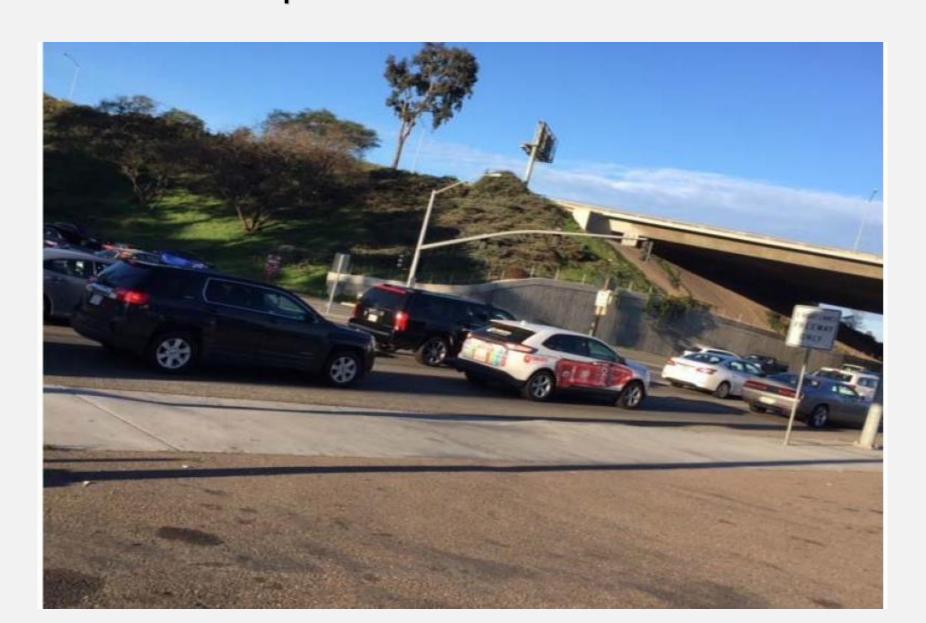
## Arco Station Facing Long Term E Level of Service on Telegraph Canyon Road



### Car Wash facing Intersection at Telegraph Canyon Road/ I-805 Northbound Ramp with Near Term D&E Level of Service



### TABLE 10-1 NEAR TERM INTERSECTION OPERATIONS

		Control	Peak	Near	Гегт	Near To Proj		Project % of	Impact
	Intersection	Туре	Hour	Delaya	LOSb	Delay	LOS	Entering Volume (>5%)	Туре
1,	Telegraph Canyon Road / I- 805 SB Ramps	Signal	AM PM	12,0 37,3	B D	12.0 37.8	B D	1% 1%	None
2.	Telegraph Canyon Road / I- 805 NB Ramps	Signal	AM PM	46.6 63.1	D E	47.1 65.7	D E	1% 1%	Cuml
3.	Telegraph Canyon Road / Oleander Avenue	Signal	AM PM	25.3 26.2	C	25,6 26,6	C C	1% 1%	None
. 4.	Telegraph Canyon Road / Medical Center Drive	Signal	AM PM	28.0 34.4	C C	29.7 38,3	C D	2% 3%	None
. 5.	Telegraph Canyon Road / Heritage Road	Signal	AM PM	54.1 45.9	D D	54.8 46.2	D D	0% 1%	None
6.	Medical Center Court / Medical Center Drive	Signal	AM PM	21.8 25.2	C C	30,9 43.0	C D	11% 11%	None
7.	Medical Center Court / Loop Road Access West	owsc°	AM PM	14.5 16.7	B C	15.9 33.7	C D	17% 21%	None
8.	Medical Center Court / Loop Road Access East	OWSC	AM PM	13.8 15.9	B C	20.3 21.4	C C	15% 18%	None
9.	Medical Center Court / Main Hospital Dwy	OWSC	AM PM	15.3 11.4	C B	21.9 13.5	C B	18% 22%	None
10.	E Palomar Street / Medical Center Drive	Signal	AM PM	33.2 50.8	C D	33.4 52.0	C D	4% 4%	None
11.	E Palomar Street / Medical Center Court	Signal <sup>d</sup>	AM PM	9.0 10.9	A B	9.3 11.6	A B	3% 3%	None
12.	E Palomar Street / Heritage Road	Signal	AM PM	97.3 51.2	<b>F</b> D	<b>97.7</b> 51.8	F D	1% 1%	Cuml
13.	Olympic Parkway / 1-805 SB Ramps	Signal	AM PM	63.8 84.2	E F	64.0 85.7	E F	0%	Cuml

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LINSCOTT, LAW & GREENSPAN, engineers

LLG Ref. 3-15-2536
Sharp Chula Vista Medical Center Ocean View Tower

### TABLE 11–2 LONG TERM WITH PROJECT STREET SEGMENT OPERATIONS

		7.00 C	Long-Term with Project		Significance Criteria		
Street Segment	Classification	LOS C Capacity <sup>a</sup>	ADT <sup>b</sup>			Impact Type	
Telegraph Canyon Road							
Halecrest Drive to Oleander Avenue	7-Lane Expressway	61,250	70,900	E	635	1%	Cuml
Oleander Avenue to Medical Center Drive	6-Lane Prime Arterial	50,000	65,800	F	828	1%	Cuml
Medical Center Drive to Heritage Road	6-Lane Prime Arterial	50,000	52,500	D	524	1%	None
Medical Center Drive Telegraph Canyon Road to Medical Center Court	Class I Collector	22,000	24,400	D	1,490	6%	None
Medical Center Court to E. Palomar Street	Class I Collector	22,000	11,800	Α	773	7%	None
Medical Center Court							
East of Medical Center Drive	Class II Collector	12,000	14,400	E	2,263	16%	Direct
North of E. Palomar Street	Class II Collector	12,000	5,600	A	497	9%	None
E. Palomar Street							
Oleander Avenue to Medical Center Drive	4-Lane Major Road	30,000	17,800	A	359	2%	None
Medical Center Drive to Medical Center Court	4-Lane Major Road	30,000	17,900	A	0	0%	None
Medical Center Court to Heritage Road	4-Lane Major Road	30,000	14,100	A	497	4%	None
Olympic Parkway							
I-805 Ramps to Oleander Avenue	6-Lane Prime Arterial	50,000	46,300	С	331	1%	None
Oleander Avenue to Brandywine Avenue	6-Lane Prime Arterial	50,000	48,800	С	276	1%	None

