

# CAMPUS PARK WEST PROJECT

## APPENDIX D

### TRAFFIC IMPACT ANALYSIS

PDS2005-3813-05-001(SPA); PDS2005-3800-05-003(GPA);  
PDS2005-3600-05-005(REZ); PDS2005-3100-5424(TM);  
Log No. PDS2005-3910-05-02-009(ER);  
State Clearinghouse No. 2009061043

*for the*

### FINAL SUBSEQUENT ENVIRONMENTAL IMPACT REPORT

June 18, 2014

TRAFFIC IMPACT ANALYSIS  
**CAMPUS PARK WEST**  
TM 5424 RPL, GPA 05-003, REZ 05-005  
SPA 05-001, ER 05-02-009  
County of San Diego, California  
March 20, 2014

LLG Ref. 3-08-1825



## EXECUTIVE SUMMARY

The Campus Park West Project proposes to construct a mixed-use development which will include a total of approximately 503,500 square feet (SF) of commercial, 283 total residential units and 120,000 SF of office/industrial space. The project site is located north and south of SR 76 and approximately 0.25 miles east of Interstate 15 in the Fallbrook Community Planning area of San Diego County, California. The project site is currently undeveloped.

The project study area includes 38 intersections, 15 roadway street segments and 14 State Route street segments on SR 76. The traffic analyses for the project were conducted in accordance with the *County of San Diego Traffic Impact Study Guidelines*. The following scenarios are evaluated in this report:

- Existing
- Existing + Project
- Existing + Project + Cumulative Projects
- Buildout without Project
- Buildout with Project

The project trip generation was calculated using SANDAG trip generation rates from the *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. The project is calculated to generate 36,206 average daily trips at the project's driveways. Appropriate reductions for pass-by, diverted-linked and internally captured trips have been made in accordance with regional standards and based on assumptions approved by the County of San Diego for use in the adjacent Campus Park and Meadowood developments.

The project traffic distributions were based on a SANDAG Series 11 Model. Separate project traffic distributions were conducted for each land use: Commercial, Retail and Residential. Separate project traffic distribution and project traffic assignments were also prepared for Primary trips, Diverted trips, pass-by trips and internally captured trips. The new, "primary" trips to the street system total 23,071 ADT.

Cumulative projects were accounted for through a General Plan summary approach where SANDAG provided a Series 10 Year 2030 model that included all cumulative projects that are consistent with the current land use plan, all inconsistent cumulative projects that will require a variance such as a General Plan Amendment, and all Casino projects that have been submitted to the County. This cumulative traffic model approach is was utilized by the County for the General Plan Update. In addition to the aforementioned approach, ninety-seven (97) nearby cumulative projects were reviewed in detail and confirmed that they are included in the SANDAG Series 10 Year 2030 model, or else accounted for with their individual assignments.

Based on the County of San Diego significance criteria, the project is calculated to have *direct impacts* at four intersections and four State Route segments. Two intersection impacts are mitigated to below a level of significance with the construction of a traffic signals and other improvements by the applicant. The other two intersections impacts and the four segment impacts occur only if the project is constructed and occupied prior to completion of the SR 76 East project currently under development by Caltrans. This regional corridor improvement project spans SR 76 from Mission Road to Interstate 15, and is expected to be completed and operational by 2017. If the project is operational prior to completion of the SR 76 East project, a short-term significant impact would occur until the SR 76 East project was completed, and the Campus Park West project would be responsible for making an appropriate fair share contribution toward the uncompleted Caltrans project to mitigate the these direct project impacts.

The project is calculated to have *cumulative impacts* at 20 intersections, 8 roadway segments and 11 State Route segments. The project applicant will pay the appropriate Transportation Impact Fee (TIF), which will mitigate the project's cumulative impacts.

An additional 2.1 acres of State right-of-way adjacent to the site may be decertified, resulting in a small increase in commercial land use (approximately 10,000 SF). The nominal increase in traffic for this design option would not result in any change in findings as discussed above.

A Horizon Year (2030) analysis was conducted comparing street segment operations both with the adopted General Plan land uses for the site, and the proposed General Plan Amendment land uses. The analysis showed that no changes to future roadway LOS would occur due to development of the Proposed Project.



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### APPENDIX

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**CAMPUS PARK WEST**  
TM 5424 RPL, GPA 05-003, REZ 05-005  
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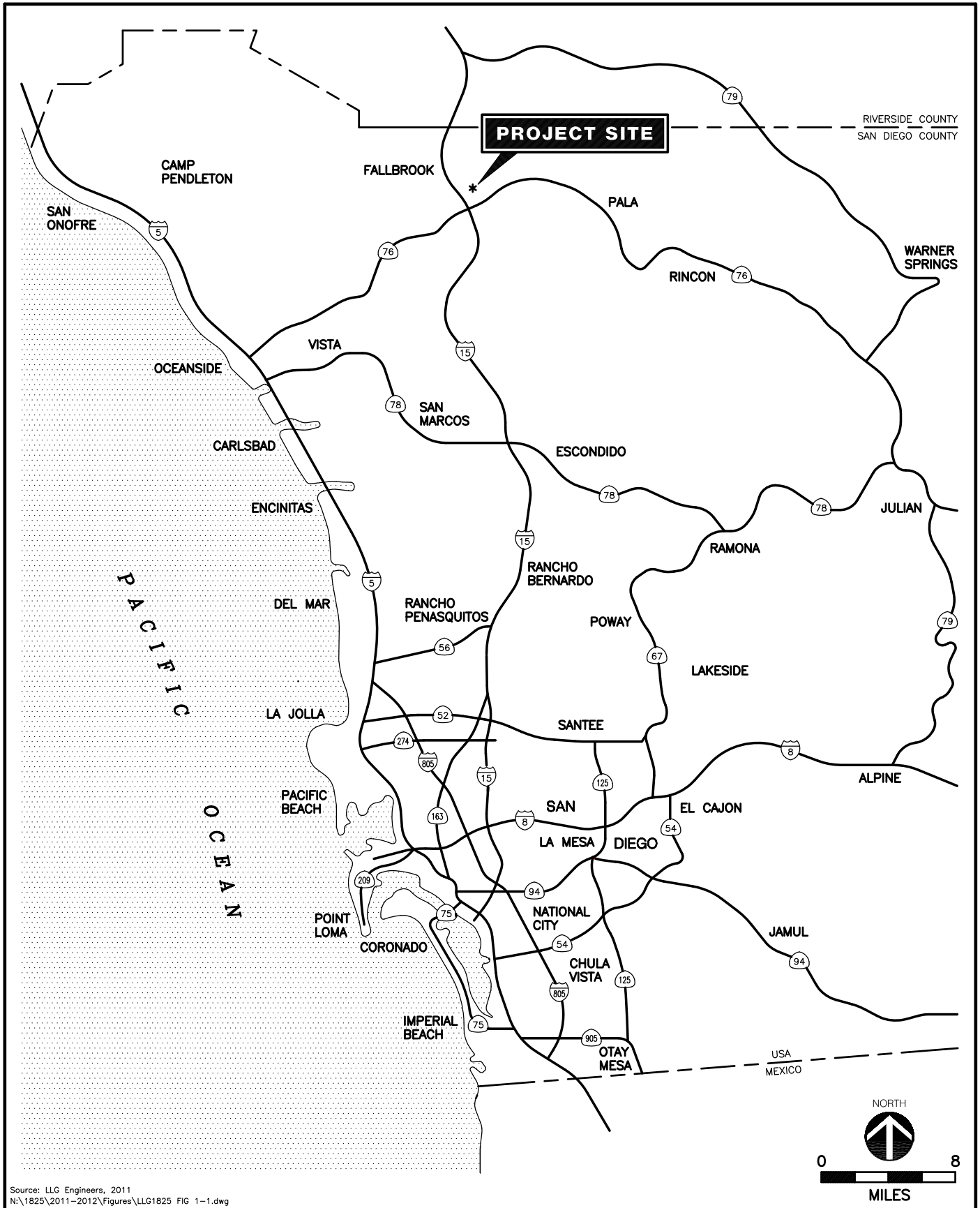
## 1.0 INTRODUCTION

Linscott, Law & Greenspan Engineers (LLG) has been retained to assess the traffic impacts associated with the proposed Campus Park West project. Included in this traffic report are the following.

- Project Description
- Existing Conditions Discussion
- Analysis Approach and Methodology
- Significance Criteria
- Existing Analysis
- Trip Generation/Distribution/Assignment
- Existing + Project Analyses
- Cumulative Conditions Discussion
- Near-Term Analysis
- Year 2030 Operations
- Commercial Project Option
- Construction Traffic
- Significance of Impacts and Mitigation Measures

*Figure 1-1* shows the vicinity map. *Figure 1-2* shows a more detailed project area map.



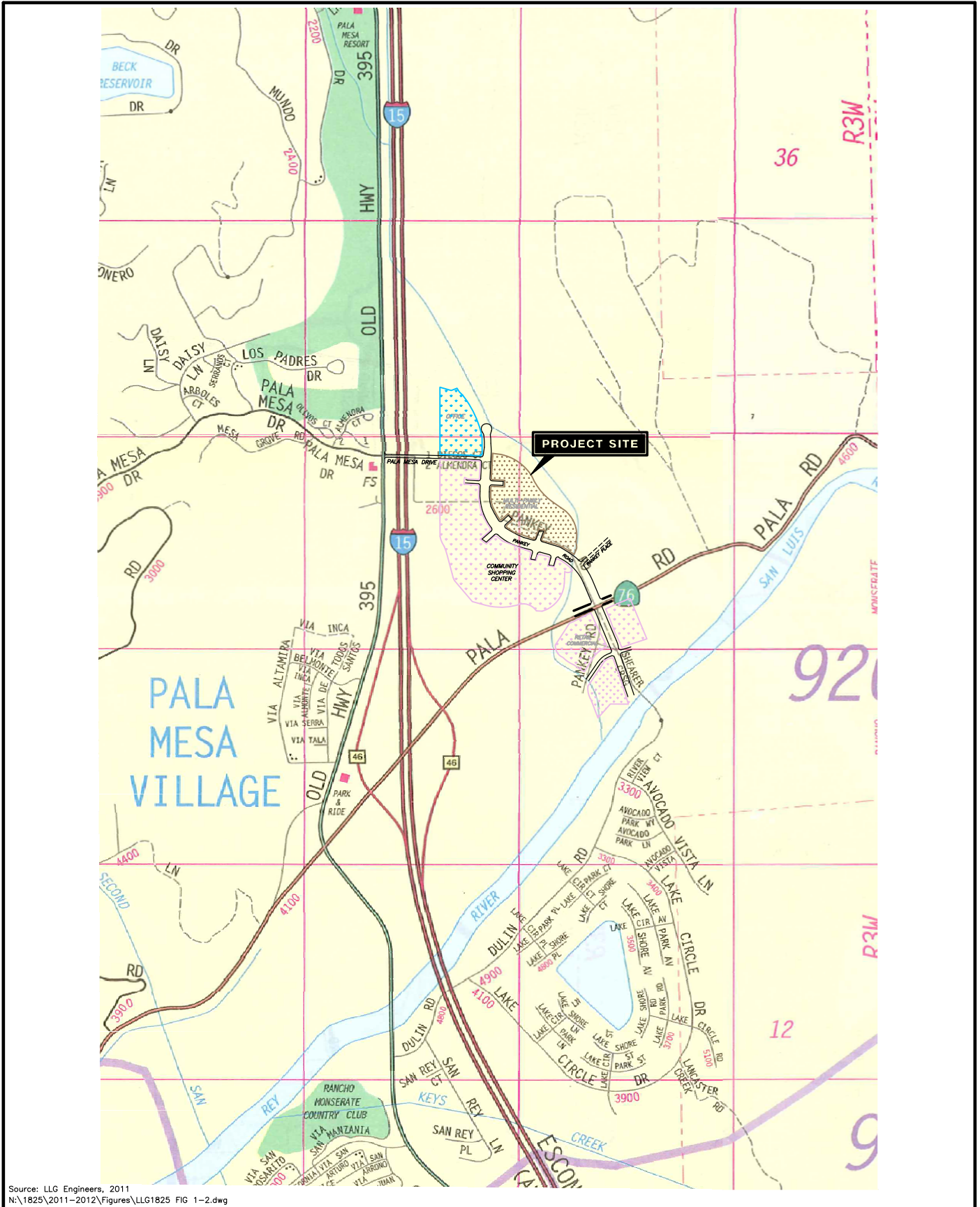


Source: LLG Engineers, 2011  
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**Figure 1-1**  
**Vicinity Map**

CAMPUS PARK WEST



Source: LLG Engineers, 2011  
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**Figure 1-2**  
**Project Area Map**

## 2.0 PROJECT DESCRIPTION

The Campus Park West Specific Plan Amendment is comprised of approximately 116.5 acres located east of Interstate 15 (I-15) near State Route 76 (SR 76). The majority of the site, approximately 100 acres, is located north of SR 76/Pala Road and approximately 17 acres are located south of SR 76/Pala Road. The project site is located in the Fallbrook Community Planning Area of the unincorporated portion of San Diego County and consists of the following APN numbers: 108-121-14, 125-061-01, 125-063-01, 125-063-07, and 125-063-08.

### Discretionary Actions

The Proposed Project includes the following discretionary applications:

- A Tentative Map (TM 5424) to subdivide the property into 23 lots;
- A Specific Plan Amendment (SPA 05-001) to amend the 1983-approved Specific Plan to the currently proposed mix of uses;
- A Rezone (REZ 05-005) from S90 to S88; and
- A General Plan Amendment (GPA 05-003) to revise or reconfigure land use designations as well as amend the Mobility Element. Specifically, the GPA would:
  - Change the Regional Category on two parcels south of SR 76 from Rural to Village;
  - Change the land use designation of the three parcels south of SR 76 from Specific Plan to General Commercial and Rural Lands 40;
  - Expand the Limited Impact Industrial uses north of SR 76 south to Pala Mesa Drive;
  - Reconfigure the land use designations north of SR 76 to reflect the Project SPA, and;
  - Amend the Circulation Element to reclassify Pankey Road from a Collector to a Boulevard and apply Class II bike facilities, from Pala Mesa Drive to Shearer Crossing, apply Class II bike facilities to the portion of Pala Mesa Drive within the project boundaries, and designate Pala Mesa Drive as a Class III bike route.

The subsequent preparation of site plans is required by the specific plan and zoning.

The Proposed Project includes residential, general commercial with a mixed-use core, and limited impact industrial land uses. The limited impact industrial and commercial uses are located adjacent to Interstate 15 and SR 76. The mixed use core is centrally located within the general commercial land use allowing for a potential pedestrian-oriented linear marketplace. Approximately 12.4 acres (4 lots) east of Pankey Road are designated for multi-family residential uses at a density of 20 dwelling units per acre. The following is a summary of the land uses analyzed in this report.



**Residential:**

The project proposes to construct 283-residential condominiums. The condominiums are to be situated north of SR 76 with 248 units on the east side at a density of 20 dwelling units (DU) per acre and 35 units on the west side of Pankey Road, integrated into the mixed-use core.

**Retail:**

This project proposes to construct three new community shopping centers. The first commercial center will be located north of SR 76 and provide approximately 476,000 square feet (SF) of retail space including a mixed-use core. The second commercial center will be located south of SR 76 and west of Pankey Road, providing 18,500 SF of retail space. The third commercial center will also be located south of SR 76 but east of Pankey Road, providing 9,000 SF of retail space.

**Office Use/Industrial:**

The project also proposes a limited-impact Industrial area north side of Pala Mesa Drive and west of Pankey Road providing approximately 120,000 SF.

The conceptual plan for the Proposed Project will be provided; the land use plan is shown on **Figure 2-1**. A Tentative Map and a Grading Plan has been submitted concurrently with the traffic study which shows sight distance dimensions, roadway alignments and widths, rights-of-way and other civil engineering dimensions.

**2.1 Transit Services**

The applicants for the approved Palomar, Meadowood and Campus Park projects in the area will be contributing to a transit node, mainly for buses, which will likely be located within the Palomar College site, although the location is still uncertain and there is no guarantee that it will be placed there. The transit node is expected to contain bus parking, bus turnarounds, passenger drop off/loading spaces and parking, as well as a possible service building for passengers.

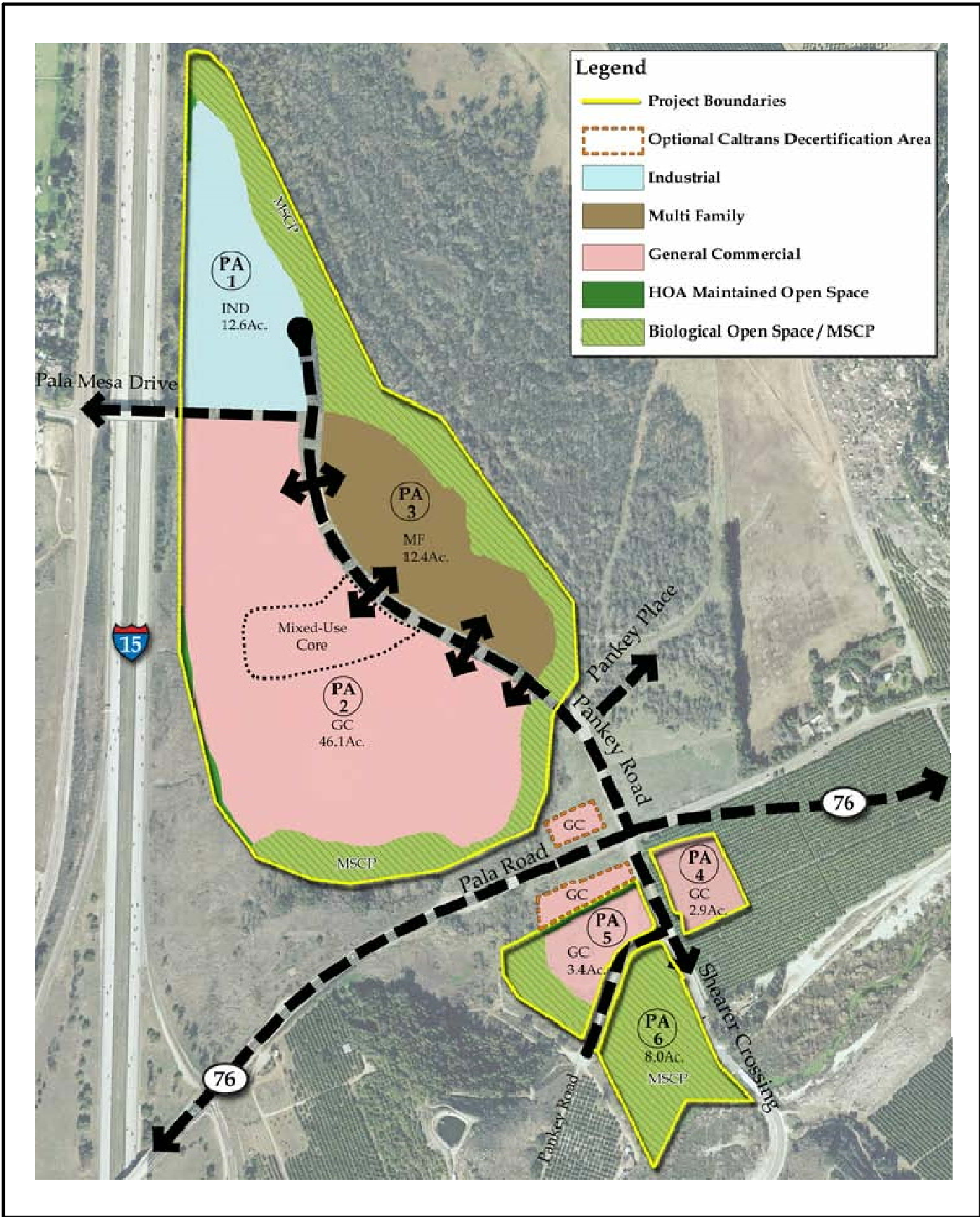
**2.2 Public Services**

Fire services will be provided by the North County Fire Protection District. The TM design provides adequate fire department access through the site and a looped water system is designed to serve all lots. Coordination with the applicants of the proposed Campus Park and Meadowood projects as well as the North County Fire Protection District has occurred to ensure adequate emergency response time.

Police service will be provided by the San Diego County Sheriff's Department. The closest sheriff's station to the project site is the Fallbrook substation located at 388 East Alvarado Street. A new station will likely be required within the project site or near the vicinity of the project site. Coordination with adjacent property owners will occur to allow for the acquisition of property by the County for the construction of a Sheriff's station as consistent with the San Diego County Sheriff's Department Facilities Master Plan dated October 2005.

School services will be provided by the Bonsall Union Elementary School District, and the Fallbrook Union High School District. Fees will be paid to the Bonsall Union Elementary School District and the Fallbrook Union High School District as established by State law.

Imported potable water service and sewer service will be provided by the Rainbow Municipal Water District. Annexation to the Rainbow Municipal Water District will be necessary for the provision of water and sewer services.



**Figure 2-1**  
**Land Use Plan**

### 3.0 EXISTING CONDITIONS

The intersections and segments included in the study area are listed below. These locations were selected based on related traffic impact analyses prepared for adjacent property sites (Campus Park and Meadowood) of comparable size and land uses. To be consistent with similar adjacent projects, LLG confirmed and utilized the “Campus Park” project’s Select Zone Assignment (SZA) prepared for the site in addition to the County of San Diego’s twenty-five peak-hour trip threshold for projects generating over 1,000 ADT. These identified locations within the Fallbrook/Bonsall Community Plan areas receive over 25 peak hour trips or are in close proximity to the site and were therefore included in the analysis.

#### Intersections

1. E. Mission Road/ Old Hwy 395 (s)
2. Mission Road/ I-15 SB ramps (s)
3. Mission Road/ I-15 NB ramps (s)
4. Reche Road/ Green Canyon Norte (s)
5. Reche Road/ Live Oak Park Road (u)
6. Reche Road/ Gird Road (s)
7. Reche Road/ Wilt Road (u)
8. Reche Road/ Tecalote Road (u)
9. Reche Road/ Old Hwy 395 (u)
10. Stewart Canyon Road/ Old Hwy 395 (u)
11. Stewart Canyon Road/ Pankey Road (u)
12. Pala Mesa Drive/ Sage Road (u)
13. Pala Mesa Drive/ Old Highway 395 (u)
14. SR 76/ Melrose Drive (s)
15. SR 76/ E. Vista Way (s)
16. SR 76/ N. River Road (s)
17. SR 76/ Olive Hill Road (s)
18. SR 76/ S. Mission Road (s)
19. SR 76/ Via Monserate Road (u)
20. SR 76/ Gird Road (s)
21. SR 76/ Sage Road (u)
22. SR 76/ Old Hwy 395 (s)
23. SR 76/ I-15 SB ramps (s)
24. SR 76/ I-15 NB ramps (s)
25. Pala Mesa Drive/ Street B (*future intersection*)
26. Pala Mesa Drive/ Pankey Road (*future intersection*)
27. Street A/ Pankey Road (*future intersection*)
28. Project Dwy # 1/ Pankey Road (*future intersection*)

29. Project Dwy #2/ Pankey Road (*future intersection*)
30. Project Dwy #3/ Pankey Road (*future intersection*)
31. Pankey Place/ Pankey Road (*future intersection*)
32. SR 76/ Pankey Road (u)
33. Project Dwy #4/ Pankey Road (*future intersection*)
34. SR 76/ Horse Ranch Creek Road (*future intersection*)
35. SR 76/ Rice Canyon Road (u)
36. SR 76/ Couser Canyon Road (u)
37. SR 76/ Pala Mission Road (s)
38. Dulin Road/ Old Highway 395 (u)

(s) – Signalized intersection

(u) – Unsignalized intersection

**Figure 3–1a** illustrates existing intersection controls within the study area.

## Street Segments

### **SR 76 (State Route)**

- Melrose Drive to E. Vista Way
- East Vista Way to North River Road
- North River Road to Olive Hill Road
- Olive Hill Road to South Mission Road
- South Mission Road to Via Monserate
- Via Monserate to Gird Road
- Gird Road to Sage Road
- Sage Road to Old Highway 395
- Old Highway 395 to Interstate 15 Southbound Ramps
- Interstate Northbound Ramps to Pankey Road
- Pankey Road to Horse Ranch Creek Road
- Horse Ranch Creek Road to Rice Canyon Road
- Rice Canyon Road to Couser Canyon Road
- Couser Canyon Road to Pala Mission Road

### **Old Highway 395**

- East Mission Road to Reche Road
- Reche Road to Stewart Canyon Road
- Stewart Canyon Road to Tecalote Lane
- Tecalote Lane to Pala Mesa Drive
- Pala Mesa Drive to SR 76 (Pala Road)

- SR 76 (Pala Road) to Dulin Road
- Dunlin Road to W. Lilac Road

#### ***Reche Road***

- Green Canyon Norte to Live Oak Park Road
- Live Oak Park Road to Gird Road
- Gird Road to Wilt Road
- Wilt Road to Tecalote Lane
- Tecalote Lane to Old Highway 395

#### ***Stewart Canyon Road***

- Old Highway 395 to Horse Ranch Creek Road

#### ***Pankey Road***

- Pala Mesa Drive to SR 76
- Dulin Road – SR 76 to Old Highway 395

### **3.1 Roadway Descriptions**

The following provides a brief description of the street system in the project area, including the Mobility Element network classifications (where applicable), and the current roadway configuration.

**Figure 3–1b** illustrates existing conditions in terms of traffic lanes along the study area roadways.

**Interstate 15 (I-15)** in the vicinity of the project is classified as a Freeway on the County of San Diego’s General Plan Mobility Element network.

I-15 from Rainbow Valley Boulevard to Escondido Highway (Old Highway 395) is constructed as an eight lane divided freeway with a center divider. The travel lanes are generally 12 feet in width and the shoulder is generally 10 to 12 feet in width. The posted speed limit is 70 MPH along I-15 in the vicinity of the project.

**State Route 76/Pala Road (SR 76)** from Oceanside city limits to S. Mission Road is classified as a 6.2 Prime Arterial. From S. Mission Road to Couser Canyon Road, SR 76 is classified as a 4.1A Major Road with bike lanes. From Couser Canyon Road to the Pala/Pauma Subregion boundary, SR 76 is classified as a 2.1D Community Collector with improvement options (passing lanes) and bike lanes. It should be noted that the Mobility Element cites “special circumstances” for the segment between Old Highway 395 and I-15 as “*Accepted at LOS E*”, based on requirements to obtain increased right-of-way to provide for additional turn lanes in this area.

SR 76 from Melrose Drive to S. Mission Road is generally constructed as a two-lane undivided roadway (one travel lane of approximately 12 feet in each direction) with shoulder widths ranging from one to five feet (total pavement width ranges from approximately 26 feet to approximately 34 feet). SR 76 from Via Monserate to Old Highway 395 is generally constructed as a two-lane un-

divided roadway (one travel lane of approximately 12 feet in each direction) with a shoulder width ranging from two to eight feet (total pavement width ranges from approximately 28 feet to approximately 40 feet). From Old Highway 395 to the I-15 southbound ramps, SR 76 is constructed within approximately 76 feet of pavement with a center two way left- turn lane of approximately 12 feet, two travel lanes in each direction for approximately 24 feet, and a paved shoulder in each direction of approximately eight feet. From the I-15 southbound ramps to the I-15 northbound ramps, SR 76 is constructed within approximately 56 feet of pavement with one travel lane of approximately 13 feet in each direction, a back to back left turn lane of approximately 14 feet, and a shoulder of approximately eight feet for each travel direction. From the I-15 northbound ramps to Pala Mission Road, SR 76 is constructed within approximately 28 feet with one travel lane of approximately 12 feet in each direction and a shoulder of approximately two feet in each direction. Speed limit signs of 55 MPH were observed on the segments between Melrose Drive and North River Road. Additionally, several horizontal alignment signs from the *Manual on Uniform Traffic Control Devices (MUTCD)* are posted along SR 76.

SR 76 has two identified widening projects that include the Caltrans SR 76 Middle Project (from approximately Melrose Drive to S Mission Road) and the Caltrans SR 76 East Project (from approximately S. Mission Road through the SR 76/I-15 interchange). On 10/24/08, the SANDAG Board approved the redistribution of funds between SR 76 corridor projects to fully fund the construction phase of the Caltrans SR 76 Middle Project. The SR 76 Middle Project is under construction. The estimated completion date for the Caltrans SR 76 Middle Project is 2012. The Caltrans SR 76 East Project is also under construction, and has identified *TransNet* as a funding source. The current estimate of completion for the SR 76 East project is 2017.

***Horse Ranch Creek Road*** is a proposed future roadway that will connect to the existing portion of Pankey Road south of Stewart Canyon Road to SR 76 along a new alignment. The project applicant for the Campus Park and Meadowood project proposes to construct Horse Ranch Creek Road per Mobility Element “Boulevard” standards.

***Old Highway 395*** is classified as a 2.1D Community Collector from the Rainbow Community Plan Area (CPA) boundary to the I-15 interchange (northbound ramps). Old Highway 395 is classified as a 2.1A Community Collector from the I-15 interchange (southbound ramps) to Pala Mesa Drive. From Pala Mesa Drive to SR 76, Old Highway 395 is classified as a 4.2B Boulevard with intermittent turn lanes. From SR 76 to the Bonsall CPA boundary, Old Highway 395 is classified as a 2.1D Community Collector with “unspecified” improvement options.

It should be noted that the Mobility Element identifies two segments of Old Highway 395 (Rainbow CPA boundary to Stewart Canyon Road, and Dulin Road W. to SR 76/Pala Road) as “*Accepted at LOS E/F*”, based on community input during the General Plan Update. However, this segment of roadway is not cleared as a General Plan override and any exceedance of LOS standards is the responsibility of the project to either: justify with an override or; propose an increased classification to carry expected volumes.



Currently, Old Highway 395 between Mission Road and Dulin Road is generally constructed as a two-lane undivided roadway (one travel lane of approximately 12 feet in each direction) with a shoulder width ranging from two to eight feet (total pavement width ranges from approximately 28 feet to approximately 40 feet). The posted speed limit on Old Highway 395 from Mission Road to SR 76 is 55 MPH. Between Dulin Road and W. Lilac Road, Old Highway 395 is generally constructed as a two-lane undivided roadway (one travel lane of approximately 12 feet in each direction) with a shoulder width ranging from two to six feet (total pavement width ranges from approximately 28 feet to approximately 36 feet). A posted speed limit was not observed on this segment of Old Highway 395 south of Dulin Road.

***Pankey Road*** from Pala Mesa Drive to SR 76 Pankey Road is classified as a 2.1A Community Collector on the Mobility Element network.

From Stewart Canyon Road to a terminus cul-de-sac approximately 0.7 miles to the south, Pankey Road is constructed with approximately 32 feet of pavement with a northbound travel lane of approximately 20 feet and southbound travel lane of approximately 12 feet.

The project applicant for the subject Campus Park West project proposes to reclassify and construct Pankey Road to 4.2A Boulevard standards from Pala Mesa Drive to SR 76, and will be responsible for constructing this segment of Pankey Road prior to final map and/or with the provision of security. Pankey Road includes a bridge segment and would need a reduction in classification to 2.1A Community Collector for this section. The 4.2A Boulevard classification would not continue south of SR 76, but this section will be built to a similar 4-lane boulevard standard.

The project will construct six (6) total driveways on Pankey Road: one (1) stop controlled “tee intersection” driveway north of Pala Mesa Drive, one (1) two-way stop-controlled driveway south of Pala Mesa Drive, two (2) signalized driveways between Pala Mesa Drive and Pankey Place, one (1) right-in/right-out unsignalized driveway north of Pankey Place, and one (1) signalized driveway south of SR 76.

From SR 76 south to Shearer Crossing (connects to Dulin Road), Pankey Road is constructed with approximately 40 feet of pavement and one travel lane in each direction. No posted speed limits were observed.

***Pala Mesa Drive*** is classified as a 2.2F Light Collector on the Mobility Element network, and is an unclassified roadway from Old Highway 395 to Pankey Road.

Pala Mesa Drive east of Old Highway 395 exists as a bridge over I-15 that is closed to traffic. From Old Highway 395 to Pankey Road, the Pala Mesa Drive alignment is proposed to be changed in order to avoid a biological wetland. The new alignment is shown throughout the various figures located within this report and will be a 2 lane roadway designed per County Standards to the satisfaction of the Department of Public Works (DPW).

The project applicant for Campus Park West will be responsible for constructing this segment of Pala Mesa Drive before obtaining occupancy permits, should Campus Park West be constructed prior to Campus Park or Meadowood.

**Pankey Place** is a proposed roadway that will provide a lateral, east/west connection (parallel to SR 76) between Pankey Road and Horse Ranch Creek Road. Pankey Place is proposed as a two lane roadway to be designed per County Standards to the satisfaction of the DPW.

**Stewart Canyon Road** from Old Highway 395 to Horse Ranch Creek Road is classified as a 4.1B Major Road on the Mobility Element network.

Stewart Canyon Road from Old Highway 395 to Pankey Road is generally constructed as a two-lane undivided roadway within approximately 40 feet of pavement. A posted speed limit was not observed on this segment.

**Reche Road** is classified as a 2.2B Light Collector (continuous turn lane) from Stage Coach Lane to Green Canyon Road in the Mobility Element network. From Green Canyon Road to Old Highway 395, Reche Road is classified as a 2.2C Light Collector (intermittent turn lane). Reche Road currently provides one lane in each direction within the project study area. Turn lanes are currently provided at several intersections along Reche Road between Green Canyon Road and Old Highway 395. Curbside parking is prohibited and bike lanes are not provided.

## **3.2 Existing Traffic Volumes**

### **3.2.1 Daily Segment Volumes**

**Table 3-2** is a summary of the Average daily traffic volumes (ADTs) conducted in May 2012. **Figure 3-2a** shows the existing ADTs within the study area.

**TABLE 3-1  
EXISTING TRAFFIC VOLUMES**

<b>Roadway Segment</b>	<b>ADT <sup>a</sup></b>	<b>Date</b>	<b>Source</b>
<b>Old Highway 395</b>			
East Mission Road to Reche Road	5,500	May, 2012	LLG Engineers
Reche Road to Stewart Canyon Road	6,200	May, 2012	LLG Engineers
Stewart Canyon Road to Tecalote Lane	6,900	May 2012	LLG Engineers
Tecalote Lane to Pala Mesa Drive	7,100	May, 2012	LLG Engineers
Pala Mesa Drive to SR 76 (Pala Road)	8,000	May, 2012	LLG Engineers
SR 76 (Pala Road) to Dulin Road	5,000	May, 2012	LLG Engineers
Dulin Road to W. Lilac Road	4,900	May, 2012	LLG Engineers
<b>Reche Road</b>			
Green Canyon Norte to Live Oak Park Road	10,900	May, 2012	LLG Engineers
Live Oak Park Road to Gird Road	11,100	May, 2012	LLG Engineers
Gird Road to Wilt Road	9,100	May, 2012	LLG Engineers
Wilt Road to Tecalote Road	8,400	May, 2012	LLG Engineers
Tecalote Road to Old Hwy 395	8,100	May, 2012	LLG Engineers
<b>Stewart Canyon Road</b>			
Old Hwy 395 to Horse Ranch Creek Road	900	May, 2012	LLG Engineers
<b>Pala Mesa Drive</b>			
Wilt/Sage Road to Old Highway 395	600	May, 2012	LLG Engineers

**Footnotes:**

a. Average Daily Traffic

### 3.2.2 Peak Hour Intersection Turning Movement Volumes

Existing weekday AM and PM peak hour turning movement counts were conducted in May 2012. It should be noted that based on the comparable sizes of both projects and to be consistent with surrounding projects, the study area intersections to be analyzed for “Campus Park West” would be identical in the Fallbrook/Bonsall Community Plan areas to the study area intersections analyzed for “Campus Park”. *Figure 3–2b* shows the existing AM/PM peak hour turning movements within the study area.

*Appendix A* contains copies of the peak hour intersection, daily segment, and freeway mainline count sheets

### 3.2.3 Freeway Mainline Volumes

Freeway daily volumes were obtained directly from Caltrans’ *Traffic and Vehicle Data on California State Highways* records. *Table 3–2* is a summary for the I-15 freeway mainline available average daily traffic volumes (ADTs). *Appendix A* contains the freeway mainline traffic data.

