

## TRANSPORTATION PLANNING &amp; TRAFFIC ENGINEERING

Table 1 – Trip Generation Rates and Calculations								
Trip Generation Rates								
Land Use	ADT	Rates		In		Out		
Senior Residential Care			2.5/per Unit	0.5		0.5		
Independent Assisted		AM	4%/ of Daily	0.6		0.4		
Living/Memory Care and Villas		PM	8%/ of Daily	0.5		0.5		
Trip Generation Calculations								
Land Use	Density	ADT	AM Peak			PM Peak		
Independent Assisted Living/Memory Care and Villas	50	125	5	3	2	10	5	5
ADT = Average Daily Traffic, Rates per SANDAG, April 2002								



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**FIGURE 1**  
**VICINITY MAP**

# LEGAL DESCRIPTION

THE WEST 185 FEET OF THE EAST 804.81 FEET OF LOT 11, IN BLOCK 7 OF THE SUBDIVISION OF LOTS 11' AND 10' OF THE RANCHO EL CAJON, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 817, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, APRIL 2, 1896, EXCEPTING THEREFROM THE SOUTHERLY 15 FEET THEREOF;

ALONG WITH AN EASEMENT AND RIGHT(S) OF WAY FOR ROAD, SEWER, WATER, GAS, POWER AND TELEPHONE LINES AND APPURTENANCES THERETO, OVER, UNDER, ALONG AND ACROSS THE EAST 20 FEET OF THE WEST 185 FEET OF THE EAST 804.81 FEET, LOT 11 IN BLOCK 7 OF THE SUBDIVISION OF LOTS 11' AND 10' OF THE RANCHO EL CAJON, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 817, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, APRIL 2, 1896, EXCEPTING THEREFROM THE SOUTHERLY 15 FEET THEREOF;

ALONG WITH AN EASEMENT AND RIGHT(S) OF WAY FOR ROAD, SEWER, WATER, GAS, POWER AND TELEPHONE LINES AND APPURTENANCES THERETO, OVER, UNDER, ALONG AND ACROSS THE WEST 244.49 FEET OF THE EAST 804.3 FEET OF THE SOUTH 15 FEET OF LOT 11 IN BLOCK 7 OF THE SUBDIVISION OF LOTS 11' AND 10' OF THE RANCHO EL CAJON, IN THE CITY OF SANTEE, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 817, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, APRIL 2, 1896;

## EASEMENT NOTES

AN EXISTING EASEMENT AND RIGHT(S) OF WAY FOR ROAD AND PUBLIC UTILITIES AND INCIDENTAL PURPOSES, OVER, UNDER, ALONG AND ACROSS THOSE EASEMENT PARCELS HEREIN DESCRIBED, AS CONVEYED AND RESERVED BY VARIOUS DEEDS OF RECORD.

AN EXISTING 15' WIDE EASEMENT FOR ROAD, SEWER, WATER, GAS, POWER AND TELEPHONE LINES AND RIGHTS INCIDENTAL THERETO, PER DOC. REC. JUNE 16, 1965 AS INSTRUMENT NO. 65-106750, O.R.

## SITE COVERAGE

	NET AREA	BLDGS., DWYS., PVT. STS.	SITE COVERAGE
SITE	122,173 sq. ft.	56,508 sq. ft.	46.3%

## FLOOR-AREA RATIO

	NET AREA	FLOOR AREA (sq. ft.)	FLOOR-AREA RATIO
SITE	122,173 sq. ft.	49,840 sq. ft.	40.1%

\*BUILDING SIZE OF UP TO 71,600 sq. ft. ALLOWED

# SITE PLAN & PRELIMINARY GRADING PLAN LANTERN CREST RIDGE II

## ASSESSOR'S PARCEL NUMBER

384-142-04

## DEVELOPMENT SUMMARY

- GROSS PROJECT AREA: 2,805 AC
- NUMBER OF EXISTING LOTS: 1
- NUMBER OF PROPOSED LOTS: 1
- EXISTING ZONING: R-1A (LOW DENSITY RESIDENTIAL)
- PROPOSED ZONING: R-14 (MEDIUM/HIGH DENSITY RESIDENTIAL)
- GENERAL PLAN LAND USE DESIGNATION: RESIDENTIAL
- EXISTING LAND USE: VACANT
- PROPOSED LAND USE: MULTI-FAMILY RESIDENTIAL

- SETBACKS:
- |                       |         |
|-----------------------|---------|
| FRONT                 | 20 FEET |
| EXT. STREET SIDE YARD | 5 FEET  |
| INTERIOR SIDE YARD    | 5 FEET  |
| REAR                  | 10 FEET |