LINSCOTT, LAW & GREENSPAN, engineers

LLG Ref. 3-15-2536 Sharp Chula Vista Medical Center Ocean View Tower N 12541/RenortRenor 2526 - Review March 32 With Plant Lan.

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## Car Wash/ Arco Driveway onto Halecrest

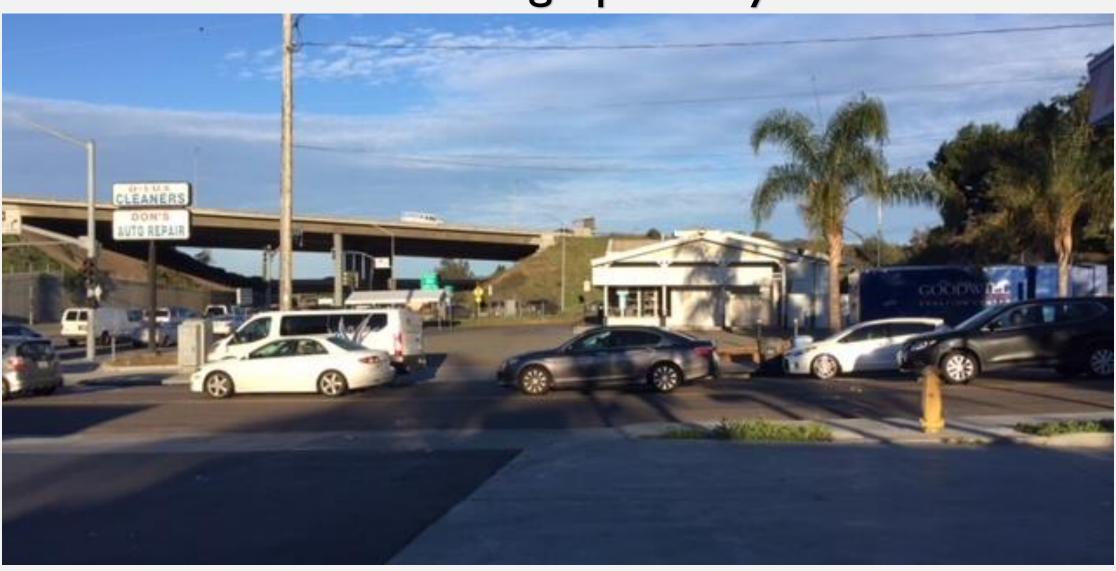


## Car Wash Driveway onto Halecrest



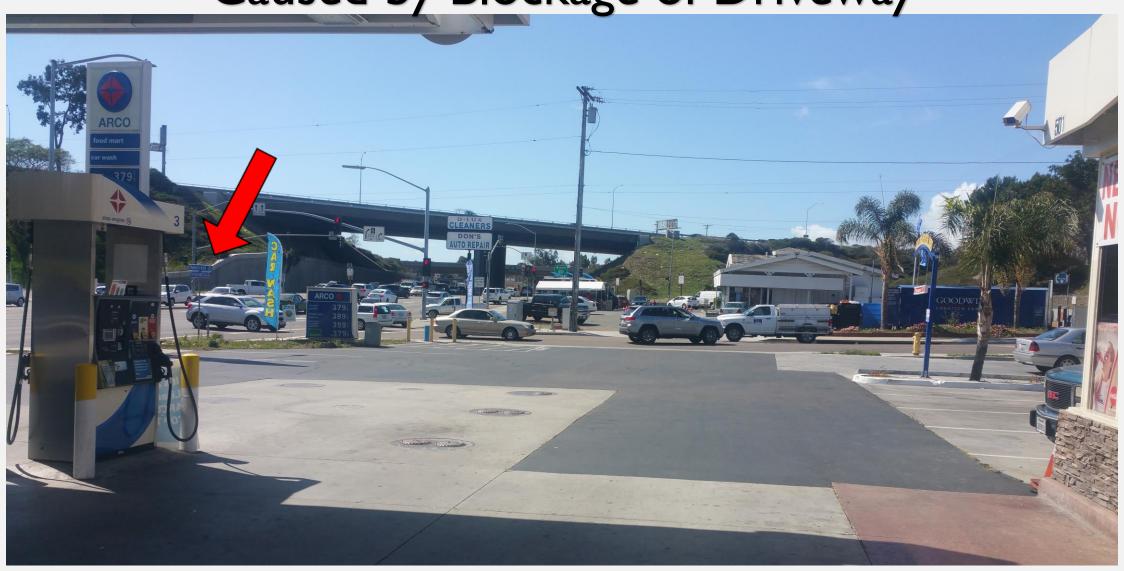
**Telegraph Canyon & Halecrest Drive** 

## Back Up Blocking Driveway Exits and Entrances at Halecrest & Telegraph Canyon Road

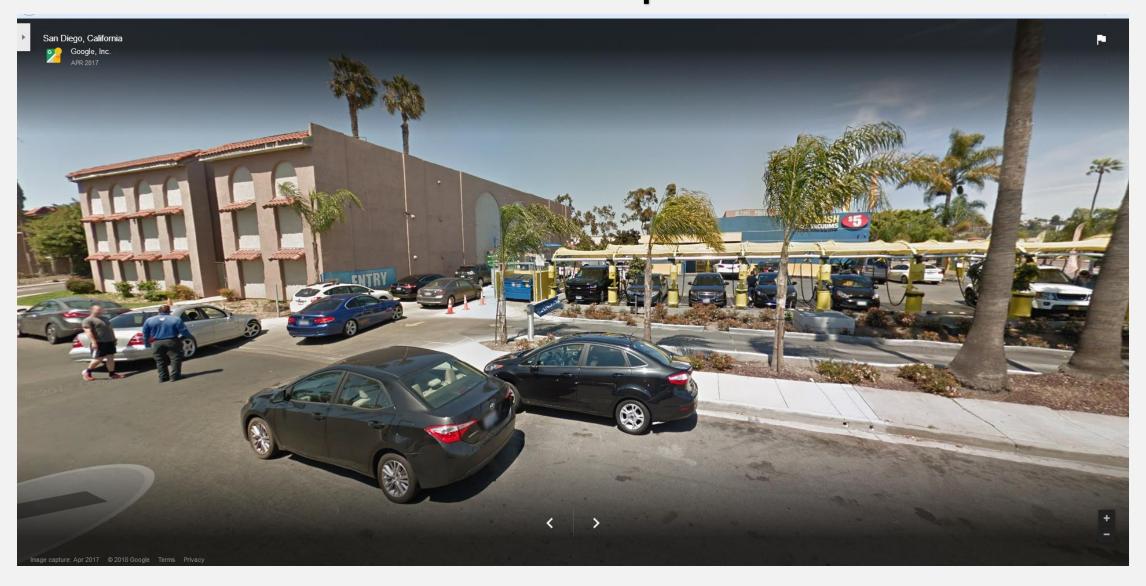




