside Circulation Element. Currently, it is built as a 2-lane undivided roadway from Rancho Del Oro Drive to Mesa Drive. Class III bike lanes are striped along both sides of the street and on-street parking is not permitted within the study area. Sidewalks are provided in both direction and the posted speed limit is 25 mph.

N. Barnwell Street is a collector and currently built as a 2-Lane Undivided roadway from Mesa Drive and Mission Avenue. On-street parking and sidewalks are provided in both sides of the street. There are no designated bike lanes and the posted speed limit is 25 mph.

3.2 Existing Bicycle Network

Based on information in the City of Oceanside Circulation Element and field observations, there are Class II bike lanes provided along the major street segments within the study area described above, with the following exceptions:

- Foussat Road has a Class III Bike Route from Benet Road to Mesa Drive.

  The San Luis Rey River Trail is a separated Class I Bike Path and is a generally east-west facility extending throughout a large portion of the study area.

3.3 Existing Transit Conditions

Transit service in the study area is provided by the North County Transit District (NCTD). The Project is located within three miles of the San Luis Rey Transit Center located south of North River Road between Vandegrift Boulevard and Waterview Way. The San Luis Rey Transit Center is

served by Routes 303, 309, and 313 within the study area. Based on information obtained from the NCTD, the following transit conditions are noted.

Route 303 travels from the Oceanside Transit Center to the Vista Transit Center and travels along Mission Avenue and Douglas Drive within the study area. This route provides 15-minute headways during weekday hours.

Route 309 travels from Oceanside (San Luis Rey Transit Center) to Encinitas primarily via El Camino Real. This route provides 30-minute headways during weekday hours.

Route 313 travels from the Oceanside Transit Center to the San Luis Rey Transit Center primarily via Mesa Drive and travels along El Camino Real and Rancho Del Oro within the study area. This route provides hourly service during weekdays.

3.4 Existing Traffic Volumes

Weekday Existing 7:00-9:00 AM and 4:00-6:00 PM peak hour traffic volumes at key area intersections and 24-hour street segment counts were obtained from the *OnPoint Oceanside Transportation Impact Study* dated May 2019 prepared by Kimley Horn or manually collected in 2019 while are schools were in session. Weekend Existing 12:00-2:00 PM peak hour traffic volumes at key area intersections and 24-hour street segment counts were also manually collected in 2019. SR 76 volumes were taken from publicly available Caltrans traffic volume data.

Figures 3-2a–1a and ***3-2b*** depict the Weekday Existing daily traffic volumes and AM / PM peak hour traffic volumes, respectively. ***Figure 3-3*** depicts the Weekend Existing daily traffic and peak hour traffic volumes.

Appendix A contains the peak hour intersection and daily segment count sheets, including the Caltrans data.

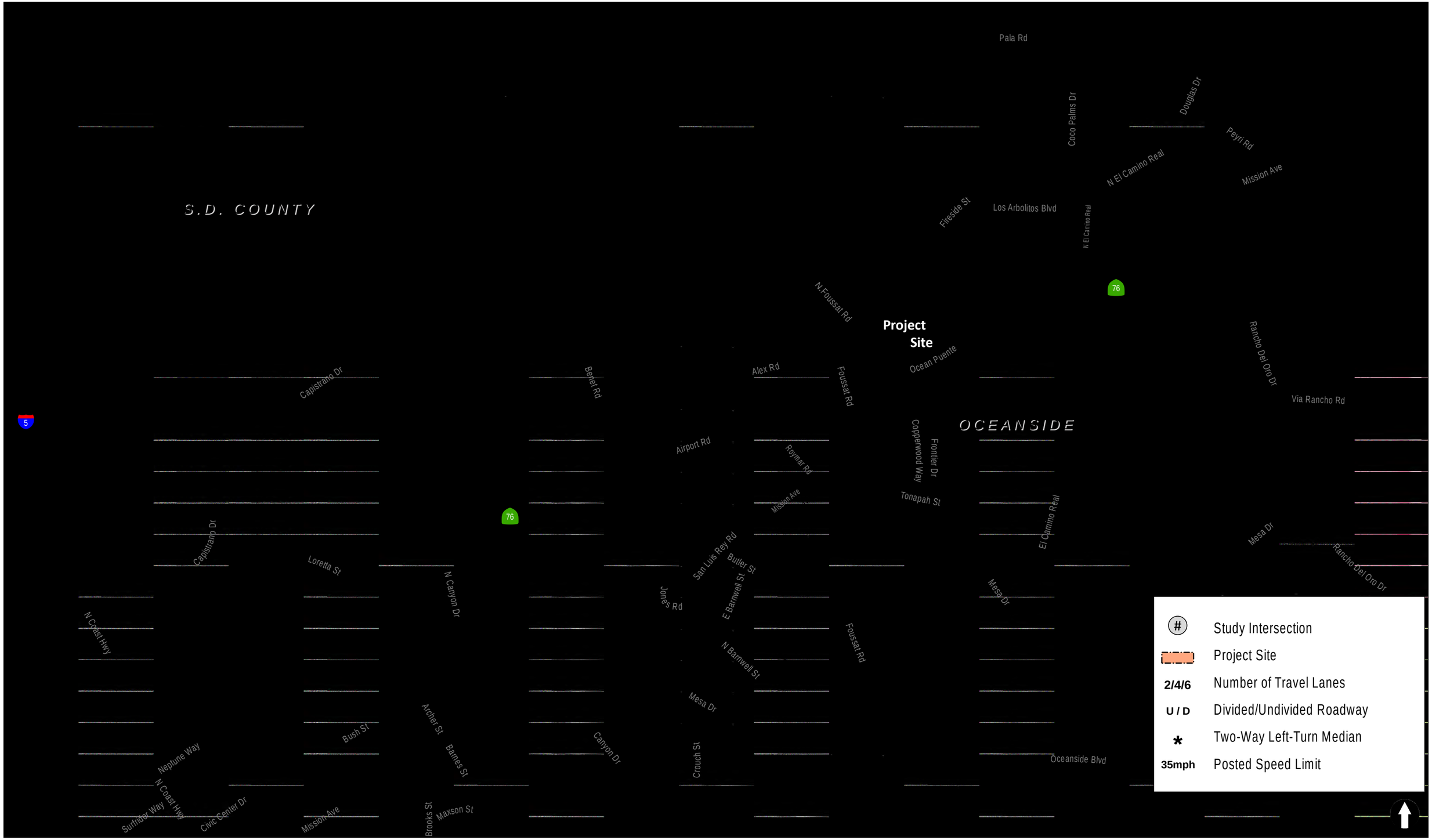

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Figure 3-1
Existing Conditions Diagram
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Figure 3-1

Existing Conditions Diagram

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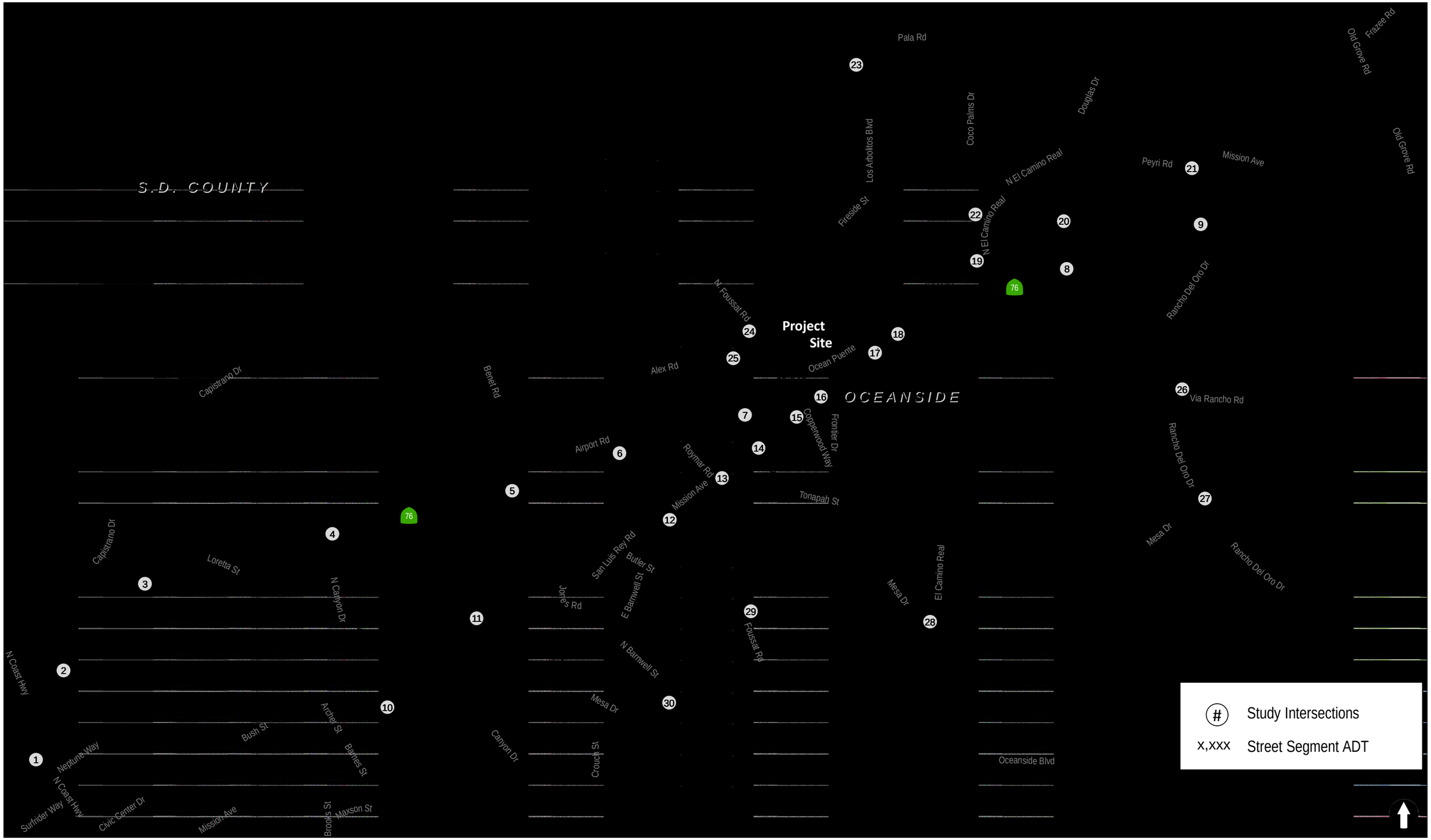

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Figure 3-2a

Existing Weekday Traffic Volumes

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Ocean Kamp

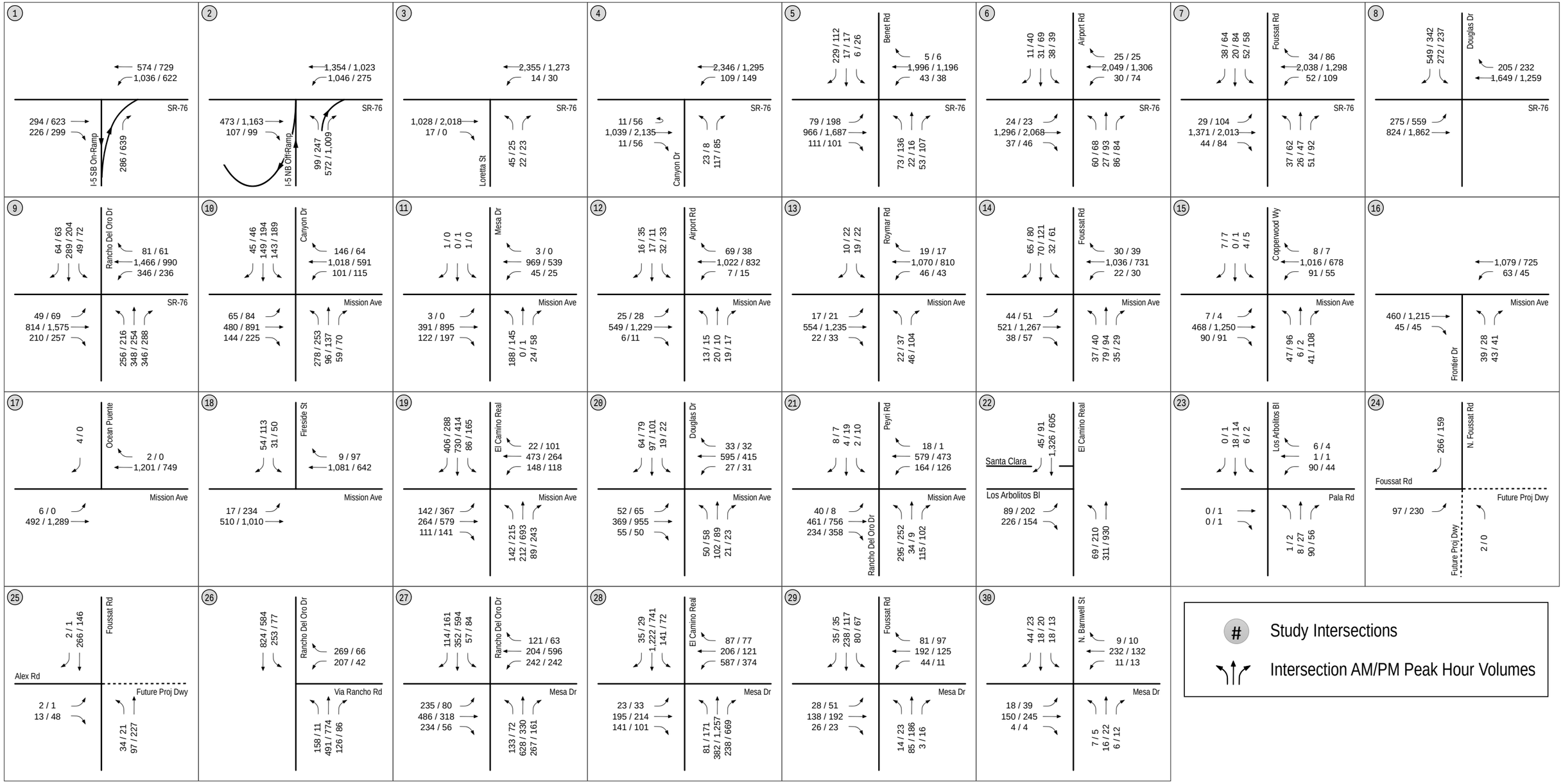

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Figure 3-2b

Existing Weekday Traffic Volumes

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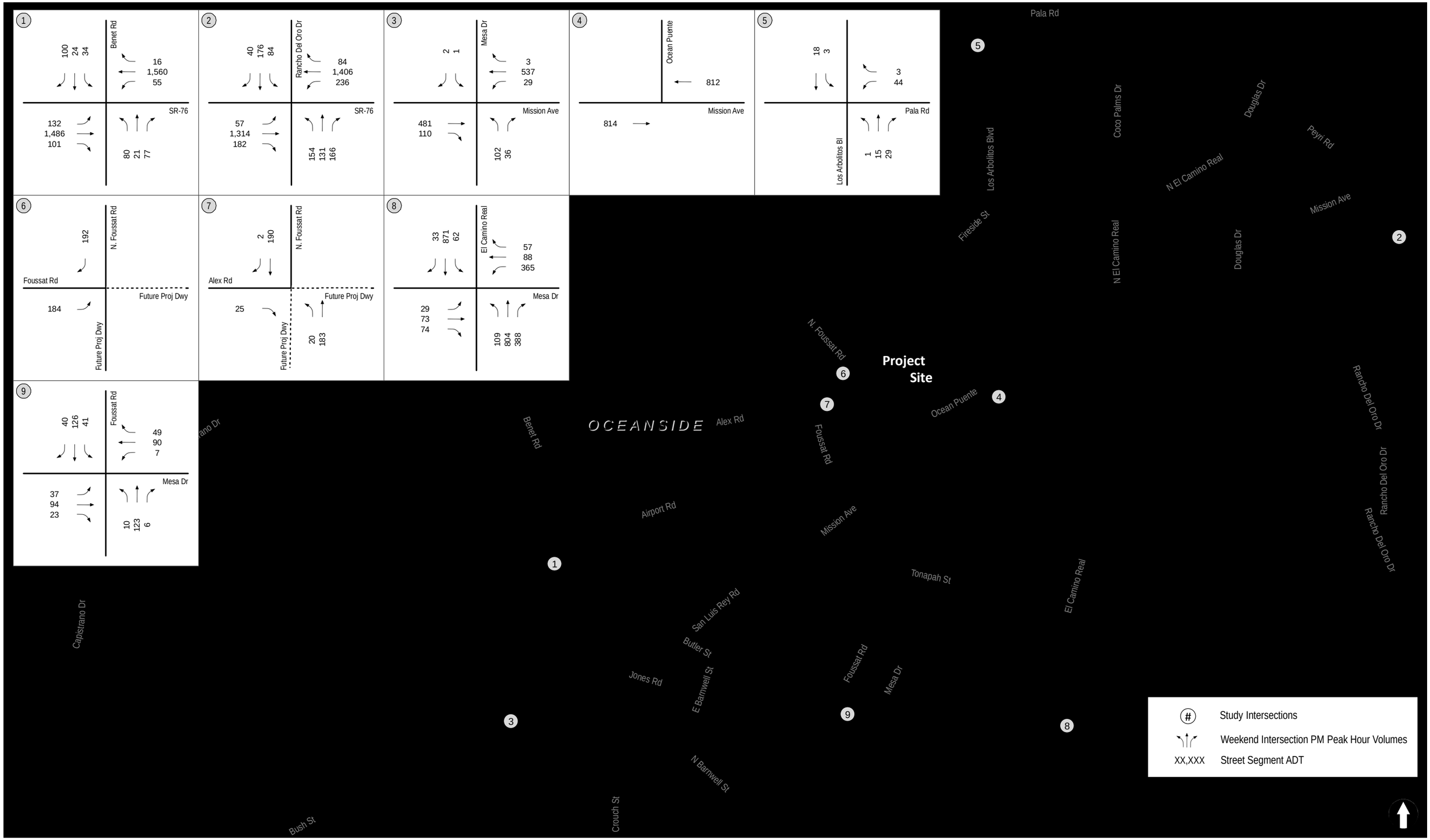

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Figure 3-3

Existing Weekend Traffic Volumes

Saturday

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4.0 ANALYSIS APPROACH & METHODOLOGY

4.1 Study Area

4.1.1 *Weekday*

Based on the criteria identified in the San Diego Traffic Engineering Council (SANTEC)/Institute of Traffic Engineers (ITE) *Guidelines for Traffic Impact Studies in the San Diego Region*, March 2, 2000, the study area was generally determined by the limits or extent of where 50 peak hour Project trips would travel to/from the site. The study area was further defined in coordination with City staff. The Project study area includes the following locations:

Intersections

1. I-5 Southbound Ramps / SR 76
2. I-5 Northbound Ramps / SR 76
3. SR 76 / Loretta Street
4. SR 76 / Canyon Drive
5. SR 76 / Benet Road
6. SR 76 / Airport Road
7. SR 76 / Foussat Road
8. SR 76 / Douglas Drive
9. SR 76 / Rancho del Oro Drive
10. Mission Avenue / Canyon Drive
11. Mission Avenue / Mesa Drive
12. Mission Avenue / Airport Road
13. Mission Avenue / Roymar Road
14. Mission Avenue / Foussat Road
15. Mission Avenue / Copperwood Way
16. Mission Avenue / Frontier Drive
17. Mission Avenue / Ocean Puente
18. Mission Avenue / Fireside Street
19. Mission Avenue / El Camino Real
20. Mission Avenue / Douglas Drive
21. Mission Avenue / Rancho del Oro Drive
22. El Camino Real / Los Arbolitos Boulevard
23. Pala Road / Los Arbolitos Boulevard
24. Foussat Road / Foussat Road (North)
25. Foussat Road / Alex Road
26. Rancho del Oro Drive / Via Rancho Road
27. Rancho del Oro Drive / Mesa Drive
28. Mesa Drive / El Camino Real
29. Mesa Drive / Foussat Road
30. Mesa Drive / Barnwell Street

Segments

SR 76

1. I-5 Ramps to Loretta Street
2. Loretta Street to Canyon Drive

3. Canyon Drive to Benet Road
4. Benet Road to Airport Road
5. Airport Road to Foussat Road
6. Foussat Road to Douglas Drive
7. Douglas Drive to Rancho del Oro Drive
8. Rancho del Oro Drive to Old Grove Road

Canyon Drive

9. SR 76 to Mission Avenue

Mission Avenue

10. Canyon Drive to Mesa Drive
11. Mesa Drive to Airport Road
12. Airport Road to Roymar Road
13. Roymar Road to Foussat Road
14. Foussat Road to Copperwood Way
15. Copperwood Way to Frontier Drive
16. Frontier Drive to Ocean Puente
17. Ocean Puente to Fireside Street
18. Fireside Street to El Camino Real
19. El Camino Real to Douglas Drive
20. Douglas Drive to Rancho del Oro Drive

Foussat Road

21. Alex Road to SR 76
22. SR 76 to Mission Avenue
23. Mission Avenue Tonopah Street
24. Tonopah Street to Mesa Drive

El Camino Real

25. Los Arbolitos Boulevard to Mission Avenue
26. Mission Avenue to Vista Oceana
27. Vista Oceana to Mesa Drive

Rancho del Oro Drive

28. Mission Avenue to SR 76
29. SR 76 to Via Rancho Road
30. Via Rancho Road to Mesa Drive

Mesa Drive

31. Mission Avenue to Barwell Street
32. Barnwell Street to Foussat Road
33. Foussat Road to El Camino Real
34. El Camino Real to Rancho del Oro Drive

Douglas Drive
35. Mission Avenue to SR 76

Los Arbolitos Boulevard
36. Pala Road to El Camino Real

Alex Road
37. Eddy Jones Way to Foussat Road

Benet Road
38. SR 76 to Eddy Jones Way

Airport Road
39. SR 76 to Mission Avenue

4.1.2 *Weekend*

In addition to the traditional Weekday assessment traffic conditions, a supplementary analysis was conducted to determine if the Project would have an impact on the circulation system during the Weekend on a daily basis and during the assumed afternoon peak hour (12:00-2:00 PM). The following focused study area was selected for analysis during Weekend conditions:

Intersections

SR 76 / Benet Road
SR 76 / Rancho del Oro Drive
Mission Avenue / Mesa Drive
Mission Avenue / Ocean Puente
Pala Road / Los Arbolitos Boulevard
Foussat Road / Foussat Road (North)
Foussat Road / Alex Road
Mesa Drive / El Camino Real
Mesa Drive / Foussat Road

Segments

Mission Avenue
Douglas Drive to Rancho del Oro Drive

Foussat Road
Alex Road to SR 76
Mission Avenue Tonopah Street
Tonopah Street to Mesa Drive

El Camino Real
Los Arbolitos Boulevard to Mission Avenue
Mission Avenue to Vista Oceana
Vista Oceana to Mesa Drive

Mesa Drive
Foussat Road to El Camino Real

Los Arbolitos Boulevard
Pala Road to El Camino Real

Alex Road
Eddy Jones Way to Foussat Road

4.2 Analysis Approach

The Project proposes to construct a 300-key resort hotel, approximately 126,000 SF of retail / commercial uses, 700 residential dwelling units, and a wave lagoon. Access to the site is proposed primarily via Foussat Road at SR 76 and via Ocean Puente at Mission Avenue. Project traffic was analyzed under existing and near-term conditions

An explanation of each scenario is provided below:

Existing conditions represent the existing on-the-ground network and traffic volume conditions at the time of data collection in August and September 2019 while schools were in session. SR-76 volumes were taken from the publicly available Caltrans traffic volume data.