## PROJECT NOTES

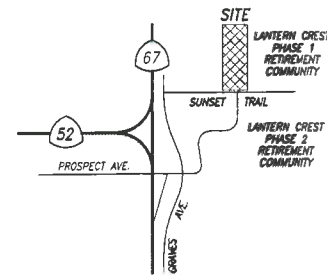
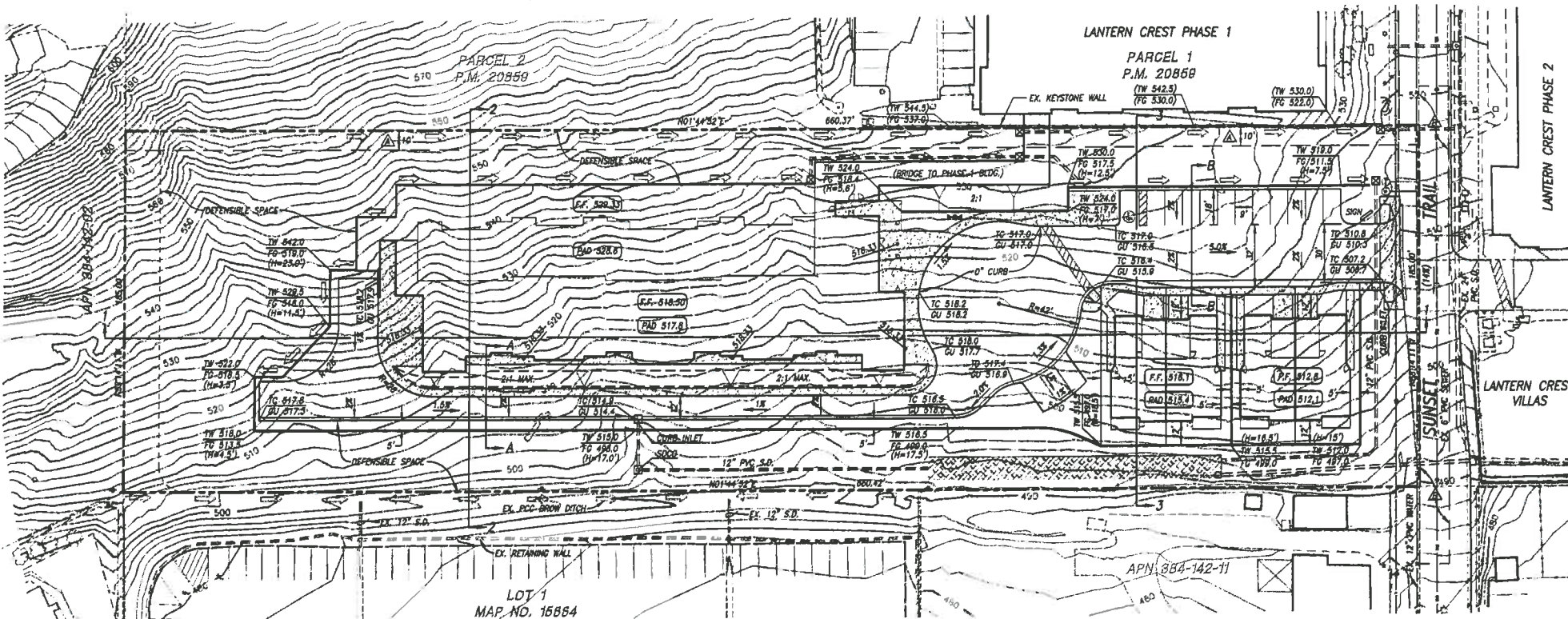
- TOPOGRAPHY PER AERIAL SURVEY BY KAPPA SURVEYING, FLOWN ON MARCH 31, 2015 (DATUM: NAD 83).
- FINISH FLOOR ELEVATIONS ARE 6" ABOVE PAD ELEVATIONS.
- SURFACES NOT IDENTIFIED AS STREETS, SIDEWALKS, DRIVEWAYS OR HOUSES SHALL BE LANDSCAPED.
- ALL NEW STORM DRAIN FACILITIES PROPOSED WITH THIS SUBDIVISION SHALL BE PRIVATE AND BE MAINTAINED BY THE LANTERN CREST MANAGEMENT ASSOCIATION.

## DISTRICT SERVICE

FIRE: CITY OF SANTEE  
WATER: PHONE DAW MWD  
SEWER: LANTERN CREST (PRIVATE)  
HIGH SCHOOL: GROSSMONT UNION H.S.D.  
ELEMENTARY SCHOOL: SANTEE UNIFIED S.D.  
STREET LIGHTING: LANTERN CREST (PRIVATE)  
LANDSCAPE MAINTENANCE: LANTERN CREST (PRIVATE)

## LEGEND

SYMBOL	DESCRIPTION
	EXISTING RIGHT OF WAY
	EXISTING LOT LINE
	EXISTING EASEMENT
	EXISTING WATER MAIN
	EXISTING SEWER MAIN
	EXISTING STORM DRAIN
	EXISTING CURB
	EXISTING BUILDING
	EXISTING FENCE
	EXISTING FIRE HYDRANT
	EXISTING POWER POLE
	SUBDIVISION BOUNDARY
	PROPOSED CURB
	PROPOSED STORM DRAIN
	PROPOSED BUILDING
	PROPOSED CONCRETE PAVING
	PROPOSED BIOFILTRATION AREA
	PROPOSED RETAINING WALL
	PROPOSED SLOPE (2:1 U.O.N.)
	PROPOSED FINISH FLOOR ELEVATION
	PROPOSED PAD ELEVATION



## VICINITY MAP

NO SCALE

## OWNER/SUBDIVIDER

DEVELOPMENT CONTRACTOR, INC.  
NAME: MICHAEL GRANT  
ADDRESS: 8510 RAILROAD AVENUE  
SANTEE, CA 92071  
PHONE: (619) 449-0248

