



# MEMO

**ATTN:** *Neil Capin*  
*Wash-N-Go Carwash*

**E-Mail:** ▼  
*neilcapinjr@gmail.com*

**FROM:** *Justin P. Schlaefli, PE TE PTOE*

**TOTAL PAGES (Including Cover):**

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**SUBJECT:** *495 Telegraph Canyon Road- Traffic*

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As requested, we reviewed comments related to the proposed Wash-N-Go Carwash at 495 Telegraph Canyon Road (DR 15-0037, CUP 15-0023). In reviewing the comments as well as the traffic characteristics of the site, we relied on personal knowledge of the area, visits to the site, information from other recent studies and substantial experience conducting transportation analysis in the San Diego Region and Chula Vista in particular. The standard we utilized in our review was primarily SANTEC/ITE, Guidelines for Traffic Impact Studies (TIS) in the San Diego Region, March 2, 2000 and regional standard of practice as well as knowledge of Chula Vista. We found that the proposed Carwash would not be anticipated to have any significant project level environmental impact at the access point or surrounding roadways for a variety of reasons. A further discussion of the various applicable Guidelines and factors is included below.

### **TIS Guidelines:**

The SANTEC/ITE, Guidelines for Traffic Impact Studies (TIS) in the San Diego Region, March 2, 2000 have been utilized for many years as a primary guide for traffic studies in many jurisdictions within San Diego County. These Guidelines provide documentation of the commonly accepted standard-of-practice in the San Diego Region. Jurisdictions may provide supplemental guidance and it is recommended that Agency staff be consulted regarding application of the Guidelines. For example, the Guidelines state, "special situations may call for variation from these guidelines". However, they provide a reasonable starting point for most studies including input on trip generation, study area, significance criteria study scenarios and more. These Guidelines were referred to in consideration of the project discussed above.

### **Trip Generation:**

The starting point of any traffic analysis is often trip generation calculations. The Guidelines recommend the use of SANDAG data ((Not So) Brief Guide) or City of San Diego, Trip Generation Manual data. If data in those guides are not available, it is recommended that ITE rates be considered. Finally, if there are unique site characteristics, estimation of trip rates or counts at other sites are recommended.

In the case of an automated carwash, SANDAG data contains a recommended rate (see below):

**AUTOMOBILE<sup>S</sup>**

Car Wash  
Automatic  
Self-serve

900/site, 600/acre\*\*  
100/washstall\*\*

4% (5:5)  
4% (5:5)

9% (5:5)  
8% (5:5)

In general, it is standard practice where site specific data is known that an independent variable (i.e. acre) be used to more accurately calculate trip generation. Therefore, instead of simply using a 900 trips per site rate, the acreage of the site should be used to more accurately calculate the site specific trip generation. However, under a worst-case projection, the site would have the following trip generation:

**Proposed Project- SANDAG Rates (worst case)**

Use	Amount	Trip Rate	ADT	AM Peak Hour						PM Peak Hour					
				% *	#	In	Out	In	Out	% *	#	In	Out	In	Out
Car Wash	1 Site	900 /Site	900	4%	36	5	5	18	18	9%	81	5	5	41	41
<b>TOTAL</b>			900		36			18	18		81			41	41

**Notes:**

AC= Acre

ADT= Average Daily Trips

Following the more typical and technically accepted procedure, the independent variable would be used to adjust the trip generation based on site specific characteristics (i.e. site size). Following this procedure, the following trip generation has been calculated for the site.

**Proposed Project- SANDAG Rates**

Use	Amount		Trip Rate	ADT	AM Peak Hour						PM Peak Hour					
	% *	#			% *	#	In	Out	In	Out	% *	#	In	Out	In	Out
Car Wash	0.595	AC	600 /AC	357	4%	14	5	5	7	8	9%	32	5	5	16	16
<b>TOTAL</b>				357		14			7	8		33			17	16

**Notes:**

AC= Acre

ADT= Average Daily Trips

However, due to the age of the studies used to develop the SANDAG rates, a search of more recent data was conducted. Due to changes in design for automated car washes and changes in driver behavior, a more recent trip generation study would be consulted as an additional data point in determining the proper trip generation. More recent studies have been done in the Southern California region and approved by other Agencies. Recently, a study was completed at a site with very similar operational and site characteristics to the proposed Wash-N-Go Carwash. This study was utilized by the City of Menifee in approving a new carwash in their jurisdiction. Information from this study is attached (see attachment 1). For comparison purposes, the trip calculations for the other site are included below.

