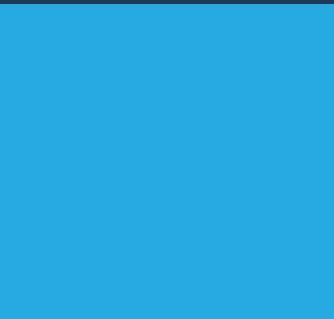




City of Irvine/City of Lake Forest Bake Parkway/Jeronimo Road Improvements PA/ED Traffic Analysis



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Innovating Through Informatics™

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1 INTRODUCTION

The purpose of this report is to study the traffic effects of providing capacity enhancements and operational improvements at the intersection of Bake Parkway and Jeronimo Road located in the Cities of Irvine and Lake Forest.

1.1 Study Area

Figure 1-1 shows the location of the intersection which is located on the boundary of the City of Irvine and the City of Lake Forest, approximately 1.25 miles east of Interstate 5 (I-5). The Orange County Master Plan of Arterial Highways (MPAH) indicates that Bake Parkway is a major arterial highway (6-lane facility, 3 lanes in each direction) and Jeronimo Road is a primary arterial highway (4-lane facility, 2 lanes in each direction).

The adjacent land uses east of Bake Parkway in the City of Lake Forest are residential, while west of Bake Parkway in the City of Irvine the adjacent land uses are industrial/office park. The west leg of the intersection (Jeronimo Road) is within the City of Irvine's jurisdiction while the other three legs of the intersection are within the City of Lake Forest's jurisdiction. The traffic signal is operated by City of Irvine.

The speed limit on Bake Parkway is currently 50 miles per hour (mph) and on Jeronimo Road the speed limit is 50 mph in the City of Irvine and 45 mph in the City of Lake Forest. It is not anticipated that the improvements will cause any changes to these speed limits.

Figure 1-1: Bake Parkway and Jeronimo Road Vicinity



1.2 Project Description

The intersection is a designated North Irvine Traffic Mitigation (NITM) improvement location whereby roadway improvements identified in the 2003 NITM Traffic Study are funded by development in North Irvine. The original

NITM improvements at this location were:

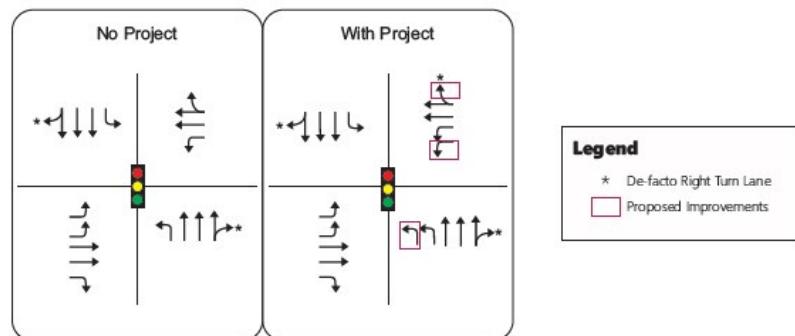
- Addition of a second northbound left-turn lane on Bake Parkway
- Addition of a fourth southbound through lane on Bake Parkway
- Addition of a third westbound through lane on Jeronimo Road

Since the 2003 NITM traffic study was conducted, development plans in the area have changed significantly affecting both existing and future traffic patterns. Subsequent traffic studies including the traffic study conducted by the County of Orange in 2016 for the Master Plan of Arterial Highway (MPAH) amendments for the widening of Santiago Canyon Road and extension of Jeffrey Road to SR-241, indicated that the fourth southbound through lane and third westbound through lane were no longer necessary. The MPAH study also identified a need for a second westbound left-turn lane on Jeronimo Road, which was supported by both the City of Lake Forest and City of Irvine. Furthermore, there are significant physical challenges and constraints due to the proximity of the Serrano Creek drainage channel on the west side Bake Parkway which limits the feasibility of implementing both the southbound and westbound through lanes. As a result, the Cities of Irvine and Lake Forest determined that the appropriate improvement Bake Parkway /Jeronimo Road improvement should comprise of the following:

- Addition of a second northbound left-turn lane on Bake Parkway
- Addition of a second westbound left-turn lane on Jeronimo Road
- Conversion of the westbound through-right lane on Jeronimo Road to a through lane with a de-facto right turn lane.

Figure 1-2 shows the intersection lane configurations in the No Project and With Project condition.

Figure 1-2: No Project and With Project Intersection Lane Configurations



1.3 Study Time Periods

Traffic operations for the intersection were evaluated for each of the following scenarios during the weekday AM peak hour and PM peak hour for the study intersection:

- Existing No Project;
- Existing With Project;
- Short-Term No Project;
- Short-Term With Project;
- Long-Range No Project;
- Long-Range With Project;
- Buildout No Project; and
- Buildout With Project

The project improvements are turn-lane improvements only with no arterial roadway widening, so the daily traffic volumes on the roadway segments are not expected to change between No Project and With Project.

2 EXISTING CONDITIONS

2.1 Existing Traffic Counts

The Covid-19 pandemic along with the associated lockdowns and remote work requirements has affected traffic patterns and volumes, including shifting of traffic to different times of the day.

October 2018 traffic counts for both the intersection turning movements and roadway segments were obtained from the City of Irvine. Additional traffic counts were performed on a Tuesday and Wednesday in January 2022. AM and PM peak hour counts were collected between 7 AM to 9 AM and 4 PM to 6 PM, respectively, along with arterial average daily traffic (ADT) counts which are provided in **Appendix A**. The two-day weekday counts were averaged. **Table 2-1** shows the intersection turning movement count comparison between 2022 and 2018. In January 2022, peak hour traffic volumes were around 15% lower than pre-Covid conditions for the intersection as a whole, while some 2022 turning movement volumes were 30% or more lower than in 2018, particularly in the PM peak hour.

Table 2-1: Intersection Turning Movement Count Comparison

Peak Hour	Year	Northbound			Southbound			Eastbound			Westbound			Int. Total	LT Total	THRU Total	RT Total
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right				
AM	2022	319	1,856	122	81	1,605	30	15	55	84	379	242	73	4,861	794	3,758	309
	2018	495	2,044	80	62	1,734	75	10	59	104	404	558	86	5,711	971	4,395	345
	Diff	-176	-188	42	19	-129	-45	5	-4	-20	-25	-316	-13	-850	-177	-637	-36
	% Diff	-36%	-9%	53%	31%	-7%	-60%	50%	-7%	-19%	-6%	-57%	-15%	-15%	-18%	-14%	-10%
PM	2022	45	1,808	353	75	2,041	24	33	217	299	165	104	56	5,220	318	4,170	732
	2018	71	2,128	522	111	1,914	18	69	469	442	171	95	60	6,070	422	4,606	1,042
	Diff	-26	-320	-169	-36	127	6	-36	-252	-143	-6	9	-4	-850	-104	-436	-310
	% Diff	-37%	-15%	-32%	-32%	7%	33%	-52%	-54%	-32%	-4%	9%	-7%	-14%	-25%	-9%	-30%

The 2022 traffic counts on the arterial roadways shown in **Table 2-2** indicate that traffic volume on Bake Parkway was about 5% lower than pre-Covid volumes whereas Jeronimo Road west of Bake Parkway was over 35% below pre-Covid levels. This is consistent with the turning movement data in **Table 2-1** which shows reductions in all peak hour movements accessing the west leg of Jeronimo Road from Bake Parkway. This roadway segment serves a large industrial/office area and it is likely that work from home requirements or hybrid working arrangements were still in place as of January 2022 for many businesses in this area.

Table 2-2: Arterial Daily Flow Comparison

#	Segment	Year 2022	Year 2018	% Difference
1	Jeronimo Rd West of Bake Pkwy	8,000	12,700	-37.0%
2	Bake Pkwy North of Jeronimo Rd	46,700	49,300	-5.3%

These findings were discussed at the project development team (PDT) meeting on March 17, 2022. And the PDT

members raised a concern that using January 2022 counts could underestimate future traffic conditions as the full rebound of traffic volumes from Covid had not yet materialized.

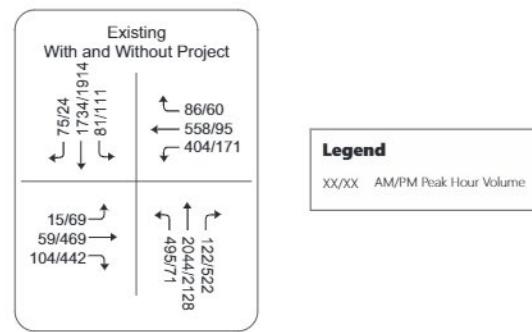
The City of Lake Forest also noted that an increase in volumes for some turning movements between 2018 and 2022 has been observed, particularly the northbound right-turn movement. The increased activity is likely due to van users heading to the Amazon Delivery Station warehouse located on Jeronimo Road near Los Alisos Boulevard which has seen significant increased delivery activity since 2018.

The PDT team therefore proposed a hybrid and conservative approach to estimate baseline traffic conditions by using the 2018 volumes as the basis, except for turning movements where the count was higher in 2022, in which case the 2022 count would be used. The resulting existing turning movement volumes are shown below in **Table 2-3** and in **Figure 2-1**.

Table 2-3: Existing Turning Movement Volumes for Use in the Irvine Transportation Analysis Model (ITAM) Postprocessor

Peak Hour	Northbound			Southbound			Eastbound			Westbound		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
AM	495	2,044	122	81	1,734	75	15	59	104	404	558	86
PM	71	2,128	522	111	1,914	24	69	469	442	171	95	60

Figure 2-1: Existing Turning Movement Counts for Use in the ITAM Postprocessor



The 2022 traffic counts included pedestrian and bicycle counts which indicate very low bike or pedestrian traffic at

the intersections as shown in **Table 2-4**.

Table 2-4: January 2022 Maximum Peak Hour Pedestrian and Bicycle Counts

Mode	Peak Hour	Northside	Southside	Eastside	Westside	Total
Pedestrian	AM	1	2	1	0	4
	PM	5	2	4	2	13
Bicycle	AM	2	0	2	0	4
	PM	1	1	1	3	6

The Year 2018 traffic counts provided by the City of Irvine included truck counts by axle. Although Bake Parkway between the I-5 freeway and Jeronimo Road is a designated truck corridor, the truck percentages for the intersection as a whole, are only 2% in the peak hours, with heavy trucks (4+ axles) representing 0.5% of the total intersection volume as shown in **Table 2-4**.

Table 2-5: Truck Count and Truck Percentage from 2018 Counts – Total Intersection

Mode	Peak Hour	Truck Volume	Truck %
All Trucks	AM	141	2.4%
	PM	121	2.0%
2+ Axle Trucks	AM	97	1.7%
	PM	78	1.3%
3+ Axle Trucks	AM	14	0.2%
	PM	15	0.2%
4+ Axle Trucks	AM	31	0.5%
	PM	28	0.5%

2.2 Existing Transit System

The intersection is currently served by two OCTA bus transit routes:

- **Local Route 86** – This service runs between Costa Mesa and Mission Viejo 14 times a day in each direction during weekdays only.
- **Metrolink Station Route 480** – This service runs between Irvine train station and the intersection of Lake Forest Drive/Regency Lane serving the office and industrial areas of the Cities of Irvine and Lake Forest during peak hours only. The service runs five (5) weekday buses eastbound from the train station in the AM peak hours and three (3) westbound buses back to the station in the PM peak hours.

Bake Parkway was also serviced by OC Express route 206 which travels between Lake Forest and Santa Ana twice a day in each direction during weekday peak hours only. This service is currently suspended due to Covid.

There is a bus stop serving Route 86 and Route 480 on eastbound Jeronimo Road 100 feet east of Bake Parkway and the corresponding westbound bus stop on Jeronimo Road is located 250 feet west of Bake Parkway.

Figure 2-1: Bus Transit Routes in the vicinity of the Study Intersection



3 DEVELOPMENT OF TRAFFIC VOLUMES AND OPERATIONAL ANALYSIS

Traffic volumes were extracted from the City's traffic model ITAM. Prior to running ITAM, the highway networks were reviewed to ensure that they adequately represented the roadway system in the study area.

ITAM uses existing traffic counts to generate post-processed forecast model volumes for three (3) future time scales: Short-Term, Long-Range and Buildout. Using different traffic counts to represent existing conditions changes the post-processed volumes and turning movements and leads to different calculations of level-of-service (LOS). **Figure 3-1** shows the turning movement volumes from ITAM using the existing traffic volumes in the post-processor while **Table 3-1** summarizes the daily volumes on the arterial segments.

Figure 3-1: Forecast Intersections Turning Movement Volumes



Existing With and Without Project		Short Term With and Without Project		Long Range With and Without Project		Buildout With and Without Project	
75/24 ↓ 173/419/14 ↑ 81/111 ↓	86/60 ↑ 558/95 ↓ 404/171 ↓	92/26 ↓ 203/1/197/3 ↑ 94/119 ↓	89/74 ↑ 567/98 ↓ 392/165 ↓	90/26 ↓ 205/6/200/1 ↑ 106/123 ↓	94/91 ↑ 591/121 ↓ 421/211 ↓	88/27 ↓ 2015/1997 ↑ 101/123 ↓	89/93 ↑ 578/130 ↓ 416/218 ↓
15/69 ↑ 59/469 → 104/442 → ↓	15/69 ↑ 49/571 → 104/442 → ↓	16/88 ↑ 60/486 → 107/441 → ↓	16/88 ↑ 51/169 → 215/5/2473 → ↓	17/85 ↑ 72/500 → 115/444 → ↓	17/85 ↑ 50/577 → 136/531 → ↓	16/85 ↑ 69/498 → 113/444 → ↓	16/85 ↑ 51/172 → 214/4246 → ↓

Legend
XX/XX AM/PM Peak Hour Volume

Table 3-1: Forecast Arterial Segment Volumes

Intersection Leg	Post-Processed ADT			
	Existing	Short Term	Long Range	Buildout
Bake Parkway north of Jeronimo Road	48,500	53,800	53,700	52,100
Bake Parkway south of Jeronimo Road	58,900	63,600	63,100	63,000
Jeronimo Road west of Bake Parkway	12,700	13,100	13,300	13,700
Jeronimo Road east of Bake Parkway	13,800	13,800	15,300	15,600

Bake Parkway volumes in Long Range and Buildout are lower than the Short Term scenario, likely due to differences in the highway networks which changes traffic patterns over the years. The Long Range and Buildout networks include the future extension of Marine Way from the Great Park to Barranca Parkway and then onward to Alton Parkway and Rockfield Boulevard. The Buildout network also assumes Portola Parkway extensions which connects the Cities of Irvine and Lake Forest. Both of these network additions provide alternative to Bake Parkway for some origin-destination pairs which could potentially reduce traffic on Bake Parkway.