MICHAEL GRANT DATE

## ENGINEER OF WORK

POLARIS DEVELOPMENT CONSULTANTS, INC.  
2514 JAWACHA ROAD, SUITE 502-31  
EL CAJON, CA 92018  
(619) 444-2923

JOEL A. WAYNESE DATE  
R.C.E. 56258 EXP. 12-31-18



## CITY OF SANTEE

## D.R. SITE PLAN & PRELIMINARY GRADING PLAN LANTERN CREST RIDGE II

Planning • Engineering • Mapping  
**POLARIS**  
Development Consultants, Inc.  
2514 Jawacha Road, Suite 502-31, El Cajon, CA 92018  
(619) 444-2923

## SUNSET TRAIL

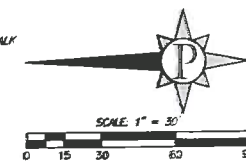
LOOKING EAST  
NO SCALE

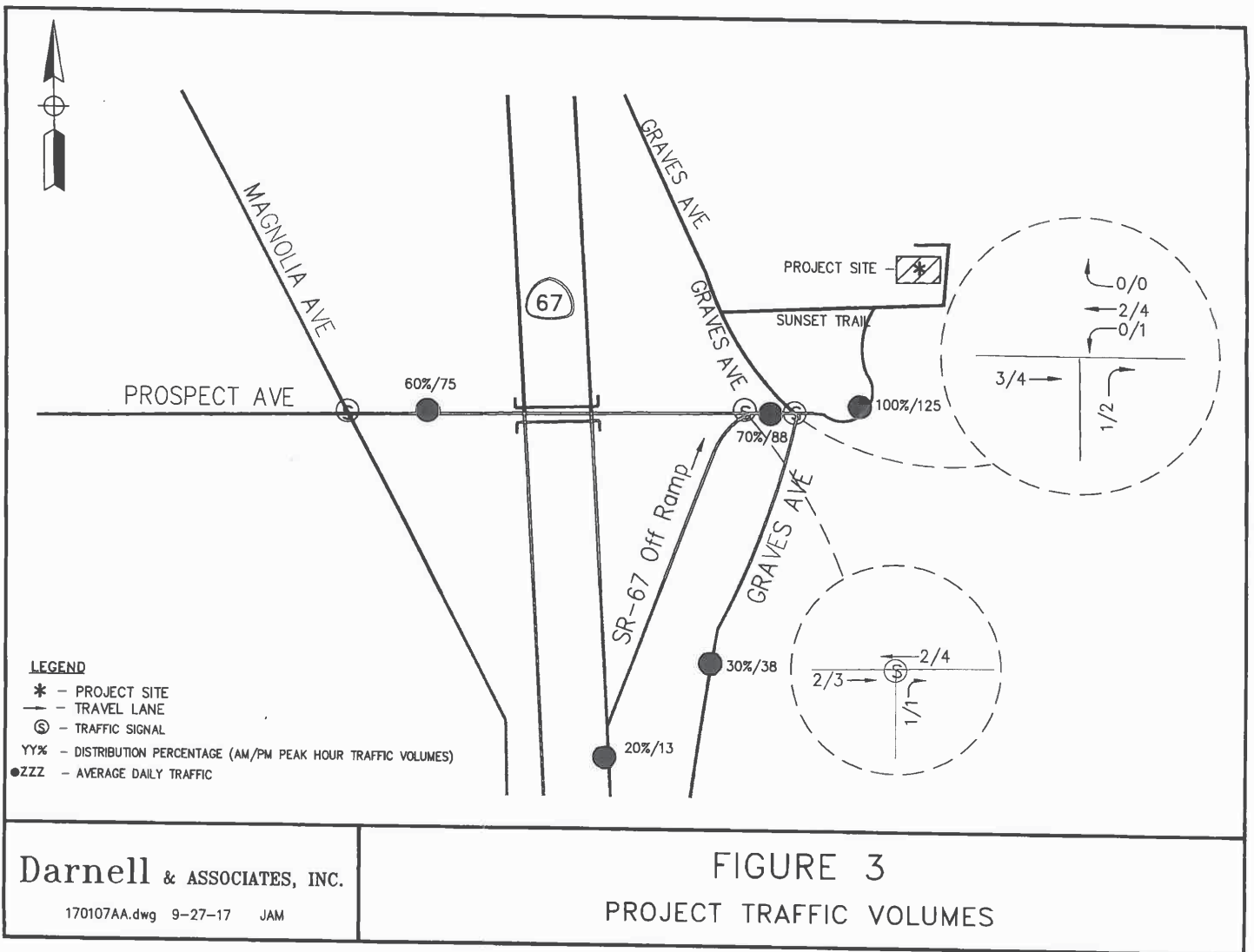
## SECTION A-A

NO SCALE

## SECTION B-B

NO SCALE





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FIGURE 3  
PROJECT TRAFFIC VOLUMES



Based on Table 1, it can be concluded a Traffic Impact Study is not required. The trips generated by the project were assigned to the adjacent roadways. Figure 3 presents the project trip distribution and assignment. Review of Figure 3 shows that thirty (30%) percent of the project traffic will be added to Graves Avenue south of Prospect Avenue resulting in 38 daily, 5 AM peak and 10 PM peak hour trips.

