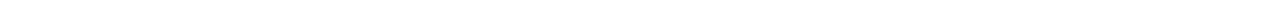


## **Appendix K**

# **Traffic Conditions with the Proposed Sierra Madre Residential Project**



## MEMORANDUM

**Date:** 8/2/2021

**To:** Vincent Gonzalez, City of Sierra Madre

**From:** Billing Liu & Steven J Brown, PE

**Subject:** Traffic Conditions with the Proposed Sierra Madre Residential Project

OC20-0744

---

The following documents the expected changes in traffic conditions with the proposed residential project (Project) in Sierra Madre, California. The Project is located on the north of Sunnyside Avenue and Fairview Avenue intersection and adjacent to the Mater Dolorosa Retreat Center in the City of Sierra Madre. The Project proposes 42 single-family units and a 3-acre park on currently vacant land, and it is expected to be built-out and occupied by 2025. **Figure 1** presents the Project site Plan. The Project site proposes two points of access: North Sunnyside Avenue and West Carter Avenue.

## DATA COLLECTION

### TRAFFIC COUNTS

The following intersections and roadway segments would provide access to the site and are most likely to experience direct traffic effects, if any, from the Project:

#### Intersections:

1. North Sunnyside Avenue & Fairview Avenue
2. North Sunnyside Avenue & Sierra Madre Boulevard
3. Michillinda Avenue & Sierra Madre Boulevard
4. Michillinda Avenue & Foothill Boulevard

#### Roadway Segments:

1. North Sunnyside Avenue between project site & Fairview Avenue
2. North Sunnyside Avenue between Fairview Ave & Sierra Madre Boulevard
3. Sierra Madre Boulevard between Michillinda Avenue & North Sunnyside Avenue
4. Michillinda Avenue between Fairview Avenue & Sierra Madre Boulevard
5. Michillinda Avenue between Sierra Madre Boulevard & Foothill Boulevard
6. North Lima Street between West Carter Ave and West Grand View Avenue

Traffic counts were collected for the above intersections and segments in October 2020 (**Appendix A**). Due to the COVID-19 pandemic in 2020, travel activity and traffic volumes were potentially atypical throughout

the study area and Southern California. Thus, we reviewed multiple data sources in order to select a growth factor applying to existing counts to represent 2020 condition in a non-COVID environment. The findings from different data sources are listed below:

1. LADOT Data

LADOT analyzed the loop detector data for 12 intersections from March 10<sup>th</sup> to April 30<sup>th</sup> in 2020 and summarized the weekday volume for stages of “stay-at-home” conditions. Based on this study, the daily vehicle volume was reduced by 37% to 58% compared on non-COVID condition. However, data from other sources suggest that traffic conditions in Spring 2020 were different than October 2020, as many businesses and some schools returned to at least partial on-site operating conditions. **Appendix B** presents the *LADOT Mobility during COVID Emergency* study.

2. Caltrans Performance Measurement System (PeMS) Data

PeMS collects real-time data from over 39,000 individual detectors on the freeway system across all major metropolitan areas in California. Based on the Project location, we reviewed the nearest I-210 freeway data, which is at Michillinda Avenue. **Table 1** presents the weekday Average Daily Traffic (ADT) values in February and October 2020. The October ADT were reduced by 6% to 14% compared to February pre COVID-19 conditions.

**Table 1: PeMS ADT Data at I-210 and Michillinda Avenue**

Location	Fed ADT	Oct ADT	Change
I-210 E Before On Ramp	102,812	88,722	-14%
I-210 E After On Ramp	108,810	96,592	-11%
I-210 W Before On Ramp	113,636	107,188	-6%
I-210 W After On Ramp	108,459	101,337	-7%

*Source: Caltrans PeMS Website, 2021*

3. Streetlight Data

Streetlight uses smartphones as sensors to measure travel activities on all streets. In this analysis, ADT data was collected from February to September 2020 at the 5 project study roadway segments to track the traffic changes after COVID-19. As shown below, the traffic decreased by approximately 45% in April and then gradually came back to approximately “normal” conditions in September. **Table 2-A** shows weekday conditions, while **Table 2-B** shows weekend conditions.

**Table 2-A: Weekday ADT**

Segment	Pre-COVID	Post-COVID						
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sunnyside Avenue between Project Site and Fairview Avenue	369	297	195	294	308	400	413	523
Sunnyside Avenue between Fairview Avenue and Sierra Madre Boulevard	1,947	1,669	1,221	1,605	1,960	2,108	2,211	2,098
Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue	7,045	5,905	4,211	5,603	6,606	6,987	7,289	7,178
Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard	8,611	6,984	4,320	6,301	7,985	8,392	8,895	8,678
Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard	11,801	9,416	6,325	8,581	10,366	10,928	11,435	11,154
<i>Total</i>	29,773	24,271	16,272	22,384	27,225	28,815	30,243	29,631
<b>Change compared to Pre-COVID</b>		<b>-18%</b>	<b>-45%</b>	<b>-25%</b>	<b>-9%</b>	<b>-3%</b>	<b>2%</b>	<b>0%</b>

Source: Streetlight, 2021

**Table 2-B: Weekend ADT**

Segment	Pre-COVID	Post-COVID						
	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Sunnyside Avenue between Project Site and Fairview Avenue	401	304	155	334	327	433	371	809
Sunnyside Avenue between Fairview Avenue and Sierra Madre Boulevard	2,046	1,833	1,228	1,764	1,956	2,111	2,268	2,553
Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue	7,013	6,106	4,025	5,436	6,537	7,244	7,662	7,928
Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard	9,037	7,685	4,212	6,011	7,926	8,933	8,993	9,199
Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard	12,160	10,374	6,461	8,609	10,195	11,769	12,019	11,951
<i>Total</i>	30,657	26,302	16,081	22,154	26,941	30,490	31,313	32,440
<b>Change compared to Pre-COVID</b>		<b>-12%</b>	<b>-46%</b>	<b>-26%</b>	<b>-10%</b>	<b>2%</b>	<b>5%</b>	<b>9%</b>

Source: Streetlight, 2021

In July 2021, we re-collected traffic counts at three spot segments to check the degree of change and collected a count for a new location, North Lima Street. The 2021 spot counts showed a percentage change in the teens.

Based upon all of the above, we applied an upward adjustment of 10% to the October 2020 counts to represent conditions prior to COVID-19.

## RELATED TRAFFIC VOLUMES - MATER DOLOROSA RETREAT CENTER

Mater Dolorosa Retreat Center is adjacent to the Project site in the north and held many weekly and special events before the COVID-19 pandemic. We were provided with 2019 data for the center, which included the date, duration, arrival window, departure window and estimated round trips for each event. We analyzed this information to estimate the average weekday and weekend trips associated with the center (**Table 3**). The retreat center generated approximately 69 trips per weekday and 35 trips per weekend day in 2019. There were 13 AM peak hour trips (12 inbound/1 outbound) and 3 PM peak hour trips (1 inbound/2 outbound) per weekday. The 2019 Retreat Center Trips data is provided in **Appendix C**.

**TABLE 3 - Mater Dolorosa Historical External Event Trips in 2019**

	Daily	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Weekday	69	12	1	13	1	2	3
Weekend	35						

Source: Fehr & Peers, 2021

## PROJECT TRAFFIC ESTIMATION

The Project consists of 42 single-family units and a 3-acre park. We used the Trip Generation Manual, 10th Edition (Institute of Transportation Engineers [ITE], 2017) to obtain the trip rates for calculating the approximate number of trips that the Project would generate.

As shown in **Table 4-1**, the residential units of the Project is expected to generate approximately 396 weekday daily trips, including approximately 31 trips (8 inbound/23 outbound) during the AM peak hour, and 42 trips (26 inbound/16 outbound) during the PM peak hour. On a typical weekend day, the Project will generate approximately 401 daily trips, including 39 trips (10 inbound/29 outbound) in AM peak hour, and 39 trips (25 inbound/14 outbound) in PM peak hour (**Table 4-2**).

A neighborhood park is proposed to be built adjacent to the southern border of the Project site stretching from North Sunnyside Avenue to West Carter Avenue. The park is estimated to generated 40 daily trips per weekday and 90 daily trips per weekend day. There will be approximately 4 trips (2 inbound/2 outbound) for each AM and PM peak hour on a weekday.

In total, the Project is anticipated to generate 436 daily trips per weekday and 491 daily trips per weekend day.

**TABLE 4-1 - Project Weekday Trip Generation Estimates**

Land Use	Units	ITE Code	Quantity	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Single-Family	DU	210	42	396	8	23	31	26	16	42
Park	Acre	411	3.04	40	2	2	4	2	2	4
<b>Net New Trips</b>				<b>436</b>	<b>10</b>	<b>25</b>	<b>35</b>	<b>28</b>	<b>18</b>	<b>46</b>

**TABLE 4-2 - Project Weekend Trip Generation Estimates**

Land Use	Units	ITE Code	Quantity	Daily	AM Peak Hour			PM Peak Hour		
					In	Out	Total	In	Out	Total
Single-Family	DU	210	42	401	10	29	39	25	14	39
Park	Acre	411	3.04	90	5	5	10	5	5	10
<b>Net New Trips</b>				<b>491</b>	<b>15</b>	<b>34</b>	<b>49</b>	<b>30</b>	<b>19</b>	<b>49</b>

Notes:

1. DU= Dwelling Units
2. The ITE manual provides two methods (average and fitted curve) for calculating trip rates for “parks”. The values for the average appeared too low, due to the size of the proposed park, while the fitted curve appears unreasonably high, likely due to the measured parks having higher levels of amenities (such as ballfields or courts). Therefore, we applied professional judgment in using values that approximate an average of the two methods that were available.

The Project trip distribution reflects the spatial distribution of trips traveling to and from the Project site. To determine where Project trips will travel, we applied a “select zone analysis” using the Southern California Association of Governments (SCAG) travel demand model. This method predicts where trips travel to/from for the area immediately surrounding the Project. The estimated trip distribution of the Project trips is shown on **Figure 2**.

## EXISTING (2020) PRE-COVID CONDITION

We estimated the existing (2020) pre-COVID condition by applying the 10% growth factor and adding the retreat center trips to represent a full non-COVID traffic condition. **Table 5** and **Figure 3** present the segment ADT and peak hour intersection traffic.

**TABLE 5 - Existing (2020) Pre-COVID Segment ADT**

Segment	Weekday	Weekend
Sunnyside Avenue between Project Site and Fairview Avenue	340	310
Sunnyside Avenue between Fairview Avenue and Sierra Madre Boulevard	490	400
Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue	6,970	6,290
Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard	7,390	6,930
Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard	9,550	8,200
N Lima Street between W Carter Ave and W Grand View Avenue	1,000	890

Source: Fehr & Peers, 2021

## BUILD-OUT (2025) CONDITION

The proposed Project was assumed to be built and occupied by 2025. The following traffic scenarios were developed and analyzed as part of this study:

- Build-out (2025) without Project Condition
- Build-out (2025) with Project Condition

The best tool to determine background growth in the area is the SCAG model. The SCAG model predicts 2040 travel conditions in consideration of land development and transportation changes. It also includes a work-from-home assumption to reflect anticipated changes in how people travel. The results of these assumptions lead to a conclusion that traffic levels will slightly decrease in the study area by 2040. To be conservative, we assumed that the 2025 conditions will not decrease in comparison to existing (pre-COVID) conditions.

The Project trips were further added to the Build-out (2025) without Project condition to obtain the Build-out (2025) with Project Condition. The following **Table 6-1** and **Table 6-2** present the level of change expected on the study roadways as a consequence of the Project. The peak hour intersection traffic of Build-out (2025) with Project Condition are shown in **Figure 4**.

**TABLE 6-1 – Weekday Build-out (2025) Daily Volume**

Segment	2025 without Project	2025 with Project	Increase
Sunnyside Avenue between Project Site and Fairview Avenue	340	710	370
Sunnyside Avenue between Fairview Avenue and Sierra Madre Boulevard	480	870	390
Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue	6,970	7,330	360
Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard	7,390	7,390	0
Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard	9,550	9,730	180
N Lima Street between W Carter Ave and W Grand View Ave	1,000	1,070	70



**TABLE 6-2 – Weekend Build-out (2025) Daily Volume**

Segment	2025 without Project	2025 with Project	Increase
Sunnyside Avenue between Project Site and Fairview Avenue	310	690	380
Sunnyside Avenue between Fairview Avenue and Sierra Madre Boulevard	390	820	430
Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue	6,290	6,710	420
Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard	6,930	6,930	0
Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard	8,190	8,440	250
N Lima Street between W Carter Ave and W Grand View Ave	890	990	100

Source: Fehr & Peers, 2021

## INTERSECTION LOS ANALYSIS

Level of Service (LOS) is a measure of traffic operating conditions, which varies from LOS A (indicating free-flow traffic conditions with little or no delay) to LOS F (representing over-saturated conditions where traffic flows exceed design capacity resulting in long queues and delays). These ratings represent the perspective of drivers and indicate the comfort and convenience associated with driving. For stop-controlled intersections, the procedures in the Highway Capacity Manual were used, and the LOS is based upon the amount of delay occurring to motorists for the stop-controlled movements. For the signalized intersections, the LOS was determined using the “ICU method”, which measures the volume-to-capacity ratio for the critical movements. **Table 7** shows the LOS results, and the calculations are contained in Appendix D. The City’s General Plan establishes LOS E as the maximum acceptable condition, and all of the study locations will operate at no worse than LOS B, with the Project. Moreover, the Project will not noticeably change the condition of any of these intersections.

**TABLE 7 - Intersection LOS Analysis**

Intersection	Analysis Method	2025 Without Project				2025 With Project			
		AM value*	AM LOS	PM Value*	PM LOS	AM value*	AM LOS	PM Value*	PM LOS
1 - Sunnyside Ave & Fairview Ave	Stop-controlled	0.02	A	0.03	A	0.03	A	0.03	B
2 - Sunnyside Ave & Sierra Madre Blvd	Stop-controlled	0.28	A	0.55	B	0.31	A	0.6	B
3 - Michillinda Ave & Sierra Madre	Signalized	0.36	A	0.53	A	0.37	A	0.54	A
4 - Michillinda Ave & Foothill Blvd	Signalized	0.4	A	0.59	A	0.4	A	0.59	A

\*The reported value is delay (in seconds/vehicle) for stop-controlled movements and volume/capacity ratio for signalized intersections.

Source: Fehr & Peers, 2021

## CONSTRUCTION TRAFFIC IMPACT ANALYSIS

The construction of the Project consists of nine phases. We were provided the construction traffic estimates for each phase. As shown in **Table 8**, there will be an average of 250 construction vehicle trips per weekday.

**TABLE 8 – Weekday Average Construction Trips**

Phase Name	Worker Trip Number (daily)	Vendor Trip Number (daily)	Hauling Trip Number (total)	Days	Worker Trips (total)	Vendor Trips (total)	Total Hauling Trips
Clear & Grub	14	2	0	2	28	4	0
Remedial & Mass Excavation	36	4	0	20	720	80	0
Import Material to Balance Site	6	2	504	14	84	28	7,056
Finish Grading	12	2	0	17	204	34	0
Building Construction	142	54	0	300	42,600	16,200	0
Wet Utilities	50	4	0	60	3,000	240	0
Dry Utilities	26	4	0	30	780	120	0
Surface Improvements	22	90	0	30	660	2,700	0
Architectural Coating	28	2	0	20	560	40	0

**Daily Weekday Average Trips = 250**

We then added the construction traffic per weekday estimated from **Table 8** to the Build-out (2025) conditions without the Project. **Table 9** presents daily traffic volumes with and without the construction traffic on study segments.

**TABLE 9 – Weekday ADT During Construction**

Segment	Without Construction Traffic	With Construction Traffic
Sunnyside Avenue between Project Site and Fairview Avenue	340	590
Sunnyside Avenue between Fairview Avenue and Sierra Madre Boulevard	480	730
Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue	6,970	7,220
Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard	7,390	7,390
Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard	9,550	9,800
N Lima Street between W Carter Ave and W Grand View Ave	1,000	1,000

*Source: Fehr & Peers, 2021*

## CONCLUSION

Development of the proposed Project would result in approximately 440 trips being generated on a typical weekday and 490 trips on a typical weekend. These trips will be spread throughout the roadway system, and as a result, the daily traffic volume increases on the study roadways will be a maximum of 430 vehicles immediately adjacent to the site, to something closer to 250 vehicles near the freeway. The performance of the study intersections, as measured by LOS, would result in no measurable difference as a result of the Project, and all of the intersections will function well-within the City's standard.