3.1 Traffic Operations Analysis

The Cities of Irvine and Lake Forest both use the Intersection Capacity Utilization (ICU) methodology for the calculation of Level of Service (LOS). The ICU methodology compares the volume-to-capacity (v/c) ratios of conflicting turn movements at an intersection, sums these critical conflicting v/c ratios for each intersection approach, and determines the overall ICU. The resulting ICU is expressed in terms of level of service (LOS), where LOS A represents free-flow activity and LOS F represents overcapacity operation. Parameters set by the City for ICU calculations, including lane capacity, right-turn treatment, and clearance interval are included in the analysis.

LOS definitions are provided in **Table 3-2**. LOS E or worse is considered deficient at this location by both the City of Irvine and the City of Lake Forest.

Table 3-2: Level of Service Definitions

LOS	Description	ICU
A	At this LOS, traffic volumes are low and speed is not restricted by other vehicles. All signal cycles clear with no vehicles waiting through more than one original cycle.	≤ 0.60
B	At this LOS, traffic volumes begin to be affected by other traffic. Between one and ten percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.61 – 0.70
C	At this LOS, operating speeds and maneuverability are closely controlled by other traffic. Between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one signal cycle during peak traffic periods.	0.71 – 0.80
D	At this LOS, traffic will operate at tolerable operating speeds, although with restricted maneuverability.	0.81 – 0.90
E	Traffic will experience restricted speeds, vehicles will frequently have to wait through two or more cycles at signalized intersections, and any additional traffic will result in breakdown of the traffic carrying ability of the system.	0.91 – 1.00
F	Long queues of traffic, unstable flow, stoppages of long duration with traffic volumes and traffic, speed can drop to zero. Traffic volumes will be less than the volume which occurs at LOS E.	>1.00

The LOS results were calculated during AM PM peak hours and the results are shown in **Table 3-3**. The ICU worksheets are provided in **Appendix B**. The results indicate that the proposed improvements result in a satisfactory level of service and remove the deficiency that occurs in the No Project condition.

Table 3-3: ICUs and Level of Service using Existing traffic counts in the ITAM Postprocessor

Year	Scenario	Existing				Short Term				Long Range				Build Out			
		AM		PM		AM		PM		AM		PM		AM		PM	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
Existing	No Project	0.94	E	0.82	D	1.00	E	0.85	D	1.02	F	0.88	D	1.01	F	0.88	D
	With Project	0.70	B	0.77	C	0.77	C	0.80	C	0.78	C	0.82	D	0.77	C	0.81	D

Note: Shaded cell denotes deficient LOS ($v/c \geq 0.91$)

ITAM uses Orange County Projections (OPC) for socioeconomic data for the majority of traffic analysis zones (TAZs) that are outside the City of Irvine, including for the City of Lake Forest. OCP projections are based on input provided by local jurisdictions, and these take into account future planned development. As an additional check that the OCP data incorporates the latest City of Lake Forest General Plan, ICUs were also run using the Lake Forest Traffic Analysis Model (LFTAM) for the Buildout Scenario as shown in **Table 3.4**. The ICU calculations are shown in **Appendix C**. These results also indicate that the proposed improvements result in a satisfactory level of service and remove the deficiency that occurs in the No Project condition.

Table 3-4: ICUs and Level of Service using Existing traffic counts in the LFTAM Postprocessor

Year	Scenario	Build Out			
		AM		PM	
		V/C	LOS	V/C	LOS
Existing	No Project	1.03	F	0.93	E
	With Project	0.83	D	0.89	D

4 QUEUEING ANALYSIS/TURN POCKET LENGTHS

The post-processed volumes from ITAM along with the existing signal timing parameters provided by the City of Irvine, were input into Synchro to complete queueing analysis for No Project and With Project scenarios using the Highway Capacity Manual (HCM) methodology. **Table 4-1** summarizes the queueing analysis results. Both the 50th and 95th percentile queue lengths for With Project scenario are included. The HCM worksheets are shown in Appendix D.

Table 4-1: Turn Lane Queueing Analysis

Intersection Movement	Available Storage Length (ft)	No Project			With Project				
		Number of Lanes	95th Percentile Queue Length (ft)		Number of Lanes	95th Percentile Queue Length (ft)		50th Percentile Queue Length (ft)	
			AM Peak Hour	PM Peak Hour		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Existing									
Northbound Left-turn	350	1	870*	134	2	311	69	224	35
Southbound Left-turn	285	1	156	194	1	144	191	72	103
Eastbound Left-turn	150	2	21	67	2	21	67	6	34
Westbound Left-turn	250	1	782*	357*	2	260*	137	184	84
Short Term									
Northbound Left-turn	350	1	906*	132	2	320	67	231	34
Southbound Left-turn	285	1	192	217	1	175	204	84	111
Eastbound Left-turn	150	2	22	81	2	22	81	7	43
Westbound Left-turn	250	1	753*	342*	2	252*	133	178	81
Long Range									
Northbound Left-turn	350	1	891*	132	2	317	68	228	34
Southbound Left-turn	285	1	224	227	1	208	209	94	115
Eastbound Left-turn	150	2	23	78	2	23	78	7	41
Westbound Left-turn	250	1	820*	462*	2	271*	163	191	104
Buildout									
Northbound Left-turn	350	1	919*	136	2	324	69	234	35
Southbound Left-turn	285	1	211	227	1	194	209	90	115
Eastbound Left-turn	150	2	22	78	2	22	78	7	41
Westbound Left-turn	250	1	808*	480*	2	268*	167	189	107

* Projected queue length exceeds storage capacity

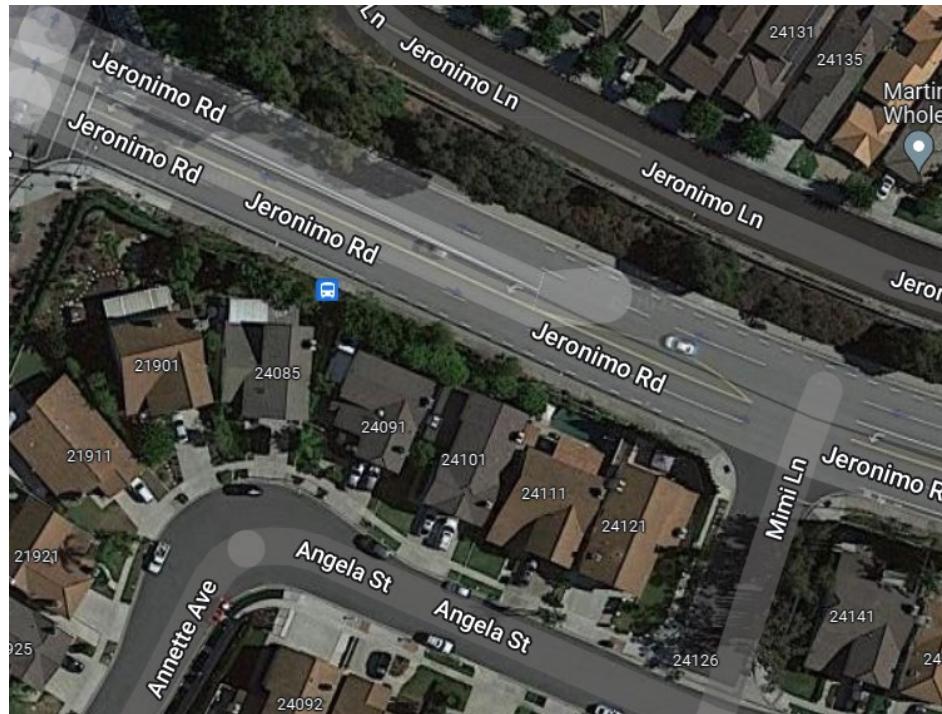
Under the No Project condition, queueing analysis results indicate the projected 95th percentile queue will significantly exceed the available left-turn lane storage lengths for both the northbound left-turn and westbound left-turn lanes. In the With Project condition, the projected 95th percentile queue length for the northbound left-turn lane is approximately 325 feet in the AM peak hour (AM being the most restrictive peak) and the proposed storage of 350 feet is adequate.

For the westbound left-turn movement, a turn pocket length of approximately 270 feet is required to service demand in the AM peak hour, which is 20 feet longer than the existing 250-foot turn pocket. As shown in **Figure 4-1**, there is a physical constraint east of Bake Parkway where an access exists via Mimi Lane to the residential neighborhood on the south side of Jeronimo Road. City of Irvine staff indicated that traffic exiting from Mimi Lane intending to travel west on Jeronimo Road and make a left turn onto Bake Parkway in the AM peak hour has been observed to be regularly blocked by traffic queues extending to the east of Mimi Lane making this movement

difficult. The projected 50th percentile queue length shows that a turn pocket of 190 feet would be sufficient to accommodate the westbound left-turn pocket 50% of the AM peak hour, which would represent a significant improvement over the queuing conditions under the current lane configuration.

The intersection is currently operating with a coordination timing plan along Bake Parkway with a cycle length of 140 seconds during AM peak period, and there are limitations to changing the signal timing to reduce the westbound left-turn queueing. There may be some opportunities to improve westbound queuing during the upcoming Bake Parkway Regional Traffic Signal Synchronization Program (RTSSP) in 2023.

Figure 4-1: Turn pocket length constraint at Mimi Lane



5 VEHICLE MILES TRAVELED (VMT) – CEQA ANALYSIS

The California Environmental Quality Act (CEQA) stipulates that beginning in July 2020, lead agencies, such as the City of Irvine and City of Lake Forest, must conduct CEQA transportation analysis in conformance with Senate Bill 743 (SB 743). It directs that measures of vehicle congestion and delay are no longer be accepted as an environmental impact.

In June 2020 the City of Irvine updated its *Traffic Impact Analysis (TIA) Guidelines* and adopted Vehicle Miles Travelled (VMT) as the required metric for analyzing impact under CEQA, in accordance with the SB 743 legislation. Level of Service (LOS) analysis was, however, retained in the guidelines to assist with operational purposes and is still required as part of this study. The City of Lake Forest similarly updated their *CEQA Significance Threshold Guide* in July 2020.

VMT represents the total travel on the roadway system and is typically calculated using a traffic model. The City of Irvine's traffic study guidelines indicate that ITAM is the preferred methodology to calculate VMT.

The methodology for testing transportation projects, such as an intersection improvement, looks at the total VMT in the build-out No Project and With Project scenarios based on the City's current version of the traffic model at the time of analysis of the proposed transportation project. The difference between with and without project VMT is the VMT attributable to the project. A project that results in no net percentage increase in the total regional VMT results in no significant impact, and therefore does not require mitigation.

For transportation projects that significantly increase roadway capacity, induced travel also needs to be assessed. However, the analysis would only be performed for a subset of capacity increasing projects. According to the SB 734 Technical Advisory published by the Governor's Office of Planning and Research (OPR) and subsequently incorporated in the City of Irvine Guidelines (page 99):

"projects that would not likely lead to a substantial or measurable increase in vehicle travel, that generally should not require an induced travel analysis, include:

- **Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes"**

Since the Bake Parkway/Jeronimo Road improvements consist only of turn lane improvements, it can be considered that there is no change in traffic volumes or VMT between the No Project and With project conditions.

5.1.1 Determination of Significant Impact

Since the project would not lead to a net increase VMT the project can be considered to have a less than significant impact under CEQA.

6 COLLISION DATA SUMMARY

The City of Lake Forest performed a comparison of Year 2020 collisions at 11 major intersections within the City of Lake Forest on Bake Parkway, El Toro Road, Lake Forest Drive and Los Aliso Boulevard. The intersection of Bake Parkway and Jeronimo Road ranked second lowest of the 11 intersections in terms of collision rates. The collision rate of 0.21 per million miles entering the intersection (MEV) is half of the Caltrans 2018 based expected rate of 0.42 for signalized intersections.

There were five (5) collisions at the intersection of Bake Parkway and Jeronimo Road in 2020 compared to highest ranking intersection at El Toro Road and Jeronimo Road which had 16 collisions. Two (2) of these five (5) collisions were DUIs and another two (2) were unlicensed drivers (including one red right running).

Table 6-1: City of Lake Forest Collision Comparison Year 2020

Ranking	Street A	Street B	TCs in 12 months (raw Data - SWITRS)	Intersection Collision Rate = # of Collisions/MEV
1	El Toro Road	Jeronimo Road	16	0.74
2	Lake Forest Drive	Trabuco Road	8	0.41
3	El Toro Road	Muirlands Blvd	8	0.35
4	El Toro Road	Bridger Road	7	0.28
5	El Toro Road	Trabuco Road	7	0.33
6	El Toro Road	Rockfield Blvd	7	0.23
7	Lake Forest Drive	Muirlands Blvd	5	0.27
8	Lake Forest Drive	Rockfield Blvd	5	0.20
9	El Toro Road	Raymond Way	5	0.27
10	Los Alisos Boulevard	Rockfield Blvd	5	0.40
11	Bake Parkway	Jeronimo Road	5	0.21

Source: City of Lake Forest

On the roadway segment of Jeronimo Road between Bake Parkway and Goodyear Drive, there were four (4) reported collisions in the 10 years since January 1, 2012 up to March 29, 2022. The latest collision was reported in January 2018.

The intersection at Bake Parkway and Jeronimo Road therefore does not appear to have any obvious safety concerns based on the number of collisions and collision rates. The raw collision data is provided in [Appendix E](#).