**Proposed Project- Counts from Similar Site**

Use	Amount	Trip Rate	ADT	AM Peak Hour						PM Peak Hour							
				%*	#	In	:	Out	In	Out	%*	#	In	:	Out	In	Out
Car Wash	1 Site	Counts	296	5%	15	7	:	3	10	5	10%	30	4	:	6	12	18
<b>TOTAL</b>			296		15			10	5		30			12	18		

**Notes:**

SF= Square Foot

ADT= Average Daily Trips

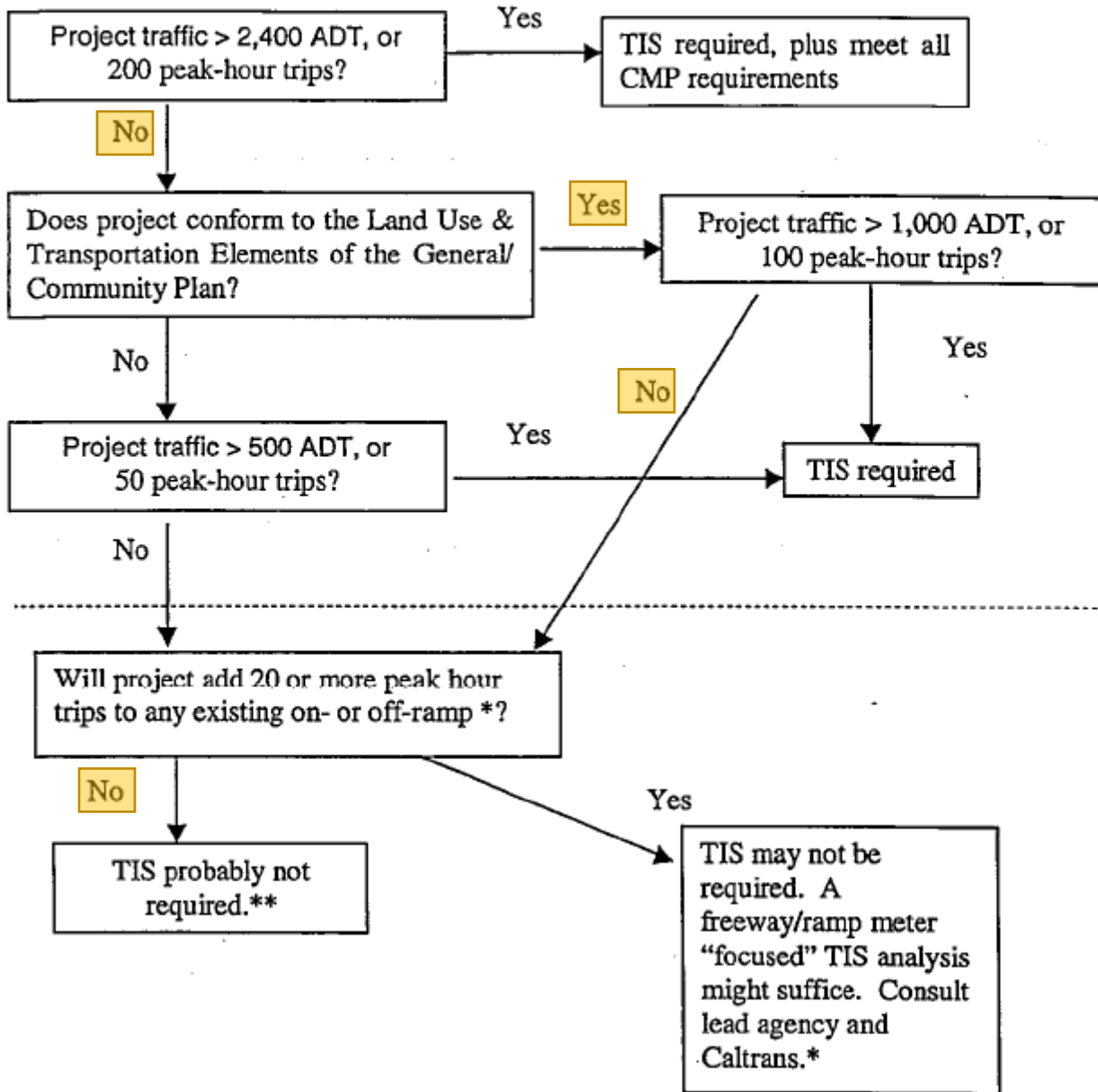
This information from another similar site appears to support the application of the SANDAG rate on an acreage basis due to the similarity in trip generation. Based on this information, it is unlikely that trip generation for the site on a typical day would exceed 357 trips per day. However, it is typical that operations for a carwash would fluctuate seasonally and based on weather. Therefore, a range of values could be considered. In an extremely conservative, worst-case situation, the trip generation could be up to 900 ADT. This would likely represent peak operation of the carwash. However, this would be considered extremely conservative and would likely not represent the average condition. More typically, the community would see a trip generation from the site closer to the 357 trips per day which are in the median of the range consistent with SANDAG rates.