# Figures





W CARTER AVE

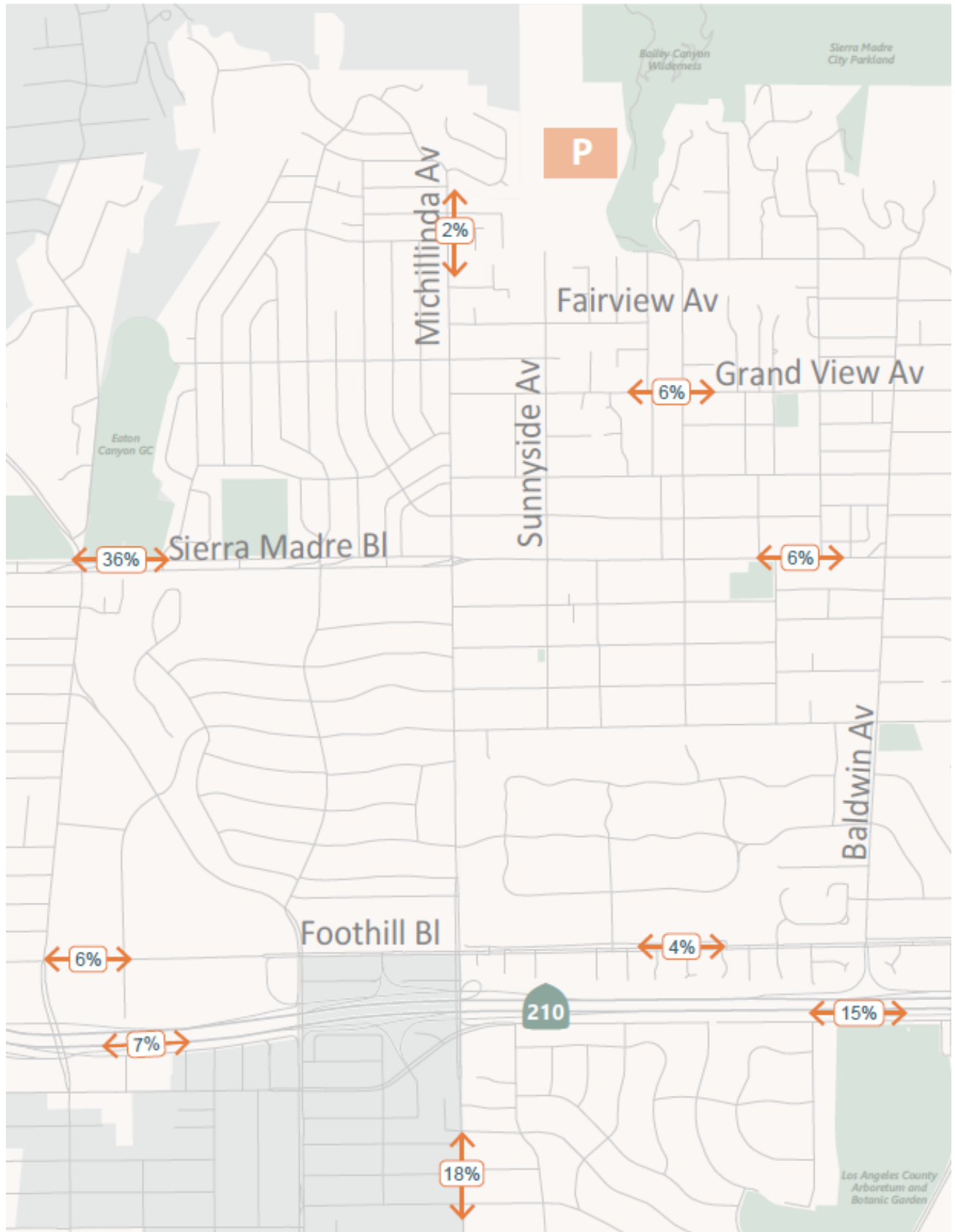
LAND USE EXHIBIT

<b>LEGEND</b>	PARK	HOUSING	SLOPED AREA	20' BUFFER	STREETS
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Figure 1  
Project Site Plan





Legend

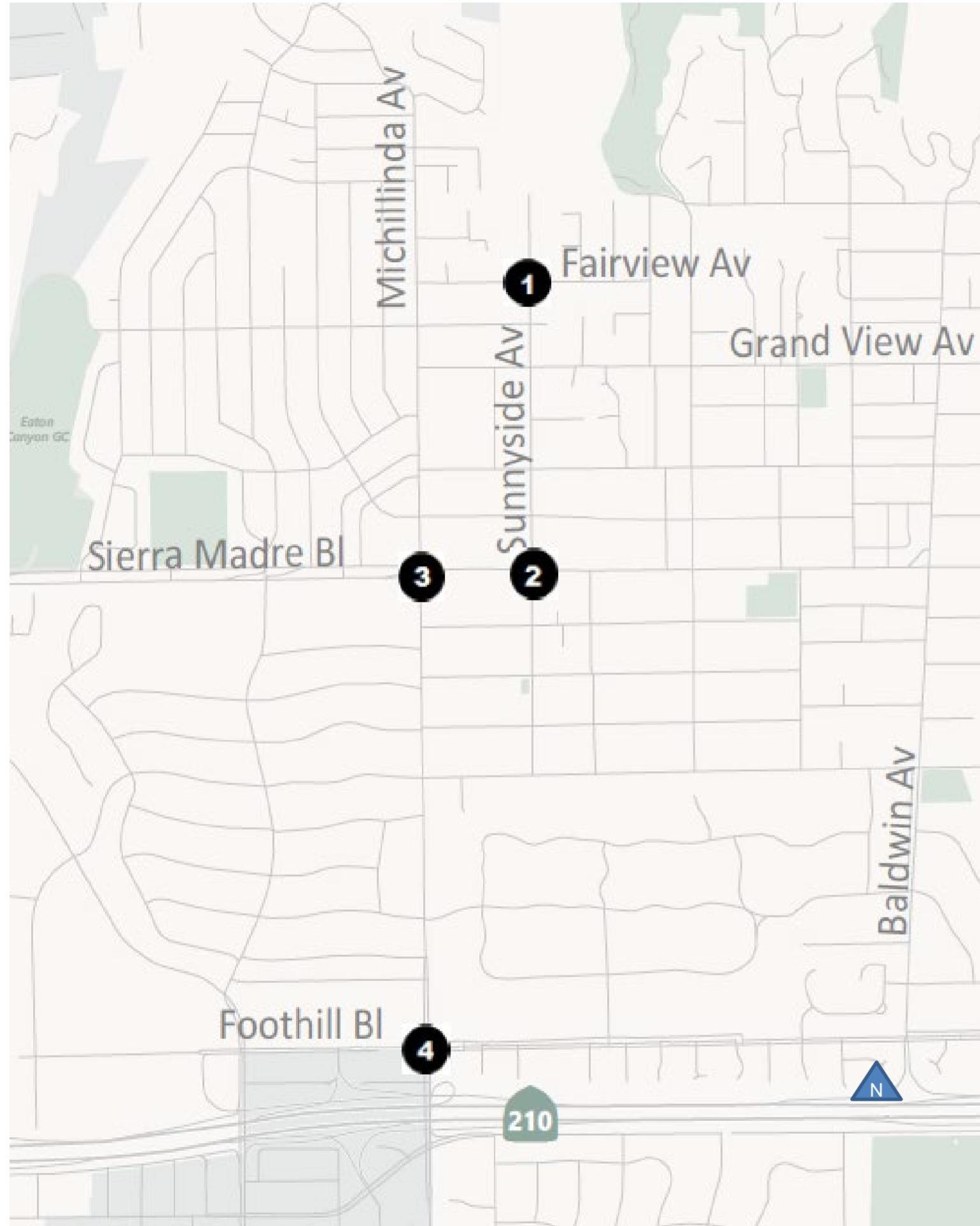


↔ Trip Distribution

■ Project Site



Figure 2  
Trip Distribution



**LEGEND**

- Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Stop Sign
- Signalized

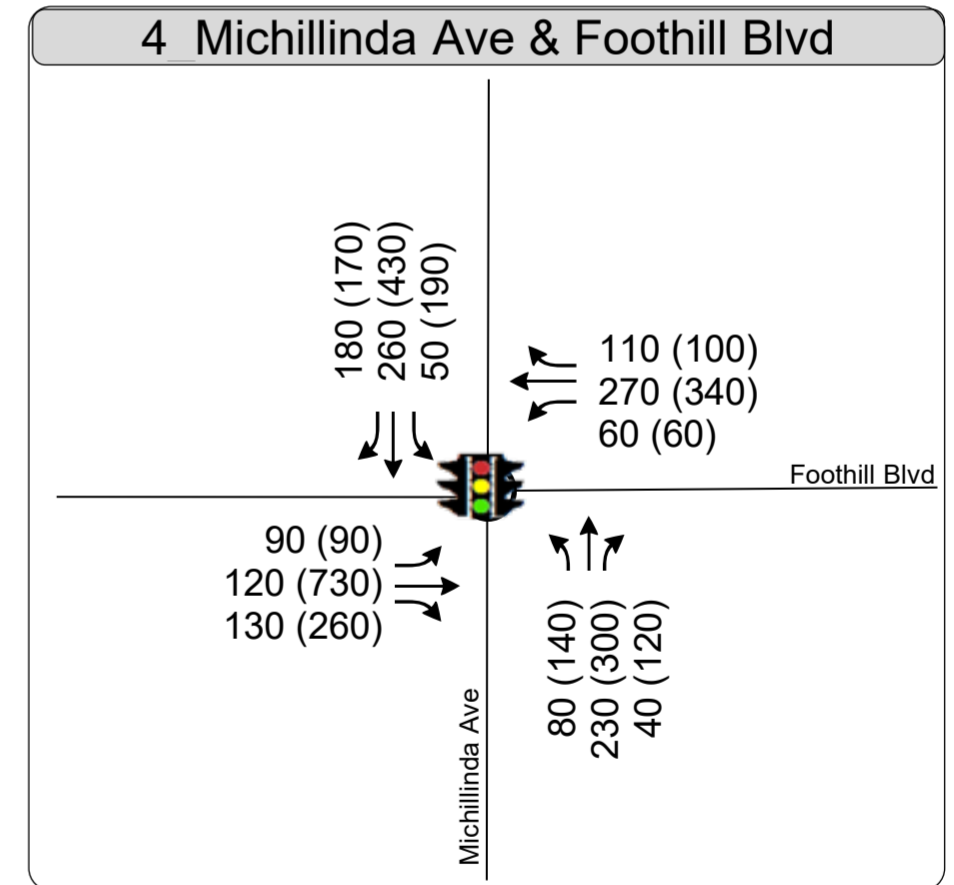
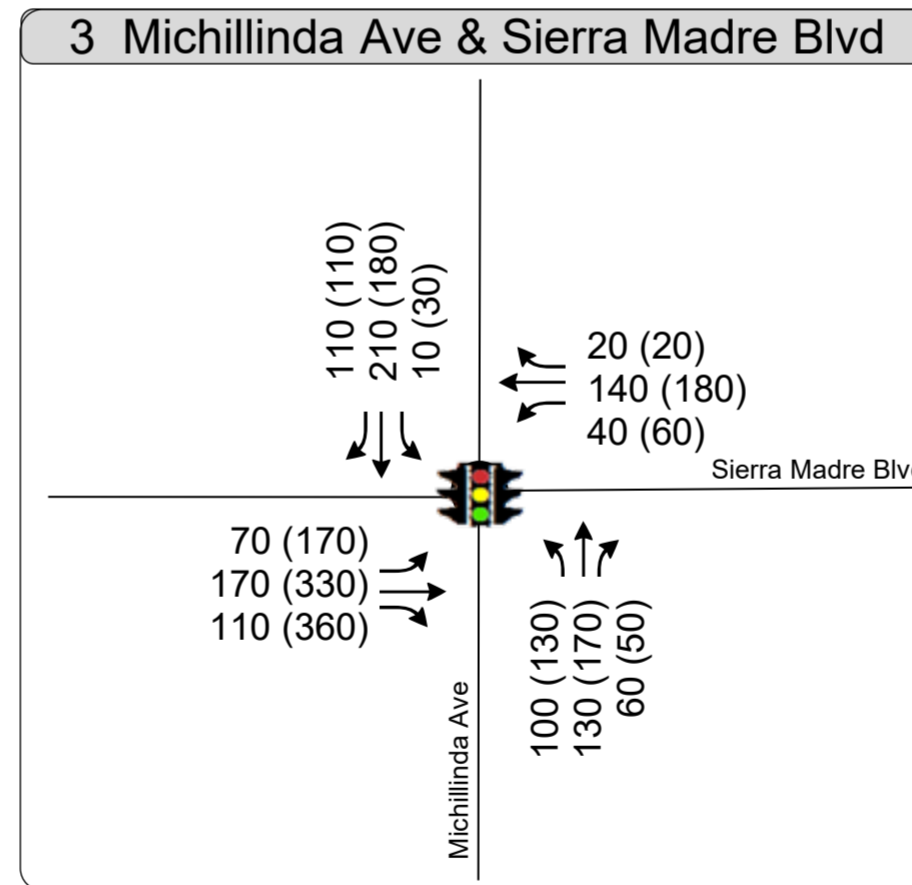
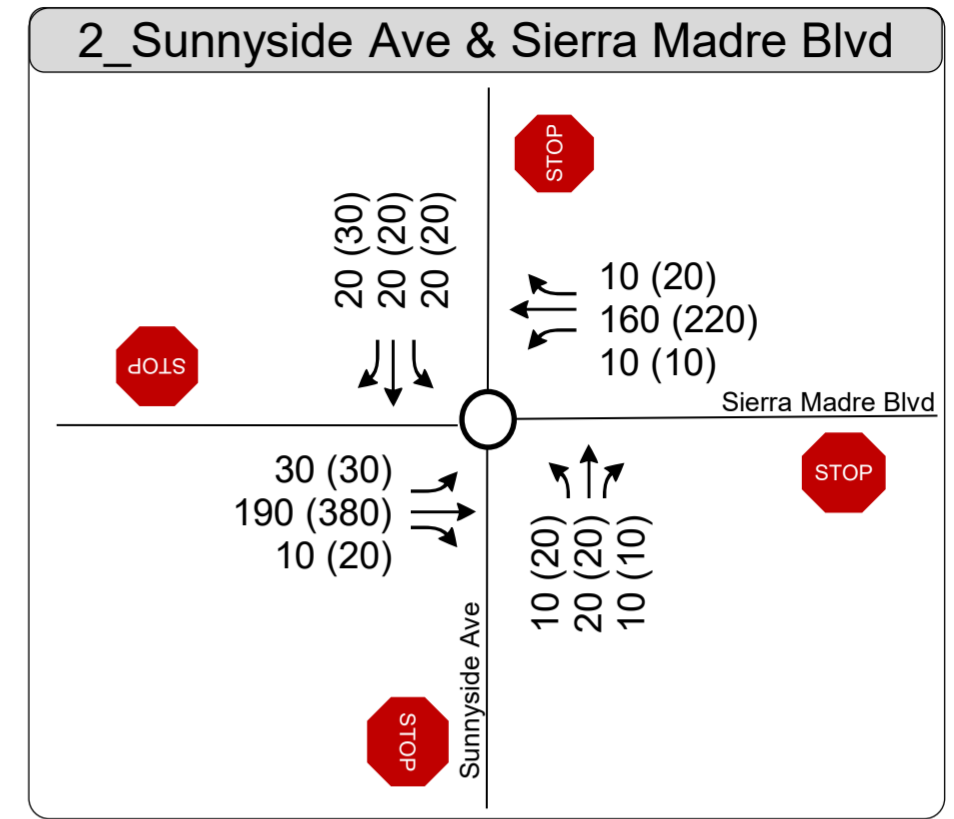
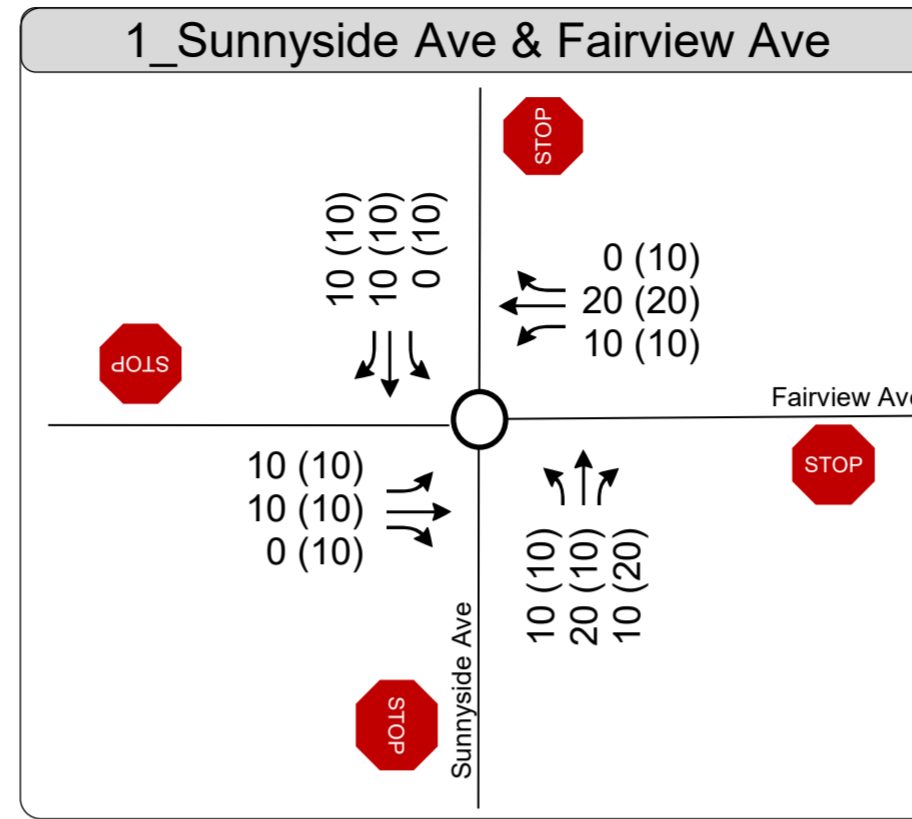
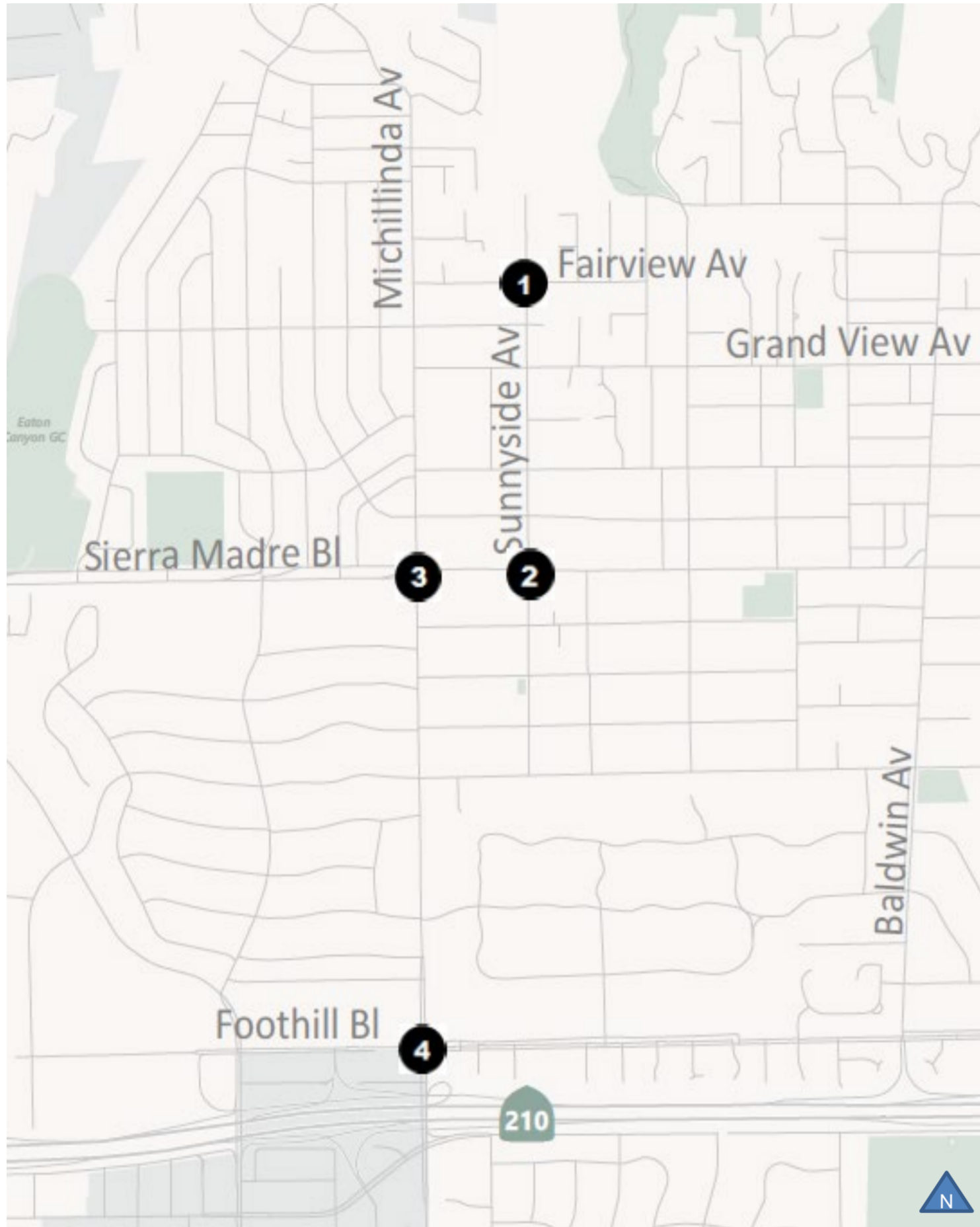


Figure 3  
Peak Hour Traffic Volumes and Lane Configurations  
Existing (2020) Pre-COVID Condition