7 FINDINGS AND RECOMMENDATIONS

- Using traffic forecasts based on the City of Irvine's traffic model ITAM, the intersection is projected to operate at deficient LOS under Existing, Short Term, Long Range and Buildout No Project conditions. These deficiencies are eliminated by the proposed improvements in all forecast year scenarios.
- Using traffic forecasts based on the City's of Lake Forest's traffic model LFTAM, the intersection is projected to operate at deficient LOS under Buildout No Project conditions. The deficiency is eliminated by the proposed improvements in the Buildout year.
- The Project improvements should include a minimum left-turn storage lengths of 325 feet for the northbound left-turn movement and 250 feet for the westbound left-turn movement to accommodate the anticipated demand.
- There are no VMT impacts of the proposed improvements under CEQA.
- Collision data does not indicate any significant safety concerns at this intersection



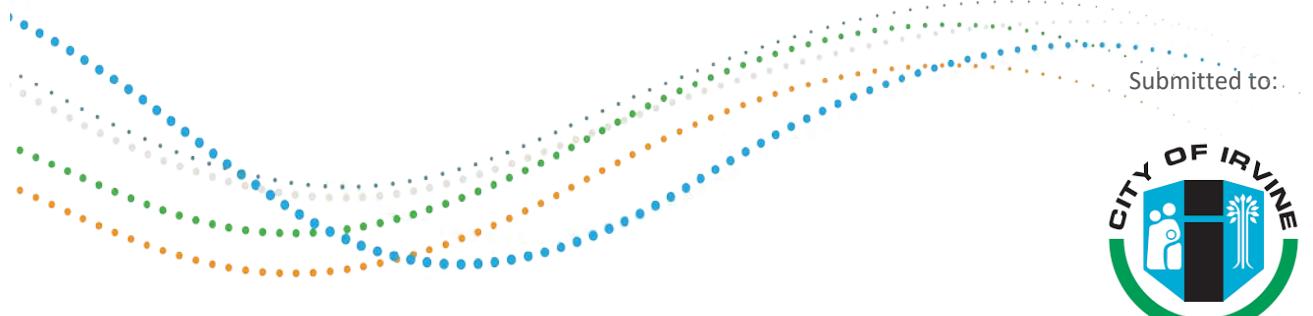
1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705

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City of Irvine
Bake/Jeronimo PA/ED Traffic Analysis
Technical Appendix



11593 | Prepared by Iteris, Inc.

APPENDIX A—TRAFFIC COUNTS

INTERSECTION TURNING MOVEMENT COUNTS

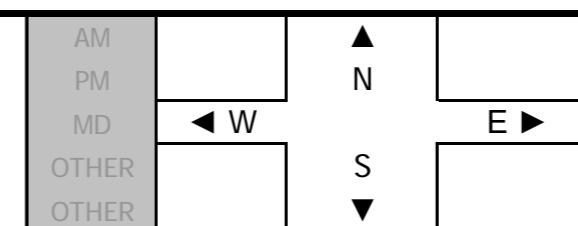
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:
Tue, Jan 25, 22

LOCATION: Irvine
NORTH & SOUTH: Bake
EAST & WEST: Jeronimo

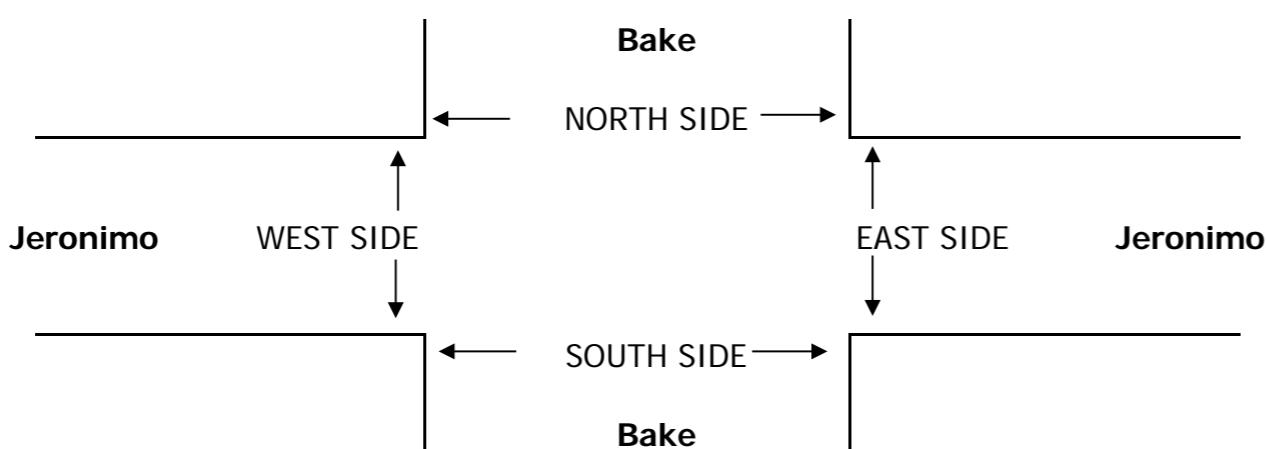
PROJECT #: SC3249
LOCATION #: 1
CONTROL: SIGNAL

NOTES:



Add U-Turns to Left Turns

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
	Bake			Bake			Jeronimo			Jeronimo				
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
AM	7:00 AM	67	384	10	4	306	1	0	6	12	58	31	13	892
	7:15 AM	39	443	17	9	394	4	2	5	8	85	47	13	1,066
	7:30 AM	76	393	25	11	416	10	1	5	20	107	61	16	1,141
	7:45 AM	96	546	36	36	390	9	2	14	17	91	58	10	1,305
	8:00 AM	85	445	21	26	375	6	5	16	26	94	54	27	1,180
	8:15 AM	74	449	23	9	424	7	2	10	24	97	67	23	1,209
	8:30 AM	74	412	33	8	398	9	4	12	19	97	62	15	1,143
	8:45 AM	83	414	19	7	341	19	5	12	18	74	64	8	1,064
	VOLUMES	594	3,486	184	110	3,044	65	21	80	144	703	444	125	9,000
	APPROACH %	14%	82%	4%	3%	95%	2%	9%	33%	59%	55%	35%	10%	
PM	APP/DEPART	4,264	/	3,634	3,219	/	3,893	245	/	372	1,272	/	1,101	0
	BEGIN PEAK HR	7:45 AM												
	VOLUMES	329	1,852	113	79	1,587	31	13	52	86	379	241	75	4,837
	APPROACH %	14%	81%	5%	5%	94%	2%	9%	34%	57%	55%	35%	11%	
	PEAK HR FACTOR	0.846			0.964			0.803			0.929			0.927
	APP/DEPART	2,294	/	1,940	1,697	/	2,054	151	/	244	695	/	599	0
	4:00 PM	9	384	55	21	431	5	6	38	71	37	22	16	1,095
	4:15 PM	11	421	81	13	448	8	9	47	59	36	23	24	1,180
	4:30 PM	12	429	70	16	471	5	8	56	84	44	23	14	1,232
	4:45 PM	16	415	96	18	487	9	7	41	66	30	25	12	1,222
PM	5:00 PM	13	461	99	21	502	4	8	68	86	41	29	17	1,349
	5:15 PM	9	492	93	22	558	7	8	51	64	49	23	15	1,391
	5:30 PM	12	439	91	17	436	5	11	45	48	42	17	21	1,184
	5:45 PM	8	453	72	15	395	7	3	49	54	31	22	12	1,121
	VOLUMES	90	3,494	657	143	3,728	50	60	395	532	310	184	131	9,774
	APPROACH %	2%	82%	15%	4%	95%	1%	6%	40%	54%	50%	29%	21%	
	APP/DEPART	4,241	/	3,686	3,921	/	4,572	987	/	1,194	625	/	322	0
	BEGIN PEAK HR	4:30 PM												
	VOLUMES	50	1,797	358	77	2,018	25	31	216	300	164	100	58	5,194
	APPROACH %	2%	81%	16%	4%	95%	1%	6%	39%	55%	51%	31%	18%	
	PEAK HR FACTOR	0.928			0.903			0.844			0.925			0.934
	APP/DEPART	2,205	/	1,887	2,120	/	2,484	547	/	650	322	/	173	0



	PEDESTRIAN + BIKE CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
AM	7:00 AM	0	1	0	0	1
	7:15 AM	0	1	0	0	1
	7:30 AM	0	0	1	0	1
	7:45 AM	0	0	0	0	0
	8:00 AM	0	0	1	0	1
	8:15 AM	1	1	0	0	2
	8:30 AM	0	0	0	0	0
	8:45 AM	2	0	1	0	3
	TOTAL	3	3	3	0	9
	AM BEGIN PEAK HR	7:45 AM				
PM	4:00 PM	0	1	0	1	2
	4:15 PM	0	0	0	1	1
	4:30 PM	2	1	0	2	5
	4:45 PM	0	0	3	0	3
	5:00 PM	0	0	1	0	1
	5:15 PM	0	0	1	1	2
	5:30 PM	0	2	1	0	3
	5:45 PM	5	0	1	1	7
	TOTAL	7	4	7	6	24
	PM BEGIN PEAK HR	4:30 PM				

	PEDESTRIAN CROSSINGS					
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
AM	0	1	0	0	1	
	0	1	0	0	1	
	0	0	1	0	1	
	0	0	0	0	0	
	1	1	0	0	2	
	0	0	0	0	0	
	0	0	0	0	0	
	1	1	0	0	2	
	1</					

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

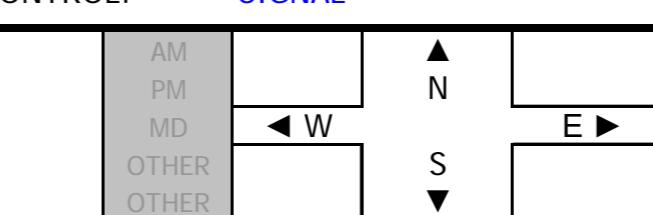
T218

DATE:
Wed, Jan 26, 22

LOCATION: Irvine
NORTH & SOUTH: Bake
EAST & WEST: Jeronimo

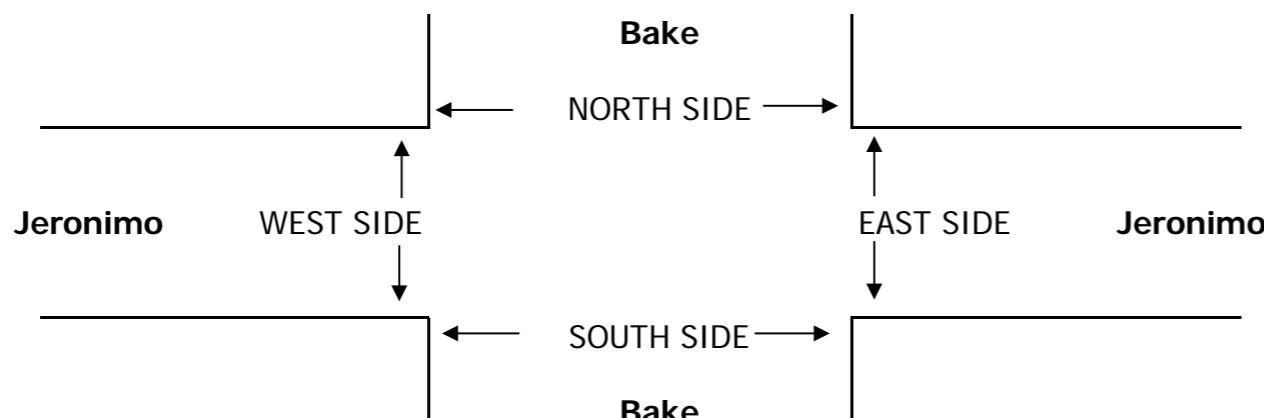
PROJECT #: SC3249
LOCATION #: 1
CONTROL: SIGNAL

NOTES:



Add U-Turns to Left Turns

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL	
	Bake			Bake			Jeronimo			Jeronimo				
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR		
7:00 AM	49	383	16	4	316	3	2	6	10	77	38	11	915	
7:15 AM	48	387	21	9	377	5	0	3	10	79	30	15	984	
7:30 AM	52	422	25	12	399	7	3	13	10	96	74	15	1,128	
7:45 AM	105	585	43	34	421	5	3	11	23	97	67	20	1,414	
8:00 AM	66	381	23	30	413	8	3	22	22	103	62	20	1,153	
8:15 AM	77	455	38	8	405	5	6	11	12	78	41	16	1,152	
8:30 AM	60	439	27	11	384	10	4	14	25	100	72	14	1,160	
8:45 AM	70	409	21	12	334	12	1	11	15	73	66	9	1,033	
VOLUMES	527	3,461	214	120	3,049	55	22	91	127	703	450	120	8,939	
APPROACH %	13%	82%	5%	4%	95%	2%	9%	38%	53%	55%	35%	9%		
APP/DEPART	4,202	/	3,605	3,224	/	3,881	240	/	422	1,273	/	1,031	0	
BEGIN PEAK HR	7:45 AM													
VOLUMES	308	1,860	131	83	1,623	28	16	58	82	378	242	70	4,879	
APPROACH %	13%	81%	6%	5%	94%	2%	10%	37%	53%	55%	35%	10%		
PEAK HR FACTOR	0.784			0.942			0.830			0.927			0.863	
APP/DEPART	2,299	/	1,948	1,734	/	2,085	156	/	269	690	/	577	0	
4:00 PM	6	371	52	26	422	6	7	45	78	32	21	19	1,085	
4:15 PM	13	436	73	14	456	6	8	41	44	38	24	22	1,175	
4:30 PM	6	434	68	13	481	4	9	62	92	40	22	10	1,241	
4:45 PM	13	456	97	21	477	10	6	45	58	29	26	10	1,248	
5:00 PM	8	425	97	16	517	3	10	65	78	45	28	19	1,311	
5:15 PM	13	504	85	23	589	5	10	46	69	51	31	14	1,440	
5:30 PM	13	428	96	26	414	3	8	41	51	40	21	17	1,158	
5:45 PM	10	466	76	12	403	8	5	56	53	27	18	13	1,147	
VOLUMES	82	3,520	644	151	3,759	45	63	401	523	302	191	124	9,805	
APPROACH %	2%	83%	15%	4%	95%	1%	6%	41%	53%	49%	31%	20%		
APP/DEPART	4,246	/	3,708	3,955	/	4,585	987	/	1,195	617	/	317	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	40	1,819	347	73	2,064	22	35	218	297	165	107	53	5,240	
APPROACH %	2%	82%	16%	3%	96%	1%	6%	40%	54%	51%	33%	16%		
PEAK HR FACTOR	0.916			0.875			0.844			0.846			0.910	
APP/DEPART	2,206	/	1,908	2,159	/	2,527	550	/	637	325	/	168	0	