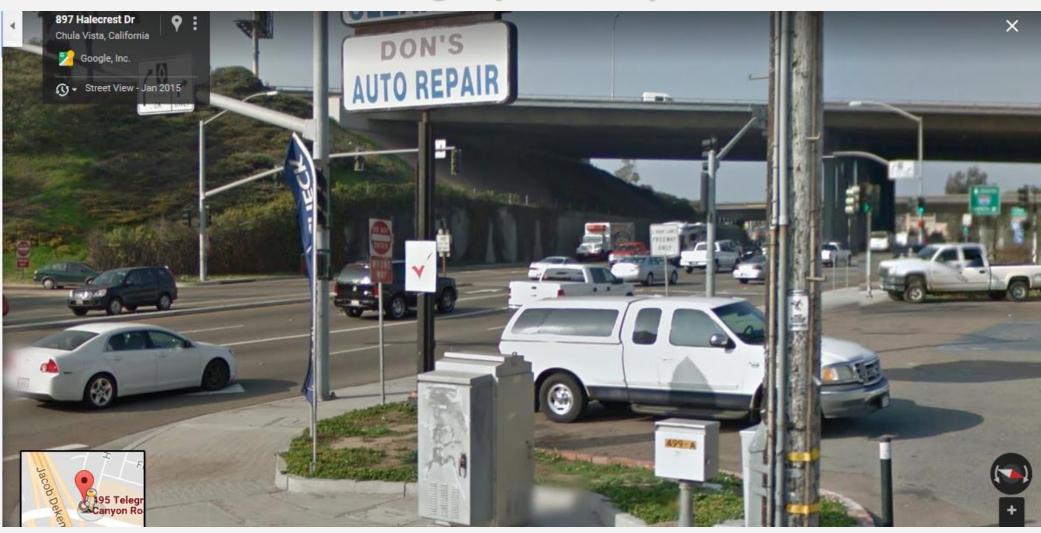
Spill Back onto Telegraph
Caused by Blockage of Driveway



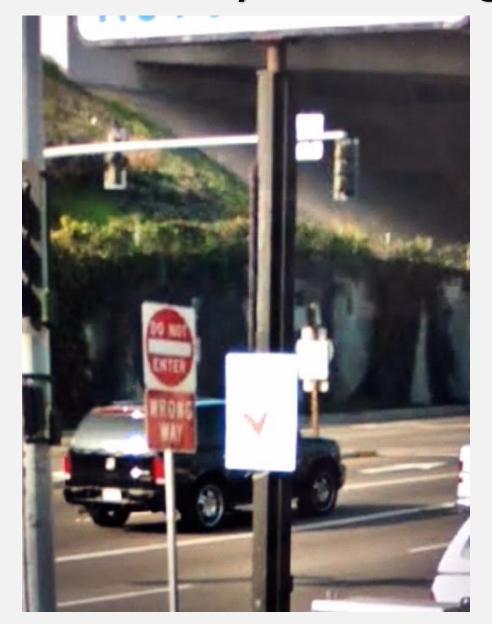
## Wash-N-Go/ Rosecrans Spill Back onto Road



## "Do Not Enter" Car Wash Driveway Onto Telegraph Canyon Road



## Traffic Engineer Testimony at Planning Commission





## Car Wash Entry onto Telegraph Canyon Road



### LOS Engineering, Inc. Traffic and Transportation

peak nour trips with an average of 69 AM and 128 PM peak nour trips as shown in Table 1.