Existing + Project conditions represent the operations of the existing street network with the addition of the traffic generated by the complete development of the proposed Project.

Existing + Cumulative Projects conditions represent the time period in the near future when it would be expected that other nearby development or infrastructure projects would contribute to cumulative growth in the area which would increase the overall study area traffic volumes prior to the Project's anticipated opening year. *Section 9* discusses the cumulative conditions in greater detail.

Existing + Cumulative Projects + Project conditions represent the time period in the near future when traffic generated by the total Project would be on the street system and when it would be expected that other nearby development or infrastructure projects would contribute to cumulative growth in the area which would increase the overall study area traffic volumes.

4.3 Methodology

Level of service (LOS) is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. Level of Service provides an index to the operational qualities of a roadway segment or an intersection. Level of Service designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. Level of Service designation is reported differently for signalized and unsignalized intersections, as well as for roadway segments.

4.3.1 *Intersections*

Signalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 18 of the *Highway Capacity Manual (HCM),* with the assistance of the *Synchro* (version 10) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS).

Unsignalized intersections were analyzed under AM and PM peak hour conditions. Average vehicle delay and Levels of Service (LOS) was determined based upon the procedures found in Chapters 19 and 20 of the *HCM,* with the assistance of the *Synchro* (version 10) computer software.

4.3.2 *Street Segments*

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the City of Oceanside's *Roadway Classification, Level of Service, and ADT Table*. This table provides segment capacities for different street classifications, based on traffic volumes and roadway characteristics. The roadway classification table is attached in ***Appendix B***.

5.0 SIGNIFICANCE CRITERIA

The City of Oceanside uses the published SANTEC/ITE guidelines for the determination of the significance of impacts. A project is considered to have a significant impact if the new project traffic has decreased the operations of surrounding roadways by a defined threshold. The defined thresholds are shown in ***Table 5–1*** below for roadway segments and intersections.

If a project exceeds the thresholds in *Table 5–1*, then the project may be considered to have a significant project impact. A feasible mitigation measure will need to be identified to return the impact within the thresholds (pre-project + allowable increase) or the impact will be considered significant and unmitigated.

Two types of traffic-related impacts were identified: *direct* traffic impacts and *cumulative* traffic impacts. *Direct* impacts were calculated in the where Project-added traffic resulted in a degradation in Level of Service (LOS) from acceptable LOS D or better operations to below LOS D conditions. *Cumulative* impacts were calculated where Project-added traffic resulted in significant increases in intersection delay or street segment volume-to-capacity ratios over the allowable thresholds shown in *Table 5–1,* for locations with pre-existing LOS deficiencies (LOS E or F).

TABLE 5–1
CITY OF OCEANSIDE
TRAFFIC IMPACT SIGNIFICANT THRESHOLDS

Level of Service with Project [a]	**Allowable Increase Due to Project Impacts [b]**	
	Roadway Segments	**Intersections**
	V/C	**Delay (sec.)**
E & F	0.02	2.0

Source: SANTEC/ITE *Guidelines for Traffic Impact Studies in the San Diego Region*, March 2, 2000.

Footnotes:

a. All level of service measurements are based upon HCM procedures for peak-hour conditions. However, V/C ratios for Roadway Segments may be estimated on an ADT/24-hour traffic volume basis (using Table 2 or a similar LOS chart for each jurisdiction). The acceptable LOS for roadways and intersections is generally "D" ("C" for undeveloped or not densely developed locations per jurisdiction definitions).

b. If a proposed project's traffic causes the values shown in the table to be exceeded, the impacts are deemed to be significant. These impact changes may be measured from appropriate computer programs or expanded manual spreadsheets. The project applicant shall then identify feasible mitigations (within the Traffic Impact Study [TIS] report) that will maintain the traffic facility at an acceptable LOS. If the LOS with the proposed project becomes unacceptable (see note a above) the project applicant shall be responsible for mitigating significant impact changes.

General Notes:

1. V/C = Volume to Capacity Ratio
2. Delay = Average stopped delay per vehicle measured in seconds for intersections.
3. LOS = Level of Service

6.0 ANALYSIS OF EXISTING CONDITIONS

The following section presents the analysis of Existing operations under Weekday and Weekend conditions.

6.1 Weekday

6.1.1 *Peak Hour Intersection Operations*

Table 6–1 summarizes the Weekday Existing intersections operations. As seen in *Table 6–1*, all intersections are calculated to currently operate at LOS D or better except for the following:

- Intersection #5. SR 76 / Benet Road – LOS E during the AM peak hour
- Intersection #9. SR 76 / Rancho del Oro Boulevard – LOS E during the AM / PM peak hours

Appendix C contains the Weekday Existing intersection analysis worksheets.

6.1.2 *Daily Street Segment Operations*

Table 6–2 summarizes the Weekday Existing roadway segment operations. As seen in *Table 6–2*, all study area segments are calculated to currently operate at LOS D or better.

6.2 Weekend

6.2.1 *Peak Hour Intersection Operations*

Table 6–3 summarizes the Weekend Existing intersections operations. As seen in *Table 6–3*, all intersections are calculated to currently operate at LOS D or better.

Appendix D contains the Weekend Existing intersection analysis worksheets.

6.2.2 *Daily Street Segment Operations*

Table 6–4 summarizes the Weekend Existing roadway segment operations. As seen in *Table 6–4*, all study area segments are calculated to currently operate at LOS C or better

TABLE 6–1
WEEKDAY EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay [a]	LOS [b]
1. I-5 Southbound Ramps / SR 76	Signal	AM	14.8	B
		PM	18.4	B
2. I-5 Northbound Ramps / SR 76	Signal	AM	14.3	B
		PM	16.9	B
3. SR 76 / Loretta Street	Signal	AM	22.8	C
		PM	8.9	A
4. SR 76 / Canyon Drive	Signal	AM	13.6	B
		PM	21.0	C
5. SR 76 / Benet Road	Signal	AM	**55.7**	**E**
		PM	27.2	C
6. SR 76 / Airport Road	Signal	AM	7.9	A
		PM	19.2	B
7. SR 76 / Foussat Road	Signal	AM	26.4	C
		PM	18.6	B
8. SR 76 / Douglas Drive	Signal	AM	23.6	C
		PM	27.5	C
9. SR 76 / Rancho del Oro Drive	Signal	AM	**77.2**	**E**
		PM	**59.6**	**E**
10. Mission Avenue / Canyon Drive	Signal	AM	44.0	D
		PM	43.3	D
11. Mission Avenue / Mesa Drive	Signal	AM	11.0	B
		PM	9.2	A
12. Mission Avenue / Airport Road	Signal	AM	13.0	B
		PM	13.4	B
13. Mission Avenue / Roymar Road	Signal	AM	14.0	B
		PM	16.5	B
14. Mission Avenue / Foussat Road	Signal	AM	20.0	B
		PM	19.6	B
15. Mission Avenue / Copperwood Way	Signal	AM	8.8	A
		PM	22.7	C

(Continued on Next Page)

TABLE 6–1
WEEKDAY EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay [a]	LOS [b]
(Continued from Previous Page)				
16. Mission Avenue / Frontier Drive	Signal	AM PM	5.2 7.3	A A
17. Mission Avenue / Ocean Puente	Signal	AM PM	1.4 0.5	A A
18. Mission Avenue / Fireside Street	Signal	AM PM	9.3 15.6	A B
19. Mission Avenue / El Camino Real	Signal	AM PM	28.5 38.2	C D
20. Mission Avenue / Douglas Drive	Signal	AM PM	16.7 17.0	B B
21. Mission Avenue / Rancho del Oro Drive	Signal	AM PM	36.3 35.4	D D
22. El Camino Real / Los Arbolitos Boulevard	Signal	AM PM	24.3 16.4	C B
23. Pala Road / Los Arbolitos Boulevard	MSSC[c]	AM PM	12.3 9.8	B A
24. Foussat Road / Foussat Road (North)	MSSC	AM PM	11.3 0.0	B A
25. Foussat Road / Alex Road	MSSC	AM PM	10.4 9.3	B A
26. Rancho del Oro Drive / Via Rancho Road	Signal	AM PM	28.4 8.5	C A
27. Rancho del Oro Drive / Mesa Drive	Signal	AM PM	35.7 26.2	D C
28. Mesa Drive / El Camino Real	Signal	AM PM	42.3 34.9	D C
29. Mesa Drive / Foussat Road	AWSC[d]	AM PM	14.3 12.2	B B
(Continued on Next Page)				

TABLE 6–1
WEEKDAY EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay [a]	LOS [b]
(Continued from Previous Page)				
30. Mesa Drive / Barnwell Street	AWSC	AM	9.2	A
		PM	9.2	A

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. MSSC = Minor Street Stop-Controlled intersection. Minor street left-turn delay reported.
d. AWCS = All Way Stop-Controlled intersection. Average delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 6–2
WEEKDAY EXISTING DAILY STREET SEGMENT OPERATIONS

Street Segment	Currently Built As	Capacity (LOS E) [a]	ADT [b]	LOS [c]	V/C [d]
SR 76					
1. I-5 Ramps to Loretta Street	5-Ln Expressway	70,000	52,020	C	0.743
2. Loretta Street to Canyon Drive	4-Ln Expressway	60,000	45,900	C	0.765
3. Canyon Drive to Benet Road	4-Ln Expressway	60,000	47,430	C	0.791
4. Benet Road to Airport Road	4-Ln Expressway	60,000	43,860	C	0.731
5. Airport Road to Foussat Road	4-Ln Expressway	60,000	48,450	C	0.808
6. Foussat Road to Douglas Drive	4-Ln Expressway	60,000	48,450	C	0.808
7. Douglas Drive to Rancho del Oro Drive	4-Ln Expressway	60,000	47,430	C	0.791
8. Rancho del Oro Drive to Old Grove Road	4-Ln Expressway	60,000	37,230	C	0.621
Canyon Drive					
9. SR 76 to Mission Avenue	4-Ln Secondary Collector	25,000	4,240	A	0.170
Mission Avenue					
10. Canyon Drive to Mesa Drive	4-Ln Major Arterial	40,000	23,250	C	0.581
11. Mesa Drive to Airport Road	4-Ln Major Arterial	40,000	23,250	C	0.581
12. Airport Road to Roymar Road	4-Ln Major Arterial	40,000	21,750	C	0.544
13. Roymar Road to Foussat Road	4-Ln Major Arterial	40,000	22,850	C	0.571
14. Foussat Road to Copperwood Way	4-Ln Major Arterial	40,000	22,840	C	0.571
15. Copperwood Way to Frontier Drive	4-Ln Major Arterial	40,000	22,840	C	0.571
16. Frontier Drive to Ocean Puente	4-Ln Major Arterial	40,000	23,690	C	0.592
17. Ocean Puente to Fireside Street	4-Ln Major Arterial	40,000	23,690	C	0.592
18. Fireside Street to El Camino Real	4-Ln Major Arterial	40,000	23,050	C	0.576
19. El Camino Real to Douglas Drive	4-Ln Major Arterial	40,000	17,820	B	0.446
20. Douglas Drive to Rancho del Oro Drive	4-Ln Major Arterial	40,000	20,090	B	0.502
Foussat Road					
21. Alex Road to SR 76	2-Ln Collector	10,000	6,490	C	0.649
22. SR 76 to Mission Avenue	4-Ln Secondary Collector	25,000	5,280	A	0.211
23. Mission Avenue to Tonopah Street	2-Ln Collector	10,000	5,580	C	0.558
24. Tonopah Street to Mesa Drive	2-Ln Collector	10,000	6,810	C	0.681
El Camino Real					
25. Los Arbolitos Blvd to Mission Avenue	4-Ln Major Arterial	40,000	25,070	C	0.627
26. Mission Avenue to Vista Oceana	4-Ln Major Arterial	40,000	24,970	C	0.624
27. Vista Oceana to Mesa Drive	4-Ln Major Arterial	40,000	25,430	C	0.636

(Continued on Next Page)

TABLE 6–2
WEEKDAY EXISTING DAILY STREET SEGMENT OPERATIONS

Street Segment	Currently Built As	Capacity (LOS E) [a]	ADT [b]	LOS [c]	V/C [d]
(Continued from Previous Page)					
Rancho del Oro Drive					
28. Mission Avenue to SR 76	4-Ln Major Arterial	40,000	9,850	A	0.246
29. SR 76 to Via Rancho Road	4-Ln Major Arterial	40,000	18,520	B	0.463
30. Via Rancho Road to Mesa Drive	4-Ln Major Arterial	40,000	18,010	B	0.450
Mesa Drive					
31. Mission Avenue to Barnwell Street	2-Ln Collector	10,000	5,710	C	0.571
32. Barnwell Street to Foussat Road	2-Ln Collector	10,000	5,060	B	0.506
33. Foussat Road to El Camino Real	2-Ln Collector w/ TWLTL[e]	15,000	5,770	B	0.385
34. El Camino Real to Rancho del Oro Drive	4-Ln Secondary Collector	30,000	17,120	C	0.571
Douglas Drive					
35. Mission Avenue to SR 76	4-Ln Major Arterial	40,000	20,140	B	0.504
Los Arbolitos Boulevard					
36. Pala Road to El Camino Real	2-Ln Collector w/ TWLTL	15,000	6,240	B	0.416
Alex Road					
37. Eddy Jones Way to Foussat Road	2-Ln Collector	10,000	1,500	A	0.150
Benet Road					
38. SR 76 to Eddy Jones Way	2-Ln Collector	10,000	4,890	B	0.489
Airport Road					
39. SR 76 to Mission Avenue	2-Ln Collector	10,000	3,060	A	0.306

Footnotes:

a. Capacities based on City of Oceanside Roadway Classification Table, September 2012.
b. Average Daily Traffic Volumes.
c. Level of Service.
d. Volume to Capacity.
e. TWLTL = Two-Way Left-Turn Lane

TABLE 6–3
WEEKEND EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay [a]	LOS [b]
SR 76 / Benet Road	Signal	MID	30.8	C
SR 76 / Rancho del Oro Drive	Signal	MID	43.5	D
Mission Avenue / Mesa Drive	Signal	MID	8.9	A
Mission Avenue / Ocean Puente	Signal	MID	0.4	A
Pala Road / Los Arbolitos Boulevard	MSSC[c]	MID	9.9	A
Foussat Road / Foussat Road (North)	MSSC	MID	0.0	A
Foussat Road / Alex Road	MSSC	MID	9.6	A
Mesa Drive / El Camino Real	Signal	MID	23.7	C
Mesa Drive / Foussat Road	AWSC[d]	MID	9.5	A

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. MSSC = Minor Street Stop-Controlled intersection. Minor street left-turn delay reported.
d. AWCS = All Way Stop-Controlled intersection. Average delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 6–4
WEEKEND EXISTING DAILY STREET SEGMENT OPERATIONS

Street Segment	Currently Built As	Capacity (LOS E) [a]	ADT [b]	LOS [c]	V/C [d]
Mission Avenue					
Douglas Drive to Rancho del Oro Drive	4-Ln Major Arterial	40,000	17,540	B	0.439
Foussat Road					
Alex Road to SR 76	2-Ln Collector	10,000	5,740	C	0.574
Mission Avenue to Tonopah Street	2-Ln Collector	10,000	5,320	B	0.532
Tonopah Street to Mesa Drive	2-Ln Collector	10,000	5,700	C	0.570
El Camino Real					
Los Arbolitos Blvd to Mission Avenue	4-Ln Major Arterial	40,000	29,180	C	0.730
Mission Avenue to Vista Oceana	4-Ln Major Arterial	40,000	23,680	C	0.592
Vista Oceana to Mesa Drive	4-Ln Major Arterial	40,000	24,150	C	0.604
Mesa Drive					
Foussat Road to El Camino Real	2-Ln Collector w/ TWLTL[e]	15,000	4,340	A	0.289
Los Arbolitos Boulevard					
Pala Road to El Camino Real	2-Ln Collector w/ TWLTL	15,000	6,030	B	0.402
Alex Road					
Eddy Jones Way to Foussat Road	2-Ln Collector	10,000	450	A	0.045

Footnotes:

a. Capacities based on City of Oceanside Roadway Classification Table, September 2012.
b. Average Daily Traffic Volumes.
c. Level of Service.
d. Volume to Capacity.
e. TWLTL = Two-Way Left-Turn Lane

7.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

The following is a discussion of the Project site's trip generation calculations, both for the previously approved Pavilion at Oceanside project and the currently proposed Ocean Kamp project, as well as the Project's traffic distribution and assignment through the street system.

7.1 Previously Approved Trip Generation

As previously discussed in *Section 2.2* of this study, an EIR addressing development of the Project site was certified by the City of Oceanside in 2008. The Pavilion at Oceanside project described in the EIR consisted of a 950,000-square foot (SF) shopping center with a variety of retail uses. ***Table 7–1*** shows the Pavilion at Oceanside traffic generation calculations. As shown, the previously approved project was calculated to generate 32,175 ADT, with 1,254 AM peak hour trips (862 inbound / 376 outbound) and 2,872 PM peak hour trips (1,485 inbound / 1,388 outbound).

7.2 Proposed Project Trip Generation

The Project proposes to construct a 300-key resort hotel, approximately 126,000 SF of retail / commercial uses, 700 residential dwelling units, and a wave lagoon.

7.2.1 *Weekday*

The Weekday trip generation for the proposed Project was calculated using the SANDAG *(Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002.

The following trip rates were used to calculate the Project's trip generation:

Hotel: SANDAG's "Hotel (w/convention facilities / restaurant)" rate was used. The independent variable is occupied rooms. In order to provide a conservative analysis, it was assumed that all 300 of the proposed hotel rooms would be occupied. The trip rate is 10 trips per occupied room.

Multi-Family Residential: SANDAG's "Condominium (or any multi-family 6-20 DU / acre)" rate was used. The independent variable is dwelling units. The trip rate is 8 trips per dwelling unit.

Retail / Commercial Center: SANDAG's "Community Shopping Center" rate was used. The independent variable is square feet. The trip rate is 80 trips per 1,000 square feet. Pass-by credits for this land use were applied as follows:

- Commercial Use Pass-By & Primary Trips

  Development of new land uses will create trips on a street system that are new, or "primary" trips. However, several types of retail/commercial developments experience local and regional trips at the driveways that are already on the street system, whether that development exists or not. These trips are known as "pass-by" trips.

  - *Pass-by* trips are trips that are already on the street system passing along the Project frontage (SR 76 and Mission Avenue), and only appear as new trips in and out of the Project driveways. SANDAG indicates a 30% pass-by rate for the PM peak hour and 22% for daily trips. An AM peak hour pass-by rate is not provided.