AM	PEDESTRIAN + BIKE CROSSINGS				
	N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
7:00 AM	0	1	0	0	1
7:15 AM	0	0	0	0	0
7:30 AM	1	1	0	0	2
7:45 AM	0	0	0	0	0
8:00 AM	0	0	1	0	1
8:15 AM	1	0	0	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL	2	2	1	0	5
AM BEGIN PEAK HR	7:45 AM				
4:00 PM	0	0	0	0	0
4:15 PM	1	0	1	1	3
4:30 PM	0	1	1	1	3
4:45 PM	1	0	1	1	3
5:00 PM	0	1	0	1	2
5:15 PM	2	1	2	0	5
5:30 PM	2	0	0	1	3
5:45 PM	0	0	0	1	1
TOTAL	6	3	5	6	20
PM BEGIN PEAK HR	4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	1	0	0	1
0	0	0	0	0
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
1	2	0	0	3
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	1	0	2
0	0	0	0	0
1	0	0	1	2
0	1	1	0	2
1	0	1	0	2
0	0	0	1	1
2	1	2	0	5
2	0	0	1	3
0	0	0	1	1
6	2	4	4	16
3	2	4	1	10

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL

<tbl_r cells="5" ix="4" max

Tuesday, January 25, 2022

CITY: Irvine

PROJECT: SC3249

ADT1 Jeronimo west of Bake_TU.**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	EB	WB	PM Period			EB	WB	
0:00	2	2		12:00		104	68	
0:15	7	2		12:15		95	76	
0:30	3	1		12:30		68	69	
0:45	2	14	2	7	21	12:45	61 328 102 315 643	
1:00	1	2		13:00		60	67	
1:15	0	2		13:15		62	77	
1:30	2	1		13:30		51	50	
1:45	1	4	3	8	12	13:45	63 236 65 259 495	
2:00	1	3		14:00		90	46	
2:15	2	2		14:15		83	51	
2:30	1	3		14:30		165	44	
2:45	1	5	3	11	16	14:45	102 440 45 186 626	
3:00	1	3		15:00		139	47	
3:15	1	2		15:15		78	37	
3:30	3	6		15:30		108	34	
3:45	0	5	12	23	28	15:45	102 427 28 146 573	
4:00	0	9		16:00		115	36	
4:15	1	8		16:15		115	42	
4:30	0	13		16:30		148	40	
4:45	4	5	25	55	60	16:45	114 492 49 167 659	
5:00	7	21		17:00		162	45	
5:15	4	36		17:15		123	39	
5:30	10	58		17:30		104	34	
5:45	9	30	95	210	240	17:45	106 495 37 155 650	
6:00	12	49		18:00		123	45	
6:15	17	54		18:15		74	27	
6:30	12	67		18:30		91	19	
6:45	18	59	84	254	313	18:45	55 343 26 117 460	
7:00	18	99		19:00		40	15	
7:15	15	90		19:15		45	21	
7:30	26	147		19:30		38	27	
7:45	33	92	163	499	591	19:45	26 149 19 82 231	
8:00	47	144		20:00		36	14	
8:15	36	148		20:15		20	7	
8:30	35	144		20:30		20	11	
8:45	35	153	166	602	755	20:45	24 100 9 41 141	
9:00	33	105		21:00		27	4	
9:15	44	81		21:15		28	17	
9:30	30	75		21:30		15	2	
9:45	37	144	63	324	468	21:45	4 74 9 32 106	
10:00	45	66		22:00		9	9	
10:15	48	56		22:15		11	2	
10:30	43	46		22:30		14	3	
10:45	36	172	59	227	399	22:45	8 42 3 17 59	
11:00	50	44		23:00		11	2	
11:15	60	48		23:15		11	4	
11:30	65	38		23:30		20	4	
11:45	68	243	62	192	435	23:45	5 47 5 15 62	
Total Vol.	926	2412	3338			3173	1532	4705

Daily Totals		
EB	WB	Combined
4099	3944	8043

Split %	AM			PM		
	27.7%	72.3%	41.5%	67.4%	32.6%	58.5%
Peak Hour	11:45	7:30	8:00	16:30	12:00	16:30
Volume	335	602	755	547	315	720
P.H.F.	0.81	0.92	0.94	0.84	0.77	0.87

Wednesday, January 26, 2022

CITY: Irvine

PROJECT: SC3249

ADT1 Jeronimo west of Bake _WE.**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	EB	WB	PM Period			EB	WB	
0:00	4	1		12:00		106	64	
0:15	3	1		12:15		81	87	
0:30	1	2		12:30		72	67	
0:45	3	11	2	6	17	12:45	61 320 97 315 635	
1:00	2	1		13:00		66	70	
1:15	4	0		13:15		66	75	
1:30	1	3		13:30		45	57	
1:45	2	9	2	6	15	13:45	65 242 73 275 517	
2:00	2	5		14:00		89	45	
2:15	6	1		14:15		97	54	
2:30	2	2		14:30		152	40	
2:45	1	11	1	9	20	14:45	108 446 48 187 633	
3:00	2	3		15:00		126	46	
3:15	0	3		15:15		87	35	
3:30	2	7		15:30		105	35	
3:45	0	4	11	24	28	15:45	108 426 29 145 571	
4:00	0	6		16:00		130	33	
4:15	2	8		16:15		93	43	
4:30	2	17		16:30		163	32	
4:45	3	7	19	50	57	16:45	109 495 49 157 652	
5:00	1	16		17:00		153	39	
5:15	4	35		17:15		125	48	
5:30	6	59		17:30		100	37	
5:45	10	21	96	206	227	17:45	114 492 36 160 652	
6:00	10	47		18:00		119	43	
6:15	14	63		18:15		83	26	
6:30	11	51		18:30		92	26	
6:45	12	47	66	227	274	18:45	56 350 17 112 462	
7:00	18	90		19:00		44	17	
7:15	13	83		19:15		43	24	
7:30	26	133		19:30		42	23	
7:45	37	94	176	482	576	19:45	26 155 21 85 240	
8:00	47	137		20:00		30	17	
8:15	29	122		20:15		17	9	
8:30	43	142		20:30		23	9	
8:45	27	146	148	549	695	20:45	19 89 6 41 130	
9:00	42	104		21:00		29	6	
9:15	36	108		21:15		30	13	
9:30	33	46		21:30		16	7	
9:45	36	147	84	342	489	21:45	5 80 7 33 113	
10:00	30	51		22:00		7	11	
10:15	39	61		22:15		14	3	
10:30	37	47		22:30		9	4	
10:45	68	174	72	231	405	22:45	14 44 5 23 67	
11:00	45	41		23:00		10	5	
11:15	70	50		23:15		13	5	
11:30	61	60		23:30		16	1	
11:45	84	260	63	214	474	23:45	8 47 7 18 65	
Total Vol.	931	2346	3277			3186	1551	4737

Daily Totals		
EB	WB	Combined
4117	3897	8014

Split %	AM			PM		
	28.4%	71.6%	40.9%	67.3%	32.7%	59.1%
Peak Hour	11:45	7:45	7:45	16:30	12:15	16:30
Volume P.H.F.	343	577	733	550	321	718
	0.81	0.82	0.86	0.84	0.83	0.92

Tuesday, January 25, 2022

CITY: Irvine

PROJECT: SC3249

ADT2 Bake north of Jeronimo_TU.**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB	SB	PM Period	NB	SB	
0:00	19	61	12:00	295	358	
0:15	28	42	12:15	330	310	
0:30	17	73	12:30	289	364	
0:45	20	84	301	12:45	276 1190	278 1310 2500
1:00	21	24	13:00	257	346	
1:15	17	27	13:15	342	361	
1:30	11	34	13:30	374	429	
1:45	11	60	155	13:45	355 1328	347 1483 2811
2:00	18	17	14:00	327	384	
2:15	32	13	14:15	311	379	
2:30	27	17	14:30	350	514	
2:45	29	106	167	14:45	328 1316	479 1756 3072
3:00	23	11	15:00	414	493	
3:15	46	8	15:15	413	456	
3:30	93	13	15:30	366	560	
3:45	77	239	290	15:45	454 1647	441 1950 3597
4:00	56	31	16:00	406	457	
4:15	75	25	16:15	454	469	
4:30	169	49	16:30	451	492	
4:45	246	546	713	16:45	434 1745	514 1932 3677
5:00	135	79	17:00	487	527	
5:15	168	115	17:15	515	587	
5:30	273	125	17:30	471	458	
5:45	383	959	1415	17:45	468 1941	417 1989 3930
6:00	259	146	18:00	436	435	
6:15	260	194	18:15	361	412	
6:30	338	228	18:30	357	339	
6:45	433	1290	2139	18:45	285 1439	270 1456 2895
7:00	397	311	19:00	247	219	
7:15	459	407	19:15	226	223	
7:30	411	437	19:30	248	213	
7:45	558	1825	3415	19:45	238 959	171 826 1785
8:00	477	407	20:00	191	162	
8:15	474	440	20:15	190	165	
8:30	431	415	20:30	153	163	
8:45	427	1809	3438	20:45	203 737	121 611 1348
9:00	347	318	21:00	143	117	
9:15	320	284	21:15	134	180	
9:30	302	297	21:30	125	113	
9:45	291	1260	2444	21:45	109 511	82 492 1003
10:00	280	270	22:00	90	71	
10:15	263	248	22:15	96	74	
10:30	235	344	22:30	91	78	
10:45	230	1008	2133	22:45	83 360	73 296 656
11:00	248	292	23:00	64	133	
11:15	286	255	23:15	59	53	
11:30	274	359	23:30	49	89	
11:45	317	1125	2282	23:45	39 211	70 345 556
Total Vol.	10311	8581	18892	13384	14446	27830

	Daily Totals		
	NB	SB	Combined
	23695	23027	46722

	AM			PM		
Split %	54.6%	45.4%	40.4%	48.1%	51.9%	59.6%
Peak Hour	7:45	7:30	7:30	17:00	16:30	16:30
Volume	1940	1719	3639	1941	2120	4007
P.H.F.	0.87	0.98	0.92	0.94	0.90	0.91

Wednesday, January 26, 2022

CITY: Irvine

PROJECT: SC3249

ADT2 Bake north of Jeronimo WE.**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB	SB	PM Period	NB	SB	
0:00	29	49	12:00	331	324	
0:15	19	54	12:15	318	326	
0:30	25	56	12:30	291	355	
0:45	22	95	288	12:45	284 1224	293 1298 2522
1:00	10	21	13:00	244	342	
1:15	8	28	13:15	350	347	
1:30	13	25	13:30	366	423	
1:45	24	55	154	13:45	349 1309	342 1454 2763
2:00	16	21	14:00	344	373	
2:15	31	15	14:15	327	369	
2:30	24	17	14:30	355	501	
2:45	35	106	178	14:45	323 1349	495 1738 3087
3:00	26	16	15:00	401	496	
3:15	53	11	15:15	429	471	
3:30	89	17	15:30	370	552	
3:45	97	265	334	15:45	438 1638	431 1950 3588
4:00	49	34	16:00	397	454	
4:15	79	36	16:15	466	476	
4:30	150	47	16:30	454	498	
4:45	260	538	709	16:45	472 1789	508 1936 3725
5:00	144	53	17:00	454	536	
5:15	171	129	17:15	528	617	
5:30	257	125	17:30	453	443	
5:45	375	947	1364	17:45	484 1919	423 2019 3938
6:00	256	129	18:00	447	422	
6:15	278	197	18:15	370	410	
6:30	359	230	18:30	351	336	
6:45	427	1320	2102	18:45	278 1446	265 1433 2879
7:00	396	323	19:00	257	218	
7:15	402	391	19:15	215	235	
7:30	440	418	19:30	228	205	
7:45	608	1846	3438	19:45	240 940	158 816 1756
8:00	404	451	20:00	186	156	
8:15	479	418	20:15	198	170	
8:30	457	405	20:30	150	173	
8:45	419	1759	3391	20:45	194 728	117 616 1344
9:00	366	369	21:00	136	111	
9:15	329	276	21:15	135	181	
9:30	299	340	21:30	132	102	
9:45	300	1294	2530	21:45	114 517	74 468 985
10:00	245	294	22:00	94	70	
10:15	248	296	22:15	93	76	
10:30	241	312	22:30	89	67	
10:45	257	991	2153	22:45	78 354	75 288 642
11:00	270	288	23:00	59	124	
11:15	224	236	23:15	46	65	
11:30	290	371	23:30	50	90	
11:45	238	1022	2215	23:45	35 190	71 350 540

Total Vol.	10238	8618	18856	13403	14366	27769
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Daily Totals

	NB	SB	Combined
	23641	22984	46625

AM

Split %	54.3%	45.7%	40.4%	48.3%	51.7%	59.6%
Peak Hour	7:45	7:30	7:45	17:00	16:30	16:30
Volume	1948	1747	3682	1919	2159	4067
P.H.F.	0.80	0.95	0.86	0.89	0.87	0.89

Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/22/2018
 Day: Tuesday

TOTAL VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	1	181	7	55	31	9	70	490	4	1	6	3	858
6:15 AM	2	204	6	42	22	7	65	363	6	1	6	10	734
6:30 AM	3	233	3	63	37	4	52	381	8	2	8	17	811
6:45 AM	1	303	4	111	50	13	57	372	13	3	6	11	944
7:00 AM	2	390	6	86	74	10	87	479	21	1	7	17	1180
7:15 AM	6	450	7	112	109	9	104	542	17	1	9	17	1383
7:30 AM	4	423	14	124	97	19	93	477	18	1	9	29	1308
7:45 AM	16	432	15	108	159	22	109	524	14	2	10	22	1433
8:00 AM	21	430	25	117	152	24	143	558	23	0	13	24	1530
8:15 AM	29	436	13	87	130	18	134	527	17	1	22	18	1432
8:30 AM	9	441	21	125	167	36	117	470	17	2	14	35	1454
8:45 AM	6	437	10	71	131	18	132	537	17	6	11	27	1403
TOTAL VOLUMES:	100	4360	131	1101	1159	189	1163	5720	175	21	121	230	14470

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	75	1739	74	437	608	100	503	2079	71	5	59	99	