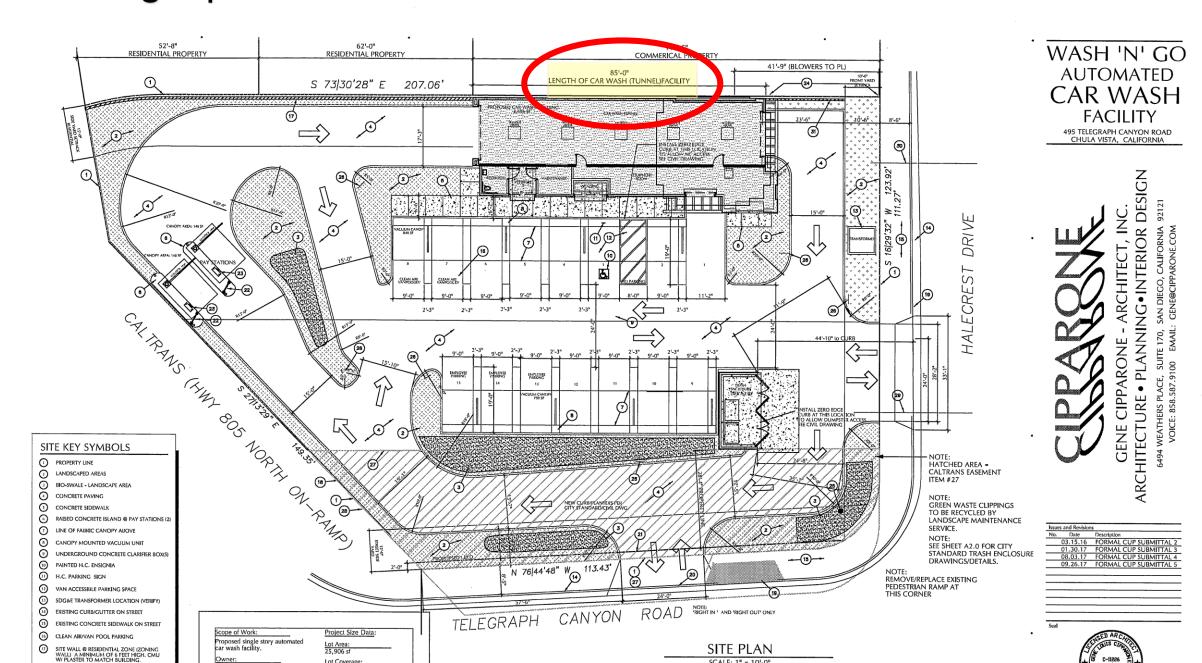
Table 1: Car Wash Trip Generation Comparison

SANDAG, ITE, and						Α	M Peak H	lour	PM	Peak H	our
Other Source Trip Ra	tes	Rates	& Size	•	Daily	IN	OUT	<b>Total</b>	IN	OUT	Total
SANDAG	Rates:	900	/Site			0.50	0.50	4%	0.50	0.50	9%
Automatic Car Wash	Size:	1	Site	Trips:	900	18.0	18.0	36	40.5	40.5	81
ITE (948) Weekday	Rates:				No data			No data	38.75	38.75	77.50
Automatic Car Wash	Size:	1	Site					III kan a siidii	39	39	78
Anaheim Express Car \	Wash		Traffic	Study:	1,213	39	28	67	63	65	128
Victorville Car Speedwa	ash		Traffic	Study:	2,079	66	49	115	108	111	219
Matt's Express Car Wa	sh		Traffic	Study:	944	29	29	58	67	67	134
							Low:	36		Low:	78
Low, Average, and Hi	gh Peal	k Hour	Volum	es:			Average:	69	A	verage:	128
and the same state of the same	Tel. 1	111					High:	115		High:	219

Notes: Institute of Transportation Engineers (ITE) 10th Edition *Trip Generation*. SANDAG *Brief Guide of Vehicular Traffic Generation*. Rates for the San Diego Region, April 2002. Anaheim and Victorville data from other traffic studies (details in Attachment C).

The proposed car wash has a significant potential to exceed the trip generation levels that would require a traffic study under City of Chula Vista and Caltrans' criteria.

### New High Speed Car Wash Processes 90 Cars Per Hour, Not 40 to 50



## New High Speed Car Washes Processes 90 Cars Per Hour, not 40 to 50 Free Vacuums Add Trips

### **Site Layouts**

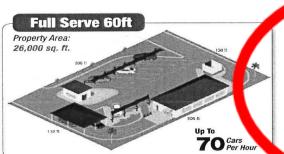
**Full-Serve Car Wash** 

### **Definitions**

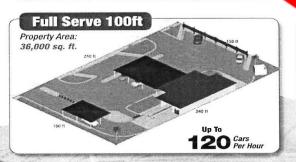
Full-service car washing offers a robust number of profit opportunities yielding higher revenue per car. Greeted by a live attendant, the customer selects their wash level and extra services before exiting the vehicle to a retail waiting area or convenience store. While the customer is waiting, attendants take the vehicle through the wash, vacuum, clean windows, and perform other detailing services. Although popular with customers, it is labor intensive, and rising wages in some markets are leading full-service washes to increasingly use automated equipment normally used in express and flex-service operations to replace manual labor.

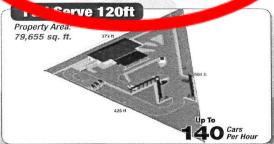


Every full-serve car wash represents different start-up parts, tools, and supply requirements, depending on the services offered. Sonny's offers convenient lists of the most popular items ordered with a new full-serve tunnel package. Want to customize it – give us a call or go online. With over 12,000 car wash items in stock for immediate delivery, chances are we'll have everything you need – priced right.