Based on consultation with City staff, a pass-by rate of 30% was used for the PM peak hour, and 0% for the daily and AM peak hour trips. It should be noted that pass-by trips were only assumed for the Project's commercial uses.

- *Primary Trips*: The remaining retail / commercial related trips (70% PM peak, 100% daily and AM peak) are those that are new to the street system, also called "primary" trips. These trips occur due to the development of the Project and the Project itself becomes one end of a primary trip, either the origin or the destination.

Wave Lagoon: No published rates for "wave lagoons" were found. Therefore, for the purposes of this traffic study, a rate was estimated based on expected use. The Wave Lagoon will have a maximum capacity of 12 people per hour, and will operate ten-hours per day for a total of 120 visitors per day. Spectators and employees of the Wave Lagoon were also accounted for. Ultimately, a rate of 360 trips per Weekday was calculated. Additional information regarding calculation of the Wave Lagoon's trip generation is provided in ***Appendix E***.

Is should be noted that the Project's trip generation does not account for any mixed-use credits. Per the SANDAG guide, up to a 10% mixed-use reduction can be applied to projects "where residential and commercial retail are combined (demonstrate mode split of walking trips to replace vehicular trips)." Given the potential synergy between the Project's proposed land uses, application of a mixed-use credit is likely applicable. However, to provide a conservative assessment of the Project's impacts, no mixed-use credits were applied.

Table 7–2 shows the Weekday Project traffic generation. As shown, the Project is calculated to generate 19,040 ADT with 1,057 AM peak hour trips (453 inbound / 604 outbound) and 1,834 total PM peak hour trips (1,053 inbound / 78 1 outbound) at the Project driveways. It's worth noting that the proposed Project is calculated to generate 13,135 fewer ADT (approximately 41%) than the site's previously approved Pavilion project (32,175 ADT).

7.2.2 *Weekend*

Since SANDAG does not provide weekend trip rates, the Project's Weekend trip generation was calculated based on the *Institute of Transportation Engineers, Trip Generation Manual, 10th Edition*, September 2017.

The following trip rates were used to calculate the Project's trip generation:

Hotel: ITE's "Hotel (310)" rate was used. The independent variable is rooms. The Saturday trip rate is 8.19 trips per room.

Multi-Family Residential: ITE's "Multifamily Housing (Low-Rise) (220)" rate was used. The independent variable is dwelling units. The Saturday trip rate is 8.14 trips per dwelling unit.

Retail / Commercial Center: ITE's "Shopping Center (820)" rate was used. The independent variable is square feet. The Saturday trip rate is 46.12 trips per 1,000 square feet. Pass-by credits for

this land use were not applied under Weekend conditions. It should be noted that the ITE Saturday rate is nearly half the SANDAG weekday rate for commercial land uses.

Wave Lagoon: No published rates for "wave lagoons" were found. Therefore, for the purposes of this traffic study, a rate was estimated based on expected use. The Wave Lagoon will have a maximum capacity of 12 people per hour, and will operate ten-hours per day for a total of 120 visitors per day. Spectators and employees of the Wave Lagoon were also accounted for. Ultimately, a rate of 460 trips per Weekend day was calculated. Additional information regarding calculation of the Wave Lagoon's trip generation is provided in *Appendix E*.

Similar to the Project's Weekday trip generation calculations, the Project's Weekend trip generation does not take any mixed-use credits to account for the potential synergy between the Project's proposed land uses in order to provide a conservative analysis.

Table 7–3 shows the Weekend Project traffic generation. As shown, the Project is calculated to generate 14,426 ADT with 1,319 peak hour trips (684 inbound / 635 outbound).

TABLE 7–1
PREVIOUSLY APPROVED PROJECT SITE TRIP GENERATION

Land Use	Daily Trip Ends (ADTs)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Oceanside Pavilion	32,175	862	376	1,254	1,485	1,388	2,872

General Notes:

1. Source: *Oceanside Pavilion Traffic Impact Analysis Report*, March 2008, prepared by RBF Consulting
2. ADT = Average daily traffic

TABLE 7–2
WEEKDAY PROJECT TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour					PM Peak Hour				
		Rate [a]	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
Hotel (w/ convention facilities / restaurant)	300 Rooms	10 / Room	3,000	6%	60:40	108	72	180	8%	60:40	144	96	240
Multi-Family Residential	700 Units	8 / DU	5,600	8%	20:80	90	358	448	10%	70:30	392	168	560
Retail / Commercial Center	126 KSF	80 / KSF	10,080	4%	60:40	242	161	403	10%	50:50	504	504	1,008
Pass-by Credit (30% PM peak)	-	-	-	-		-	-	-			*-151*	*-151*	*-302*
Surf Lagoon / Resort Pass Guests [b]	1 Site	-	360	-	-	13	13	26	-		13	13	26
Proposed Project Weekday Total			**19,040**			**453**	**604**	**1,057**			**902**	**630**	**1,532**
Proposed Project Weekday Total (Driveway Trips)[c]			**19,040**			**453**	**604**	**1,057**			**1,053**	**781**	**1,834**

Footnotes:

a. Rates based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 except where noted.

b. 120 Surf Lagoon guests and 50 Report Pass guests expected daily. See *Appendix E* for Trip Generation Calculations.

c. Driveway trip calculations do not include pass-by credits.

General Notes:

1. ADT = Average daily traffic

TABLE 7–3
WEEKEND PROJECT TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADTs)		Peak Hour				
		Rate [a]	Volume	% of ADT	In:Out Split	Volume		
						In	Out	Total
Hotel (w/ convention facilities / restaurant)	300 Rooms	8.19 / Room	2,457	0.72	56:44	121	95	216
Multi-Family Residential	700 Units	8.14 / DU	5,698	0.70	50:50	245	245	490
Retail / Commercial Center	126 KSF	46.12 / KSF	5,811	4.50	52:48	295	272	567
Surf Lagoon / Resort Pass Guests [b]	1 Site	-	460	-	-	23	23	46
Proposed Project Weekend Total			**14,426**			**684**	**635**	**1,319**

Footnotes:

a. Rates based on the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition, September 2017 except where noted.

b. 120 Surf Lagoon guests and 100 Report Pass guests expected daily. See *Appendix E* for Trip Generation Calculations.

General Notes:

1. ADT = Average daily traffic

7.3 Trip Distribution/Assignment

The distribution of Project traffic was determined based on information in the previously approved TIA for the Pavilion at Oceanside project as well as the locations of the proposed access points, traffic patterns observed from the existing traffic counts, and the proximity of the project to surrounding freeways, attractions, and residential and commercial areas. The trip distribution was developed in consultation with City staff.

Figures 7–1a and ***7-1b*** show the distribution of Project trips to the study street segments and intersections, respectively.

Once the traffic distribution was established, the Project-generated traffic was assigned to the adjacent street system. It should be noted that the Project's Weekday and Weekend distribution was assumed to be the same.

Figures 7–2a and ***7-2b*** depict the Weekday Project daily traffic volumes and AM / PM peak hour traffic volumes, respectively.

Figure 7–3 depicts the Weekend Project daily traffic and peak hour traffic volumes.

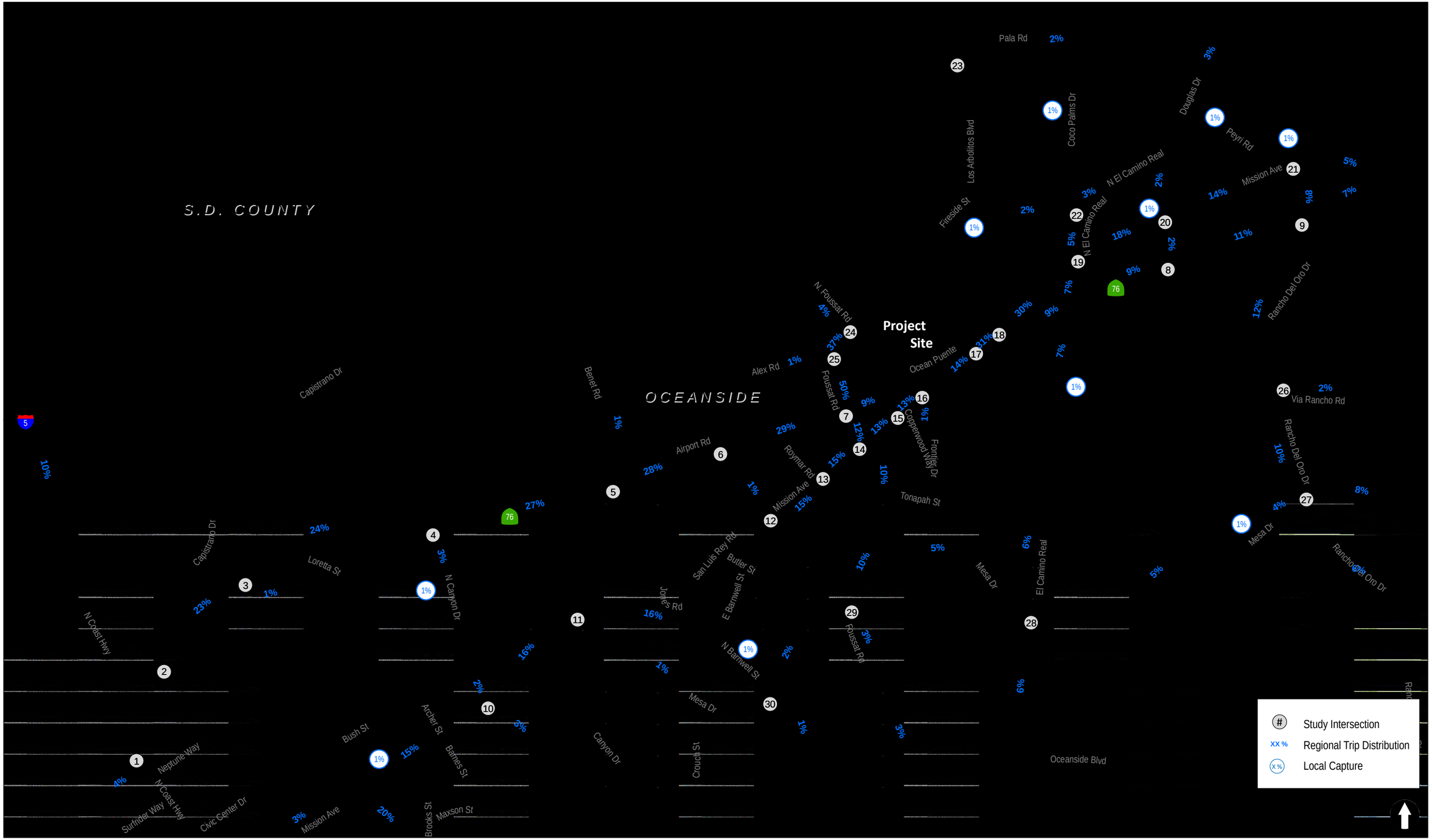

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Figure 7-1
Project Traffic Distribution
(Page 1 of 2)
OCEAN KAMP

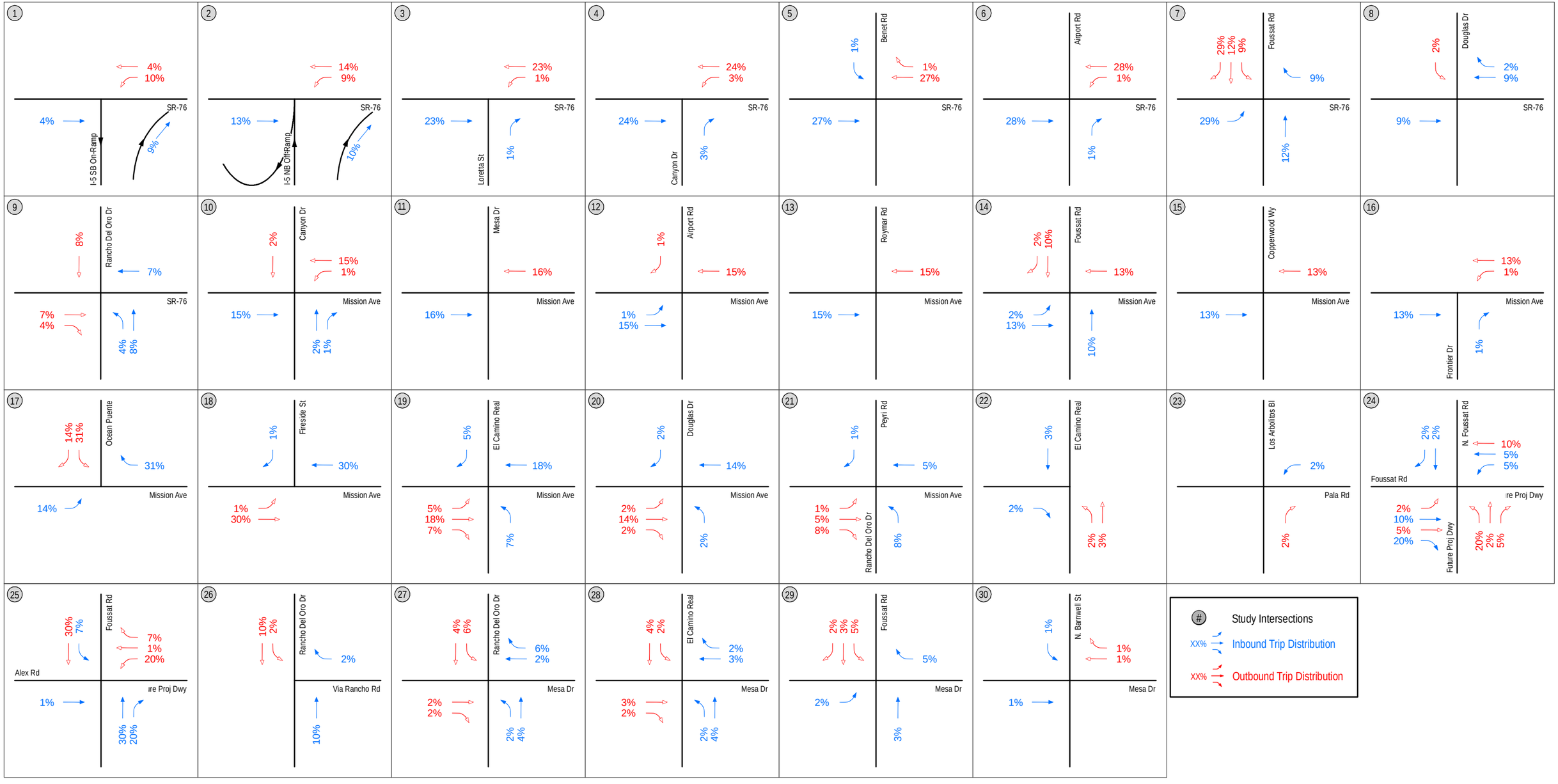

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Figure 7-1

Project Traffic Distribution

(Page 2 of 2)

OCEAN KAMP

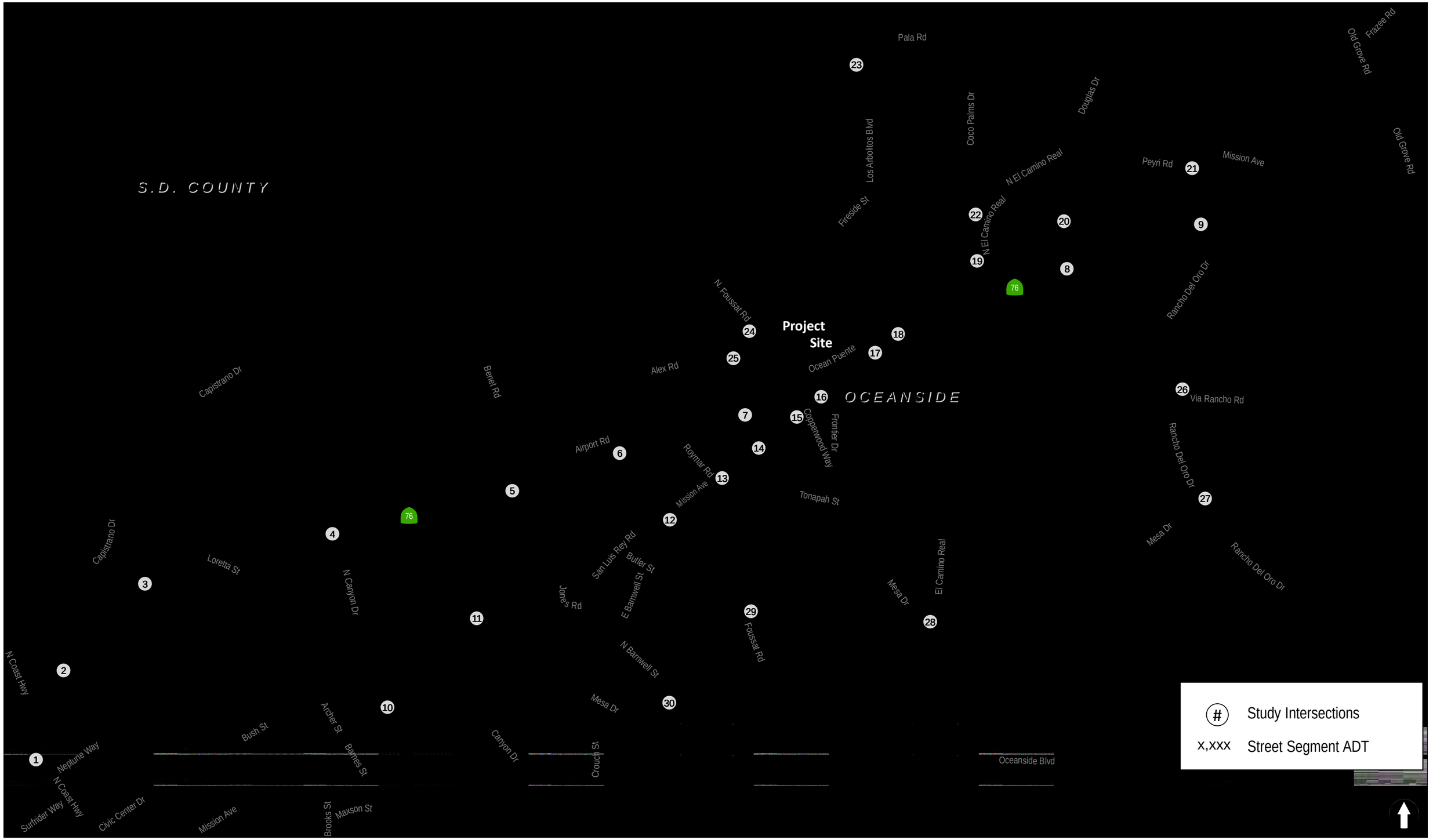

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Figure 7-2a

Weekday Project Traffic Volumes

(Page 1 of 2)

Ocean Kamp

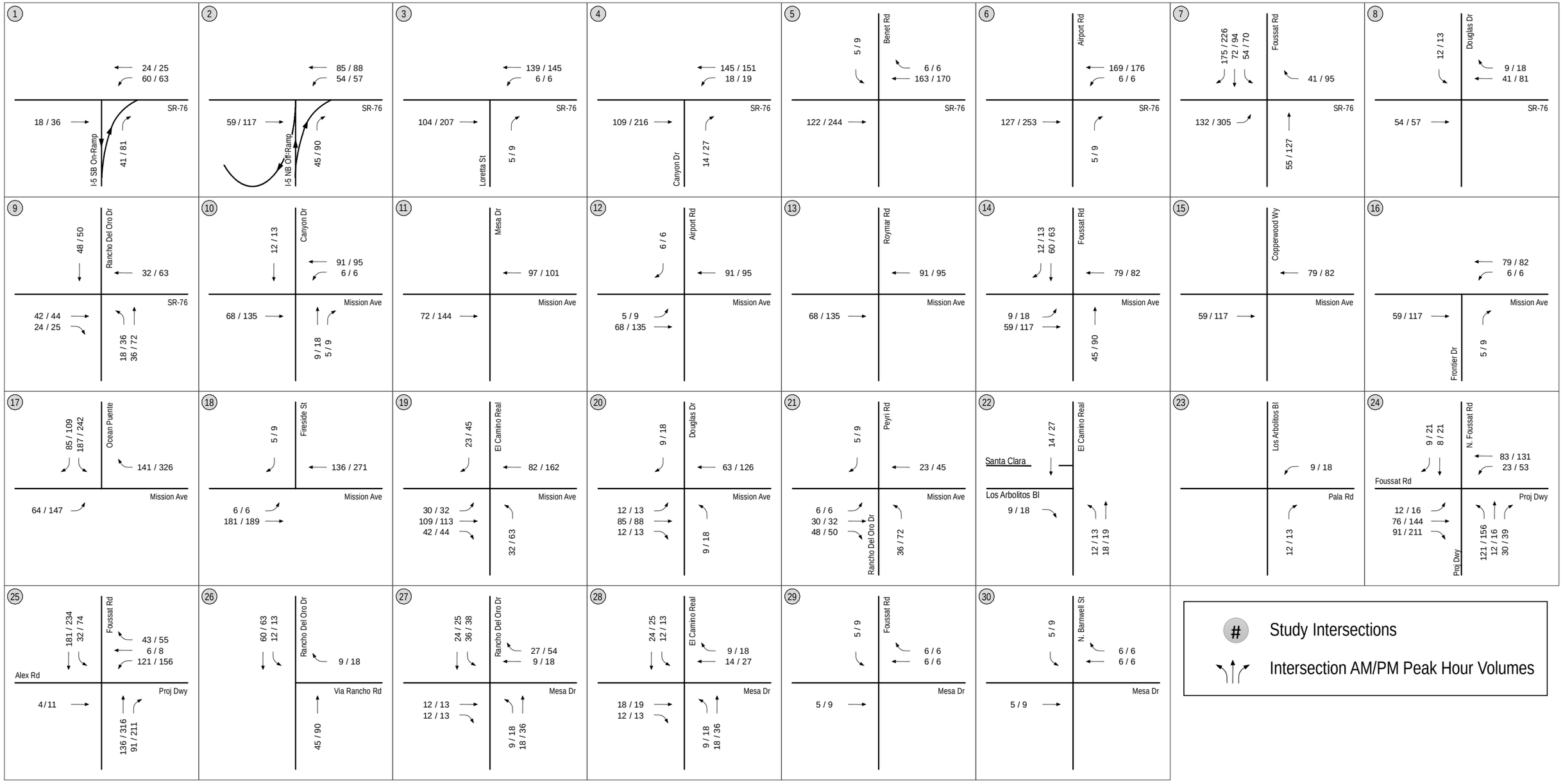

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Figure 7-2b

Weekday Project Traffic Volumes

(Page 2 of 2)