PEAK HR FACTOR:	0.987	0.873	0.916	0.799	0.956
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TOTAL VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	19	461	6	54	19	21	27	428	75	4	32	60	1206
3:45 PM	21	381	7	35	25	17	20	396	74	14	62	94	1146
4:00 PM	19	534	6	40	25	12	19	445	77	6	40	70	1293
4:15 PM	19	404	5	46	27	10	20	464	77	18	80	114	1284
4:30 PM	18	490	3	46	17	13	19	461	90	5	83	84	1329
4:45 PM	24	490	3	24	24	7	10	482	99	14	85	129	1391
5:00 PM	34	513	5	33	29	15	15	475	116	7	93	112	1447
5:15 PM	22	501	4	46	15	12	12	519	113	17	98	132	1491
5:30 PM	28	528	4	41	26	25	16	543	127	20	154	131	1643
5:45 PM	32	481	6	38	19	11	15	512	139	17	103	114	1487
6:00 PM	20	487	3	43	25	18	16	606	153	22	110	95	1598
6:15 PM	19	411	2	49	25	11	13	478	106	18	86	82	1300
TOTAL VOLUMES:	275	5681	54	495	276	172	202	5809	1246	162	1026	1217	16615

PM Peak Hr Begins at: 515 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	102	1997	17	168	85	66	59	2180	532	76	465	472	

PEAK HR FACTOR:	0.945	0.867	0.894	0.830	0.946
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Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/22/2018
 Day: Tuesday

PASSENGER VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	1	177	7	55	31	9	70	487	4	1	6	3	851
6:15 AM	2	195	6	42	22	7	65	353	6	1	6	10	715
6:30 AM	3	230	2	63	37	2	51	373	8	2	7	16	794
6:45 AM	1	295	4	111	49	13	57	367	13	3	5	9	927
7:00 AM	2	379	5	86	73	9	85	471	19	0	7	17	1153
7:15 AM	6	433	7	112	109	9	104	530	16	1	9	15	1351
7:30 AM	3	414	13	124	96	19	92	466	15	1	9	28	1280
7:45 AM	14	416	15	106	158	22	108	516	12	1	10	20	1398
8:00 AM	20	417	24	117	151	23	142	550	23	0	11	24	1502
8:15 AM	29	423	12	87	130	18	133	519	16	1	21	17	1406
8:30 AM	9	433	20	125	167	36	113	461	16	2	14	35	1431
8:45 AM	6	423	10	71	131	18	131	524	17	6	11	26	1374
TOTAL VOLUMES:	96	4235	125	1099	1154	185	1151	5617	165	19	116	220	14182

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	72	1689	71	435	606	99	496	2046	67	4	56	96	5737

PEAK HR FACTOR:	0.987	0.869	0.912	0.765	0.955
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PASSENGER VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	18	453	6	53	17	20	26	410	75	4	32	57	1171
3:45 PM	18	371	7	35	25	16	18	388	74	14	62	94	1122
4:00 PM	19	521	5	40	23	11	15	435	76	6	40	65	1256
4:15 PM	19	397	5	45	27	10	20	459	77	18	78	114	1269
4:30 PM	18	479	2	42	16	13	19	453	90	5	83	82	1302
4:45 PM	23	484	3	24	24	7	10	478	99	14	85	128	1379
5:00 PM	34	511	5	33	28	15	12	472	116	7	93	110	1436
5:15 PM	22	498	4	45	15	12	12	515	113	17	96	130	1479
5:30 PM	28	521	4	41	25	25	15	540	127	20	154	129	1629
5:45 PM	32	475	5	36	19	10	14	508	137	17	103	114	1470
6:00 PM	20	476	3	43	23	18	15	603	153	22	110	94	1580
6:15 PM	18	408	2	49	24	11	13	473	106	18	86	82	1290
TOTAL VOLUMES:	269	5594	51	486	266	168	189	5734	1243	162	1022	1199	16383

PM Peak Hr Begins at: 515 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	102	1970	16	165	82	65	56	2166	530	76	463	467	6158

PEAK HR FACTOR:	0.944	0.857	0.892	0.830	0.945
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Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/22/2018
 Day: Tuesday

LARGE 2 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
6:15 AM	0	4	0	0	0	0	0	4	0	0	0	0	8
6:30 AM	0	3	1	0	0	2	0	4	0	0	1	1	12
6:45 AM	0	5	0	0	1	0	0	2	0	0	1	1	10
7:00 AM	0	8	1	0	1	1	2	5	2	1	0	0	21
7:15 AM	0	12	0	0	0	0	0	6	0	0	0	2	20
7:30 AM	1	5	1	0	1	0	1	9	1	0	0	0	19
7:45 AM	2	11	0	2	1	0	0	4	2	1	0	2	25
8:00 AM	1	9	1	0	1	1	0	6	0	0	2	0	21
8:15 AM	0	9	1	0	0	0	1	5	1	0	1	1	19
8:30 AM	0	4	1	0	0	0	3	7	1	0	0	0	16
8:45 AM	0	8	0	0	0	0	1	10	0	0	0	1	20
TOTAL VOLUMES:	4	80	6	2	5	4	8	63	7	2	5	8	194

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	4	37	2	2	3	1	1	25	3	1	2	4	85

PEAK HR FACTOR:	0.827	0.500	0.659	0.583	0.850
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LARGE 2 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	1	5	0	1	2	1	0	14	0	0	0	3	27
3:45 PM	3	7	0	0	0	1	0	5	0	0	0	0	16
4:00 PM	0	11	1	0	2	1	2	4	1	0	0	1	23
4:15 PM	0	1	0	0	0	0	0	4	0	0	2	0	7
4:30 PM	0	5	1	0	1	0	0	6	0	0	0	2	15
4:45 PM	1	5	0	0	0	0	0	3	0	0	0	0	9
5:00 PM	0	1	0	0	1	0	2	0	0	0	0	1	5
5:15 PM	0	1	0	0	0	0	0	2	0	0	2	1	6
5:30 PM	0	2	0	0	1	0	0	2	0	0	0	1	6
5:45 PM	0	4	0	2	0	1	1	2	2	0	0	0	12
6:00 PM	0	6	0	0	2	0	1	2	0	0	0	0	11
6:15 PM	1	2	0	0	1	0	0	3	0	0	0	0	7
TOTAL VOLUMES:	6	50	2	3	10	4	6	47	3	0	4	9	144

PM Peak Hr Begins at: 330 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	4	24	1	1	4	3	2	27	1	0	2	4	73

PEAK HR FACTOR:	0.604	0.500	0.536	0.500	0.676
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Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/22/2018
 Day: Tuesday

3 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
6:15 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
6:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
6:45 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	1	0	0	0	0	0	2	1	0	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:00 AM	0	2	0	0	0	0	1	1	0	0	0	0	4
8:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	2
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
TOTAL VOLUMES:	0	12	0	0	0	0	1	7	2	0	0	0	22

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	4	0	0	0	0	1	4	2	0	0	0	
PEAK HR FACTOR:	0.500			0.000			0.583			0.000			0.688

3 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
3:45 PM	0	1	0	0	0	0	1	1	0	0	0	0	3
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:15 PM	0	2	0	1	0	0	0	0	0	0	0	0	3
4:30 PM	0	2	0	4	0	0	0	1	0	0	0	0	7
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1
5:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	2
5:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
6:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	9	0	6	0	0	1	8	0	0	0	2	26

PM Peak Hr Begins at: 345 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	5	0	5	0	0	1	3	0	0	0	0	
PEAK HR FACTOR:	0.625			0.313			0.500			0.000			0.500

Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/22/2018
 Day: Tuesday

4+ AXLE TRUCKS

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
6:15 AM	0	3	0	0	0	0	0	5	0	0	0	0	8
6:30 AM	0	0	0	0	0	0	1	3	0	0	0	0	4
6:45 AM	0	2	0	0	0	0	0	3	0	0	0	0	6
7:00 AM	0	3	0	0	0	0	0	3	0	0	0	0	6
7:15 AM	0	4	0	0	0	0	0	4	0	0	0	0	8
7:30 AM	0	4	0	0	0	0	0	2	1	0	0	0	8
7:45 AM	0	4	0	0	0	0	1	3	0	0	0	0	8
8:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
8:15 AM	0	2	0	0	0	0	0	3	0	0	0	0	5
8:30 AM	0	3	0	0	0	0	1	2	0	0	0	0	6
8:45 AM	0	5	0	0	0	0	0	2	0	0	0	0	7
TOTAL VOLUMES:	0	33	0	0	0	0	3	33	1	0	0	2	72

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	15	0	0	0	0	1	12	1	0	0	1	30

PEAK HR FACTOR:	0.938	0.000	0.875	0.250	0.938
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4+ AXLE TRUCKS

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	0	2	0	0	0	0	1	2	0	0	0	0	5
3:45 PM	0	2	0	0	0	0	1	2	0	0	0	0	5
4:00 PM	0	2	0	0	0	0	2	5	0	0	0	0	13
4:15 PM	0	4	0	0	0	0	0	1	0	0	0	0	5
4:30 PM	0	4	0	0	0	0	0	1	0	0	0	0	5
4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	1	3	0	0	0	0	5
5:15 PM	0	1	0	0	0	0	0	2	0	0	0	0	4
5:30 PM	0	4	0	0	0	0	1	0	0	0	0	0	6
5:45 PM	0	2	1	0	0	0	0	0	0	0	0	0	3
6:00 PM	0	4	0	0	0	0	0	1	0	0	0	0	6
6:15 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
TOTAL VOLUMES:	0	28	1	0	0	0	6	20	0	0	0	0	62

PM Peak Hr Begins at: 345 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	12	0	0	0	0	3	9	0	0	0	4	28

PEAK HR FACTOR:	0.750	0.000	0.429	0.250	0.538
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Location: Irvine
N/S: Bake Parkway
E/W: Jeronimo Road



ITAM: 364
Date: 5/22/2018
Day: Tuesday

PEDESTRIANS

	North Leg Bake Parkway Pedestrians	East Leg Jeronimo Road Pedestrians	South Leg Bake Parkway Pedestrians	West Leg Jeronimo Road Pedestrians	
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	1	0	0	1
7:30 AM	0	1	1	0	2
7:45 AM	1	0	0	1	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	2	1	1	5

	North Leg Bake Parkway Pedestrians	East Leg Jeronimo Road Pedestrians	South Leg Bake Parkway Pedestrians	West Leg Jeronimo Road Pedestrians	
3:30 PM	0	1	0	1	2
3:45 PM	1	0	0	0	1
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	1	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	1	2	3
5:45 PM	1	0	1	1	3
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
TOTAL VOLUMES:	2	2	2	5	11

Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/22/2018
 Day: Tuesday

BICYCLES

	Southbound Bake Parkway			Westbound Jeronimo Road			Northbound Bake Parkway			Eastbound Jeronimo Road			
	Left	Thru	Right										
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:00 AM	0	0	1	0	2	0	1	0	0	0	0	0	4
8:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
8:30 AM	0	1	0	0	3	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	1	1	5	0	1	3	0	0	0	0	12

	Southbound Bake Parkway			Westbound Jeronimo Road			Northbound Bake Parkway			Eastbound Jeronimo Road			
	Left	Thru	Right										
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:00 PM	0	1	0	0	0	0	1	1	0	0	2	0	5
5:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	2
5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
TOTAL VOLUMES:	0	3	0	0	3	0	1	4	0	0	6	0	17

Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/24/2018
 Day: Thursday

TOTAL VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	2	189	5	63	27	6	64	422	3	2	4	7	794
6:15 AM	1	247	6	70	30	7	58	391	5	0	4	13	832
6:30 AM	8	362	8	92	54	10	65	404	15	3	4	15	1040
6:45 AM	5	412	7	105	74	10	109	538	11	2	4	12	1289
7:00 AM	2	385	9	107	94	7	94	470	16	3	6	23	1216
7:15 AM	4	456	11	123	110	12	92	512	19	1	5	33	1378
7:30 AM	11	406	18	109	116	13	114	460	18	4	16	14	1299
7:45 AM	15	473	25	99	134	23	142	578	20	2	14	25	1550
8:00 AM	19	392	18	82	103	20	116	448	23	8	17	20	1266
8:15 AM	6	430	10	90	149	15	128	536	25	1	11	35	1436
8:30 AM	9	433	22	99	122	13	101	447	21	4	17	29	1317
8:45 AM	17	327	14	112	110	12	123	455	29	3	13	30	1245
TOTAL VOLUMES:	99	4512	153	1151	1123	148	1206	5661	205	33	115	256	14662

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	49	1728	75	370	508	71	487	2009	89	15	59	109	

PEAK HR FACTOR:	0.903	0.927	0.873	0.915	0.898
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TOTAL VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	20	520	7	43	24	12	25	439	81	6	58	106	1341
3:45 PM	17	350	4	27	17	6	19	345	74	15	48	64	986
4:00 PM	15	481	7	52	27	16	22	394	90	10	55	130	1299
4:15 PM	20	405	5	20	13	10	11	353	87	8	60	65	1057
4:30 PM	14	457	2	29	30	15	27	484	123	10	99	129	1419
4:45 PM	26	430	5	26	19	14	19	452	124	17	89	97	1318
5:00 PM	30	507	3	52	16	10	18	509	123	18	113	138	1537
5:15 PM	38	499	7	32	23	19	31	492	123	21	122	102	1509
5:30 PM	30	425	4	46	35	14	16	542	139	14	120	103	1488
5:45 PM	22	400	5	43	30	11	17	532	126	8	117	69	1380
6:00 PM	20	444	10	45	17	15	15	444	100	16	109	88	1323
6:15 PM	17	396	2	35	16	10	8	436	90	24	75	60	1169
TOTAL VOLUMES:	269	5314	61	450	267	152	228	5422	1280	167	1065	1151	15826

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	120	1831	19	173	104	54	82	2075	511	61	472	412	

PEAK HR FACTOR:	0.905	0.871	0.957	0.878	0.962
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Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/24/2018
 Day: Thursday