**TABLE 3–2**  
**EXISTING FREEWAY MAINLINE TRAFFIC VOLUMES**

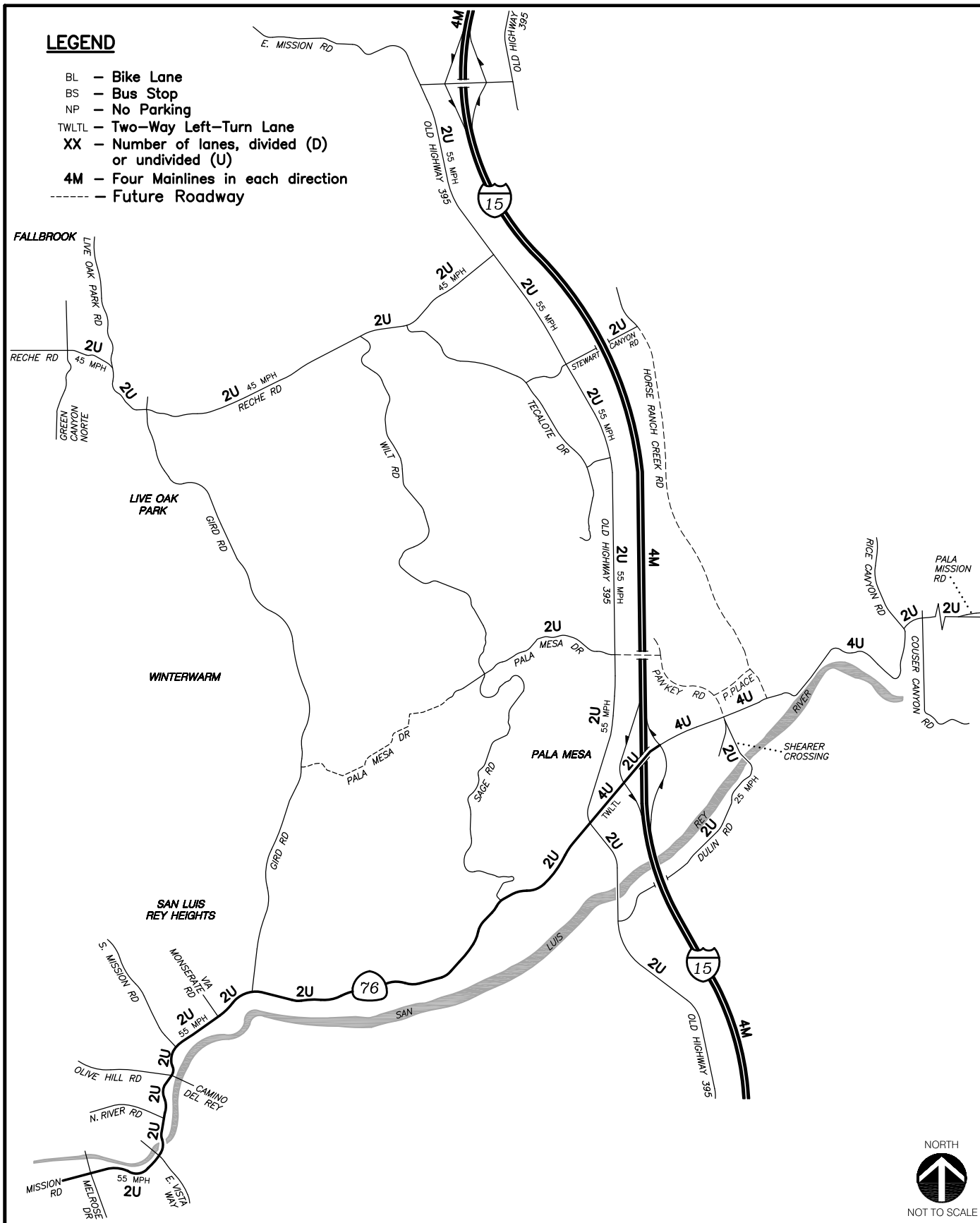
Freeway Segment	ADT <sup>a</sup>	Date	Source <sup>b</sup>
<b>Interstate 15</b>			
Rainbow Valley Boulevard to Mission Road	134,000	2011	Caltrans
Mission Road to SR 76	113,000	2011	Caltrans
SR 76 to Old Highway 395	107,000	2011	Caltrans

**Footnotes:**

a. Average Daily Traffic

**LEGEND**

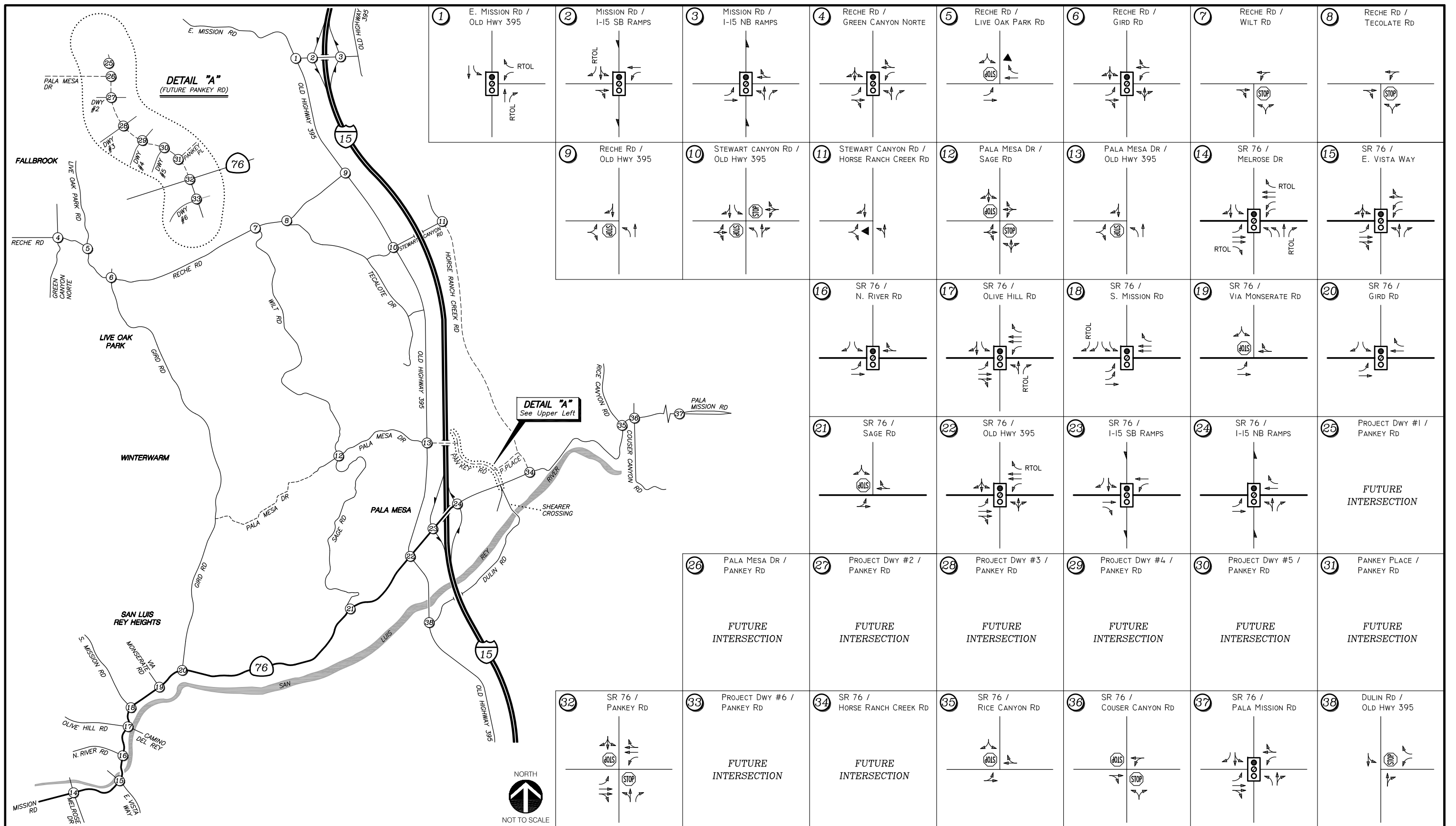
- BL - Bike Lane
- BS - Bus Stop
- NP - No Parking
- TWLT - Two-Way Left-Turn Lane
- XX - Number of lanes, divided (D) or undivided (U)
- 4M - Four Mainlines in each direction
- - - Future Roadway



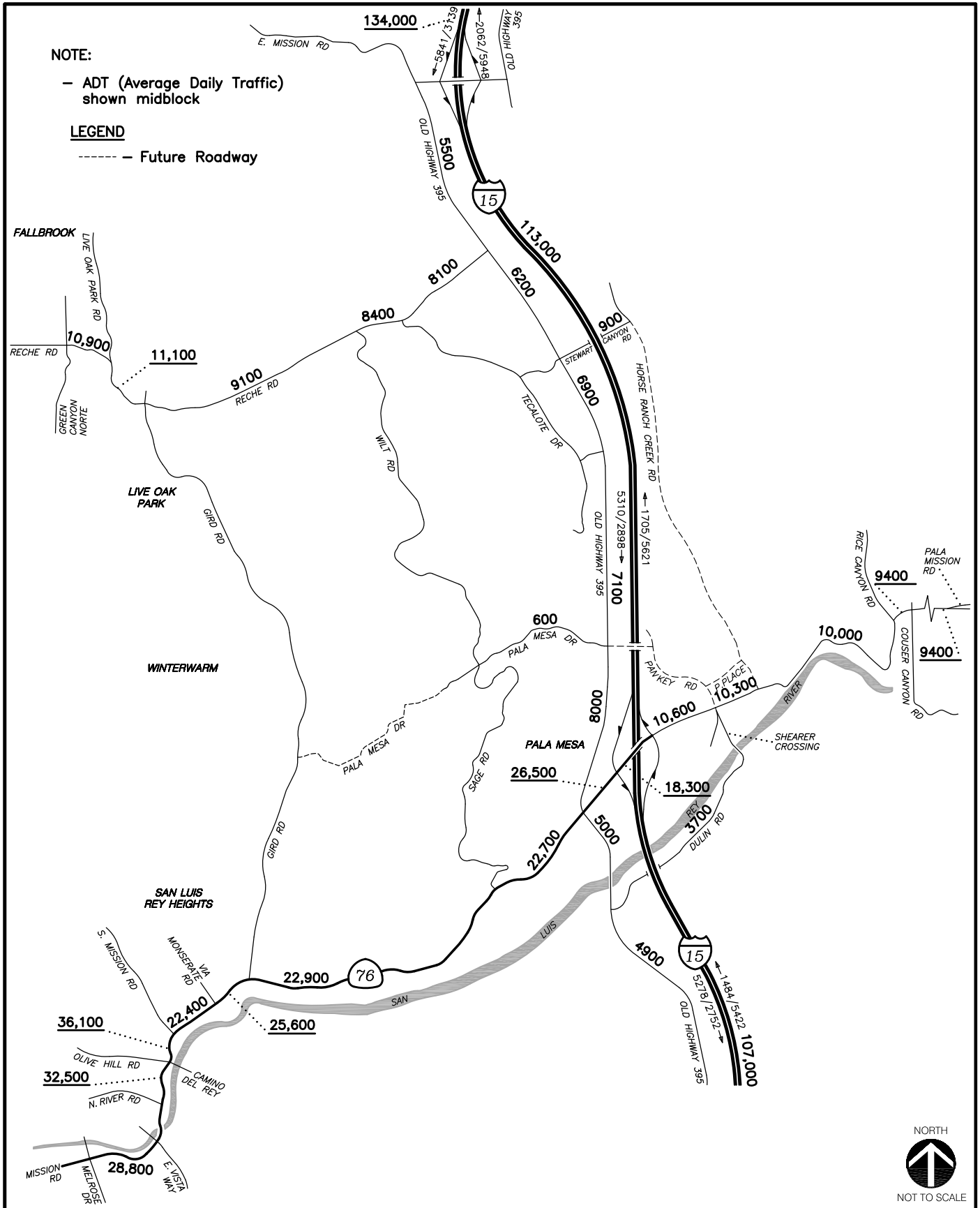
REV. 11/14/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 3-1A.DWG



**Figure 3-1a**  
**Existing Conditions Diagram**  
**(Roadway Segments)**



**Figure 3-1b**  
**Existing Conditions Diagram**  
**(Intersections)**

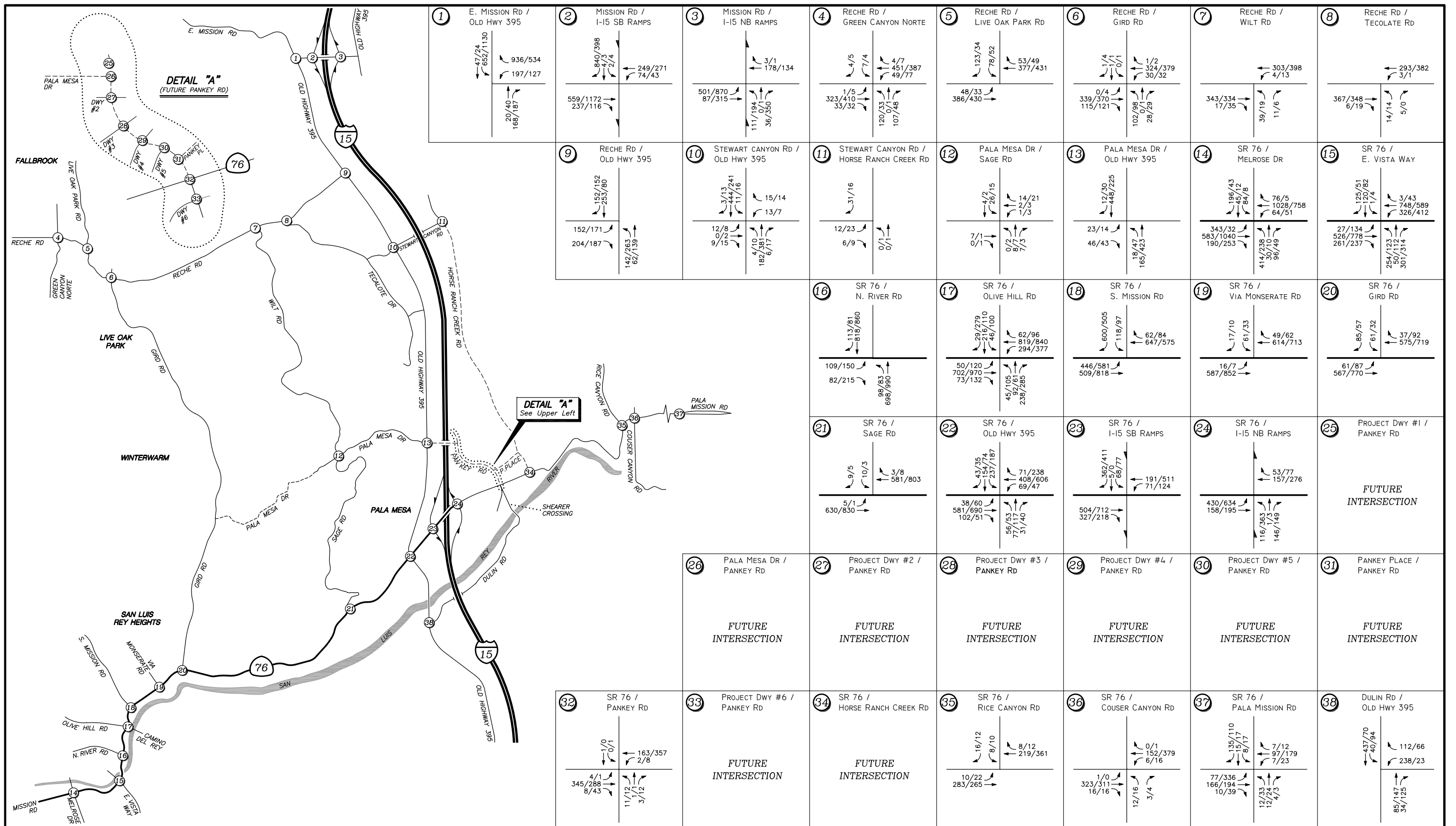


REV. 08/30/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 3-2A.DWG

**LINSCOTT  
 LAW &  
 GREENSPAN**  
 engineers

**Figure 3-2a**  
**Existing Traffic Volumes**  
**(Roadway Segments)**





**NOTES**

- Intersections follow East-West/North-South street names
- AM/PM peak hour volumes are shown at the intersections

**Figure 3-2b**  
**Existing Traffic Volumes**  
**(Intersections)**

## 4.0 ANALYSIS APPROACH AND 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.

### 4.1 Intersections

*Signalized intersections* were analyzed under AM and PM peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 16 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Synchro* (version 7) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection Level of Service (LOS). Signalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in *Appendix B*.

*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 Chapter 17 of the *2000 Highway Capacity Manual (HCM)*, with the assistance of the *Synchro* (version 7) computer software. Unsignalized intersection calculation worksheets and a more detailed explanation of the methodology are attached in *Appendix B*.

### 4.2 Street Segments

Street segment analysis is based upon the comparison of daily traffic volumes (ADTs) to the County of San Diego'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 County of San Diego's *Roadway Classification, Level of Service, and ADT Table* is attached in *Appendix C*.

### 4.3 Freeway Mainline Operations

Freeway segments were analyzed during the AM and PM peak hours based on the methodologies as outlined in the SANTEC/ITE Guidelines accepted by SANDAG and Caltrans. The freeway segments LOS is based on a Volume to Capacity (V/C) method. Page 5 of Caltrans' *Guide for the Preparation of Traffic Impact Studies*, December 2002 documents a maximum service flow rate of 2,350 passenger cars per hour per lane. The freeway LOS operations are based on the SANDAG's *2006 Congestion Management Program Update (July 2006)* v/c ratios as summarized below in *Table 4-1*.

**TABLE 4-1  
FREEWAY SEGMENTS LOS**

LOS	V/C
A	<0.41
B	0.62
C	0.8
D	0.92
E	1.00
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

LOS = Level of Service  
V/C = Volume/Capacity  
Source: SANTEC/ITE Guidelines

#### 4.4 ILV (Intersection Lane Vehicles) Operations

Caltrans requires that State-owned intersections be analyzed using Intersecting Lane Vehicles (ILV) methodology as described in Chapter 400, Topic 406 of the Caltrans' *Highway Design Manual*. The ILV methodology is based on the concept that capacity of intersecting lanes of traffic is 1,500 vehicles per hour. For the typical local street interchange there is usually a critical intersection of a ramp and the crossroads that establishes the capacity of the interchange. **Table 4-3** shows the ILV capacities.

The intersections of the I-15 Southbound and Northbound Ramps at SR 76 were analyzed in this report using the ILV methodology.

**TABLE 4-3  
ILV CAPACITIES**

<b>UNDER (LV/hr&lt;1200)</b>	<b>NEAR (ILV/hr 1200 – 1500)</b>	<b>OVER (ILV/hr &gt;1500)</b>
Denotes stable flow with slight but acceptable delay. Occasional signal loading may develop. Free mid-block operations.	Denotes unstable flow with considerable delay. Some vehicles occasionally wait two or more cycles to pass through the intersection. Continuous backup occurs at some approaches.	Denotes stop and go operation with severe delay and heavy congestion <sup>a</sup> . Traffic volume is limited by maximum discharge rates of each phase. Continuous backup in varying degrees occurs on all approaches. Where downstream capacity is restrictive, mainline congestion can impede orderly discharge through the intersection.

*Footnotes:*

- a. The amount of congestion depends on how much the ILV/hr value exceeds 1,500. Observed flow rates will normally not exceed 1,500 ILV/hr and the excess will be delayed in a queue

## 5.0 SIGNIFICANCE CRITERIA

The following criterion was utilized to evaluate potential significant impacts, based on the County’s documents “*Guidelines for Determining Significance*” updated on August 24, 2011.

### 5.1 Road Segments

Pursuant to the County’s General Plan Public Facilities Element (PFE), new development must provide improvements or other measures to mitigate traffic impacts to avoid:

- a. Reduction in Level of Service (LOS) below "C" for on-site Circulation Element roads;
- b. Reduction in LOS below "D" for off-site and on-site abutting Circulation Element roads; and
- c. "Significantly impacting congestion" on roads that operate at LOS "E" or "F". If impacts cannot be mitigated, the project cannot be approved unless a statement of overriding findings is made pursuant to the State CEQA Guidelines. The PFE, however, does not include specific guidelines for determining the amount of additional traffic that would “significantly impact congestion” on such roads.

The County has created the following guidelines to evaluate likely traffic impacts of a proposed project for road segments and intersections serving that project site, for purposes of determining whether the development would "significantly impact congestion" on the referenced LOS E and F roads. The guidelines are summarized in **Table 5–1**. The thresholds in *Table 5–1* are based upon average operating conditions on County roadways. It should be noted that these thresholds only establish general guidelines, and that the specific project location must be taken into account in conducting an analysis of traffic impact from new development.

**TABLE 5–1**  
**MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON**  
**CIRCULATION ELEMENT ROAD SEGMENTS**  
**ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS**

Level of Service	Two-Lane Road	Four-Lane Road	Six-Lane Road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

*General Notes:*

1. By adding proposed project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2. The County may also determine impacts have occurred on roads even when a project’s traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

***On-site Circulation Element Roads***—PFE, Transportation, Policy 1.1 states that “new development shall provide needed roadway expansion and improvements on-site to meet demand created by the development, and to maintain a Level of Service C on Circulation Element Roads during peak traffic hours”. Pursuant to this policy, a significant traffic impact would result if:

- The additional or redistributed ADT generated by the proposed land development project will cause on-site Circulation Element Roads to operate below LOS C during peak traffic hours.

**Off-Site Circulation Element Roads**—PFE, Transportation, Policy 1.1 also addresses offsite Circulation Element roads. It states that “new development shall provide off-site improvements designed to contribute to the overall achievement of a Level of Service D on Circulation Element Roads.” Implementation Measure 1.1.3 addressed projects that would significantly impact congestion on roads operating at LOS E or F. It states, “new development that would significantly impact congestion on roads operating at LOS E or F, either currently or as a result of the project, will be denied unless improvements are scheduled to attain a LOS to D or better or appropriate mitigation is provided.” The following significance guidelines define a method for evaluating whether or not increased traffic volumes generated or redistributed from a proposed project will “significantly impact congestion” on County roads, operating at LOS E or F, either currently or as a result of the project.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service impact on a road segment:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in *Table 5-1*, or
- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.

It should be noted that under Goal M-2: Policy M-2.1 of the County of San Diego *GPU Mobility Element*, “...there are instances where the County considers it more appropriate to retain a road classification that could result in an LOS E/F rather than increase the number of travel lanes.” Table M-4 of the *GPU* identifies the County segments where the County has determined that the adverse impacts of adding travel lanes does not justify the resulting benefit of increased capacity. The segment analyzed in this report to which this criteria applies is the following:

- SR 76 between Old Highway 395 and the I-15 Southbound Ramps (acceptable LOS E)

## 5.2 Multi-Lane Highways

The multi-lane highway analysis uses density of passenger cars per lane per mile (pc/ln/mi). Currently, there are no published criteria to determine significance from multi-lane highway analyses. Therefore, the analysis results presented in this report are informational at best. Similar to the other quantitative level of service scales/criteria used in this report, “LOS D” or better operations are considered acceptable. No significance is determined from this analysis and mitigation measures are not addressed.

### 5.3 Two-Lane Highways

#### *Signalized Intersection Spacing Over One Mile*

Two-lane highways with intersection spacing over one mile have minimal side friction and conform to the HCM assumptions for two-lane highways (specifically SR 76 and Old Highway 395, both of which are cited as examples in the County’s published significance guidelines). Criteria for LOS E and LOS F are provided in **Table 5–2** based upon criteria established with the Counties of Riverside and Sacramento and concurred upon by Caltrans–District 11. These criteria are appropriate for use for most projects with the potential to affect two-lane highways, as road conditions for two-lane highways in these Counties are similar to those in the County of San Diego. The criteria shown below are applicable for the daily capacity analysis of roadways functioning as two-lane highways.

**TABLE 5–2**  
**MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION**  
**ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS**  
 (With Signalized Intersection Spacing Over One Mile)

Level of Service	LOS Criteria	Impact Significance Level
LOS E	> 16,200 ADT	>325 ADT
LOS F	> 22,900 ADT	>225 ADT

*Source:* Table 3 Measures of Significant Project Impacts to Congestion: Allowable Increases on Two-Lane Highways with Signalized Intersection Spacing Over One Mile, County of San Diego *Guidelines for Determining Significance*, February 19, 2010.

**General Notes:**

1. Where detailed data is available, the Director of Public Works may also accept a detailed level of service analysis based upon the two-lane highway analysis procedures provided in Chapter 20 of the *Highway Capacity Manual*, 2000.

The County of San Diego does not have criteria for determining significance from the “two-lane highway” analysis results calculated using HCS+. Therefore, San Diego Traffic Engineers’ Council (SANTEC) criteria as outlined in Table 1 of the SANTEC/ITE *Guidelines for Traffic Impact Studies in the San Diego Region*, March, 2000, was utilized. The criteria states that a speed decrease of over one (1.0) mile per hour is considered significant and is shown in **Table 5–3**.

**TABLE 5–3**  
**MEASURE OF SIGNIFICANT PROJECT TRAFFIC IMPACTS ON**  
**TWO-LANE HIGHWAYS**

Level of Service with Project	Allowable Change due to Project Impact
	Roadway Segments
	Speed (mph)
D, E & F	1.0

*Source:* Table 1 Measure of Significant Project Traffic Impacts - SANTEC/ITE *Guidelines for Traffic Impact Studies in the San Diego Region*, March, 2000



## 5.4 Intersections

This section provides guidance for evaluating adverse environmental effects a project may have on signalized and unsignalized intersections. *Table 5-4* summarizes significant project impacts for signalized and unsignalized intersections.

**TABLE 5-4  
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON INTERSECTIONS  
ALLOWABLE INCREASES ON CONGESTED ROAD SEGMENTS**

Level of service	Signalized	Unsignalized
LOS E	Delay of 2 seconds or less	20 or less peak hour trips on a critical movement
LOS F	Either a Delay of 1 second, or 5 peak hour trips or less on a critical movement	5 or less peak hour trips on a critical movement

**General Notes:**

1. A critical movement is an intersection movement (right-turn, left-turn, through-movement) that experiences excessive queues, which typically operate at LOS F.
2. By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay *and* the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

**Signalized Intersections**—Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a signalized intersection:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in *Table 5-2*.
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

**Unsignalized Intersections**— The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn and/or through movement of an unsignalized intersection can substantially affect the calculated delay for the entire intersection. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic impact on an unsignalized intersection as listed in *Table 5–2* and described as text below:

- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or
- The additional or redistributed ADT generated by the proposed project will add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or
- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or
- The additional or redistributed ADT generated by the proposed project will add 6 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or
- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the project would significantly impact the operations of the intersection.

## **5.5 Caltrans**

### **5.5.1 ILV (*Intersection Lane Vehicles*) Operations**

Caltrans currently does not have significance criteria for ILV analyses. The analysis results presented in this report are informational at most. Therefore, no conclusions regarding significance re determined from this analysis and mitigation measures are not addressed.

### **5.5.2 Freeway Segments**

*Caltrans' Guide for the Preparation of Traffic Impact Studies*, December 2002, outlines recommended procedures for traffic study contents but does not identify specific traffic impact thresholds. Caltrans staff has indicated that there is a desire to maintain freeway operations between LOS C and D levels. Specific traffic impact thresholds are typically identified by local Caltrans staff. For the San Diego region, Caltrans' staff has previously indicated that an impact to a freeway is generally identified when project traffic causes the operations to drop one letter grade (i.e. from LOS D to LOS E or LOS E to LOS F).

## 6.0 ANALYSIS OF EXISTING CONDITIONS

The following is a summary of the roadway operations under existing traffic volume and capacity conditions.

### 6.1 Peak Hour Intersection Levels of Service

*Table 6-1* summarizes the existing peak hour signalized intersection operations. *Table 6-1* shows that all the study area signalized intersections currently operate at LOS D or better with the following exceptions:

- 1. E. Mission Road/ Old highway 395 – LOS E (PM peak hour)
- 17. SR 76/ Olive Hill Road – LOS E (PM peak hour)

*Table 6-1* also shows a summary of the weekday peak hour unsignalized intersection operations. This table shows that minor-street critical movement at each the study area unsignalized intersections currently operate at LOS D or better with the following exceptions:

- 9. Reche Road/Old Hwy 395 – LOS F (PM peak hour+)
- 19. SR 76 / Via Monserate Road – LOS E (AM peak hours) & LOS F (PM peak hours)

#### 6.1.1 Existing Operations—Daily Street Segment Operations

*Table 6-2* summarizes the existing roadway segment operations. As seen in *Table 6-2*, all the study area roadway segments are calculated to currently operate at LOS D or better on a daily basis except for the following locations which are calculated to operate at LOS E or F:

- SR 76 (Pala Road) – Olive Hill Road to S. Mission Road, LOS E
- SR 76 (Pala Road) – S. Mission Road to Via Monserate, LOS E
- SR 76 (Pala Road) – Via Monserate to Gird Road, LOS F
- SR 76 (Pala Road) – Gird Road to Sage Road, LOS E
- SR 76 (Pala Road) – Sage Road to Old Highway 395, LOS E

#### 6.1.2 Freeway Mainline Operations

*Table 6-3* shows the existing freeway mainline operations for the segments within the study area. This table shows that peak hour segments are calculated to currently operate at LOS C or better during both the AM and PM peak hours.

#### 6.1.3 Intersection Lane Vehicles Operations

*Table 6-4* summarizes the existing ILV operations. As seen in *Table 6-4*, the study area signalized SR 76 interchange is calculated to operate at near capacity or better during both the AM and PM peak hours.

**TABLE 6-1  
EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing	
			Delay <sup>a</sup>	LOS <sup>b</sup>
1. E. Mission Road/ Old Highway 395	Signal	AM	24.7	C
		PM	77.0	E
2. Mission Road/ I-15 SB Ramps	Signal	AM	27.6	C
		PM	53.3	D
3. Mission Road/ I-15 NB Ramps	Signal	AM	28.8	C
		PM	27.0	C
4. Reche Road/ Green Canyon Norte	Signal	AM	13.1	B
		PM	10.5	B
5. Reche Road/ Live Oak Park Road	TWSC <sup>c</sup>	AM	20.3	C
		PM	19.1	C
6. Reche Road/ Gird Road	Signal	AM	11.9	B
		PM	12.4	B
7. Reche Road/ Wilt Road	TWSC	AM	14.2	B
		PM	14.9	B
8. Reche Road/ Tecalote Road	TWSC	AM	13.4	B
		PM	15.3	C
9. Reche Road/ Old Highway 395	TWSC	AM	33.0	D
		PM	60.0	F
10. Stewart Canyon Road/ Old Highway 395	TWSC	AM	12.6	B
		PM	12.8	B
11. Steward Canyon Road/Horse Ranch Creek Road	TWSC	AM	8.6	A
		PM	5.7	A
12. Pala Mesa Drive/ Sage Road	TWSC	AM	8.9	A
		PM	8.9	A
13. Reche Road/ Old Highway 395	TWSC	AM	13.2	B
		PM	11.7	B
14. SR 76/ Melrose Drive	TWSC	AM	22.4	C
		PM	12.4	B
15. SR 76/ E. Vista Way	TWSC	AM	43.7	D
		PM	39.4	D

*Continued Next Page*

**TABLE 6-1 (CONTINUED)**  
**EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing	
			Delay <sup>a</sup>	LOS <sup>b</sup>
16. SR 76/ N. River Road	Signal	AM PM	14.9 19.0	B B
17. SR 76/ Olive Hill Road	Signal	AM PM	32.3 62.4	C E
18. SR 76/ S. Mission Road	Signal	AM PM	11.5 10.8	B B
19. SR 76/ Via Monserate Road	TWSC	AM PM	36.1 50.9	E F
20. SR 76/ Gird Road	Signal	AM PM	9.7 10.7	A B
21. SR 76/ Sage Road	TWSC	AM PM	20.2 26.1	C D
22. SR 76/ Old Highway 395	Signal	AM PM	39.2 36.8	D D
23. SR 76/ I-15 SB Ramps	Signal	AM PM	26.7 22.6	C C
24. SR 76/ I-15 NB Ramps	Signal	AM PM	29.1 50.1	C D
25. Project Driveway #1/ Pankey Road	TWSC	AM PM	<i>DNE</i> <i>DNE</i>	- -
26. Pala Mesa Drive/ Pankey Road	Signal	AM PM	<i>DNE</i> <i>DNE</i>	- -
27. Project Driveway #2/ Pankey Road	Signal	AM PM	<i>DNE</i> <i>DNE</i>	- -
28. Project Driveway #3/ Pankey Road	Signal	AM PM	<i>DNE</i> <i>DNE</i>	- -
29. Project Driveway #4/ Pankey Road	Signal	AM PM	<i>DNE</i> <i>DNE</i>	- -
30. Project Driveway #5/ Pankey Road	TWSC	AM PM	<i>DNE</i> <i>DNE</i>	- -

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**TABLE 6-1 (CONTINUED)**  
**EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing	
			Delay <sup>a</sup>	LOS <sup>b</sup>
31. Pankey Place/ Pankey Road	Signal	AM	<i>DNE</i>	–
		PM	<i>DNE</i>	–
32. SR 76/ Pankey Road	TWSC	AM	12.2	B
		PM	11.8	B
33. Project Driveway #6/ Pankey Road	Signal	AM	<i>DNE</i>	–
		PM	<i>DNE</i>	–
34. SR 76/ Horse Ranch Creek Road	Signal	AM	<i>DNE</i>	–
		PM	<i>DNE</i>	–
35. SR 76/ Rice Canyon Road	TWSC	AM	10.6	B
		PM	12.5	B
36. SR 76/ Couser Canyon Road	TWSC	AM	12.5	B
		PM	15.8	C
37. SR 76/ Pala Mission Road	Signal	AM	11.9	B
		PM	18.6	B
38. Dulin Road/ Old Highway 395	TWSC	AM	20.3	C
		PM	10.5	B

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. TWSC – Two-Way Stop Controlled intersection. Minor street left turn delay is reported.

**General Notes:**

DNE = Does not exist.

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  
EXISTING STREET SEGMENT CAPACITY ANALYSIS**

<b>Street Segments</b>	<b>Functional Classification</b>	<b>Existing Capacity (LOS E)<sup>b</sup></b>	<b>ADT<sup>c</sup></b>	<b>LOS<sup>d</sup></b>
<b>SR 76 (Pala Road)</b>				
Melrose Drive to E. Vista Way	4.1A Major Road	37,000	28,800	C
E. Vista Way to N. River Road	4.1A Major Road	37,000	32,500	D
North River Road to Olive Hill Road	4.1A Major Road	37,000	32,500	D
Olive Hill Road to South Mission Road	4.1A Major Road	37,000	36,100	E
South Mission Road to Via Monserate	2-Ln Highway	22,900	22,400	E
Via Monserate to Gird Road	2-Ln Highway	22,900	25,600	F
Gird Road to Sage Road	2-Ln Highway	22,900	22,900	E
Sage Road to Old Highway 395	2-Ln Highway	22,900	22,700	E
Old Highway 395 to I-15 Southbound Ramps	4.1A Major Road	37,000	26,500	C
I-15 Northbound Ramps to Pankey Road	4.1A Major Road	37,000	10,600	A
Pankey Road to Horse Ranch Creek Road	4.1A Major Road	37,000	10,300	A
Horse Ranch Creek Road to Rice Canyon Road	2-Ln Highway	22,900	10,000	A
Rice Canyon Road to Couser Canyon Road	2-Ln Highway	22,900	9,800	A
Couser Canyon Road to Pala Mission Road	2-Ln Highway	22,900	9,400	A
<b>Old Highway 395</b>				
East Mission Road to Reche Road	2-Ln Highway	22,900	5,500	B
Reche Road to Stewart Canyon Road	2-Ln Highway	22,900	6,200	C
Stewart Canyon Road to Tecalote Lane	2-Ln Highway	22,900	6,900	C
Tecalote Lane to Pala Mesa Drive	2-Ln Highway	22,900	7,100	C
Pala Mesa Drive to SR 76 (Pala Road)	2-Ln Highway	22,900	8,000	C
SR 76 (Pala Road) to Dulin Road	2-Ln Highway	22,900	5,000	B
Dulin Road to W. Lilac Road	2-Ln Highway	22,900	4,900	B

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**TABLE 6-2 (CONTINUED)**  
**EXISTING STREET SEGMENT CAPACITY ANALYSIS**

<b>Street Segments</b>	<b>Functional Classification</b>	<b>Existing Capacity (LOS E) <sup>b</sup></b>	<b>ADT <sup>c</sup></b>	<b>LOS <sup>d</sup></b>
<b>Reche Road</b>				
Green Canyon Norte to Live Oak Park Road	Rural Collector	19,000	10,900	D
Live Oak Park Road to Gird Road	Rural Collector	19,000	11,100	D
Gird Road to Wilt Road	Rural Collector	19,000	9,100	C
Wilt Road to Tecalote Road	Rural Collector	19,000	8,400	C
Tecalote Road to Old Hwy 395	Rural Collector	19,000	8,100	C
<b>Stewart Canyon Road</b>				
Old Hwy 395 to Horse Ranch Creek Road	Light Collector	16,200	900	A
<b>Pankey Road</b>				
Pala Mesa Drive to Street A	<i>DNE</i>	–	–	–
Street A to Project Driveway # 1	<i>DNE</i>	–	–	–
Project Driveway # 1 to Project Driveway #2	<i>DNE</i>	–	–	–
Project Driveway # 2 to Project Driveway #3	<i>DNE</i>	–	–	–
Project Driveway #3 to Pankey Place	<i>DNE</i>	–	–	–
Pankey Place to SR 76 (Pala Road)	<i>DNE</i>	–	–	–
SR 76 (Pala Road) to Shearer Crossing	Light Collector	16,200	3,700	A
Shearer Crossing to Old Highway 395	Light Collector	16,200	3,700	B
<b>Pala Mesa Drive</b>				
Wilt/Sage Road to Old Highway 395	2.2F Light Collector	9,700	600	A
Old Highway 395 to Pankey Road	<i>DNE</i>	–	–	–

**Footnotes:**

- a. Capacity based on *County of San Diego Roadway Classification* at LOS E.
- b. Average Daily Traffic Volumes referenced from *Campus Park Traffic Study* by *LOS Engineering (May 2009)*, rounded to the nearest 10).
- c. ADT = Average Daily Traffic Volume
- d. Level of Service.

**General Notes:**

DNE = Does not exist.

**TABLE 6-3  
EXISTING FREEWAY MAINLINE OPERATIONS**

I-15 Freeway Segments	Existing ADT <sup>a</sup>	AM Peak Hour					PM Peak Hour				
		Direction	Volume <sup>a</sup>	Capacity <sup>b</sup>	V/C	LOS	Direction	Volume	Capacity	V/C	LOS
Rainbow Valley Blvd. to Mission Road (4 Mainline lanes)	134,000	NB	2,062	9,400	0.219	A	NB	5,948	9400	0.633	C
		SB	5,841	9,400	0.621	C	SB	3,139	9400	0.334	A
Mission Road to SR 76 (Pala Road) (4 Mainline lanes)	113,000	NB	1,705	9,400	0.181	A	NB	5,621	9400	0.598	B
		SB	5,310	9,400	0.565	B	SB	2,898	9400	0.308	A
SR 76 to Escondido Hwy (Old 395) (4 Mainline lanes)	107,000	NB	1,484	9,400	0.158	A	NB	5,422	9400	0.577	B
		SB	5,278	9,400	0.561	B	SB	2,752	9400	0.293	A

**Footnotes:**

- a. Existing ADT Volumes, K, D and truck factors referenced from SR 76 East Project completed by LLG Engineers for Caltrans (March 2009).
- b. Capacity based on 2,350 vehicles/hour/lane for mainlines and 1,200 vehicles/hour/lane for auxiliary lanes.