Ocean Kamp

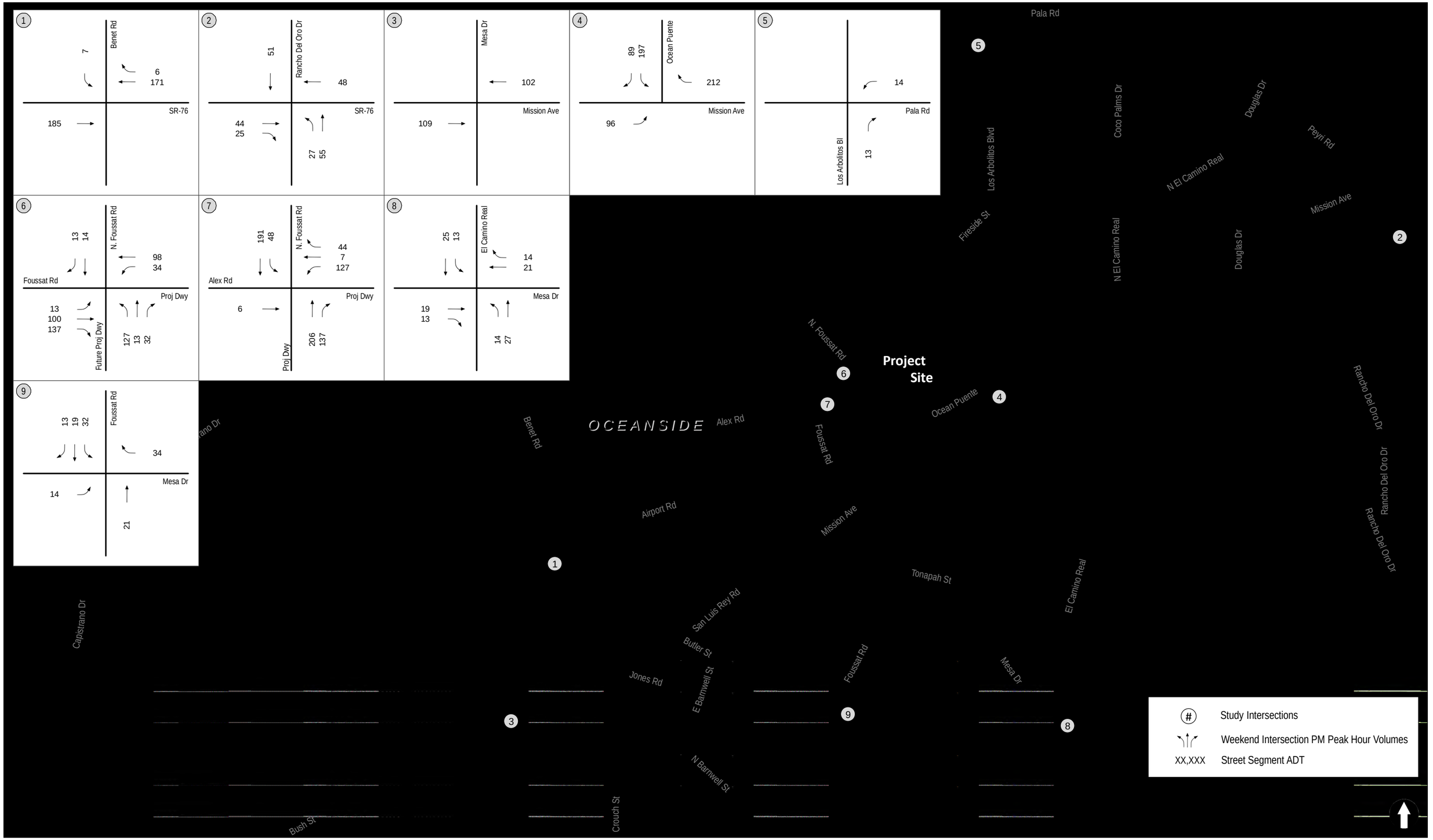

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Figure 7-3

Weekend Project Traffic Volumes

Saturday

OCEAN KAMP

8.0 ANALYSIS OF WEEKDAY EXISTING + PROJECT SCENARIOS

The following section presents the analysis of Weekday Existing study area locations with the addition of Project traffic. ***Figures 8–1a*** and ***8-1b*** depict the Weekday Existing + Project daily traffic volumes and AM / PM peak hour traffic volumes, respectively.

8.1 Existing + Project

8.1.1 *Peak Hour Intersection Operations*

Table 8–1 summarizes the Weekday Existing intersection operations. As seen in *Table 8–1*, with the addition of Project traffic, all intersections are calculated to continue to operate at LOS D or better except for the following:

- **Intersection #5. SR 76 / Benet Road – LOS E during the AM peak hour**
- **Intersection #9. SR 76 / Rancho del Oro Boulevard – LOS F during the AM and LOS F during the PM peak hours**
- **Intersection #24. Foussat Road / Foussat Road (North) – LOS F during the AM and PM peak hours**
- **Intersection #25. Foussat Road / Alex Road – LOS F during the AM and PM peak hours**

Based on City of Oceanside significance criteria, **four (4) significant impacts** were calculated with the addition of Project traffic at the intersections **bolded** and underlined above.

Appendix F contains the Weekday Existing + Project intersection analysis worksheets.

8.1.2 *Daily Street Segment Operations*

Table 8–2 summarizes the Weekday Existing roadway segment operations. As seen in *Table 8–2*, with the addition of Project traffic, the study area segments are calculated to continue to operate at LOS D or better except for the following:

- **Segment #21. Foussat Road: N. Alex Road to SR 76 – LOS F**

Based on City of Oceanside significance criteria, **one (1) significant impact** was calculated with the addition of Project traffic on the street segment **bolded** and underlined above

TABLE 8–1
WEEKDAY EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Delay Δ [c]	Sig?
			Delay [a]	LOS [b]	Delay	LOS		
1. I-5 Southbound Ramps / SR 76	Signal	AM PM	14.8 18.4	B B	15.4 23.9	B C	0.6 5.5	No
2. I-5 Northbound Ramps / SR 76	Signal	AM PM	14.3 16.9	B B	15.6 19.6	B B	1.3 2.7	No
3. SR 76 / Loretta Street	Signal	AM PM	22.8 8.9	C A	23.2 10.6	C B	0.4 1.7	No
4. SR 76 / Canyon Drive	Signal	AM PM	13.6 21.0	B C	15.7 38.7	B D	2.1 17.7	No
5. SR 76 / Benet Road	Signal	AM PM	**55.7** 27.2	**E** C	**78.5** 29.5	**E** C	**22.8** 2.3	**Cumulative**
6. SR 76 / Airport Road	Signal	AM PM	7.9 19.2	A B	8.6 49.0	A D	0.7 29.8	No
7. SR 76 / Foussat Road	Signal	AM PM	26.4 18.6	C B	41.3 50.2	D D	14.9 31.6	No
8. SR 76 / Douglas Drive	Signal	AM PM	23.6 27.5	C C	23.7 27.6	C C	0.1 0.1	No
9. SR 76 / Rancho del Oro Drive	Signal	AM PM	**77.2** **59.6**	**E** **E**	**81.6** **65.2**	**F** **E**	**4.4** **5.6**	**Cumulative**
10. Mission Avenue / Canyon Drive	Signal	AM PM	44.0 43.3	D D	46.9 44.8	D D	2.9 1.5	No
11. Mission Avenue / Mesa Drive	Signal	AM PM	11.0 9.2	B A	11.1 9.3	B A	0.1 0.1	No
12. Mission Avenue / Airport Road	Signal	AM PM	13.0 13.4	B B	13.5 14.2	B B	0.5 0.8	No
13. Mission Avenue / Roymar Road	Signal	AM PM	14.0 16.5	B B	14.1 17.0	B B	0.1 0.5	No
14. Mission Avenue / Foussat Road	Signal	AM PM	20.0 19.6	B B	22.2 22.4	C C	2.2 2.8	No
15. Mission Ave / Copperwood Way	Signal	AM PM	8.8 22.7	A C	8.9 23.1	A C	0.1 0.4	No
16. Mission Avenue / Frontier Drive	Signal	AM PM	5.2 7.3	A A	5.3 7.8	A A	0.1 0.5	No

Continued on Next Page

TABLE 8–1
WEEKDAY EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Delay Δ [c]	Sig?
			Delay [a]	LOS [b]	Delay	LOS		
Continued from Previous Page								
17. Mission Avenue / Ocean Puente	Signal	AM PM	1.4 0.5	A A	10.3 48.0	B D	8.9 47.5	No
18. Mission Avenue / Fireside Street	Signal	AM PM	9.3 15.6	A B	10.3 15.7	B B	1.0 0.1	No
19. Mission Avenue / El Camino Real	Signal	AM PM	28.5 38.2	C D	30.9 48.4	C D	2.4 10.2	No
20. Mission Avenue / Douglas Drive	Signal	AM PM	16.7 17.0	B B	17.1 17.8	B B	0.4 0.8	No
21. Mission Ave / Rancho del Oro Dr	Signal	AM PM	36.3 35.4	D D	42.3 44.9	D D	6.0 9.5	No
22. El Camino Real / Los Arbolitos Boulevard	Signal	AM PM	24.3 16.4	C B	24.4 16.5	C B	0.1 0.1	No
23. Pala Road / Los Arbolitos Boulevard	MSSC	AM PM	12.3 9.8	B A	12.8 10.1	B B	0.5 0.3	No
24. Foussat Rd / Foussat Road (North)	MSSC	AM PM	**11.3** **0.0**	**B** **A**	**60.4** **128.1**	**F** **F**	**49.1** **128.1**	**Direct**
25. Foussat Road / Alex Road	MSSC	AM PM	**10.4** **9.3**	**B** **A**	**58.2** **72.5**	**F** **F**	**47.8** **63.2**	**Direct**
26. Rancho del Oro Drive / Via Rancho Road	Signal	AM PM	28.4 8.5	C A	33.4 9.1	C A	5.0 0.6	No
27. Rancho del Oro Drive / Mesa Drive	Signal	AM PM	35.7 26.2	D C	39.4 29.4	D C	3.7 3.2	No
28. Mesa Drive / El Camino Real	Signal	AM PM	42.3 34.9	D C	45.5 41.1	D D	3.2 6.2	No
29. Mesa Drive / Foussat Road	AWSC	AM PM	14.3 12.2	B B	14.8 12.6	B B	0.5 0.4	No
30. Mesa Drive / Barnwell Street	AWSC	AM PM	9.2 9.2	A A	9.3 9.4	A A	0.1 0.2	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes the increase in delay due to Project.
d. MSSC = Minor Street Stop-Controlled intersection. Minor street left-turn delay reported.
e. AWSC = All Way Stop-Controlled intersection. Average delay reported.

General Notes:

1. Sig = Significant impact type
2. **Bold** typeface and shading indicate a significant impact.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 8–2
WEEKDAY EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Existing Capacity (LOS E)[a]	Existing			Existing + Project			Δ [e]	Sig?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
SR 76									
1. I-5 Ramps to Loretta Street	70,000	52,020	C	0.743	56,400	D	0.806	0.063	No
2. Lorette Street to Canyon Drive	60,000	45,900	C	0.765	50,470	D	0.841	0.076	No
3. Canyon Drive to Benet Road	60,000	47,430	C	0.791	52,570	D	0.876	0.086	No
4. Benet Road to Airport Road	60,000	43,860	C	0.731	49,190	C	0.820	0.089	No
5. Airport Road to Foussat Road	60,000	48,450	C	0.808	53,970	D	0.900	0.092	No
6. Foussat Road to Douglas Drive	60,000	48,450	C	0.808	50,160	D	0.836	0.029	No
7. Douglas Drive to Rancho de Oro Drive	60,000	47,430	C	0.791	49,520	C	0.825	0.035	No
8. Rancho del Oro Drive to Old Grove Road	60,000	37,230	C	0.621	38,560	C	0.643	0.022	No
Canyon Drive									
9. SR 76 to Mission Avenue	25,000	4,240	A	0.170	4,810	A	0.192	0.023	No
Mission Avenue									
10. Canyon Drive to Mesa Drive	40,000	23,250	C	0.581	26,300	C	0.658	0.076	No
11. Mesa Drive to Airport Road	40,000	23,250	C	0.581	26,300	C	0.658	0.076	No
12. Airport Road to Roymar Road	40,000	21,750	C	0.544	24,610	C	0.615	0.072	No
13. Roymar Road to Foussat Road	40,000	22,850	C	0.571	25,710	C	0.643	0.072	No
14. Foussat Road to Copperwood Way	40,000	22,840	C	0.571	25,320	C	0.633	0.062	No
15. Coppewood Way to Frontier Drive	40,000	22,840	C	0.571	25,320	C	0.633	0.062	No
16. Frontier Drive to Ocean Puente	40,000	23,690	C	0.592	26,360	C	0.659	0.067	No
17. Ocean Puente to Fireside Street	40,000	23,690	C	0.592	29,590	C	0.740	0.148	No
18. Fireside Street to El Camino Real	40,000	23,050	C	0.576	28,760	C	0.719	0.143	No
19. El Camino Real to Douglas Drive	40,000	17,820	B	0.446	21,250	C	0.531	0.086	No
20. Douglas Drive to Rancho del Oro Drive	40,000	20,090	B	0.502	22,760	C	0.569	0.067	No
Foussat Road									
21. Alex Road to SR 76	10,000	**6,490**	**C**	**0.649**	**16,010**	**F**	**1.601**	**0.952**	**Direct**
22. SR 76 to Mission Avenue	25,000	5,280	A	0.211	7,560	A	0.302	0.091	No
23. Mission Avenue to Tonopah Street	10,000	5,580	C	0.558	7,480	C	0.748	0.190	No
24. Tonopah Street to Mesa Drive	10,000	6,810	C	0.681	8,710	D	0.871	0.190	No

(Continued on Next Page)

TABLE 8–2
WEEKDAY EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Existing Capacity (LOS E)[a]	Existing			Existing + Project			Δ [e]	Sig?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
(Continued from Previous Page)									
El Camino Real									
25. Los Arbolitos Boulevard to Mission Avenue	40,000	25,070	C	0.627	26,020	C	0.651	0.024	No
26. Mission Avenue to Vista Oceana	40,000	24,970	C	0.624	26,300	C	0.658	0.033	No
27. Vista Oceana to Mesa Drive	40,000	25,430	C	0.636	26,570	C	0.664	0.029	No
Rancho del Oro Drive									
28. Mission Avenue to SR 76	40,000	9,850	A	0.246	11,370	A	0.284	0.038	No
29. SR 76 to Via Rancho Road	40,000	18,520	B	0.463	20,800	B	0.520	0.057	No
30. Via Rancho Road to Mesa Drive	40,000	18,010	B	0.450	19,910	B	0.498	0.048	No
Mesa Drive									
31. Mission Avenue to Barnwell Street	10,000	5,710	C	0.571	5,900	C	0.590	0.019	No
32. Barnwell Street to Foussat Road	10,000	5,060	B	0.506	5,440	B	0.544	0.038	No
33. Foussat Road to El Camino Real	15,000	5,770	B	0.385	6,720	B	0.448	0.063	No
34. El Camino Real to Rancho del Oro Drive	30,000	17,120	C	0.571	18,070	C	0.602	0.032	No
Douglas Drive									
35. Mission Avenue to SR 76	40,000	20,140	B	0.504	20,520	B	0.513	0.010	No
Los Arbolitos Boulevard									
36. Pala Road to El Camino Real	15,000	6,240	B	0.416	6,620	B	0.441	0.025	No
Alex Road									
37. Eddy Jones Way to Foussat Road	10,000	1,500	A	0.150	1,690	A	0.169	0.019	No
Benet Road									
38. SR 76 to Eddy Jones Way	10,000	4,890	B	0.489	5,080	B	0.508	0.019	No
Airport Road									
39. SR 76 to Mission Avenue	10,000	3,060	A	0.306	3,250	A	0.325	0.019	No

Footnotes:

a. Capacities based on City of Oceanside Roadway Classification & LOS table (See *Appendix B*).
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity ratio.
e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.
2. **Bold** typeface and shading indicate a significant impact.