To determine the projects impacts to Graves Avenue, we then analyzed the impacts of adding the project traffic to the Traffic Volumes and Opening Day 2018 to determine if the project creates a significant direct impact. Figure 4 presents the Existing Traffic Volumes. Figure 5 presents the Opening Day 2018 Traffic Volumes and Figure 6 presents the Opening Day 2018 Plus Project traffic volumes.

### SIGNIFICANCE CRITERIA

The City of Santee uses the regionally adopted SANTEC/ITE Guidelines for the purposes of traffic impact analysis. The City of Santee considers LOS D as the minimum acceptable level of service. A project is considered to have a significant impact if the new project traffic decreases the operations of surrounding roadways by a defined threshold. The defined thresholds shown in Table 2 for roadway segments and intersections are based on published *San Diego Traffic Engineers' Council* (SANTEC) guidelines. If the project exceeds the thresholds in *Table 2*, then the project may be considered to have a significant project impact. If a significant impact is identified the project will need to identify a feasible mitigation measure to return the impact to a level within the allowable increase or better.

<b>Level of Service with Project</b>	<b>Allowable Increase Due to Project Impacts <sup>a</sup></b>	
	<b>Roadway Segments</b>	<b>Intersections</b>
	<b>V/C</b>	<b>Delay (sec.)</b>
<b>E &amp; F<sup>b</sup></b>	<b>0.02</b>	<b>2</b>

a. If a proposed project's traffic impacts exceed the values shown in the table, then the impacts are deemed "significant." The project applicant shall identify "feasible mitigation measures".

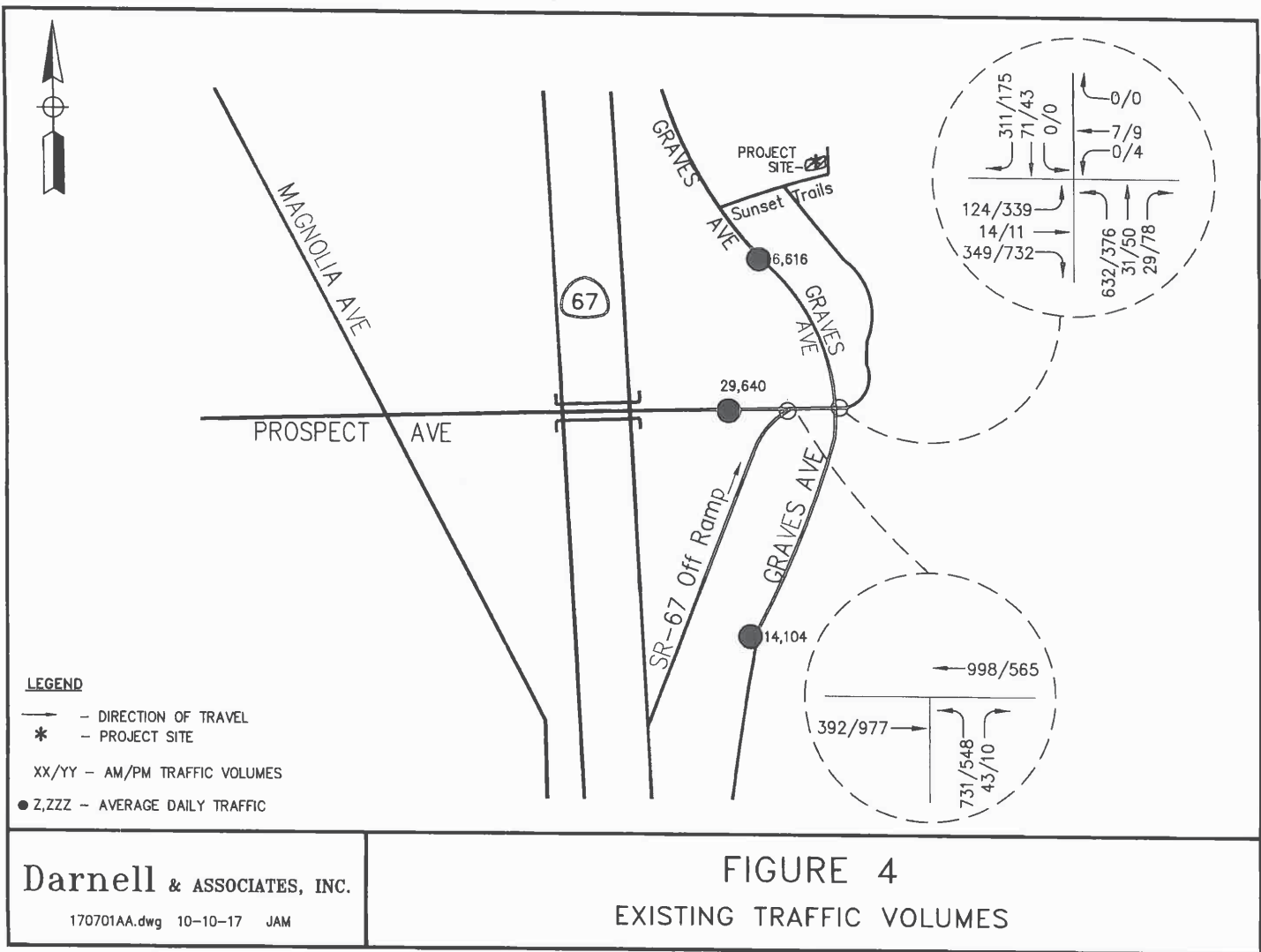
b. The acceptable Level of Service (LOS) standard for roadways and intersections in the City of Santee is LOS D. Hence, if the project maintains the level of service at LOS D, the impact is not considered significant,

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

The next step in the analysis process involves the determination if the addition of project traffic will create a significant direct impact to Graves Avenue. Table 3 summarizes the daily capacity analysis of Graves Avenue for Opening Day and Opening Day Plus Project conditions.