**Study Scoping:**

Based on the trip generation information presented above, the “Flow Chart for Traffic Impact Study Requirements” (Table 1) from the Guidelines can be applied. This Table has been reproduced below with highlights along the flow chart specific to the proposed carwash.

Figure 1

**FLOW CHART FOR TRAFFIC IMPACT STUDY REQUIREMENTS**



Based on the flow chart, a traffic study ordinarily would not be required. The proposed Carwash falls well below the 1,000 trip threshold. This is especially the case when considering existing uses on the site which would serve to further reduce the net increase in trip generation. Likewise, after accounting for traffic splitting by direction on Telegraph Canyon and then again for the directionality of flow onto any freeway on-ramp or off-ramp at the adjacent intersection, it is estimated that approximately 30% of project traffic may use the freeway in the highest direction (either north or south). Looking at the highest peak hour and direction, this would represent only 12 trips. This would be far lower than the 20 peak hour trips in a single direction for a

freeway on/off-ramp shown in the table.. Therefore, absent unique circumstances, a traffic study would not be required.

**Baseline:**

In addition to the trip generation calculations and flowchart discussed above, a review of the project site shows a long history of existing uses. These existing uses represent the traffic levels the community has long experienced. Pre-existing uses include a drycleaner and smog auto repair station. These uses serve to further reduce the incremental amount of traffic to be generated by the project. An auto repair center would typically generate up to 400 trips per acre and 20 trips per 1,000 sf while a dry cleaner would generate approximately 40 trips per 1,000 sf. Additionally, a Goodwill donation center is located on the site which would have additional trips associated with it. The existing building onsite contains approximately 2,300 square feet. Therefore, the net increase in trip generation is less than 300 trips. In addition, previous uses include a gas station which would have generated substantial additional trips. Based on the SANDAG trip generation guidelines, a gas station would have generated up to 900 trips per station indicating a carwash on the same site would have equal (considering worst-case) or significantly reduced traffic. Taken together with the history of use on the site, the trip generation increase caused by an automated carwash is minimal.

**Issues Discussed in Schwartz Semerdjian Letter (dated October 3, 2018):**

Although no traffic study would have been required following the standard-of-practice and regional guidelines, a letter was received appealing the Wash-N-Go Carwash project. The letter raises several issues which are discussed below:

1. The letter mentions that the City of Chula Vista, Traffic Engineer, Frank Rivera does not use a baseline analysis for trip generation. As discussed above, there are multiple ways to calculate trip generation. Almost all accepted methodologies and certainly the best evidence would illustrate a rather modest trip generation of under 500 ADT if the baseline were considered to be a vacant site. However, as discussed above, there is a long history of pre-existing use on the site including a former gas station and current drycleaner and auto repair facility. If the baseline were considered to be the former gas station, it is likely that the proposed carwash would reduce traffic compared to the gas station. Even an older service station design would generate up to 900 trips per station far exceeding the trip generation from the proposed carwash. If a more recent baseline is used due to the recent fluctuations in occupancy at the site (i.e. gas station reaching the end of its service life), the carwash would show a very minor increase in trip generation as discussed above. It is not only typical but legally appropriate to look at the total history of a site and utilize a credit for existing uses that a project will remove and replace.
2. The letter mentions a statement from Mr. Rivera that the carwash would generate a maximum of 600 vehicles per day. This statement is well supported in the record and the trip generation would likely be far lower than this initial estimate as documented above.
3. The letter mentions a service rate and improperly utilizes the service rate in calculating trip generation for the site. This is not in-keeping with the standard of practice. There are very few uses which operate at maximum capacity for the entire day. This is particularly true of carwashes with nearby competition. Actual counts from similar sites indicate that the anticipated trip generation is far lower (see above).
4. The letter references calculations from Mr. Rivera. These calculations are well supported and represent the industry standard. The trip generation calculation utilizing acreage as an independent variable is the proper methodology for calculating trip generation and is supported by independent studies of similar sites (see trip generation discussion above).
5. Once again, the letter incorrectly utilizes the SANDAG (Not So) Brief Guide in calculating an inflated trip generation for the project site. Industry practice is to utilize the independent variable (when