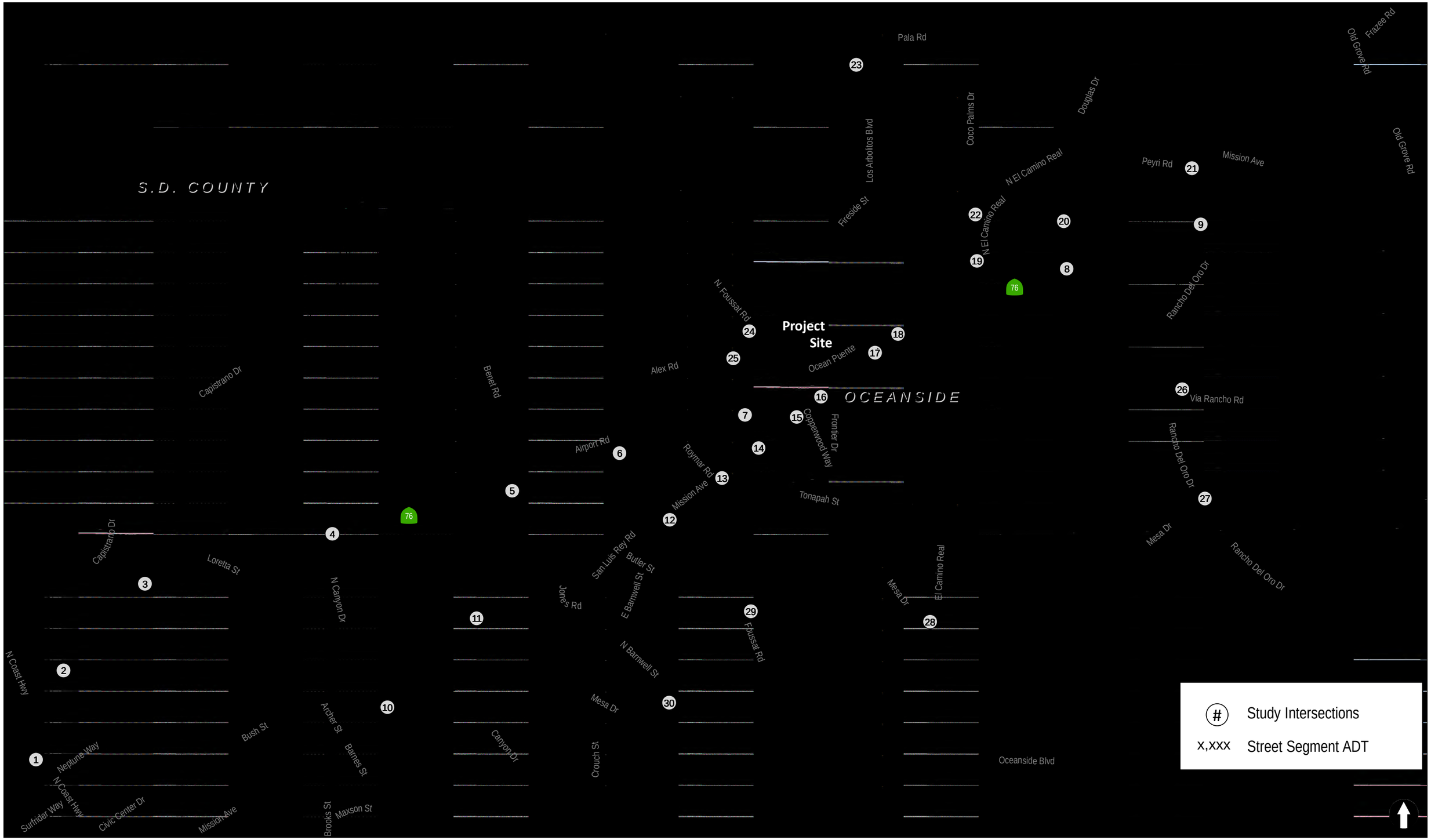

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Figure 8-1a

Weekday Existing + Project Traffic Volumes

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Ocean Kamp

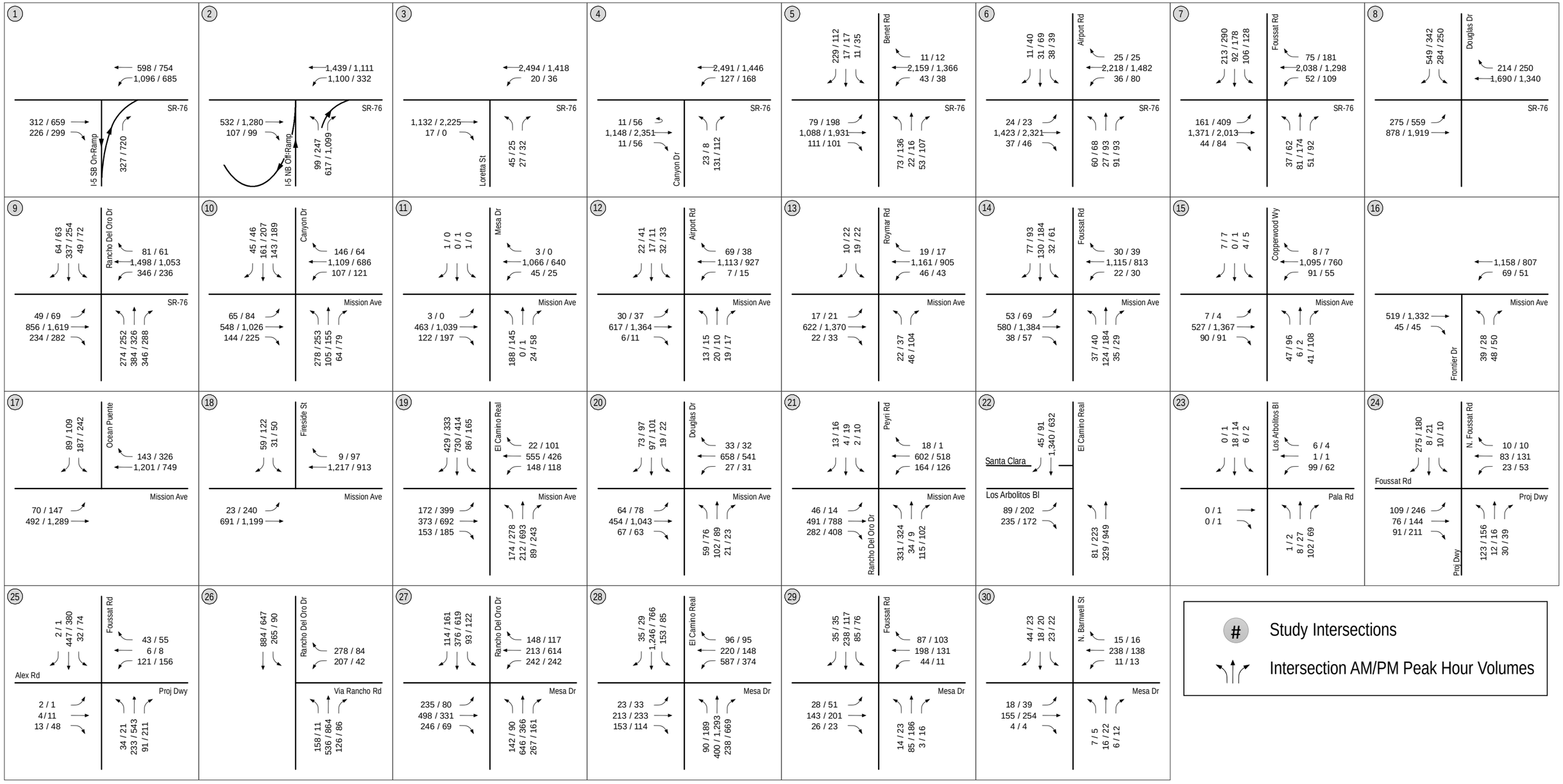

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Figure 8-1b

Weekday Existing + Project Traffic Volumes

(Page 2 of 2)

Ocean Kamp

9.0 NEAR-TERM CUMULATIVE PROJECTS CONDITIONS

Cumulative projects are other projects in the study area that will add traffic to the local circulation system in the near future. LLG consulted with City of Oceanside staff to identify relevant, pending cumulative projects in the study area that could be constructed and generating traffic in the Project vicinity. Based on research conducted and information received from City staff, 12 cumulative projects are planned for the area that would add traffic to the study area street system. Traffic generated by these projects was added to the existing traffic volumes to develop the Existing + Near-Term Cumulative Projects conditions. Project traffic was added to the near-term traffic to arrive at the Existing + Near-Term Cumulative Projects + Project conditions. The following is a brief description of each of the cumulative projects.

9.1 Description of Near-Term Cumulative Projects

1. **Villa Storia** proposes to develop an approximately 35.59-acre site with a maximum of 420 residential units. The Villa Storia project proposes a mix of housing types including single-family detached and multi-family attached homes. The project site is located on Academy Road north of SR-76. The proposed project is calculated to generate 3,284 ADT with 58 inbound and 205 outbound trips during the AM peak hour and 225 inbound and 97 outbound trips during the PM peak hour. Trips were assigned to the street system based on the approved *Villa Storia Traffic Impact Study*, prepared by Linscott, Law & Greenspan, Engineers and dated May 19, 2015.

2. **Mission Cove Mixed-Use** proposes to construct 150 apartments, 138 senior/special needs housing, 5,000 square feet (SF) of specialty retail, 2,750 SF of office, 2,750 SF of medical office, senior/special needs adult day care center for up to 60 adults, and a child day care center for up to 50 children. The project is located on the south side of Mission Avenue between Airport Road and Foussat Road in the City of Oceanside. The proposed project is calculated to generate 2,080 net ADT with 58 inbound and 102 outbound trips during the AM peak hour and 104 inbound and 75 outbound trips during the PM peak hour. Trips were assigned to the street system based on the *Mission Cove Mixed-Use Traffic Impact Study*, prepared by RBF and dated August 2011.

3. **Pacific Coast Business Park** proposes to construct 1,100,000 SF of industrial use, 518,000 SF of general office, and 80,500 SF of medical office located south of Old Grove Road and west of College Boulevard in the City of Oceanside. The proposed project is calculated to generate 21,597 ADT with 2,213 inbound and 273 outbound trips during the AM peak hour and 575 inbound and 2,080 outbound trips during the PM peak hour. Trips were assigned to the street system based on the *Pacific Coast Business Park Traffic Impact Study*, prepared by Kimley-Horn and Associates, Inc. and dated April 2009.

4. **Rancho Del Oro Village XII (Terraza at Rancho Del Oro)** proposes to develop approximately 303 residential dwelling units consisting of a variety of multi-family product types. The project is located at the northwest quadrant of the College Boulevard and Old

Grove Road intersection in the City of Oceanside. The proposed project is calculated to generate 2,424 ADT with 39 inbound and 154 outbound trips during the AM peak hour and 169 inbound and 73 outbound trips during the PM peak hour. Trips were assigned to the street system based on the *Rancho Del Oro Village XII Traffic Impact Study*, prepared by RBF and dated September 2010.

5. **Oceanpointe Development** is a multi-family development located in the City of Oceanside. The development includes a maximum of 200 dwelling units in three groups on a vacant lot of approximately 36 acres. The project is located mid-way between Stage Coach Road and San Ramon Drive, south of State Route 76. This project is calculated to generate 1,600 ADT per day with 26 inbound and 102 outbound trips during the AM peak hour and 112 inbound and 48 outbound trips during the PM peak hour. The traffic volumes for this cumulative project were obtained from the "Oceanpointe Multi-Family Development Traffic Impact Analysis", conducted by LOS Engineering in March 2005. Trips were assigned to the street system based on the *Oceanpointe Multi-Family Development Traffic Impact Study*, prepared by LOS Engineering, Inc. and dated March 2005.

6. **El Corazon** proposes to redevelop a 465-acre property near the geographic center of Oceanside. The site is bound by Mesa Drive to the north, Rancho del Oro Drive to the east, Oceanside Boulevard to the south, and El Camino Real to the west. The project is proposed to be developed in several phases. Phase I includes the construction of roads, sidewalks & infrastructure to commercial sites, a Senior Center, a Hotel, Village Commercial uses, a Green Waste Facility and Interpretive Areas & West Passive Trails. Phase II consist of the construction of sports facilities, which includes a Soccer Field & Infrastructure, a Softball Complex & Infrastructure and a Baseball Complex & Infrastructure.

   Phase III includes the construction of a Hotel, a Cultural/Community Center and Library, a Park, and Passive recreation areas. In addition, the West Passive Trails will be expanded and a Native Open Space Restoration Greenbelt Landscaping will be created. Phase IV consists of the construction of a Recreation Center and a Park/Recreation Area. Phase V consists of a 19.7 Acres expansion of the Park. Phase VI includes the construction of roads, sidewalks & infrastructure and a Park Expansion & Public Safety Center. The total net Year 2030 trip generation at buildout of El Corazon is calculated at 34,604 ADT with 704 inbound and 492 outbound trips during the AM peak hour and 1,796 inbound and 1,774 outbound trips during the PM peak hour. For the cumulative condition, it was assumed Phases 1 and 2 of the Master Plan would be completed along with the El Corazon Arena generating 15,251 ADT with 201 inbound and 168 outbound trips during the AM peak hour and 459 inbound and 409 outbound trips during the PM peak hour. Trips were assigned to the street system based on the *El Corazon Traffic Impact Study*, currently under preparation by Lisncott, Law & Greenspan, Engineers.

7. **Oceanside + Melrose** proposes to construct 313 residential dwelling units on three adjacent sites, as well as 10,000 SF of restaurant and 10,000 SF of office space. The project site is

located east and west of Melrose Drive, north of Oceanside Boulevard/Bobier Drive. The proposed project is calculated to generate 4,059 ADT with 125 inbound and 215 outbound trips during the AM peak hour and 230 inbound and 130 outbound trips during the PM peak hour. Trips were assigned to the street system based on the *Melrose+Oceanside Traffic Impact Study*, prepared by Lisncott, Law & Greenspan, Engineers, dated July 26, 2017.

8. **North River Road Residential Subdivision (Kawano-Nagata)** proposes to construct 400 residential dwelling units on two parcels for a total of 25.6 acres at a density of 15.6 units per acre. The project site is located on the south side of North River Road between Avenida Descanso and Calle Montecito. The project is calculated to generate 3,200 ADT with 51 inbound and 205 outbound trips during the AM peak hour and 224 inbound and 96 outbound trips during the PM peak hour. Trips were assigned to the street system based on the *North River Road Residential Subdivision Traffic Impact Study*, prepared by LOS Engineering, Inc. and dated October 10, 2016.

9. **North River Farms** proposes to develop 585 residential units and would also include commercial and restaurant uses, a local farm, and a hotel. The residential portion of the Project proposes a mix of housing types including single-family detached homes and multi-family attached homes. The Project area is located in the South Morro Hills neighborhood within the north-eastern portion of the City of Oceanside. The project is calculated to generate 7,611 ADT with 465 AM peak hour trips and 741 PM peak hour trips at the Project driveways. Trips were assigned to the street system based on the *North River Farms Traffic Impact Study*, prepared by Linscott, Law & Greenspan, Engineers and dated November 8, 2018.

10. **Onpoint Oceanside** proposes to develop a 12-pump gas station, a 3,000 SF food mart, car wash, retail sites totaling 7,980 SF, fast-food restaurants totaling 2,500 SF, and a 2,320 SF high turnover restaurant. The project site is located south of SR 76, north of Mission Avenue, and west of Foussat Road. The project is calculated to generate 5,068 ADT with 213 AM peak hour trips and 273 PM peak hour trips. Trips were assigned to the street system based on the *Onpoint Oceanside Traffic Impact Study*, prepared by Kimley Horn and dated May 2019.

11. **Airport Office Building** proposes to develop a 35,791 square foot office building. The project site is located on Airport Road at the southwest corner of SR 76 and Airport Road intersection in the City of Oceanside. The project is calculated to generate 716 ADT with 100 AM peak hour trips and 93 PM peak hour trips. Trips were assigned to the street system based on the *Traffic Impact Study for Airport Office Building*, prepared by Advantec Consulting Engineers and dated February 2018.

12. **Villas at Mission San Luis Rey** proposes to develop a 222-unit retirement community consisting of 92 supported independent living units, 105 assisted care units, and 25 memory care units. The project site is located on the north side of Mission Avenue between Douglas

Drive and Rancho del Oro Drive in the City of Oceanside. The project is calculated to generate 694 ADT with 32 AM peak hour trips and 49 PM peak hour trips. Trips were assigned to the street system based on a traffic study prepared by Darnell & Associates.

Figure 9–1 shows the locations of the cumulative projects. ***Figures 9–2a*** and ***92b*** depict the Cumulative Projects daily traffic volumes and AM / PM peak hour traffic volumes, respectively.

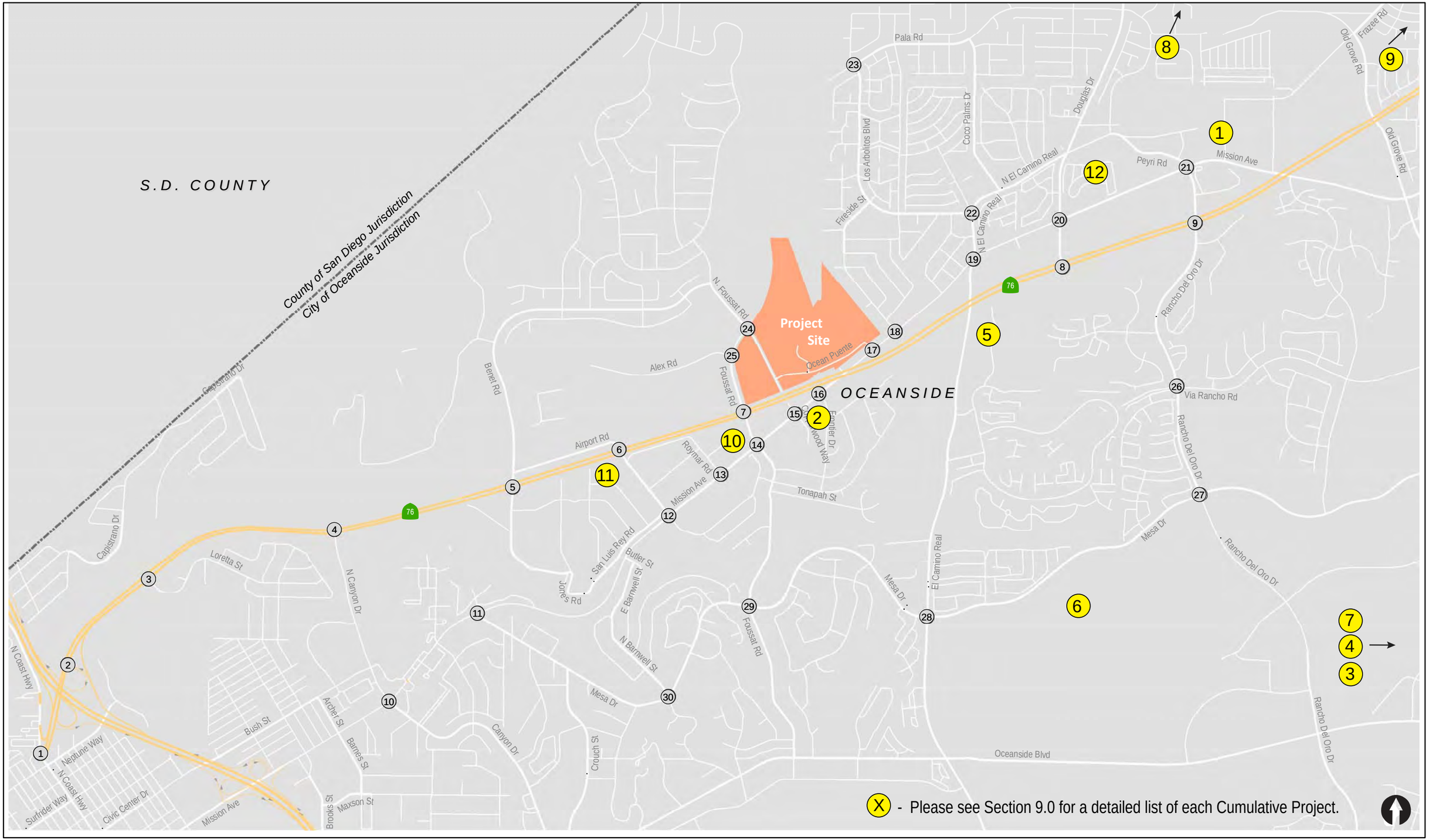

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Figure 9-1

Cumulative Projects Location Map

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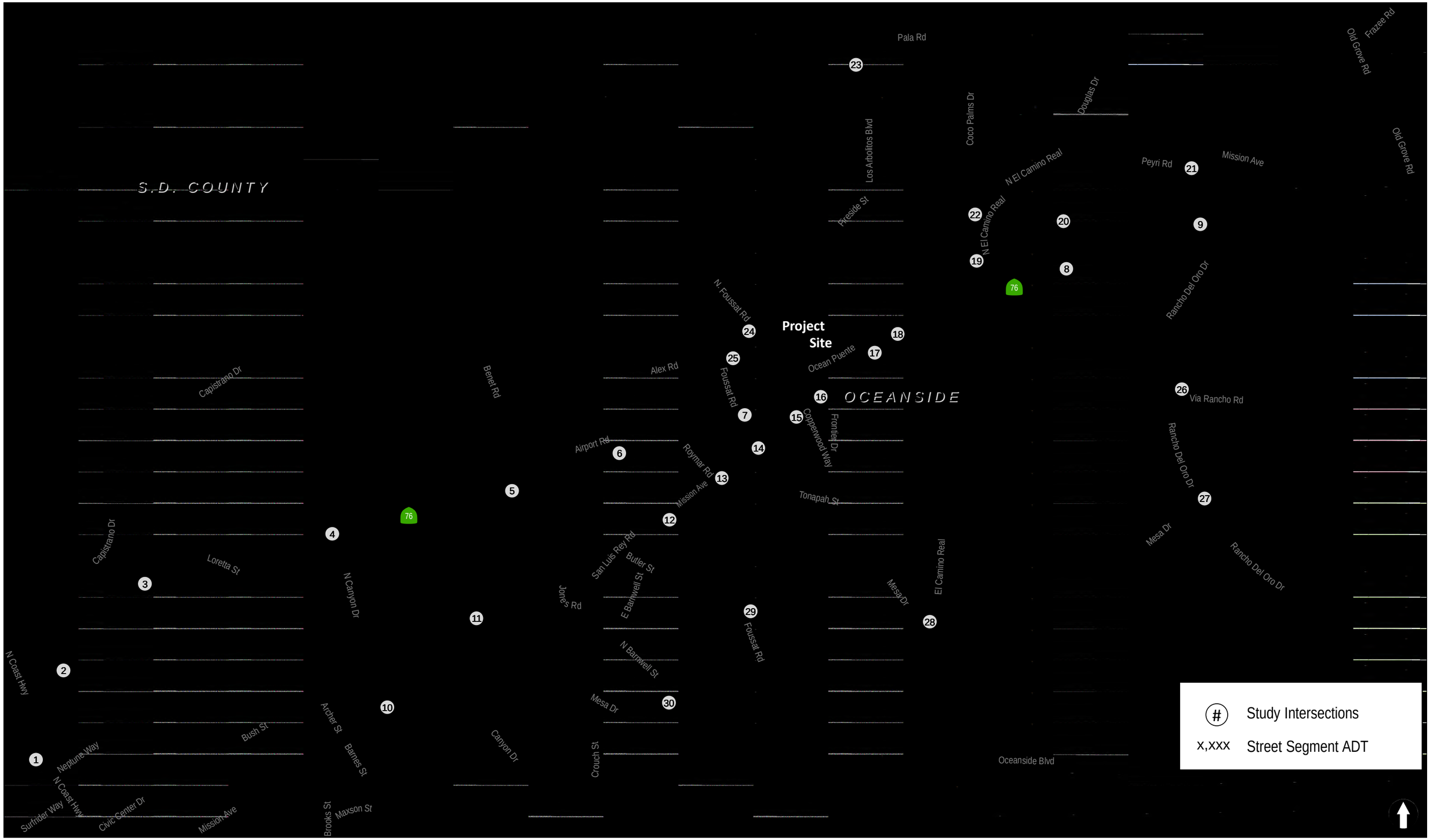