Table 3 – Opening Day 2018 Roadway Segment Level of Service										
Roadway Segment	Functional Classification	LOS E Capacity	Opening Day (2018) Conditions			Opening Day (2018) Plus Project Conditions				
			ADT	V/C	LOS	ADT	V/C	LOS	Δ V/C	Proj Sign ?
<b>Graves Avenue</b>										
South of Prospect Avenue	Collector (2-Lane without Fronting Property)	10,000	14,809	1.481	F	14,847	1.485	F	0.004	No

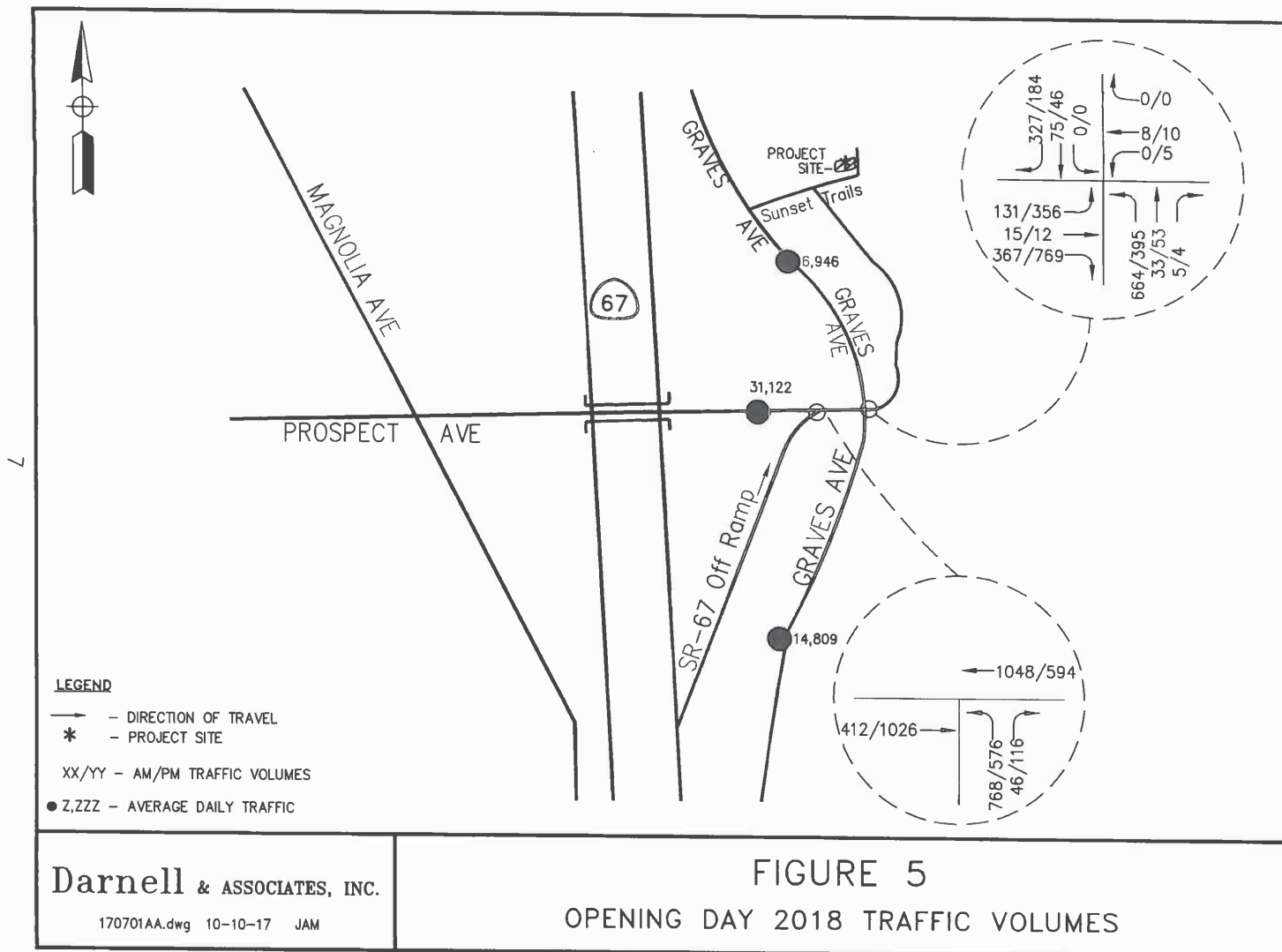
LOS=level of service; ADT=Average daily traffic; V/C=volume to capacity ratio, LOS E Capacity per City of Santee Levels of Service, Sign. = Significant Impact if Δ V/C is equal to 0.02 or greater, Proj. = Project