**LEGEND**

- Study Intersection
- AM (PM) Peak Hour Traffic Volume
- Stop Sign
- Signalized

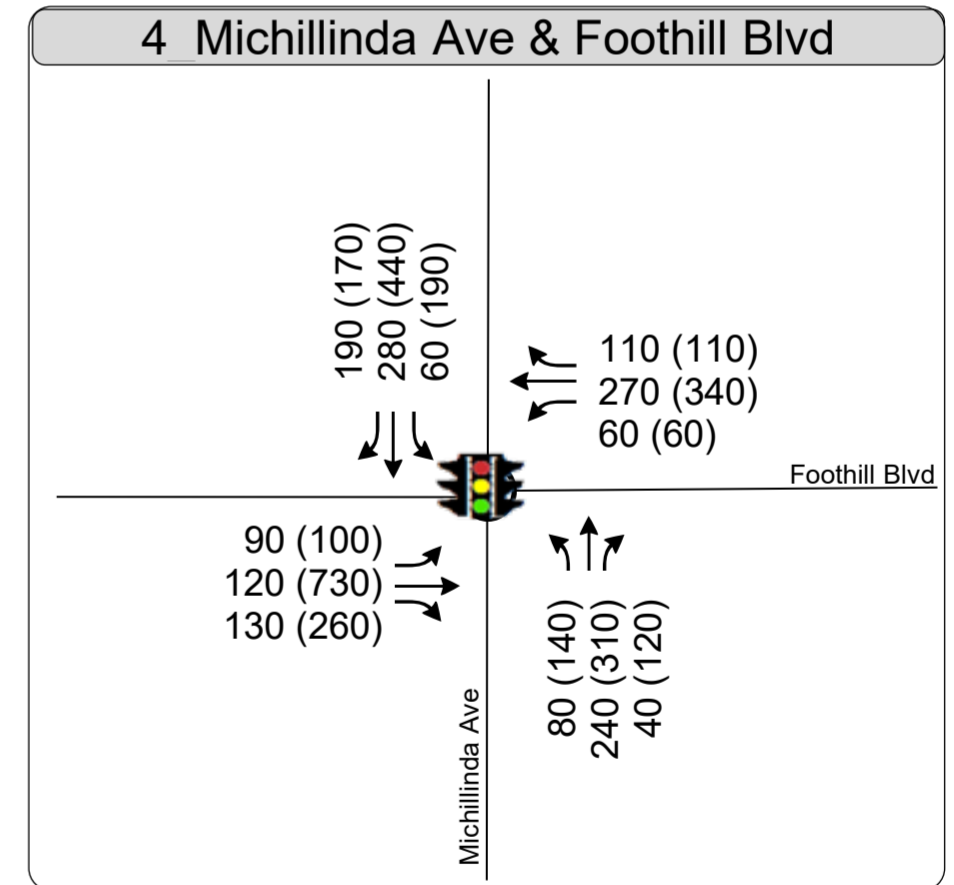
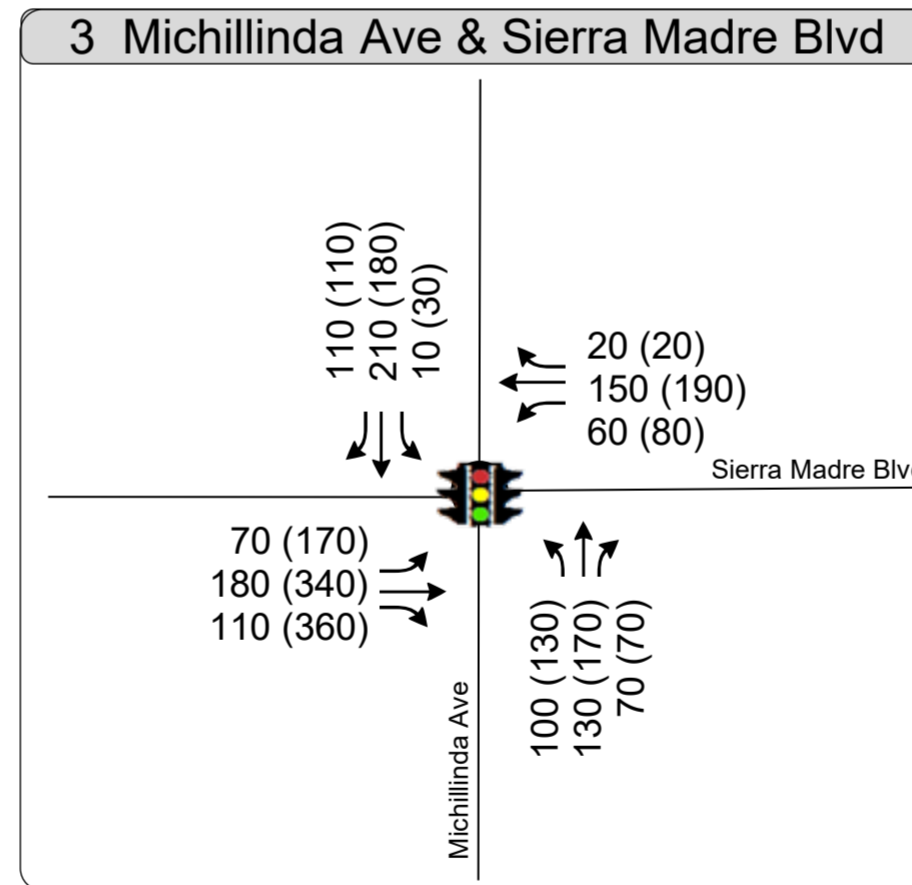
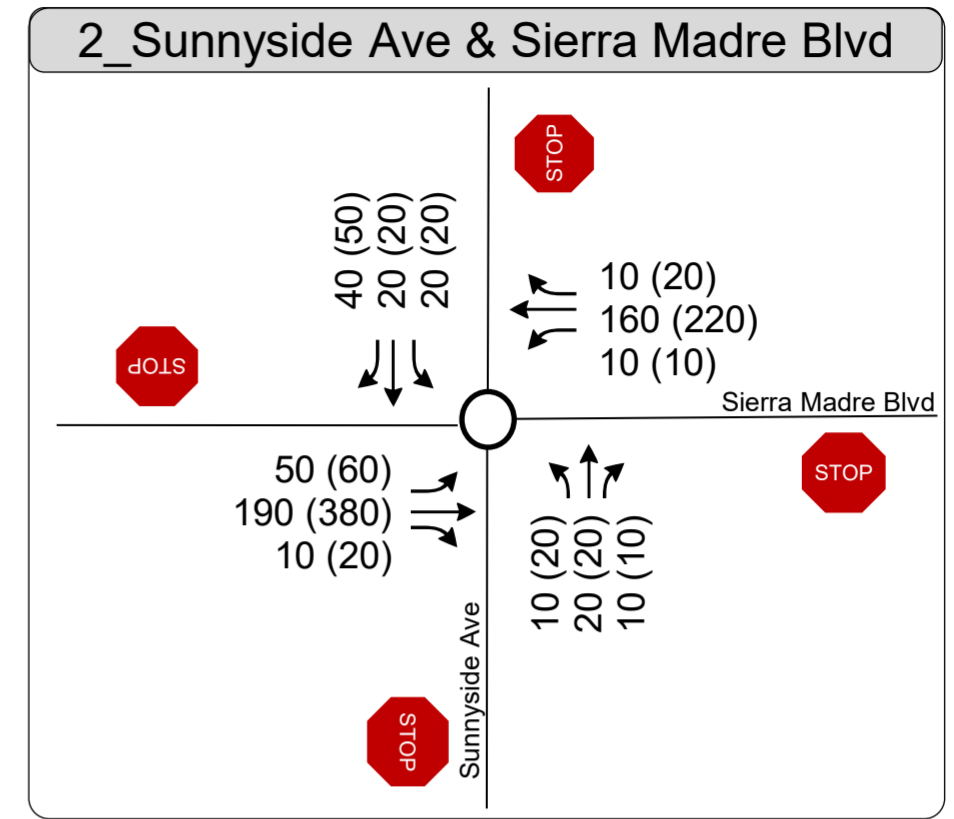
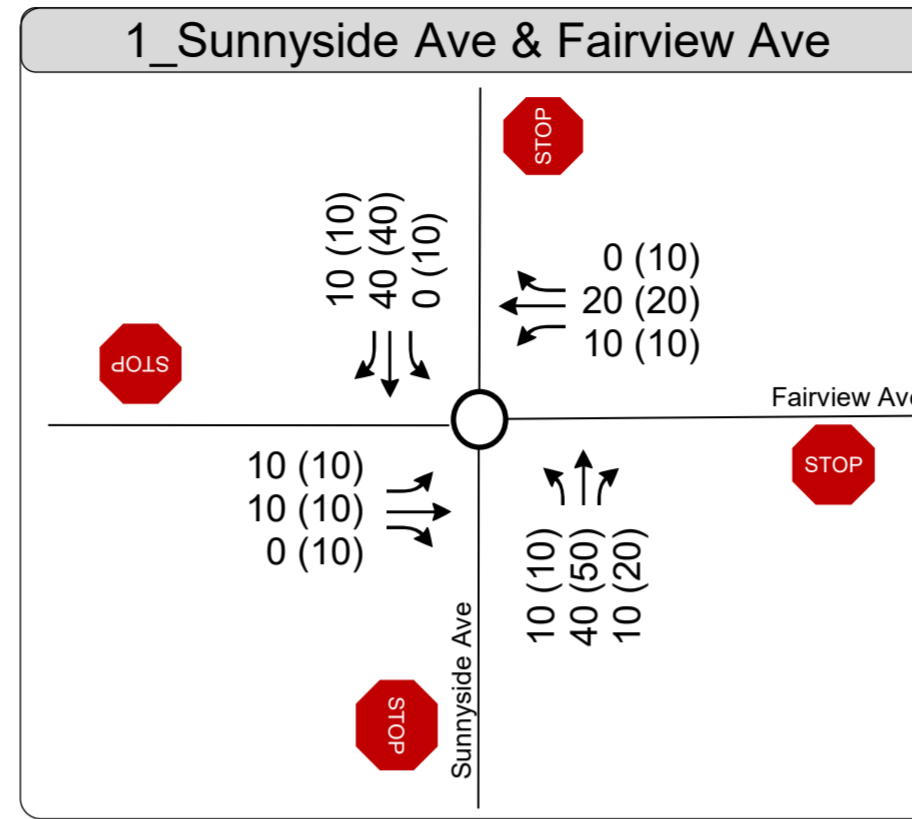
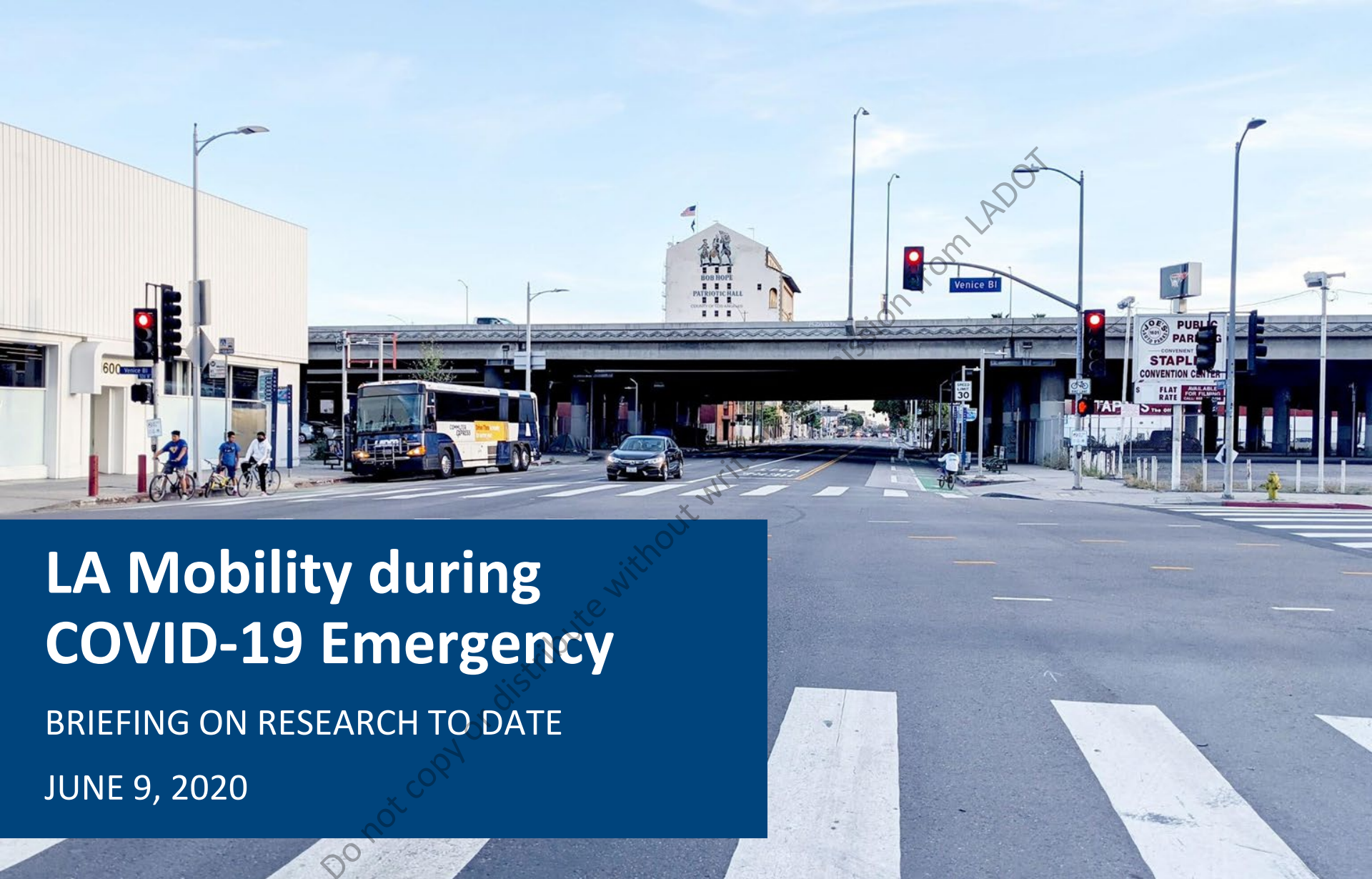


Figure 4  
Peak Hour Traffic Volumes and Lane Configurations  
Build-out (2025) With Project Condition





**Appendix A -  
LADOT Mobility During  
COVID**



# LA Mobility during COVID-19 Emergency

BRIEFING ON RESEARCH TO DATE

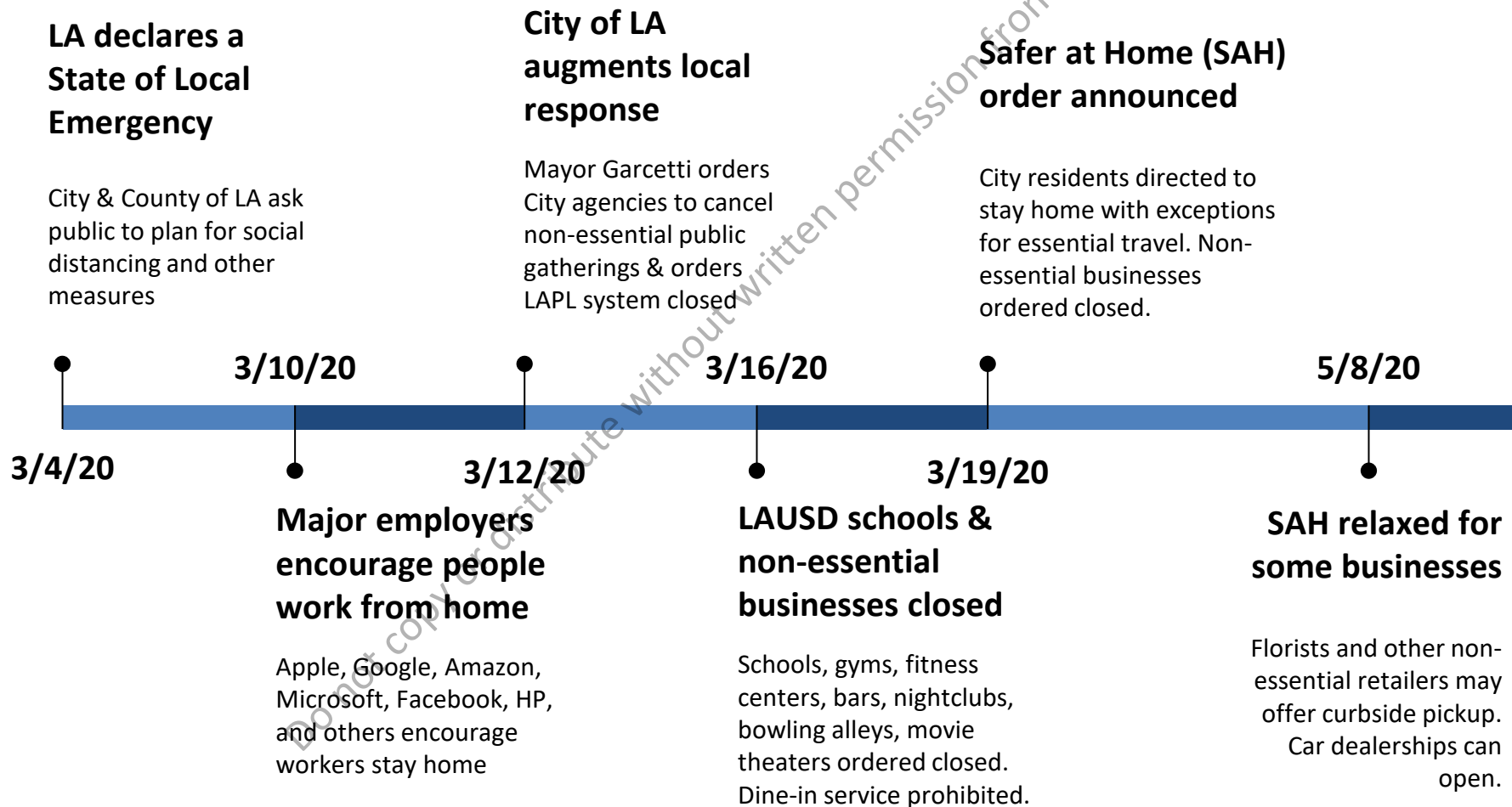
JUNE 9, 2020

# Briefing Objectives

- Present insights on LA mobility during COVID-19 emergency
  - ◆ Quantitative vs. Qualitative Data
- Discuss executive priorities for research moving forward
- Present possible opportunities for further research