LOS	V/C	LOS	V/C
A	<0.41	F(0)	1.25
B	0.62	F(1)	1.35
C	0.80	F(2)	1.45
D	0.92	F(3)	>1.46
E	1.00		

**TABLE 6-4  
EXISTING ILV OPERATIONS**

<b>Intersection</b>	<b>Peak Hour</b>	<b>Total Operating Level (ILV/Hr)</b>	<b>Capacity</b>
SR 76 / I-15 Southbound Ramps	AM	937	Under Near
	PM	1,247	
SR 76 / I-15 Northbound Ramps	AM	733	Under Near
	PM	1,276	

**General Notes:**

1. ILV – Intersection Lane Volume

<i>Status</i>	
≤ 1,200 ILV/hr	Under Capacity
> 1,200 ≤ 1,500 ILV/hr	Near Capacity
> 1,500 ILV/hr	Over Capacity

## 7.0 TRIP GENERATION/DISTRIBUTION/ASSIGNMENT

The Campus Park West project proposes to construct a mixed-use residential/retail community consisting of residential condominium units, shopping center, and office/industrial space. The project is situated within the unincorporated San Diego County community of Fallbrook. Local access is provided primarily via Pankey Road and SR 76 to the south. Regional access is provided via I-15 to the west.

The project is part of a development cluster commonly referred to as the “3 P’s”, so-named for the initials of the three developers: *Pardee, Pasarelle, and Pappas*. The Campus Park West project is the Pappas development. LOS Engineering has prepared traffic studies for the other two projects, Campus Park (mixed-use and retail) and Meadowood (residential).

### 7.1.1 Trip Generation Calculations

LLG has prepared the project trip generation in accordance with the standards of practices used in the County of San Diego. Regionally, there are two published, primary sources used to calculate trip generation: the San Diego Association of Governments’ (SANDAG’s) (*not so*) *Brief Guide of Vehicular Traffic Generation Rates, April 2002*, and the *ITE Trip Generation Handbook, 7<sup>th</sup> Edition*. These publications provide trip rates and trip reduction percentages for various land uses on a daily and peak hour basis. For the Campus Park West Project, LLG used the County’s preferred SANDAG rates to calculate the project’s trip generation.

LOS Engineering has done extensive work for the Campus Park and Meadowood Traffic Studies to determine the appropriate amount of “internal capture” in the study area, based on the fact that there is a substantial amount of complementary land uses, which would encourage mixed-use interaction among them, thereby reducing project trips outside of the study area. LOS Engineering provided a letter dated December 11, 2007 addressed to the County of San Diego requesting approval of the utilization of a 30% total internal capture rate. The rate was based on SANDAG Series 11, 2030 Model in addition to other supporting data from the *Institute of Transportation Engineers (ITE)*. Both the County of San Diego and Caltrans approved this reduction.

LLG calculated the gross trip generation for each use using the appropriate published rate. Next, an overall “internal capture” reduction of 30% was applied for all of the land uses, consistent with the LOS Engineering studies. These trips will still occur at the project driveways and on internal roadways; they will not affect the external roadways outside of the “3P’s” collective study area.

Of the remaining “external trips” (the 70% of gross expected to occur outside the 3P’s collective study area), three types of trips were calculated for each use where appropriate: “primary”, “pass-by” and “diverted-linked” trips. The trip percentages are based on SANDAG rates for each of the three different trip types:

**Primary trips** are defined as one trip directly between an origin and the primary destination. The sole intent of this trip is to arrive at the primary destination. *These are new trips to the region.*

**Pass-By trips** are trips with other purposes than the project that are already on the adjacent street system, and have direct access to the site. These trips “pass-by” the project driveway while en route to a primary destination. The out-of-direction travel for a pass-by trip is defined as less than 1 mile from the site. *These are not new trips to the region.*

**Diverted-linked trips** are trips that are attracted from the existing traffic volume on roadways within the vicinity of the generator but that require a diversion from that roadway to another to gain access to the site. *These are not new trips to the region.*

While neither pass-by nor diverted-linked trips would be considered new primary trips on the greater street system they would be new “driveway” trips at the project site.

The County of San Diego provided direction to the Campus Park West project that the pass-by and diverted-linked trips reductions could only be taken for the retail land uses located south of SR 76.

As discussed earlier, a 30% total internal capture reduction is assumed for the entire 3P’s study area, based on justification provided by LOS Engineering on behalf of the Campus Park and Meadowood projects. Justification provided by LOS Engineering for the 30% reduction show that this percentage was empirically derived based on recent studies conducted by LOS Engineering in the County of San Diego as well as a thorough review of literature published on the subject. LOS Engineering’s assessment included traffic for the Campus Park West Project. Both the County of San Diego and Caltrans have approved of this reduction.

The County of San Diego provided direction to the Campus Park West project that the internal capture percentage could only be taken for the contiguous land uses located north of SR 76.

*Table 7-1* shows the completed trip generation summary for the project, including the peak hour estimates. The SANDAG guide does not provide pass-by and diverted-linked trip rate for the AM peak hours.

**Appendix D** contains a copy of the LOS Engineering “Internal Capture” Letter dated December 11, 2007, as well as a copy of the County of San Diego and Caltrans’ approval letters of this memo.

The following is a discussion of each of the project’s land uses, the trip rates used, and the overall daily (ADT) trip generation calculation for each use.

### **7.1.2 Project Trip Generation – Commercial Land Uses**

The Commercial component of the project includes three shopping centers of varying size and intensities. The first commercial center is located north of SR 76 and along the west side of Pankey Road and will provide approximately 476,000 square feet (square feet) of retail space. The second commercial center will be located south of SR 76 and west of Pankey Road providing a total of 18,500 square feet of commercial/retail space. The third commercial center will be located south of SR 76 and east of Pankey Road providing 9,000 square feet of commercial/retail space. A project trip generation summary for each commercial/retail use is provided below.

### **Community Shopping Center (476,000 square feet) – North of SR 76**

The SANDAG Brief Guide considers a “regional shopping center” to be between 400,000 and 800,000 square feet. Based on SANDAG rates for a “*regional shopping center*” (50.0 trips per 1,000 square feet), the total number of driveway trips generated by this component is 23,800 ADT (50.0 \* 476.000 thousand square feet).

Based on discussions with the County of San Diego, no further trip reductions (like diverted link or pass-by trips) were applied for this land use.

### **Commercial/Retail Center (18,500 square feet) – South of SR 76 & West of Pankey Road**

The SANDAG Brief Guide considers a “specialty retail/strip commercial” to be less than 125,000 square feet. Within this 18,500 square-foot development, 3,500 square feet is proposed to be “drive through restaurant”, and 15,000 square feet is proposed to be “specialty retail”. Based on SANDAG rates for “fast food (w/drive-through)” restaurants (650 trips per 1,000 square feet), the total number of driveway trips generated by this component is 2,275 ADT (650.0 \* 3.500 thousand square feet). Based on SANDAG rates for a “*specialty retail/strip commercial*” (40.0 trips per 1,000 square feet), the total number of driveway trips generated by the retail is 600 ADT (40.0 \* 15.000 thousand square feet). No reductions for internal capture were taken for these land uses.

SANDAG rates suggest the following reductions for diverted-linked and pass-by trips for fast food (w/drive through) and specialty retail, respectively:

- Diverted-linked trips: 30/40% / (841 ADT /239 ADT);
- Pass-by trips: 12/15% (272 ADT /89 ADT)

Thus, a combined reduction of 1,441 ADT (841 + 239 + 272 + 89) can be taken on the adjacent street system, as these are not new trips, but rather trips already on the roadway.

### **Commercial Retail (12,500 total square feet) – South of SR 76 & East of Pankey Road**

A fast food restaurant with drive through is proposed at this location, along with a gas station. Sixteen (16) fueling spaces are assumed. Based on SANDAG rates for “fast food (w/drive-through)” (650 trips per 1,000 square feet), the total number of driveway trips generated by the “fast food w/drive through” restaurant is 2,275 ADT (650 \* 3.500 thousand square feet). No reductions for internal capture were taken for this land use. For the gas station use, the published rates are 160 trips per fueling space. Therefore, the total number of driveway trips generated by the gas station is 2,560 ADT (160 \* 16 fueling spaces). No reductions for internal capture were taken for this land use.

The SANDAG rates suggest the following reductions for diverted-linked and pass-by trips for fast food restaurant (w/drive through) and gas station, respectively:

- Diverted-linked trips: 37/37% (841 ADT /1,305 ADT);
- Pass-by trips: 12/12% (272 ADT/ 716 ADT)

Thus, a combined reduction of 3,134 (841 +1,305 + 272 + 716) can be taken on the adjacent street system, as these are not new trips, but rather trips already on the roadway.

### **7.1.3 Project Trip Generation – Mixed Use: Residential/ Office**

As part of the project, Campus Park West will provide a mixed residential and office component. The project will provide parcels north of SR 76 and west of Pankey Road for condominium and professional office. The mixed-use development will encompass 120,000 square feet of office/industrial and 35 units of condominium use in proximity to the retail uses. The trip generation for both the mixed use office/industrial and residential development is detailed as follows:

#### **Mixed Use – Office/Industrial (120,000 square feet) – North of Pala Mesa Drive**

The “office” component of the mixed use “residential/ office” was calculated using the SANDAG rates for “*standard commercial office*” (20.0 trips per 1,000 square feet). Based on this rate, the total number of driveway trips generated by component is 2,400 ADT (20.0 \* 120,000 square feet). Pass-by and diverted-linked reductions are only applied to commercial land uses. Therefore, neither of these reductions is applied.

#### **Mixed Use – Residential (35 Units) – North of SR 76 & West of Pankey Road**

Based on SANDAG rates for “*Condominium*” (8.0 trips per unit), the total number of driveway trips associated with this component of the project is 280 ADT (8.0 \* 35 units). Again, pass-by and diverted-linked reductions are only applied to commercial land uses. Therefore, neither of these reductions is applied.

### **7.1.4 Project Trip Generation – Residential**

The final component of the project is the development of 252 condominium units. The trip generation for the condominiums is detailed below.

#### **Residential (248 Condominiums) – North of SR 76 and East of Pankey Road**

Based on SANDAG rates, a “*Condominium*” rate (8.0 trips per dwelling unit) was the most appropriate for this land use. Subsequent to the completion of the analyses in this report, a minor revision to the land plan was made and the multifamily unit-count was reduced by 4 units. This report analyzes the effects of 252 units, resulting in 2,016 trips on a daily basis. Pass-by and diverted-linked reductions are only applied to commercial land uses.

**Appendix E** contains project distribution and assignments (Primary, diverted, pass-by and internal) for all the project land uses.

### **Trip Generation Summary**

The total Campus Park West Project trip generation equals 36,206 ADT (driveway trips). These are new trips at the project’s driveways, but these are not all new trips to the region. These trips are classified as either internal trips (origins and destinations within the collective 3P’s study area), or external trips, which affect roadways outside the 3P’s study area.



The internal trip percentage is calculated using the approved internal-capture reduction for the 3P's study area (30% total, or 8,549 ADT for Campus Park West), obtained by LOS Engineering for the adjacent Campus Park and Meadowood projects. Again, the internal capture reduction is applied only the land uses located north of SR 76.

The external trips (70%, or 23,071 ADT for Campus Park West) are further classified as primary trips, diverted-linked trips or pass-by trips. These percentages are calculated using published SANDAG trip generation rates accepted by both the County and Caltrans. The primary external trips are new, regional trips that would be distributed throughout the study area. The diverted-linked trips are existing trips (largely on I-15) that would divert to the Project, and then back to the original route. These are not new trips in the region. The pass-by trips are more immediate existing trips (largely on SR 76 and Pankey Road) that would also not be new trips in the region.

**TABLE 7-1  
PROJECT TRIP GENERATION**

Land Use	Quantity	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
		Rate <sup>a</sup>	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
<b>North of SR 76</b>													
<i>Area A – North of Pala Mesa Drive</i>													
<i>Office/Industrial</i>	120,000 SF	20 /KSF	2,400	14%	9:1	302	34	336	13%	2:8	62	250	312
<i>Internal Capture (30%)</i>			720	14%	9:1	91	10	101	13%	2:8	19	75	94
<i>Total External Trips</i>			1,680	14%	9:1	211	24	235	13%	2:8	43	175	218
<b>Primary External (100%)</b>			<b>1,680</b>	0	9:1	<b>211</b>	<b>24</b>	235	0	2:8	<b>43</b>	<b>175</b>	218
<i>Area B – Pala Mesa Drive to SR 76</i>													
<i>Retail – W. of Pankey Rd.</i>	476,000 SF	50 /KSF	23,800	4%	7:3	666	286	952	9%	5:5	1,071	1,071	2,142
<i>Internal Capture (30%)</i>			7,140	4%	7:3	200	86	286	9%	5:5	322	321	643
<i>Total External Trips</i>			16,600	4%	7:3	466	200	666	9%	5:5	749	750	1,499
<b>Primary External (100%)</b>			<b>16,600</b>	0	7:3	<b>466</b>	<b>200</b>	666	0	5:5	<b>749</b>	<b>750</b>	1,499
<i>Mixed Use Residential (Condominium) – W. of Pankey Rd.</i>	35 Dwelling Units	8 /Dwelling	280	8%	2:8	5	18	23	10%	7:3	20	8	28
<i>Internal Capture (30%)</i>			84	8%	2:8	1	6	7	10%	7:3	6	3	9
<i>Total External Trips</i>			196	8%	2:8	3	13	16	10%	7:3	13	6	19
<b>Primary External (100%)</b>			<b>196</b>	8%	2:8	<b>3</b>	<b>13</b>	16	10%	7:3	<b>13</b>	<b>6</b>	19
<i>Residential (Condominium) – E. of Pankey Rd.</i>	252 Dwelling Units	8 /Dwelling	2,016	8%	2:8	32	130	162	10%	7:3	141	61	202
<i>Internal Capture (30%)</i>			605	8%	2:8	10	39	49	10%	7:3	43	18	61
<i>Total External Trips (100%)</i>			1,411	8%	2:8	23	90	113	10%	7:3	99	42	141
<b>Primary External (100%)</b>			<b>1,411</b>	8%	2:8	<b>23</b>	<b>90</b>	113	10%	7:3	<b>99</b>	<b>42</b>	141

*Continued on Next Page*

**TABLE 7-1  
PROJECT TRIP GENERATION**

Land Use	Quantity	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
		Rate <sup>a</sup>	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
						In	Out	Total			In	Out	Total
<b>South of SR 76</b>													
<b>Area C – South of SR 76 <sup>b</sup></b>													
<i>Commercial – W. of Pankey Rd.</i> Drive Through Restaurant	3,500 SF	650 /KSF	2,275	7%	5:5	80	80	160	7%	5:5	80	80	160
<i>Internal Capture (30%)</i>			0	7%	5:5	0	0	0	7%	5:5	0	0	0
<i>Total External Trips</i>			2,275	0	5:5	80	80	160	0	5:5	80	80	160
<b>Primary External (51%)</b>		<b>Primary (51%)</b>	1,159	0%	0	<b>41</b>	<b>41</b>	82	0	5:5	<b>41</b>	<b>41</b>	82
Diverted External (37%)		Diverted (37%)	841	7%	5:5	0	0	0	7%	5:5	30	29	59
Pass-By External (12%)		Pass-By (12%)	272	7%	5:5	0	0	0	7%	5:5	9	9	18
<i>Retail – W. of Pankey Rd.</i>	15,000 SF	40 / KSF	600	3%	6:4	11	7	18	9%	5:5	27	27	54
<i>Internal Capture (30%)</i>			0	3%	5:5	0	0	0	9%	5:5	0	0	0
<i>Total External Trips</i>			600	0	5:5	9	9	18	0	5:5	27	27	54
<b>Primary External (45%)</b>		<b>Primary (45%)</b>	269	0%	5:5	<b>9</b>	<b>9</b>	18	0	5:5	<b>13</b>	<b>12</b>	25
Diverted External (45%)		Diverted (45%)	239	3%	5:5	0	0	0	9%	5:5	11	11	22
Pass-By External (15%)		Pass-By (15%)	89	3%	5:5	0	0	0	9%	5:5	3	2	5
<i>Commercial – E. of Pankey Rd.</i> Drive Through Restaurant (est. based on GSF)	3,500 SF	650 /KSF	2,275	7%	5:5	80	80	160	7%	5:5	80	80	160
<i>Internal Capture (30%)</i>			0	7%	5:5	0	0	0	7%	5:5	0	0	0
<i>Total External Trips</i>			2,275	0	5:5	80	80	160	0	5:5	80	80	160
<b>Primary External (51%)</b>		<b>Primary (51%)</b>	<b>1,159</b>	0	5:5	80	80	160	0	5:5	<b>41</b>	<b>41</b>	82
Diverted External (37%)		Diverted (37%)	841	7%	5:5	0	0	0	7%	5:5	30	29	59
Pass-By External (12%)		Pass-By (12%)	272	7%	5:5	0	0	0	7%	5:5	9	9	18
<i>Gas Station – E. of Pankey Rd.</i>	16	160 /Fueling Space	2,560	7%	5:5	90	90	180	8%	5:5	103	102	205
<i>Internal Capture (30%)</i>			0	7%	5:5	0	0	0	8%	5:5	0	0	0
<i>Total External Trips</i>			2,560	0	5:5	108	72	180	0	5:5	103	102	205
<b>Primary External (21%)</b>		<b>Primary (21%)</b>	<b>537</b>	0	5:5	108	72	180	0	5:5	<b>22</b>	<b>21</b>	43
Diverted External (51%)		Diverted (51%)	1,305	7%	5:5	0	0	0	8%	5:5	53	52	105
Pass-By External (28%)		Pass-By (28%)	716	7%	5:5	0	0	0	8%	5:5	12	12	24

Continued on Next Page

**TABLE 7-1  
PROJECT TRIP GENERATION**

Land Use	Daily Trip Ends (ADT)	AM Peak Hour					PM Peak Hour				
	Volume	% of ADT	In:Out Split	Volume			% of ADT	In:Out Split	Volume		
				In	Out	Total			In	Out	Total
<b>Trip Generation Summary</b>											
Gross Trip Generation <sup>c</sup>	36,206	-	-	1,266	725	1,991	-	-	1,584	1,679	3,263
Average Internal Capture Reduction (average 30%) <sup>d</sup>	8,549	-	-	302	141	443	-	-	390	417	807
<i>Total External Trips</i>	<i>27,657</i>	-	-	<i>980</i>	<i>568</i>	<i>1,548</i>	-	-	<i>1,194</i>	<i>1,262</i>	<i>2,456</i>
<b><i>Total Primary External Trips</i></b>	<b><i>23,071</i></b>	-	-	<b><i>813</i></b>	<b><i>437</i></b>	<b><i>1,250</i></b>	-	-	<b><i>1,021</i></b>	<b><i>1,088</i></b>	<b><i>2,109</i></b>
Total Diverted External Trips	3,226	-	-	N/A	N/A	N/A	-	-	124	121	245
Total Pass-by External Trips	1,349	-	-	N/A	N/A	N/A	-	-	33	32	65

**Footnotes:**

- Trip Generation rates based on published SANDAG Trip Generation Rates (Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, 2002).
- Pass-By trips only assumed for the Daily Trip Ends (ADT) and PM Peak Hour, for Parcels South of SR 76, per County/Caltrans 3-22-09 letter.
- Total Trip Generation assumes no Pass-By or Diverted trip reductions.
- A 30% Internal Capture reduction was applied to Gross Trip Generation for parcels located north of SR-76, per County/Caltrans 3-22-09 letter

**General Note:**

- A potential sheriff's substation, sewer treatment plant and transit center could occur in lieu of higher-generating commercial/residential uses assumed in the trip generation and subsequent analysis. This would result in less traffic than shown in this table.

## 7.2 Project Trip Distribution

The Campus Park West project proposes to construct a mixed-use residential/retail/employment community consisting of condominium units, a shopping center, office/industrial space, and industrial components. The project is situated within San Diego County. Local access is provided primarily via Pankey Road and SR 76 to the south. Regional access is provided via I-15 to the west.

The Proposed Project is part of a development cluster commonly referred to as the “3 P’s”, so-named for the initials of the three developers: Pardee, Pasarelle, and Pappas. The Campus Park West project is the Pappas development. LOS Engineering has prepared traffic studies for the other two projects, Campus Park (mixed-use and retail) and Meadowood (residential). The studies for these other projects are further developed than for Campus Park West, and LOS Engineering has done extensive modeling to determine the regional trip distribution for each.

To the benefit of all parties, LLG and LOS Engineering have coordinated closely on much of the key data and assumptions for the projects’ traffic studies, including existing counts and analysis, cumulative projects assessment and analysis, buildout modeling and analysis, and regional trip distribution.

The 3P’s projects present a challenge for determination of their regional traffic distribution. On the one hand, the projects contain residential and office/industrial uses that, due to the rural location of the sites, would be expected to have more regional, freeway oriented distribution to/from major employment and residential centers north and south of the SR 76 corridor on I-15. On the other hand, the projects have retail/commercial uses that could be expected to attract more local trips from communities east and west of I-15, such as Bonsall, Fallbrook and Pala. These trips could be expected to use the local roadways (SR 76, Reche Road and Old Highway 395) more than I-15.

A third element in the trip distribution determination is the concepts of “diverted- linked”, “pass-by” and “internally captured” trips. These are all phenomena that serve to reduce the amount of regional trips. Diverted link trips would not be new trips to the road, but rather exiting trips (e.g., on I-15) that would divert to the retail/commercial uses for a short distance on SR 76 and Pankey Road. Likewise, pass-by trips would be existing trips already on SR 76 or Pankey Road that would be attracted to retail/commercial use as they “pass-by” the projects’ driveways. Finally, the internally captured trips are trips that would originate and terminate within the confines of the 3P’s projects, given the mixed-use opportunities (e.g., residential/office, residential/retail, office/retail, etc.) afforded by the three projects.

### 7.2.1 Near-Term Project Distribution and Assignment

The near-term project distribution and assignment were deduced from the long-term. In the near-term, the inter-project trips will vary based on the level of mixed-use development between the 3P’s. Under near-term conditions, no project traffic between the “3P” Traffic Analyzes Zones (TAZ) is assumed because commercial land uses proposed by Campus Park West might be constructed before a critical mass of residential units by Campus Park are built and occupied. Thus, a conservative

analysis is provided where no inter-project trips are assumed among the 3P's under Existing + Project conditions. For the Existing + Project scenario, the inter-project traffic between the 3P's in the long-term project assignment were taken and redistributed to the external roadway system as primary trips. However, the near-term cumulative (Existing + Cumulative + Project) scenario assumes intra project trips between the 3P's, similar to the long-term with project scenario.

The near-term project traffic distribution for the "Residential" land uses is shown in *Figures 7-1a* thru *7-1c*. The near-term "Residential" project traffic assignment is shown in *Figures 7-2a* and *7-2b*.

The near-term project traffic distribution for the "Commercial" land uses is shown in *Figures 7-3a* thru *7-3c*. The near-term "Commercial" project traffic assignment is shown in *Figures 7-4a* and *7-4b*.

The near-term project traffic distribution for the "Office" land uses is shown in *Figures 7-5a* thru *7-5c*. The near-term "Office" project traffic assignment is shown in *Figures 7-6a* and *7-6b*.

The Total near-term project traffic is shown in *Figure 7-7a* (roadway segments) and *Figure 7-7b* (intersections).

### **7.2.2 Long-Term Project Distribution and Assignment**

LOS Engineering has submitted the Campus Park and Meadowood project traffic studies for review by the County. LLG has coordinated closely with LOS Engineering regarding the modeling and network assumptions used in preparing the trip distribution. LLG has reviewed the model runs, which utilized a Select Link Model specifically prepared for the project by San Diego Association of Governments (SANDAG). The model provides distribution percentages to the surrounding network on a regional level based on network trip productions and attractions. The link assignment is based on SANDAG's Series 11 Traffic Model. The Series 11 model is based on a regional model per the 2007 Regional Transportation Plan (RTP).

In LLG's experience with modeling, it is the land-use *type*, rather than the overall *intensity* that is key to generating a reliable distribution. While the intensity of uses may vary between the Campus Park West (LLG) and Campus Park (LOS Engineering) projects, the overall land uses types are very similar. *Table 7-3* shows a comparison of the land use types in both the Campus Park and Campus Park West studies.

**TABLE 7-3  
LAND USE COMPARISON**

<b>General Land Use Type</b>	<b>Campus Park West (LLG)</b>	<b>Campus Park (LOS Engineering)</b>	<b>Meadowood (LOS Engineering)</b>
Retail/Commercial	<i>Retail/Strip Commercial</i>	<i>Town Center</i>	N/A
Office/Industrial	<i>Professional Office</i>	<i>Professional Office</i>	N/A
Open Space	<i>Open Space Preserve</i>	<i>Open Space Preserve</i>	<i>Neighborhood Park</i>
Residential	<i>Condominiums</i>	<i>Single/Multi-Family</i>	<i>Single/Multi-Family</i>
Education	N/A	N/A	<i>Elementary School</i>

Source: LOS Engineering (2008)

N/A = Not Applicable to this Project

As shown in *Table 7-3*, both the Campus Park and Campus Park West projects propose retail/commercial uses in addition to office/industrial space. Residential uses are also proposed in these projects. Campus Park and Meadowood proposes single-family and multi-family residential units while Campus Park West proposes condominium (multi-family) units. Campus Park West proposes an “office” use.

Based on these factors, LLG used similar regional distribution percentages for the proposed Campus Park project. Separate distributions were conducted for the three major land uses – Residential, Commercial and Office. Some adjustments were made as the Campus Park and Meadowood traffic studies show 70% regional distribution (30% internal capture) whereas the Campus Park West shows 100% regional distribution to the cordon areas. The internal trips were distributed separately. The distribution percentages closer to the project study area were modified based on project’s proximity to state highways and arterials.

The long-term project traffic distribution for the “Residential” land uses is shown in *Figure 7-8* with the long-term “Residential” project traffic assignment shown in *Figure 7-9*.

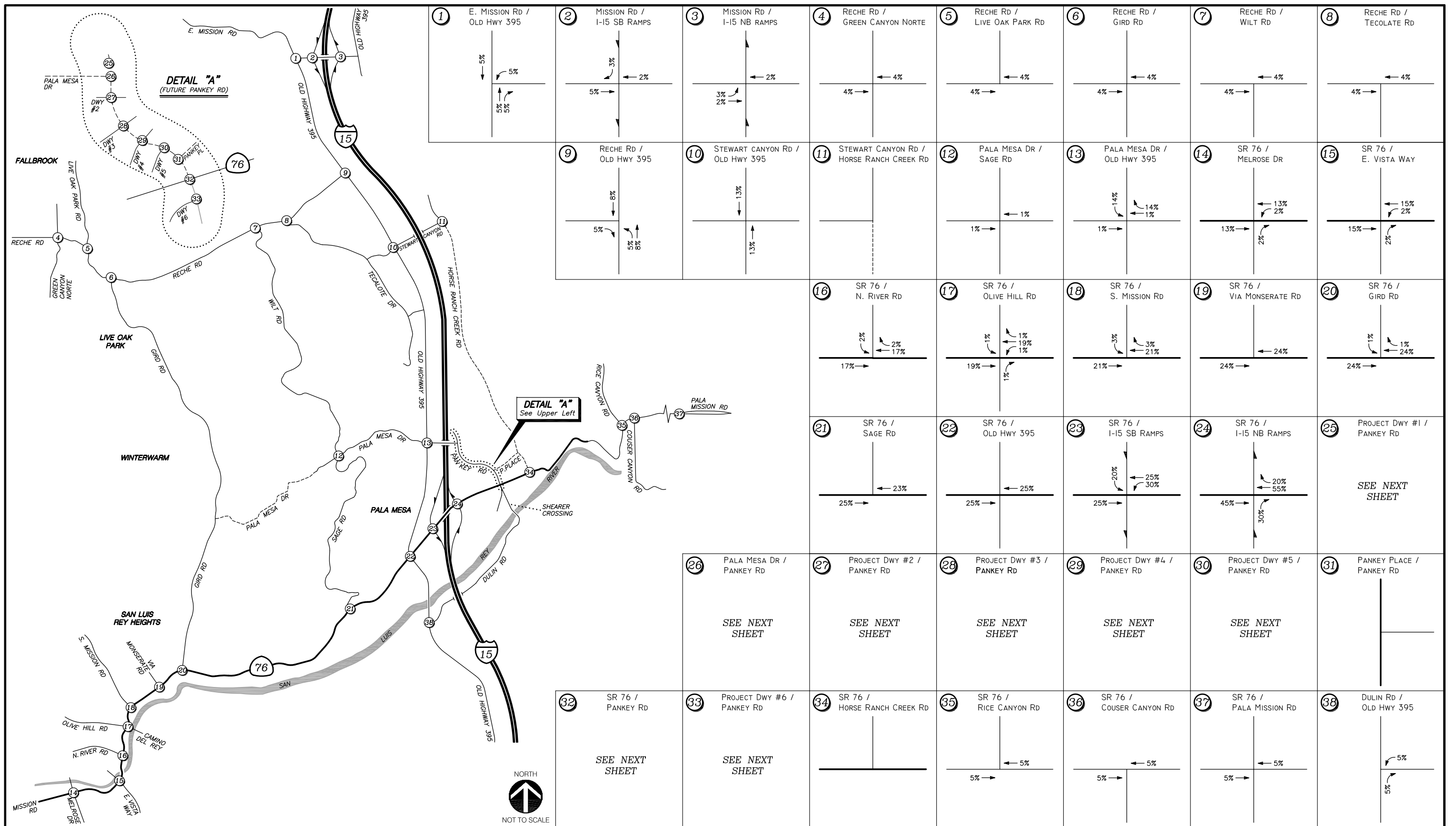
The long-term project traffic distribution for the “Commercial” land uses is shown in *Figure 7-10* with the long-term “Commercial” project traffic assignment shown in *Figure 7-11*.

The long-term project traffic distribution for the “Office” land uses is shown in *Figure 7-12* with the long-term “Office” project traffic assignment shown in *Figures 7-13*.

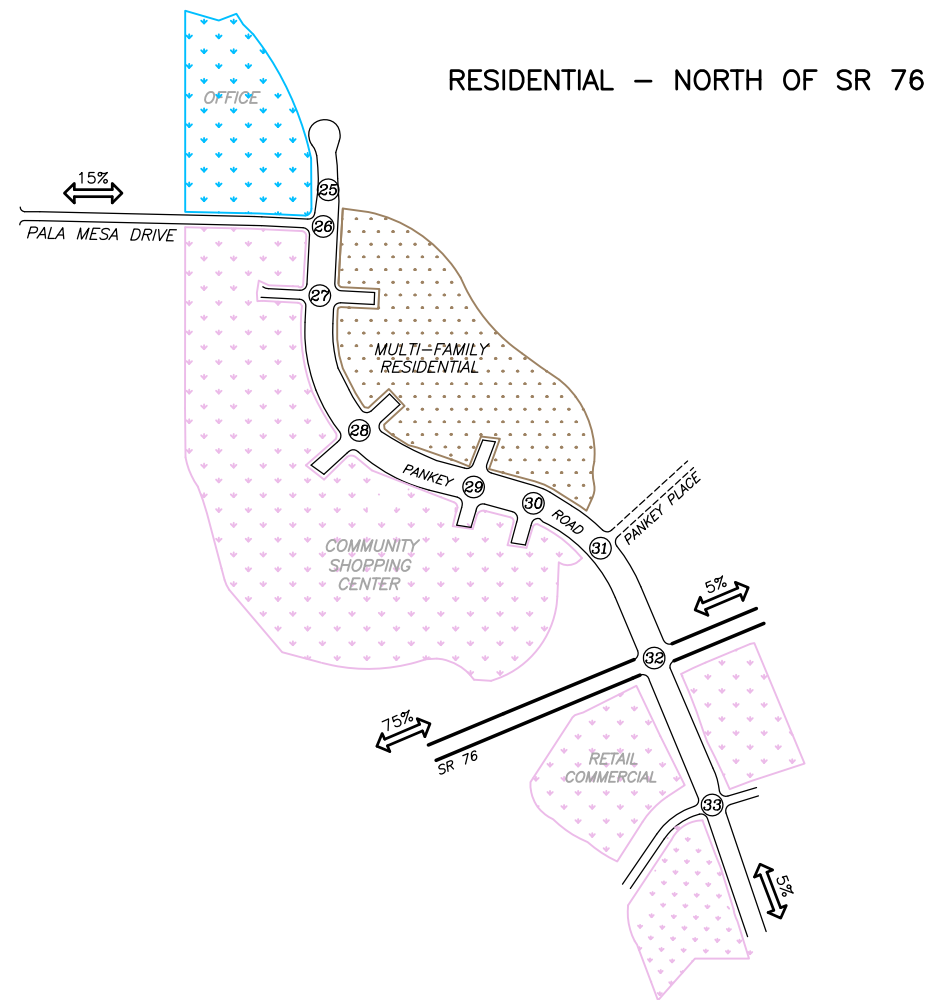
The Total long-term project traffic is shown in *Figure 7-14*.