PASSENGER VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	2	184	5	63	27	6	64	419	3	2	4	7	786
6:15 AM	1	239	4	70	30	5	58	381	5	0	4	13	810
6:30 AM	8	355	8	92	53	10	65	397	13	3	3	15	1022
6:45 AM	5	399	6	105	74	8	108	531	11	2	4	10	1263
7:00 AM	2	373	9	107	93	6	93	461	15	3	6	22	1190
7:15 AM	4	443	10	120	110	12	90	497	18	1	5	32	1342
7:30 AM	9	395	18	109	115	13	114	446	16	3	15	13	1266
7:45 AM	15	453	22	99	133	23	140	567	18	2	14	23	1509
8:00 AM	19	383	18	82	103	20	115	435	23	7	17	20	1242
8:15 AM	5	416	9	90	148	15	128	526	24	1	11	32	1405
8:30 AM	9	418	21	98	120	13	100	437	21	4	16	27	1284
8:45 AM	17	312	14	112	110	12	122	436	28	3	12	28	1206
TOTAL VOLUMES:	96	4370	144	1147	1116	143	1197	5533	195	31	111	242	14325

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	48	1670	70	369	504	71	483	1965	86	14	58	102	

PEAK HR FACTOR:	0.912	0.925	0.874	0.926	0.901
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PASSENGER VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	19	500	6	43	24	12	24	430	81	6	58	101	1304
3:45 PM	17	339	4	27	16	6	16	333	74	15	47	60	954
4:00 PM	15	473	7	52	26	16	20	384	90	10	55	128	1276
4:15 PM	19	395	4	19	12	10	11	347	87	8	60	64	1036
4:30 PM	14	449	2	29	30	15	26	478	122	10	98	129	1402
4:45 PM	26	426	4	26	17	14	19	441	124	16	89	96	1298
5:00 PM	30	506	3	52	16	10	18	503	121	18	111	138	1526
5:15 PM	37	494	7	32	23	19	29	490	122	21	122	102	1498
5:30 PM	30	422	4	46	35	14	15	539	139	14	120	100	1478
5:45 PM	22	392	5	42	30	11	16	526	124	7	117	67	1359
6:00 PM	20	439	10	44	16	15	14	438	100	16	108	87	1307
6:15 PM	16	392	1	35	16	10	7	431	90	24	75	59	1156
TOTAL VOLUMES:	265	5227	57	447	261	152	215	5340	1274	165	1060	1131	15594

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	119	1814	19	172	104	54	78	2058	506	60	470	407	

PEAK HR FACTOR:	0.905	0.868	0.953	0.877	0.960
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Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/24/2018
 Day: Thursday

LARGE 2 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	0	3	0	0	0	0	0	2	0	0	0	0	5
6:15 AM	0	5	1	0	0	2	0	6	0	0	0	0	14
6:30 AM	0	3	0	0	1	0	0	3	1	0	1	0	9
6:45 AM	0	7	1	0	0	2	1	5	0	0	0	1	17
7:00 AM	0	8	0	0	1	1	1	8	0	0	0	0	19
7:15 AM	0	9	1	2	0	0	1	10	1	0	0	1	25
7:30 AM	2	6	0	0	1	0	0	10	2	1	1	1	24
7:45 AM	0	15	3	0	1	0	2	9	2	0	0	2	34
8:00 AM	0	6	0	0	0	0	1	11	0	1	0	0	19
8:15 AM	1	11	1	0	1	0	0	8	0	0	0	3	25
8:30 AM	0	10	1	0	2	0	1	6	0	0	1	1	22
8:45 AM	0	12	0	0	0	0	1	12	1	0	1	2	29
TOTAL VOLUMES:	3	95	8	2	7	5	8	90	7	2	4	11	242

AM Peak Hr Begins at: 730 AM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	PEAK VOLUMES:	3	38	4	0	3	0	3	38	4	2	1	6
PEAK HR FACTOR:	0.625		0.750		0.865		0.750		0.750		0.750		0.750

LARGE 2 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	1	12	1	0	0	0	1	7	0	0	0	4	26
3:45 PM	0	6	0	0	1	0	1	9	0	0	1	2	20
4:00 PM	0	6	0	0	1	0	0	6	0	0	0	2	15
4:15 PM	1	6	1	1	1	0	0	4	0	0	0	1	15
4:30 PM	0	5	0	0	0	0	1	3	1	0	1	0	11
4:45 PM	0	2	1	0	2	0	0	5	0	0	0	0	10
5:00 PM	0	1	0	0	0	0	0	6	1	0	2	0	10
5:15 PM	1	1	0	0	0	0	2	2	1	0	0	0	7
5:30 PM	0	2	0	0	0	0	0	3	0	0	0	3	8
5:45 PM	0	3	0	1	0	0	0	5	2	1	0	1	13
6:00 PM	0	3	0	1	1	0	0	3	0	0	1	0	9
6:15 PM	1	4	0	0	0	0	1	2	0	0	0	0	8
TOTAL VOLUMES:	4	51	3	3	6	0	6	55	5	1	5	13	152

PM Peak Hr Begins at: 330 PM

	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	PEAK VOLUMES:	2	30	2	1	3	0	2	26	0	0	1	9
PEAK HR FACTOR:	0.607		0.500		0.700		0.625		0.731				

Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/24/2018
 Day: Thursday

3 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	1	0	0	0	0	0	2	0	0	0	0	3
6:30 AM	0	2	0	0	0	0	0	2	0	0	0	0	4
6:45 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:15 AM	0	1	0	1	0	0	0	2	0	0	0	0	4
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	1	1	0	0	0	3
8:30 AM	0	3	0	1	0	0	0	2	0	0	0	0	6
8:45 AM	0	1	0	0	0	0	0	1	0	0	0	0	2
TOTAL VOLUMES:	0	13	0	2	0	0	0	12	2	0	0	0	29

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	6	0	1	0	0	0	5	1	0	0	0	13

PEAK HR FACTOR:	0.500	0.250	0.750	0.000	0.542
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3 AXLE VEHICLES

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
3:45 PM	0	1	0	0	0	0	0	3	0	0	0	0	4
4:00 PM	0	1	0	0	0	0	1	1	0	0	0	0	3
4:15 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	0	4	0	1	0	0	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	1	0	0	0	0	0	2	0	0	0	0	3
6:15 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
TOTAL VOLUMES:	0	8	1	0	0	0	1	15	0	1	0	0	26

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	3	0	0	0	0	1	8	0	1	0	0	13

PEAK HR FACTOR:	0.750	0.000	0.563	0.250	0.542
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Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/24/2018
 Day: Thursday

4+ AXLE TRUCKS

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
6:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
6:15 AM	0	2	1	0	0	0	0	2	0	0	0	0	5
6:30 AM	0	2	0	0	0	0	0	2	1	0	0	0	5
6:45 AM	0	4	0	0	0	0	0	1	0	0	0	1	6
7:00 AM	0	4	0	0	0	0	0	1	0	0	0	1	6
7:15 AM	0	3	0	0	0	0	1	3	0	0	0	0	7
7:30 AM	0	4	0	0	0	0	0	4	0	0	0	0	8
7:45 AM	0	5	0	0	0	0	0	2	0	0	0	0	7
8:00 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
8:15 AM	0	2	0	0	0	0	0	1	0	0	0	0	3
8:30 AM	0	2	0	0	0	0	0	2	0	0	0	1	5
8:45 AM	0	2	0	0	0	0	0	6	0	0	0	0	8
TOTAL VOLUMES:	0	34	1	0	0	0	1	26	1	0	0	3	66

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	16	0	0	0	0	1	10	0	0	0	1	28

PEAK HR FACTOR:	0.800	0.000	0.688	0.250	0.875
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4+ AXLE TRUCKS

	Bake Parkway Southbound			Jeronimo Road Westbound			Bake Parkway Northbound			Jeronimo Road Eastbound			TOTAL
	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	
3:30 PM	0	7	0	0	0	0	0	1	0	0	0	1	9
3:45 PM	0	4	0	0	0	0	2	0	0	0	0	2	8
4:00 PM	0	1	0	0	0	0	1	3	0	0	0	0	5
4:15 PM	0	3	0	0	0	0	0	1	0	0	0	0	4
4:30 PM	0	3	0	0	0	0	0	1	0	0	0	0	4
4:45 PM	0	1	0	0	0	0	0	2	0	0	0	1	4
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1
5:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
5:45 PM	0	5	0	0	0	0	1	1	0	0	0	1	8
6:00 PM	0	1	0	0	0	0	1	1	0	0	0	1	4
6:15 PM	0	0	0	0	0	0	0	2	0	0	0	1	3
TOTAL VOLUMES:	0	28	0	0	0	0	6	12	1	0	0	7	54

PM Peak Hr Begins at: 330 PM

PEAK VOLUMES:	SL	ST	SR	WL	WT	WR	NL	NT	NR	EL	ET	ER	TOTAL
	0	15	0	0	0	0	3	5	0	0	0	3	26

PEAK HR FACTOR:	0.536	0.000	0.500	0.375	0.722
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Location: Irvine
N/S: Bake Parkway
E/W: Jeronimo Road



ITAM: 364
Date: 5/24/2018
Day: Thursday

PEDESTRIANS

	North Leg Bake Parkway Pedestrians	East Leg Jeronimo Road Pedestrians	South Leg Bake Parkway Pedestrians	West Leg Jeronimo Road Pedestrians	
6:00 AM	0	0	0	0	0
6:15 AM	2	0	0	0	2
6:30 AM	0	0	0	0	0
6:45 AM	0	1	0	0	1
7:00 AM	0	0	0	0	0
7:15 AM	1	1	1	0	3
7:30 AM	0	0	0	0	0
7:45 AM	0	1	0	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	3	3	1	0	7

	North Leg Bake Parkway Pedestrians	East Leg Jeronimo Road Pedestrians	South Leg Bake Parkway Pedestrians	West Leg Jeronimo Road Pedestrians	
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: Irvine
 N/S: Bake Parkway
 E/W: Jeronimo Road



ITAM: 364
 Date: 5/24/2018
 Day: Thursday

BICYCLES

	Southbound Bake Parkway			Westbound Jeronimo Road			Northbound Bake Parkway			Eastbound Jeronimo Road			
	Left	Thru	Right										
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
6:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	1	2	0	0	0	0	4
7:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	2
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	2	0	0	0	0	0	0	0	2
TOTAL VOLUMES:	0	1	0	0	6	0	1	3	0	0	0	0	11

	Southbound Bake Parkway			Westbound Jeronimo Road			Northbound Bake Parkway			Eastbound Jeronimo Road			
	Left	Thru	Right										
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	1	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	1	0	2
5:00 PM	0	1	0	0	0	0	0	1	0	0	0	0	2
5:15 PM	0	2	0	0	1	0	0	0	0	0	1	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	4	0	0	1	0	0	2	2	1	2	0	12

APPENDIX B—ICU Calculation Sheets using Existing Traffic Counts - ITAM

364 Bake Pkwy. @ Jeronimo Rd.									
Existing No Project									
		AM	PK	Hour		PM	PK	Hour	
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	1	1700	495	0.29*		71	0.04		
NT	3	5100	2044	0.40		2128	0.42*		
NR	D	1700	122	0.07		522	0.31		
SL	1	1700	81	0.05		111	0.07*		
ST	3	5100	1734	0.34*		1914	0.38		
SR	D	1700	75	0.04		24	0.01		
EL	2	3400	15			69	0.02		
ET	2	3400	59	0.02*		469	0.14*		
ER	1	1700	104	0.06		442	0.26		
WL	1	1700	404	0.24*		171	0.10*		
WT	2	3400	558	0.19		95	0.05		
WR	0		86			60			
Adjustment					EBR		.04		
Overlaps					Clearance		.05		
Total ICU			0.94			0.82			

364 Bake Pkwy. @ Jeronimo Rd.									
Short Term No Project									
		AM	PK	Hour		LAKE FOREST			
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	1	1700	511	0.30*		69	0.04		
NT	3	5100	2155	0.42		2478	0.49*		
NR	D	1700	119	0.07		497	0.29		
SL	1	1700	94	0.06		119	0.07*		
ST	3	5100	2031	0.40*		1973	0.39		
SR	D	1700	92	0.05		26	0.02		
EL	2	3400	16			88	0.03		
ET	2	3400	60	0.02*		486	0.14*		
ER	1	1700	107	0.06		441	0.26		
WL	1	1700	392	0.23*		165	0.10*		
WT	2	3400	567	0.19		98	0.05		
WR	0		89			74			
Overlaps					Clearance		.05		
Total ICU			1.00			0.85			

364 Bake Pkwy. @ Jeronimo Rd.									
Long Range No Project									
		AM	PK	Hour		LAKE FOREST			
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	1	1700	505	0.30*		70	0.04		
NT	3	5100	2146	0.42		2505	0.49*		
NR	D	1700	136	0.08		531	0.31		
SL	1	1700	106	0.06		123	0.07*		
ST	3	5100	2056	0.40*		2001	0.39		
SR	D	1700	90	0.05		26	0.02		
EL	2	3400	17	0.01		85	0.03		
ET	2	3400	72	0.02*		500	0.15*		
ER	1	1700	115	0.07		444	0.26		
WL	1	1700	421	0.25*		211	0.12*		
WT	2	3400	591	0.20		121	0.06		
WR	0		94			91			
Overlaps					Clearance		.05		
Total ICU			1.02			0.88			

364 Bake Pkwy. @ Jeronimo Rd.									
Buildout No Project									
		AM	PK	Hour		LAKE FOREST			
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	1	1700	517	0.30*		72	0.04		
NT	3	5100	2144	0.42		2466	0.48*		
NR	D	1700	136	0.08		525	0.31		
SL	1	1700	101	0.06		123	0.07*		
ST	3	5100	2015	0.40*		1997	0.39		
SR	D	1700	88	0.05		27	0.02		
EL	2	3400	16			85	0.03		
ET	2	3400	69	0.02*		498	0.15*		
ER	1	1700	113	0.07		444	0.26		
WL	1	1700	416	0.24*		218	0.13*		
WT	2	3400	578	0.20		130	0.07		
WR	0		89			93			
Overlaps					Clearance		.05		
Total ICU			1.01			0.88			

364 Bake Pkwy. @ Jeronimo Rd.									
Existing With Project									
		AM	PK	Hour		PM	PK	Hour	
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	2	3400	495	0.15*		71	0.02		
NT	3	5100	2044	0.40		2128	0.42*		
NR	D	1700	122	0.07		522	0.31		
SL	1	1700	81	0.05		111	0.07*		
ST	3	5100	1734	0.34*		1914	0.38		
SR	D	1700	75	0.04		24	0.01		
EL	2	3400	15	*		69	0.02		
ET	2	3400	59	0.02		469	0.14*		
ER	1	1700	104	0.06		442	0.26		
WL	2	3400	404	0.12		171	0.05*		
WT	2	3400	558	0.16*		95	0.03		
WR	D	1700	86	0.05		60	0.04		
Adjustment					EBR		.04		
Overlaps					Clearance		.05		
Total ICU			0.70			0.77			