# Timeline of COVID emergency response in LA

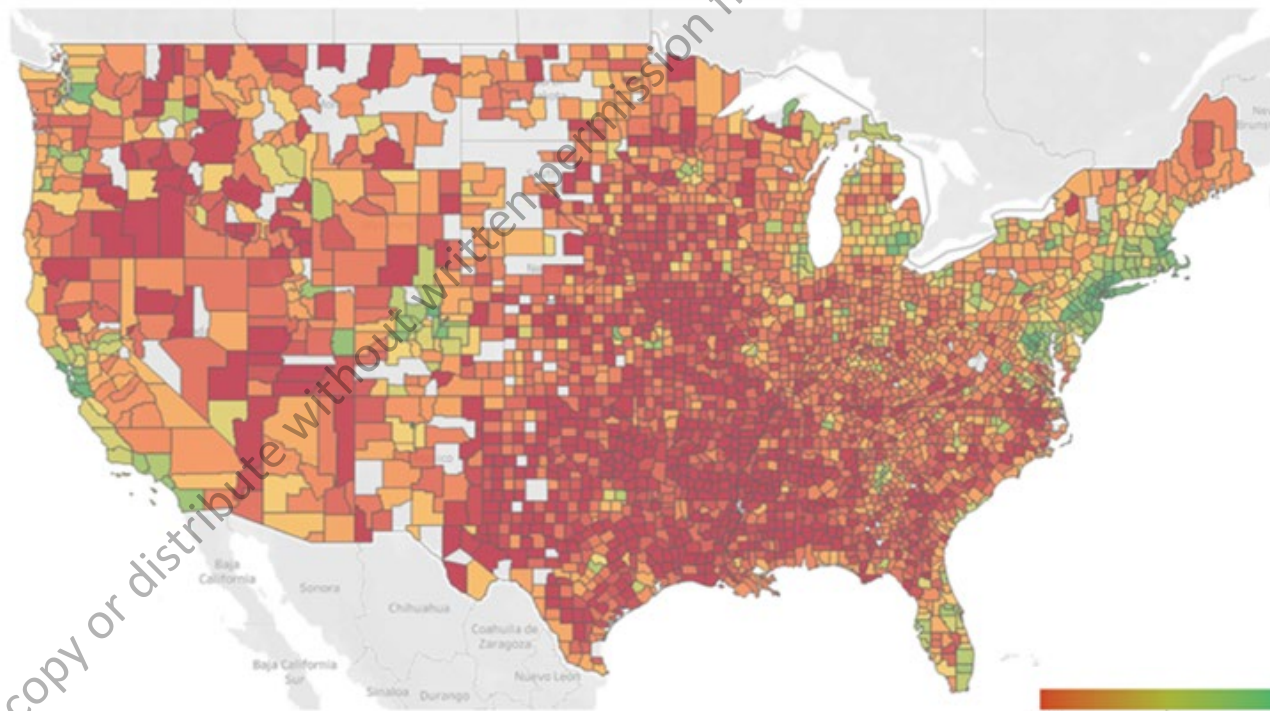




# LA County has adhered to staying Safer at Home



Trip reduction index as of April 24, 2020



Source: StreetLight Data, BCG Analysis

- **Indicating strong adherence to SAH orders, LA County earned a TRI=8.2**
- Boston Consulting Group's Trip Reduction Index (TRI) measures car travel on a 0 to 10 scale
- Where TRI=0 means 130% or more VMT than average in January 2020 and TRI=10 means no car travel was detected

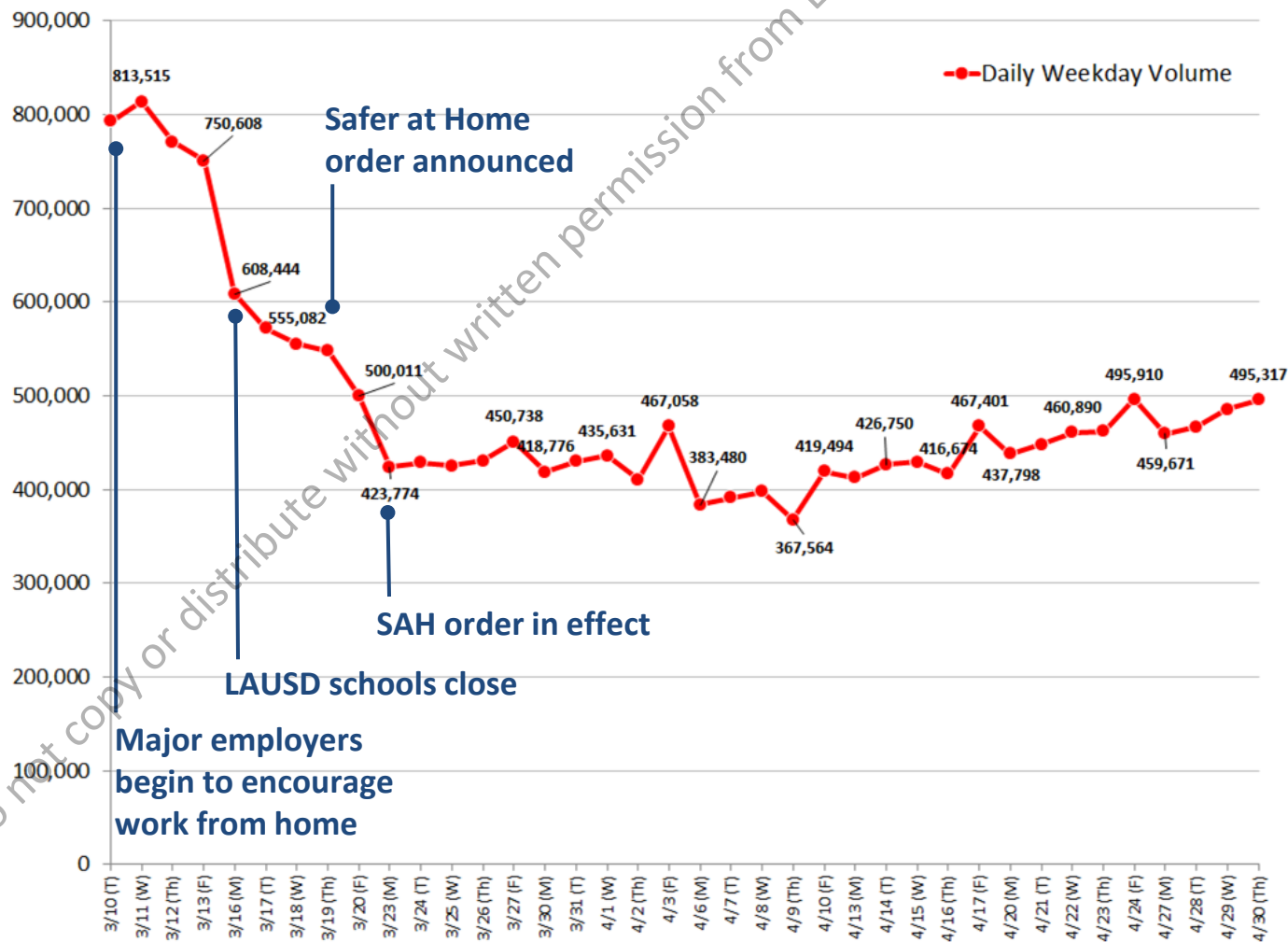
# Based on mobility datasets

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# After an initial drastic decline, Citywide vehicle trip making is on the rise

Based on data from  
ATSAC loop detectors  
at 12 intersections...

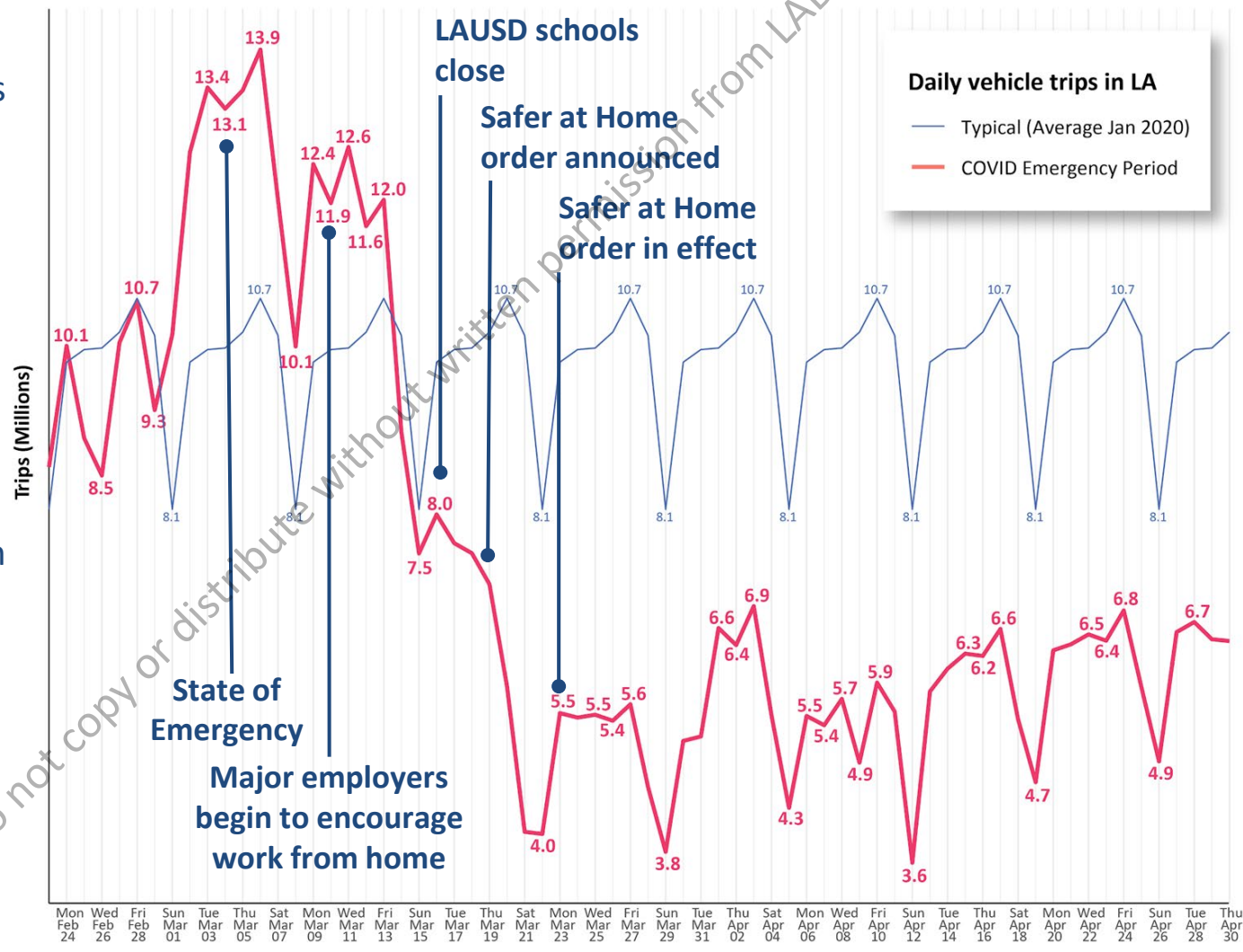
- When LAUSD schools closed, -30% vehicles counted than Tue 3/10
- Post-SAH order, -47% vehicles counted than Tue 3/10
- *Daily vehicle volumes range -37% to -58% than Tue 3/10*



Source: LADOT ATSAC Loop Data, LADOT Analysis

# After an initial drastic decline, Citywide vehicle trip making is on the rise

- On Sun 3/1 vehicle trip making increases
- Mon 3/2 sees +23% trips than usual
- Fri 3/6 sees +30% trips than usual
- With LAUSD schools closed, Mon 3/16 sees -21% trips
- Post-SAH order, Mon 3/26 sees -46% trips
- *Daily trips remain between -36 to 46% than typical, but increasing*



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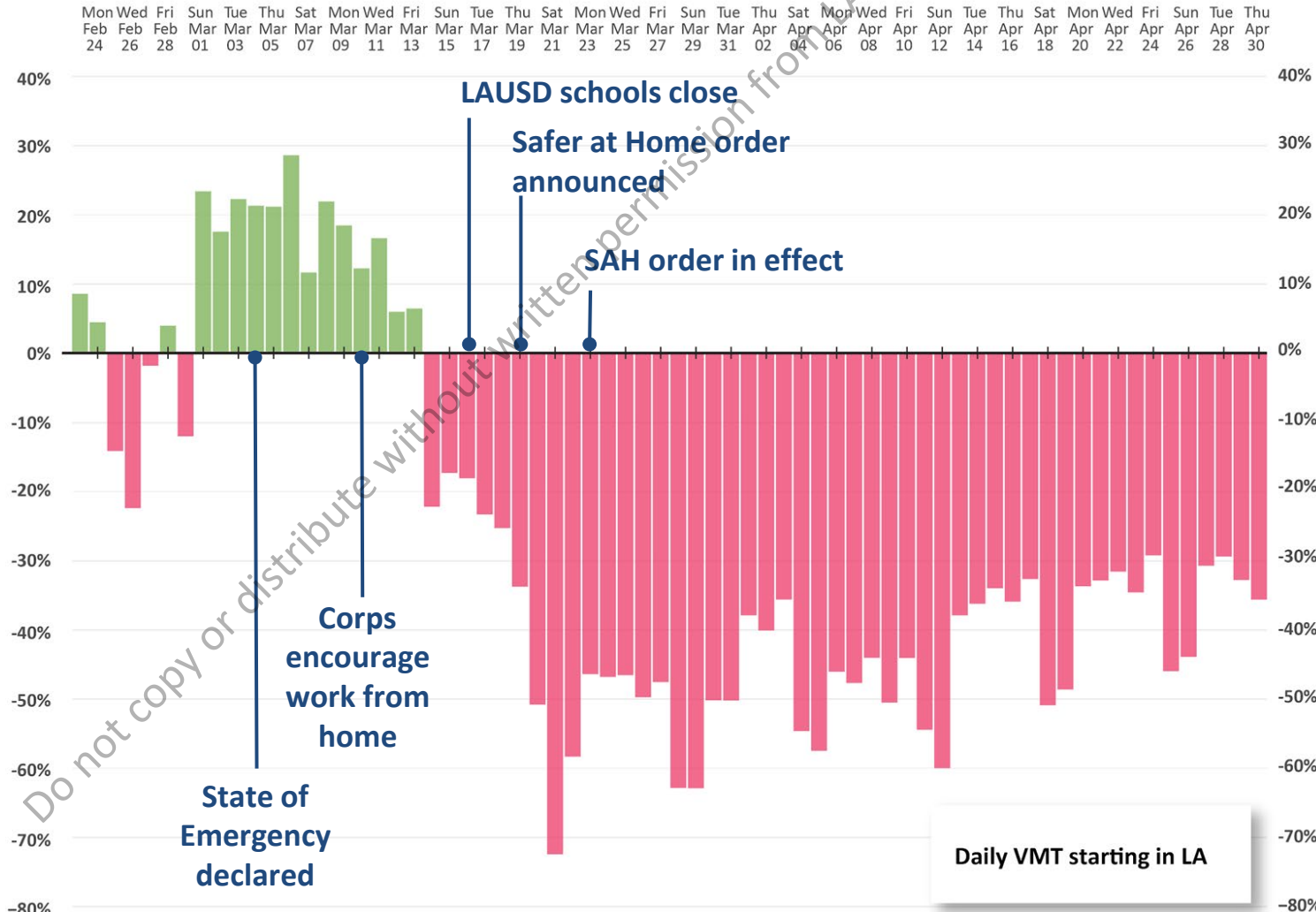
Source: StreetLight Data, LADOT Analysis





# After a major drop, Citywide VMT is on the rise

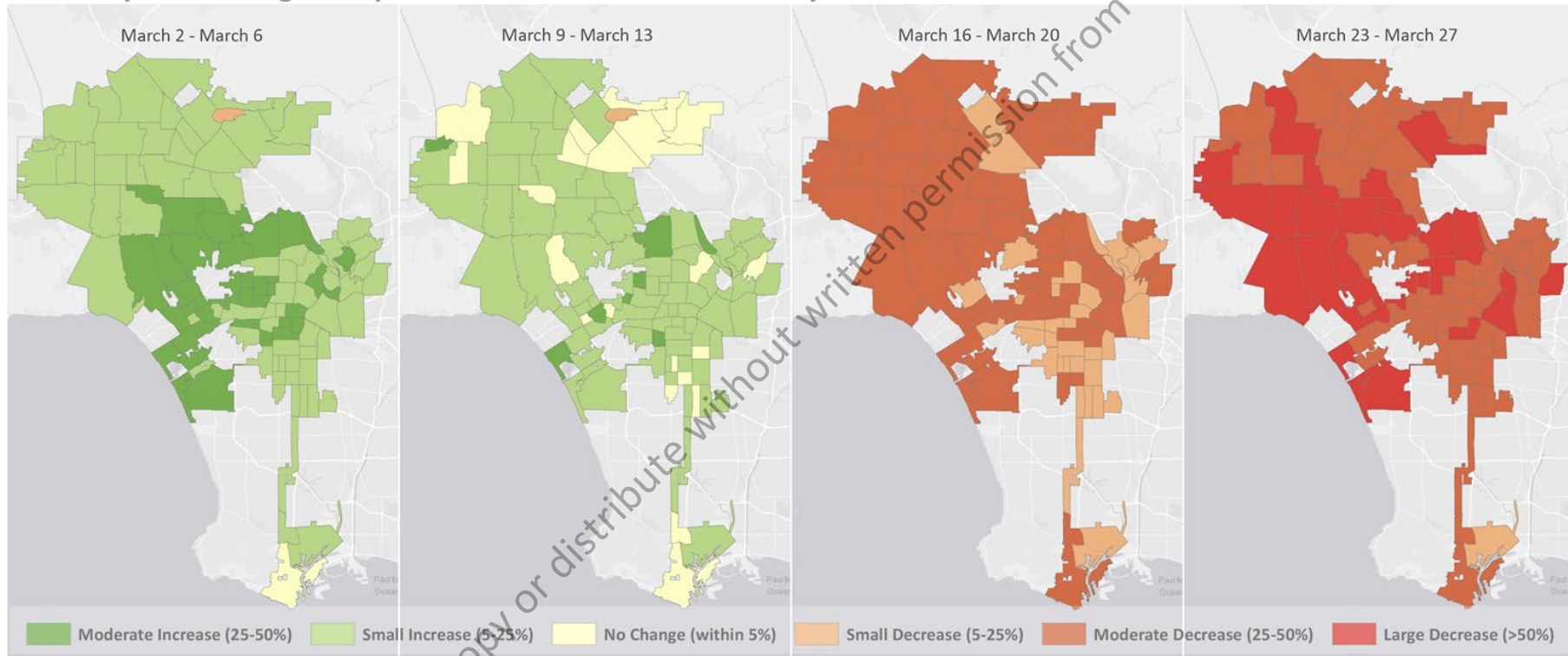
- On Fri 3/13, VMT peaks at +29% higher than usual
- When LAUSD closed, VMT fell 16% below normal
- After SAH order, daily VMT -50%
- 1st Sat post-SAH, daily VMT -72%
- 1st Mon post-SAH, daily VMT -46%
- Daily weekday VMT -30% to -50% than typical, but reduction is shrinking