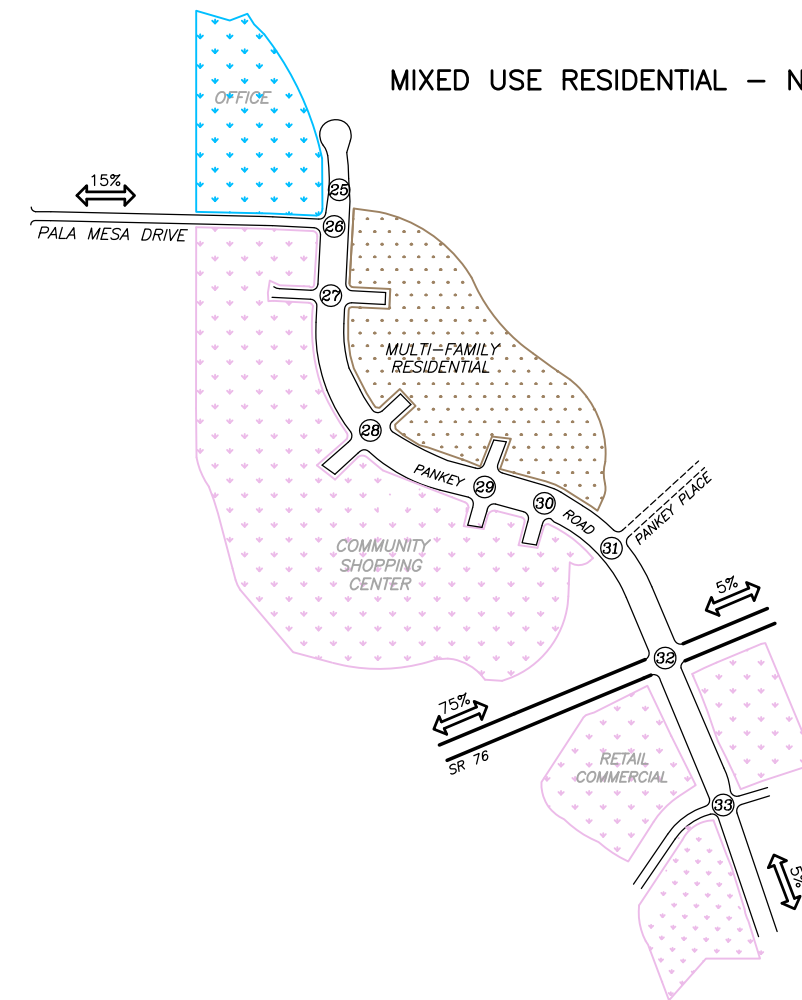




**Figure 7-1b**  
**Near-Term "Residential" Project Traffic Distribution (Intersections)**



MIXED USE RESIDENTIAL - NORTH OF SR 76



<p>25 PROJECT DWY #1 / PANKEY RD</p>	<p>26 PALA MESA DR / PANKEY RD</p>	<p>27 PROJECT DWY #2 / PANKEY RD</p>	<p>28 PROJECT DWY #3 / PANKEY RD</p>	<p>29 PROJECT DWY #4 / PANKEY RD</p>
<p>30 PROJECT DWY #5 / PANKEY RD</p>	<p>31 PANKEY PLACE / PANKEY RD</p>	<p>32 SR 76 / PANKEY RD</p>	<p>33 PROJECT DWY #6 / PANKEY RD</p>	

<p>25 PROJECT DWY #1 / PANKEY RD</p>	<p>26 PALA MESA DR / PANKEY RD</p>	<p>27 PROJECT DWY #2 / PANKEY RD</p>	<p>28 PROJECT DWY #3 / PANKEY RD</p>	<p>29 PROJECT DWY #4 / PANKEY RD</p>
<p>30 PROJECT DWY #5 / PANKEY RD</p>	<p>31 PANKEY PLACE / PANKEY RD</p>	<p>32 SR 76 / PANKEY RD</p>	<p>33 PROJECT DWY #6 / PANKEY RD</p>	

LEGEND

xx% - Primary Traffic Distribution Percentage

NOTES:

- Intersections follow East-West/ North-South street names
- No internal capture is assumed as Campus Park & Meadowood are not considered in the Near-term

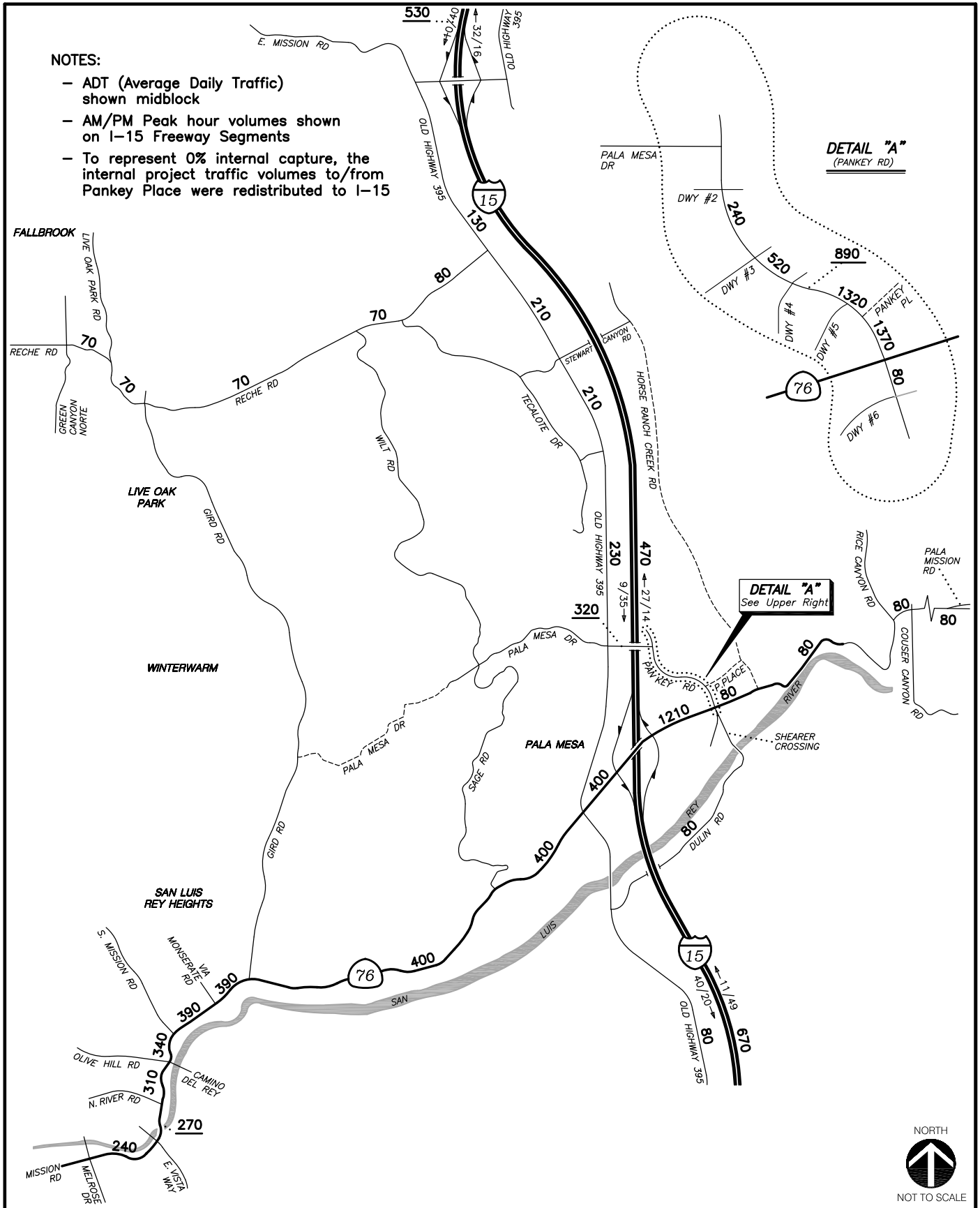
Figure 7-1c

Near-Term "Residential" Driveway Distribution



**NOTES:**

- ADT (Average Daily Traffic) shown midblock
- AM/PM Peak hour volumes shown on I-15 Freeway Segments
- To represent 0% internal capture, the internal project traffic volumes to/from Pankey Place were redistributed to I-15

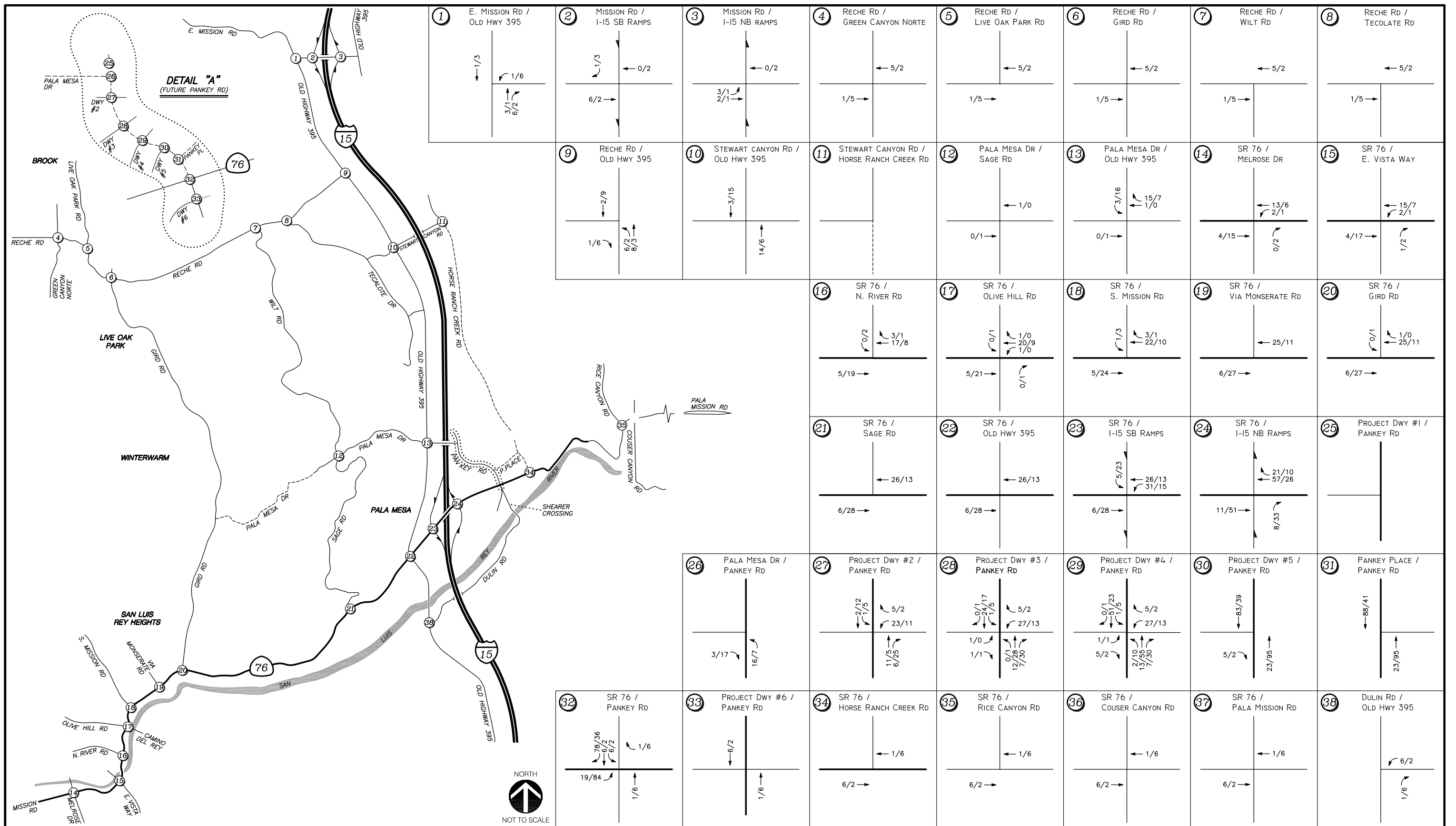


REV. 11/20/12  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 7-2A.DWG

**Figure 7-2a**

**Near-Term "Residential" Project Traffic Assignment (Roadway Segments)**



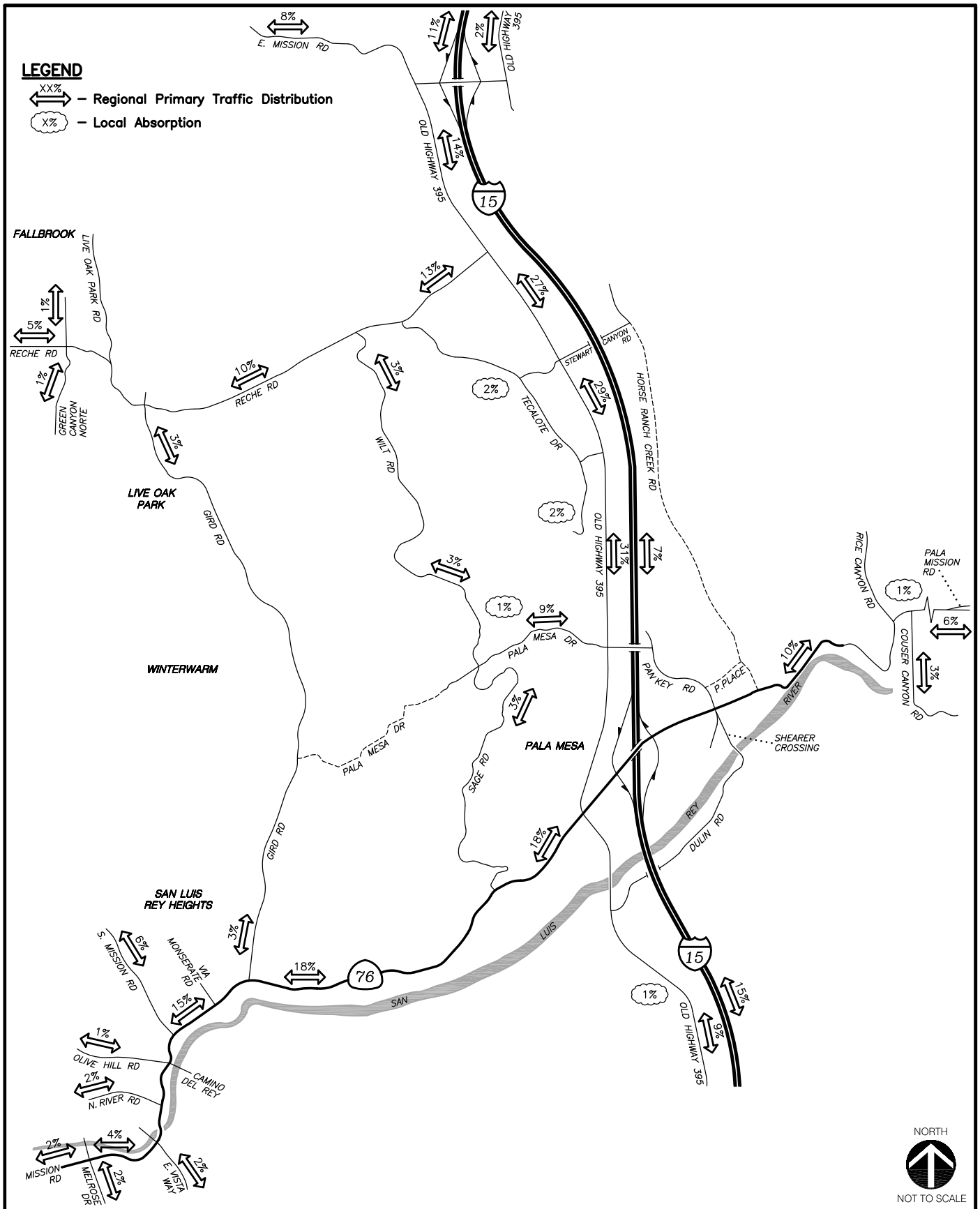


**NOTES**

- Intersections follow East-West/North-South street names
- AM/PM peak hour volumes are shown at the intersections
- No internal capture is assumed

- The project traffic assignment shown are "Primary" trips distributed to the external study area. The figure also shows internal "outbound" Residential trips to the "Commercial" and "Office" land uses. The internal "inbound" Residential trips can be obtained from "Commercial" and "Office" figures.

**Figure 7-2b**  
**Near-Term "Residential" Project Traffic Assignment (Intersections)**

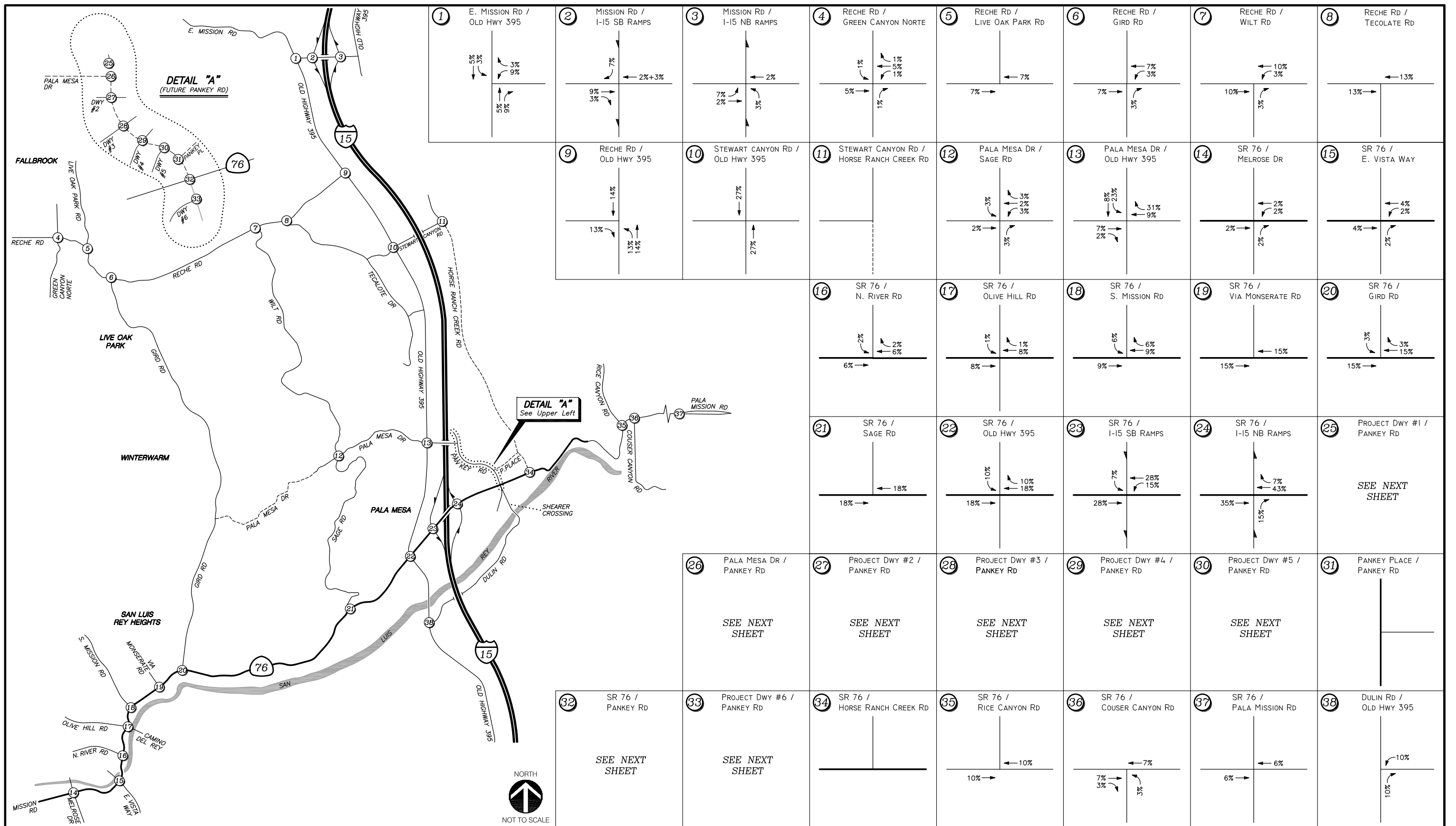


REV. 8/30/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 7-3A.DWG

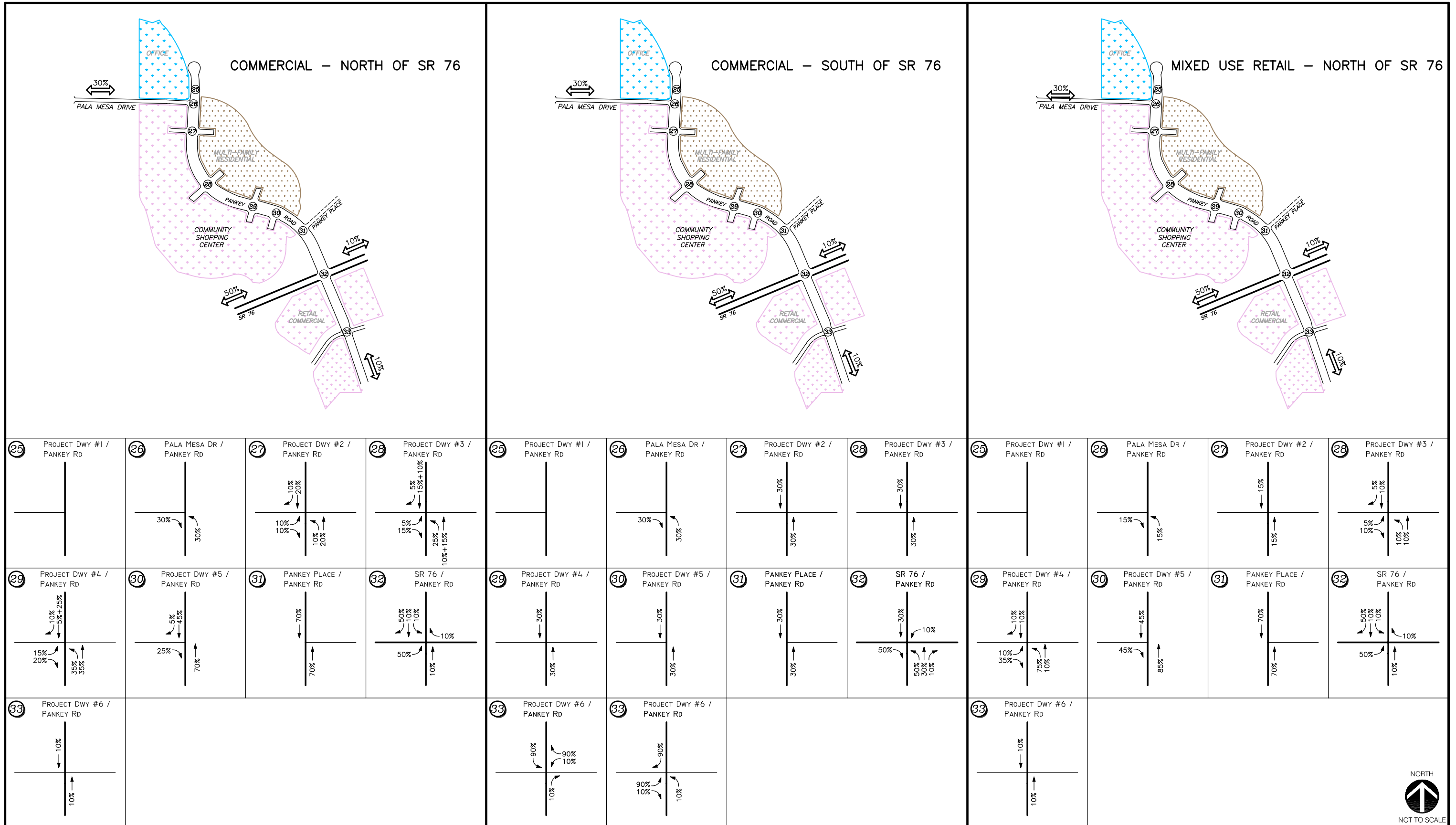
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 GREENSPAN**  
 engineers

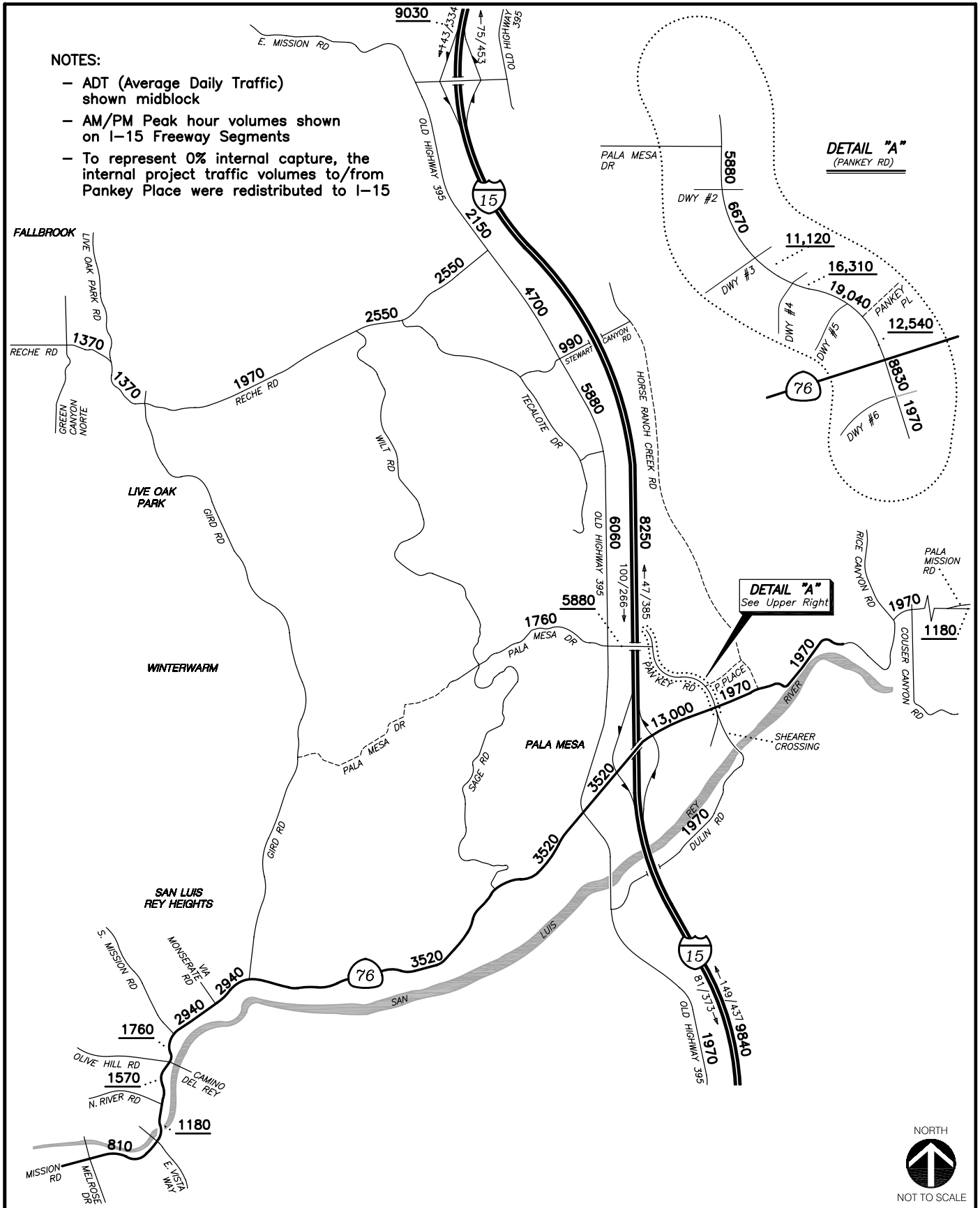
**Figure 7-3a**  
 Near-Term "Commercial" Project Traffic Distribution  
 (Roadway Segments)

CAMPUS PARK WEST



**Figure 7-3b**  
**Near-Term "Commercial" Project Traffic Distribution (Intersections)**



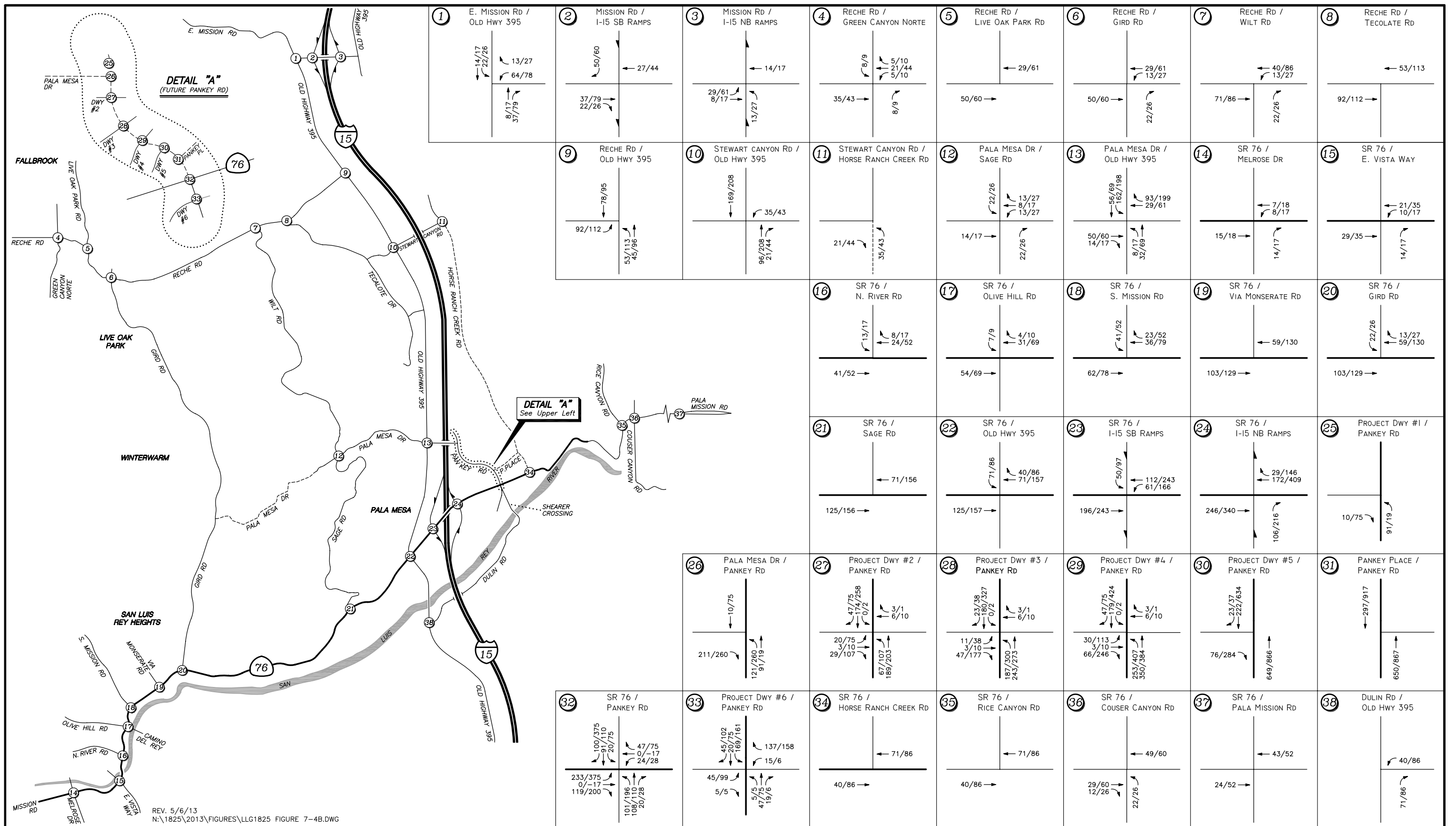


REV. 5/3/13  
 N:\1825\2013\FIGURES\LLG1825 FIGURE 7-4A.DWG



**Figure 7-4a**  
**Near-Term "Commercial" Project Traffic Assignment (Roadway Segments)**





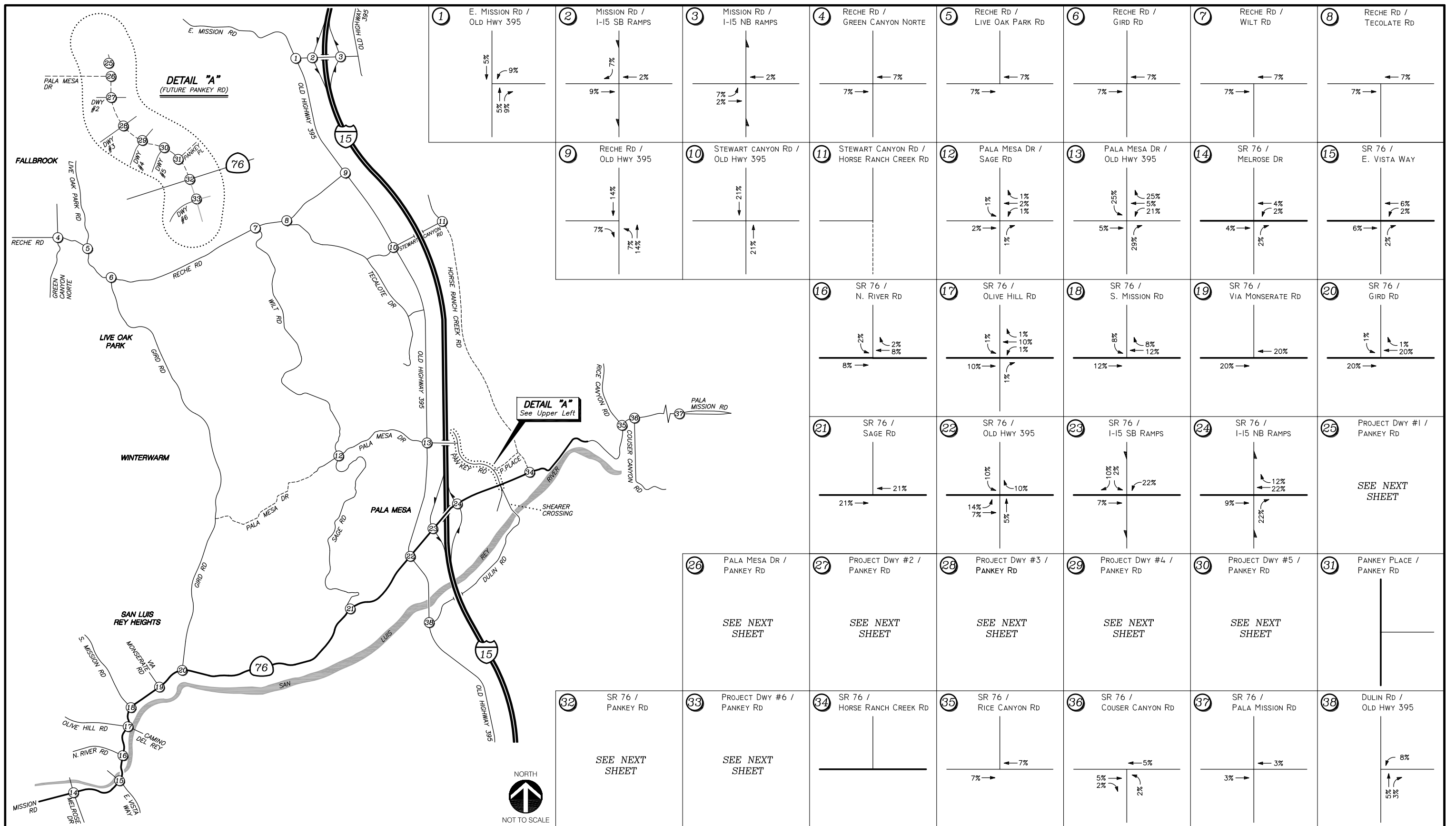
**LINSCOTT LAW & GREENSPAN engineers**

**NOTES**

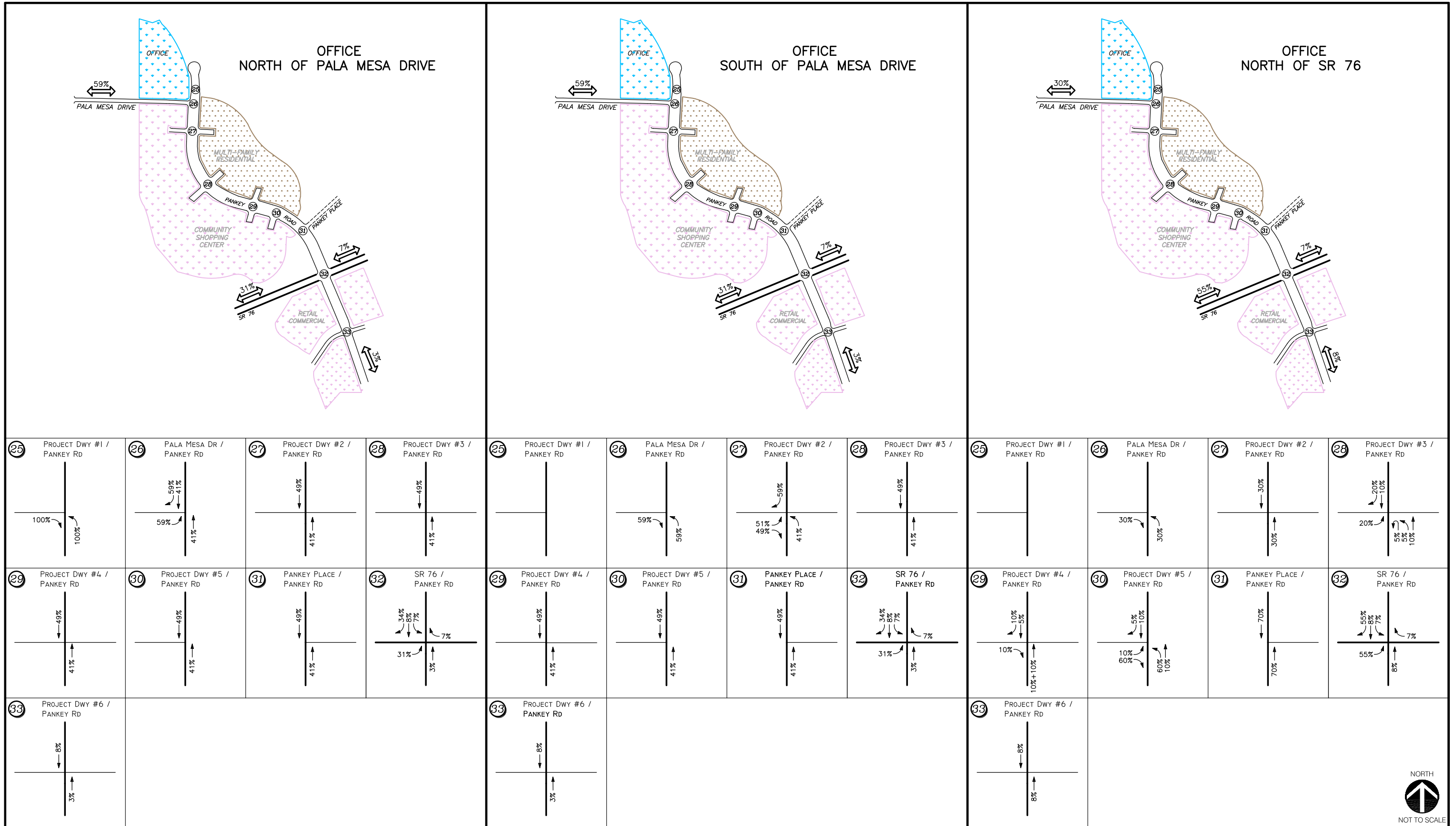
- Intersections follow East-West/North-South street names
- AM/PM peak hour volumes are shown at the intersections
- Negative numbers indicate Pass-by trips (PM peak hour) on SR 76.
- No internal capture is assumed
- The project traffic assignment shown are "Primary" trips distributed to the external study area. The figure also shows internal "outbound" Commercial trips to the "Residential" and "Office" land uses. The internal "inbound" Commercial trips can be obtained from "Residential" and "Office" figures.