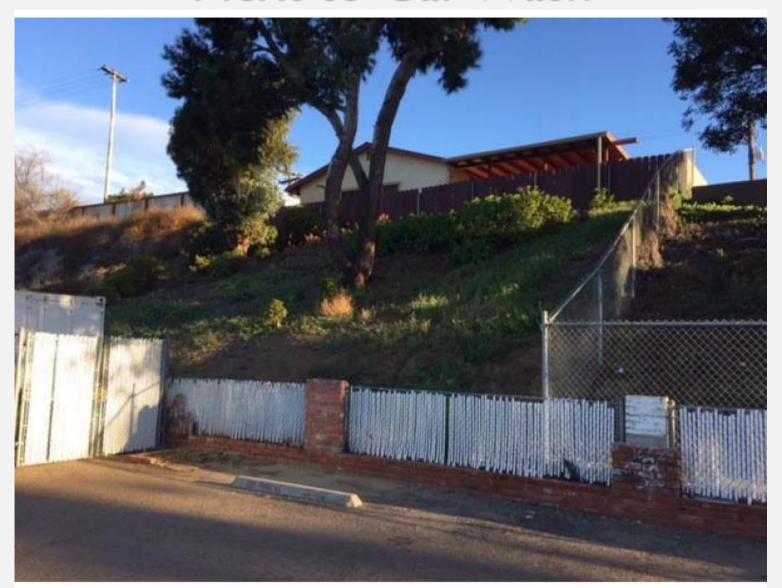


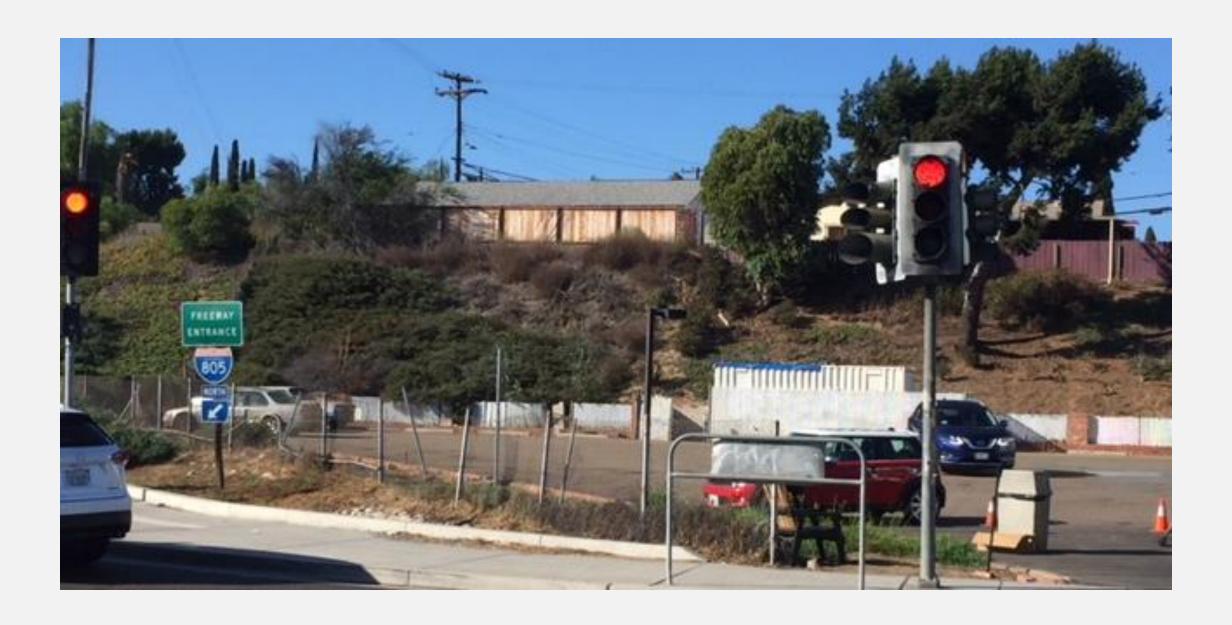
www.SonnysDirect.com

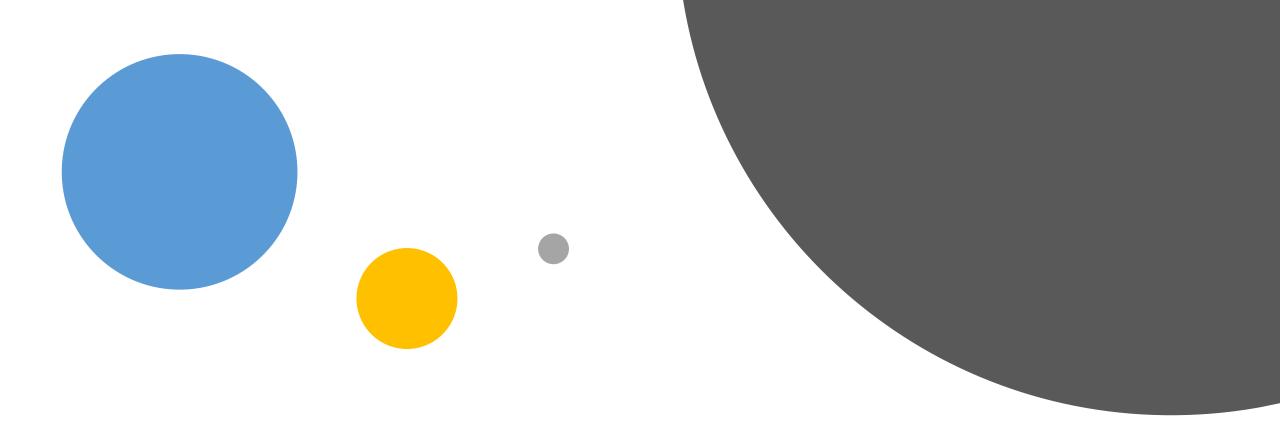
The Tunnel Experts™



## Residential Homes Next to Car Wash







Justin Rasas, P.E., T.E., PTOE President LOS Engineering, Inc.