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FIGURE 4  
EXISTING TRAFFIC VOLUMES

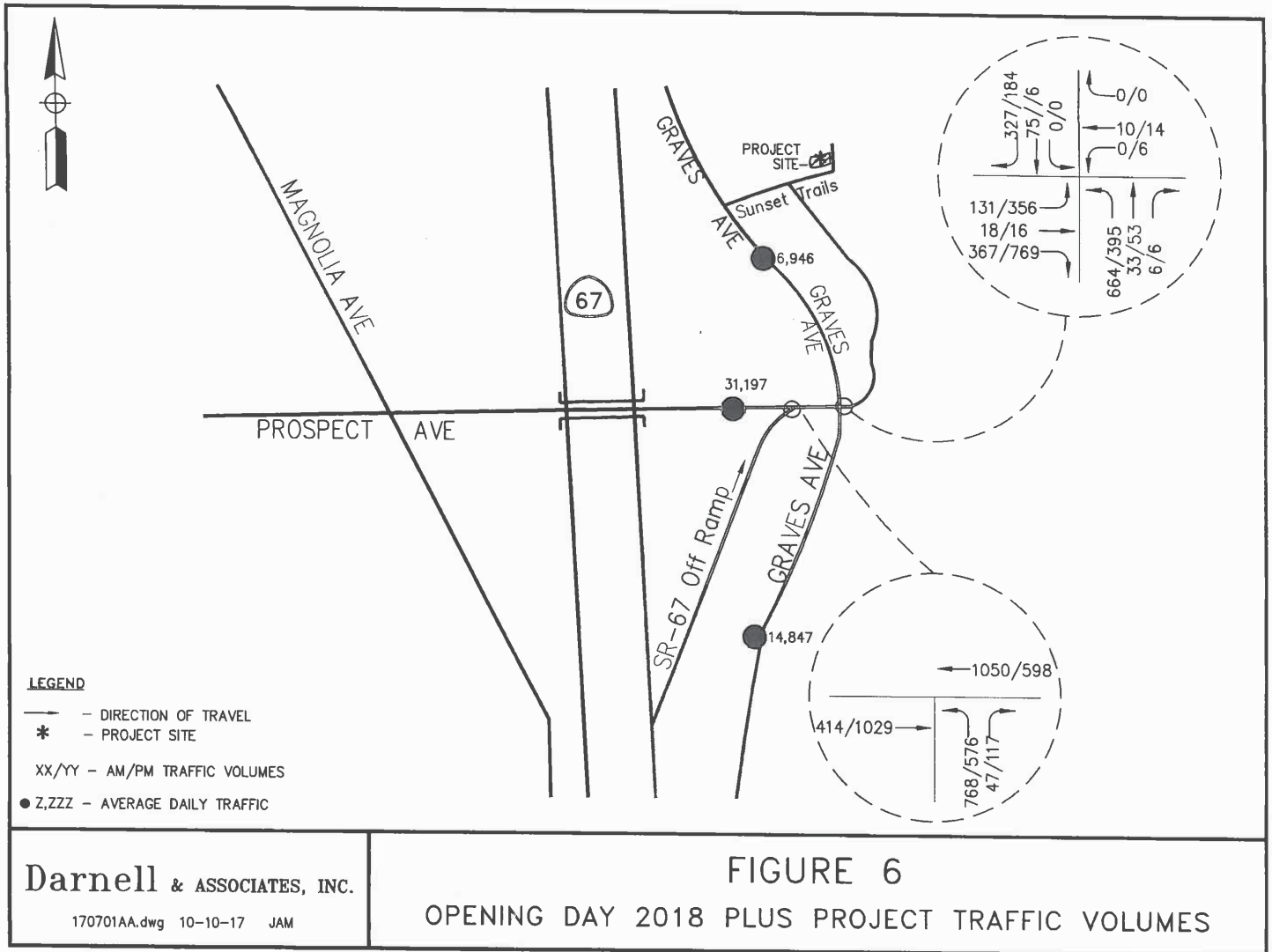


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FIGURE 5

OPENING DAY 2018 TRAFFIC VOLUMES



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FIGURE 6

OPENING DAY 2018 PLUS PROJECT TRAFFIC VOLUMES



Review of Table 3 shows Graves Avenue south of Prospect Avenue will operate at LOS "F" with a v/c ratio of 1.481 for Opening Day 2018 Conditions and will continue to operate at LOS "F" with a v/c ratio of 1.485 with the addition of project traffic. Based on the City of Santee Significance Thresholds presented in Table 2, it can be concluded that the Lantern Crest Ridge II Project will not create a significant impact on Graves Avenue south of Prospect Avenue.

As requested by City staff, we then analyzed the cumulative impact of the project with the addition of daily traffic from the proposed Convenience Store/Coffee Shop with Drive thru at the northwest corner of Graves Avenue / Prospect Avenue. Appendix A of this report provides trip generation and assignment of the proposed project traffic. Review of Appendix A, shows the proposed Prospect/Graves Commercial project will add 1,193 daily trips to Graves Avenue south of Prospect Avenue. We then prepared Table 4 to shows the Lantern Crest Ridge II Senior Care Projects impact.