**Figure 7-4b**  
**Near-Term "Commercial" Project Traffic Assignment (Intersections)**





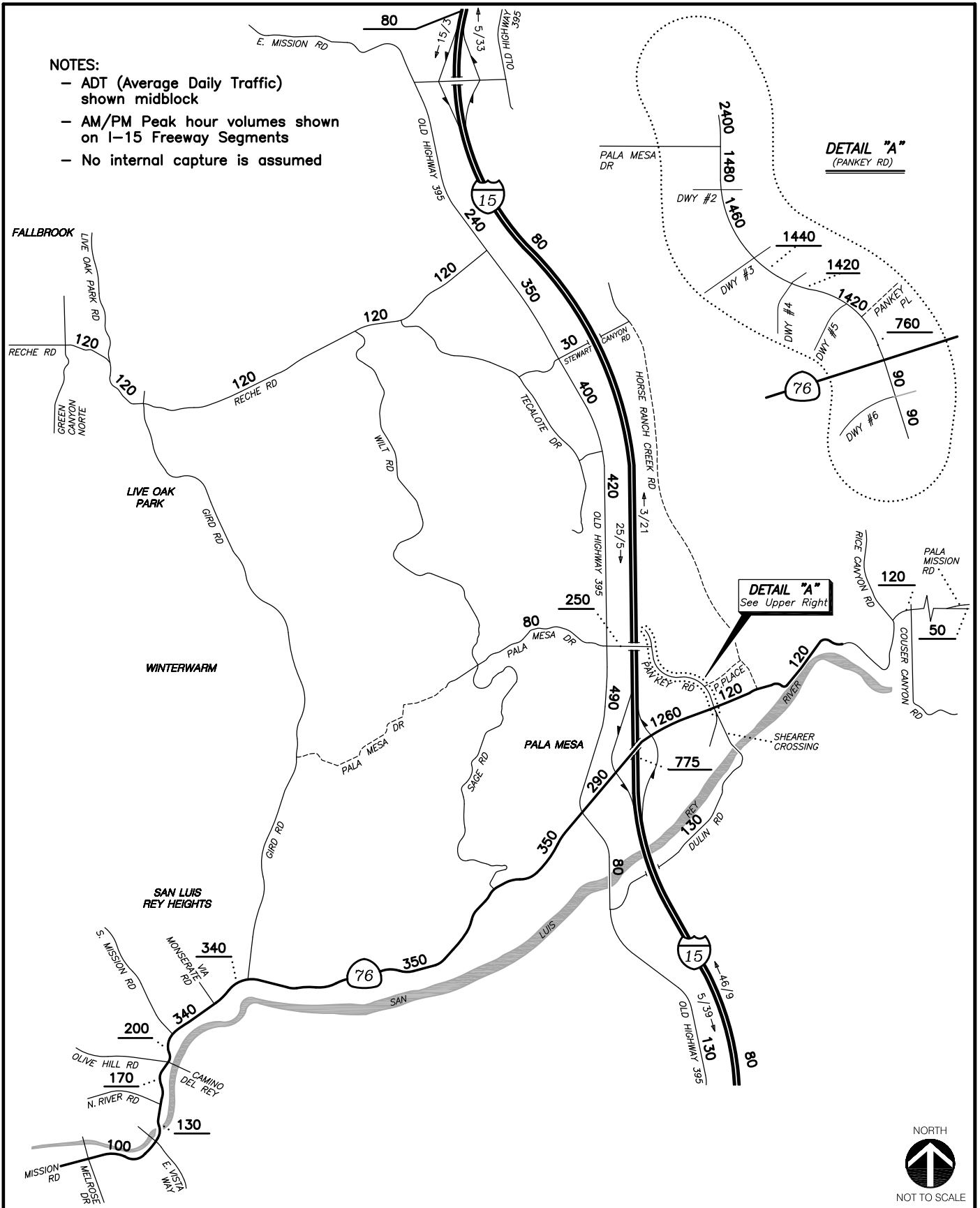
**Figure 7-5b**  
**Near-Term "Office" Project Traffic Distribution**  
**(Intersections)**



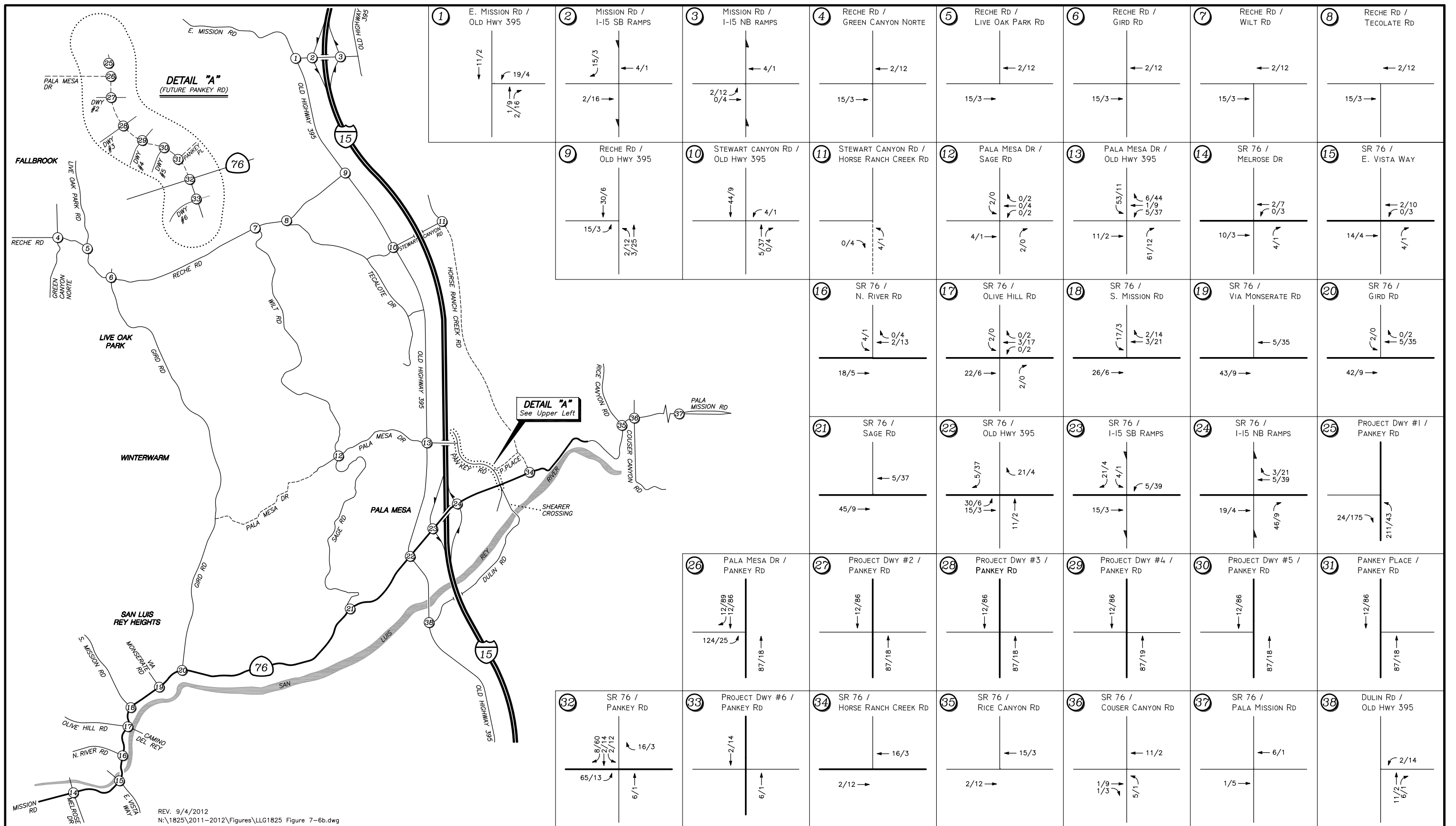
**LEGEND**  
 xx% — Primary Traffic Distribution Percentage

**NOTES:**  
 - Intersections follow East-West/  
 North-South street names  
 - No internal capture is assumed as  
 Campus Park & Meadowood are not  
 considered in the Near-term

**Figure 7-5c**  
**Near-Term "Office" Driveway Distribution**



**Figure 7-6a**  
**Near-Term "Office" Project Traffic Assignment**  
**(Roadway Segments)**



**NOTES**

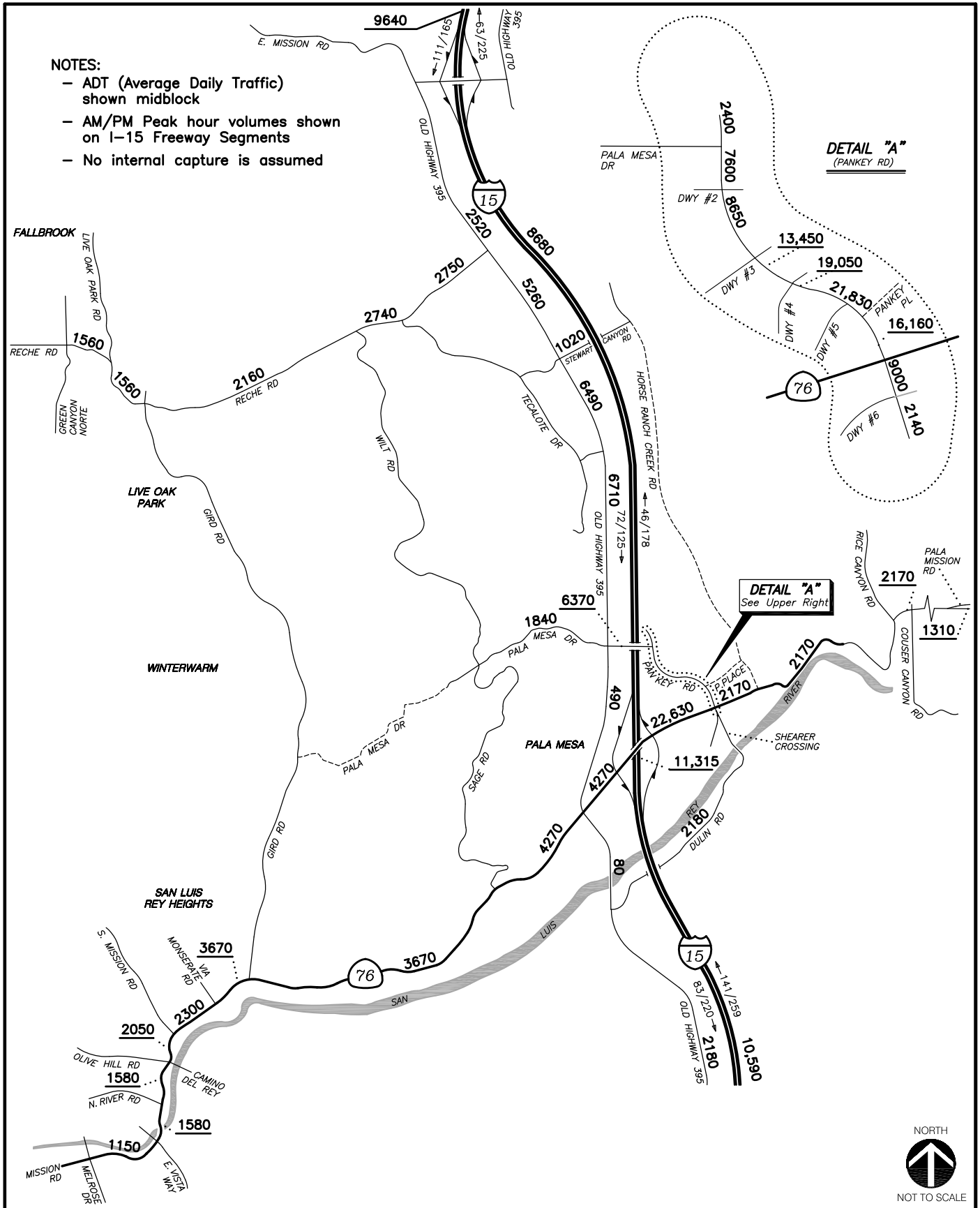
- Intersections follow East-West/ North-South street names
- AM/PM peak hour volumes are shown at the intersections
- No internal capture is assumed
- The project traffic assignment shown are "Primary" trips distributed to the external study area. The figure also shows internal "outbound" Office trips to the "Residential" and "Commercial" land uses. The internal "inbound" Office trips can be obtained from "Residential" and "Commercial" figures.

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**Figure 7-6b**  
**Near-Term "Office" Project Traffic Assignment (Intersections)**

**NOTES:**

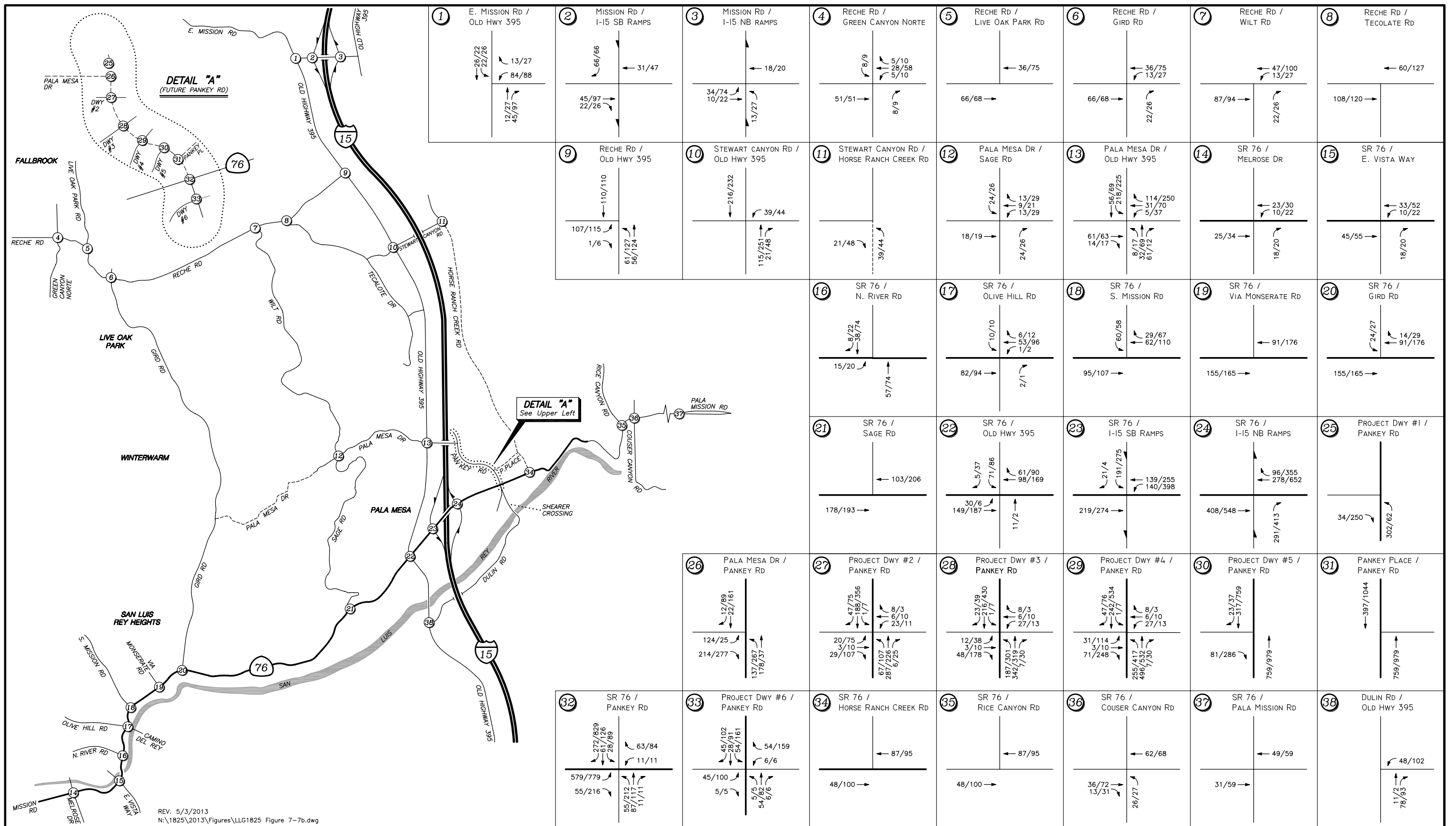
- ADT (Average Daily Traffic) shown midblock
- AM/PM Peak hour volumes shown on I-15 Freeway Segments
- No internal capture is assumed



REV. 5/17/2013  
 N:\1825\2013\FIGURES\LLG1825 FIGURE 7-7A.DWG



**Figure 7-7a**  
**Near-Term Total Project Traffic Assignment**  
**(Roadway Segments)**



**NOTES**

- Intersections follow East-West/ North-South street names
- AM/PM peak hour volumes are shown at the intersections
- No internal capture is assumed

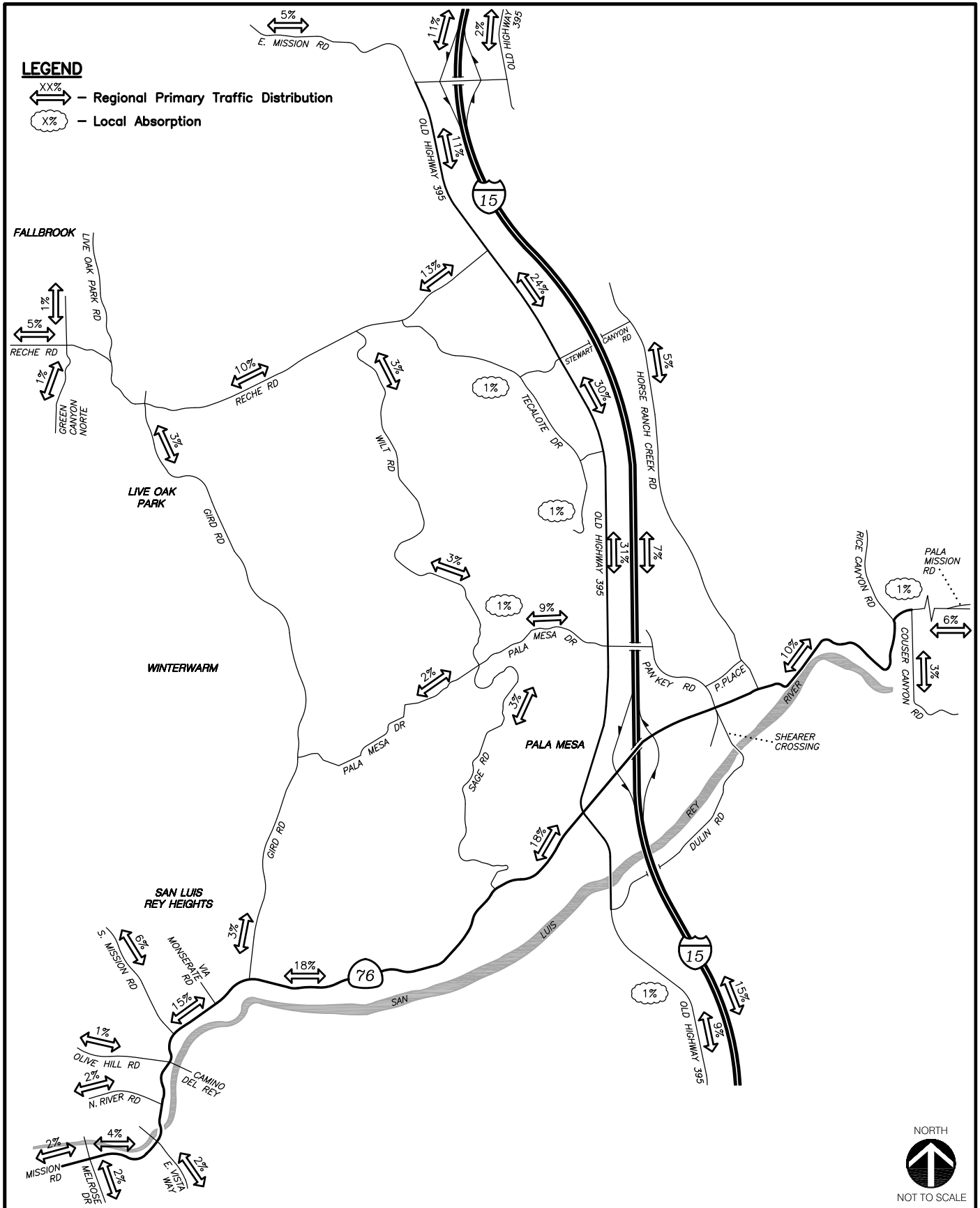
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**Figure 7-7b**  
**Near-Term Total Project Traffic Assignment**  
**(Intersections)**







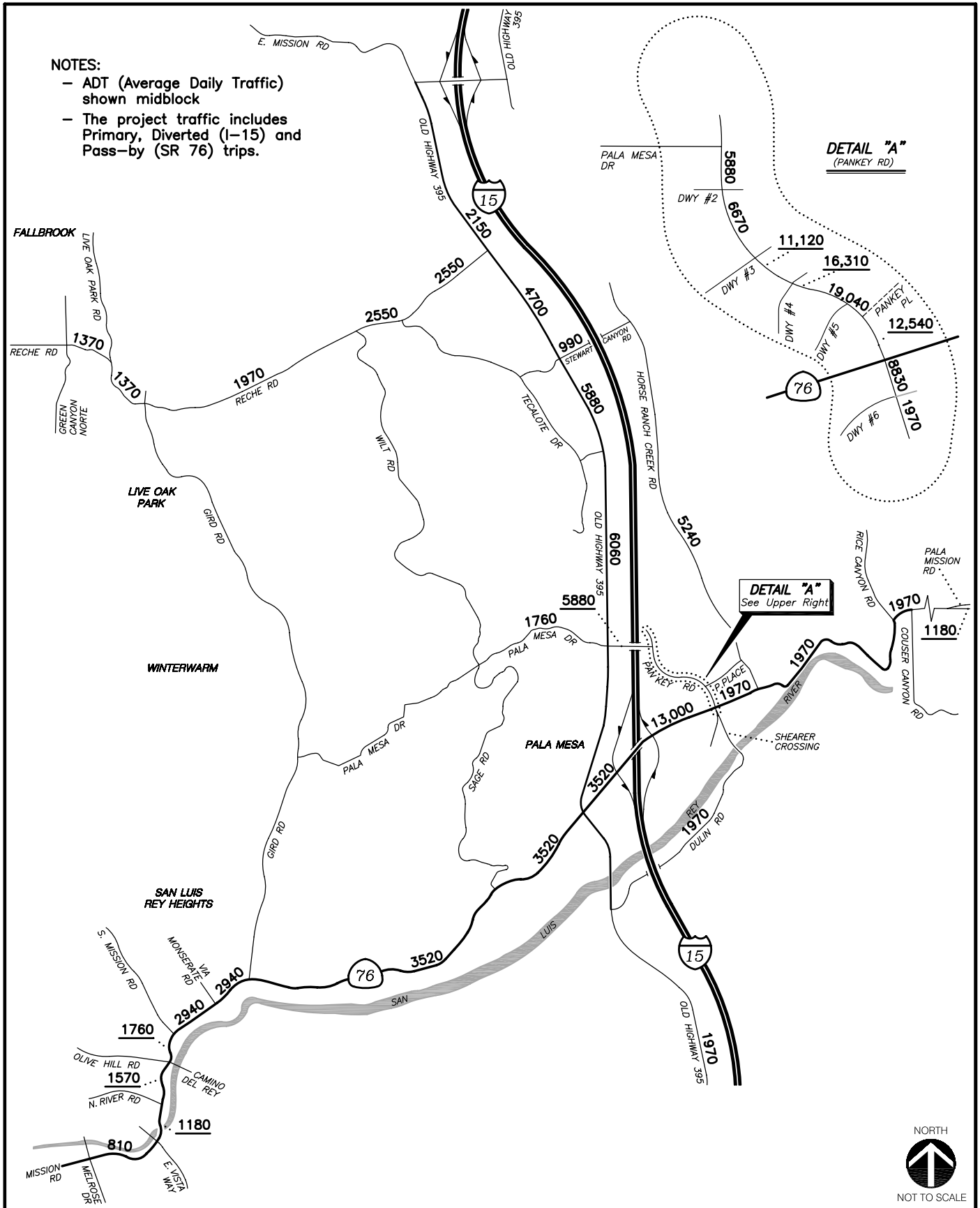


REV. 9/7/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 7-10.DWG

**Figure 7-10**  
**Long-Term "Commercial" Project Traffic Distribution**  
**(Roadway Segments)**

**NOTES:**

- ADT (Average Daily Traffic) shown midblock
- The project traffic includes Primary, Diverted (I-15) and Pass-by (SR 76) trips.

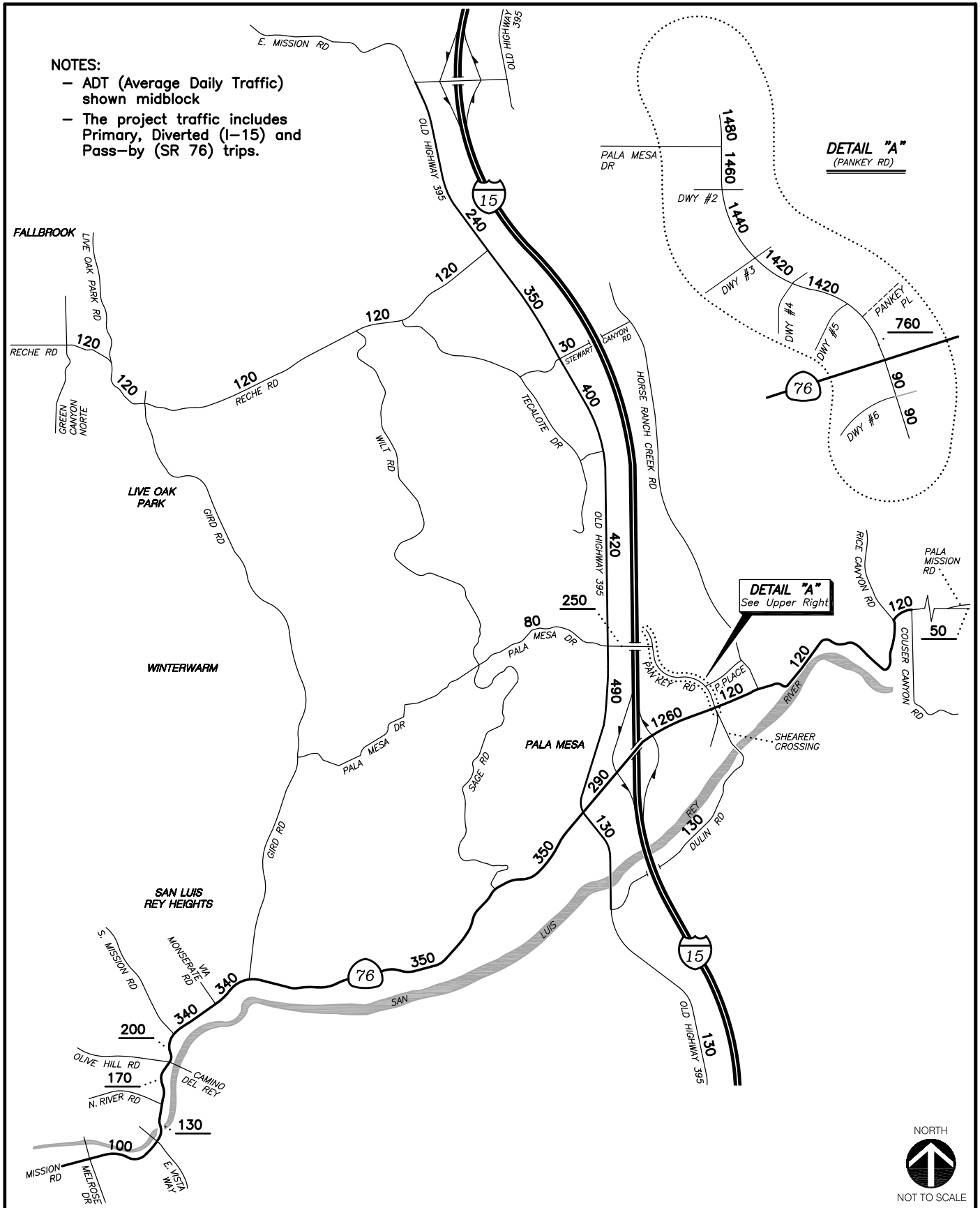


REV. 5/3/2013  
 N:\1825\2013\FIGURES\LLG1825 FIGURE 7-11.DWG



**Figure 7-11**  
**Long-Term "Commercial" Project Traffic Assignment**  
**(Roadway Segments)**





REV. 11/20/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 7-13.DWG

**Figure 7-13**  
 Long-Term "Office" Project Traffic Assignment  
 (Roadway Segments)



## 8.0 EXISTING + PROJECT OPERATIONS

This section summarizes the analyses for the addition of project traffic onto the existing background traffic (Existing + 100% project). The near-term project assignment is used in this scenario. This scenario is considered to be a conservative analysis as it assumes 0% internal capture (no inter-project trips among Campus Park West, Campus Park and Meadowood) to account for the time period when the Campus Park West is constructed and occupied before the surrounding proposed residential developments (Campus Park and Meadowood) are constructed. If the Campus Park West applicant is first to proceed (between Campus Park and Meadowood), then the applicant will construct the following: Pala Mesa Drive between Old Highway 395 and Pankey Road; Pankey Road between Pala Mesa Drive and SR 76; and intersections #25 to #30 (details shown in figures). The applicant also intends to construct improvements to the SR 76/ Pankey Road intersection (the main project access, intersection #32). However, to provide a conservative analysis, the improvements to this intersection are not assumed as a project feature.

The Existing + Project conditions are shown in *Figure 8-1a* (roadway segments) and *Figure 8-1b* (intersections). No off-site improvements are assumed. The Existing + Project traffic volumes conditions are shown in *Figure 8-2a* (roadway segments) and *Figure 8-2b* (intersections).

### 8.1 Peak Hour Intersection Operations

*Table 8-1* summarizes the existing + project peak hour signalized intersection operations. *Table 8-1* shows that all the study area signalized intersections are calculated to continue to operate at LOS D or better with the following exceptions:

- 1. E. Mission Road/ Old Highway 395 – LOS E (PM peak hour)
- 17. SR 76/ Olive Hill Road – LOS E (PM peak hour)
- 23. SR 76/ I-15 SB Ramps – LOS F (PM peak hour)
- 24. SR 76/ I-15 NB Ramps – LOS F (PM peak hour)

Based on the *County of San Diego* significance criteria, **significant direct impacts** are calculated to occur at study intersections #23 and #24 due to the project increases in traffic at these locations.

*Table 8-1* also shows a summary of the weekday peak hour unsignalized intersection operations. This table shows that minor-street critical movement at each the study area unsignalized intersections calculated to continue to operate at LOS D or better with the following exceptions:

- 9. Reche Road / Old Highway 395 – LOS F (AM / PM peak hour)
- 19. SR 76 / Via Monserate Road – LOS F (AM & PM peak hour)
- 32. SR 76 / Pankey Road – LOS F (AM & PM peak hour)

Based on the *County of San Diego* significance criteria, **significant direct impacts** are calculated to occur at study intersections #9 and #27 due to the project increases in traffic at these locations. The



project does not contribute peak hour volumes to the “critical movement” (southbound left) at unsignalized intersection #19; therefore, no impact is identified at this location despite its poor LOS.

## 8.2 Daily Street Segment Operations

**Table 8–2** summarizes the existing + project daily roadway segment levels of service. As seen in **Table 8–2**, with the addition of project traffic, the following segments are calculated to operate at LOS E or F:

- SR 76 (Pala Road) – E. Vista Way to N. River Road, LOS E (4-Lanes)
- SR 76 (Pala Road) – N. River Road to Olive Hill Road, LOS E (4-Lanes)
- SR 76 (Pala Road) – Olive Hill Road to S. Mission Road, LOS F (4-Lanes)
- SR 76 (Pala Road) – S. Mission Road to Via Monserate, LOS F (2-Lanes)
- SR 76 (Pala Road) – Via Monserate to Gird Road, LOS F (2-Lanes)
- SR 76 (Pala Road) – Gird Road to Sage Road, LOS F (2-Lanes)
- SR 76 (Pala Road) – Sage Road to Old Highway 395, LOS F (2-Lanes)

The three segments of SR 76 from E. Vista Way to S. Mission Road are part of Caltrans’ SR 76 Middle Project, which is currently improving these segments to 4-lanes. Minor street access will be limited, with signalized intersections spacing maximized to enhance flow. A secondary, peak hour segment analysis was conducted to calculate arterial operations during the peak commute times. The peak hour arterial analysis is a better indicator of segment operations because it is based on the same sophisticated signalized intersection parameters used for the intersection calculations (signal timings, lane geometrics, peak hour volumes). By comparison, the daily segment analysis utilizes only two parameters: 24-hour volume and generalized capacity.

As the peak hour arterial analysis shows arterial operations of LOS D or better in both directions during the peak hours, this is considered to supersede the simplistic V/C method daily segment analysis for these locations. **Appendix F** contains the peak hour arterial analysis.

Thus, based on the *County of San Diego* significance criteria, the Proposed Project is calculated to have **significant direct impacts** on the four 2-lane segments of SR 76 listed above.

## 8.3 Freeway Mainline Operations

**Table 8–3** shows the existing freeway mainline operations for the segments within the study area. This table shows that peak hour segments are calculated to continue to operate at LOS C or better during both the AM and PM peak hours.

## 8.4 Intersection Lane Vehicles Operations

**Table 8–4** summarizes the existing + project ILV operations. As seen in **Table 8–4**, with the addition of project traffic, the study area signalized SR 76 interchange is calculated to operate at near capacity during the AM peak hour and over capacity during the PM peak hour. These results are consistent with the HCM intersection analyses presented in **Table 8–1**. Again, this analysis is for use by Caltrans; the County of San Diego does not utilize ILV results in the determination of significance.

**TABLE 8-1  
EXISTING + PROJECT INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ <sup>c</sup>	Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS		
1. E. Mission Road/Old Hwy 395	Signal	AM	24.7	C	29.1	C	4.4	No
		PM	77.0	E	78.8	E	1.8	No
2. Mission Road/ I-15 SB Ramps	Signal	AM	27.6	C	31.0	C	3.4	No
		PM	53.3	D	54.4	D	1.1	No
3. Mission Road/ I-15 NB Ramps	Signal	AM	28.8	C	29.6	C	0.8	No
		PM	27.0	C	41.2	D	14.2	No
4. Reche Road/ Green Canyon Norte	Signal	AM	13.1	B	13.5	B	0.4	No
		PM	10.5	B	11.0	B	0.5	No
5. Reche Road/ Live Oak Park Road	TWSC <sup>d</sup>	AM	20.3	C	23.9	C	3.6	No
		PM	19.1	C	23.2	C	4.1	No
6. Reche Road/ Gird Road	Signal	AM	11.9	B	13.3	B	1.4	No
		PM	12.4	B	14.7	B	2.3	No
7. Reche Road/ Wilt Road	TWSC	AM	14.2	B	15.9	C	1.7	No
		PM	14.9	B	16.1	C	1.2	No
8. Reche Road/ Tecalote Road	TWSC	AM	13.4	B	15.6	C	2.2	No
		PM	15.3	C	20.0	C	4.7	No
9. Reche Road/ Old Hwy 395	TWSC	AM	33.0	D	>100.1	F	>5.0	Yes
		PM	60.0	F	>100.1	F	>5.0	Yes
10. Stewart Canyon Road/ Old Hwy 395	TWSC	AM	12.6	B	20.3	C	7.7	No
		PM	12.8	B	20.2	C	7.4	No
11. Stewart Canyon Road/ Horse Ranch Creek Road	TWSC	AM	8.6	A	8.8	A	0.2	No
		PM	5.7	A	7.2	A	1.5	No
12. Pala Mesa Drive/ Sage Road	TWSC	AM	8.9	A	9.7	A	0.8	No
		PM	8.9	A	10.1	B	1.2	No
13. Pala Mesa Drive/ Old Hwy 395	TWSC	AM	13.2	B	15.8	B	2.6	No
		PM	11.7	B	27.8	C	16.1	No
14. SR 76/ Melrose Drive	Signal	AM	22.4	C	22.7	C	0.3	No
		PM	12.4	B	12.7	B	0.3	No
15. SR 76/ E. Vista Way	Signal	AM	43.7	D	45.6	D	1.9	No
		PM	39.4	D	41.0	D	1.6	No
16. SR 76/ N. River Road	Signal	AM	14.9	B	18.1	B	3.2	No
		PM	19.0	B	22.8	C	3.8	No
17. SR 76/ Olive Hill Road	Signal	AM	32.3	C	33.4	D	1.1	No
		PM	62.4	E	63.9	E	1.5	No

*Continued on Next Page*

**TABLE 8-1 (CONTINUED)**  
**EXISTING + PROJECT INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Δ <sup>c</sup>	Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS		
18. SR 76/ S Mission Road	Signal	AM	11.5	B	13.0	B	1.5	No
		PM	10.8	B	13.4	B	2.6	No
19. SR 76/ Via Monserate Road	TWSC	AM	36.1	E	63.2	F	0	No <sup>e</sup>
		PM	50.9	F	>100.1	F	0	No
20. SR 76/ Gird Road	Signal	AM	9.7	A	10.8	B	1.1	No
		PM	10.7	B	13.0	B	2.3	
21. SR 76/ Sage Road	TWSC	AM	20.2	C	27.4	D	0	No
		PM	26.1	D	30.3	D	0	No
22. SR 76/ Old Hwy 395	Signal	AM	39.2	D	40.2	D	1.0	No
		PM	36.8	D	37.0	D	0.2	
23. SR 76/ I-15 SB Ramps	Signal	AM	26.7	C	34.1	C	7.4	No
		PM	22.6	C	>100.1	F	>80.1	Yes
24. SR 76/ I-15 NB Ramps	Signal	AM	29.1	C	34.5	C	5.4	No
		PM	50.1	D	>100.1	F	>80.1	Yes
25. Project Driveway #1/Pankey Road	TWSC	AM	DNE	-	8.4	A	-	No
		PM	DNE	-	9.4	A	-	No
26. Pala Mesa Drive/ Pankey Road	Signal	AM	DNE	-	10.2	B	-	No
		PM	DNE	-	13.7	B	-	No
27. Project Driveway #2/ Pankey Road	TWSC	AM	DNE	-	14.2	B	-	No
		PM	DNE	-	21.3	C	-	No
28. Project Driveway # 3/ Pankey Road	Signal	AM	DNE	-	12.8	B	-	No
		PM	DNE	-	19.0	B	-	No
29. Project Driveway # 4/ Pankey Road	Signal	AM	DNE	-	13.2	B	-	No
		PM	DNE	-	19.7	B	-	No
30. Project Driveway # 5/ Pankey Road	TWSC	AM	DNE	-	9.8	A	-	No
		PM	DNE	-	11.1	B	-	No
31. Pankey Place/ Pankey Road	Signal	AM	DNE	-	DNE	-	-	No
		PM	DNE	-	DNE	-	-	No
32. SR 76/ Pankey Road	TWSC <sup>f</sup>	AM	12.2	B	>100.1	F	>5.0	Yes
		PM	11.8	B	>100.0	F	>5.0	Yes
33. Project Driveway # 6/ Pankey Road	Signal	AM	DNE	-	12.0	B	-	No
		PM	DNE	-	15.5	B	-	No
34. SR 76/ Horse Ranch Creek Road	DNE	AM	DNE	-	7.9	A	-	No
		PM	DNE	-	8.0	A	-	No

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**TABLE 8-1 (CONTINUED)  
EXISTING + PROJECT INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project		$\Delta^c$	Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS		
35. SR 76/ Rice Canyon Road	TWSC	AM	10.6	B	11.6	B	1.0	No
		PM	12.5	B	14.5	B	2.0	
36. SR 76/ Couser Canyon Road	TWSC	AM	12.5	B	15.0	C	2.5	No
		PM	15.8	C	22.3	C	6.5	
37. SR 76/ Pala Mission Road	Signal	AM	11.9	B	11.9	B	0.0	No
		PM	18.6	B	19.0	B	0.4	
38. Dulin Road/ Old Highway 395	TWSC	AM	20.3	C	30.9	D	10.6	No
		PM	10.5	B	14.0	B	3.5	

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c.  $\Delta$  denotes an increase in delay or vehicles to a critical movement due to project traffic volumes.
- d. TWSC – Two-Way Stop Controlled Intersection. Project-related minor street vehicle totals reported.
- e. The intersection is calculated to have no significant impacts as the project does not add trips to the critical movement.
- f. Traffic Signal and intersection improvements are proposed in the Existing + Project scenarios. However, the intersection is analyzed as unsignalized to provide a conservative analysis.

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:**

- Bold typeface indicates significant direct project impact.
- DNE – Does not exist.