- available) to properly tailor trip generation for a project site. This is far superior to utilizing a generic “per site” methodology and is recommended when site specific characteristics are known. This is also supported by independent studies and calculations for other sites (see trip generation discussion above).
6. The letter mentions a 50 trip threshold when determining the need for a traffic study. Based on trip generation calculations for this site, it is clear that the trip generation for the site will be far less than 50 trips in the average scenario based on industry standard practice and substantial evidence. Additionally, the appropriate threshold is 100 trips for the type of use proposed on the site. Even in the worst-case, peak scenario, the trip generation is far under this limit. The flowchart is included in a discussion above and illustrates that no traffic study would have been required.
  7. The letter references an intersection analysis from another traffic study for the intersection of Telegraph Canyon Road at I-805 NB ramp. According to Table 6-1 of this traffic study (see Attachment 2), the current level of service at Telegraph Canyon Road/I-805 NB ramp is LOS C/D. Likewise, according to Table 8-1, the LOS with the Sharp Chula Vista Medical Center traffic would be C/D. In the Near Term condition, which includes 10% growth and the Medical Center, the LOS would be an “E” with a delay of 65.7 seconds. The Medical Center project was expected to change the delay by 2.6 seconds. The Medical Center project added 63 project trips to the intersection. The Carwash, on the other hand, would have fewer than half the number of trips at the same intersection in the average condition. The change in delay (even with future traffic growth) would likely be well under 2 seconds and would therefore not be considered a significant cumulative impact. In addition, following City of Chula Vista criteria, the Carwash would contribute far less than 5% of the entering volume at that intersection. The entering volume on the WB leg is 2,564 in the PM-higher peak hour which would indicate a threshold of 128 trips in the peak hour (5% of the value). The proposed project simply does not generate this amount of traffic under any trip generation scenario discussed above. Therefore, the proposed project would not cause a significant direct or cumulative impact.
  8. The letter mentions a possibility that the project would substantially increase hazards to motorists. Specifically, the letter mentions the likelihood of queuing on Halecrest Drive. Unfortunately, there is no evidence to support the hypothesis that queuing, which is typical of any intersection would constitute a hazard to motorists. Although driveways in close proximity to intersections may be blocked due to queuing of vehicles, this is a typical and safe condition with countless examples throughout Southern California. This is especially the case with many traffic signals in commercial areas. Motorists are familiar with navigating such conditions. In typical conditions, the queue at the signal will clear regularly when the signal changes and patrons will then safely turn into the driveway. This condition actually exists today and is safely navigated by patrons of the existing businesses onsite and previously at the gas station. Additionally, a driveway exists on Telegraph Canyon Road to provide options if traffic is queued. This will be the most likely ingress for traffic traveling westbound on Telegraph Canyon Road. Finally, the proposed opening time for the carwash is 8:00am putting the majority of peak trips outside of the AM peak hour and further minimizing the potential for the situation described in the letter. During the PM peak hour, the predominate direction of travel at Halecrest is northbound where the driveway would not be blocked. In order to further minimize the likelihood of such a condition, “Do not Block” intersection markings could be utilized. However, due to the long history of commercial uses on the site and lack of reports of conflict or hazard with a nearly identical configuration, it is unlikely that a significant hazard would result from the proposed carwash.

# Attachment 1

**TRAFFIC IMPACT ANALYSIS**

For

**CAL CRUZ CAR WASH**

Prepared for

**THE CITY OF MENIFEE**

and

**OnPoint Development**

**Final Submittal: August 19, 2016**



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TRAFFIC PLANNING & ENGINEERING, MARKETING & PROJECT SUPPORT  
CONSULTANTS TO INDUSTRY AND GOVERNMENT

8451 Miralani Drive, Suite A

San Diego, CA 92126

(858) 560-4911



## **4.0 PROPOSED PROJECT**

### **4.1 Project Description**

The proposed Cal Cruz Car Wash Project is located on the southwest corner of at the intersection of Newport Rd. and Winter Hawk Rd. within the City of Menifee. The project site is currently vacant and undeveloped. The Project is proposing to construct a 4,392 SF car wash and an eight (8) bay tire store. Access to the project will be provided via Winter Hawk Road.

### **4.2 Project Trip Generation**

Trip generation represents the amount of traffic traveling to and from the proposed project. Project trip generation for the proposed car wash was established based on existing traffic counts of a similar car wash site in Moreno Valley, CA. It was determined that the ITE, Trip Generation Manual did not have sufficient information relating to the primary use of the site (the car wash). Therefore, a site with similar localized traffic conditions and nearly identical size/use as the proposed car wash was analyzed for trip generation purposes. The site that was used is a car wash in Moreno Valley that is a segregated site and has no other traffic traveling through it. In other words, the driveways could easily be counted without having to distinguish between car wash traffic and visitors from other uses. Counts were conducted in mid-October for three days with no significant weather events on any of the days. All driveways were counted and the counts ranged from 293 to 300. The most typical day was considered to be Tuesday with 296 total trips when both driveways were totaled.