364 Bake Pkwy. @ Jeronimo Rd.									
Short Term With Project									
		AM	PK	Hour		LAKE FOREST			
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	2	3400	511	0.15*		69	0.02		
NT	3	5100	2155	0.42		2478	0.49*		
NR	D	1700	119	0.07		497	0.29		
SL	1	1700	94	0.06		119	0.07*		
ST	3	5100	2031	0.40*		1973	0.39		
SR	D	1700	92	0.05		26	0.02		
EL	2	3400	16	*		88	0.03		
ET	2	3400	60	0.02		486	0.14*		
ER	1	1700	107	0.06		441	0.26		
WL	2	3400	392	0.12		165	0.05*		
WT	2	3400	567	0.17*		98	0.03		
WR	D	1700	89	0.05		74	0.04		
Overlaps					Clearance		.05		
Total ICU			0.77			0.80			

364 Bake Pkwy. @ Jeronimo Rd.									
Long Range With Project									
		AM	PK	Hour		LAKE FOREST			
		Ln	Cap	Vol	V/C	Ln	Cap	Vol	V/C
NL	2	3400	505	0.15*		70	0.02		
NT	3	5100	2146	0.42		2505	0.49*		
NR	D	1700	136	0.08		531	0.31		
SL	1	1700	106	0.06		123	0.07*		
ST	3	5100	2056	0.40*		2001	0.39		
SR	D	1700	90	0.05		26	0.02		
EL	2	3400	17	0.01*		85	0.03		
ET	2	3400	72	0.02		500	0.15*		
ER	1	1700	115	0.07		444	0.26		
WL	2	3400	421	0.12		211	0.06*		
WT	2	3400	591	0.17*		121	0.04		
WR	D	1700	94</						

APPENDIX C – ICU Calculation Sheets using Existing Traffic Counts - LTFAM

22. Bake & Jeronimo

LFTAM GP No Project							LFTAM GP With Project								
	LANES	CAPACITY	AM PK HOUR	VOL	V/C	PM PK HOUR	VOL	V/C	AM PK HOUR	VOL	V/C	PM PK HOUR	VOL	V/C	
NBL	1	1700	450	.26*		40	.02		NBL	2	3400	450	.13*	40	.01
NBT	3	5100	2660	.52		2700	.53*		NBT	3	5100	2660	.52	2700	.53*
NBR	d	1700	80	.05		550	.32		NBR	d	1700	80	.05	550	.32
SBL	1	1700	70	.04		180	.11*		SBL	1	1700	70	.04	180	.11*
SBT	3	5100	2490	.49*		2740	.54		SBT	3	5100	2490	.49*	2740	.54
SBR	d	1700	150	.09		50	.03		SBR	d	1700	150	.09	50	.03
EBL	2	3400	20	.01		220	.06		EBL	2	3400	20	.01*	220	.06
EBT	2	3400	60	.02*		540	.16*		EBT	2	3400	60	.02	540	.16*
EBR	1	1700	130	.08		410	.24		EBR	1	1700	130	.08	410	.24
WBL	1	1700	360	.21*		140	.08*		WBL	2	3400	360	.11	140	.04*
WBT	2	3400	520	.20		150	.07		WBT	2	3400	520	.15*	150	.04
WBR	0	0	170			90			WBR	d	1700	170	.10	90	.05
Clearance Interval				.05*			.05*		Clearance Interval				.05*		
TOTAL CAPACITY UTILIZATION				1.03			.93		TOTAL CAPACITY UTILIZATION				.83		

APPENDIX D–HCM Queuing Worksheets

Existing No Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Existing No Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	15	59	104	404	644	495	2044	122	81	1734	75
v/c Ratio	0.07	0.26	0.39	1.28	0.77	1.12	0.98	0.17	0.62	1.46	0.15
Control Delay	61.5	64.7	4.2	570.5	54.3	302.8	65.0	3.5	84.2	873.6	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	64.7	4.2	570.5	54.3	302.8	65.0	3.5	84.2	873.6	0.6
Queue Length 50th (ft)	6	27	0	~464	263	~519	671	0	72	~789	0
Queue Length 95th (ft)	21	57	5	#782	#538	#870	#972	43	#156	#1029	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	329	226	269	316	839	440	2077	718	146	1186	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.26	0.39	1.28	0.77	1.13	0.98	0.17	0.55	1.46	0.15

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Existing No Project

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	69	469	442	171	155	71	2128	522	111	1914	24
v/c Ratio	0.33	0.78	0.99	0.89	0.19	0.54	1.22	0.72	0.56	0.99	0.04
Control Delay	71.0	68.2	106.0	121.4	27.7	81.5	441.9	23.7	73.4	71.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.0	68.2	106.0	121.4	27.7	81.5	441.9	23.7	73.4	71.6	0.1
Queue Length 50th (ft)	34	233	~247	166	38	68	~933	204	104	669	0
Queue Length 95th (ft)	67	#372	#608	#357	83	134	#1209	478	194	#1013	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	389	605	446	200	834	179	1744	720	200	1943	671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.78	0.99	0.85	0.19	0.40	1.22	0.72	0.56	0.99	0.04

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Existing with Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Existing With Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	15	59	104	404	558	86	495	2044	122	81	1734	75
v/c Ratio	0.06	0.23	0.37	0.73	0.68	0.17	0.79	0.81	0.14	0.57	0.86	0.10
Control Delay	61.3	63.9	3.8	63.5	54.8	0.7	64.7	34.0	3.3	78.2	45.5	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	63.9	3.8	63.5	54.8	0.7	64.7	34.0	3.3	78.2	45.5	0.3
Queue Length 50th (ft)	6	27	0	184	233	0	224	555	0	72	520	0
Queue Length 95th (ft)	21	57	5	260	#398	0	311	#890	43	144	#886	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	367	252	281	686	817	501	956	2523	851	164	2005	732
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.23	0.37	0.59	0.68	0.17	0.52	0.81	0.14	0.49	0.86	0.10

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Existing With Project

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	69	469	442	171	95	60	71	2128	522	111	1914	24
V/c Ratio	0.30	0.67	0.91	0.58	0.11	0.12	0.33	1.01	0.64	0.50	0.79	0.03
Control Delay	70.1	60.7	59.6	73.8	45.1	0.5	71.4	96.5	19.6	69.5	37.0	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	60.7	59.6	73.8	45.1	0.5	71.4	96.5	19.6	69.5	37.0	0.1
Queue Length 50th (ft)	34	216	221	84	38	0	35	~857	193	103	597	0
Queue Length 95th (ft)	67	326	#555	137	72	0	69	#1133	433	191	#857	0
Internal Link Dist (ft)				737		972			782			791
Turn Bay Length (ft)	150			80	250			350				285
Base Capacity (vph)	434	733	500	434	840	504	389	2100	822	224	2424	815
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.64	0.88	0.39	0.11	0.12	0.18	1.01	0.64	0.50	0.79	0.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Short Term No Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Short Term No Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	60	107	392	656	511	2155	119	94	2031	92
v/c Ratio	0.07	0.27	0.40	1.24	0.78	1.16	1.04	0.17	0.70	1.71	0.18
Control Delay	61.6	64.8	4.4	506.1	54.8	361.8	132.2	3.3	92.2	1318.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	64.8	4.4	506.1	54.8	361.8	132.2	3.3	92.2	1318.3	0.8
Queue Length 50th (ft)	7	27	0	~442	268	~549	~788	0	84	~995	0
Queue Length 95th (ft)	22	58	9	#753	#551	#906	#1056	41	#192	#1255	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	329	226	269	316	840	440	2066	715	146	1186	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.27	0.40	1.24	0.78	1.16	1.04	0.17	0.64	1.71	0.18

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Short Term No Project

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	88	486	441	165	172	69	2478	497	119	1973	26
v/c Ratio	0.40	0.80	1.00	0.86	0.22	0.53	1.42	0.72	0.59	0.97	0.04
Control Delay	72.2	69.6	116.9	113.9	26.6	81.4	796.4	27.1	75.7	60.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.2	69.6	116.9	113.9	26.6	81.4	796.4	27.1	75.7	60.3	0.1
Queue Length 50th (ft)	43	243	~274	160	39	66	~1193	229	112	~712	0
Queue Length 95th (ft)	81	#393	#621	#342	88	132	#1491	491	#217	#1058	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	389	609	441	200	769	179	1744	687	200	2039	699
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.80	1.00	0.82	0.22	0.39	1.42	0.72	0.59	0.97	0.04

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Short Term with Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Short Term With Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	60	107	392	567	89	511	2155	119	94	2031	92
v/c Ratio	0.07	0.24	0.38	0.71	0.70	0.18	0.80	0.86	0.14	0.64	1.02	0.13
Control Delay	61.4	64.0	3.9	63.1	55.5	0.8	64.5	36.3	3.1	83.1	104.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	64.0	3.9	63.1	55.5	0.8	64.5	36.3	3.1	83.1	104.5	0.4
Queue Length 50th (ft)	7	27	0	178	238	0	231	612	0	84	669	0
Queue Length 95th (ft)	22	58	9	252	#410	0	320	#973	41	#175	#1120	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	367	252	281	686	810	498	956	2519	850	164	1991	728
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.24	0.38	0.57	0.70	0.18	0.53	0.86	0.14	0.57	1.02	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Short Term With Project

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	88	486	441	165	98	74	69	2478	497	119	1973	26
v/c Ratio	0.37	0.68	0.91	0.57	0.13	0.15	0.32	1.19	0.63	0.53	0.79	0.03
Control Delay	71.2	60.2	59.4	73.7	46.2	0.7	71.3	393.2	22.7	71.1	36.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.2	60.2	59.4	73.7	46.2	0.7	71.3	393.2	22.7	71.1	36.4	0.1
Queue Length 50th (ft)	43	225	229	81	39	0	34	~1117	216	111	627	0
Queue Length 95th (ft)	81	337	#566	133	74	0	67	#1415	448	204	#902	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	434	746	497	434	800	488	389	2076	784	224	2504	838
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.65	0.89	0.38	0.12	0.15	0.18	1.19	0.63	0.53	0.79	0.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Long Range No Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Long Range No Project

AM Peak Hour



Lane Group	EBL	EBT	EBC	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	17	72	115	421	685	505	2146	136	106	2056	90
V/c Ratio	0.08	0.32	0.43	1.33	0.82	1.15	1.04	0.19	0.77	1.73	0.18
Control Delay	61.6	65.9	5.2	662.8	57.0	339.5	134.3	4.5	102.0	1355.8	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	65.9	5.2	662.8	57.0	339.5	134.3	4.5	102.0	1355.8	0.8
Queue Length 50th (ft)	7	33	0	~496	284	~538	~782	2	96	~1012	0
Queue Length 95th (ft)	23	67	18	#820	#585	#891	#1049	54	#224	#1274	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	329	226	269	316	838	440	2055	712	146	1186	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.32	0.43	1.33	0.82	1.15	1.04	0.19	0.73	1.73	0.18

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Long Range No Project

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	500	444	211	212	70	2505	531	123	2001	26
V/c Ratio	0.39	0.85	1.03	1.05	0.27	0.54	1.44	0.76	0.61	0.98	0.04
Control Delay	72.0	74.9	152.9	250.0	27.0	81.4	823.9	29.3	77.0	67.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	74.9	152.9	250.0	27.0	81.4	823.9	29.3	77.0	67.9	0.1
Queue Length 50th (ft)	41	251	~287	~225	49	67	~1213	255	116	~760	0
Queue Length 95th (ft)	78	#410	#636	#462	104	132	#1512	#590	#227	#1082	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	389	591	430	200	784	179	1744	696	200	2036	698
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.85	1.03	1.05	0.27	0.39	1.44	0.76	0.61	0.98	0.04

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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Queue shown is maximum after two cycles.

Long Range with Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Long Range With Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	17	72	115	421	591	94	505	2146	136	106	2056	90
v/c Ratio	0.07	0.29	0.41	0.74	0.71	0.19	0.79	0.87	0.16	0.70	1.04	0.12
Control Delay	61.5	64.8	4.6	64.1	55.6	0.8	64.7	37.5	4.3	87.9	132.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	64.8	4.6	64.1	55.6	0.8	64.7	37.5	4.3	87.9	132.7	0.4
Queue Length 50th (ft)	7	33	0	191	247	0	228	630	2	94	~730	0
Queue Length 95th (ft)	23	67	18	271	#437	0	317	#967	54	#208	#1135	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	367	252	281	686	827	505	956	2480	839	166	1976	724
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.29	0.41	0.61	0.71	0.19	0.53	0.87	0.16	0.64	1.04	0.12

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Long Range With Project
PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	500	444	211	121	91	70	2505	531	123	2001	26
v/c Ratio	0.36	0.71	0.93	0.64	0.15	0.19	0.33	1.23	0.68	0.55	0.81	0.03
Control Delay	71.1	62.4	68.3	74.2	46.1	0.8	71.4	456.8	24.5	71.9	37.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.1	62.4	68.3	74.2	46.1	0.8	71.4	456.8	24.5	71.9	37.9	0.1
Queue Length 50th (ft)	41	237	242	104	48	0	34	~1136	240	115	642	0
Queue Length 95th (ft)	78	#358	#600	163	88	0	68	#1436	496	209	#925	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	434	723	485	434	818	495	389	2037	782	224	2463	826
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.69	0.92	0.49	0.15	0.18	0.18	1.23	0.68	0.55	0.81	0.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Buildout No Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Buildout No Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	69	113	416	667	517	2144	136	101	2015	88
v/c Ratio	0.07	0.31	0.42	1.32	0.79	1.18	1.04	0.19	0.74	1.70	0.18
Control Delay	61.6	65.6	4.8	635.6	55.7	384.4	127.6	4.5	98.3	1294.3	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.6	65.6	4.8	635.6	55.7	384.4	127.6	4.5	98.3	1294.3	0.8
Queue Length 50th (ft)	7	32	0	~487	275	~560	~780	2	91	~984	0
Queue Length 95th (ft)	22	65	17	#808	#564	#919	#1048	54	#211	#1243	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	329	226	269	316	839	440	2062	714	146	1186	501
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.31	0.42	1.32	0.79	1.18	1.04	0.19	0.69	1.70	0.18

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Buildout No Project

PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	498	444	218	223	72	2466	525	123	1997	27
v/c Ratio	0.39	0.84	1.03	1.09	0.28	0.55	1.41	0.75	0.61	1.03	0.04
Control Delay	72.0	74.5	149.8	295.3	27.7	81.9	784.2	28.5	77.0	116.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.0	74.5	149.8	295.3	27.7	81.9	784.2	28.5	77.0	116.4	0.1
Queue Length 50th (ft)	41	250	~285	~239	53	69	~1184	247	116	~758	0
Queue Length 95th (ft)	78	#408	#635	#480	110	136	#1481	#574	#227	#1080	0
Internal Link Dist (ft)		737			972		782			791	
Turn Bay Length (ft)	150		80	250		350			285		
Base Capacity (vph)	389	591	431	200	786	179	1744	696	200	1941	671
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.22	0.84	1.03	1.09	0.28	0.40	1.41	0.75	0.61	1.03	0.04

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
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Queue shown is maximum after two cycles.