**TABLE 8-2  
EXISTING + PROJECT SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project		Δ <sup>d</sup>	Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS		
<b>SR 76 (Pala Road)</b>							
Melrose Drive to E. Vista Way	37,000	28,800	C	29,950	D	1,150	No
E. Vista Way to N. River Road	37,000	32,500	D	34,080	E	1,580	No <sup>e</sup>
North River Road to Olive Hill Road	37,000	32,500	D	34,550	E	2,050	No <sup>e</sup>
Olive Hill Road to South Mission Road	37,000	36,100	E	38,400	F	2,300	No <sup>e</sup>
South Mission Road to Via Monserate	22,900	22,400	E	<b>26,070</b>	<b>F</b>	<b>3,670</b>	<b>Yes</b>
Via Monserate to Gird Road	22,900	25,600	F	<b>29,270</b>	<b>F</b>	<b>3,670</b>	<b>Yes</b>
Gird Road to Sage Road	22,900	22,900	E	<b>27,170</b>	<b>F</b>	<b>4,270</b>	<b>Yes</b>
Sage Road to Old Highway 395	22,900	22,700	E	<b>26,970</b>	<b>F</b>	<b>4,270</b>	<b>Yes</b>
Old Highway 395 to I-15 Southbound Ramps	37,000	26,500	C	30,710	D	4,210	No
I-15 Northbound Ramps to Pankey Road	37,000	10,600	A	33,230	D	22,630	No
Pankey Road to Horse Ranch Creek Road	37,000	10,300	A	12,470	A	2,170	No
Horse Ranch Creek Road to Rice Canyon Road	22,900	10,000	A	12,170	B	2,170	No
Rice Canyon Road to Couser Canyon Road	22,900	9,800	A	11,970	A	2,170	No
Couser Canyon Road to Pala Mission Road	22,900	9,400	A	10,710	A	1,310	No
<b>Old Highway 395</b>							
East Mission Road to Reche Road	22,900	5,500	B	8,020	C	2,520	No
Reche Road to Stewart Canyon Road	22,900	6,200	C	11,480	D	5,260	No

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**TABLE 8-2 (CONTINUED)**  
**EXISTING + PROJECT SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project		Δ <sup>d</sup>	Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS		
Stewart Canyon Road to Tecalote Lane	22,900	6,900	C	13,390	D	6,490	No
Tecalote Lane to Pala Mesa Drive	22,900	7,100	C	13,810	D	6,710	No
Pala Mesa Drive to SR 76 (Pala Road)	22,900	8,000	C	8,490	C	490	No
SR 76 (Pala Road) to Dulin Road	22,900	5,000	B	5,080	B	80	No
Dulin Road to W. Lilac Road	22,900	4,900	B	7,080	C	2,180	No
<b>Reche Road</b>							
Green Canyon Norte to Live Oak Park Road	19,000	10,900	D	12,480	D	1,580	No
Live Oak Park Road to Gird Road	19,000	11,100	D	12,660	D	1,560	No
Gird Road to Wilt Road	19,000	9,100	C	11,260	D	2,160	No
Wilt Road to Tecalote Road	19,000	8,400	C	11,140	D	2,740	No
Tecalote Road to Old Hwy 395	19,000	8,100	C	10,850	D	2,750	No
<b>Stewart Canyon Road</b>							
Old Hwy 395 to Horse Ranch Creek Road	16,200	900	A	1,920	B	1,020	No
<b>Pankey Road</b>							
Pala Mesa Drive to Project Driveway #2	16,200	<i>DNE</i>	–	7,600	A	7,600	No
Project Driveway # 2 to Project Driveway 3	30,000	<i>DNE</i>	–	10,160	A	10,160	No
Project Driveway # 3 to Project Driveway #4	30,000	<i>DNE</i>	–	13,450	A	13,450	No
Project Driveway # 4 to Project Driveway #5	30,000	<i>DNE</i>	–	19,050	B	19,050	No

*Continued on Next Page*

**TABLE 8-2 (CONTINUED)**  
**EXISTING + PROJECT SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project		Δ <sup>d</sup>	Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS		
Project Driveway #5 to Pankey Place	30,000	<i>DNE</i>	–	21,830	B	21,830	No
Pankey Place to SR 76 (Pala Road)	30,000	<i>DNE</i>	–	16,160	B	16,160	No
SR 76 (Pala Road) to Shearer Crossing <sup>f</sup>	30,000	3,700	A	9,000	A	5,300	No
Shearer Crossing to Old Highway 395	16,200	3,700	B	5,880	C	2,180	No
<b>Pala Mesa Drive</b>							
Wilt/Sage Road to Old Highway 395	9,700	600	A	2,440	A	1,840	No
Old Highway 395 to Pankey Road	16,200	<i>DNE</i>	–	6,370	C	6,370	No
<b>Pankey Place</b>							
Pankey Road to Horse Ranch Creek Road	16,200	<i>DNE</i>	–	<i>DNE</i>	–	–	No
<b>Horse Ranch Creek Road</b>							
North of SR 76 (Pala Road)	32,500	<i>DNE</i>	–	<i>DNE</i>	–	–	No

**Footnotes:**

- a. Capacities based on County of San Diego Roadway Classification & LOS table (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service
- d. Δ denotes an increase in ADT due to project traffic.
- e. This 4-lane segment is not considered to be significantly impacted due to acceptable arterial operations (LOS D or better) during the peak hours. See *Appendix F* for details.
- f. This value represents the “with Project” capacity as the Project will improve this segment to a 4.2A Boulevard. The capacity of the existing roadway is 16,200 as stated in Table 6-2.

**General Notes:**

- Bold typeface indicates a significant direct project impact.
- DNE – Does not exist.

**TABLE 8-3  
EXISTING + PROJECT FREEWAY MAINLINE OPERATIONS**

Freeway Segment	Direction & Number of Lanes <sup>a</sup>	Capacity <sup>b</sup>	Existing						Existing + Project						Δ <sup>c</sup>		Significant?	
			Volume		V/C		LOS		Volume		V/C		LOS					
			AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
<b>Interstate 15</b>																		
Rainbow Valley Blvd. to Mission Road	NB Mainlines 4M	9,400	2,062	5,948	0.219	0.633	A	C	2,149	6,199	0.229	0.659	A	C	0.010	0.026	No	No
	SB Mainlines 4M		5,841	3,139	0.621	0.334	C	A	5,987	3,330	0.637	0.354	C	A	0.016	0.020	No	No
Mission Road to SR 76	NB Mainlines 4M	9,400	1,705	5,621	0.181	0.598	A	B	1,758	5,798	0.187	0.617	A	B	0.006	0.019	No	No
	SB Mainlines 4M		5,310	2,898	0.565	0.308	B	A	5,370	3,023	0.571	0.322	B	B	0.006	0.014	No	No
SR 76 to Old Highway 395	NB Mainlines 4M	9,400	1,484	5,422	0.158	0.577	A	B	1,644	5,680	0.174	0.604	A	B	0.016	0.027	No	No
	SB Mainlines 4M		5,278	2,752	0.561	0.293	B	A	5,395	2,972	0.574	0.316	B	A	0.013	0.023	No	No

**Footnotes:**

- a. ADT Volumes, K, D and truck factors referenced from SR 76 East Project completed by *LLG Engineers for Caltrans* (March 2009).
- b. Capacity based on 2,350 vehicles/hour/lane for mainlines and 1,200 vehicles/hour/lane for auxiliary lanes.
- c. Δ denotes an increase in V/C due to project traffic volumes.

LOS	V/C
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46



**TABLE 8-4  
EXISTING + PROJECT ILV OPERATIONS**

Intersection	Peak Hour	Existing		Existing + Project	
		Total Operating Level (ILV/Hr)	Capacity	Total Operating Level (ILV/Hr)	Capacity
SR 76 / I-15 Southbound Ramps	AM	937	Under	1,267	Near
	PM	1,247	Near	1,983	Over
SR 76 / I-15 Northbound Ramps	AM	733	Under	1,244	Near
	PM	1,276	Near	2,124	Over

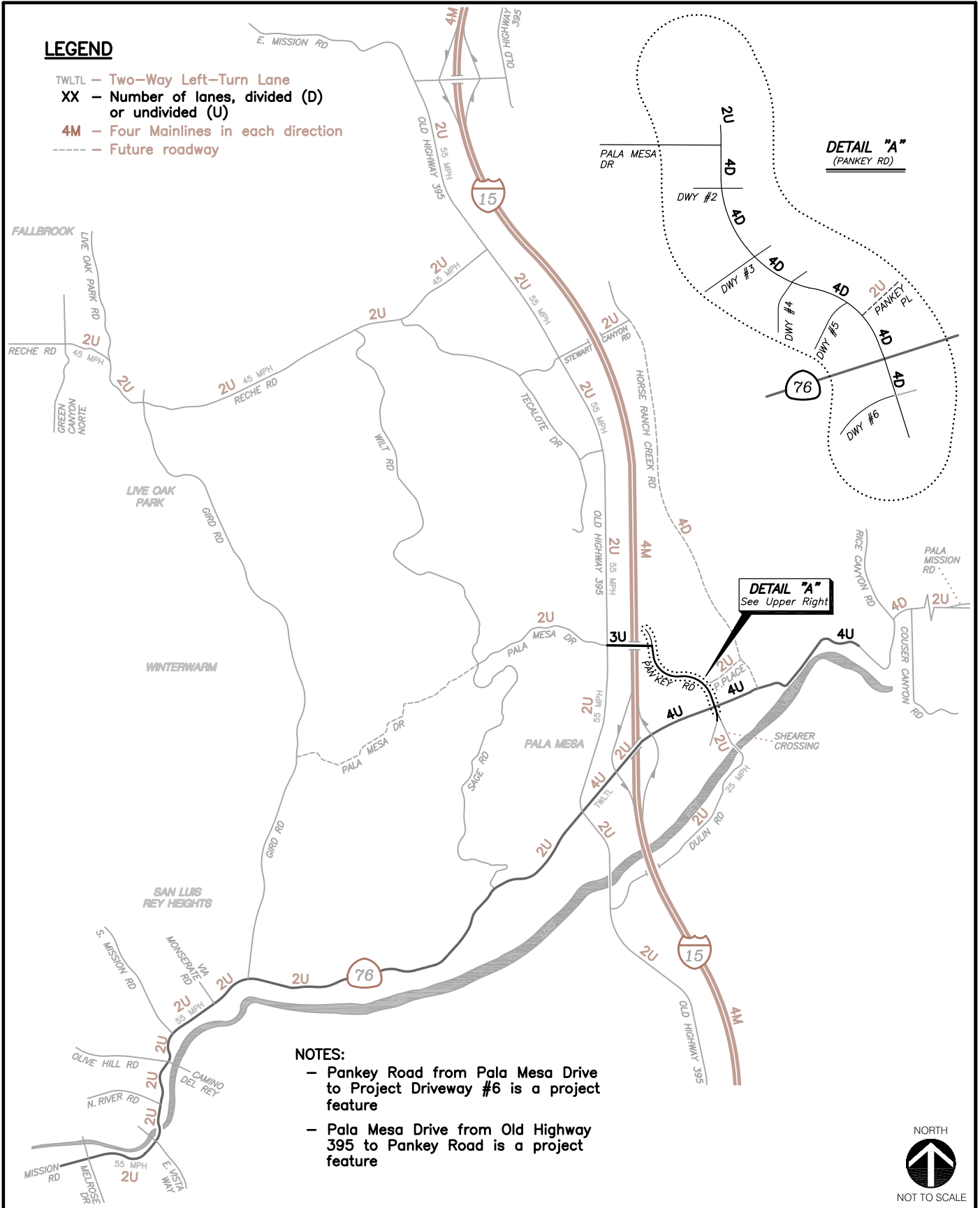
**General Notes:**

1. ILV – Intersection Lane Volume

Status	
≤ 1,200 ILV/hr	Under Capacity
> 1,200 ≤ 1,500 ILV/hr	Near Capacity
> 1,500 ILV/hr	Over Capacity

**LEGEND**

- TWLTL - Two-Way Left-Turn Lane
- XX - Number of lanes, divided (D) or undivided (U)
- 4M - Four Mainlines in each direction
- - Future roadway



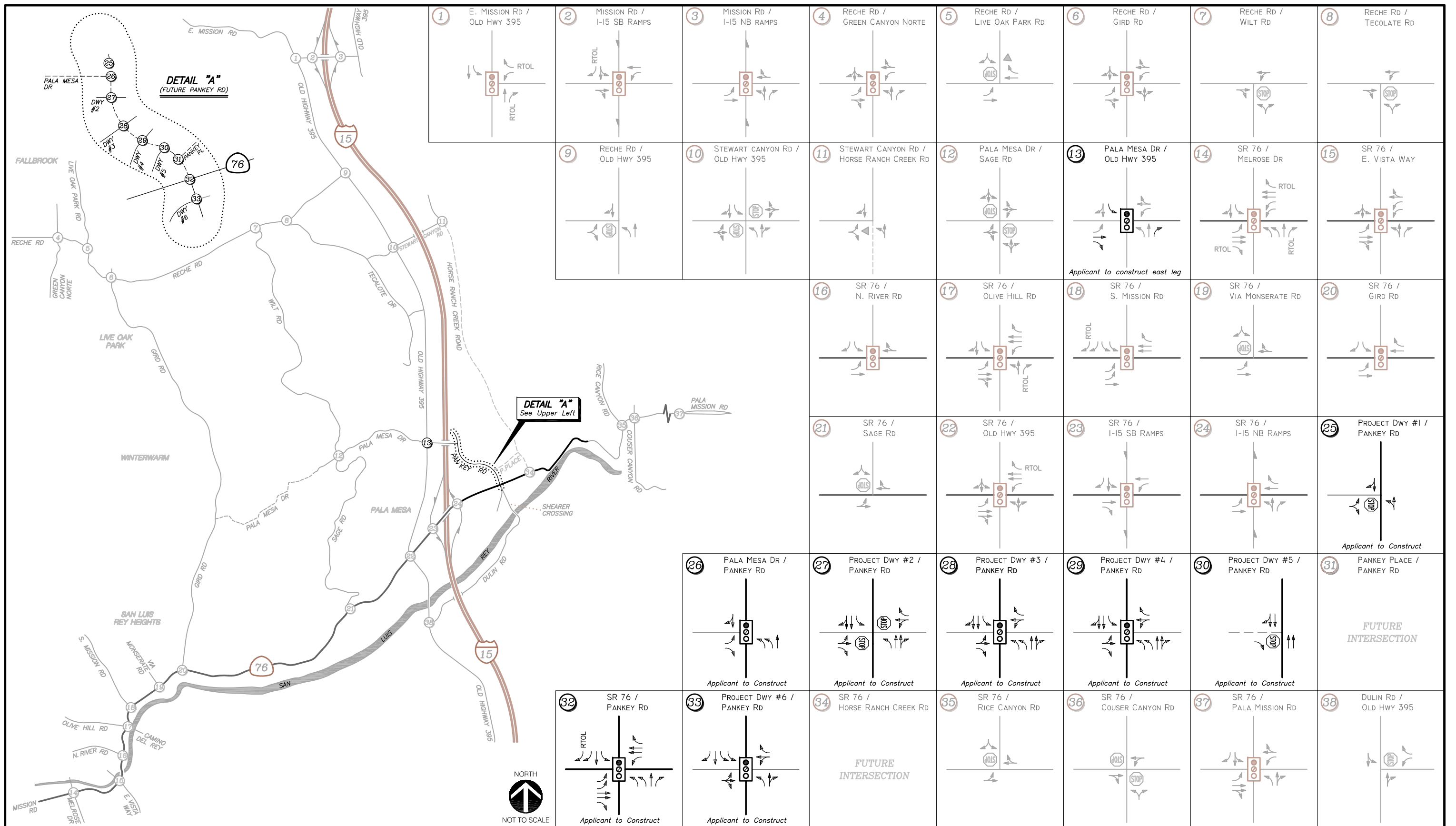
**NOTES:**

- Pankey Road from Pala Mesa Drive to Project Driveway #6 is a project feature
- Pala Mesa Drive from Old Highway 395 to Pankey Road is a project feature



REV. 11/20/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 8-1A.DWG

**Figure 8-1a**  
**Existing + Project Conditions**  
**(Roadway Segments)**



**LEGEND**

	- Traffic Signal
	- Two-Way Stop
	- Yield Sign
	- Right Turn Overlap
	- Future Roadway

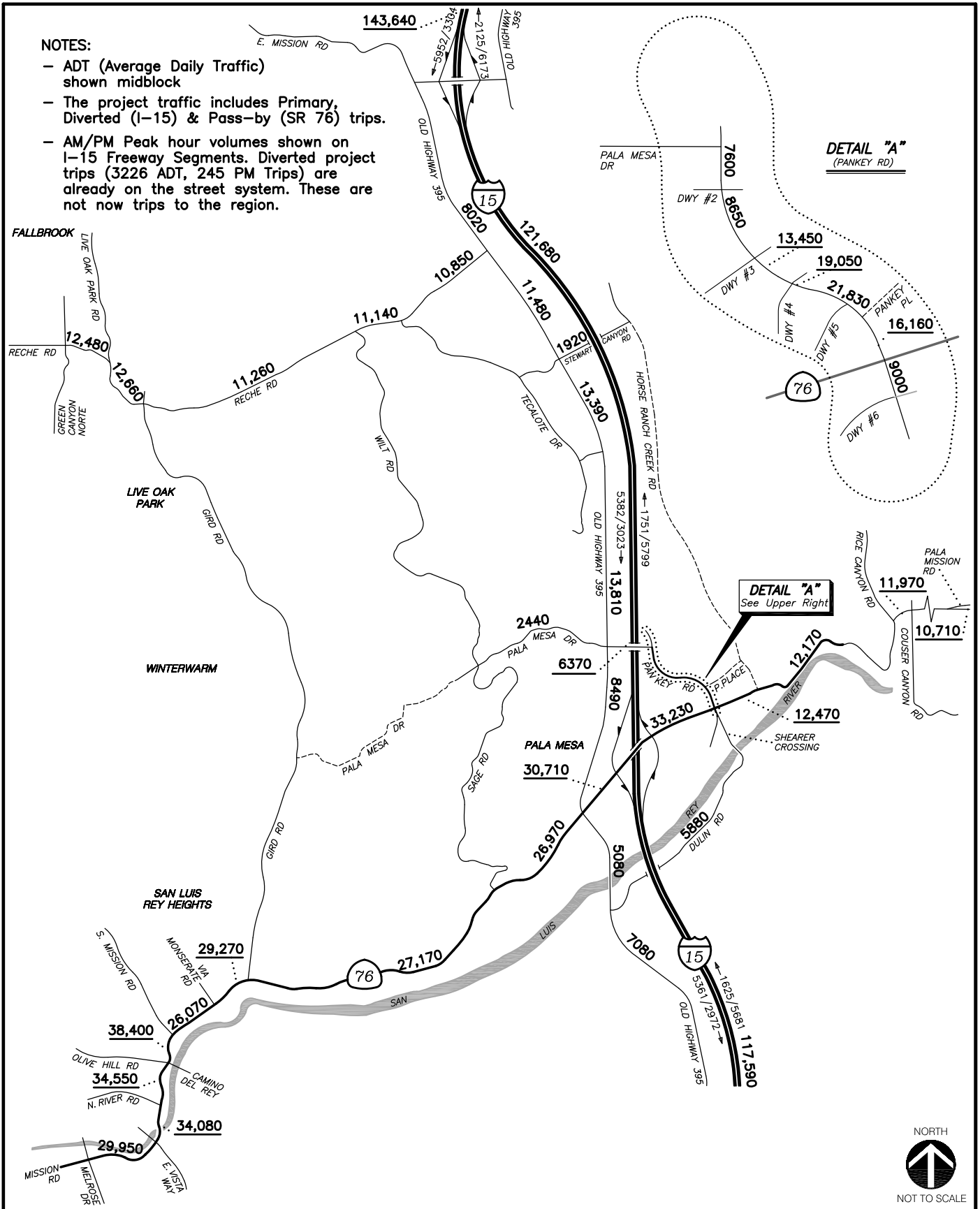
- NOTES:**
- Intersections follow East-West/ North-South street names
  - Applicant to construct east leg of intersection #13 as a project feature
  - Applicant to construct intersections 25-33 as a project feature

- Improvements shown in bold

**Figure 8-1b**  
**Existing + Project Conditions Diagram**  
**(Intersections)**  
 CAMPUS PARK WEST

**NOTES:**

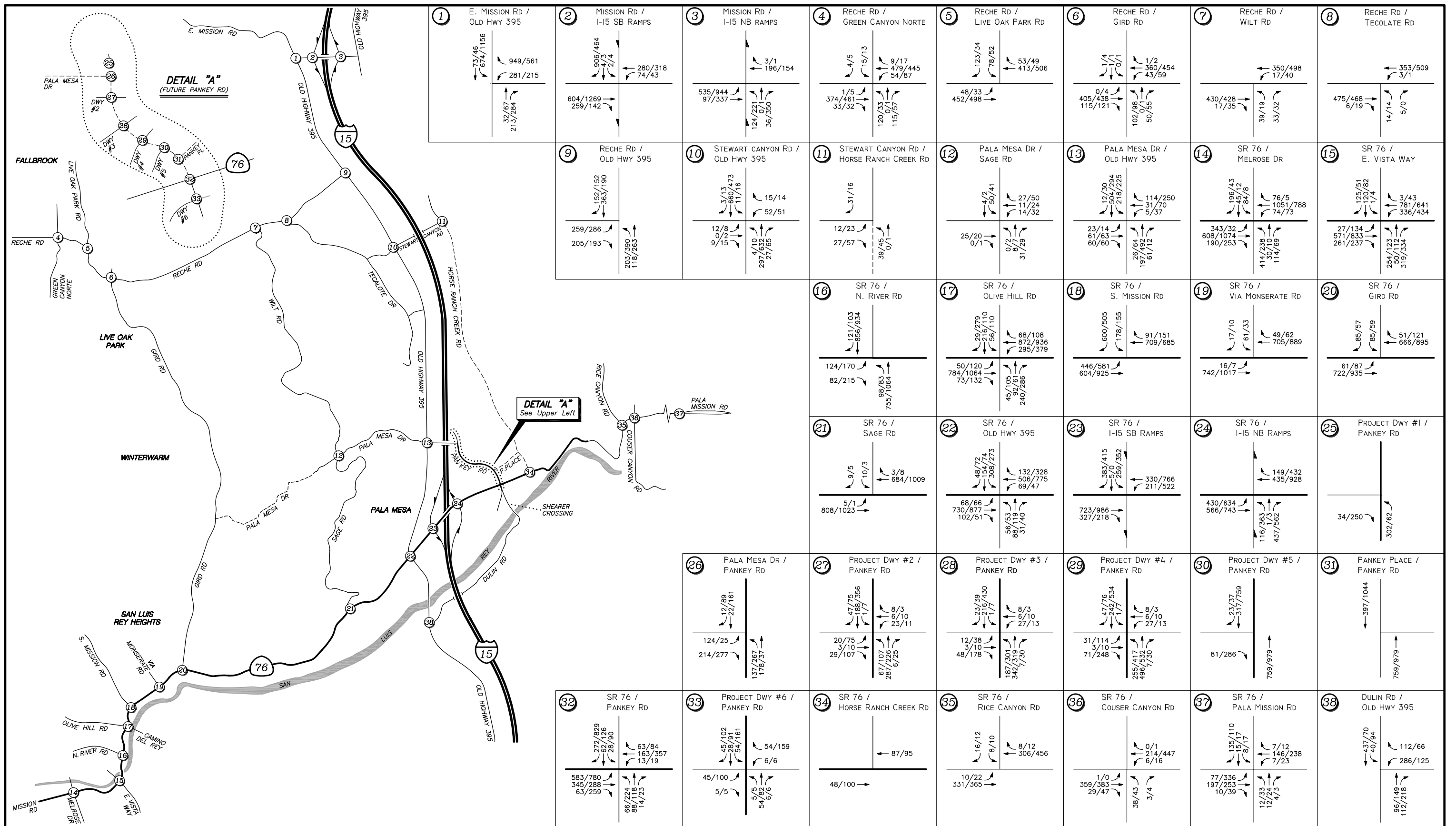
- ADT (Average Daily Traffic) shown midblock
- The project traffic includes Primary, Diverted (I-15) & Pass-by (SR 76) trips.
- AM/PM Peak hour volumes shown on I-15 Freeway Segments. Diverted project trips (3226 ADT, 245 PM Trips) are already on the street system. These are not now trips to the region.



REV. 5/17/2013  
 N:\1825\2013\FIGURES\LLG1825 FIGURE 8-2A.DWG



**Figure 8-2a**  
**Existing + Project Traffic Volumes**  
**(Roadway Segments)**



REV. 5/3/2013  
N:\1825\2013\Figures\LLG1825 Figure 8-2b.dwg



**NOTES**

- Intersections follow East-West/North-South street names
- AM/PM peak hour volumes are shown at the intersections

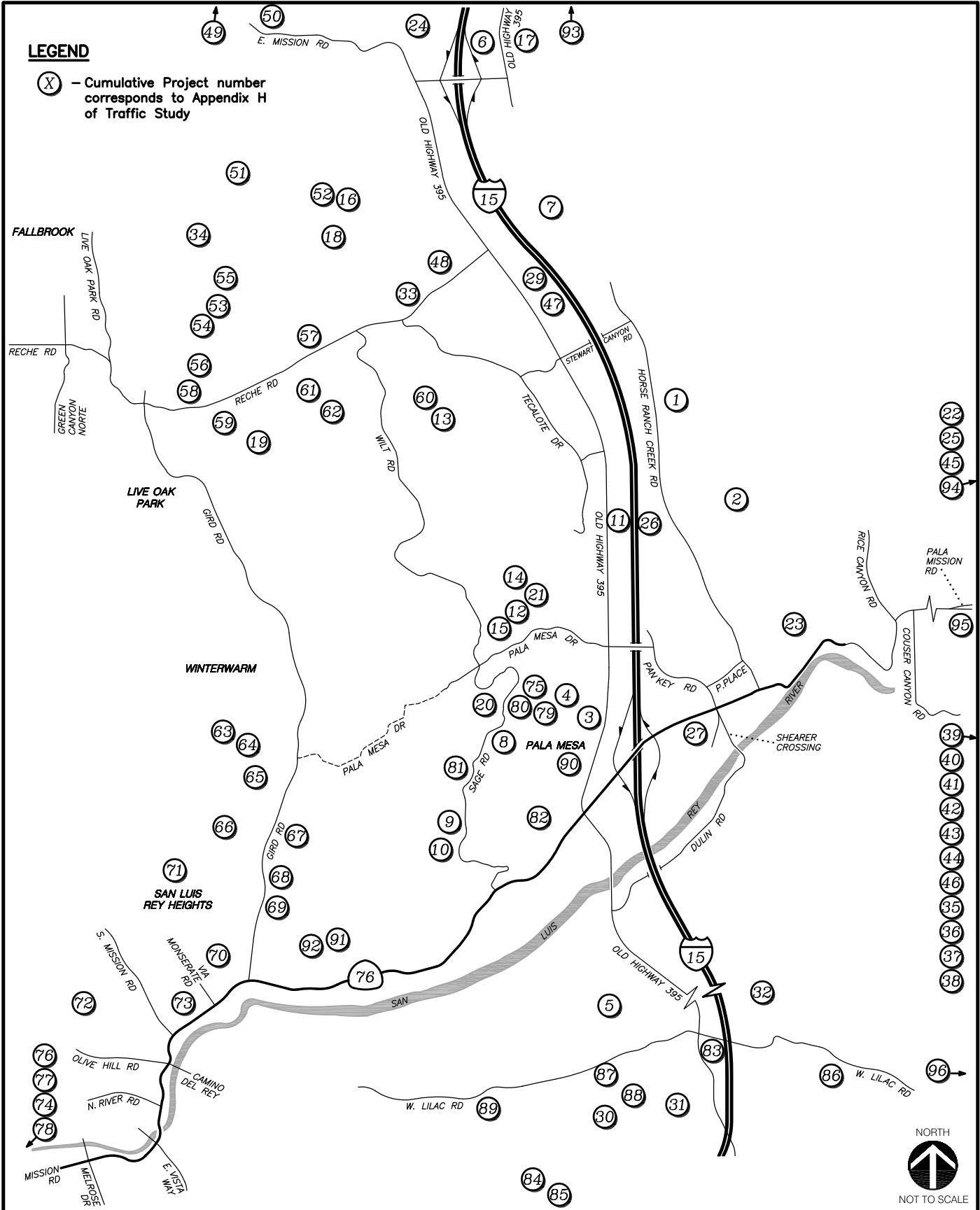
**Figure 8-2b**  
**Existing + Project Traffic Volumes**  
**(Intersections)**

## 9.0 CUMULATIVE CONDITIONS

Cumulative projects are other projects in the study area that will add traffic to the local circulation system in the near future. There are several substantial cumulative projects in the study area that are either proposed and under study, or are currently under review by the County of San Diego. These cumulative projects were referenced from the *Campus Park Traffic Study* completed by LOS Engineering with extensive coordination with SANDAG and the County of San Diego.

A SANDAG Year 2030 Series 10 model was prepared by LOS Engineering that included all cumulative projects that are consistent with the current land use plan. In addition, a review of San Diego County records was conducted by LOS Engineering where ninety-seven (97) nearby cumulative projects were identified, which are anticipated to generate traffic and use identical roadways as the project. *Appendix G* contains the list of cumulative projects.

*Figure 9-1* shows the cumulative projects location map. *Figure 9-2a* shows the cumulative project traffic volumes (roadway segments) and *Figure 9-2b* shows the cumulative project traffic volumes (intersections).



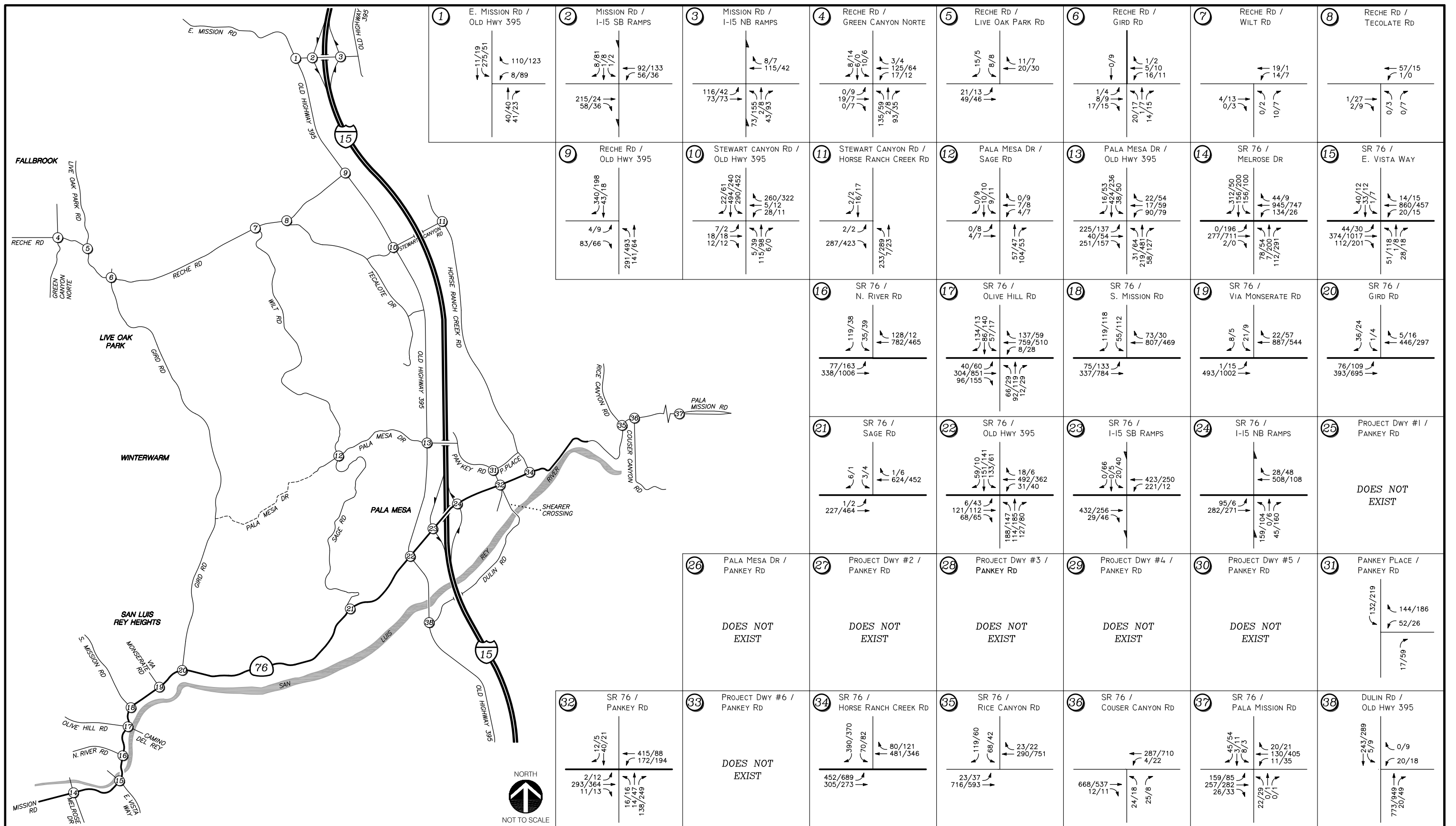
REV. 9/5/2012  
 N:\1825\2011-2012\Figures\LLG1825 Figure 9-1.dwg

**Figure 9-1**

**Cumulative Projects Locations**







**NOTES**

- Intersections follow East-West/North-South street names
- AM/PM peak hour volumes are shown at the intersections

**Figure 9-2b**  
**Cumulative Projects Traffic Volumes**  
**(Intersections)**

## 10.0 ANALYSIS OF NEAR-TERM SCENARIOS

As stated previously, the Proposed Project is part of a development cluster commonly referred to as the “3 P’s”, so-named for the initials of the three developers: Pardee, Pasarelle, and Pappas. LOS Engineering has prepared traffic studies for the other two projects, Campus Park (mixed-use and retail) and Meadowood (residential). The studies have been developed and approved ahead of the Campus Park West project, and LOS Engineering has done extensive modeling to determine the trip generation of adjacent cumulative projects.

The network improvements in the Existing + Project + Cumulative Projects condition include roadway improvements such as the Pala Mesa Drive extension from Old Highway 395 to SR 76 (Campus Park and Meadowood project applicant) and Pankey Place between Pankey Road and Horse Ranch Creek Road (Campus Park and Meadowood project applicant). The applicant also intends to construct improvements to the SR 76/ Pankey Road intersection (#32), although these improvements are not assumed in the analysis to be conservative. Other roadway improvements are also planned by the Pala Tribe and Caltrans; however, these improvements were not incorporated into the analysis, again to be conservative. The network conditions are shown in *Figure 10-1a* (roadway segments) and *Figure 10-1b* (intersections).

As stated in the Campus Park traffic study, the Existing + Project + Cumulative Projects analyses represents the worst case scenario as it includes all of the known cumulative project traffic but does not include the necessary roadway mitigation measures required to support all of the other cumulative projects. Based on the size of some of the other cumulative projects, significant roadway improvements would most likely be forthcoming to satisfy CEQA requirements. The daily traffic volumes and peak hour intersection volumes for this scenario are shown in *Figure 10-2a* and *Figure 10-2b* respectively.

### 10.1 Existing + Project + Cumulative Projects

#### 10.1.1 Intersection Analysis

*Table 10-1* summarizes the existing + project + cumulative projects intersection levels of service. As seen in *Table 10-1*, with the addition of cumulative project traffic, majority of the study area intersections are calculated to operate at LOS E or F, as follows:

- 1. E. Mission Road/ Old Hwy 395 – LOS E (AM peak hour) and LOS F (PM peak hour)
- 2. Mission Road/ I-15 SB ramps – LOS F (PM peak hour)
- 3. Mission Road/ I-15 NB ramps – LOS F (PM peak hour)
- 9. Reche Road/ Old Hwy 395 – LOS F (AM and PM peak hours)
- 10. Stewart Canyon Road/ Old Hwy 395 – LOS F (AM and PM peak hours)
- 13. Pala Mesa Drive/ Old Hwy 395 – LOS F (AM and PM peak hours)
- 15. SR 76/ E. Vista Way – LOS F (AM and PM peak hours)
- 16. SR 76/ N. River Road – LOS E (PM peak hour)
- 17. SR 76/ Olive Hill Road – LOS F (AM and PM peak hours)

- 18. SR76/ S. Mission Road – LOS E (PM peak hour)
- 19. SR 76/ Via Monserate Road – LOS F (AM and PM peak hours)
- 20. SR 76/ Gird Road – LOS E (PM peak hour)
- 22. SR 76/ Old Hwy 395 – LOS F (AM and PM peak hours)
- 23. SR 76/ I-15 SB Ramps – LOS E (AM peak hour) and LOS F (PM peak hour)
- 24. SR 76/ I-15 NB Ramps – LOS E (AM peak hour) and LOS F (PM peak hour)
- 32. SR 76/ Pankey Road – LOS F (AM and PM peak hours)
- 35. SR 76/ Rice Canyon Road – LOS F (AM and PM peak hours)
- 36. SR 76/ Couser Canyon Road –LOS F (AM & PM peak hours)
- 38. Dulin Road/ Old Highway 395 –LOS F (AM & PM peak hours)

Based on the County of San Diego significance criteria, the proposed cumulative projects are calculated to have *significant cumulative impacts* at the above study area intersections.

### 10.1.2 Segment Operations

**Table 10–2** summarizes the existing + project + cumulative projects daily roadway segment levels of service. As seen in **Table 10–2**, with the addition of cumulative project traffic, the following segments are calculated to operate at LOS E or F:

- SR 76 (Pala Road) – Melrose Drive to E. Vista Way, LOS F (*4 Lanes*)
- SR 76 (Pala Road) – E. Vista Way to N. River Road, LOS F (*4 Lanes*)
- SR 76 (Pala Road) – N. River Road to Olive Hill Road, LOS F (*4 Lanes*)
- SR 76 (Pala Road) – Olive Hill Road to S. Mission Road, LOS F (*4 Lanes*)
- SR 76 (Pala Road) – S. Mission Road to Via Monserate, LOS F (*2 Lanes*)
- SR 76 (Pala Road) – Via Monserate to Gird Road, LOS F (*2 Lanes*)
- SR 76 (Pala Road) – Gird Road to Sage Road, LOS F (*2 Lanes*)
- SR 76 (Pala Road) – Sage Road to Old Highway 395, LOS F (*2 Lanes*)
- SR 76 (Pala Road) – Old Highway 395 to the I-15 Southbound Ramps, LOS F (*4 Lanes*)
- SR 76 (Pala Road) – Rice Canyon Road to Couser Canyon Road, LOS F (*2 Lanes*)
- SR 76 (Pala Road) – Couser Canyon Road to Pala Mission Road, LOS F (*2 Lanes*)
- Old Highway 395 – E. Mission Road to Reche Road, LOS E
- Old Highway 395 – Reche Road to Stewart Canyon Road, LOS F
- Old Highway 395 – Stewart Canyon Road to Tecalote Lane, LOS E
- Old Highway 395 – Tecalote Lane to Pala Mesa Drive, LOS E
- Old Highway 395 – Pala Mesa Drive to SR 76, LOS E
- Old Highway 395 – Dulin Road to W. Lilac Road, LOS E
- Reche Road – Live Oak Park Road to Gird Road, LOS E
- Pala Mesa Drive – Wilt/Sage Road to Old Highway 395, LOS E

Based on the *County of San Diego* significance criteria, the proposed cumulative projects are calculated to have *significant cumulative impacts* at the above study area segments.