Uses other than the car wash for the proposed Cal Cruz site include a tire store with eight service bays. Data from various sources including National data from the ITE, Trip Generation Manual as well as SANDAG and City of San Diego trip generation guides were consulted to determine trip generation for

the proposed tire shop. It was found that ITE had the highest overall rates and would therefore yield the most conservative results. Since peak hour data was provided for the independent variable (i.e. service bays) but a daily trip rate was only provided for a separate variable (i.e. 1,000 sf of floor area), the rate was derived by comparing the peak hour information using the separate variable to the daily rate for the same variable (i.e. PM peak traffic was approximately 13% of daily traffic and AM peak traffic was approximately 14% of daily traffic) and then using the same percentages of daily traffic for the data from the proper independent variable. These calculations yielded an effective daily rate of between 36 and 43 ADT per service bay. This was averaged and a rate of 40 ADT per service bay was selected. This result was compared to other local data from SANDAG and City of San Diego and was found to be a conservative rate. Additionally, the peak hour percentages and splits were compared to other local data and also found to be conservative. The overall data from ITE was rounded to yield the trip generation estimates.

**Table 4-1** summarizes the trip generation used for the proposed project. As shown, the proposed project is expected to generate 616 average daily trips (ADT) with 60 AM peak hour trips (33 in / 27 out) and 72 PM peak hour trips (29 in / 43 out). The analysis assumes all traffic is new traffic to the area since the site is currently vacant and undeveloped.

TABLE 4-1

Cal Cruz Car Wash Trip Generation Table

Use	Amount		Trip Rate	ADT	AM Peak Hour				PM Peak Hour					
					% *	#	In	Out	In	Out	% *	#	In	Out
Tire Store	8	Bay	40 /Bay	320	14%	45	5 : 5	23	22	13%	42	4 : 6	17	25
Car Wash	4,392	SF	Counts	296	5%	15	7 : 3	10	5	10%	30	4 : 6	12	18
<b>TOTAL</b>				616		60		33	27		72		29	43

Notes:

SF= Square Foot

ADT= Average Daily Trips

# Attachment 2

## **City of Chula Vista Significance Criteria**

### **Short-Term (Within 4 Years of Project Processing)**

#### **Intersections**

- a. Project specific impact if both the following criteria are met:
  - i. Level of service is LOS E or LOS F.
  - ii. Project trips comprise 5% or more of entering volume.
- b. Cumulative impact if only (i) is met.

#### **Street Segments**

- a. Project specific impact if all the following criteria are met:
  - i. Level of service is LOS D for more than 2 hours or LOS E/F for 1 hour
  - ii. Project trips comprise 5% or more of segment volume
  - iii. Project adds greater than 800 ADT to the segment
- b. Cumulative impact if only (i) is met.

### **Long-Term (5 or More Years after Project Processing)**

#### **Intersections**

- a. Project specific impact if all the following criteria are met:
  - i. Level of service is LOS E or LOS F.
  - ii. Project trips comprise 5% or more of entering volume.
- b. Cumulative impact if only (i) is met.

## Street Segments

- a. Project specific impact if all the following criteria are met:
  - i. Level of service is LOS D, LOS E, or LOS F.
  - ii. Project trips comprise 5% or more of total segment volume.
  - iii. Project adds greater than 800 ADT to the segment.
- b. Cumulative impact if only (i) is met. However, if the intersections along a LOS D or LOS E segment all operate at LOS D or better, the segment impact is considered not significant since intersection analysis is more indicative of actual roadway system operations than street segment analysis. If segment Level of Service is LOS F, impact is significant regardless of intersection LOS. If the impact identified in paragraph a. above occurs at study horizon year 10 or later, and is offsite and not adjacent to the project, the impact is considered cumulative.

TRAFFIC IMPACT ANALYSIS  
**SHARP CHULA VISTA MEDICAL CENTER  
OCEAN VIEW TOWER**  
Chula Vista, California  
March 22, 2016