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Figure 9-2a

Near-Term Cumulative Projects Traffic Volumes

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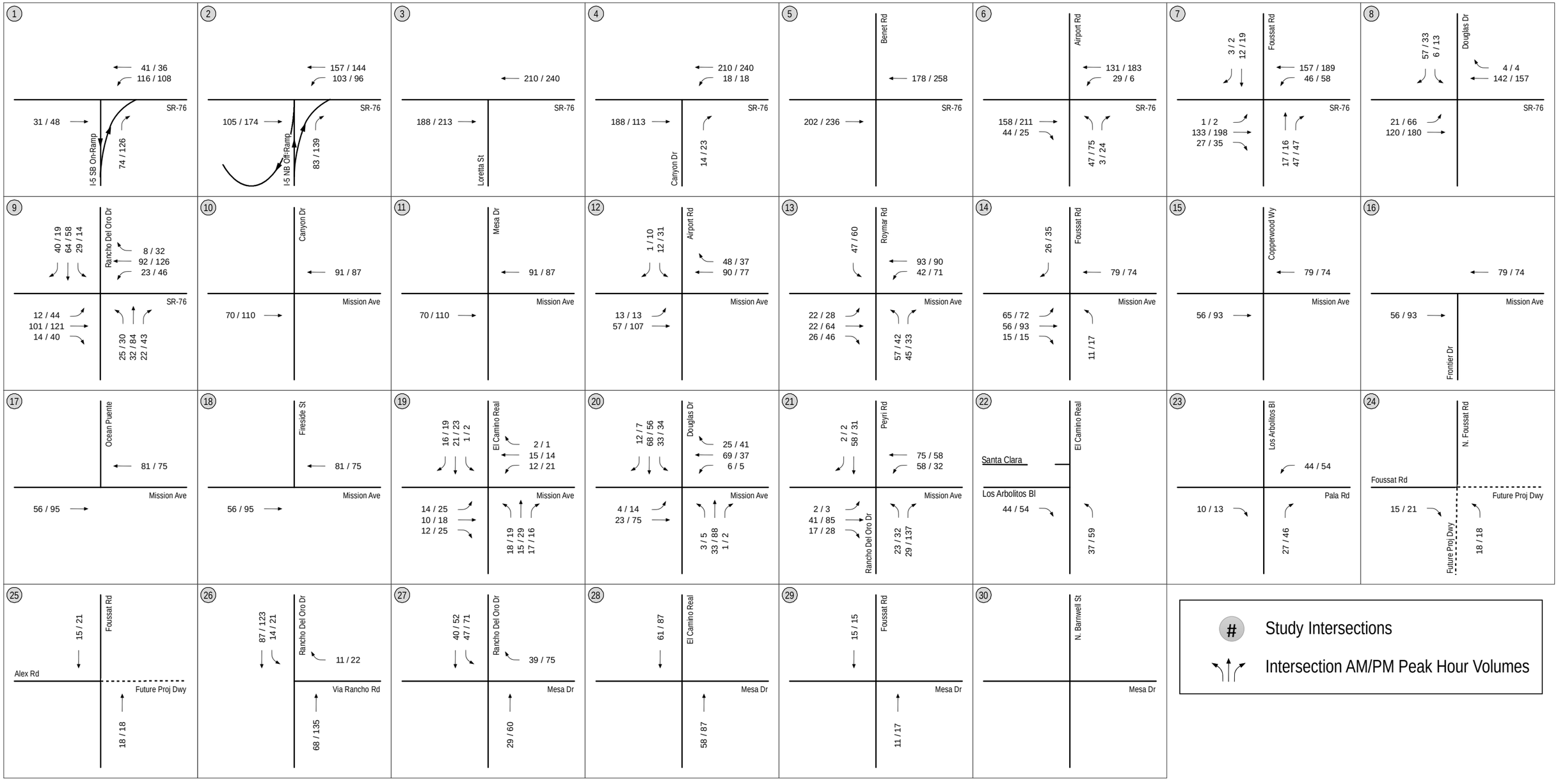

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Figure 9-2b

Near-Term Cumulative Projects Traffic Volumes

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10.0 ANALYSIS OF WEEKDAY NEAR-TERM SCENARIOS

The following section presents the Weekday near-term cumulative analysis of existing study area locations without and with Project traffic.

Figures 10–1a and ***10-1b*** depict the Weekday Existing + Cumulative Projects daily traffic volumes and AM / PM peak hour traffic volumes, respectively. ***Figures 10–2a*** and ***10-2b*** depict the Weekday Existing + Cumulative Projects + Project daily traffic volumes and AM / PM peak hour traffic volumes, respectively.

10.1 Existing + Near-Term Cumulative Projects

10.1.1 *Peak Hour Intersection Operations*

Table 10–1 summarizes the peak hour intersection operations for the Weekday Existing + Near-Term Cumulative Projects condition. As seen in *Table 10–1*, with the addition of cumulative projects traffic, the following intersections are calculated to operate at LOS E or F:

- Intersection #5. SR 76 / Benet Road – LOS F during the AM peak hour
- Intersection #6. SR 76 / Airport Road – LOS E during the PM peak hour
- Intersection #7. SR-76 / Foussat Road – LOS E during the PM peak hour
- Intersection #9. SR-76 / Rancho del Oro Drive – LOS F during the AM and PM peak hours
- Intersection #21. Mission Avenue / Rancho del Oro Drive – LOS E during the PM peak hour

Appendix G contains the peak hour intersection analysis worksheets for the Weekday Existing + Near-Term Cumulative Projects condition.

10.1.2 *Daily Street Segment Operations*

Table 10–2 summarizes the key segment operations in the study area for the Weekday Existing + Near-Term Cumulative Projects condition. As seen in *Table 10–2*, with the addition of cumulative projects traffic, all study area segments are calculated to continue to operate at LOS D or better.

10.2 Existing + Near-Term Cumulative Projects + Project

10.2.1 *Peak Hour Intersection Operations*

Table 10–1 summarizes the peak hour intersection operations for Weekday Existing + Near-Term Cumulative Projects + Project conditions. As seen in *Table 10–1*, with the addition of cumulative projects and Project traffic, the following intersections are calculated to operate at LOS E or F:

- **Intersection #5. SR 76 / Benet Road – LOS F during the AM peak hour**
- **Intersection #6. SR 76 / Airport Road – LOS F during the PM peak hour**
- **Intersection #7. SR-76 / Foussat Road – LOS E during the AM and PM peak hours**
- **Intersection #9. SR-76 / Rancho del Oro Drive – LOS F during the AM and PM peak hours**

- **Intersection #21. Mission Avenue / Rancho del Oro Drive – LOS E during the AM and PM peak hours**
- **Intersection #24. Foussat Road / Foussat Road (North) – LOS F during the AM and PM peak hours**
- **Intersection #25. Foussat Road / Alex Road – LOS F during the AM and PM peak hours**

Based on City of Oceanside significance criteria, **seven (7) significant impacts** were calculated with the addition of Project traffic at the intersections **bolded** and underlined above.

Appendix H contains the peak hour intersection analysis worksheets for the Weekday Existing + Near-Term Cumulative Projects + Project condition.

10.2.2 *Daily Street Segment Operations*

Table 10–2 summarizes the key segment operations in the study area for the Weekday Existing + Near-Term Cumulative Projects + Project conditions. As seen in *Table 10–2*, with the addition of cumulative projects and Project traffic, the following street segments are calculated to operate at LOS E or F:

- **Segment #3. SR 76: Canyon Drive to Benet Road – LOS E**
- **Segment #5. SR 76: Airport Road to Foussat Road – LOS E**
- **Segment #21. Foussat Road: Alex Road to SR 76 – LOS F**
- **Segment #24. Foussat Road: Tonopah Street to Mesa Drive**

Based on City of Oceanside significance criteria, **four (4) significant impacts** were calculated with the addition of Project traffic on the street segments **bolded** and underlined above.

TABLE 10–1
WEEKDAY NEAR-TERM CUMULATIVE INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing + Cumulative		Existing + Cumulative + Project		Delay Δ [c]	Sig?
			Delay [a]	LOS [b]	Delay	LOS		
1. I-5 Southbound Ramps / SR 76	Signal	AM PM	15.9 28.6	B C	16.6 45.6	B D	0.7 17.0	No
2. I-5 Northbound Ramps / SR 76	Signal	AM PM	17.3 21.7	B C	20.3 27.6	C C	3.0 5.9	No
3. SR 76 / Loretta Street	Signal	AM PM	23.8 10.7	C B	25.7 14.2	C B	1.9 3.5	No
4. SR 76 / Canyon Drive	Signal	AM PM	17.3 29.5	B C	28.0 50.9	C D	10.7 21.4	No
5. SR 76 / Benet Road	Signal	AM PM	**80.1** 44.4	**F** D	**103.6** 50.5	**F** D	23.5 6.1	**Cumulative**
6. SR 76 / Airport Road	Signal	AM PM	13.4 **66.6**	B **E**	31.6 **87.1**	C **F**	18.2 20.5	**Cumulative**
7. SR 76 / Foussat Road	Signal	AM PM	46.2 **61.6**	D **E**	**65.2** **69.6**	**E** **E**	19.0 8.0	**Direct**
8. SR 76 / Douglas Drive	Signal	AM PM	23.6 36.1	C D	23.7 36.2	C D	0.1 0.1	No
9. SR 76 / Rancho del Oro Drive	Signal	AM PM	**108.1** **84.8**	**F** **F**	**113.5** **94.7**	**F** **F**	5.4 9.9	**Cumulative**
10. Mission Avenue / Canyon Drive	Signal	AM PM	46.8 44.3	D D	47.1 50.5	D D	0.3 6.2	No
11. Mission Avenue / Mesa Drive	Signal	AM PM	10.9 9.1	B A	11.0 9.2	B A	0.1 0.1	No
12. Mission Avenue / Airport Road	Signal	AM PM	14.3 15.0	B B	14.9 16.1	B B	0.6 1.1	No
13. Mission Avenue / Roymar Road	Signal	AM PM	32.3 39.7	C D	32.4 39.8	C D	0.1 0.1	No
14. Mission Avenue / Foussat Road	Signal	AM PM	35.4 23.1	D C	38.8 26.9	D C	3.4 3.8	No
15. Mission Ave / Copperwood Way	Signal	AM PM	8.5 23.0	A C	8.6 23.4	A C	0.1 0.4	No
16. Mission Avenue / Frontier Drive	Signal	AM PM	4.9 7.2	A A	5.0 7.8	A A	0.1 0.6	No

Continued on Next Page

TABLE 10–1
WEEKDAY NEAR-TERM CUMULATIVE INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing + Cumulative		Existing + Cumulative + Project		Delay Δ [c]	Sig?
			Delay [a]	LOS [b]	Delay	LOS		
Continued from Previous Page								
17. Mission Avenue / Ocean Puente	Signal	AM PM	1.4 0.5	A A	9.4 45.7	A D	8.0 45.2	No
18. Mission Avenue / Fireside Street	Signal	AM PM	9.4 15.1	A B	10.4 15.3	B B	1 0.2	No
19. Mission Avenue / El Camino Real	Signal	AM PM	29.7 39.3	C D	32.7 50.7	C D	3 11.4	No
20. Mission Avenue / Douglas Drive	Signal	AM PM	17.8 18.4	B B	18.2 19.5	B B	0.4 1.1	No
21. Mission Ave / Rancho del Oro Dr	Signal	AM PM	**43.0** **55.6**	**D** **E**	**58.2** **65.9**	**E** **E**	**15.2** **10.3**	**Direct**
22. El Camino Real / Los Arbolitos Boulevard	Signal	AM PM	22.7 13.8	C B	25.6 14.1	C B	2.9 0.3	No
23. Pala Road / Los Arbolitos Boulevard	MSSC	AM PM	14.8 11.0	B B	15.5 11.4	C B	0.7 0.4	No
24. Foussat Rd / Foussat Road (North)	MSSC	AM PM	**11.6** **9.6**	**B** **A**	**83.6** **164.7**	**F** **F**	**72.0** **155.1**	**Direct**
25. Foussat Road / Alex Road	MSSC	AM PM	**10.6** **9.5**	**B** **A**	**68.4** **79.3**	**F** **F**	**57.8** **69.8**	**Direct**
26. Rancho del Oro Drive / Via Rancho Road	Signal	AM PM	35.7 9.2	D A	43.1 10.3	D B	7.4 1.1	No
27. Rancho del Oro Drive / Mesa Drive	Signal	AM PM	40.4 33.0	D C	48.6 44.1	D D	8.2 11.1	No
28. Mesa Drive / El Camino Real	Signal	AM PM	46.7 39.0	D D	50.0 44.5	D D	3.3 5.5	No
29. Mesa Drive / Foussat Road	AWSC	AM PM	14.9 12.7	B B	15.7 13.1	C B	0.8 0.4	No
30. Mesa Drive / Barnwell Street	AWSC	AM PM	9.2 9.2	A A	9.3 9.4	A A	0.1 0.2	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes the increase in delay due to Project.
d. MSSC = Minor Street Stop-Controlled intersection. Minor street left-turn delay reported.
e. AWSC = All Way Stop-Controlled intersection. Average delay reported.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

General Notes:

1. Sig = Significant impact type
2. **Bold** typeface and shading indicate a significant impact.

TABLE 10–2
WEEKDAY NEAR-TERM CUMULATIVE STREET SEGMENT OPERATIONS

Street Segment	Existing Capacity (LOS E)[a]	Existing + Cumulative			Existing + Cumulative + Project			Δ [e]	Sig?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
SR 76									
1. I-5 Ramps to Loretta Street	70,000	56,880	D	0.813	61,260	D	0.875	0.062	No
2. Lorette Street to Canyon Drive	60,000	49,980	C	0.833	54,550	D	0.909	0.076	No
3. Canyon Drive to Benet Road	60,000	**52,380**	**D**	**0.873**	**57,520**	**E**	**0.959**	**0.086**	**Direct**
4. Benet Road to Airport Road	60,000	48,850	C	0.814	54,180	D	0.903	0.089	No
5. Airport Road to Foussat Road	60,000	**53,030**	**D**	**0.884**	**58,550**	**E**	**0.976**	**0.092**	**Direct**
6. Foussat Road to Douglas Drive	60,000	52,970	D	0.883	54,680	D	0.911	0.028	No
7. Douglas Drive to Rancho de Oro Drive	60,000	52,270	D	0.871	54,360	D	0.906	0.035	No
8. Rancho del Oro Drive to Old Grove Road	60,000	41,870	C	0.698	43,200	C	0.720	0.022	No
Canyon Drive									
9. SR 76 to Mission Avenue	25,000	4,310	A	0.172	4,880	A	0.195	0.023	No
Mission Avenue									
10. Canyon Drive to Mesa Drive	40,000	26,440	C	0.661	29,490	C	0.737	0.076	No
11. Mesa Drive to Airport Road	40,000	26,440	C	0.661	29,490	C	0.737	0.076	No
12. Airport Road to Roymar Road	40,000	25,290	C	0.632	28,150	C	0.704	0.072	No
13. Roymar Road to Foussat Road	40,000	28,070	C	0.702	30,930	D	0.773	0.071	No
14. Foussat Road to Copperwood Way	40,000	25,840	C	0.646	28,320	C	0.708	0.062	No
15. Coppewood Way to Frontier Drive	40,000	25,840	C	0.646	28,320	C	0.708	0.062	No
16. Frontier Drive to Ocean Puente	40,000	26,410	C	0.660	29,080	C	0.727	0.067	No
17. Ocean Puente to Fireside Street	40,000	26,410	C	0.660	32,310	D	0.808	0.148	No
18. Fireside Street to El Camino Real	40,000	25,770	C	0.644	31,480	D	0.787	0.143	No
19. El Camino Real to Douglas Drive	40,000	20,570	B	0.514	24,000	C	0.600	0.086	No
20. Douglas Drive to Rancho del Oro Drive	40,000	22,840	C	0.571	25,510	C	0.638	0.067	No
Foussat Road									
21. Alex Road to SR 76	10,000	**7,040**	**C**	**0.704**	**16,560**	**F**	**1.656**	**0.952**	**Direct**
22. SR 76 to Mission Avenue	25,000	7,870	A	0.315	10,150	B	0.406	0.091	No
23. Mission Avenue to Tonopah Street	10,000	6,530	C	0.653	8,430	D	0.843	0.190	No
24. Tonopah Street to Mesa Drive	10,000	**7,760**	**D**	**0.776**	**9,660**	**E**	**0.966**	**0.190**	**Direct**

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TABLE 10–2
WEEKDAY NEAR-TERM CUMULATIVE STREET SEGMENT OPERATIONS

Street Segment	Existing Capacity (LOS E)[a]	Existing + Cumulative			Existing + Cumulative + Project			Δ [e]	Sig?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
Continued from Previous Page									
El Camino Real									
25. Los Arbolitos Boulevard to Mission Avenue	40,000	25,410	C	0.635	26,360	C	0.659	0.024	No
26. Mission Avenue to Vista Oceana	40,000	26,180	C	0.655	27,510	C	0.688	0.033	No
27. Vista Oceana to Mesa Drive	40,000	26,640	C	0.666	27,780	C	0.695	0.029	No
Rancho del Oro Drive									
28. Mission Avenue to SR 76	40,000	9,850	A	0.246	11,370	A	0.284	0.038	No
29. SR 76 to Via Rancho Road	40,000	18,720	B	0.468	21,000	B	0.525	0.057	No
30. Via Rancho Road to Mesa Drive	40,000	18,210	B	0.455	20,110	B	0.503	0.048	No
Mesa Drive									
31. Mission Avenue to Barnwell Street	10,000	5,710	C	0.571	5,900	C	0.590	0.019	No
32. Barnwell Street to Foussat Road	10,000	5,060	B	0.506	5,440	B	0.544	0.038	No
33. Foussat Road to El Camino Real	15,000	5,770	B	0.385	6,720	B	0.448	0.063	No
34. El Camino Real to Rancho del Oro Drive	30,000	17,120	C	0.571	18,070	C	0.602	0.031	No
Douglas Drive									
35. Mission Avenue to SR 76	40,000	20,140	B	0.504	20,520	B	0.513	0.009	No
Los Arbolitos Boulevard									
36. Pala Road to El Camino Real	15,000	6,240	B	0.416	6,620	B	0.441	0.025	No
Alex Road									
37. Eddy Jones Way to Foussat Road	10,000	1,500	A	0.150	1,690	A	0.169	0.019	No
Benet Road									
38. SR 76 to Eddy Jones Way	10,000	4,930	B	0.493	5,120	B	0.512	0.019	No
Airport Road									
39. SR 76 to Mission Avenue	10,000	3,060	A	0.306	3,250	A	0.325	0.019	No

Footnotes:

a. Capacities based on City of Oceanside Roadway Classification & LOS table (See *Appendix B*).
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity ratio.
e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.

2. **Bold** typeface and shading indicate a significant impact.