Source: StreetLight Data, LADOT Analysis

# Declines in VMT were not equal throughout LA

Weekday VMT change compared to the last week of January 2020



Week of  
**3/23/20:**

**Bottom**  
**10**

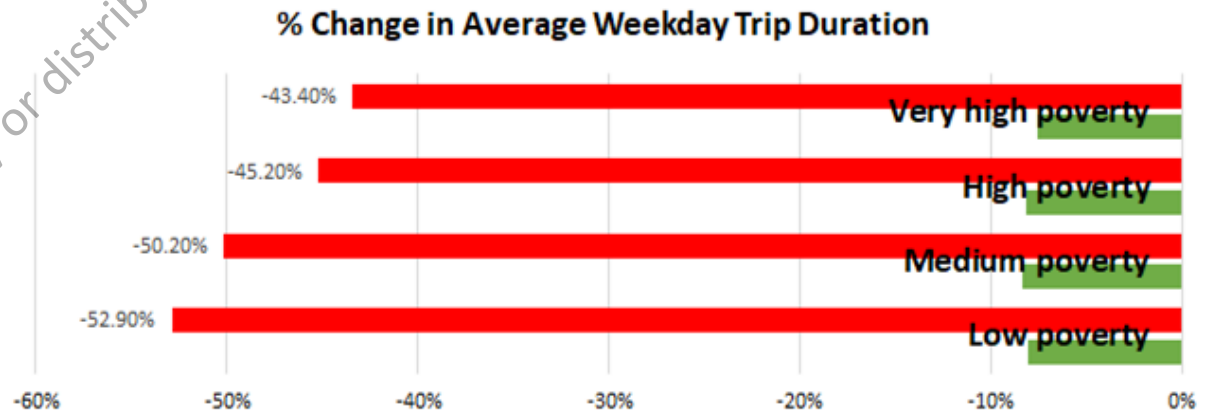
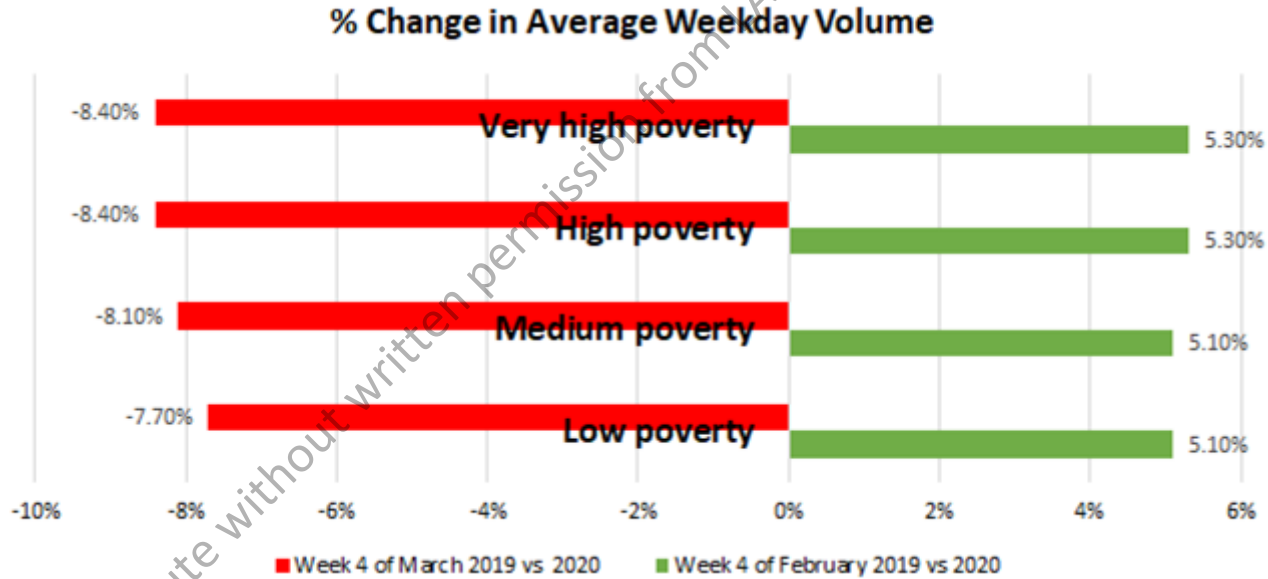
- Bottom ten neighborhoods by VMT Reduction**
- 105 Vermont Knolls
  - 106 Broadway-Manchester
  - 107 Pacoima
  - 108 Watts
  - 109 Jefferson Park
  - 110 Vermont Vista
  - 111 West Adams
  - 112 Florence
  - 113 Adams-Normandie
  - 114 Wilmington

**Top**  
**10**

- Top ten neighborhoods by VMT Reduction**
- 1 Century City
  - 2 Rancho Park
  - 3 University Park
  - 4 Playa Vista
  - 5 Downtown
  - 6 Studio City
  - 7 Hancock Park
  - 8 Hollywood
  - 9 Encino
  - 10 Westchester

# People in poor communities made less trips, but drove for longer time periods after Safer at Home

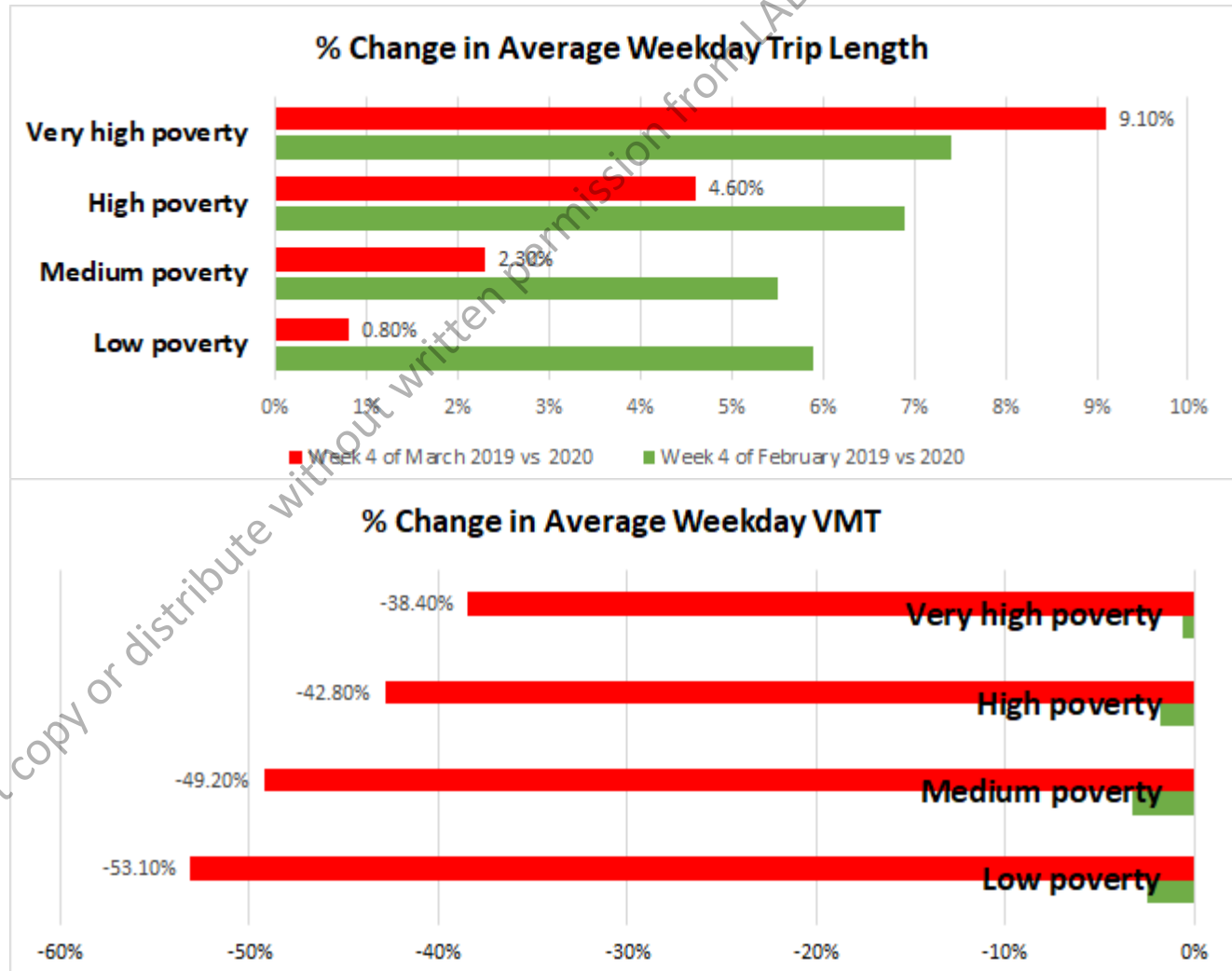
- Post-SAH average weekday volumes in very high/high poverty areas decreased more than low poverty areas
- However, very high/high poverty areas saw a smaller drop in vehicle trip duration
- People in affluent areas made more trips, short in duration



Source: StreetLight Data, California Healthy Places Index, LADOT Analysis

# People in poor communities reduced their VMT less than people in affluent areas

- Post-SAH average weekday vehicle trips are longer in areas with more poverty
- People in very high/high poverty areas saw lower reductions in VMT during post-SAH



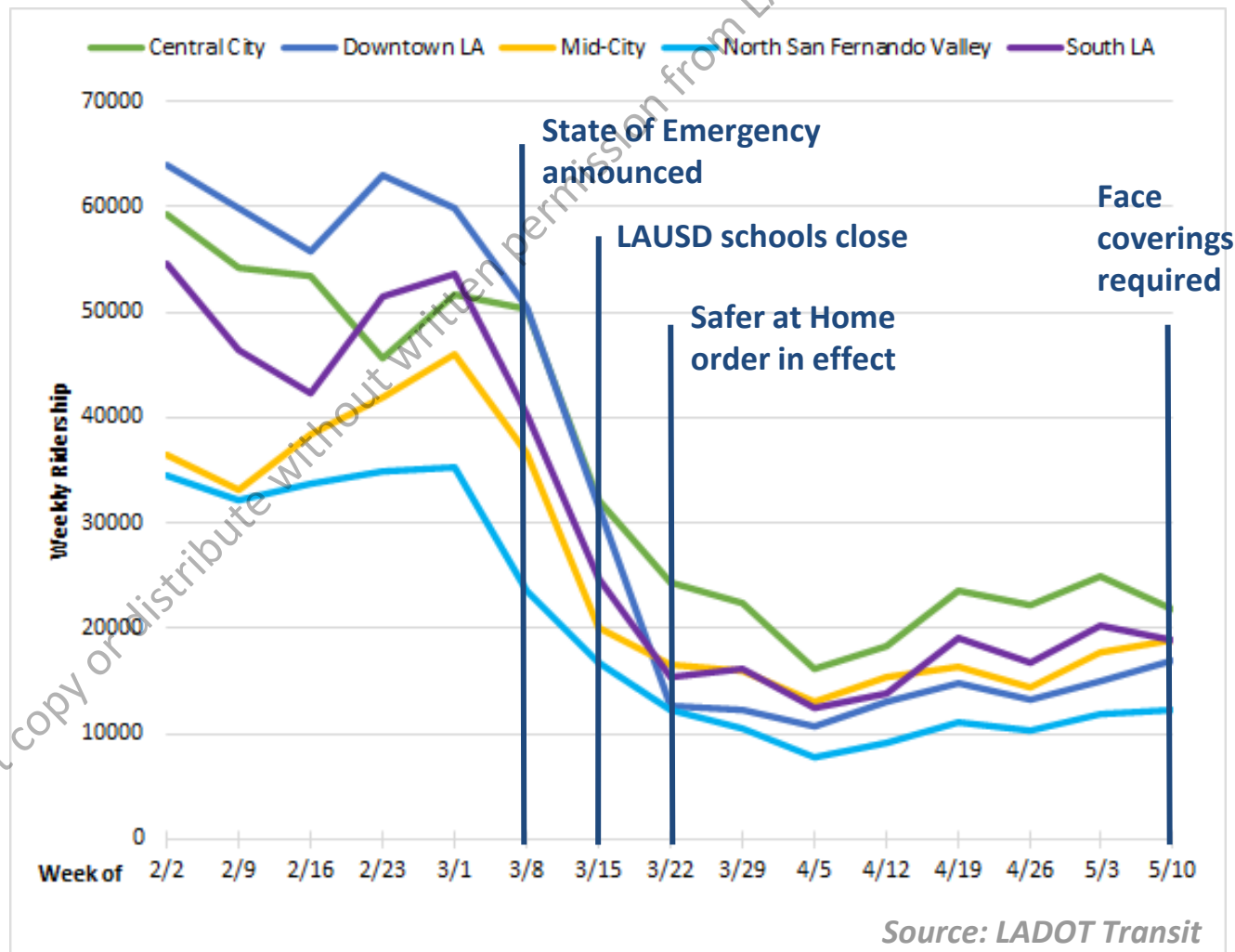
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Source: StreetLight Data, California Healthy Places Index, LADOT Analysis

# Many people were riding DASH in Central City & South LA

## Compared to February 2020 average weekly ridership:

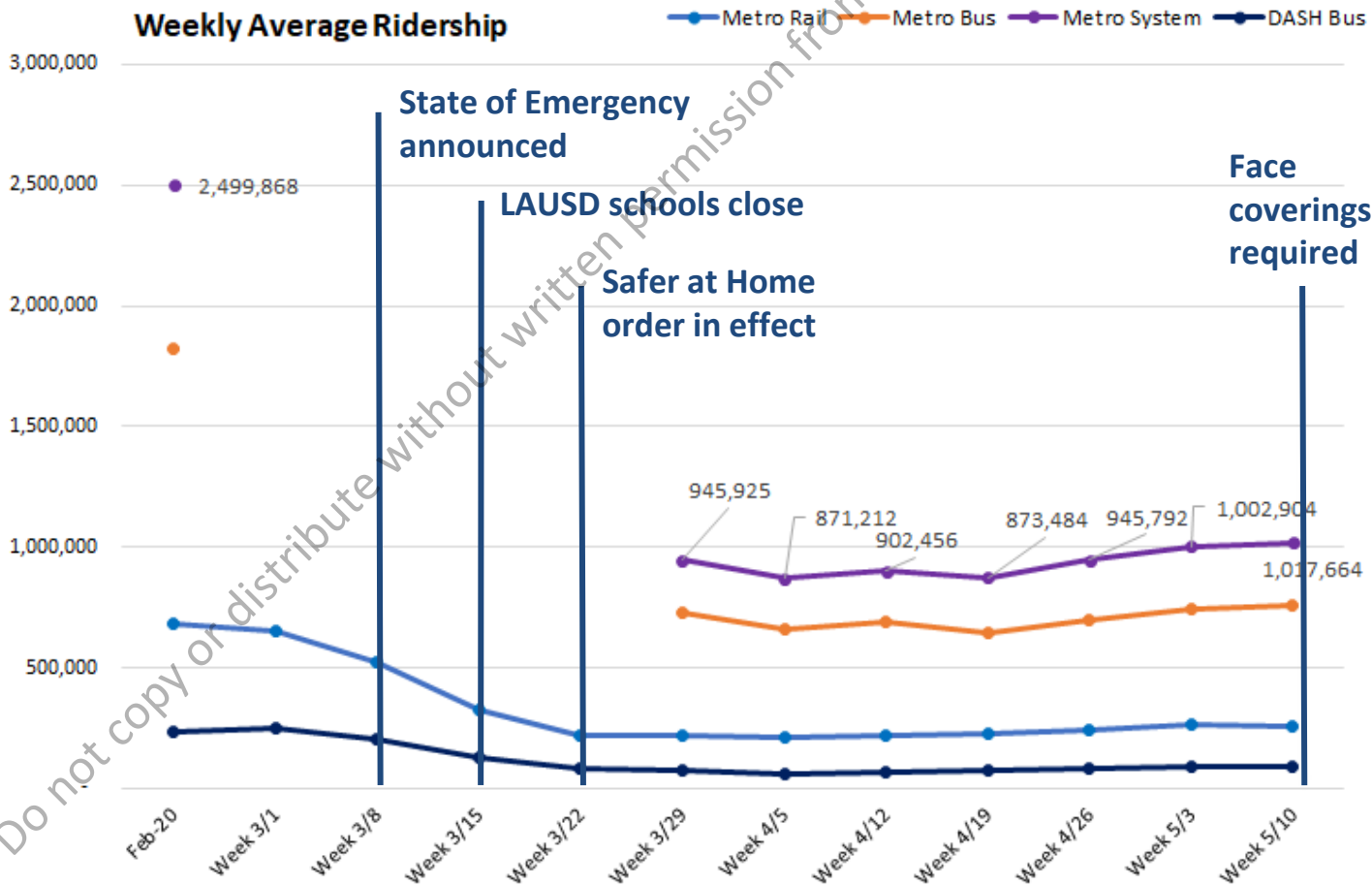
- DASH buses see -13% riders when state of COVID emergency announced
- LAUSD schools close, DASH buses see -46% riders
- SAH order goes into effect, DASH buses see -68% riders
- **~32% weekly DASH bus riders continue to use the system**



# Ridership on Metro Buses is climbing, seems stagnant on Metro Rail

Compared to Feb '20 average weekly ridership:

- LAUSD schools close, **Metro rail sees -52% riders**
- Metro Buses continue to move 37% of weekly ridership, at **~930k riders/week**
- Metro Rail moves 34% of weekly ridership, at **~233k/week**



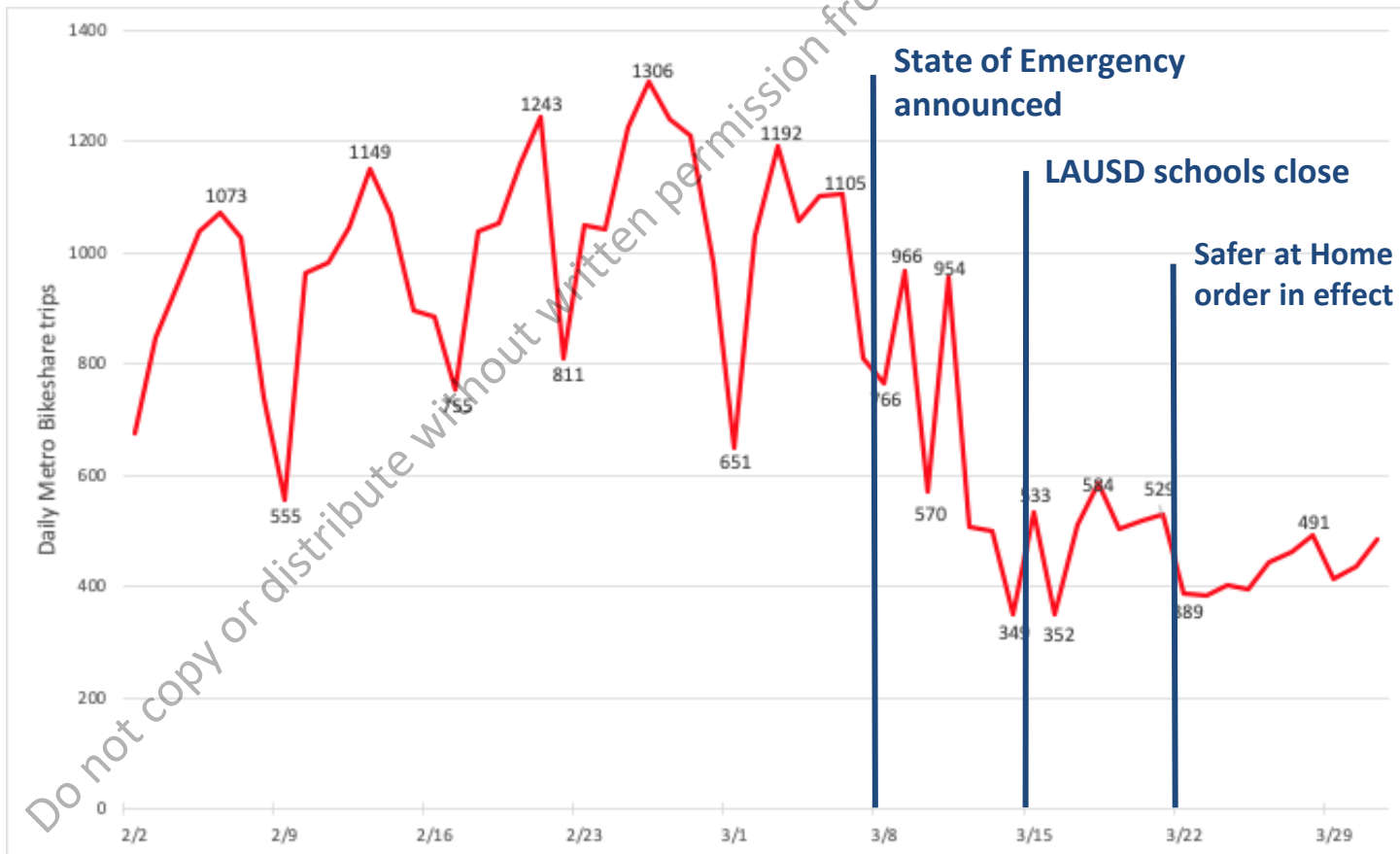
Source: LA Metro\*

\*Bus ridership data for 3/1 to 3/28 was not yet available

# Half as many people are using Metro Bike Share

Compared to February 2020 average daily ridership:

- Bikeshare rides decline by 30% when state of COVID emergency announced
- LAUSD schools close, rides decline by 50%
- SAH order goes into effect, rides decline by 58%



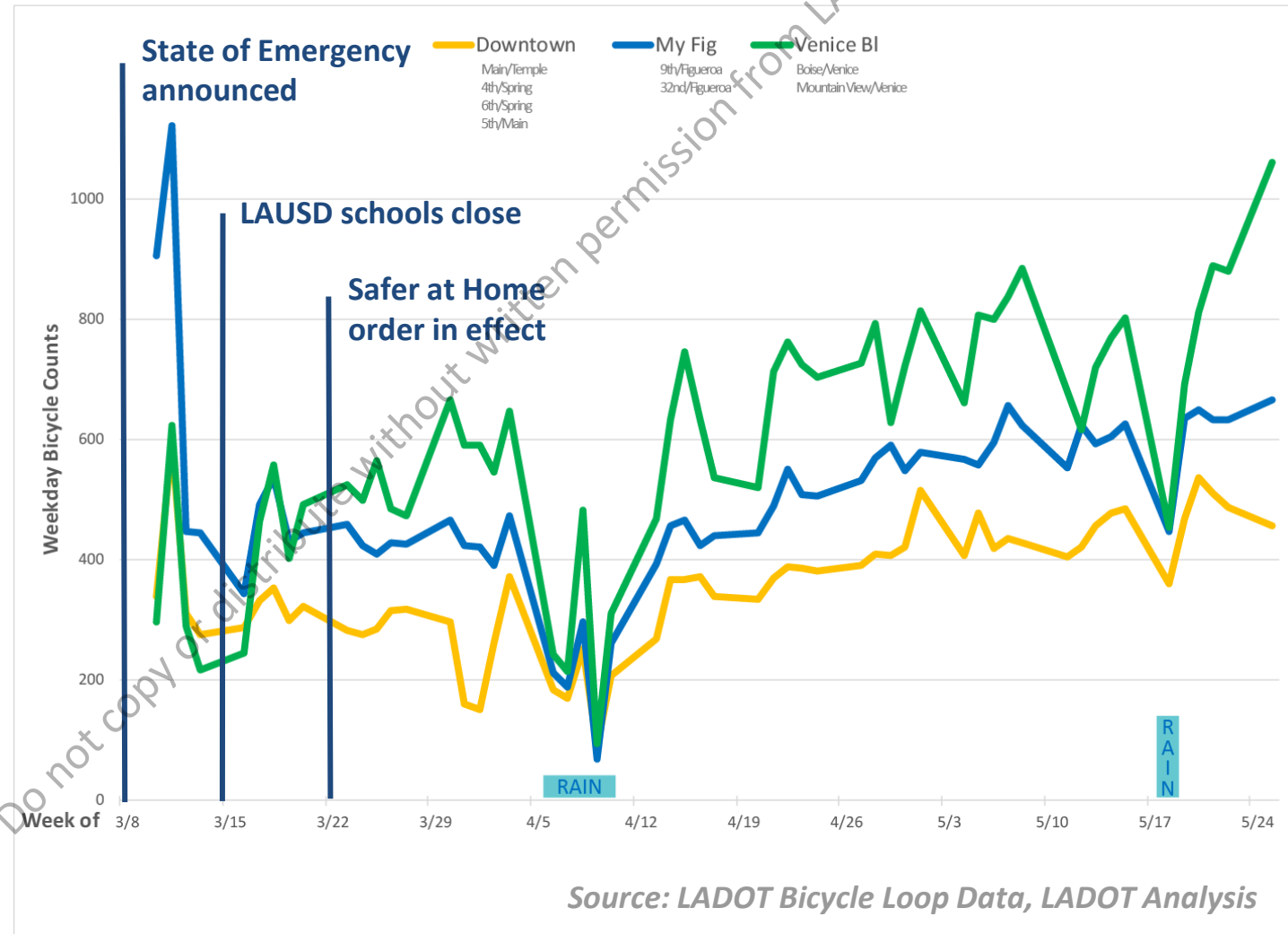
Source: Los Angeles Metro, LADOT Analysis



# More people are biking on protected bicycle lanes

Based on data from bicycle loop detectors at 8 locations...

- Post-SAH order, bicycle counts have increased on clear days
- *In May, bicycle counts were on average 54% higher compared to the week prior to SAH*





# LA mobility during the COVID-19 emergency, by the numbers

- **Total observed vehicle trips citywide decreased 30 - 50%** compared to January 2020 but **vehicle trip making is on the rise**
- While daily weekday citywide VMT also decreased 30 - 50% below January 2020 levels, **VMT is beginning to increase**
- **People in communities of color had smallest observed VMT reductions**, including Jefferson Park, Vermont Vista, West Adams, Florence, Adams-Normandie, Wilmington
- **People in high poverty areas made less trips, but drove for longer time periods & more miles during SAH** when compared to people in affluent areas
- DASH buses continue serving about 32% of their weekly ridership, with **highest weekly ridership figures seen on bus routes in Central City & South LA**
- Similarly, **LA Metro Buses continue moving ~930k bus riders/week**, 37% of typical weekly ridership, and **LA Metro Rail serves ~233k/week**, 34% of typical
- Metro Bike Share seeing **about 50% decrease in typical daily ridership**
- On physically separated bikeways, **bicycle ridership is growing**

# According to the people of Los Angeles

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# Mobility during the COVID-19 emergency, according to people privileged to work from home

- **Expand provision of working from home** post-COVID emergency
- Reclaim road space and parking lots for **for commerce, for dining, or to recreate**
  - **Convert curbside spaces** to high-turnover pick-up or delivery zones serving essential businesses
  - **Expand outdoor market footprints** into adjacent streets to relieve crowding and support physical distancing
  - Implement **transformative placemaking**
  - Provide public spaces to **escape the online, virtual spaces** that are being surveilled
- Take advantage of low traffic conditions to **accelerate construction of improvements**
- **Continue building** dense, urban communities



*Sources: Local advocates, Mayor's Office of Public Engagement Area Representatives*

# LA mobility during the COVID-19 emergency, according to people still riding transit

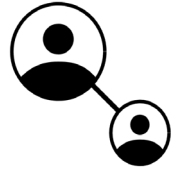
- Based on 1,102 Transit app users surveyed in LA metro area,
  - **40% respondents/riders are 35 - 54 years old**, 39% are 18 - 34 yrs old
  - **85% of respondents/riders do not own or have access to car**
  - **25% of respondents/riders who ride transit daily, do not have a car**
  - Top 3 reasons for travel, **work (72%), errands (49%), and healthcare (28%)**
  - **Nearly half (49.5%) have changed their travel time, earlier or later**
  - Essential workers riding transit are **employed in food prep & service (18%), building/grounds maintenance (9%), sales/retail (8%), healthcare support (7%)**
  - **About 50% earn less than \$20k a year**
- Reduce anxiety of current transit riders, deliver **enhanced bus service capacity to allow physical distancing, improved reliability, transit vehicle cleanliness, and access to facilities for personal hygiene**



Sources: LA Metro via Transit App Survey, HCLLA FamilySource Centers, LA Mayor's Angeleno Card Assistance Program, EWDD Rapid Response Centers, Mayor's Office of Public Engagement Area Representatives

# LA mobility during the COVID-19 emergency, according to financially impacted people (1/2)

- Former transit riders who do not own a car are **shifting to community-based car sharing, shared rides, bicycling, or walking.**
- Oversubscribed on-street parking due to overcrowded housing and/or high vehicle ownership rates has motivated people to **avoid moving their car, increase online shopping, or have anxiety about citations.**
- Fear of crowded spaces has motivated people to **make essential trips early or late in the day or to travel farther.**
- Fear of COVID-19 exposure has isolated some people at home, resulting in **feelings of anxiety, fear, loneliness, isolation, and disconnection.**
- Struggling to find work, unemployed low-income people are **considering moving out of state.**



*Sources: HCIDLA FamilySource Centers, LA Mayor's Angeleno Card Assistance Program, EWDD Rapid Response Centers, Mayor's Office of Public Engagement Area Representatives*



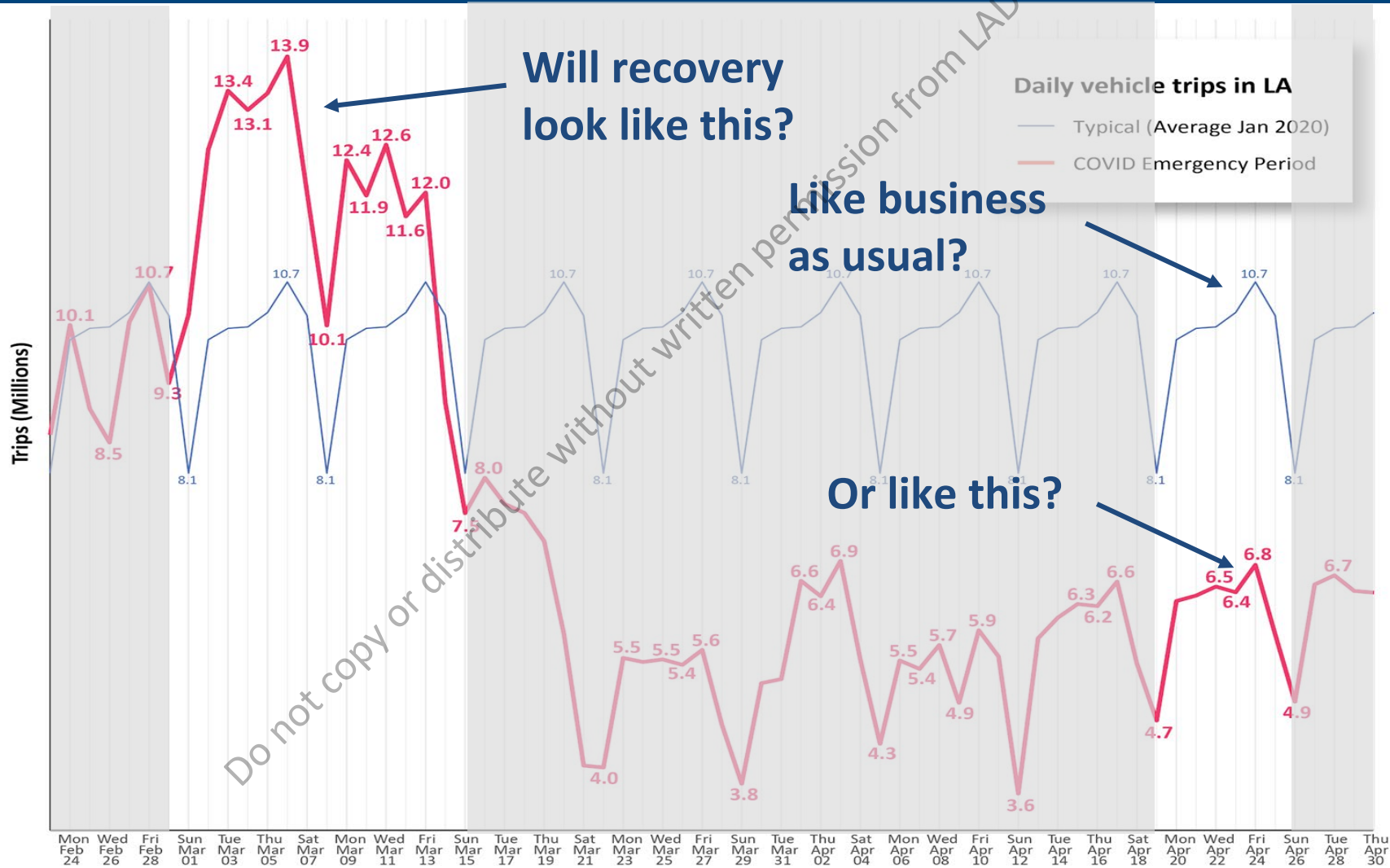
# LA mobility during the COVID-19 emergency, according to financially impacted people (2/2)

- Newly unemployed/underemployed people are either **driving more to generate income or not at all to reduce expenses and health risk exposure.**
- Employed people **only go out for essential trips**, like reporting to a physical location for work, to go grocery shopping, or to fill prescriptions.
- All surveyed families **avoid riding transit and stopped non-essential travel**, limiting existence to their neighborhoods and restricting fresh food access.
- Many families with young children reported living in crowded housing nearby closed parks, and are **hopeful parks will reopen with facilities for personal hygiene and with public information on physical distancing.**
- Linguistically isolated communities would like **more accessible public information on agencies' public transit vehicle and facilities sanitation procedures, on processes for making maintenance requests, and on fare discounts.**



Sources: HCIDLA FamilySource Centers, LA Mayor's Angeleno Card Assistance Program, EWDD Rapid Response Centers, Mayor's Office of Public Engagement Area Representatives

# Rebounding from the COVID-19 emergency



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# Possible scope for research partnership

**Partner with *Fehr & Peers Research & Development*** to produce actionable research:

- **Expand study of metrics in this research to LA region**
- **Develop Work from Home scenario planning tool** to better understand and estimate benefits of regional telecommuting and alternative work schedules
- **Estimate benefits of just mobility investments to support recovery** to identify strategies that prioritize the health and safety of most vulnerable Angelenos
- **Other ideas?**

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LADOT'S VISION

**In Los Angeles, all people have access to safe and affordable transportation choices that treat everyone with dignity and support vibrant, inclusive communities.**

**Appendix B -  
Retreat Center 2019  
Trips**

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Information	# of Attendees	Estimated # of Vehicles Round Trip
1/6/2019	1	0	Sunday	1-1:30 pm	Private cars	St Gonzolo Community	Sunday	5-6 pm	LA County	20	20
01/7-11/2019	5	4	Monday	1pm-4pm	Shuttles & cars	Claretian Missionaires	Friday	12-1 p.m.	Local, national & international	71	100
01/7-10/2019	4	3	Monday	Morning	Shuttles	Holy Cross Province	Thursday	Afternoon	National	3	2
01/7-10/2019	4	3	Monday	Morning	Shuttles	St Paul of the Cross Province	Thursday	Afternoon	National	3	2
1/8/2019	1	0	Tuesday	8:45-9 am	Private cars	Ecclesia Church	Tuesday	12pm	Los Angeles	12	8
1/13/2019	1	0	Sunday	1:30-2 pm	Private cars	Private Event Juan Tejada	Sunday	4-4:15 pm	Local area	15	20
1/14/2019	1	0	Monday	9-9:30 am	1 bus	Bishop Alemany High School	Monday	4-4:15 pm	Mission Hills	53	2
1/15-18/2019	4	3	Tuesday	1 pm & 4 pm	1 bus, 2 buses & 5 cars	Notre Dame High School	Friday	4:30 PM	Sherman Oaks	69	22
1/16/2019	1	0	Wednesday	3:45-4 pm	Private cars	Charism Committee	Wednesday	6-6:15 pm	Local area	8	16
1/17/2019	1	0	Thursday	6:55-7 am	Private cars	Bldg & Grounds Committee	Thursday	8:15-8:30 am	Local area	6	12
1/17/2019	1	0	Thursday	10-10:30 am	Private cars	R. Martinez Funeral	Thursday	12:30-1 pm	Local area	20	20
1/18/2019	1	0	Friday	8-9 am	Private cars	St Francis High School	Friday	3-3:15 pm	LA County	70	140
1/22-13/2019	2	0	Tuesday	7:45-8 am	Private cars	Frontier Ventures	Tuesday	6-6:15 pm	Local area	6	12
1/22-25/2019	4	3	Tuesday	1 pm & 4 pm	1 van, 2 buses & 5 cars	St Lucy's Priory High School	Friday	5-5:15 p.m.	Glendora	71	20
1/22/2019	1	0	Tuesday	9-9:30 am	1 bus	Bishop Alemany High School	Tuesday	4-4:15 pm	Mission Hills	41	2
1/24/2019	1	0	Thursday	6:15-6:30 pm	Private cars	Ambassador Committee	Thursday	8:15-8:30 pm	Local area	6	12
1/25/2019	1	0	Friday	8:15-8:30 am	Private cars	Azusa Pacific University	Friday	12:00 PM	Azusa	19	38
1/27/2019	1	0	Sunday	3:30-4:30 pm	Private cars	Retreat Captains Meeting	Sunday	6-6:15 pm	Southern California	49	80
1/28/2019	1	0	Monday	3:45-4 pm	Private cars	Audit-Finance Committee	Monday	6-6:15 pm	Local area	12	24
1/30-2/1/2019	3	2	Wednesday	8-8:30 am	1 van & 2 buses	Sacred Heart High School	Friday	5-5:15 pm	Lincoln Heights, Los Angeles	72	10
1/30/2019	1	0	Wednesday	4:15-4:30 pm	Private cars	Board Committee Chairs Meeting	Wednesday	6-6:15 pm	Local area	10	20
1/31-2/1/2019	2	1	Thursday	9:00 AM	3 vans	Alverno Heights Academy	Friday	12:30 PM	Sierra Madre	42	6