LLG Ref. 3-15-2536

*Prepared by:*  
Amelia Giacalone  
Transportation Planner III

Jorge Cuyuch  
Transportation Engineer I

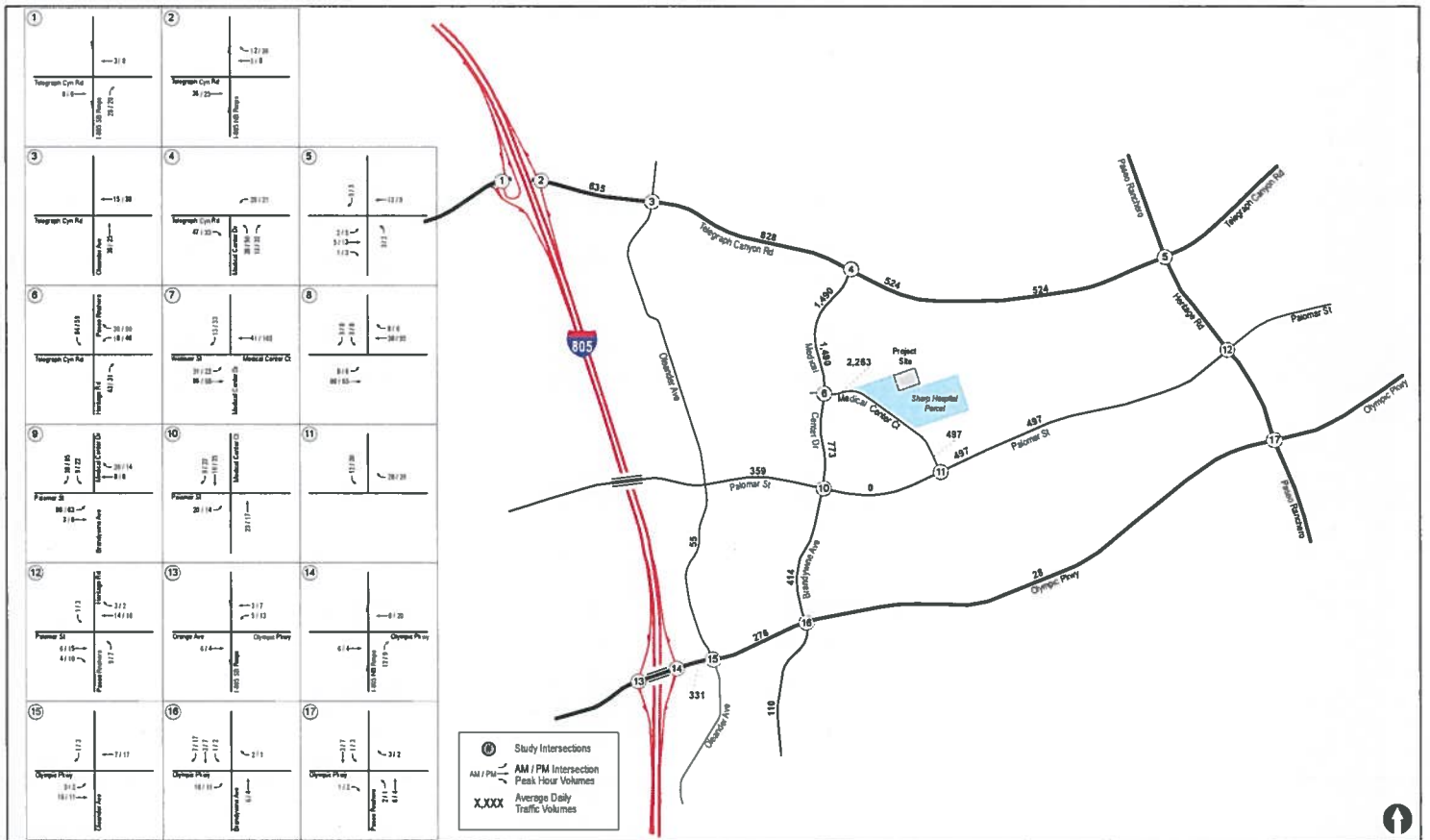
*Under the Supervision of:*  
John Boarman, P. E.  
Principal

**Linscott, Law &  
Greenspan, Engineers**  
4542 Ruffner Street  
Suite 100  
San Diego, CA 92111  
858.300.8800 T  
858.300.8810 F  
[www.llgengineers.com](http://www.llgengineers.com)

**TABLE 6-1  
EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Existing	
			Delay <sup>a</sup>	LOS <sup>b</sup>
1. Telegraph Canyon Road / I- 805 SB Ramps	Signal	AM	11.9	B
		PM	29.0	C
2. Telegraph Canyon Road / I-805 NB Ramps	Signal	AM	34.5	C
		PM	46.0	D
3. Telegraph Canyon Road / Oleander Avenue	Signal	AM	23.1	C
		PM	23.9	C
4. Telegraph Canyon Road / Medical Center Drive	Signal	AM	25.7	C
		PM	31.0	C
5. Telegraph Canyon Road / Heritage Road	Signal	AM	47.6	D
		PM	42.5	D
6. Medical Center Court / Medical Center Drive	Signal	AM	20.0	C
		PM	21.4	C
7. Medical Center Court / Loop Road Access West	OWSC <sup>c</sup>	AM	13.5	B
		PM	15.2	C
8. Medical Center Court / Loop Road Access East	OWSC	AM	12.8	B
		PM	14.5	B
9. Medical Center Court / Main Hospital Driveway	OWSC	AM	13.8	B
		PM	10.9	B
10. E. Palomar Street / Medical Center Drive	Signal	AM	30.7	C
		PM	41.9	D
11. E. Palomar Street / Medical Center Court	AWSC <sup>d</sup>	AM	12.6	B
		PM	15.3	C
12. E. Palomar Street / Heritage Road	Signal	AM	<b>81.8</b>	F
		PM	46.4	D
13. Olympic Parkway / I-805 SB Ramps	Signal	AM	<b>57.8</b>	E
		PM	<b>65.7</b>	E
14. Olympic Parkway / I-805 NB Ramps	Signal	AM	<b>79.3</b>	E
		PM	43.6	D