Over 26 years experience (20 years in San Diego)

Started LOS Engineering, Inc. in January 2004

## What is a Traffic Study?

- Documents potential traffic impacts
- Follows specific City and Caltrans criteria, and requires agency review
- Includes intersections, segments, and freeways on-ramps
- Provides accurate trip generation information
- Accounts for other cumulative projects
- Addresses access operations: Level of Service (LOS)
- Properly addresses the California Environmental Quality Act (CEQA)
- Delivers recommendations to reduce traffic impacts, if required
- Provides objective findings for decision makers to make a fair and accurate decision

## USA Memo is not a Traffic Study

- Urban Systems Associates, Inc. (USA) prepared a memo (no LOS analysis)
- References SANTEC/ITE guidelines when traffic study is required
  - Correctly notes the requirement of a traffic study if >100 peak hour trips
  - Correctly notes the need to study intersections with >50 peak hour trips
- References SANDAG trip generation rates
  - Concedes a PM peak hour trip rate of 81

### **USA Memo**

Traffic Study Threshold 100 Trips

USA Memo book rates and outliers

81
PM Peak Hour Trips

33
PM Peak Hour Trips

30
PM Peak Hour Trips

SANDAG
(book rate by site)

SINDAG
(book rate by acreage)

Intersection Study Threshold 50 Trips

ANDAG
(book rate by acreage)

SANDAG
(book rate by acreage)

Intersection Study Threshold 50 Trips

ANDAG
(book rate by acreage)

SANDAG
(out of area, not same)

Data Outliers (abnormal distance from other variables)

## USA Memo on Trip Generation

- USA Memo states "Finally, if there are unique site characteristics, estimation of trip rates or counts at other site are recommended."
- USA did not collect traffic data at a nearby <u>similar</u> site (applicant operates a Wash N Go carwash in San Diego)
- USA did NOT have any LOS analyses

### Wash N Go Rosecrans St at Cauby St

- Located in nearby San Diego
- Same type of car wash as the proposed project
- Operated by the applicant
- Adjacent to busy street (Rosecrans)



## Rosecrans Wash N Go Data Collection

- Actual data collected on October 4, 2018
- This is a high-volume budget type car wash (doesn't match current book rates)
- PM Peak Hour = 144 Vehicles
  - 69 inbound
  - 75 outbound
- Queuing into street occurred for 8 minutes and 37 seconds over a 2 hour period

Wash N Go Express Carwash

Count Type: Driveway Counts - Driveway Off Cauby Street

10/4/2018

#### Cauby St Driveway

	Entering	Exiting
16:00	16	22
16:15	16	16
16:30	17	15
16:45	20	22
17:00	14	13
17:15	20	8
17:30	12	12
17:45	21	21
TOTAL	136	129

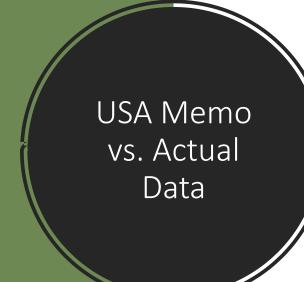
16:00-17:00 16:15-17:15 16:30-17:30 16:45-17:45

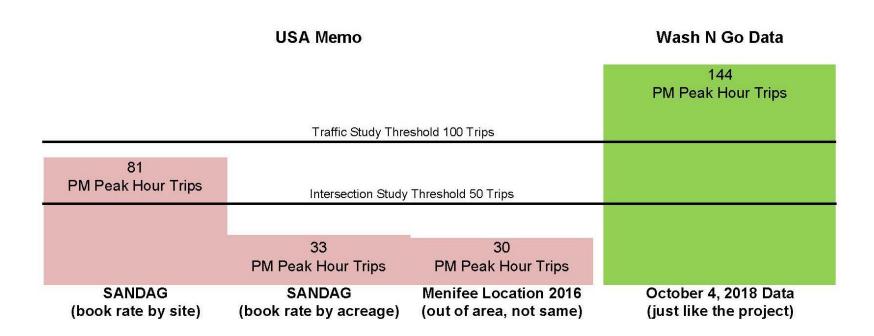
Entering	Exiting	TOTAL	
69	75	144	Peak Hr
67	66	133	
71	58	129	
66	55	121	
67	54	121	

#### Driveway Blockage

	Beginning	Ending	Duration		
1	16:52:48	16:53:35	0:00:47		
2	16:55:49	16:56:28	0:00:39		
3	17:12:54	17:14:41	0:01:47		
4	17:16:08	17:19:44	0:03:36		
5	17:26:29	17:27:05	0:00:36		
6	17:56:40	17:57:52	0:01:12		
7			0:00:00		
8			0:00:00		
		TOTAL	0.00.27		

"Finally, if there are unique site characteristics, estimation of trip rates or counts at other site are recommended." (USA Memo)





### Actual Data vs. Guessing



Rosecrans Wash N Go actual data = 144 PM peak hour trips

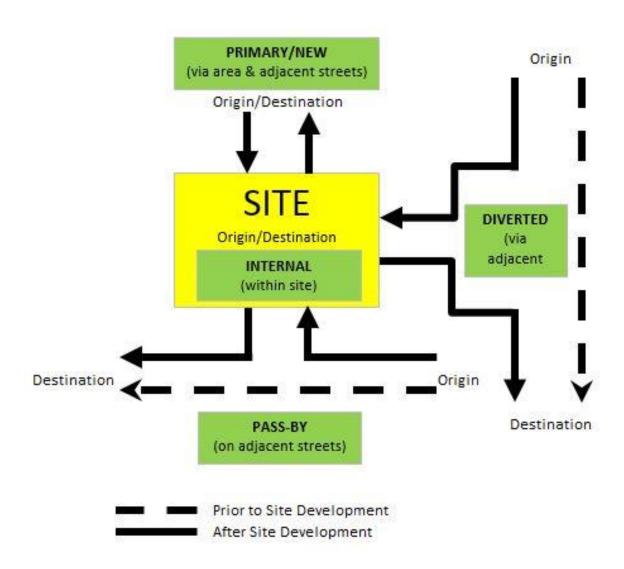


This exceeds the SANTEC threshold, therefore a traffic study is required to ensure the project traffic can be properly handled