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Information	# of Attendees	Estimated # of Vehicles Round Trip
2/4/2019	1	0	Monday	8:30-9 am	Private cars	Diocese of Orange	Monday	5-5:15 pm	Orange County	6	4
2/4/2019	1	0	Monday	8-9 am	Private cars	Bishop Amat High School	Monday	2-2:30 pm	LA County	86	172
2/5-8/2019	4	3	Tuesday	1 pm & 4 pm	5 vehicles & 2 buses	Chaminade College Prep HS	Friday	4:30 PM	Chatsworth	62	18
2/5/2019	1	0	Tuesday	3:45-4 pm	Private cars	Golf Committee Meeting	Tuesday	6-6:30 pm	Local area	4	8
2/6/2019	1	0	Wednesday	9:15-9:30 am	Private cars	City to City	Wednesday	4-4:15 pm	Los Angeles	13	26
2/6/2019	1	0	Wednesday	3:45-4 pm	Private cars	MDPRC Board Meeting	Wednesday	8-8:15 pm	Local area	20	40
2/7/2019	1	0	Thursday	9:45-10am	Private cars	Glendale Athletic Club Seniors	Thursday	12:00 PM	Glendale	10	6
2/11/2019	1	0	Monday	8:30-9 am	2 cars & 2 buses	Ramona Convent Secondary	Monday	2-2:15 pm	Alhambra	85	6
2/11/2019	1	0	Monday	3:45-4 pm	Private cars	Visioning Committee	Monday	6-6:15 pm	Local area	10	20
2/12-15/2019	4	3	Tuesday	1 pm & 4 pm	1 van, 2 buses & 5 cars	Loyola High School	Friday	4:30 PM	Los Angeles	62	16
2/13/2019	1	0	Wednesday	Throughout Day	Private cars	Spiritual Direction	Wednesday	Throughout Day	Local area	6	12
2/15/2019	1	0	Friday	9:30 AM	Private cars	Fuller Seminary	Friday	12-12:15 pm	Local area	22	44
2/15/2019	1	0	Friday	9:20-9:30 am	Private cars	Spiritual Direction	Friday	10:30-10:45 am	Local area	2	4
2/17/2019	1	0	Sunday	12-1 pm	Private cars	St Gonsalo Garcia Celebration	Sunday	5-6 pm	LA County	20	20
2/18/2019	1	0	Monday	6-6:30 pm	Private cars	Breve Retiro	Monday	9-9:15 pm	LA County	15	22
2/18/2019	1	0	Monday	6:45-7 pm	Private cars	San Gabriel Region Young Adult Team Meeting	Monday	10-10:15 pm	San Gabriel Valley	15	30
2/19/2019	1	0	Tuesday	3:45-4pm	Private cars	Spiritual Direction	Tuesday	5-5:15 pm	Local area	2	4
2/20/2019	1	0	Wednesday	7:45-8 am	Private cars	City of Sierra Madre Staff	Wednesday	5-5:15 pm	Sierra Madre	14	28
2/21-22/2019	2	1	Thursday	1 pm & 4 pm	1 van & 1 bus	Immaculate Heart High School	Friday	4-4:30 pm	Los Angeles	42	6
2/22/2019	1	0	Friday	8-8:15 am	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local area	33	66
2/24/2019	1	0	Sunday	1:30-2 pm	Private cars	Medina 30th Anniversary Mass & Reception	Sunday	6-6:15 pm	LA County	100	100
2/24/2019	1	0	Sunday	1:15-1:30pm	Private cars	Italian Men's Captains Meeting	Sunday	4:30-4:45 pm	LA County	12	24
2/26-27/2019	2	1	Tuesday	11:30 a.m.	3 vans	Rancho San Antonio	Wednesday	2:00 PM	Chatsworth	16	6
2/26/2019	1	0	Tuesday	12:15-12:30 pm	Private cars	Spiritual Direction	Tuesday	2:45 PM	Local area	2	4
2/27-3/1/2019	3	2	Wednesday	8-8:15 am	5 cars & 2 buses	Mayfield Sr. School	Friday	5:00 PM	Pasadena	107	14
2/27/2019	1	0	Wednesday	8:45-9 am	Private cars	Spiritual Direction	Wednesday	10:45 AM	Local area	2	4
2/28/2019	1	0	Wednesday	8:45-9 am	Private cars	Spiritual Direction	Wednesday	10:45 AM	Local area	2	4

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
3/1/2019	1	0	Friday	8-8:30 am	Private cars	Rio Hondo College	Friday	5-5:15 pm	LA County	11	20
3/1/2019	1	0	Friday	8-8:30 AM	Private cars	Polytechnic High School	Friday	3:00 PM	Pasadena	8	16
3/3/2019	1	0	Sunday	1:00:00 PM	Private cars	St Cecelia Young Adult Group	Sunday	2-3 pm	Tustin	15	8
3/5-8/2019	4	3	Tuesday	1 pm & 4 pm	2 vans, 1 bus & 5 cars	Louisville High School	Friday	5:30 PM	Woodland Hills	45	18
3/5/2019	1	0	Tuesday	8-8:15 am	Private cars	Chinese Evangelical Church	Tuesday	5-5:15 pm	Los Angeles	11	22
3/6/2018	1	0	Wednesday	5:45-6 pm	Private cars	Pasadena Legatus	Wednesday	9:45-10 pm	Pasadena	38	38
3/7-8/2019	2	1	Thursday	4-5 pm	Private cars	Fuller Seminary	Friday	3-3:15 pm	Local area	30	60
3/10/2019	1	0	Sunday	1:00 PM	Van	isters of the Lovers of the Holy Cr	Sunday	5:30 PM	LA County	9	2
3/10/2019	1	0	Sunday	2:00 PM	Private cars	St Margaret Mary Catholic Church	Sunday	5:00 PM	Lomita	30	20
3/10/2019	1	0	Sunday	2-2:30 pm	Private cars	Special Friends & Benefactors Mass & Supper	Sunday	5-5:30 pm	Southern CA	61	61
3/10/2019	1	0	Sunday	3:00 PM	Private cars	Young Adult Core Team Meeting	Sunday	4:30 PM	LA County	10	20
3/12/2019	1	0	Tuesday	6:50-7 am	Private cars	Bldg & Grounds Committee	Tuesday	8:15-8:30 am	Local area	6	12
3/12-14/2019	3	2	Tuesday	8:45-9 am	Private cars	Pacific Crossroads Church	Thursday	12-12:15 pm	Los Angeles	9	18
3/12/2019	1	0	Tuesday	10:00 AM	2 buses	St Madeline Catholic Church	Tuesday	1:00 PM	Pomona	90	4
3/12-15/2019	4	3	Tuesday	1 pm & 4 pm	1 van, 2 buses & 5 cars	Loyola High School	Friday	4:30 PM	Los Angeles	67	16
3/13/2019	1	0	Wednesday	10:15-10:30 am	Private cars	Spiritual Direction	Wednesday	12:00 PM	Local area	2	4
3/13/2019	1	0	Wednesday	12-5 pm	Private cars	Spiritual Direction	Wednesday	1-6 pm	Local area	4	8
3/15/2019	1	0	Friday	8-8:15 am	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local area	9	18
3/17-19/2019	3	2	Sunday	3-5 pm	Private cars	CESNA	Tuesday	5-5:15 pm	LA County	22	44
3/18/2019	1	0	Monday	4:15-4:30 pm	Private cars	Finance Committee Meeting	Monday	7:00 PM	Local area	8	16
3/18/2019	1	0	Monday	6-6:30 pm	Private cars	Breve Retiro	Monday	9-9:30 pm	Local area	15	20
3/19-22/2019	4	3	Tuesday	1 pm & 4 pm	1 small bus, 2 med. Buses & 5 cars	Notre Dame High School	Friday	4:30 PM	Sherman Oaks	47	22
3/20/2019	1	0	Wednesday	11 am-12:30 pm	Private cars	Spiritual Direction	Wednesday	12:30 PM	Local area	2	4
3/20/2019	1	0	Wednesday	4:15-4:30 pm	Private cars	Charism Committee	Wednesday	6:30-6:45 pm	Local area	8	16
3/21-22/2019	2	1	Thursday	2-3 pm	Private cars	Fuller Seminary	Friday	4-4:15 pm	Local area	17	34
3/21/2019	1	0	Thursday	1-4 pm	Private cars	Spiritual Direction	Thursday	5:15 PM	Local area	4	8
3/21/2019	1	0	Thursday	4:45-5 pm	Private cars	Policy Governance Committee	Thursday	7-7:15 pm	Local area	10	20
3/21/2019	1	0	Thursday	6:15-6:30pm	Private cars	Ambassadors Committee	Thursday	8:30-8:45 pm	Local area	8	16
3/22/2019	1	0	Friday	8:30-8:45 am	Private cars	Spiritual Direction	Friday	10:30 AM	Local area	2	4
3/22/2019	1	0	Friday	9-9:30 am	Private cars	St Joseph AACC	Friday	5-7 pm	Southern CA	48	76
3/22/2019	1	0	Friday	10:00 AM	Private cars	Private Group-Stations	Friday	12:00 PM	Local area	10	20
3/25/2019	1	0	Monday	8:15-8:30 am	Private cars	Fellowship Monrovia	Monday	4:30-4:45 pm	Local area	45	90
3/26/2019	1	0	Tuesday	8:45-9 am	Private cars	Spiritual Direction	Tuesday	10:30 AM	Local area	2	4
3/26-29/2019	4	3	Tuesday	1 pm & 4 pm	5 vehicles & 1 bus	Chaminade College Prep HS	Friday	4:30pm	Chatsworth	37	14
3/26/2019	1	0	Tuesday	7:00 PM	Private cars	Holy Angels Church	Tuesday	8:30 PM	Arcadia	40	30
3/28/2019	1	0	Thursday	9-9:30 am	Private cars	NCDC	Thursday	1:45-2 pm	LA County	10	20
3/28/2019	1	0	Thursday	5:45-6 pm	Private cars	EQOHS	Thursday	9:30-10 pm	Local area	28	28
3/31/2019	1	0	Sunday	1-1:30 pm	Private cars	Young Adult Lenten Hike & Mass	Sunday	5:30-6 pm	Southern CA	50	100
3/31/2019	1	0	Sunday	1-1:15 pm	Private cars	Servants of Jesus	Sunday	3:00 PM	LA County	10	20



Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
4/1/2019	1	0	Monday	7:30-8 am	2 cars & 2 buses	Ramona Convent Secondary School	Monday	2-2:15 pm	Alhambra	63	8
4/1/2019	1	0	Monday	9:30 AM	Private cars	St Monica Catholic School	Monday	11:00 AM	Pasadena	15	16
4/1-5/2019	5	4	Monday	2:00 PM	5 cars	Central City Value High School	Friday	2:30 PM	Los Angeles	11	10
4/2-5/2019	4	3	Tuesday	4:00 PM	1 bus	Central City Value High School	Friday	5:00 PM	Los Angeles	47	4
4/1/2019	2	1	Monday	9:45-10 am	Private cars	LA Archdiocese Dept Catholic Schools	Tuesday	4-4:15 pm	LA County	19	38
4/3/2019	1	0	Wednesday	7:00 PM	Private cars	St Luke Catholic Church	Wednesday	8:00 PM	Temple City	10	20
4/5/2019	1	0	Friday	11:00 AM	Private cars	St Rita Catholic School	Friday	12:00 PM	Sierra Madre	50	50
4/5/2019	1	0	Friday	11:45-12 pm	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local Area	7	14
4/7/2019	1	0	Sunday	12:30-1 pm	Private cars	Holy Names of Mary & Jesus Associates	Sunday	4-4:30 pm	Local Area	30	60
4/7/2019	1	0	Sunday	1:00 PM	Private cars	The Lord's Flock	Sunday	3:00 PM	Bakersfield	12	6
4/7/2019	1	0	Sunday	2:00 PM	Private cars	Society of Divine Mercy	Sunday	4:00 PM	LA County	20	20
4/8/2019	1	0	Monday	1:45-2 pm	Private cars	Spiritual Direction	Monday	4:00 PM	Local Area	2	4
4/8/2019	1	0	Monday	6:45-7 pm	Private cars	San Gabriel Region Young Adults	Monday	Stayed for 7 pm Meeting	San Gabriel Region	10	20
4/9/2019	1	0	Tuesday	8-8:15 am	Private cars	St Frances of Rome School	Tuesday	2:30-3 pm	Azusa	24	48
4/9-11/2019	3	2	Tuesday	1-1:30 pm	Private cars	Canyon Ridge Christian Church	Thursday	1:30-2 pm	Las Vegas	16	16
4/9-12/2019	4	3	Tuesday	1pm & 4 pm	1 van, 2 buses & 5 cars	Loyola High School	Friday	4:30 PM	Los Angeles	62	16
4/10/2019	1	0	Wednesday	8:30-9 am	Private cars	CMSM	Wednesday	3:30-3:45 pm	California	13	26
4/8/2019	1	0	Monday	1:45-2 pm	Private cars	Spiritual Direction	Monday	4:00 PM	Local Area	2	4
4/12/2019	1	0	Friday	7:45-8 am	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local Area	27	54
4/12/2019	1	0	Friday	9:00 AM	Private cars	Christian Assembly Church	Friday	4:30 PM	Eagle Rock	4	2
4/12/2019	1	0	Friday	3:00 PM	Private cars	Benedictine Seminarians	Friday	5:30 PM	LA County	20	10
4/14/2019	1	0	Sunday	1:00 PM	Van	Sisters of the Lovers of the Holy Cross	Sunday	5:30 PM	Los Angeles	8	2
4/14/2019	1	0	Sunday	1:00 PM	Private cars	Pomona Baptist Church	Sunday	4:00 PM	Pomona	16	16
4/14/2019	1	0	Sunday	1:00 PM	Private cars	McCann Baptism	Sunday	3:00 PM	Local Area	20	20
4/14/2019	1	0	Sunday	2:00 PM	Private cars	City on the Hill Church	Sunday	4:00 PM	South Bay	15	14
4/14/2019	1	0	Sunday	4:00 PM	Private cars	Cathedral Couples in Christ	Sunday	5:30 PM	LA County	40	40
4/16/2019	1	0	Tuesday	9:30 AM	Private cars	St. Dominics Catholic Church	Tuesday	11:00 AM	Eagle Rock	30	40
4/16-17/2019	2	1	Tuesday	11:30 AM	4 vans	Rancho San Antonio	Wednesday	2:00 PM	Chatsworth	27	8
4/16/2019	1	0	Tuesday	7:00 PM	Private cars	Mojica Family	Tuesday	8:00 PM	Los Angeles	10	10
4/17/2019	1	0	Wednesday	10:30 AM	Private cars	Armenian Group	Wednesday	12:30 PM	North Hollywood	20	10
4/17/2019	1	0	Wednesday	10:45-11 am	Private cars	Spiritual Direction	Wednesday	5:00 PM	Local Area	5	10
4/17/2019	1	0	Wednesday	11:30 AM	Private cars	Divine Mercy Home School Group	Wednesday	1:00 PM	Local Area	25	20
4/17/2019	1	0	Wednesday	3:45-4 pm	Private cars	MDPRC Board Meeting	Wednesday	8pm	Local Area	20	40
4/17/2019	1	0	Wednesday	5:45-6 pm	Private cars	Catholic Association of Latino Leaders	Wednesday	9:30 PM	LA County	35	40
4/17/2019	1	0	Wednesday	7:00 PM	Private cars	St Luke Catholic Church	Wednesday	8:00 PM	Temple City	15	30
4/18/2019	1	0	Thursday	10:30 AM	Private cars	Assumption BVM Church	Thursday	12:30 PM	Pasadena	10	20
4/19/2019	1	0	Friday	9 am-7:30 pm	Private cars	Good Friday Stations for Public	Friday	45 am-8:30 p	Southern California	3300	1800
4/22-26/2019	5	4	Monday	1-2 pm	Private cars	Missionaries of Our Lady of La Salette	Friday	1-1:15 pm	Southern California	21	36
4/23-25/2019	3	2	Tuesday	9:30-10 am	Private cars	UMC Cal Pac Pension Dept.	Thursday	1:30-11:45 ar	Southern California	57	64
4/25/2019	1	0	Thursday	5:15-5:30 pm	Private cars	MDPRC Board Meeting	Thursday	7:30-7:45 pm	Local Area	20	40
4/26/2019	1	0	Friday	7:45-8 am	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local Area	9	18
4/28/2019	1	0	Sunday	1:30-2 pm	Private cars	Bravo 50th Anniversary Mass & Reception	Sunday	4-4:30 pm	Local Area	50	50
4/30/2019	1	0	Tuesday	5:45-6 pm	Private cars	Holy Cross Province Visioning Meeting	Tuesday	9-9:15 pm	Local Area	20	40

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
5/2/2019	1	0	Thursday	Throughout day beginning at 6:45 am	Private cars	Spiritual direction	Thursday	Throughout day	Local area	7	17
5/3/2019	1	0	Friday	7:45-8 am	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local area	29	58
5/3/2019	1	0	Friday	9:15-9:30 am	Private cars	Immaculate Heart HS Class of 95 Reunion	Friday	3-3:15 pm	LA County	6	12
5/7/2019	1	0	Tuesday	6:55-7 am	Private cars	Bldg & Grounds Committee	Tuesday	8:15-8:30 am	Local area	6	12
5/7-9/2019	3	2	Tuesday	12:45-1 pm	Private cars	California Catholic Conference	Thursday	1:30-1:45 pm	LA County	36	72
5/9-10/2019	2	1	Thursday	12:15-12:30 pm	Private cars	Azusa Pacific University	Friday	4-4:15 pm	LA County	8	16
5/9/2019	1	0	Thursday	6:30-6:45 pm	Private cars	Ambassador Meeting	Thursday	8:30-8:45 pm	LA County	8	16
5/13/2019	1	0	Monday	8-8:30 am	5 cars & 1 bus	St Bede the Venerable School	Monday	2:30 PM	La Canada	35	9
5/13/2019	1	0	Monday	9-9:30 am	1 bus	Bishop Alemany High School	Monday	4:00 PM	Mission Hills	33	4
5/13/2019	1	0	Monday	6-6:30 pm	Private cars	Breve Retiro	Monday	9-9:15 pm	LA County	20	24
5/14/2019	1	0	Tuesday	9-9:30 am	1 bus	Bishop Alemany High School	Thursday	4:00 PM	Mission Hills	42	4
5/15/2019	1	0	Wednesday	8-8:30 am	5 cars & 1 bus	Holy Family Grade School	Wednesday	2:30 PM	Glendale	39	14
5/15/2019	1	0	Wednesday	7:45-8 am	Private cars	OLA Church Claremont	Wednesday	3-3:15 pm	Claremont	20	40
5/15/2019	1	0	Wednesday	11:15-5 pm	Private cars	Spiritual direction	Wednesday	6:00 PM	Local area	4	8
5/20/2019	1	0	Monday	8-8:30 am	Private cars	Holy Angels School	Monday	2:30-3 pm	Arcadia	37	74
5/20/2019	1	0	Monday	4:30-6 pm	Private cars	Golf Banquet	Monday	8:30-9:30 pm	Southern CA	101	150
5/21/2019	1	0	Tuesday	4:15-4:30 pm	Private cars	Finance Committee Meeting	Tuesday	6:30-6:45 pm	Local area	8	16
5/22/2019	1	0	Wednesday	11:45-4 pm	Private cars	Spiritual direction	Wednesday	1 pm-6 pm	Local area	4	8
5/24/2019	1	0	Friday	9:15-9:30 am	Private cars	Office of Vicar for Clergy	Friday	3:45-4 pm	LA County	15	30
5/28/2019	1	0	Tuesday	4:15-4:30 pm	Private cars	Charism Committee	Tuesday	6:30-6:45 pm	Local area	6	12
5/29/2019	1	0	Wednesday	9:15-9:30 am	3 buses	St Genevieve High School	Wednesday	9:30-10pm	Pacioma	150	6
5/29 & 30/2019	2	0	Wednesday	8:45-9 am	Private cars	Evergreen Baptist Church	Thursday	4-4:15 pm	Inland Empire	8	16
5/30/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30 PM	Local area	8	16
5/31/2019	1	0	Friday	7:45-8 am	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local area	10	2