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 PROJECT

Figure 7-2  
**Project Traffic Volumes**  
 Sharp Chula Vista Tower

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

Intersection	Control Type	Peak Hour	Existing		Existing + Project		Project % of Entering Volume (>5%)	Impact Type
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS		
1. Telegraph Canyon Road / I-805 SB Ramps	Signal	AM	11.9	B	11.9	B	1%	None
		PM	29.0	C	29.4	C	1%	
2. Telegraph Canyon Road / I-805 NB Ramps	Signal	AM	34.5	C	34.7	C	1%	None
		PM	46.0	D	48.4	D	1%	
3. Telegraph Canyon Road / Oleander Avenue	Signal	AM	23.1	C	23.4	C	1%	None
		PM	23.9	C	24.2	C	1%	
4. Telegraph Canyon Road / Medical Center Drive	Signal	AM	25.7	C	27.2	C	2%	None
		PM	31.0	C	33.6	C	3%	
5. Telegraph Canyon Road / Heritage Road	Signal	AM	47.6	D	48.1	D	1%	None
		PM	42.5	D	42.7	D	1%	
6. Medical Center Court / Medical Center Drive	Signal	AM	20.0	C	25.3	C	12%	None
		PM	21.4	C	35.8	D	12%	
7. Medical Center Court / Loop Road Access West	OWSC <sup>c</sup>	AM	13.5	B	14.6	B	19%	None
		PM	15.2	C	17.5	C	23%	
8. Medical Center Court / Loop Road Access East	OWSC	AM	12.8	B	14.9	B	16%	None
		PM	14.5	B	18.6	C	19%	
9. Medical Center Court / Main Hospital Dwy	OWSC	AM	13.8	B	18.2	C	19%	None
		PM	10.9	B	12.7	B	24%	
10. E Palomar Street / Medical Center Drive	Signal	AM	30.7	C	31.3	C	4%	None
		PM	41.9	D	42.0	D	4%	
11. E Palomar Street / Medical Center Court	AWSC <sup>d</sup>	AM	12.6	B	13.2	B	3%	None
		PM	15.3	C	16.8	C	3%	
12. E Palomar Street / Heritage Road	Signal	AM	<b>81.8</b>	<b>F</b>	<b>82.1</b>	<b>F</b>	1%	<b>Cuml</b>
		PM	46.4	D	46.6	D	1%	
13. Olympic Parkway / I-805 SB Ramps	Signal	AM	<b>57.8</b>	<b>E</b>	<b>57.8</b>	<b>E</b>	0%	<b>Cuml</b>
		PM	<b>65.7</b>	<b>E</b>	<b>67.0</b>	<b>E</b>	1%	