### **10.1.3 Freeway Mainline Operations**

**Table 10–3** shows the existing freeway mainline operations for the segments within the study area. This table shows that all peak hour segments are calculated to operate at LOS C or better during both the AM and PM peak hours.

### **10.1.4 Intersection Lane Vehicles Operations**

**Table 10–4** summarizes the existing + project + cumulative projects ILV operations. As seen in **Table 10–4**, with the addition of cumulative project traffic, the study area signalized SR 76 interchange is calculated to operate at over capacity during both the AM and PM peak hours. These results are consistent with the HCM intersection analyses presented in **Table 8–1**. Again, this analysis is for use by Caltrans; the County of San Diego does not utilize ILV results in the determination of significance.

**TABLE 10-1  
NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS	$\Delta^c$	Delay	LOS	$\Delta^d$	
1. E. Mission Road/Old Hwy 395	Signal	AM	24.7	C	29.1	C	4.4	<b>59.2</b>	<b>E</b>	<b>30.1</b>	<b>Yes</b>
		PM	77.0	E	78.8	E	1.8	<b>118.4</b>	<b>F</b>	<b>39.6</b>	<b>Yes</b>
2. Mission Road/ I-15 SB Ramps	Signal	AM	27.6	C	31.0	C	3.4	48.3	D	17.3	No
		PM	53.3	D	54.4	D	1.1	<b>133.7</b>	<b>F</b>	<b>&gt;50.0</b>	<b>Yes</b>
3. Mission Road/ I-15 NB Ramps	Signal	AM	28.8	C	29.6	C	0.8	31.3	C	1.7	No
		PM	27.0	C	41.2	D	14.2	<b>81.1</b>	<b>F</b>	<b>39.9</b>	<b>Yes</b>
4. Reche Road/ Green Canyon Norte	Signal	AM	13.1	B	13.5	B	0.4	21.5	C	8.0	No
		PM	10.5	B	11.0	B	0.5	16.9	B	5.9	No
5. Reche Road/ Live Oak Park Road	TWSC <sup>e</sup>	AM	20.3	C	23.9	C	3.6	33.6	D	9.7	No
		PM	19.1	C	23.2	C	4.1	29.5	D	6.3	No
6. Reche Road/ Gird Road	Signal	AM	11.9	B	13.3	B	1.4	14.8	B	1.5	No
		PM	12.4	B	14.7	B	2.3	17.7	B	3.0	No
7. Reche Road/ Wilt Road	TWSC	AM	14.2	B	15.9	C	1.7	16.5	C	0.6	No
		PM	14.9	B	16.1	C	1.2	16.7	C	0.6	No
8. Reche Road/ Tecalote Road	TWSC	AM	13.4	B	15.6	C	2.2	16.5	C	0.9	No
		PM	15.3	C	20.0	C	4.7	20.6	C	0.6	No
9. Reche Road/ Old Hwy 395	TWSC	AM	33.0	D	<b>&gt;100.1</b>	<b>F</b>	<b>107</b>	<b>&gt;200.1</b>	<b>F</b>	<b>&gt;5.0</b>	<b>Yes</b>
		PM	60.0	F	<b>&gt;100.1</b>	<b>F</b>	<b>115</b>	<b>&gt;200.1</b>	<b>F</b>	<b>&gt;5.0</b>	<b>Yes</b>
10. Stewart Canyon Road/ Old Hwy 395	TWSC	AM	12.6	B	20.3	C	7.7	<b>&gt;200.1</b>	<b>F</b>	<b>&gt;5.0</b>	<b>Yes</b>
		PM	12.8	B	20.2	C	7.4	<b>&gt;200.1</b>	<b>F</b>	<b>&gt;5.0</b>	<b>Yes</b>
11. Stewart Canyon Road/ Horse Ranch Creek Road	TWSC	AM	8.6	A	8.8	A	0.2	10.8	B	2.0	No
		PM	5.7	A	7.2	A	1.5	13.9	B	6.7	No

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**TABLE 10-1 (CONTINUED)**  
**NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS	Δ <sup>c</sup>	Delay	LOS	Δ <sup>d</sup>	
12. Pala Mesa Drive/ Sage Road	TWSC	AM	8.9	A	9.7	A	0.8	10.0	A	0.3	No
		PM	8.9	A	10.1	B	1.2	10.2	B	0.1	No
13. Pala Mesa Drive/ Old Hwy 395	TWSC	AM	13.2	B	15.8	B	2.6	>200.1	F	>5.0	Yes
		PM	11.7	B	27.8	C	16.1	>200.1	F	>5.0	Yes
14. SR 76/ Melrose Drive	Signal	AM	22.4	C	22.7	C	0.3	49.4	D	26.7	No
		PM	12.4	B	12.7	B	0.3	27.9	C	15.2	No
15. SR 76/ E. Vista Way	Signal	AM	43.7	D	45.6	D	1.9	>200.1	F	>50.0	Yes
		PM	39.4	D	41.0	D	1.6	>200.1	F	>50.0	Yes
16. SR 76/ N. River Road	Signal	AM	14.9	B	18.1	B	3.2	22.8	C	4.7	No
		PM	19.0	B	22.8	C	3.8	79.6	E	>50.0	Yes
17. SR 76/ Olive Hill Road	Signal	AM	32.3	C	33.4	D	1.1	>100.1	F	>50.0	Yes
		PM	62.4	E	63.9	E	1.5	>200.1	F	>50.0	Yes
18. SR 76/ S Mission Road	Signal	AM	11.5	B	13.0	B	1.5	23.9	C	10.9	No
		PM	10.8	B	13.4	B	2.6	59.7	E	46.3	Yes
19. SR 76/ Via Monserate Road	TWSC	AM	36.1	E	63.2	F	0	>200.1	F	>5.0	Yes
		PM	50.9	F	>100.1	F	0	>200.1	F	>5.0	Yes
20. SR 76/ Gird Road	Signal	AM	9.7	A	10.8	B	1.1	27.0	C	16.2	No
		PM	10.7	B	13.0	B	2.3	77.5	E	>50.0	Yes
21. SR 76/ Sage Road	TWSC	AM	20.2	C	27.4	D	0	>100.1	F	0	Yes
		PM	26.1	D	30.3	D	0	>200.1	F	0	Yes

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**TABLE 10-1 (CONTINUED)**  
**NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS	$\Delta^c$	Delay	LOS	$\Delta^d$	
22. SR 76/ Old Hwy 395	Signal	AM	39.2	D	40.2	D	1.0	>100.1	F	>50.0	Yes
		PM	36.8	D	37.0	D	0.2	>100.1	F	>50.0	Yes
23. SR 76/ I-15 SB Ramps	Signal	AM	26.7	C	34.1	C	7.4	74.4	E	40.3	Yes
		PM	22.6	C	>100.1	F	>80.1	>100.1	F	14.9	Yes
24. SR 76/ I-15 NB Ramps	Signal	AM	29.1	C	34.5	C	2.8	78.8	E	44.3	Yes
		PM	50.1	D	>100.1	F	>80.1	151.2	F	9.0	Yes
25. Project Driveway #1/ Pankey Road	TWSC	AM	<i>DNE</i>	–	8.4	A	–	8.4	A	0.0	No
		PM	<i>DNE</i>	–	9.4	A	–	9.4	A	0.0	No
26. Pala Mesa Drive/ Pankey Road	Signal	AM	<i>DNE</i>	–	10.2	B	–	10.4	A	0.2	No
		PM	<i>DNE</i>	–	13.7	B	–	15.2	B	9.3	No
27. Project Driveway #2/ Pankey Road	TWSC	AM	<i>DNE</i>	–	14.2	B	–	18.5	C	4.3	No
		PM	<i>DNE</i>	–	21.3	C	–	34.8	D	13.5	No
28. Project Driveway # 3/ Pankey Road	Signal	AM	<i>DNE</i>	–	12.8	B	–	13.6	B	0.8	No
		PM	<i>DNE</i>	–	19.0	B	–	19.9	B	0.9	No
29. Project Driveway # 4/ Pankey Road	Signal	AM	<i>DNE</i>	–	13.2	B	–	14.0	B	0.8	No
		PM	<i>DNE</i>	–	19.7	B	–	20.6	C	0.9	No
30. Project Driveway # 5/ Pankey Road	TWSC	AM	<i>DNE</i>	–	9.8	A	–	9.3	A	0.0	No
		PM	<i>DNE</i>	–	11.1	B	–	11.6	B	0.5	No
31. Pankey Place/ Pankey Road	Signal	AM	<i>DNE</i>	–	<i>DNE</i>	–	–	13.1	B	–	No
		PM	<i>DNE</i>	–	<i>DNE</i>	–	–	17.3	B	–	No

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**TABLE 10-1 (CONTINUED)**  
**NEAR-TERM INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS	Δ <sup>c</sup>	Delay	LOS	Δ <sup>d</sup>	
32. SR 76/ Pankey Road	TWSC <sup>f</sup>	AM	12.2	B	>100.1	F	>5.0	>100.0	F	>5.0	Yes
		PM	11.8	B	>100.1	F	>5.0	>100.0	F	>5.0	Yes
33. Project Driveway # 6/ Pankey Road	Signal	AM	DNE	–	12.0	B	–	13.6	B	1.6	No
		PM	DNE	–	15.5	B	–	20.9	C	5.4	No
34. SR 76/ Horse Ranch Creek Road	Signal	AM	DNE	–	7.9	B	–	15.6	B	7.7	No
		PM	DNE	–	8.0	A	–	31.9	C	23.9	No
35. SR 76/ Rice Canyon Road	TWSC	AM	10.6	B	11.6	B	1.0	>200.1	F	>5.0	Yes
		PM	12.5	B	14.5	B	2.0	>200.1	F	>5.0	Yes
36. SR 76/ Couser Canyon Road	TWSC	AM	12.5	B	15.0	C	2.5	>100.1	F	>5.0	Yes
		PM	15.8	C	22.3	C	6.5	>200.1	F	>5.0	Yes
37. SR 76/ Pala Mission Road	Signal	AM	11.9	B	11.9	B	0.0	17.2	B	5.3	No
		PM	18.6	B	19.0	B	0.4	37.9	D	18.9	No
38. Dulin Road/ Old Highway 395	TWSC	AM	20.3	C	30.9	D	10.6	>200.1	F	>5.0	Yes
		PM	10.5	B	14.0	B	3.5	>200.1	F	>5.0	Yes

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes an increase in delay or vehicles to a critical movement due to project traffic.
- d. Δ denotes an increase in delay or vehicles to a critical movement due to cumulative project traffic.
- e. TWSC – Two-Way Stop Controlled Intersection. Cumulative project contribution to minor street critical movement reported.
- f. Traffic Signal and intersection improvements are proposed by the project, although the analysis is conducted as a TWSC to be conservative.

**General Notes:**

- Bold typeface indicates significant cumulative project impact.
- DNE – Does Not Exist

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 10-2  
NEAR-TERM SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS	Δ <sup>d</sup>	ADT	LOS	Δ <sup>e</sup>	
<b>SR 76 (Pala Road)</b>										
Melrose Drive to E. Vista Way	37,000	28,800	C	29,950	D	1,150	<b>64,060</b>	<b>F</b>	<b>34,110</b>	<b>Yes</b>
E. Vista Way to N. River Road	37,000	32,500	D	34,080	E	1,580	<b>53,200</b>	<b>F</b>	<b>19,120</b>	<b>Yes</b>
North River Road to Olive Hill Road	37,000	32,500	D	34,550	E	2,050	<b>63,730</b>	<b>F</b>	<b>29,180</b>	<b>Yes</b>
Olive Hill Road to South Mission Road	37,000	36,100	E	38,400	F	2,300	<b>67,470</b>	<b>F</b>	<b>29,070</b>	<b>Yes</b>
South Mission Road to Via Monserate	22,900	22,400	E	26,070	F	3,670	<b>46,860</b>	<b>F</b>	<b>20,790</b>	<b>Yes</b>
Via Monserate to Gird Road	22,900	25,600	F	29,270	F	3,670	<b>46,760</b>	<b>F</b>	<b>17,490</b>	<b>Yes</b>
Gird Road to Sage Road	22,900	22,900	E	27,170	F	4,270	<b>37,450</b>	<b>F</b>	<b>10,280</b>	<b>Yes</b>
Sage Road to Old Highway 395	22,900	22,700	E	26,970	F	4,270	<b>39,790</b>	<b>F</b>	<b>12,820</b>	<b>Yes</b>
Old Highway 395 to I-15 Southbound Ramps	37,000	26,500	C	30,710	D	4,210	<b>40,390</b>	<b>F</b>	<b>9,680</b>	<b>Yes</b>
I-15 Northbound Ramps to Pankey Road	37,000	10,600	A	33,230	D	22,630	28,260	C	2,190	No
Pankey Road to Horse Ranch Creek Road	37,000	10,300	A	12,470	A	2,170	30,170	D	17,700	No
Horse Ranch Creek Road to Rice Canyon Road	37,000	10,000	A	12,170	A	2,170	25,270	C	13,100	No
Rice Canyon Road to Couser Canyon Road	22,900	9,800	A	11,970	A	2,170	<b>27,070</b>	<b>F</b>	<b>15,100</b>	<b>Yes</b>
Couser Canyon Road to Pala Mission Road	22,900	9,400	A	10,710	A	1,310	<b>23,600</b>	<b>F</b>	<b>12,890</b>	<b>Yes</b>

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**TABLE 10-2 (CONTINUED)**  
**NEAR-TERM SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS	Δ <sup>d</sup>	ADT	LOS	Δ <sup>e</sup>	
<b>Old Highway 395</b>										
East Mission Road to Reche Road	22,900	5,500	B	8,020	C	2,520	<b>19,660</b>	<b>E</b>	<b>11,640</b>	<b>Yes</b>
Reche Road to Stewart Canyon Road	22,900	6,200	C	11,480	D	5,260	<b>33,940</b>	<b>F</b>	<b>22,460</b>	<b>Yes</b>
Stewart Canyon Road to Tecalote Lane	22,900	6,900	B	13,390	D	6,490	<b>17,060</b>	<b>E</b>	<b>3,670</b>	<b>Yes</b>
Tecalote Lane to Pala Mesa Drive	22,900	7,100	B	13,810	D	6,710	<b>18,820</b>	<b>E</b>	<b>5,010</b>	<b>Yes</b>
Pala Mesa Drive to SR 76 (Pala Road)	22,900	8,000	C	8,490	C	490	<b>19,520</b>	<b>E</b>	<b>11,030</b>	<b>Yes</b>
SR 76 (Pala Road) to Dulin Road	22,900	5,000	B	5,080	B	80	12,940	D	7,860	No
Dulin Road to W. Lilac Road	22,900	4,900	B	7,080	C	2,180	<b>17,600</b>	<b>E</b>	<b>10,520</b>	<b>Yes</b>
<b>Reche Road</b>										
Green Canyon Norte to Live Oak Park Road	19,000	10,900	D	12,480	D	1,560	13,480	D	1,000	No
Live Oak Park Road to Gird Road	19,000	11,100	D	12,660	D	1,560	<b>13,700</b>	<b>E</b>	<b>1,040</b>	<b>Yes</b>
Gird Road to Wilt Road	19,000	9,100	C	11,260	D	2,160	12,090	D	830	No
Wilt Road to Tecalote Road	19,000	8,400	C	11,140	D	2,740	11,930	D	790	No
Tecalote Road to Old Hwy 395	19,000	8,100	C	10,850	D	2,750	11,600	D	750	No

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**TABLE 10-2 (CONTINUED)**  
**NEAR-TERM SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS	Δ <sup>d</sup>	ADT	LOS	Δ <sup>e</sup>	
<b>Stewart Canyon Road</b>										
Old Hwy 395 to Horse Ranch Creek Road	16,200	900	A	1,920	B	1,020	8,240	D	6,320	No
<b>Pankey Road</b>										
Pala Mesa Drive to Project Driveway #2	16,200	<i>DNE</i>	–	7,600	A	7,600	11,330	A	3,730	No
Project Driveway # 2 to Project Driveway #3	30,000	<i>DNE</i>	–	10,160	A	10,160	13,890	A	3,730	No
Project Driveway # 3 to Project Driveway #4	30,000	<i>DNE</i>	–		A			A	3,730	No
				13,450		13,450	17,180			
Project Driveway # 4 to Project Driveway #5	30,000	<i>DNE</i>	–	19,050	B	19,050	22,780	C	3,730	No
Project Driveway #5 to Pankey Place	30,000	<i>DNE</i>	–	21,830	B	21,830	25,560	D	3,730	No
Pankey Place to SR 76 (Pala Road)	30,000	<i>DNE</i>	–	16,160	B	16,160	17,030	A	870	No
SR 76 (Pala Road) to Shearer Crossing <sup>f</sup>	30,000	3,700	A	9,000	A	5,300	13,960	A	4,960	No
Shearer Crossing to Old Highway 395	16,200	3,700	B	5,880	C	2,180	7,960	D	2,080	No
<b>Pala Mesa Drive</b>										
Wilt/Sage Road to Old Highway 395	9,700	600	A	2,440	A	1,840	<b>11,270</b>	<b>E</b>	<b>9,430</b>	<b>Yes</b>
Old Highway 395 to Pankey Road	16,200	<i>DNE</i>	–	6,370	C	6,370	10,100	D	3,730	No

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**TABLE 10-2 (CONTINUED)**  
**NEAR-TERM SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Project			Existing + Project + Cumulative Projects			Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS	$\Delta$ <sup>d</sup>	ADT	LOS	$\Delta$ <sup>e</sup>	
<b>Pankey Place</b>										
Pankey Road to Horse Ranch Creek Road	16,200	<i>DNE</i>	–	<i>DNE</i>	–	–	10,370	D	10,370	No
<b>Horse Ranch Creek Road</b>										
North of SR 76 (Pala Road)	32,500	<i>DNE</i>	–	<i>DNE</i>	–	–	21,920	D	21,920	No

**Footnotes:**

- a. Capacities based on County of San Diego Roadway Classification & LOS table (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service
- d.  $\Delta$  denotes an increase in ADT due to project traffic.
- e.  $\Delta$  denotes an increase in ADT due to cumulative project traffic.
- f. This value represents the “with Project” capacity as the Project will improve this segment to a 4.2A Boulevard. The capacity of the existing roadway is 16,200 as stated in Table 6-2.

**TABLE 10-3  
NEAR-TERM FREEWAY MAINLINE OPERATIONS SUMMARY**

Freeway and Segment	Peak Hour	Direction/ Capacity <sup>a</sup>		Existing			Existing + Project			Existing + Project + Cumulative Projects			Δ <sup>e</sup>	Sig?
				PHV <sup>b</sup>	V/C <sup>c</sup>	LOS <sup>d</sup>	PHV	V/C	LOS	PHV	V/C	LOS		
<b>I-15</b>														
Rainbow Valley Blvd. to Mission Road	AM	NB	9,400	2,062	0.219	A	2,149	0.229	A	2,504	0.266	A	0.037	No
	PM	NB	9,400	5,948	0.633	C	6,199	0.659	C	6,376	0.678	C	0.019	No
	AM	SB	9,400	5,841	0.621	C	5,987	0.637	C	6,213	0.661	C	0.024	No
	PM	SB	9,400	3,139	0.334	A	3,330	0.354	A	3,753	0.399	A	0.042	No
Mission Road to SR 76	AM	NB	9,400	1,705	0.181	A	1,758	0.187	A	1,957	0.208	A	0.021	No
	PM	NB	9,400	5,621	0.598	B	5,798	0.617	B	5,922	0.630	C	0.013	No
	AM	SB	9,400	5,310	0.565	C	5,370	0.571	C	5,566	0.592	C	0.021	No
	PM	SB	9,400	2,898	0.308	A	3,023	0.322	A	3,229	0.344	A	0.022	No
SR 76 to Old Highway 395	AM	NB	9,400	1,484	0.158	A	1,644	0.174	A	2,756	0.293	A	0.119	No
	PM	NB	9,400	5,422	0.577	B	5,680	0.604	B	7,368	0.784	C	0.180	No
	AM	SB	9,400	5,278	0.561	B	5,395	0.574	B	6,361	0.678	B	0.104	No
	PM	SB	9,400	2,752	0.293	A	2,972	0.316	B	3,602	0.383	B	0.067	No

**Footnotes:**

- a. Capacity based on 2,350 vehicles/hour/lane for mainlines and 1,200 vehicles/hour/lane for auxiliary lanes
- b. PHV = Peak Hour Volumes
- c. V/C = Volume/ Capacity
- d. LOS = Level of Service
- e. Δ = Denotes an increase in the V/C with due to cumulative project traffic

LOS	V/C
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

**TABLE 10-4  
NEAR-TERM ILV OPERATIONS**

Intersection	Peak Hour	Existing		Existing + Project		Existing + Project + Cumulative Projects	
		Total Operating Level (ILV/Hr)	Capacity	Total Operating Level (ILV/Hr)	Capacity	Total Operating Level (ILV/Hr)	Capacity
SR 76 / I-15 Southbound Ramps	AM	937	Under	1,267	Near	1,877	Over
	PM	1,247	Near	1,983	Over	2,079	Over
SR 76 / I-15 Northbound Ramps	AM	733	Under	1,244	Near	1,708	Over
	PM	1,276	Near	2,124	Over	2,066	Over

**General Notes:**

ILV – Intersection Lane Volume

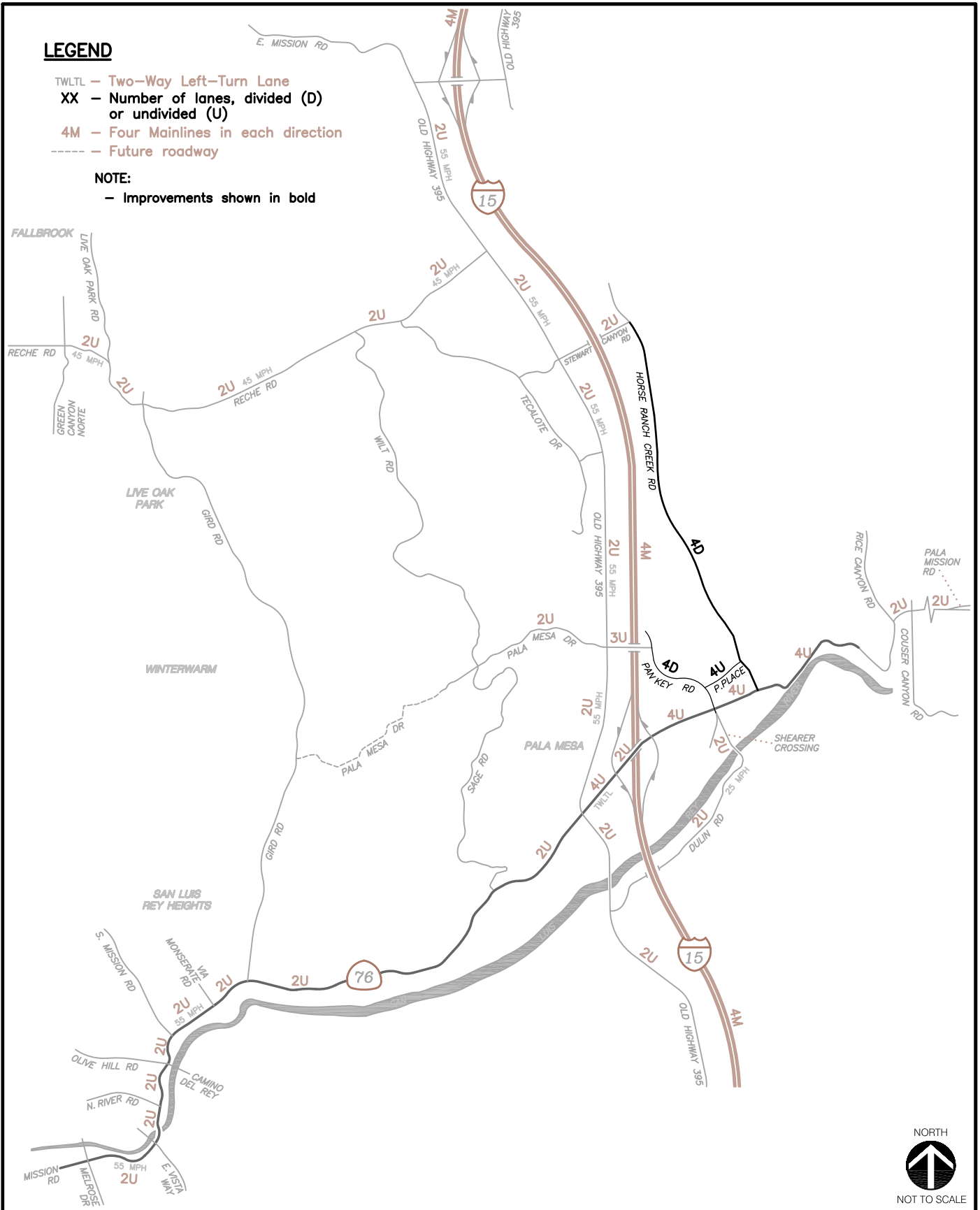
*Status*

≤ 1,200 ILV/hr	Under Capacity
> 1,200 ≤ 1,500 ILV/hr	Near Capacity
> 1,500 ILV/hr	Over Capacity

**LEGEND**

- TWLTL - Two-Way Left-Turn Lane
- XX - Number of lanes, divided (D) or undivided (U)
- 4M - Four Mainlines in each direction
- Future roadway

**NOTE:**  
- Improvements shown in bold

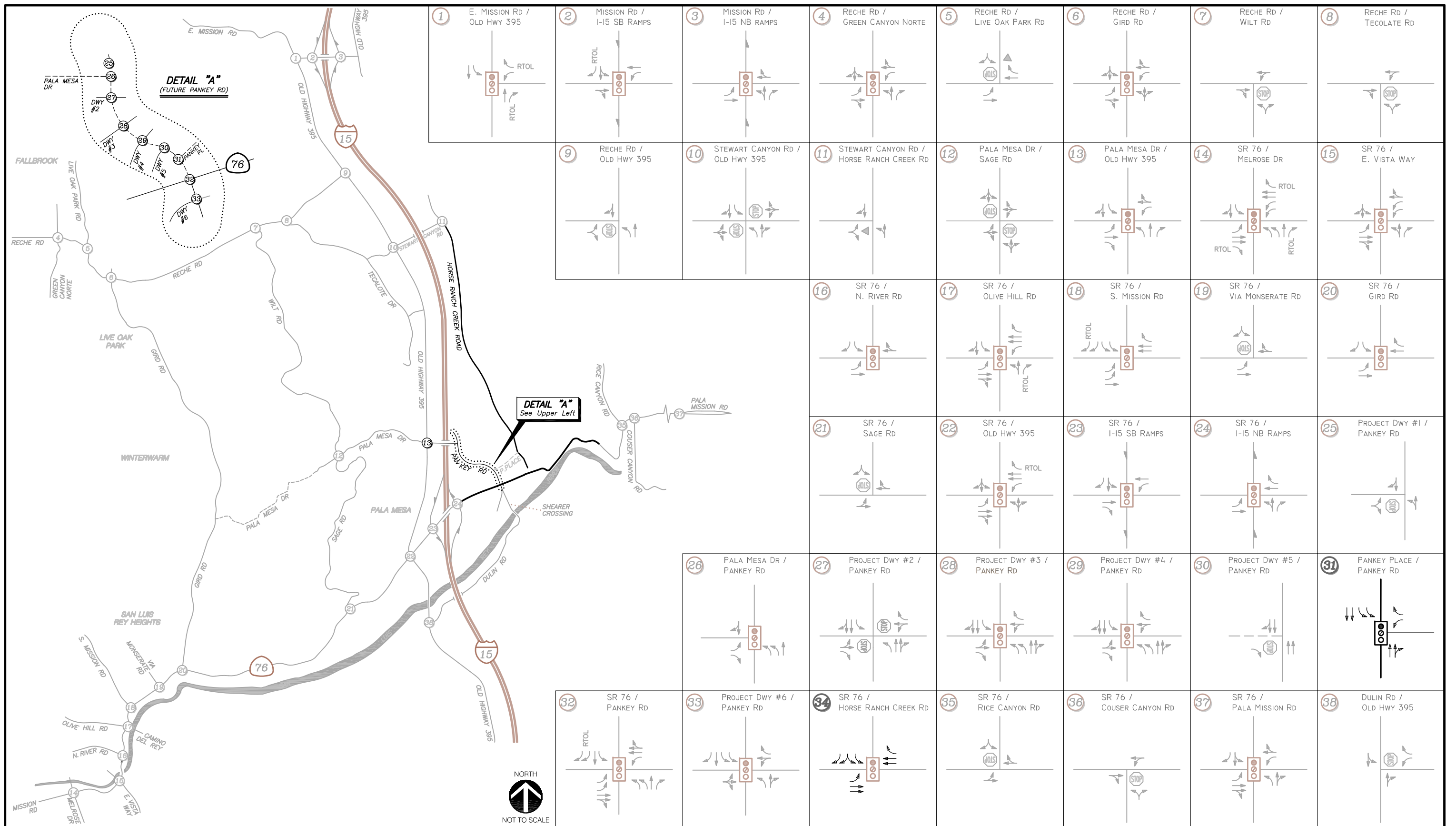


REV. 11/16/2012  
N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 10-1A.DWG

**Figure 10-1a**



**Existing + Project + Cumulative Projects Conditions Diagram (Roadway Segments)**



REV. 10/15/2009  
 N:\1825\2011-2012\Figures\LLG1825 Figure 10-1b.dwg

**LINSCOTT  
 LAW &  
 GREENSPAN**  
 engineers

**LEGEND**

- Traffic Signal
- All-Way Stop
- Two-Way Stop
- Yield Sign
- Right Turn Overlap

**NOTES**

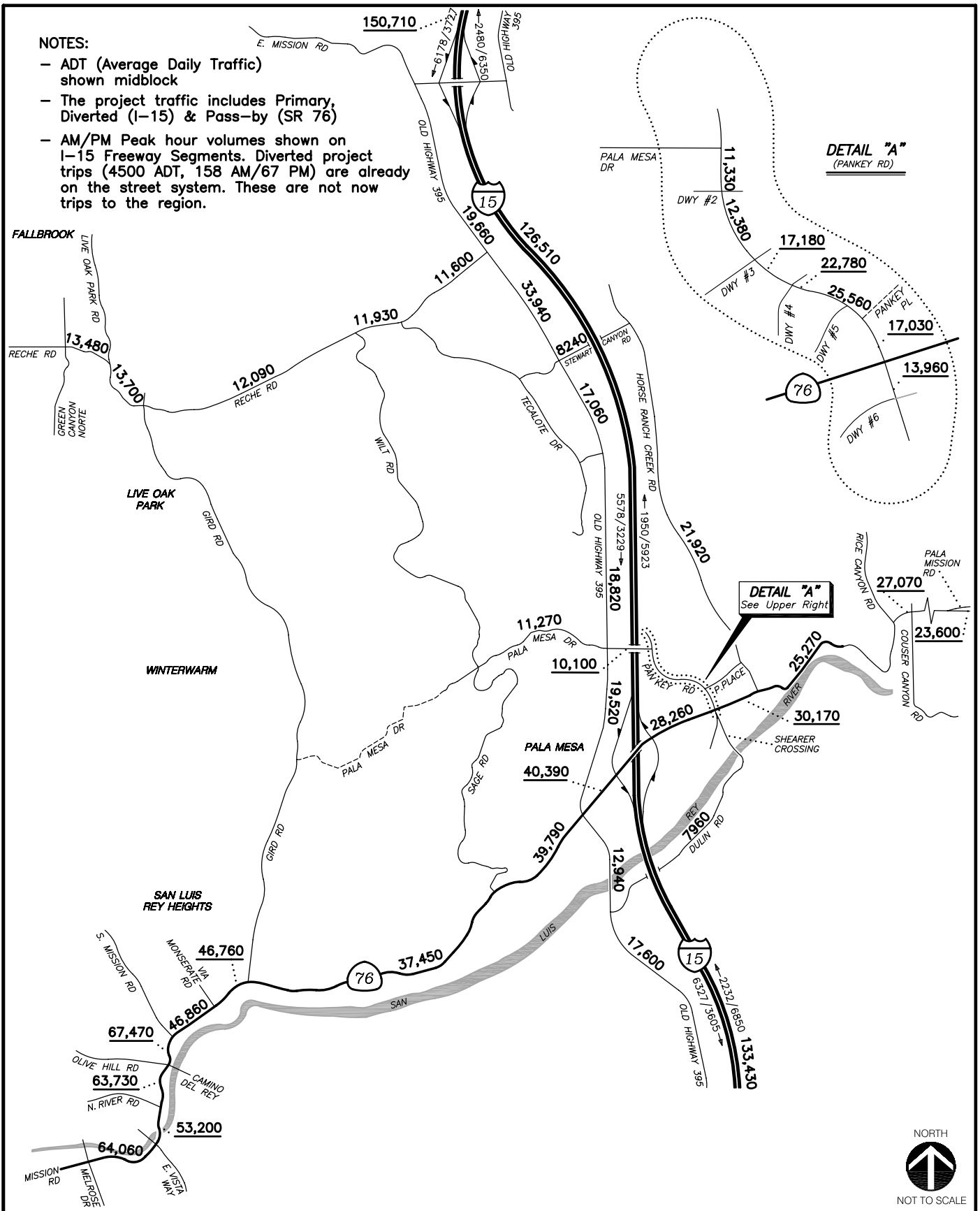
- Intersections follow East-West/  
North-South street names
- Improvements shown in bold

**Figure 10-1b**  
**Existing + Project + Cumulative Project Conditions Diagram**  
**(Intersections)**



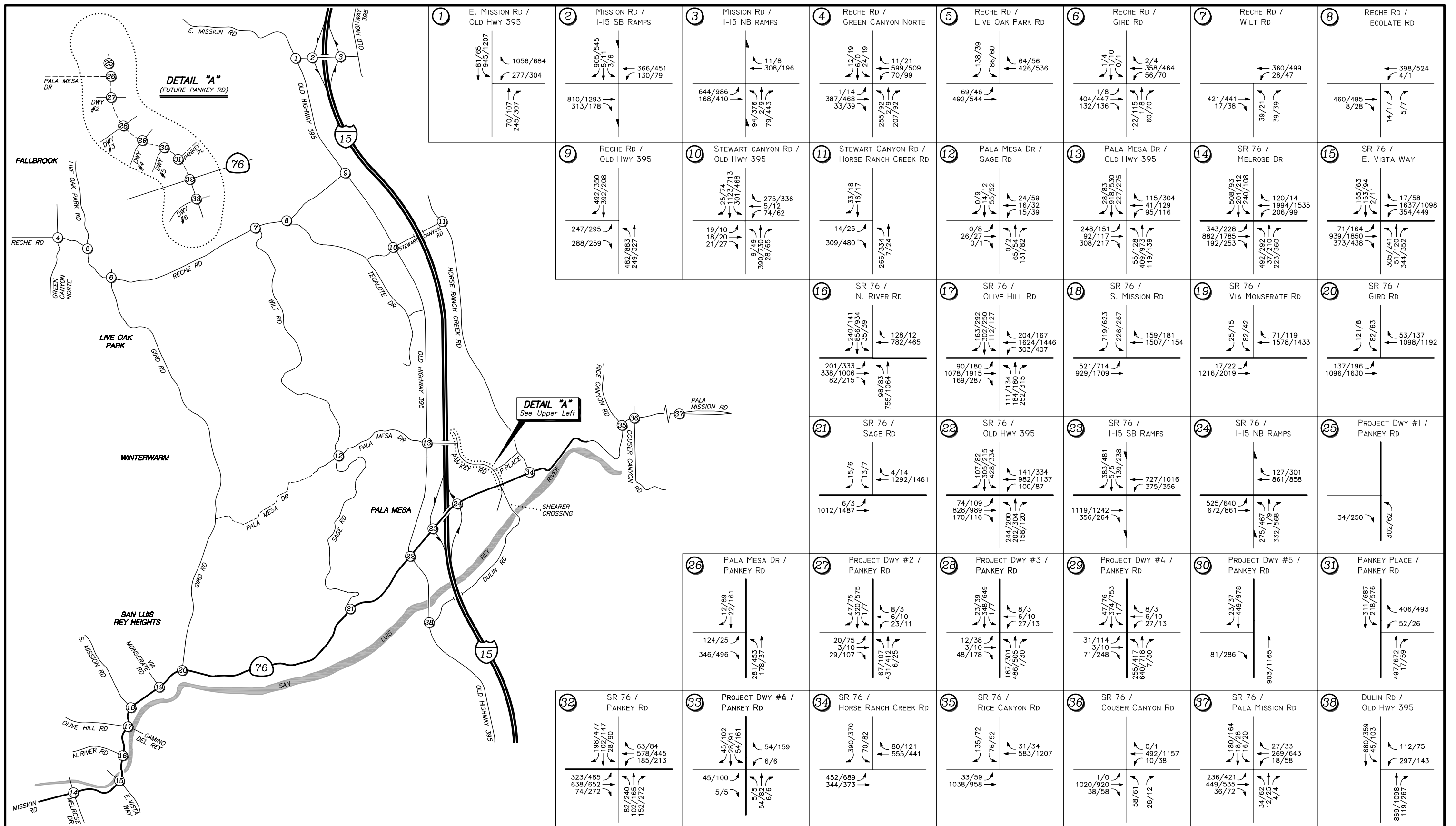
**NOTES:**

- ADT (Average Daily Traffic) shown midblock
- The project traffic includes Primary, Diverted (I-15) & Pass-by (SR 76)
- AM/PM Peak hour volumes shown on I-15 Freeway Segments. Diverted project trips (4500 ADT, 158 AM/67 PM) are already on the street system. These are not now trips to the region.



REV. 5/3/2013  
 N:\1825\2013\FIGURES\LLG1825 FIGURE 10-2A.DWG

**Figure 10-2a**  
**Existing + Project + Cumulative Projects Traffic Volumes**  
**(Roadway Segments)**



REV. 5/3/2013  
N:\1825\2013\Figures\LLG1825 Figure 10-2b.dwg



- NOTES**
- Intersections follow East-West/North-South street names
  - AM/PM peak hour volumes are shown at the intersections

**Figure 10-2b**  
**Existing + Project + Cumulative Projects Traffic Volumes (Intersections)**

## 11.0 YEAR 2030 OPERATIONS

### 11.1 Long-Term Traffic Volumes

A Horizon Year (Year 2030 Analysis) was completed, since the Proposed Project's land uses are more traffic-intensive than the Adopted General Plan Land Uses approved for the site. The County's Public Facilities Element (PFE) Amendment states that "*General Plan Amendments and Rezones shall be reviewed to ensure that any proposed increases in density or intensity of use will not prevent the planned Circulation Element road system from operating at its planned LOS based on SANDAG's regional traffic forecast.*" The 2030 analysis presented below compares the existing Adopted General Plan operations to the Proposed Project's operations.