# Recently Completed Traffic Study and Analyses

Wash N Go Data	178 Third Ave (58 senior apts)	201 Third Ave (23 apts & retail)	Eastlake Self Storage
144 PM Peak Hour Trips			
		Traffic Study Threshold 10	0 Trips
			3
		Intersection Study Thresho	ld 50 Trips
	48 PM Peak Hour Trips	25	
		PM Peak Hour Trips	16 PM Peak Hour Trips
No Traffic Study?	City Required LOS Analysis Traffic Study Approved 2018	City Required LOS Analysis Traffic Analysis Approved 2018	City Required LOS Analysis Traffic Analysis Approved 2017

## Understanding Driveway Trips (hard way)



## Understanding Driveway Trips (easy way)



### City of San Diego

### TRAFFIC IMPACT STUDY MANUAL

### **Study Area**

The contents and extent of a traffic impact study depend on the location and size of the proposed development and the conditions prevailing the surrounding area. Larger developments proposed in congested areas obviously require a more extensive traffic impact study. Smaller sites may require only minimal analysis. An inappropriately large analysis area will unnecessarily increase costs and time to the developer, the study preparer and the reviewer. In addition, large volumes of meaningless analysis can obscure the real issues that need to be addressed. At a minimum, any traffic impact study must address site access and adjacent intersections, plus the first major signalized intersection in each direction from the site. Beyond this minimum requirement, all known congested or potentially congested locations that may be impacted by the proposed development should be studied. The following methodology based on Average Daily Traffic (ADT), project trip distribution and generalized daily roadway capacity has been prepared to offer some predictability to consultants bidding for jobs and to determine an initial study area to discuss with City staff. Knowledge of the area and judgement may cause the study area to be either expanded or contracted.

Procedure for Determining Initial Study Area

1. Calculate project trip generation based on driveway trip rates and standard City trip generation rates.

# Driveway Trips vs. Adjacent Street (easy way)



### City of San Diego

### TRAFFIC IMPACT STUDY MANUAL

### **Driveway Volumes Versus Traffic Added to the Adjacent Streets**

It is usually assumed that all trips entering and exiting a new development are new trips that were not made to or through the area prior to the development being completed. However, a portion of these trips may be "captured" from trips already being made to other existing developments on the adjacent street system. Any commercial real estate agent will confirm that the three most important factors in a successful retail business are location, location and location. This phenomenon has been verified by limited studies of commercial sites. The City's Trip Generation Manual has recommended a percentage reduction in driveway trip generation rates for numerous retail uses. These recommendations are based on local and national trip generation studies, as well as SANDAGS's Travel Behavior Study conducted in 1985. The pass-by reduction includes true pass-by trips that were on an adjacent street and a portion of the linked trips that were diverted off a nearby route. The report must clearly indicate the new trips and the pass-by trips for the site. All site access points should be evaluated using the higher driveway rates, whereas far off intersections will be evaluated using the reductions for pass-by trips. The next chapter provides guidance on how to distribute and assign pass-by trips.

What other uses generate 144
PM peak hour driveway trips?

Wash N Go Data	144 Homes	55,000 SF Office	40,000 SF Retail
144	144	143	144
PM Peak Hour Trips		PM Peak Hour Trips	PM Peak Hour Trips
			,
	Traffic S	Study Threshold 100 Trips	
	· Daniss		
	Intersect	ion Study Threshold 50 Trips	3

Precedence Setting?

If a traffic study is not required for a project that has been shown to generate more than 100 peak hour trips, does this establish a precedence for all other applicants?

## Halecrest Dr Blockage and Spill Back

- On Sept 11, 2018, applicant's driveway was blocked 37 times between 4-6 PM (total of 23 minutes and 11 second)
- Blocked 20% of the time during PM Pk Hr
- Blockage creates spillback to Telegraph



		Blockage Ends	Time Blocked	
	35	16:01:38	0:01:03	
	46:10:27	16:11:30	0:01:03	2
	16:13:08	16:13:55	0:00:47	0
	16:15:09	16:15:40	0:00:31	0
	16:18:49	16:20:00	0:01:11	4
	16:25:55	16:26:10	0:00:15	0
3	16:27:32	16:27:52	0:00:20	1
8	16:29:23	16:29:57	0:00:34	1
9	16:31:51	16:32:19	0:00:28	0
10	16:33:25	16:34:18	0:00:53	2
11	16:35:46	16:36:26	0:00:40	1
12	16:38:16	16:38:29	0:00:13	0
13	16:42:21	16:43:03	0:00:42	1
14	16:46:48	16:47:10	0:00:22	0
15	16:50:30	16:51:17	0:00:47	0
16	16:52:54	16:53:27	0:00:33	1
17	16:55:09	16:55:38	0:00:29	0
18	16:56:49	16:57:04	0:00:15	0
19	17:04:58	17:06:09	0:01:11	6
20	17:09:29	17:10:21	0:00:52	5
21	17:11:20	17:12:12	0:00:52	0
22	17:15:26	17:16:08	0:00:42	1
23	17:19:29	17:20:23	0:00:54	1
24	17:22:18	17:23:01	0:00:43	1
25	17:24:28	17:24:47	0:00:19	2
26	17:28:07	17:28:35	0:00:28	0
27	17:29:18	17:30:16	0:00:58	2
28	17:31:50	17:32:28	0:00:38	2
29	17:34:11	17:34:20	0:00:09	0
30	17:36:52	17:37:12	0:00:20	0
31	17:38:36	17:38:54	0:00:18	1
32	17:40:27	17:41:22	0:00:55	2
33	17:43:18	17:43:32	0:00:14	0
34	17:44:56	17:45:31	0:00:35	1
35	17:47:02	17:47:42	0:00:40	1
36	17:49:06	17:49:29	0:00:23	0
37	17:52:43	17:53:37	0:00:54	4
38				
39 40		4:45-5:45 PM TOTAL	0:11:59	