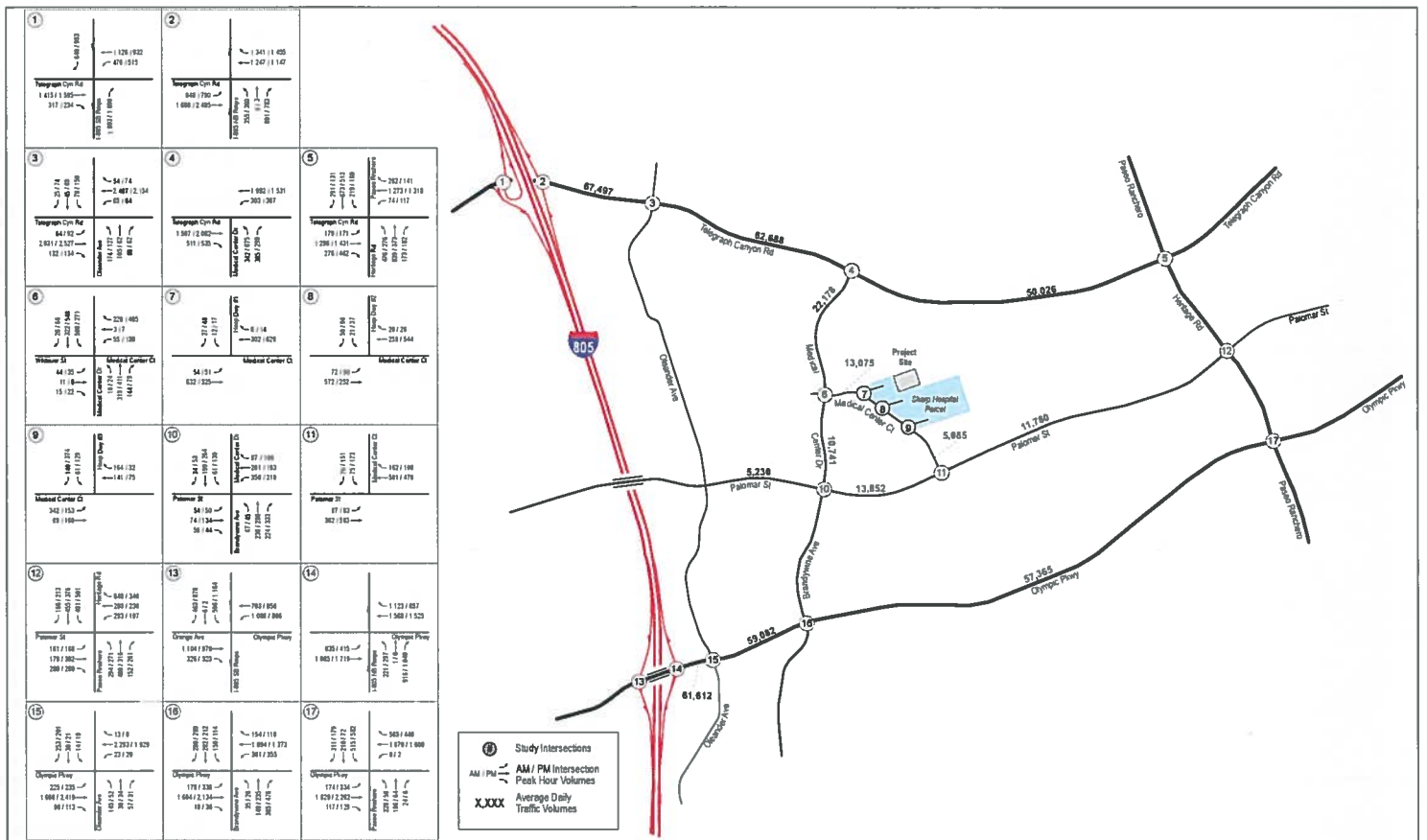


Figure 9-3

Near-Term (Existing + Cumulative Projects) + Project Traffic Volumes

SHARP CHULA VISTA TOWER

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

Intersection	Control Type	Peak Hour	Near Term		Near Term + Project		Project % of Entering Volume (>5%)	Impact Type
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS		
1. Telegraph Canyon Road / I-805 SB Ramps	Signal	AM	12.0	B	12.0	B	1%	None
		PM	37.3	D	37.8	D	1%	
2. Telegraph Canyon Road / I-805 NB Ramps	Signal	AM	46.6	D	47.1	D	1%	Cuml
		PM	63.1	E	65.7	E	1%	
3. Telegraph Canyon Road / Oleander Avenue	Signal	AM	25.3	C	25.6	C	1%	None
		PM	26.2	C	26.6	C	1%	
4. Telegraph Canyon Road / Medical Center Drive	Signal	AM	28.0	C	29.7	C	2%	None
		PM	34.4	C	38.3	D	3%	
5. Telegraph Canyon Road / Heritage Road	Signal	AM	54.1	D	54.8	D	0%	None
		PM	45.9	D	46.2	D	1%	
6. Medical Center Court / Medical Center Drive	Signal	AM	21.8	C	30.9	C	11%	None
		PM	25.2	C	43.0	D	11%	
7. Medical Center Court / Loop Road Access West	OWSC <sup>c</sup>	AM	14.5	B	15.9	C	17%	None
		PM	16.7	C	33.7	D	21%	
8. Medical Center Court / Loop Road Access East	OWSC	AM	13.8	B	20.3	C	15%	None
		PM	15.9	C	21.4	C	18%	
9. Medical Center Court / Main Hospital Dwy	OWSC	AM	15.3	C	21.9	C	18%	None
		PM	11.4	B	13.5	B	22%	
10. E Palomar Street / Medical Center Drive	Signal	AM	33.2	C	33.4	C	4%	None
		PM	50.8	D	52.0	D	4%	
11. E Palomar Street / Medical Center Court	Signal <sup>d</sup>	AM	9.0	A	9.3	A	3%	None
		PM	10.9	B	11.6	B	3%	
12. E Palomar Street / Heritage Road	Signal	AM	97.3	F	97.7	F	1%	Cuml
		PM	51.2	D	51.8	D	1%	
13. Olympic Parkway / I-805 SB Ramps	Signal	AM	63.8	E	64.0	E	0%	Cuml
		PM	84.2	F	85.7	F	0%	