Review of Table 4 shows the addition of the Lantern Crest Ridge II project will add 38 daily trips and the Prospect /Graves commercial project will add 1,139 daily trips to Graves Avenue south of Prospect Avenue. Further review of Table 4 shows the addition of Lantern Crest Ridge II project to existing plus cumulative projects traffic results in the roadway continuing to operate at LOS F. However, the 38 daily project trips are not considered significant.

Table 4 – Opening Day 2018 Plus Cumulative Plus Project Roadway Segment Level of Service										
Roadway Segment	Functional Classification	LOS E Capacity	Opening Day (2018) Plus Graves/Prospect Commercial Traffic Conditions			Opening Day (2018) Plus Graves/Prospect Commercial Plus Project Conditions				
			ADT	V/C	LOS	ADT	V/C	LOS	ΔV/C	Proj Sign?
Graves Avenue										
South of Prospect Avenue	Collector (2-Lane without Fronting Property)	10,000	15,297	1.530	F	15,325	1.535	F	0.005	No
LOS=level of service; ADT=Average daily traffic; V/C=volume to capacity ratio, LOS E Capacity per City of Santee Levels of Service, Sign. = Significant Impact if Δ V/C is equal to 0.02 or greater, Proj. = Project										

In summary the development of the Lantern Crest Ridge II project of 46 assisted living /memory care units and 4 independent villas will generate 125 daily, 5 AM peak hour and 10 PM peak hour trips. The addition of the project traffic to Graves Avenue south of Prospect Avenue and surrounding roadways will not create a significant direct impact that requires mitigation.

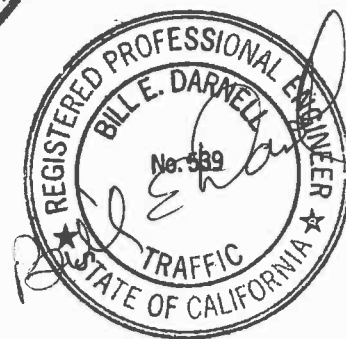
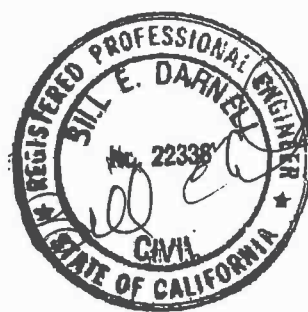
If you have any questions, please feel free to contact this office.

Sincerely,

DARNELL & ASSOCIATES, INC.

*Bill E. Darnell*  
 Bill E. Darnell, P.E.  
 Firm Principal

Date Signed: April 30, 2018



**APPENDX A**  
**EXCERTS FROM THE**  
**GRAVES /PROSPECT COMMERCIAL PROJECT**  
**TRAFFIC STUDY**

# **Darnell & ASSOCIATES, INC.**

TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

March 29, 2018

Michael Grant  
Advantage Asset Acquisitions, LLC.  
8510 Railroad Avenue  
Santee, CA 92071

D&A Project No: 170104

Subject: Revised Traffic Study for the proposed Convenience Market and a Coffee Shop with drive thru located at 8606 Graves Avenue in the City of Santee.

Dear Mr. Grant:

In accordance with your authorization, Darnell & Associates, Inc. (D&A) has prepared this Traffic Impact Study to assess impacts associated with the proposed Convenience Market and a Coffee Shop with drive thru project located at 8606 Graves Avenue in the City of Santee.

This report analyzes the traffic impacts on local roadways and intersections that the project, Opening Day 2018 and Future conditions. The analysis was prepared in accordance with the City of Santee (City) and SANTEC/ITE Guidelines for Traffic Impact Studies (TIS) requirements. The report has been revised to respond to the City of Santee comments to the latest comments.

If you have any questions, please feel free to contact this office.

Sincerely,  
DARNELL & ASSOCIATES, INC.