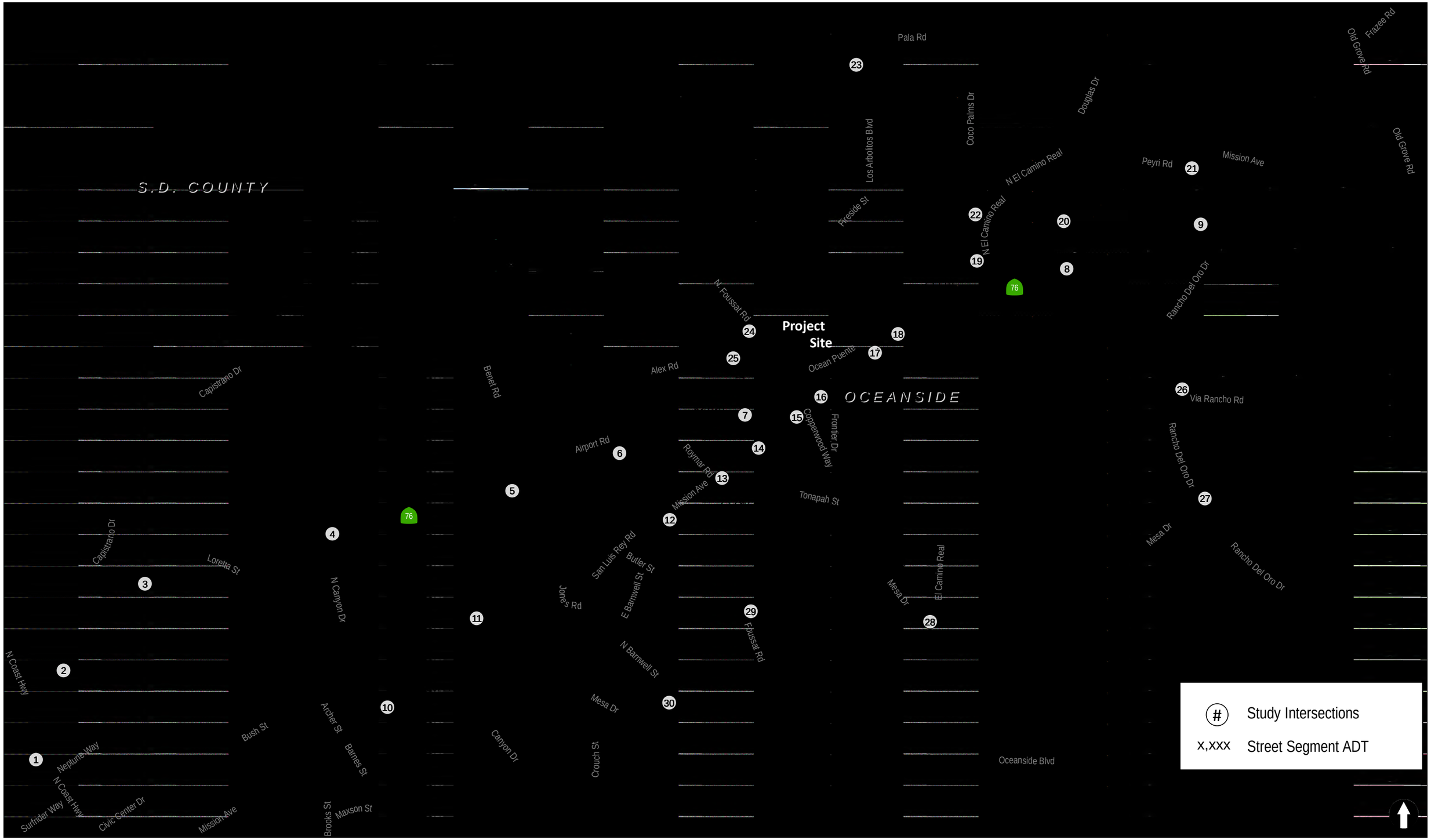

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Figure 10-1a

Existing Weekday + Cumulative Projects Traffic Volumes

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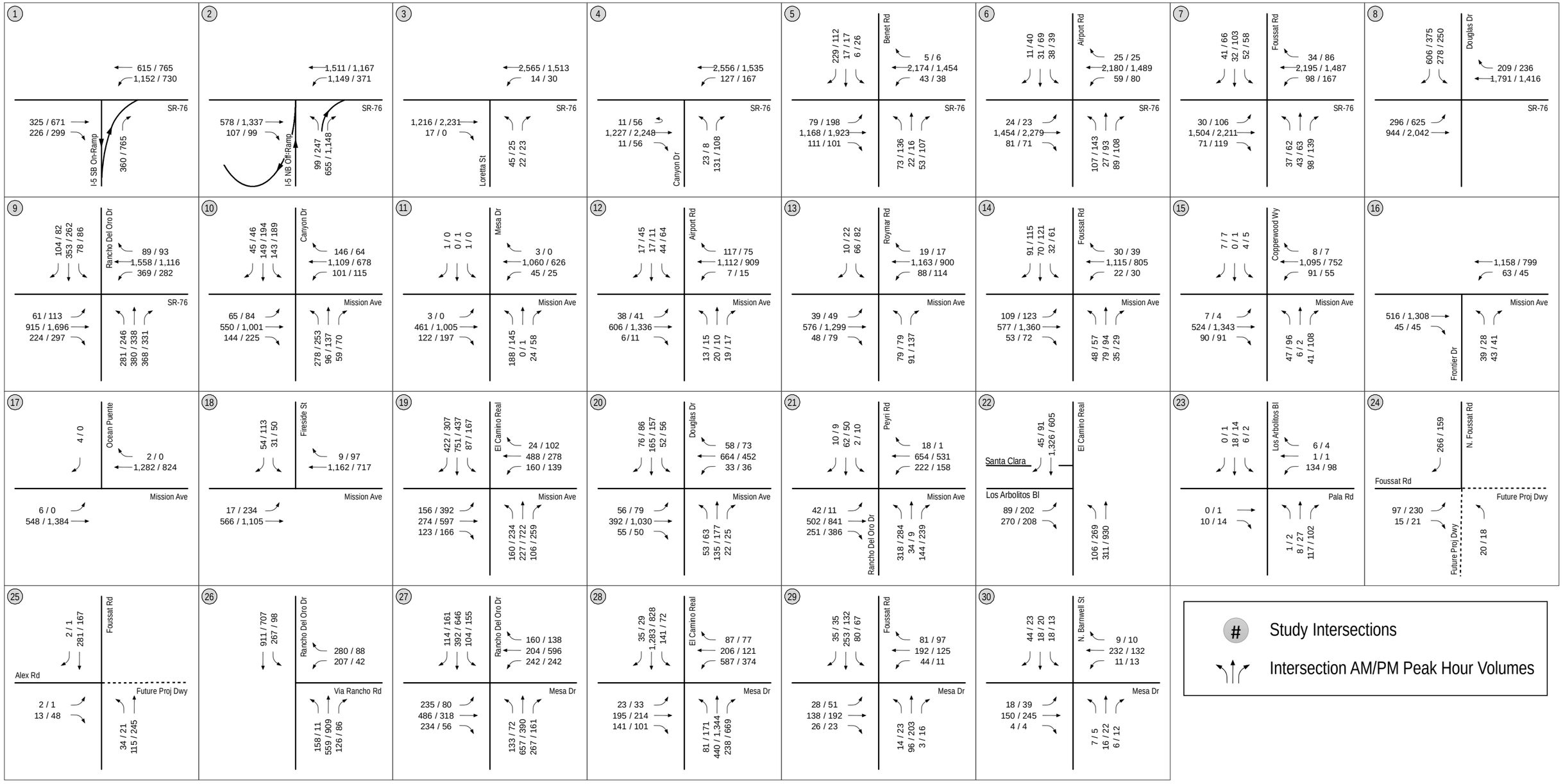

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Figure 10-1b

Existing Weekday + Cumulative Projects Traffic Volumes

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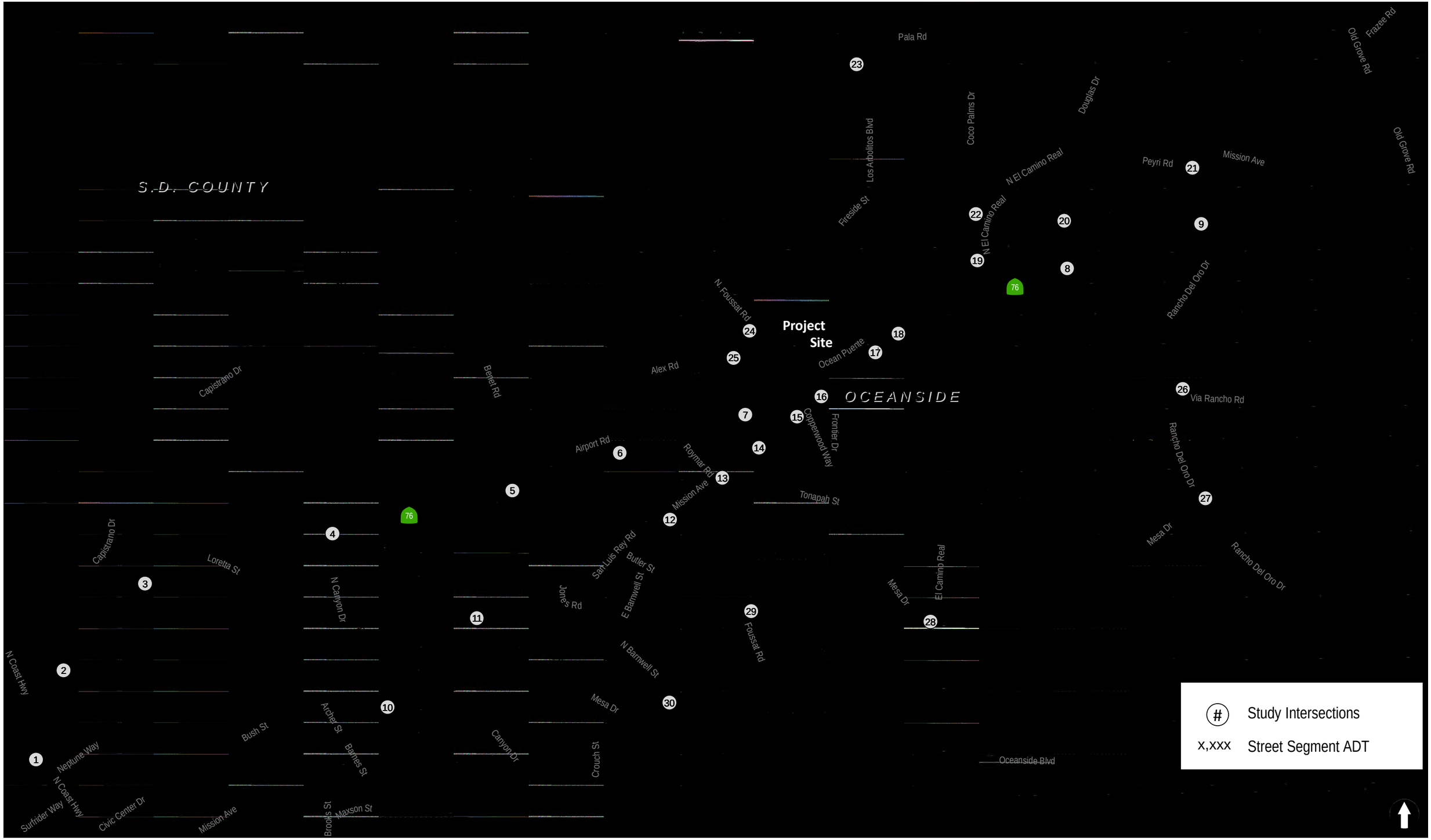

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Figure 10-2a

Existing Weekday + Cumulative Projects + Project Traffic Volumes

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Ocean Kamp

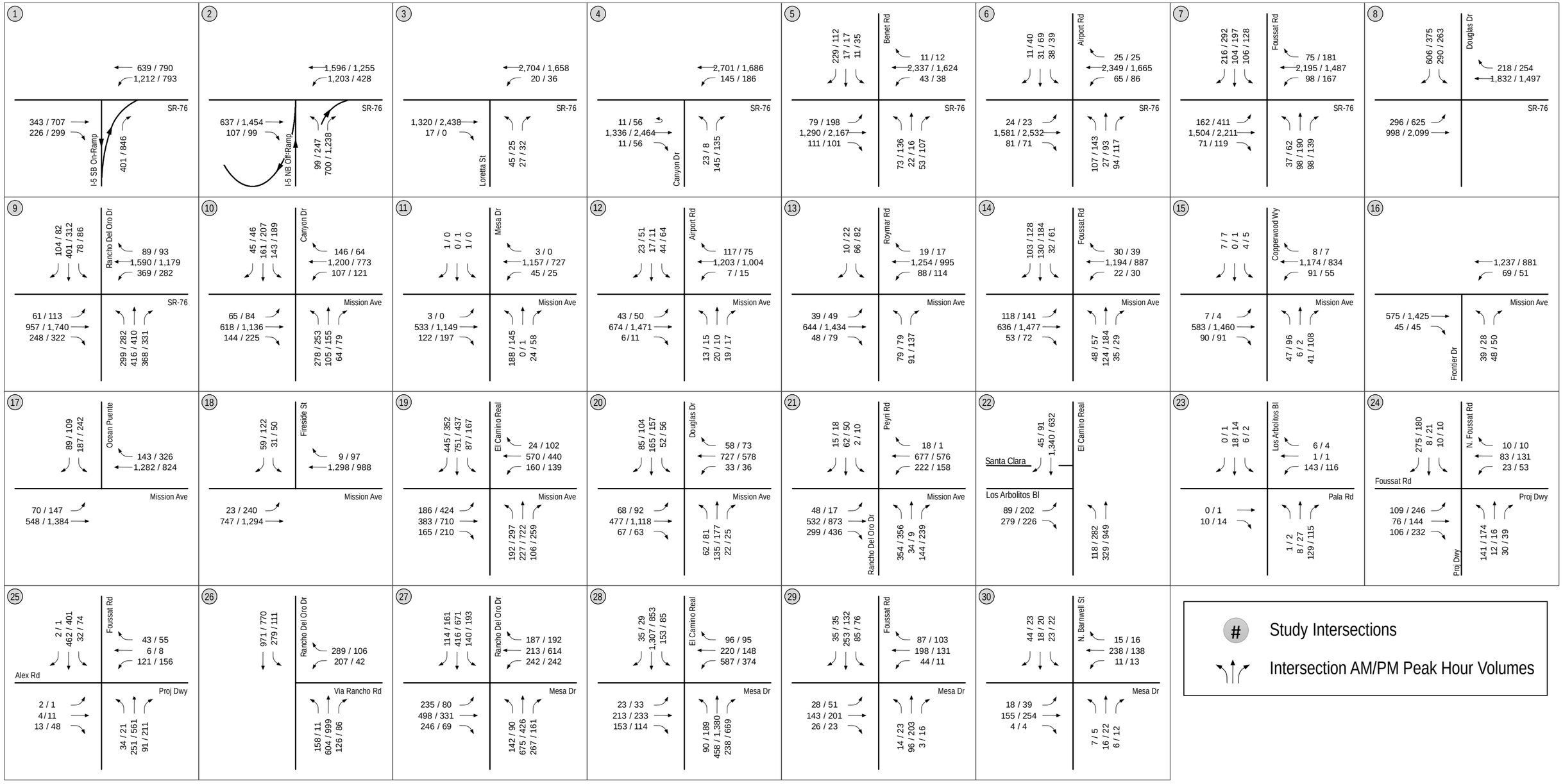

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Figure 10-2b

Weekday Existing + Cumulative Projects + Project Traffic Volumes

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11.0 ANALYSIS OF WEEKEND CONDITIONS

The following supplementary analysis was conducted in order to determine if the Project would have an impact on the circulation system during the Weekend.

11.1 Weekend Existing + Project

Figure 11–1 depicts the Weekend Existing + Project daily traffic and peak hour traffic volumes.

11.1.1 *Peak Hour Intersection Operations*

Table 11–1 summarizes the Weekend Existing intersection operations. As seen in *Table 11–1*, with the addition of Project traffic, all intersections are calculated to continue to operate at LOS D or better except for the following:

- **Intersection #24. Foussat Road / Foussat Road (North) – LOS E during the Weekend peak hour**
- **Intersection #25. Foussat Road / Alex Road – LOS F during the Weekend peak hour**

Based on City of Oceanside significance criteria, **two (2) significant impacts** were calculated with the addition of Project traffic at the intersections **bolded** and underlined above. It should be noted that these intersections were also impacted under Weekday conditions. No additional intersections were calculated to be impacted under Weekend conditions as compared to Weekday conditions.

Appendix D contains the Weekend Existing + Project intersection analysis worksheets.

11.1.2 *Daily Street Segment Operations*

Table 11–2 summarizes the Weekend Existing roadway segment operations. As seen in *Table 11–2*, with the addition of Project traffic, the study area segments are calculated to continue to operate at LOS D or better except for the following:

- **Segment #21. Foussat Road: N. Alex Road to SR 76 – LOS F**

Based on City of Oceanside significance criteria, **one (1) significant impact** was calculated with the addition of Project traffic on the street segment **bolded** and underlined above. It should be noted that this street segment was also impacted under Weekday conditions. No additional street segments were calculated to be impacted under Weekend conditions as compared to Weekday conditions.

11.2 Weekend Existing + Near-Term Cumulative Projects

Figure 11–2 depicts the Weekend Existing + Cumulative Projects daily traffic and peak hour traffic volumes.

11.2.1 *Peak Hour Intersection Operations*

Table 11–3 summarizes the peak hour intersection operations for the Weekend Existing + Near-Term Cumulative Projects condition. As seen in *Table 11–3*, with the addition of cumulative projects traffic, the following intersection is calculated to operate at LOS E:

- Intersection #9. SR 76 / Rancho del Oro Drive – LOS E during the Weekend peak hour

Appendix D contains the peak hour intersection analysis worksheets for the Weekend Existing + Near-Term Cumulative Projects condition.

11.2.2 *Daily Street Segment Operations*

Table 11–4 summarizes the segment operations for the Weekday Existing + Near-Term Cumulative Projects condition. As seen in *Table 11–4* with the addition of cumulative projects traffic, all study area segments are calculated to continue to operate at LOS C or better.

11.3 Weekend Existing + Near-Term Cumulative Projects + Project

Figure 11–3 depicts the Weekend Existing + Cumulative Projects + Project daily traffic and peak hour traffic volumes.

11.3.1 *Peak Hour Intersection Operations*

Table 11–3 summarizes the peak hour intersection operations for Weekend Existing + Near-Term Cumulative Projects + Project conditions. As seen in *Table 11–3*, with the addition of cumulative projects and Project traffic, the following intersections are calculated to operate at LOS E or F:

- **Intersection #9. SR-76 / Rancho del Oro Drive – LOS E during the Weekend peak hour**
- **Intersection #24. Foussat Road / Foussat Road (North) – LOS F during the Weekend peak hour**
- **Intersection #25. Foussat Road / Alex Road – LOS F during the Weekend peak hour**

Based on City of Oceanside significance criteria, **three (3) significant impacts** were calculated with the addition of Project traffic at the intersections **bolded** and underlined above. It should be noted that these intersections were also impacted under Weekday conditions. No additional intersections were calculated to be impacted under Weekend conditions as compared to Weekday conditions.

Appendix D contains the peak hour intersection analysis worksheets for the Weekend Existing + Near-Term Cumulative Projects + Project condition.

11.3.2 *Daily Street Segment Operations*

Table 11–4 summarizes the segment operations for the Weekday Existing + Near-Term Cumulative Projects + Project condition. As seen in *Table 11–4*, with the addition of cumulative projects and Project traffic, the following street segment is calculated to operate at LOS F:

- **<u>Segment #21. Foussat Road: N. Alex Road to SR 76 – LOS F</u>**

Based on City of Oceanside significance criteria, **<u>one (1) significant impact</u>** was calculated with the addition of Project traffic on the street segment **bolded** and <u>underlined</u> above. It should be noted that this street segment was also impacted under Weekday conditions. No additional street segments were calculated to be impacted under Weekend conditions as compared to Weekday conditions.

TABLE 11–1
WEEKEND EXISTING + PROJECT INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Delay Δ [c]	Sig?
			Delay [a]	LOS [b]	Delay	LOS		
SR 76 / Benet Road	Signal	Mid	30.8	C	33.2	C	2.4	No
SR 76 / Rancho del Oro Drive	Signal	Mid	43.5	D	45.8	D	2.3	No
Mission Avenue / Mesa Drive	Signal	Mid	8.9	A	8.9	A	0.0	No
Mission Avenue / Ocean Puente	Signal	Mid	0.4	A	28.1	C	27.7	No
Pala Road / Los Arbolitos Boulevard	MSSC[d]	Mid	9.9	A	10.2	B	0.3	No
Foussat Rd / Foussat Road (North)	MSSC	Mid	0.0	A	**42.8**	**E**	**42.8**	**Direct**
Foussat Road / Alex Road	MSSC	Mid	9.6	A	**105.5**	**F**	**94.9**	**Direct**
Mesa Drive / El Camino Real	Signal	Mid	23.7	C	24.7	C	1.0	No
Mesa Drive / Foussat Road	AWSC[e]	Mid	9.5	A	10.7	B	1.2	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes the increase in delay due to Project.
d. MSSC = Minor Street Stop-Controlled intersection. Minor street left-turn delay reported.
e. AWSC = All Way Stop-Controlled intersection. Average delay reported.

General Notes:

1. Sig = Significant impact type
2. **Bold** typeface and shading indicate a significant impact.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 11–2
WEEKEND EXISTING + PROJECT STREET SEGMENT OPERATIONS

Street Segment	Existing Capacity (LOS E)[a]	Existing			Existing + Project			Δ [e]	Sig?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
Mission Avenue									
Douglas Drive to Rancho del Oro Drive	40,000	17,540	B	0.439	19,560	B	0.489	0.051	No
Foussat Road									
Alex Road to SR 76	10,000	**5,740**	**C**	**0.574**	**12,953**	**F**	**1.295**	**0.721**	**Direct**
Mission Avenue to Tonopah Street	10,000	5,320	B	0.532	6,763	C	0.676	0.144	No
Tonopah Street to Mesa Drive	10,000	5,700	C	0.570	7,143	C	0.714	0.144	No
El Camino Real									
Los Arbolitos Boulevard to Mission Avenue	40,000	29,180	C	0.730	29,901	C	0.748	0.018	No
Mission Avenue to Vista Oceana	40,000	23,680	C	0.592	24,690	C	0.617	0.025	No
Vista Oceana to Mesa Drive	40,000	24,150	C	0.604	25,016	C	0.625	0.022	No
Mesa Drive									
Foussat Road to El Camino Real	15,000	4,340	A	0.289	5,061	B	0.337	0.048	No
Los Arbolitos Boulevard									
Pala Road to El Camino Real	15,000	6,030	B	0.402	6,319	B	0.421	0.019	No
Alex Road									
Eddy Jones Way to Foussat Road	10,000	450	A	0.045	594	A	0.059	0.014	No

Footnotes:

a. Capacities based on City of Oceanside Roadway Classification & LOS table (See *Appendix B*).
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity ratio.
e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.
2. **Bold** typeface and shading indicate a significant impact.