It should be noted that the Adopted General Plan land uses and densities are generalized, and quantified in either dwelling units (units) or acres. The Proposed Project (General Plan Amendment) land uses have been further quantified into specific uses and square footages (see *Table 7-1*) for the purposes of the specific near-term impact analyses. For this plan to plan comparison, the Proposed Project has been translated into the same general units as used in the Adopted General Plan in order to provide direct comparison.

*Table 11-1* shows the traffic generation summary for the between the Adotped General Plan land uses and densities. *Table 11-2* shows the traffic generation summary for the General Plan Amendment (Proposed Project), using the same units as described above.

**TABLE 11-1  
TRIP GENERATION  
ADOPTED GENERAL PLAN LAND USES**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour					
		Rate	Volume	% of ADT	In:Out		Volume		% of ADT	In:Out		Volume	
					Split	In	Out	Split		In	Out		
Light Industrial	3 Acres	200/ AC	600	12%	80:20	58	14	12%	20:80	14	58		
Village Residential 7.3	91 Units	8/ DU	728	8%	20:80	12	46	10%	70:30	51	22		
General Commercial	56 Acres	500/ AC	28,000	4%	70:30	784	336	9%	50:50	1,260	1,260		
Specific Plan	7 Acres	—	0	—	—	0	0	—	—	0	0		
<b>Total</b>		—	<b>29,328</b>	—	—	<b>854</b>	<b>396</b>	—	—	<b>1,325</b>	<b>1,340</b>		

**TABLE 11-2  
TRIP GENERATION  
GENERAL PLAN AMENDMENT**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour					
		Rate	Volume	% of ADT	In:Out		Volume		% of ADT	In:Out		Volume	
					Split	In	Out	Split		In	Out		
General Commercial	53 Acres	500 /Ac	26,500	4%	70:30	742	318	9%	50:50	1,192	1,193		
Light Industrial	13 Acres	200 /Ac	2,600	12%	80:20	250	62	10%	20:80	52	208		
Multi Family Residential	287 Units	8 /DU	2,296	8%	20:80	37	221	10%	70:30	161	69		
<b>Total</b>		—	<b>31,396</b>	—	—	<b>1,029</b>	<b>601</b>	—	—	<b>1,405</b>	<b>1,470</b>		

These tables shows that the increase in traffic volume on the street system over the adopted General Plan (GP) due to the proposed general plan amendment (GPA) is 2,068 ADT, with 380 additional total AM peak hour trips and 210 additional total PM peak hour trips.

LLG obtained the buildout Series 10 General Plan Update traffic model for the Fallbrook area from the County of San Diego, which is the same model used to inform the decision making on Mobility Element roadway classifications as well as the Traffic Impact Fee calculations for the area. The volumes in this model reflect the GPU as adopted. To determine the effects of the proposed GPA (the increase in 2,068 ADT), the difference between the two projects was calculated for each segment.

No changes to the circulation element roadway classifications or capacities were assumed between the two scenarios, except for Pankey Road, which is proposed to be reclassified to a 4.2A Boulevard series roadway (with raised median) as part of the Proposed Project. A capacity of 30,000 ADT was therefore assumed for this roadway in both scenarios.

## 11.2 Year 2030 Segment Operations: Adopted GP vs. Proposed GPA Land Uses

*Table 11-3* shows a comparison of the street segment operations between the adopted GP and proposed GPA land uses and densities, assuming the same network. Any changes in LOS are therefore attributable directly to proposed changes in the land uses.

This table shows that the proposed GPA does not result in the degradation of any roadways to worse than LOS D. The proposed GPA does not result in any new LOS E/LOS F-operating segments that would not occur with the adopted GP.

**TABLE 11-3  
YEAR 2030 STREET SEGMENT OPERATIONS**

Street Segment	ME Capacity (LOS E) <sup>a</sup>	GPU		GPA	
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS
<b>SR 76 (Pala Road)</b>					
Melrose Drive to E. Vista Way	57,000	55,200	E	55,400	E
E. Vista Way to N. River Road	57,000	44,600	C	44,830	D
North River Road to Olive Hill Road	57,000	54,900	E	55,160	E
Olive Hill Road to South Mission Road	57,000	57,900	F	58,210	F
South Mission Road to Via Monserate	37,000	43,300	F	43,690	F
Via Monserate to Gird Road	37,000	42,800	F	43,190	F
Gird Road to Sage Road	37,000	34,400	E	34,770	E
Sage Road to Old Highway 395	37,000	35,600	E	35,970	E
Old Highway 395 to I-15 Southbound Ramps	37,000	40,400	F	40,720	F
I-15 Northbound Ramps to Pankey Road	37,000	29,900	D	31,260	D
Pankey Road to Horse Ranch Creek Road	37,000	32,400	E	32,450	E
Horse Ranch Creek Road to Rice Canyon Road	37,000	30,100	D	30,150	D
Rice Canyon Road to Couser Canyon Road	37,000	31,900	D	31,950	D
Couser Canyon Road to Pala Mission Road	22,900	25,800	C	25,820	C
<b>Old Highway 395</b>					
East Mission Road to Reche Road	22,900	21,060	E	21,220	E
Reche Road to Stewart Canyon Road	22,900	23,890	F	24,070	F
Stewart Canyon Road to Tecalote Lane	22,900	19,830	E	20,000	E
Tecalote Lane to Pala Mesa Drive	22,900	21,670	E	21,840	E
Pala Mesa Drive to SR 76 (Pala Road)	28,000	21,950	C	22,360	C
SR 76 (Pala Road) to Dulin Road	22,900	9,050	C	9,120	A
Dulin Road to W. Lilac Road	22,900	10,400	C	10,470	A
<b>Reche Road</b>					
Green Canyon Norte to Live Oak Park Road	19,000	19,270	F	19,340	F
Live Oak Park Road to Gird Road	19,000	16,770	E	16,840	E
Gird Road to Wilt Road	19,000	10,870	D	10,910	D
Wilt Road to Tecalote Road	19,000	11,270	D	11,270	D
Tecalote Road to Old Hwy 395	19,000	12,460	D	12,470	D

*Continued on Next Page*

**TABLE 11-3 (CONTINUED)**  
**LONG-TERM STREET SEGMENT OPERATIONS**

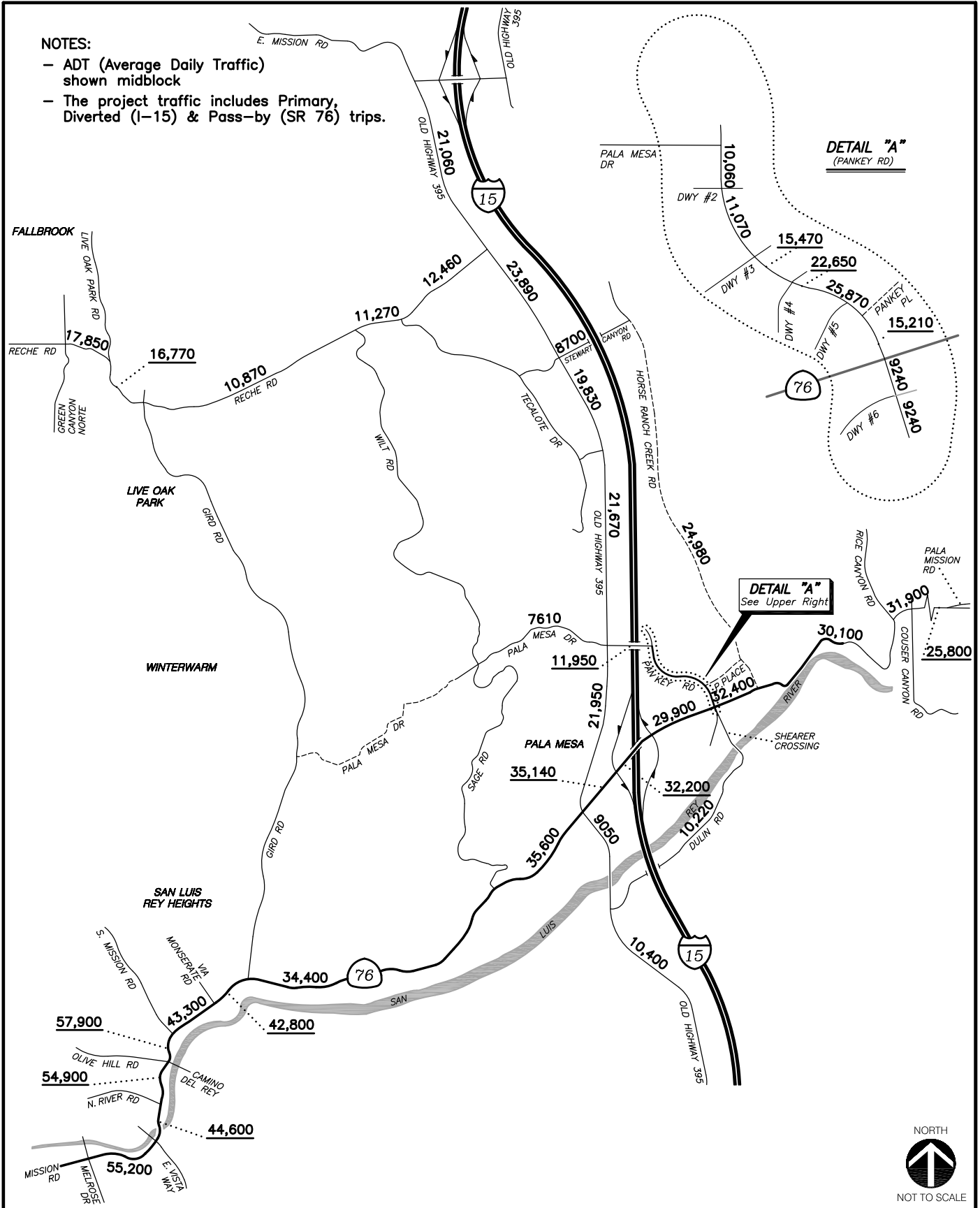
Street Segment	ME Capacity (LOS E) <sup>a</sup>	GPU		GPA	
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS
<b>Stewart Canyon Road</b>					
Old Hwy 395 to Horse Ranch Creek Road	34,200	8,700	A	8,680	A
<b>Pankey Road</b>					
Pala Mesa Drive to Project Driveway #2	30,000	10,060	A	11,140	A
Project Driveway #2 to Project Driveway # 3	30,000	11,070	A	12,310	A
Project Driveway #3 to Project Driveway #4	30,000	15,470	A	17,350	A
Project Driveway # 4 to Project Driveway #5	30,000	22,650	C	23,800	C
Project Driveway #5 to Pankey Place	30,000	25,870	D	26,850	D
Pankey Place to SR 76 (Pala Road)	30,000	15,210	A	16,050	A
SR 76 (Pala Road) to Shearer Crossing	30,000	9,240	A	9,270	A
Shearer Crossing to Old Highway 395	19,000	9,240	A	9,270	A
<b>Pala Mesa Drive</b>					
Wilt/Sage Road to Old Highway 395	9,700	7,610	C	7,590	C
Old Highway 395 to Pankey Road	9,700	11,950	F	12,010	F

**Footnotes:**

- a. Capacities based on County of San Diego Roadway Classification & LOS table (See Appendix C).
- b. Average Daily Traffic
- c. Level of Service

**NOTES:**

- ADT (Average Daily Traffic) shown midblock
- The project traffic includes Primary, Diverted (I-15) & Pass-by (SR 76) trips.

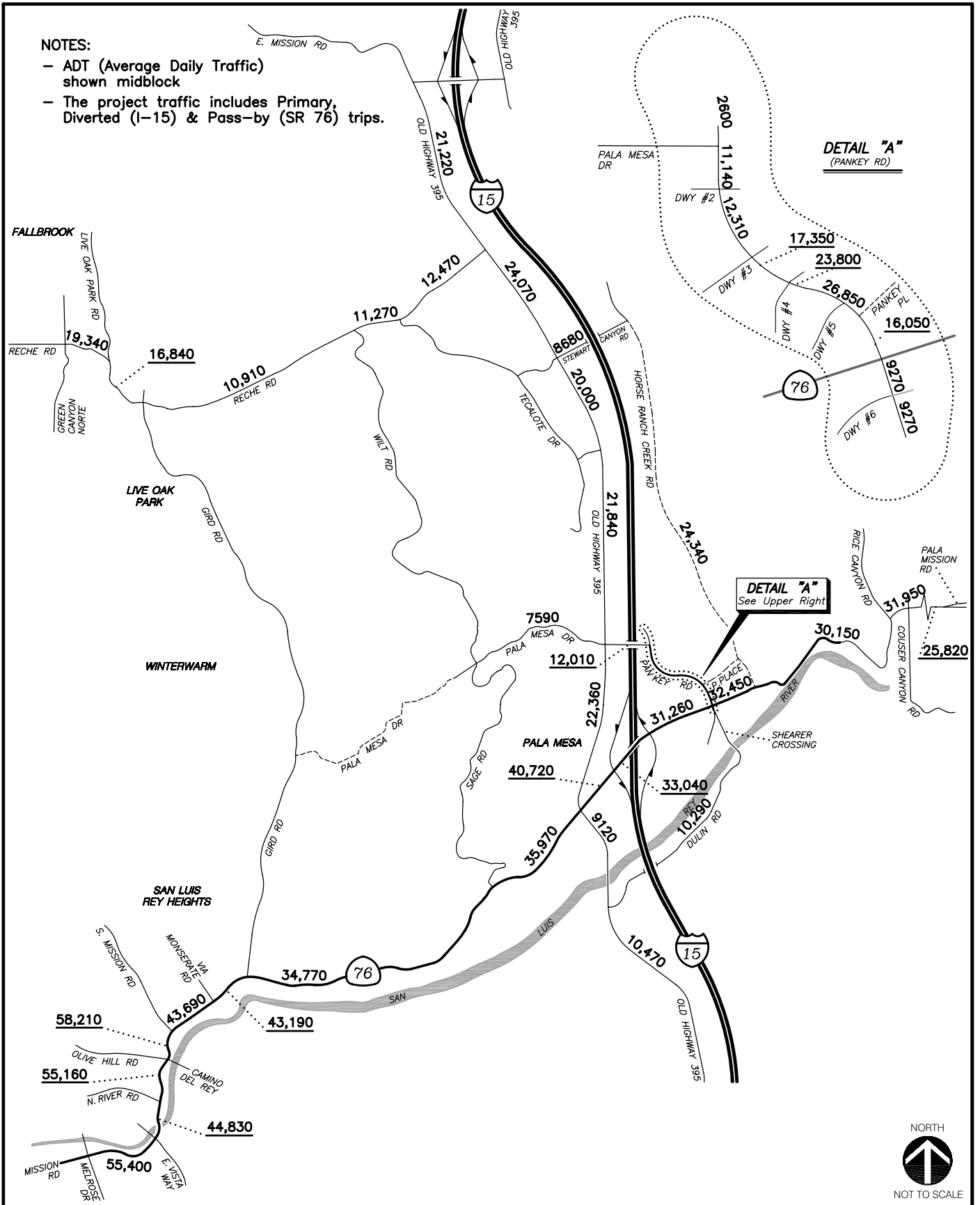


REV. 11/20/2012  
 N:\1825\2011-2012\FIGURES\LLG1825 FIGURE 11-1.DWG

**Figure 11-1**  
**Year 2030 General Plan Update Traffic Volumes**  
**(Roadway Segments)**

**NOTES:**

- ADT (Average Daily Traffic) shown midblock
- The project traffic includes Primary, Diverted (I-15) & Pass-by (SR 76) trips.



REV. 5/3/2013  
 N:\1825\2013\FIGURES\LLG1825 FIGURE 11-2.DWG



**Figure 11-2**  
**Year 2030 General Plan Amendment Traffic Volumes**  
**(Roadway Segments)**



## 12.0 COMMERCIAL PROJECT OPTION

### 12.1 Commercial Project Option – Description, Trip Generation and Approach

A Commercial Project Option (“Scenario 2”) could occur if decertification of adjacent Caltrans right-of-way on the southwest corner of the SR 76/Pankey Road intersection is obtained. It is estimated that approximately 10,000 SF of additional commercial use could be developed on this property. The highest trip-generating land use currently considered for this site is a gas station (16 fueling spaces assumed). This is comparable to the gas station use shown in *Table 7–1* (proposed for the southeast corner of the same intersection), and would generate 2,560 daily driveway trips, with 537 daily primary trips, 1,305 daily diverted trips, and 716 daily pass-by trips.

Project traffic volumes for Scenario 2 would be highest in the immediate vicinity of the SR 76/Pankey Road intersection, given the nature of the gas station and its high percentage (79%) of pass-by and diverted trips, largely from the adjacent I-15 freeway and fronting SR 76. Thus an appropriate study area would be from west of I-15 to the Pankey Road intersection.

### 12.2 Potential Direct Project Impacts – Scenario 2

The “existing + project” results of Proposed Project operations (*Section 8*) were reviewed to determine if any intersections or segments in this area were on the cusp of failing, or otherwise being impacted. These would be locations where the pre-project LOS/delay would potentially exceed allowable thresholds were the project alternative traffic volumes described above to be included.

*Table 8–1* and *Table 8–2* show that LOS D or better operations are calculated with the Proposed Project at all intersections and segments except for the SR 76/I-15 Northbound and Southbound ramps during the PM peak hour. The Proposed Project volumes cause **significant, direct project impacts** at these locations. This would be true of Scenario 2 as well. The balance of intersections and segments in the vicinity would remain at acceptable LOS D or better with the addition of the Scenario 2 traffic.

*Table 12–1* summarizes the existing + Scenario 2 peak hour intersection operations. *Table 12–2* summarizes the existing + Scenario 2 daily roadway segment levels of service.

### 12.3 Potential Cumulative Project Impacts – Scenario 2

The “existing + project + cumulative” results of Proposed Project operations (*Section 10*) were also reviewed. *Table 10–1* and *Table 10–2* show that LOS D or better operations are calculated with the Proposed Project at all intersections and segments except for the SR 76/I-15 Northbound and Southbound ramps during the PM peak hour. The Proposed Project volumes cause **significant, cumulative project impacts** at these locations. This too would be true of Scenario 2. No additional cumulative impacts would occur at the balance of intersections and segments in the vicinity with the addition of the Scenario 2 traffic.

*Table 12–1* also summarizes the existing + commercial project alternative + cumulative projects peak hour intersection operations.

### **12.3.1 Daily Street Segment Operations**

*Table 12-2* also summarizes the existing + project + cumulative projects daily roadway segment levels of service.

Based on the information presented in these tables, it is concluded that the Commercial Project option would not result in any additional direct or cumulative project impacts not already identified for the Proposed Project analyzed in this report.

**TABLE 12-1  
PROJECT ALTERNATIVE INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing		Existing + Commercial Project Option			Existing + Commercial Project Option + Cumulative Projects			Sig?
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS	Δ <sup>c</sup>	Delay	LOS	Δ <sup>d</sup>	
23. SR 76/ I-15 SB Ramps	Signal	AM	26.7	C	36.6	D	9.9	<b>79.5</b>	<b>E</b>	<b>42.9</b>	<b>Yes</b>
		PM	22.6	C	<b>&gt;100.0</b>	<b>F</b>	<b>&gt;80.1</b>	<b>&gt;100.0</b>	<b>F</b>	<b>18.2</b>	<b>Yes</b>
24. SR 76/ I-15 NB Ramps	Signal	AM	29.1	C	43.7	D	14.6	<b>82.6</b>	<b>F</b>	<b>38.9</b>	<b>Yes</b>
		PM	50.1	D	<b>&gt;100.0</b>	<b>F</b>	<b>&gt;80.1</b>	<b>&gt;100.0</b>	<b>F</b>	<b>16.5</b>	<b>Yes</b>
32. SR 76/ Pankey Road	Signal	AM	12.2	B	18.6	B	6.4	25.6	C	7.0	No
		PM	11.8	B	27.1	C	15.3	36.6	D	9.5	No
33. Pankey Road/ Driveway #4	Signal	AM	<i>DNE</i>	–	12.6	B	–	14.6	B	2.0	No
		PM	<i>DNE</i>	–	19.6	B	–	21.8	C	2.2	No

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service.
- c. Δ denotes an increase in delay/vehicles due to project traffic.
- d. Δ denotes an increase in delay/vehicles due to cumulative project traffic.

**General Notes:**

Bold typeface indicates significant direct or cumulative project impact.

SIGNALIZED	
DELAY/LOS THRESHOLDS	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
≥ 80.1	F

**TABLE 12-2  
PROJECT ALTERNATIVE SEGMENT CAPACITY ANALYSIS**

Street Segments	Existing Capacity (LOS E) <sup>a</sup>	Existing		Existing + Commercial Project Option			Existing + Commercial Project Option + Cumulative Projects			Sig?
		ADT <sup>b</sup>	LOS <sup>c</sup>	ADT	LOS	$\Delta$ <sup>d</sup>	ADT	LOS	$\Delta$ <sup>e</sup>	
<b>SR 76 (Pala Road)</b>										
Old Highway 395 to I-15 Southbound Ramps	37,000	26,500	C	30,860	D	4,360	<b>40,540</b>	<b>F</b>	<b>9,680</b>	<b>Yes</b>
I-15 Northbound Ramps to Pankey Road	37,000	10,600	A	28,369	C	17,769	30,559	D	2,190	No
Pankey Road to Horse Ranch Creek Road	37,000	10,300	A	12,526	A	2,226	30,226	D	17,700	No
<b>Pankey Road</b>										
Shearer Crossing to Old Highway 395	16,200	3,700	B	5,936	C	2,236	8,016	D	2,136	No

**Footnotes:**

- a. Capacities based on County of San Diego Roadway Classification & LOS table (See Appendix C).
- b. Average Daily Traffic.
- c. Level of Service.
- d.  $\Delta$  denotes an increase in ADT due to project traffic.
- e.  $\Delta$  denotes an increase in ADT due to cumulative project traffic.

**General Notes:**

Bold typeface indicates significant direct or cumulative project impact.

## 13.0 PROJECT ALTERNATIVES COMPARISON

The Environmental Impact Report (EIR) prepared for the Proposed Project evaluated the development potential of seven (7) project alternatives for a number of prescribed criteria. Based on this evaluation, three (3) project alternatives were brought forward for additional discussion:

- 1) *Adopted General Plan*: new build alternative. This would allow for a density of 7.3 dwelling units/acre (approximately 90 units), 56 acres general commercial and 3 acres light industrial uses. Please note that although the General Plan exhibit identifies what is shown on the adopted Land Use Map for Fallbrook, anticipated acreages in this summary have been adjusted to reflect an anticipated more realistic project—i.e., with wetland buffers, and the correct alignment of Pankey Road, which affects abutting uses acreage.
- 2) *Reduced Footprint*: new build alternative. This would pull the northernmost boundary of the project southerly, providing only six acres industrial use north of Pala Mesa Drive in PA 1. Benefits would include reduction in traffic (approximately 1,400 fewer ADT) and associated incremental improvements in air quality, as well as fewer biological impacts. There would be reductions in impacts to non-native grassland, coast live oak woodland, southern riparian forest and Diegan coastal sage scrub.
- 3) *Reduced Residential Units*: new build alternative. This would eliminate all residential use (35 units) from the commercial area in PA 2, and 25 units from the PA 3 multi-family residential. Benefits would include removal of 488 ADT as compared to the Proposed Project, and a reduction in the total combined total entering/existing trips of trip 113 total trips and 5 total trips, respectively. There would also be incremental savings in air quality emissions.

LLG coordinated with Project Design Consultants (PDC) to obtain potential land use information on each of these project alternatives. The proposed Campus Park West project was converted into the same units (acres, DU's) in order to be able to compare the alternatives' trip generation.

**Table 13–1** shows a project trip generation comparison of these three alternatives as compared to the Proposed Project.

This table shows that while the Proposed Project generates more trips than the three alternatives, all three alternatives are comparable to (within 10% of) the Proposed Project. Based on this similarity in traffic generation, it can be concluded that no new impacts would be expected with the development of these project alternatives, nor would fewer project impacts be anticipated. It should also be noted that the Proposed Project (General Plan Amendment) alternative, the Reduced Footprint and Reduced Residential alternatives would propose changes to the Mobility Element classifications for Pankey Road, to include an upgrade in capacity from a “2.1A Community Collector” to a “4.2A Boulevard” classification (with bike lanes).

**TABLE 13-1  
PROPOSED PROJECT – COMPARISON OF TRIP GENERATION FOR ALTERNATIVE LAND USES**

Land Use	Size	Daily Trip Ends (ADTs)		AM Peak Hour				PM Peak Hour					
		Rate <sup>a</sup>	Volume	% of ADT	In:Out		Volume		% of ADT	In:Out		Volume	
					Split	In	Out	Split		In	Out		
<b>“GENERAL PLAN AMENDMENT”</b>													
General Commercial	53 Ac	500 /AC	26,500	4%	70:30	742	318	9%	50:50	1,192	1,193		
Light Industrial	13 Ac	200 /AC	2,600	12%	80:20	250	62	10%	20:80	52	208		
Multi Family Residential	287 DU	8 /DU	2,296	8%	20:80	37	221	10%	70:30	161	69		
<b>Total<sup>b</sup></b>		—	<b>31,396</b>	—	—	<b>1,029</b>	<b>601</b>	—	—	<b>1,405</b>	<b>1,478</b>		
<b>“ADOPTED GENERAL PLAN” ALTERNATIVE</b>													
Light Industrial	3 Acres	200/ AC	600	12%	80:20	58	14	12%	20:80	14	58		
Village Residential 7.3	91 Units	8/ DU	728	8%	20:80	12	46	10%	70:30	51	22		
General Commercial	56 Acres	500/ AC	28,000	4%	70:30	784	336	9%	50:50	1,260	1,260		
<b>Total</b>		—	<b>29,328</b>	—	—	<b>854</b>	<b>396</b>	—	—	<b>1,325</b>	<b>1,340</b>		
<b>“REDUCED FOOTPRINT” ALTERNATIVE</b>													
Light Industrial	6 Ac	200 /AC	1,200	12%	80:20	115	29	12%	20:80	29	115		
Multi-Family Residential	287 DU	8 /DU	2,296	8%	20:80	37	221	10%	70:30	161	69		
General Commercial	53 Ac	500/AC	26,500	4%	70:30	742	318	9%	50:50	1,192	1,193		
<b>Total</b>		—	<b>29,996</b>	—	—	<b>894</b>	<b>568</b>	—	—	<b>1,382</b>	<b>1,377</b>		
<b>“REDUCED RESIDENTIAL” ALTERNATIVE</b>													
Light Industrial	13 Ac	200 /AC	2,600	12%	80:20	250	62	10%	20:80	52	208		
Multi-Family Residential	226 DU	8 /DU	1,808	8%	20:80	29	116	10%	70:30	127	54		
General Commercial	53 Ac	500/AC	26,500	4%	70:30	742	318	9%	50:50	1,192	1,193		
<b>Total</b>		—	<b>30,908</b>	—	—	<b>1,021</b>	<b>496</b>	—	—	<b>1,381</b>	<b>1,497</b>		

**Footnotes:**

- a. Rate is based on SANDAG’s (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002
- b. The Proposed Project trip generation differs from *Table 7-1* due to different area units (Acres vs. Square footage). The Proposed Project is compared to the subsequent three General Plan Alternatives in the same units to provide for a like-comparison.

## 14.0 CONSTRUCTION TRAFFIC

Market conditions, funding for public facilities, and similar conditions beyond the control of the developer would drive specific product phasing and construction, as well as controlling the overall implementation period.

During the first phase of construction, the project site would be mass-graded over a four to six month period, with 30,000 to 50,000 cy of soil being moved per week. Soil removed from the north and central portions of the Project would be used to raise pad elevations above the flood plain in the southern portion of the Project, resulting in balanced grading on site. Following the mass grading, backbone infrastructure would be installed. This would include all elements necessary to support proposed developed uses; such as construction of Pankey Road, intersection improvements along SR-76, road connections to Pala Mesa Drive, off-site connections to a potable water source and sewer lines to ensure redundancy, a pump station construction, and connection of all utility lines between these facilities and the Project boundary. The backbone storm drain systems in Pankey Road, Pala Mesa Drive, and SR-76 also would be completed during this phase.

These efforts are anticipated to take between 6 months and a year, for a total phase of one year to 18 months for grading and infrastructure. Dedication of Project biological open space areas would also occur as a first action during this phase, with concurrent monitoring of construction activities adjacent to any open space set aside.

Once the above construction efforts are completed, vertical construction could begin. This phase is anticipated to take 10 to 15 years. This would include all the structures required for the mixed use, residential, general commercial and limited impact industrial development, as well as interior site roads, installation of Project streetscape, etc. Utilities and storm drains within development sites, as well as associated parking areas and landscaping would be implemented concurrently with build out of the specific use areas.

The construction described above would result in a temporary increase in traffic on local area roadways; however, given the duration of the buildout of the project expected, the amount of temporary construction traffic at any one time will be less than the final product analyzed within this study, especially since the project is designed to have the earthwork balanced; therefore, no import or export of soil is anticipated.

If needed, traffic control plans will be submitted under separate cover for adjacent roadways to mitigate project-related roadway construction projects.

## 15.0 SIGNIFICANCE OF IMPACTS AND MITIGATION MEASURES

The following is a summary of the direct and cumulative project impacts and mitigation measures for the Proposed Project, as well as the Scenario 2 commercial project option.

### 15.1.1 *Direct Project Impacts*

The project was calculated to have direct impacts at the following locations:

#### **Intersections:**

- D1.** #9. Reche Road/Old Highway 395 (AM/PM Peak Hours)
- D2.** #23. SR 76/I-15 SB Ramps (PM Peak Hour)
- D3.** #24. SR 76/I-15 NB Ramps (PM Peak Hour)
- D4.** #32. SR 76/Pankey Road (AM/PM Peak Hours)

#### **Street Segments:**

- D5.** SR 76 from South Mission Road to Via Monserate
- D6.** SR 76 from Via Monserate to Gird Road
- D7.** SR 76 from Gird Road to Sage Road
- D8.** SR 76 from Sage Road to Old Highway 395

Direct intersection impacts D2 and D3, and direct segment impacts D5 – D8 listed above lie within the SR 76 East roadway widening project, which is currently under construction and scheduled for completion in 2017. If the Caltrans SR-76 East project is completed prior to occupancy of the first residential or commercial units within Campus Park West, the direct Campus Park West project impacts to the completed Caltrans project would be fully mitigated. If the first residential or commercial units within Campus Park West are occupied prior to completion of the Caltrans SR-76 East project, East project will result in a short-term, unmitigated impact until the SR 76 East project is completed, and the applicant will be responsible for making a fair share contribution toward the appropriate uncompleted Caltrans project to mitigate the Campus Park West direct project impacts.

#### **Freeway Segments:**

No Impacts.



### 15.1.2 Direct Project Mitigation Measures

Implementation of the following improvements would mitigate direct project impacts to below a level of significance:

#### Intersections:

- MM D1.** Mast #9. Reche Road/Old Highway 395 (AM/PM peak hours)
- A traffic signal warrant analysis will be conducted prior to construction of the first unit to determine the need for a traffic signal. The applicant shall install a traffic signal or conduct other applicable intersection improvements required for full mitigation, based on the warrant analysis and final engineering.
- MM D2.** #23. SR 76/I-15 SB Ramps (PM Peak Hour)
- The SR 76 “East” Project is currently under construction, which will result in the improvement of this interchange by 2017, at which time no significant direct project impacts would occur. If the project were to develop prior to this improvement, a short-term, unmitigated impact would occur until the SR 76 East Project is completed, and the applicant would pay a fair share towards the appropriate uncompleted improvements to the SR 76/I-15 SB Ramps intersection.
- MM D3.** #24. SR 76/I-15 NB Ramps (PM Peak Hour)
- The SR 76 “East” Project is currently under construction, which will result in the improvement of this interchange by 2017, at which time no significant direct project impacts would occur. If the project were to develop prior to this improvement, a short-term, unmitigated impact would occur until the SR 76 East Project is completed, and the applicant would pay a fair share towards the appropriate uncompleted improvements to the SR 76/I-15 NB Ramps intersection.
- MM D4.** #32. SR 76/Pankey Road (AM/PM Peak Hours)
- This intersection currently exists as an unsignalized intersection with two-way stop control on the north and south approaches. Development of the Project will require signalization, widening and improvement as follows:
    - NB approach: provide 2 lefts, 1 thru and 1 right
    - SB approach: provide 1 left, 1 thru and 2 rights (w/overlap phase)
    - EB approach: provide 2 lefts, 2 thrus and 1 right
    - WB approach: provide 1 left, 1 thru and 1 right

## Street Segments:

- MM D5.** SR 76 from South Mission Road to Via Monserate
- The SR 76 “East” Project is currently under construction, which will result in the improvement of this segment to 4-lanes by 2017, at which time no significant direct project impacts would occur. If the project were to develop prior to this improvement, a short-term, unmitigated impact would occur until the SR 76 East Project is completed, and the applicant would pay a fair share towards the appropriate uncompleted improvements to the SR 76.
- MM D6.** SR 76 from Via Monserate to Gird Road
- The SR 76 “East” Project is currently under construction, which will result in the improvement of this segment to 4-lanes by 2017, at which time no significant direct project impacts would occur. If the project were to develop prior to this improvement, a short-term, unmitigated impact would occur until the SR 76 East Project is completed, and the applicant would pay a fair share towards the appropriate uncompleted improvements to the SR 76.
- MM D7.** SR 76 from Gird Road to Sage Road
- The SR 76 “East” Project is currently under construction, which will result in the improvement of this segment to 4-lanes by 2017, at which time no significant direct project impacts would occur. If the project were to develop prior to this improvement, a short-term, unmitigated impact would occur until the SR 76 East Project is completed, and the applicant would pay a fair share towards the appropriate uncompleted improvements to the SR 76.
- MM D8.** SR 76 from Sage Road to Old Highway 395
- The SR 76 “East” Project is currently under construction, which will result in the improvement of this segment to 4-lanes by 2017, at which time no significant direct project impacts would occur. If the project were to develop prior to this improvement, a short-term, unmitigated impact would occur until the SR 76 East Project is completed, and the applicant would pay a fair share towards the appropriate uncompleted improvements to the SR 76.

## Freeway Segments:

No mitigation required

### 15.1.3 Cumulative Impacts

The development of cumulative project traffic results in cumulative impacts at the following locations:

#### Intersections:

- C1.** #1. E. Mission Road/Old Highway 395 (AM/PM peak hours)
- C2.** #2. Mission Road/I-15 SB Ramps (PM peak hour)
- C3.** #3. Mission Road/I-15 NB Ramps (PM peak hour)
- C4.** #9. Reche Road/Old Highway 395 (AM/PM peak hours)
- C5.** #10. Stewart Canyon Road/Old Highway 395 (AM/PM peak hours)
- C6.** #13. Pala Mesa Drive/Old Highway 395 (AM/PM peak hours)
- C7.** #15. SR 76/East Vista Way (AM/PM peak hours)
- C8.** #16. SR 76/North River Road (PM peak hour)
- C9.** #17. SR 76/Olive Hill Road (AM/PM peak hours)
- C10.** #18. SR 76/S. Mission Road (PM peak hour)
- C11.** #19. SR 76/Via Monserate Road (AM/PM peak hours)
- C12.** #20. SR 76/Gird Road (PM peak hour)
- C13.** #21. SR 76/Sage Road (AM/PM peak hours)
- C14.** #22. SR 76/Old Highway 395(AM/PM peak hours)
- C15.** #23. SR 76/I-15 SB Ramps (AM/PM peak hours)
- C16.** #24. SR 76/I-15 NB Ramps (AM/PM peak hours)
- C17.** #32. SR 76/Pankey Road (AM/PM peak hours)
- C18.** #35. SR 76/Rice Canyon Road (AM/PM peak hours)
- C19.** #36. SR 76/Couser Canyon Road (AM/PM peak hours)
- C20.** #38. Dulin Road/Old Highway 395 (AM/PM peak hours)

#### Street Segments:

- C21.** SR 76 from Melrose Drive to E. Vista Way
- C22.** SR 76 from E. Vista Way to N. River Road
- C23.** SR 76 from N. River Road to Olive Hill Road
- C24.** SR 76 from Olive Hill Road to South Mission Road
- C25.** SR 76 from South Mission Road to Via Monserate
- C26.** SR 76 from Via Monserate to Gird Road
- C27.** SR 76 from Gird Road to Sage Road
- C28.** SR 76 from Sage Road to Old Highway 395

- C29.** SR 76 from Old Highway 395 to I-15 SB Ramps
- C30.** SR 76 from Rice Canyon Road to Couser Canyon Road
- C31.** SR 76 from Couser Canyon Road to Pala Mission Road
- C32.** Old Highway 395 from East Mission Road to Reche Road
- C33.** Old Highway 395 from Reche Road to Stewart Canyon Road
- C34.** Old Highway 395 from Stewart Canyon Road to Tecalote Lane
- C35.** Old Highway 395 from Tecalote Lane to Pala Mesa Drive
- C36.** Old Highway 395 Pala Mesa Drive to SR 76 (Pala Road)
- C37.** Old Highway 395 from Dulin Road to W. Lilac Road
- C38.** Reche Road from Live Oak Park Road to Gird Road
- C39.** Pala Mesa Drive from Wilt/Sage Road to Old Highway 395

**Freeway Segments:**

No Impacts.

**15.1.4 Cumulative Mitigation Measures**

Implementation of the following improvements would mitigate cumulative project impacts to below a level of significance:

**Intersections:**

Payment of the TIF is the project's mitigation responsibility to the impacts described above.

**Street Segments:**

Payment of the TIF is the project's mitigation responsibility to the impacts described above.

**Freeway Segments:**

No mitigation required.

***END OF REPORT***