Buildout With Project Conditions

Queues
1: Bake Pkwy & Jeronimo Rd

Buildout With Project

AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	16	69	113	416	578	89	517	2144	136	101	2015	88
v/c Ratio	0.07	0.27	0.40	0.74	0.70	0.18	0.80	0.86	0.16	0.67	1.03	0.12
Control Delay	61.4	64.6	4.3	64.0	55.2	0.8	64.3	37.0	4.3	86.0	114.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.4	64.6	4.3	64.0	55.2	0.8	64.3	37.0	4.3	86.0	114.2	0.4
Queue Length 50th (ft)	7	32	0	189	241	0	234	622	2	90	~686	0
Queue Length 95th (ft)	22	65	17	268	#422	0	324	#965	54	#194	#1111	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	367	252	281	686	824	504	956	2491	842	165	1962	720
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.27	0.40	0.61	0.70	0.18	0.54	0.86	0.16	0.61	1.03	0.12

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Queues
1: Bake Pkwy & Jeronimo Rd

Buildout With Project
PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	85	498	444	218	130	93	72	2466	525	123	1997	27
v/c Ratio	0.36	0.71	0.93	0.64	0.16	0.19	0.33	1.21	0.67	0.55	0.85	0.03
Control Delay	71.1	62.8	69.7	74.1	46.2	0.9	71.5	423.1	23.9	71.9	40.5	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	71.1	62.8	69.7	74.1	46.2	0.9	71.5	423.1	23.9	71.9	40.5	0.1
Queue Length 50th (ft)	41	236	242	107	52	0	35	~1108	233	115	639	0
Queue Length 95th (ft)	78	#368	#601	167	94	0	69	#1405	484	209	#923	0
Internal Link Dist (ft)		737			972			782			791	
Turn Bay Length (ft)	150		80	250			350			285		
Base Capacity (vph)	434	717	484	434	819	496	389	2037	783	224	2360	797
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.20	0.69	0.92	0.50	0.16	0.19	0.19	1.21	0.67	0.55	0.85	0.03

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

APPENDIX E–Collision Data

Ranking	Street A	Street B	Average Daily Traffic (ADT) Street A	Average Daily Traffic (ADT) Street B	Total ADT	Million Entering Vehicle (MEV)	TCs in 12 months (revised)	TCs in 12 months (raw Data - SWTRS)	intersection crash rate = # of crashes /MEV	2019 TC's	2019 Rate	notes	Measures to be taken?
1	El Toro Road	Jeronimo Road	40215	18789	59004	21.5364381	16	16	0.74296937	3	0.139298801	Above 0.42 Normalization	CIP (FCPP) - Widening and Realignment of Jeronimo at El Toro
2	Lake Forest Drive	Trabuco Road	31725	21166	52891	19.3052442	8	8	0.414395172	3	0.15539819		
3	El Toro Road	Muirlands Blvd	42683	20757	63440	23.1555708	8	8	0.345489216	4	0.172744608		
4	El Toro Road	Bridger Road	55109	2852	57960	21.1555752	6	7	0.283613182	3	0.141806591		Caltrans/OCTA - South County I-5 Improvements Project
5	El Toro Road	Trabuco Road	32958	24803	57762	21.0829767	7	7	0.332021427	5	0.237158162		
6	El Toro Road	Rockfield Blvd	51908	20757	72665	26.522652	6	7	0.226221722	1	0.03770362		
7	Lake Forest Drive	Muirlands Blvd	34584	16593	51177	18.6797802	5	5	0.267669102	2	0.107067641		
8	Lake Forest Drive	Rockfield Blvd	50434	18455	68889	25.1443974	5	5	0.198851455	4	0.159081164		
9	El Toro Road	Raymond Way	45610	4707	50318	18.3659313	5	5	0.272243205	5	0.272243205		
10	Los Alisos Boulevard	Rockfield Blvd	26350	8221	34571	12.6183639	5	5	0.396247884	1	0.079249577		CIP (LFTM) - Widening on Los Alisos Boulevard
11	Bake Parkway	Jeronimo Road	57057	6986	64043	23.3756001	5	5	0.213898252	0	0		CIP (LFTM) - Widening on Bake and Jeronimo.

https://safety.fhwa.dot.gov/intersection/conventional/signalized/rtr/rtr_toolbox/chap3.cfm

Improve Signal Visibility	Improve Signal Conspicuity
<ul style="list-style-type: none"> Placement and number of signal heads Size of signal display Line of sight 	<ul style="list-style-type: none"> Redundancy LEDs signal lenses Backplates Strobe lights
Increase Likelihood of Stopping	Address Intentional Violations
<ul style="list-style-type: none"> SIGNAL AHEAD signs Advanced-warning flashers Rumble strips Left-turn signal sign Pavement surface condition 	<ul style="list-style-type: none"> Signal optimization Signal-cycle length Yellow-change interval All-Red clearance interval Dilemma-zone protection
Eliminate Need to Stop	
<ul style="list-style-type: none"> Unwarranted signals Roundabout intersection design Flash mode 	

Figure 3-24. Summary of Engineering Countermeasures by Category.

<https://dot.ca.gov/programs/research-innovation-system-information/annual-collision-data>

Caltrans - 2018 Collision Data on California State Highways (Intersections Base Rates)			
0.05	No Control	Urban	F, M, and S
0.14	Stop & Yields (Excluding 4-way)	Urban	F, M, and S
0.17	4-Way Stop	Urban	F, M, and S
0.24	Signals	Urban	F, M, and S
0.26	4-Way Flashers	Urban	F, M, and S
0.09	Stop & Yields (Excluding 4-way)	Urban	T, Y, and Z
0.07	4-way Stop	Urban	T, Y, and Z
0.20	Signals	Urban	T, Y, and Z
Caltrans - 2018 Collision Data on California State Highways (Intersections Base Rates)			
0.16	No Control	Suburban	F, M, and S
0.24	Stop & Yields (Excluding 4-way)	Suburban	F, M, and S
0.43	4-Way Stop	Suburban	F, M, and S
0.42	Signals	Suburban	F, M, and S
0.34	4-Way Flashers	Suburban	F, M, and S
0.17	Stop & Yields (Excluding 4-way)	Suburban	T, Y, and Z
0.18	4-way Stop	Suburban	T, Y, and Z
0.29	Signals	Suburban	T, Y, and Z
Caltrans - 2018 Collision Data on California State Highways (Highways Base Rates)			
1.20	2 lanes < 45 mph	Urban	Collector Streets
0.82	2 lanes > 45 mph	Urban	Collector Streets
1.17	3 lanes	Urban	Arterial Streets
0.94	4 lanes undivided < 45 mph	Urban	Arterial Streets
0.67	4 lanes undivided > 45 mph	Urban	Arterial Streets
1.37	5-6 lane undivided < 45 mph	Urban	Arterial Streets
3.02	5-6 lane undivided > 45 mph	Urban	Arterial Streets
0.91	4 lane divided < 45 mph	Urban	Arterial Streets
0.90	4 lane divided > 45 mph	Urban	Arterial Streets
1.00	5+ lane divided < 45 mph	Urban	Arterial Streets
1.06	5+ lane divided > 45 mph	Urban	Arterial Streets
Caltrans - 2018 Collision Data on California State Highways (Highways Base Rates)			
1.60	2 lanes < 45 mph	Suburban	Collector Streets
1.32*	2 lanes > 45 mph	Suburban	Collector Streets
1.44	3 lanes	Suburban	Arterial Streets
0.93	4 lanes undivided < 55 mph	Suburban	Arterial Streets
1.23	4 lanes undivided > 55 mph	Suburban	Arterial Streets
0.41	5-6 lane undivided < 55 mph	Suburban	Arterial Streets
0.41	5-6 lane undivided > 55 mph	Suburban	Arterial Streets
0.91	4 lane divided < 55 mph	Suburban	Arterial Streets
0.86	4 lane divided > 55 mph	Suburban	Arterial Streets
0.98	5+ lane divided < 55 mph	Suburban	Arterial Streets
1.29	5+ lane divided > 55 mph	Suburban	Arterial Streets

**City of Irvine
Department of Transportation**

From 1/1/2019 to 3/29/2022

Total Collisions: 0

Collision Summary Report

3/29/22

Injury Collisions: 0

Fatal Collisions: 0

JERONIMO RD & BAKE PKWY

Page 1 of 1

Settings for Query:

Street: JERONIMO RD

Cross Street: BAKE PKWY

Intersection Related: True

Sorted By: Date and Time

**City of Irvine
Department of Transportation**

From 1/1/2012 to 3/29/2022

Total Collisions: 4

Injury Collisions: 4

Fatal Collisions: 0

Collision Summary Report

3/29/22

JERONIMO RD from BAKE PKWY to GOODYEAR

Page 1 of 2

12-00594	1/13/2012	17:10	Friday	JERONIMO RD - GOODYEAR			0'	Direction: Not Stated	Dark - Street Ligh	Clear	Pty at Fault:1
				Broadside Other Motor Vehicle Auto R/W Violation			21804A	Hit & Run: No	Complaint of Pain	# Inj: 2	# Killed: 0
Party 1 Driver	North	Making Left Turn		Male	Age: 27	2009 LEXUS	IS250	Passenger Car, Station Wagon, Jeep	Lap/Shoulder Harness Used	Cell Phone Not In Use	Complaint of Pain
Veh Type: Passenger Car		Sobriety: HNBD				Assoc Factor: None Apparent					
Party 2 Driver	East	Proceeding Straight		Male	Age: 40	2009 MINI	COOPER	Passenger Car, Station Wagon, Jeep	Lap/Shoulder Harness Used	Cell Phone Not In Use	No Injury
Veh Type: Passenger Car		Sobriety: HNBD				Assoc Factor: None Apparent					
Party 3 Driver	South	Stopped In Road		Female	Age: 50	2011 LEXUS	IS250	Passenger Car, Station Wagon, Jeep	Lap/Shoulder Harness Used	Cell Phone Not In Use	No Injury
Veh Type: Passenger Car		Sobriety: HNBD				Assoc Factor: None Apparent					
14-10418	8/19/2014	16:37	Tuesday	JERONIMO RD - GOODYEAR			0'	Direction: Not Stated	Daylight	Clear	Pty at Fault:1
				Broadside Other Motor Vehicle Auto R/W Violation			21802A	Hit & Run: No	Complaint of Pain	# Inj: 2	# Killed: 0
Party 1 Driver	South	Making Left Turn		Male	Age: 61	2001 TOYOTA	CAMRY	Passenger Car, Station Wagon, Jeep	Lap/Shoulder Harness Used	Cell Phone Not In Use	Complaint of Pain
Veh Type: Passenger Car		Sobriety: HNBD				Assoc Factor: None Apparent					
Party 2 Driver	West	Proceeding Straight		Male	Age: 54	2000 CHRYSLER	PT	Passenger Car, Station Wagon, Jeep	Lap/Shoulder Harness Used	Cell Phone Not In Use	Complaint of Pain
Veh Type: Passenger Car		Sobriety: HNBD				Assoc Factor: None Apparent					
17-03678	3/15/2017	07:32	Wednesday	JERONIMO RD - GOODYEAR			24'	Direction: East	Daylight	Clear	Pty at Fault:1
				Sideswipe Bicycle Improper Turning			22107	Hit & Run: No	Other Visible Injury	# Inj: 1	# Killed: 0
Party 1 Driver	North	Making Right Turn		Male	Age: 61	2010 FORD	EXPEDITION	Sport Utility Vehicle	Lap/Shoulder Harness Used	Cell Phone Not In Use	No Injury
Veh Type: Passenger Car		Sobriety: HNBD				Assoc Factor: None Apparent					
Party 2 Bicyclist	West	Proceeding Straight		Male	Age: 53	CERVELTO	21 SPEED	Bicycle	M/C Helmet Driver - Yes	Cell Phone Not In Use	Other Visible Injury
Veh Type: Bicycle		Sobriety: HNBD				Assoc Factor: None Apparent					
18-01155	1/24/2018	17:27	Wednesday	JERONIMO RD - GOODYEAR			0'	Direction: Not Stated	Dusk - Dawn	Clear	Pty at Fault:1
				Broadside Other Motor Vehicle Auto R/W Violation			21804A	Hit & Run: No	Severe Injury	# Inj: 1	# Killed: 0
Party 1 Driver	North	Entering Traffic		Male	Age: 62	2015 HONDA	CIVIC	Passenger Car, Station Wagon, Jeep	Lap/Shoulder Harness Used	Cell Phone Not In Use	No Injury
Veh Type:		Sobriety: HNBD				Assoc Factor: None Apparent					
Party 2 Driver	East	Proceeding Straight		Male	Age: 32	2015 SUZUKI	GSXR 600	Motorcycle	M/C Helmet Driver - Yes	Cell Phone Not In Use	Severe Injury
Veh Type:		Sobriety: HNBD				Assoc Factor: None Apparent					

Segment Length: 0.15 miles (817')

Collisions per mile: 25.85

Settings for Query:

Segment: JERONIMO RD between BAKE PKWY and GOODYEAR

Include Intersection Related at Limit 1 (BAKE PKWY): True

Include Intersection Related at Limit 2 (GOODYEAR): True

Include Intersection Related at Intermediate Intersections: True

Sorted By: Date and Time



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