TABLE 11–3
WEEKEND NEAR-TERM CUMULATIVE INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing + Cumulative		Existing + Cumulative Project		Delay Δ [c]	Sig?
			Delay [a]	LOS [b]	Delay	LOS		
SR 76 / Benet Road	Signal	Mid	35.6	D	43.5	D	7.9	No
SR 76 / Rancho del Oro Drive	Signal	Mid	**60.0**	**E**	**70.0**	**E**	**10.0**	**Cumulative**
Mission Avenue / Mesa Drive	Signal	Mid	8.8	A	8.8	A	0.0	No
Mission Avenue / Ocean Puente	Signal	Mid	0.4	A	26.6	C	26.2	No
Pala Road / Los Arbolitos Boulevard	MSSC[d]	Mid	11.2	B	11.6	B	0.4	No
Foussat Rd / Foussat Road (North)	MSSC	Mid	15.6	C	**61.4**	**F**	**45.8**	**Direct**
Foussat Road / Alex Road	MSSC	Mid	9.7	A	**129.0**	**F**	**119.3**	**Direct**
Mesa Drive / El Camino Real	Signal	Mid	24.7	C	25.4	C	0.7	No
Mesa Drive / Foussat Road	AWSC[e]	Mid	9.7	A	11.0	B	1.3	No

Footnotes:

a. Average delay expressed in seconds per vehicle.
b. Level of Service.
c. Δ denotes the increase in delay due to Project.
d. MSSC = Minor Street Stop-Controlled intersection. Minor street left-turn delay reported.
e. AWSC = All Way Stop-Controlled intersection. Average delay reported.

General Notes:

1. Sig = Significant impact type
2. **Bold** typeface and shading indicate a significant impact.

SIGNALIZED		UNSIGNALIZED	
DELAY/LOS THRESHOLDS		DELAY/LOS THRESHOLDS	
Delay	LOS	Delay	LOS
0.0 ≤ 10.0	A	0.0 ≤ 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
≥ 80.1	F	≥ 50.1	F

TABLE 11–4
WEEKEND NEAR-TERM CUMULATIVE STREET SEGMENT OPERATIONS

Street Segment	Existing Capacity (LOS E)[a]	Existing + Cumulative			Existing + Cumulative + Project			Δ [e]	Sig?
		ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C		
Mission Avenue									
Douglas Drive to Rancho del Oro Drive	40,000	20,290	B	0.507	22,310	C	0.558	0.051	No
Foussat Road									
Alex Road to SR 76	10,000	**6,290**	**C**	**0.629**	**13,503**	**F**	**1.350**	**0.721**	**Direct**
Mission Avenue to Tonopah Street	10,000	6,270	C	0.627	7,713	D	0.771	0.144	No
Tonopah Street to Mesa Drive	10,000	6,650	C	0.665	8,093	D	0.809	0.144	No
El Camino Real									
Los Arbolitos Boulevard to Mission Avenue	40,000	29,520	C	0.738	30,241	D	0.756	0.018	No
Mission Avenue to Vista Oceana	40,000	24,890	C	0.622	25,900	C	0.648	0.026	No
Vista Oceana to Mesa Drive	40,000	25,360	C	0.634	26,226	C	0.656	0.022	No
Mesa Drive									
Foussat Road to El Camino Real	15,000	4,340	A	0.289	5,061	B	0.337	0.048	No
Los Arbolitos Boulevard									
Pala Road to El Camino Real	15,000	6,030	B	0.402	6,319	B	0.421	0.019	No
Alex Road									
Eddy Jones Way to Foussat Road	10,000	450	A	0.045	594	A	0.059	0.014	No

Footnotes:

a. Capacities based on City of Oceanside Roadway Classification & LOS table (See *Appendix B*).
b. Average Daily Traffic.
c. Level of Service.
d. Volume to Capacity ratio.
e. Δ denotes a Project-induced increase in the Volume to Capacity ratio.

General Notes:

1. Sig = Significant impact, yes or no.
2. **Bold** typeface and shading indicate a significant impact.

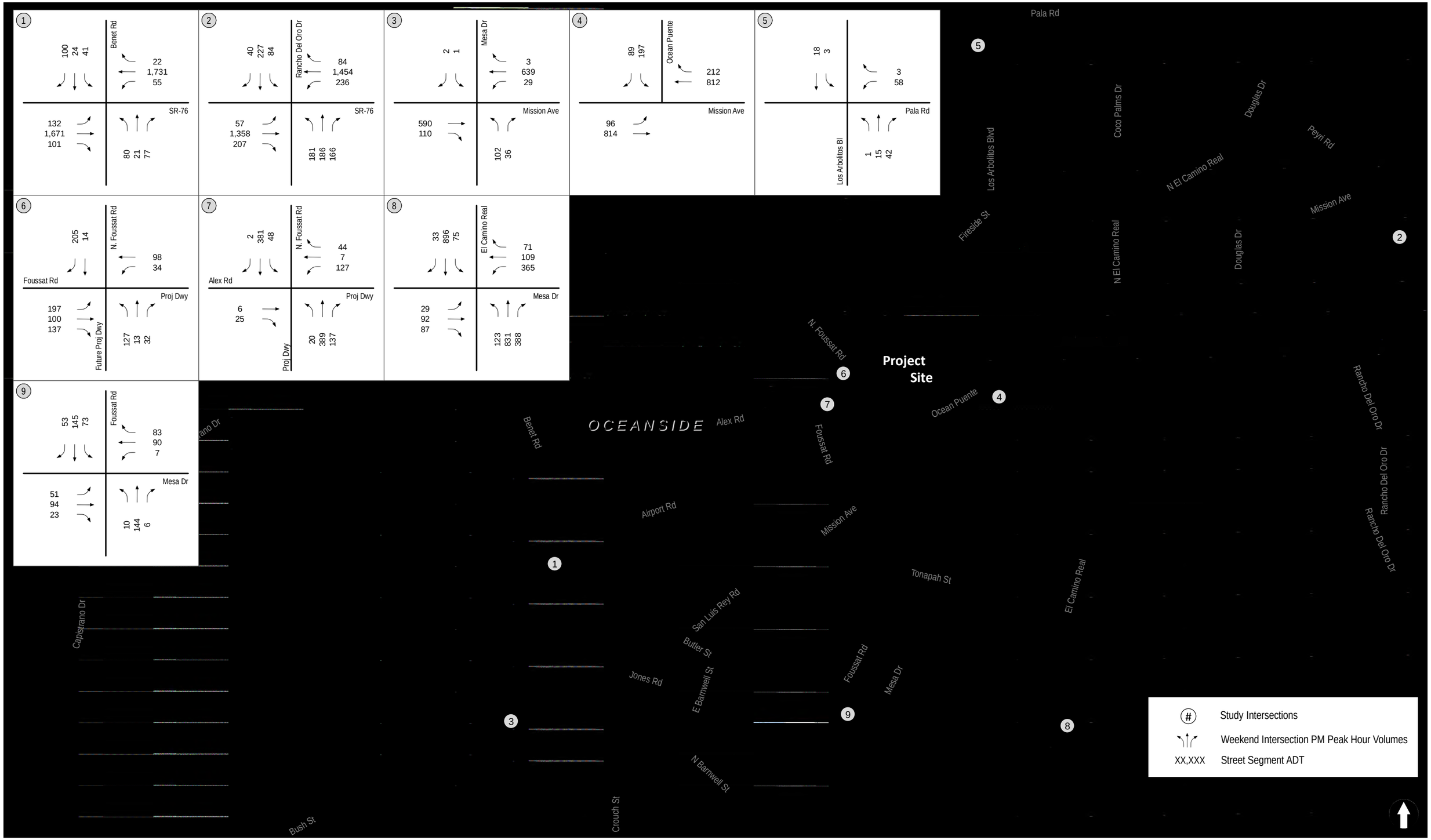

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Figure 11-1

Weekend Existing + Project Traffic Volumes

Saturday

OCEAN KAMP

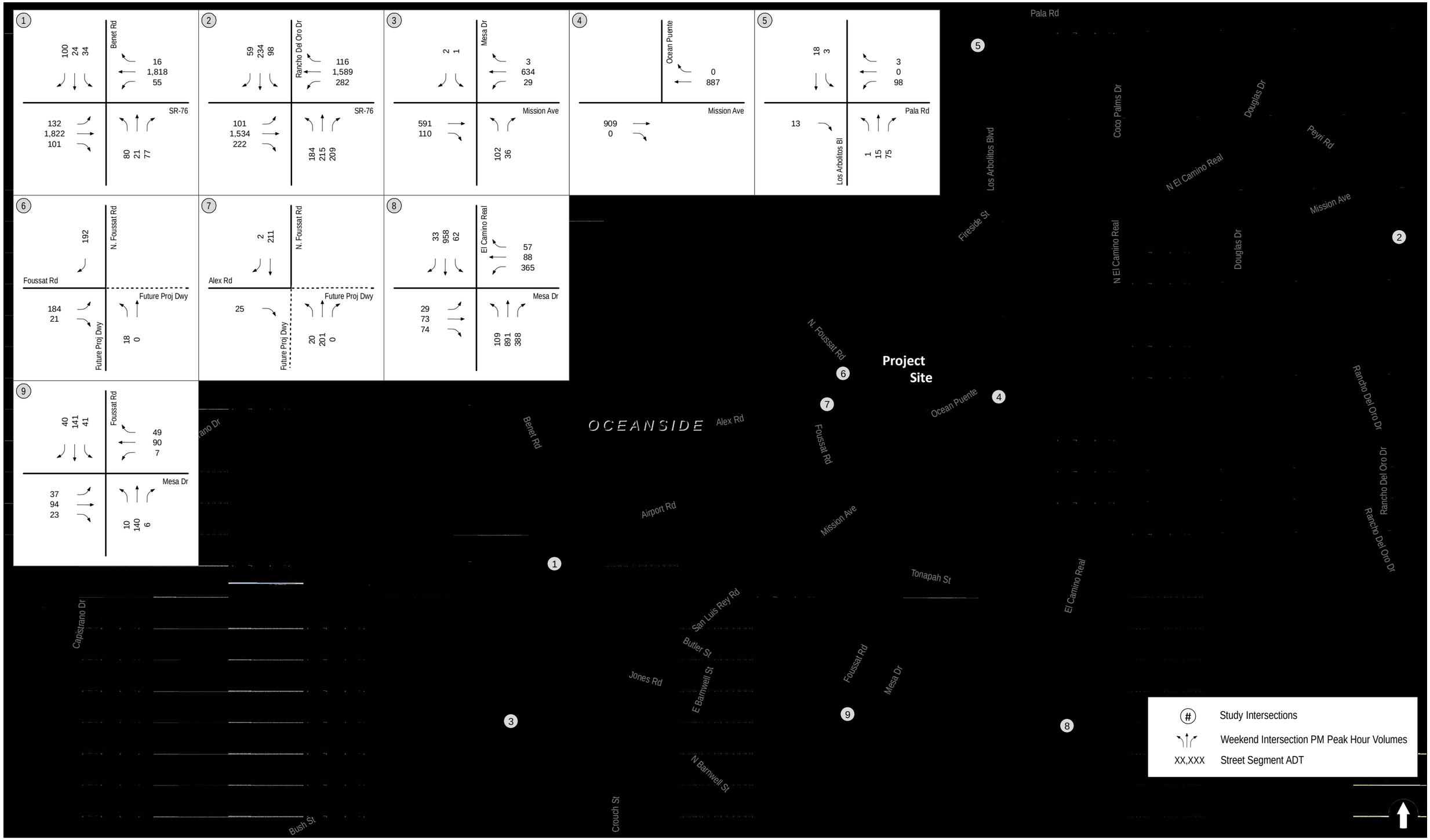

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Figure 11-2

Weekend Existing + Near-Term Cumulative Projects Traffic Volumes

Saturday

OCEAN KAMP

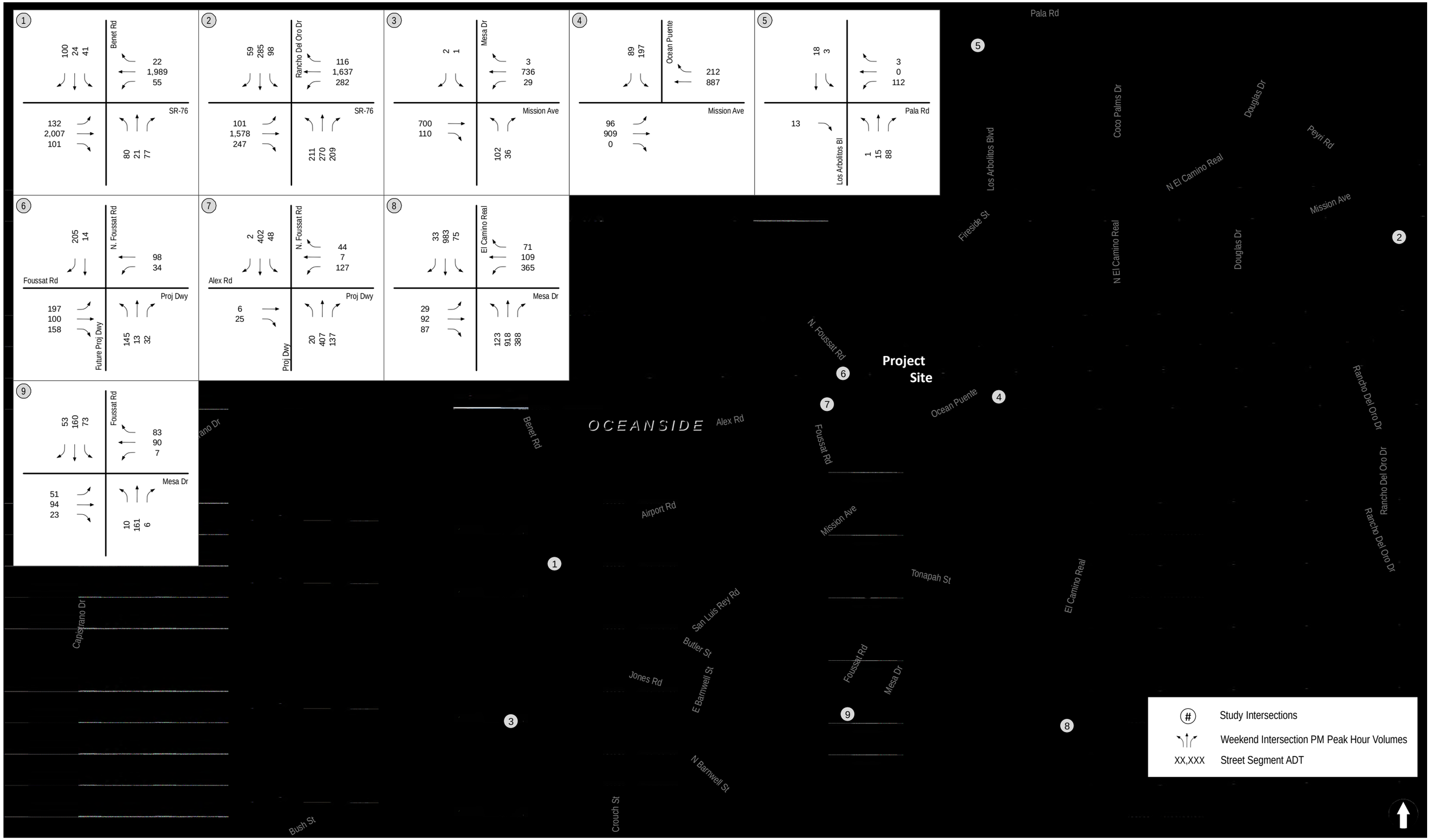

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Figure 11-3

Weekend Existing + Near-Term Cumulative Projects + Project Traffic Volumes

Saturday

OCEAN KAMP

12.0 YEAR 2035 DISCUSSION

Analysis of Long Term (Year 2035) conditions was not conducted for the Project. As previously discussed in *Section 2.2* of this study, an EIR addressing development of the Project site was certified by the City of Oceanside in 2008. The Pavilion at Oceanside project described in the EIR consisted of a 950,000-square foot (SF) shopping center with a variety of retail uses. The previously approved project was calculated to generate 32,175 ADT, with 1,254 AM peak hour trips and 2,872 PM peak hour trips.

The currently proposed Ocean Kamp Project is calculated to generate 13,135 fewer ADT (approximately 41% less) than the site's previously approved Pavilion project. Therefore, an analysis of Long-Term conditions for a project site that has already been approved for more trips than are currently proposed is not warranted.

In addition, the SANDAG Series 12 Year 2035 model assumes a total of 19,013 ADT in the two Traffic Analysis Zones (TAZ) that comprise the Project site. This is only 27 fewer ADT than what is currently proposed by the Project. Therefore, it can be concluded that the SANDAG Series 12 Year 2035 model accounts for buildout of the Ocean Kamp Project. ***Appendix I*** includes additional information on the Project's TAZs.

13.0 ACCESS ASSESSMENT AND ON-SITE CIRCULATION

Access to the site is proposed primarily via Foussat Road at SR 76 and via Ocean Puente at Mission Avenue. As noted in *Sections 8 and 10* of this study, the signalized intersection of Mission Avenue / Ocean Puente is calculated to operate acceptably at LOS D or better with the addition of Project traffic. The signalized intersection of SR 76 / Foussat Road is calculated to operate at LOS E under Near-Term Cumulative conditions, both without and with Project trips.

The "internal", stop-controlled intersections of Foussat Road / Foussat Road (North) and Foussat Road / Alex Road are calculated to operate at a failing of LOS with the addition of Project traffic. The widening of Foussat Road to four lanes north of SR 76 and the signalization of the two intersections is recommended to improve operations to acceptable levels of service.

14.0 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

Per City of Oceanside significance thresholds and the analysis methodology presented in this report, the addition of Project and cumulative traffic is calculated to result in 11 significant transportation impacts. *Direct* impacts were calculated where Project-added traffic resulted in a degradation in LOS from acceptable LOS D or better operations to below LOS D conditions. *Cumulative* impacts were calculated where Project-added traffic resulted in an increase in intersection delay or street segment volume-to-capacity ratios exceeding the allowable thresholds at locations with pre-existing LOS deficiencies (LOS E or F, see *Table 5–1*).

The following improvements presented in ***Table 14–1*** are recommended to mitigate the Project impacts to below a level of significance.

TABLE 14-1
IMPACT/MITIGATION SUMMARY

MM#	ID	Location / Mitigation Measure	Impact Type
		INTERSECTIONS	
TRA-1.	*#5*	SR 76 / Benet Road Contribute a fairshare towards the implementation of Adaptive Traffic Signal Control (ATSC) at the intersection	Cumulative
TRA-2.	*#6*	SR 76 / Airport Road Contribute a fairshare towards the implementation of ATSC at the intersection	Cumulative
TRA-3.	*#7*	SR 76 / Foussat Road Provide an additional (third) thru lane in the eastbound and westbound directions at the intersection	Direct
TRA-4.	*#9*	SR 76 / Rancho Del Oro Drive Contribute a fairshare towards the implementation of ATSC at the intersection	Cumulative
TRA-5.	*#21*	Mission Avenue / Rancho del Oro Drive Restripe the northbound approach to provide a dedicated thru lane and a dedicated right-turn lane.	Direct
TRA-6.	*#24*	Foussat Road / Foussat Road (North) Signalize the intersection and provide the following lane configurations: ▪ Southbound approach (N. Foussat Road) – one dedicated left-turn lane and one shared thru / right-turn lane. ▪ Westbound approach (Foussat Road) – one dedicated left-turn lane, one thru lane, and one shared thru / right-turn lane. ▪ Northbound approach (Project Driveway) – one dedicated left-turn lane, and one shared thru / right-turn lane. ▪ Eastbound approach (Foussat Road): one dedicated left-turn lane, two thru lanes, and one dedicated right-turn lane.	Direct
Continued on Next Page			

TABLE 14-1
IMPACT/MITIGATION SUMMARY

MM#	ID	Location / Mitigation Measure	Impact Type
Continued from Previous Page			
TRA-7.	*#25*	Foussat Road / Alex Road Signalize the intersection and provide the following lane configurations: ▪ Southbound approach (Foussat Road) – one dedicated left-turn lane, one thru lane, and one shared thru / right-turn lane. ▪ Westbound approach (Project Driveway) – one dedicated left-turn lane, and one shared / thru right-turn lane. ▪ Northbound approach (Foussat Road) – one dedicated left-turn lane, two thru lanes, and one dedicated right-turn lane. ▪ Eastbound approach (Alex Road): one dedicated left-turn lane, and one shared thru / right-turn lane.	Direct
STREET SEGMENTS			
TRA-8.	*#3*	SR 76: Canyon Drive to Benet Road Contribute a fairshare towards the implementation of ATSC at the intersection of SR 76 / Benet Road.	Direct
TRA-9.	*#5*	SR 76: Airport Road to Foussat Road Contribute a fairshare towards the implementation of ATSC at the intersection of SR 76 / Airport Road and provide an additional (third) thru lane in the eastbound and westbound directions at the intersection of SR 76 / Foussat Road.	Direct
TRA-10.	*#21*	Foussat Road: Alex Road to SR 76 Widen Foussat Road to a Secondary Collector (4-Lanes) standards with a LOS E capacity of 25,000 ADT. Widening of Foussat Road is recommended between SR 76 and Foussat Road (North).	Direct
TRA-11.	*#24*	Foussat Road: Tonopah Street to Mesa Drive Restripe the southbound approach to provide a dedicated right-turn lane and a shred left-turn / thru lane at the adjacent intersection of Foussat Road / Mesa Drive.	Direct

End of Report