Bill E. Darnell, P.E.  
Firm Principal

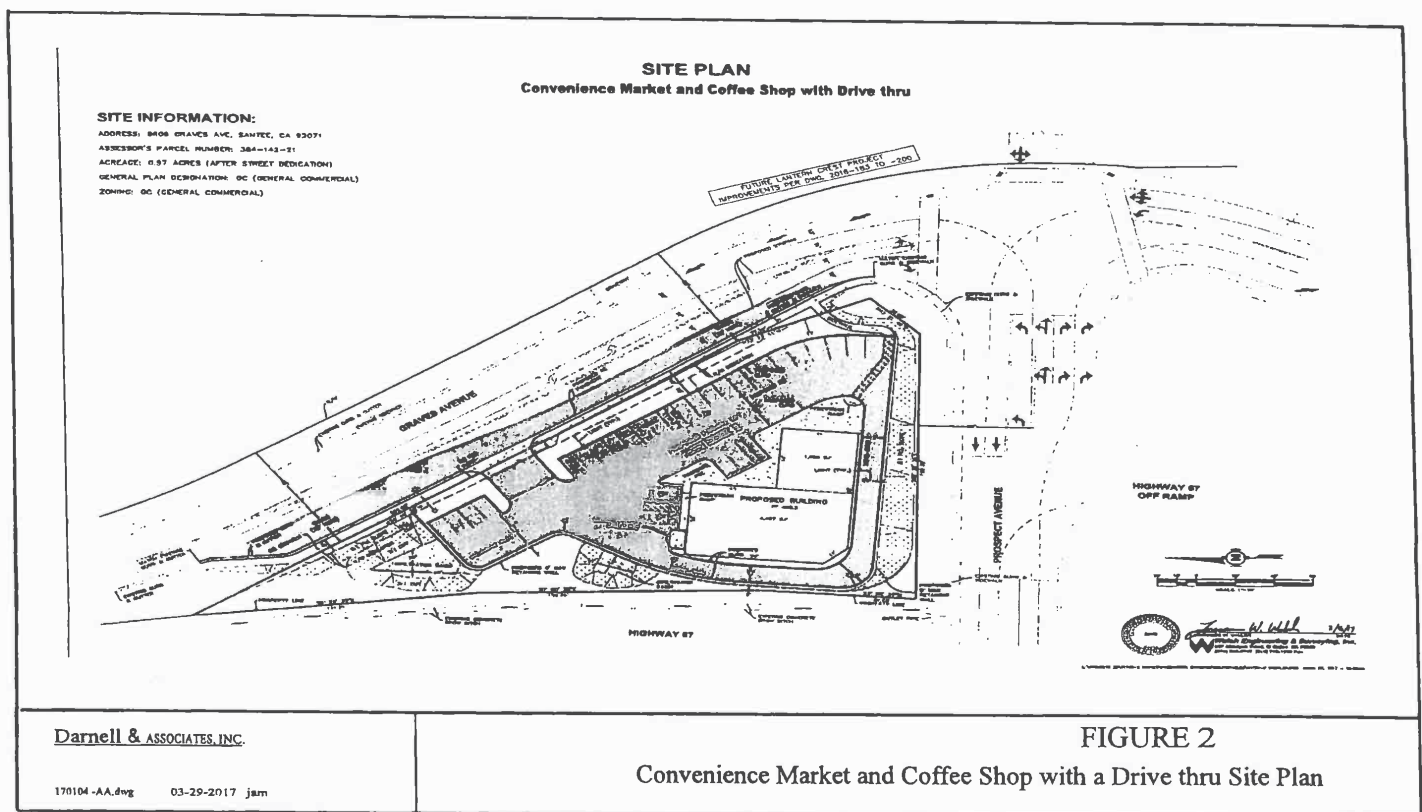


Date Signed: March 29, 2018

BED/jam/vla

170104 - CONVEINENCE MARKET AND COFFEE SHOP WITH DRIVE THRU TRAFFIC STUDY\_ MARCH 2018.DOC





## SECTION III - PROJECT RELATED CONDITIONS

### TRIP GENERATION

The weekday trip generation potential for the proposed project is based on daily and peak hour trip generation rates obtained from the *(Not So) Brief Guide of Traffic Generators for the San Diego Region* published by the San Diego Association of Governments (SANDAG) in April 2002 Utilizing the SANDAG rates and the characteristics of the proposed project, estimates of daily and peak hour traffic volumes generated by the project can be calculated. Table 7 summarizes the weekday trip generation rates and calculations for the proposed project.

As shown in Table 8, the proposed project is estimated to generate 4,519 average weekday daily trips with 453 trips being generated during the morning peak hour and 302 trips being generated during the afternoon peak hour. Further review of Table 8 shows that the total cumulative trips with pass-by reductions and credit for the existing Landscape Office Use on the site results in 3,615 Daily, 453 AM peak hour trips and 150 PM peak hour trips to be added to the surrounding roadways in the study area.

Table 7 - Trip Generation Rates and Calculations Summary							
Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Rate	In	Out	Rate	In	Out
Convenience Market (24 Hours)	700.00 trips/ 1,000 sq. ft	63.00/ksf	0.50	0.50	49.00/ksf	0.50	0.50
Coffee Shop w/Drive Thru	773.17 trips/ 1,000 sq. ft	95.00/ksf	0.55	0.45	46.11/ksf	0.53	0.47

Table 8 - Project Trip Generation Summary								
Land Use	Density	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Project Trip Generation								
Coffee Shop with Drive Thru	1.800 ksf	1,392	95	76	171	44	39	83
Pass-By Reduction (15% Daily, 50% PM)		-209	n/a			-22	-20	-42
Transit Reduction (5% daily)		-70	n/a			n/a		
Convenience Market	4.467 ksf	3,127	141	141	282	110	109	219
Pass-By Reduction (15% Daily, 50% PM)		-469	n/a			-55	-55	-110
Transit Reduction (5% daily)		-156	n/a			n/a		
Total Driveway Trips		4,519	236	217	453	154	148	302
Total Cumulative Trips		3,615	236	217	453	77	73	150
Note: Trip generation rates are based on SANDAG's (Not So) Brief guide to Vehicular Generation Rates for the San Diego Region (April 2002). Driveway trips reflect the total project traffic. Cumulative Trips reflect trip generation after Pass-by traffic subtracted. The trip rates for the Starbucks with a drive-thru are based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9 <sup>th</sup> Edition. ksf = 1,000 square foot.								

### TRIP DISTRIBUTION & ASSIGNMENT

The trip distribution percentages for the project were estimated based on likely travel routes and distributions, as well as circulation to local state routes and major arterials. Figure 5 demonstrates the project trip percentages. The project traffic presented on Table 8 was assigned to the roadway network and is shown on Figure 6.