PM Peak Hour (Actual Halecrest Data)

Wash N Go Acutal Data 69 inbound divided between 2 dwys

**CLEAR (80%)** 

Around 28 inbound patrons Wash N Go Actual Data

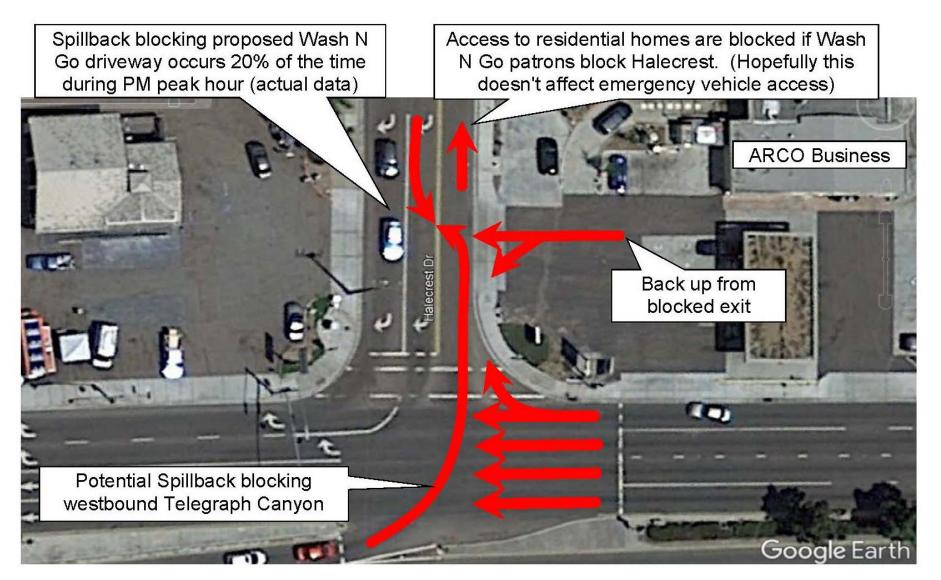
BLOCKED (20%)

Around 7 inbound patrons Wash N Go Actual Data

## Halecrest Dr Driveway Blockage

- If one Wash N Go patron stops, it will create a spill back to Telegraph Canyon Rd as shown in the picture
- Any spillback will adversely impact access to the ARCO business
- Any spillback will delay access to residential areas north of the site

## One Car Away From Catastrophe



## **Effectiveness of Do Not Block Intersection Signs**

### J. L. GATTIS AND ZAFAR IQBAL

On higher-volume streets the traffic queues that form at signalized intersections may back up and block access into or out of side streets and driveways. Owners of abutting businesses and residents whose access is repeatedly denied by these blockages sometimes complain to municipal officials and request police action or a sign prohibiting blocking the sign may be found at unsignalized intersections in other cities, such as Dallas, Texas, Springfield, Missouri, and Fayetteville, Arkansas.

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LITERATURE REVIEW





### Gattis and Iqbal

blockages at three of the four sites. Only at Site A was the sign associated with a reduction in intersection blockage; it was the only site where the arterial street had a median, and there was an opening in the median for the driveway. Compared with the other three sites, this site had heavier volumes into and out of the driveway/side street. The combination of the setting and the median opening appeared to make this site more visible to approaching arterial motorists.

The vehicles at the study sites were almost exclusively passenger cars. From the present study it is not known whether significant amounts of truck or bus traffic would affect the proportion of the time an intersection remained unblocked.

Two conclusions were made. First, the research suggest that the effectiveness of the Do Not Block Intersection/Drive sign is minimal. The study indicated that installation of the sign may be a waste of time and effort in many situations. Second, to prevent undesirable traffic patterns from arising in the first place, the study reinforced the need to have access controls that prevent side streets and driveways from being located too close to arterial street signalized intersection approaches. The distance D from the signalized intersection to the upstream side street or driveway should be estimated by the equation

### How Will Vehicles Leave?



USA Memo states "it is estimated 30% of project traffic may use the freeway"



From actual data, the Wash N Go outbound PM peak hour is 75 vehicles

30% of 75 vehicles is 23, which exceeds 20 peak hour trips triggering the need for an on-ramp meter analysis (provided all vehicles are not forced to I-805)

Caltrans needs to be made aware of any potential impacts to their facilities

## Benefits of a Traffic Study

- Does not stop development, rather identifies potential problems and how to fix them
- Makes sure on-site circulation works, proper ingress without spill back onto Telegraph Canyon Road, and proper egress
- Fulfills CEQA requirements
- Provides an objective analysis based on actual site-specific data
- Treats neighbors with respect by answering their questions

Actual data from a nearby Wash N Go clearly shows that a traffic study is required

Caltrans will be affected and should review the traffic study

Access to the adjacent ARCO will be impacted and this must be addressed

Let the CEQA do its job and address neighbors' concerns

Menifee

Telegraph Canyon Rd.





Menifee



Telegraph Canyon Rd.



### CEQA Exemption § 15332 for In-Fill Developments Does Not Apply

- (d) Only applies if approval of the project would not result in <u>any</u> significant impacts to traffic or noise
- The unusual circumstances exception (to § 15332) requires some CEQA analysis as the location of the project is adjacent to an already impacted intersection and highway or ramp, i.e.: not a typical infill project
- There is a reasonable possibility that the unusual circumstance based on the "fair argument" standard will produce a significant effect on the environment

A baseline analysis must be for existing conditions, not a condition that existed in 2005 when the site and adjacent street were different.

World Business Academy v. State Lands Com. (2018) 24 Cal.App.5th 476.