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
6/3/2019	1	0	Monday	9:45-10 am	Bus	St Paul the Apostle Church	Monday	3:00 PM	Chino Hills	28	4
6/4-11/2019	8	7	Tuesday	All day	Shuttles & private cars	Holy Cross Province	Tuesday & Wednesday	All Day	National & International	93	186
6/5/2019	1	0	Wednesday	3:45-6	Private cars	Spiritual Direction	Wednesday	5-7 pm	Local area	3	6
6/5/2019	1	0	Wednesday	3:45-5	Private cars	Spiritual Direction	Wednesday	5-6 pm	Local area	2	4
6/6/2019	1	0	Thursday	Throughout day beginning at 6:45 am	Private cars	Spiritual Direction	Thursday	7:00 PM	Local area	7	14
6/12/2019	1	0	Wednesday	8:15-8:30 am	1 car & 1 bus	Dolores Mission School	Wednesday	2:30 PM	Boyle Heights LA	34	6
6/12/2019	1	0	Wednesday	Throughout day beginning at 11:15 am	Private cars	Spiritual Direction	Wednesday	Throughout day ending at 5 pm	Local area	4	8
6/13/2019	1	0	Thursday	7:75-8 am	1 car & 1 bus	San Miguel School	Thursday	3:00 PM	South LA	18	6
6/13-16/2019	4	0	Daily beginning Thursday	Throughout day	Private cars	St Anthony's Croatian Church	Daily ending Sunday	All Day	Local area	10	20
6/16-20/2019	5	4	Sunday	3:30 PM	1 truck & 1 van	Crespi Carmelite High School	Thursday	2:30 PM	Encino	7	4
6/17-20/2020	4	3	Monday	4:00 PM	1 Bus	Crespi Carmelite High School	Thursday	5:00 PM	Encino	28	4
6/16-20/2019	5	4	Sunday	3-5 pm	Private cars	Congregation of the Sacred Heart	Friday	1:30-1:45 pm	Southern California	18	36
6/17-19/2019	3	2	Monday	9:45-10 am	Private cars	Assumption BVM Church	Wednesday	2-2:15 pm	Pasadena	11	22
6/17/2019	1	0	Monday	4:15-4:30 pm	Private cars	Board Committee Chairs Meeting	Monday	6:30-6:45 pm	Local area	10	20
6/19/2019	1	0	Wednesday	10:45-11 am	Private cars	Spiritual Direction	Wednesday	12:00 PM	Local area	2	4
6/19/2019	1	0	Wednesday	Throughout day beginning at 12:45 pm	Private cars	Spiritual Direction	Wednesday	Throughout day ending at 5 pm	Local area	4	8
6/19/2019	1	0	Wednesday	3:45-4 pm	Private cars	MDPRC Board Meeting	Wednesday	8-8:15 pm	Local area	20	40
6/19/2019	1	0	Wednesday	7-7:30 pm	Private cars	Young Adult Team Meeting	Wednesday	9:45-10 pm	LA County	10	20
6/20/2019	1	0	Thursday	3:45-6 pm	Private cars	Property Committee Meeting	Thursday	6:00 PM	Local area	5	10
6/21/2019	1	0	Friday	8:30-9 am	Private cars	LA Archdiocese-Victims Asst. Ministry	Friday	3-3:15 pm	LA County	5	10
6/22/2019	1	0	Saturday	5:45-7 pm	Private cars	Evening at Monastery	Sunday	9:15-9:30 pm	Southern California	71	80
6/24/2019	1	0	Monday	11 a.m & 3 pm	Private cars	Spiritual Direction	Monday	12 pm & 4 pm	Local area	4	8
6/25-28/2019	4	3	Tuesday	1 pm & 4 pm	1 small bus, 2 medium buses & 5 cars	Notre Dame High School	Friday	4:30 PM	Sherman Oaks	48	22
6/28-30/2019	3	2	Friday	3-5 pm	Private cars	Diocese of Orange	Sunday	2-2:15 pm	Orange County	36	36
6/30-7/2/2019	3	2	Sunday	1-3 pm	Private cars	LA Archdiocese- Dept. of Catholic Schools	Tuesday	3-3:15 pm	LA County	65	130

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
7/1/2019	1	0	Monday	8:45-9 am	Private cars	Fuller Seminary	Monday	3:30-3:45 pm	Local area	3	6
7/5-7/2019	3	2	Friday	5:45-6 pm	Private cars	Firemark	Sunday	5:00 PM	Monterey Park	52	104
7/7/2019	1	0	Sunday	8-8:30 am	Private cars	Christ Cathedral	Sunday	3:30-3:45 pm	Orange County	27	54
7/9/2019	1	0	Tuesday	6:50-7 am	Private cars	Bldg & Grounds Committee	Tuesday	8:15-8:30 am	Local area	6	12
7/9-12/2019	4	3	Tuesday	1 pm & 4 pm	1 small bus, 1 bus & 5 cars	Notre Dame High School	Friday	4:30 p.m.	Sherman Oaks	36	14
7/10/2019	1	0	Wednesday	Throughout day beginning at 12:45 pm	Private cars	Spiritual Direction	Wednesday	2-5 pm	Local area	4	8
7/10/2019	1	0	Wednesday	7-7:30pm	Private cars	Young Adult Team Meeting	Wednesday	10:00 PM	LA County	10	20
7/11/2019	1	0	Thursday	Throughout day beginning at 6:45 am	Private cars	Spiritual Direction	Thursday	Throughout day ending at 7 pm	Local area	7	14
7/13/2019	1	0	Saturday	8-8:30 am	Private cars	Eagle Scout Project	Saturday	5:00 PM	Local area	20	40
7/14/2019	1	0	Sunday	3:30-4:30 pm	Private cars	Retreat Captains Meeting	Sunday	6-6:15 pm	Southern California	56	102
7/16/2019	1	0	Tuesday	11:30-12 pm	Private cars	OLA Claremont-Padre Pio Prayer Group	Tuesday	6:00 PM	Claremont	9	18
7/18-19/2019	2	1	Thursday	1-1:30 pm	Private cars	Fuller Seminary	Friday	5-5:15 pm	Local area	18	36
7/21/2019	1	0	Sunday	9:45-10 am	Private cars	All Donor Appreciation Mass & Lunch	Sunday	12:15-12:30 pm	Southern California	107	114
7/22-25/2019	4	3	Monday	9-11 am	Private cars	Families of Nazareth	Thursday	12-1 pm	Southern California	38	76
7/23/2019	1	0	Tuesday	7:30-8 am	Private cars	Loyola High School	Tuesday	3-3:15 pm	Los Angeles	23	46
7/24/2019	1	0	Wednesday	7:45-8 am	Private cars	Fuller Seminary	Wednesday	4:30-4:45 pm	Local area	33	66
7/28/2019	1	0	Sunday	3:15-3:30 pm	Private cars	Young Adult Team Meeting	Sunday	6:-6:15 pm	LA County	10	20
7/30-8/2/2019	4	3	Tuesday	1 pm & 4 pm	1 small bus, 2 medium buses & 5 cars	Notre Dame High School	Friday	4:30 PM	Sherman Oaks	65	22

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
8/1/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30-1:45 pm	Local Area	6	12
8/4/2019	1	0	Sunday	1:45-2 pm	Private cars	Oronoz Memorial Service	Sunday	4:00 PM	Local Area	12	12
8/5/2019	1	0	Monday	7-9:30 am	Private cars	Sophia Institute	Monday	3-3:15 pm	LA County	70	140
8/6/2019	1	0	Tuesday	7-7:30 pm	Private cars	Young Adult Team Meeting	Tuesday	10:00 PM	LA County	10	20
8/7/2019	1	0	Wednesday	3:45-6 pm	Private cars	Spiritual Direction	Wednesday	7:00 PM	Local Area	3	6
8/8/2019	1	0	Thursday	8:45-9 am	Private cars	St Augustine Church	Thursday	5-5:15 pm	Culver City	8	16
8/8/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30-1:45 pm	Local Area	6	12
8/8/2019	1	0	Thursday	9:45-10 am	Private cars	Property Committee	Thursday	11:15-11:30 am	Local Area	3	6
8/8/2019	1	0	Thursday	5:30-7:30 pm	Private cars	Evening at the Monastery	Thursday	9:15-9:30 pm	Southern California	130	160
8/9/2019	1	0	Friday	8:15-8:30 am	Private cars	MDPRC Committee Meeting	Friday	10:30-10:15 am	Local area	6	12
8/11/2019	1	0	Sunday	3:45-4 pm	Private cars	VP Weekend Retreat Meeting	Sunday	6-6:15 pm	Southern California	15	30
8/13/2019	1	0	Tuesday	4:45-5 pm	Private cars	Charism Committee	Tuesday	7-7:15 pm	Local area	6	12
8/15/2019	1	0	Thursday	7:45-8 am	Private cars	SS Felicitas & Perpetua School	Thursday	12-12:15 pm	Local area	20	40
8/15/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30-1:45 pm	Local Area	6	12
8/15/2019	1	0	Thursday	5:30-7:30 pm	Private cars	Evening at the Monastery	Thursday	9:15-9:30 pm	Southern California	77	94
8/16/2019	1	0	Friday	7:45-8 am	Private cars	Incarnation Parish School	Friday	2:30-2:45 pm	Glendale	20	40
8/16/2019	1	0	Friday	7:45-8 am	Private cars	St Finbar School	Friday	2:30-2:45 pm	Burbank	23	46
8/16/2019	1	0	Friday	2:45-3 pm	Private cars	MDPRC Board Planning Meeting	Friday	5:00 PM	Local area	3	6
8/19-23/2019	5	4	Monday	1-1:15 pm	Private cars	EQHR	Friday	3-3:15 pm	Local area & National	8	16
8/19/2019	1	0	Monday	5:45-6 pm	Private cars	Harvest on the Hill Meeting	Monday	8:00 PM	Local area	3	6
8/20-21/2019	2	1	Tuesday	11:30 AM	3 vans	Rancho San Antonio	Wednesday	2:00 PM	Chatsworth	17	6
8/20-22/2019	3	2	Tuesday	12:30-1 pm	Private cars	UMC Cal Pac	Thursday	11:30 am-12 pm	Southern California	22	44
8/21/2019	1	0	Wednesday	11:45 am - 4 pm	Private cars	Spiritual Direction	Wednesday	1-5 pm	Local area	4	8
8/22/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30-1:45 pm	Local Area	6	12
8/22/2019	1	0	Thursday	5:30-7:30 pm	Private cars	Evening at the Monastery	Thursday	9:15-9:30 pm	Southern California	165	200
8/23-25/2019	3	2	Friday	4-6 pm	Private cars	Fr. Michael Fish	Sunday	1-2 pm	Southern California	113	226
8/26-30/2019	5	4	Monday	3:00 PM	5 cars	Central City Value High School	Friday	2:30 PM	Los Angeles	11	10
8/27-30/2019	4	3	Tuesday	4:00 PM	1 bus	Central City Value High School	Friday	5:00 PM	Los Angeles	42	4
8/26/2019	1	0	Monday	2:15-4:15 pm	Private cars	Spiritual Direction	Monday	5:30 PM	Local area	3	6
8/27/2019	1	0	Tuesday	2:45-3 pm	Private cars	Spiritual Direction	Tuesday	3:45 PM	Local area	1	2
8/28/2019	1	0	Wednesday	11:45 am-1 pm	Private cars	Spiritual Direction	Wednesday	2:00 PM	Local area	2	4
8/29/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30-1:45 pm	Local Area	6	12
8/30/2019	1	0	Friday	Throughout day from 8am-5 pm	Private cars	UHBC Picnic Prep	Friday	Throughout day to 6 pm	Southern California	20	40
8/30/2019	1	0	Saturday	Throughout day from 8am-5 pm	Private cars	UHBC Picnic Prep	Saturday	Throughout day to 6 pm	Southern California	40	80



Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
9/1/2019	1	0	Sunday	All day	Private Cars	UHBCS	Sunday	All day	Southern California	400	400
9/3-6/2019	4	3	Tuesday	1 pm & 4 pm	1 small bus, 2 large buses & 5 cars	Notre Dame High School	Friday	4:30 PM	Sherman Oaks	76	22
9/5/2019	1	0	Thursday	Throughout day beginning at 6:45 am	Private cars	Spiritual Direction	Thursday	Throughout day ending at 7 pm	Local area	7	14
9/9-10/2019	2	1	Monday	8:00 AM	2 cars & 2 buses	Mayfield Jr. School	Tuesday	1:30 PM	Pasadena	68	12
9/9-10/2019	2	1	Monday	1:45-2 pm	Private Cars	InterVarsity Christian Fellowship	Tuesday	4-4:15 pm	Los Angeles	10	20
9/9/2019	1	0	Monday	3:45-4 pm	Private Cars	MDPRC Board Retreat	Monday	6:30-6:45 pm	Local area	18	36
9/10/2019	1	0	Tuesday	6:50-7 am	Private Cars	Bldg & Grounds Committee	Tuesday	8:15-8:30 am	Local area	6	12
9/10-13/2019	4	3	Tuesday	1 pm & 4 pm	2 vans, 1 bus & 5 cars	Louisville High School	Friday	5:30 PM	Woodland Hills	53	18
9/11-12/2019	2	1	Wednesday	8:30-9 am	Private Cars	Fuller Seminary	Thursday	5-5:15 pm	Local Area	9	18
9/12/2019	1	0	Thursday	4:45-5 pm	Private Cars	Harvest on the Hill Meeting	Thursday	8:00 PM	Local area	10	20
9/13/2019	1	0	Friday	9:45-10 am	Private Cars	Incarnation Parish	Friday	3:30-3:45 pm	Glendale	23	46
9/16/2019	1	0	Monday	8:00 AM	Private Cars	Auditors	Monday	5:00 PM	Local area	3	6
9/16/2019	1	0	Monday	9:30-10 am	Private Cars	Farfing Memorial Mass & Reception	Monday	1:15 PM	Southern California	50	50
9/16/17/2019	2	1	Monday	1-2 pm	Private Cars	APU CCSD	Tuesday	5-5:15 pm	Azusa	44	88
9/17/2019	1	0	Monday	8:00 AM	Private Cars	Auditors	Monday	5:00 PM	Local area	3	6
9/17-20/2019	4	3	Tuesday	1pm & 4 pm	1 van, 1 bus & 5 cars	Loyola High School	Friday	4:30 PM	Los Angeles	44	16
9/17/2019	1	0	Tuesday	4:15-4:30 pm	Private Cars	Spiritual Direction	Tuesday	6:00 PM	Local area	2	4
9/18/2019	1	0	Wednesday	11:45 am -4 pm	Private Cars	Spiritual Direction	Wednesday	1 pm-5 pm	Local area	4	8
9/20/2019	1	0	Friday	8:45-9 am	Private Cars	Azusa Pacific University	Friday	11:30-11:45 am	Azusa	19	38
9/22-26/2019	5	4	Sunday	3:30 PM	1 truck & 1 van	Crespi Carmelite High School	Thursday	2:30 PM	Encino	11	4
9/23-26/2019	4	3	Monday	4:00 PM	1 bus	Crespi Carmelite High School	Thursday	5:00 PM	Encino	44	4
9/23-25/2019	3	2	Monday	Afternoon	Private Cars	HCP Formation Workshop	Wednesday	5-5:15 pm	National	16	32
9/24/2019	1	0	Tuesday	3:30 PM	Private Cars	Spiritual Direction	Tuesday	\$0.69	Local area	1	2
9/26/2019	1	0	Thursday	7:45-8 am	Private Cars	Fuller Seminary	Thursday	5-5:15 pm	Local Area	29	58
9/26/2019	1	0	Thursday	8:30-9 am	Private Cars	LA Archdiocese Business Mgrs.	Thursday	3-3:15 pm	LA County	16	32
9/30/2019	1	0	Monday	4:45-5 pm	Private Cars	Board Committee Chairs Meeting	Monday	6:30-6:45 pm	Local area	10	20
9/30/2019	1	0	Monday	5:45-6 pm	Private Cars	Harvest on the Hill Meeting	Monday	8-8:15 pm	Local area	3	6

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
10/1-4/2019	4	3	Tuesday	1pm & 4 pm	1 small bus, 2 large buses & 5 cars	Notre Dame High School	Friday	4:30 PM	Sherman Oaks	73	22
10/1/2019	1	0	Tuesday	5:45-6 pm	Private cars	Harvest on the Hill Meeting	Tuesday	8-8:15 pm	Local area	10	20
10/3-4/2019	2	1	Thursday	12:45-1 pm	Private cars	Christian Church PSWR	Friday	1:30-1:45 pm	Local area	13	24
10/3/2019	1	0	Thursday	Throughout day beginning at 6:45 am	Private cars	Spiritual Direction	Thursday	Throughout day ending at 7 pm	Local area	7	14
10/3/2019	1	0	Thursday	5:30-7:30 pm	Private cars	Evening at the Monastery	Thursday	9:15-9:30 pm	Southern California	100	120
10/4/2019	1	0	Friday	8:00 AM	2 buses	Mayfield Sr. School	Friday	3:00 PM	Pasadena	88	4
10/6/2019	1	0	Sunday	1:45-2 pm	Private cars	Molina Baptism	Sunday	3-3:15 pm	Local area	15	16
10/7-10/19	4	3	Monday	1 pm & 4 pm	1 van, 2 buses & 5 cars	St Lucy's Priory High School	Friday	5:00 PM	Glendora	44	22
10/7/2019	1	0	Monday	2:15-2:30 pm	Private cars	Property Committee Meeting	Monday	6-6:15 pm	Local area	8	16
10/8/2019	1	0	Tuesday	8:45-9 am	Private cars	Property Committee Meeting	Tuesday	11-11:15 am	Local area	6	12
10/8/2019	1	0	Tuesday	3:45-4 pm	Private cars	MDPRC Board Meeting	Tuesday	8-8:15 pm	Local area	20	40
10/10/2019	1	0	Thursday	7-9:30 am	Private cars	Sophia Institute	Thursday	3-3:15 pm	LA County	29	58
10/10/2019	1	0	Thursday	6:45-7 pm	Private cars	Open Book Bible Study	Thursday	8:30-8:45 pm	Local area	20	40
10/11/2019	1	0	Friday	7:45-8 am	Private cars	All Souls School	Friday	3-3:15 pm	Local area	29	58
10/11/2019	1	0	Friday	9:30 AM	2 buses	Mayfield Sr. School	Friday	12:00 PM	Pasadena	80	4
10/14-17/2019	4	3	Monday	8 am & 9 am	2 cars & 2 buses	Ramona Convent Secondary School	Thursday	3:00 PM	Alhambra	74	12
10/16/2019	1	0	Wednesday	8:45-9 am	Private cars	California Catholic Conference	Wednesday	3-3:15pm	Local area	14	28
10/16/2019	1	0	Wednesday	Throughout day beginning at 12:45 pm	Private cars	Spiritual Direction	Wednesday	2-6 pm	Local area	4	8
10/16/2019	1	0	Tuesday	5:45-6 pm	Private cars	Harvest on the Hill Meeting	Tuesday	8-8:15 pm	Local area	10	20
10/17/2019	1	0	Thursday	9:00 AM	Private cars	Harvest on the Hill Meeting	Thursday	5:00 PM	Local area	2	4
10/17/2019	1	0	Thursday	6:30-6:45 pm	Private cars	Ambassadors Meeting	Thursday	8:30-8:45 pm	Local area	10	20
10/17/2019	1	0	Thursday	6:45-7 pm	Private cars	Open Book Bible Study	Thursday	8:30-8:45 am	Local area	25	50
10/18/2019	1	0	Friday	12-6 pm	Private cars	Harvest on the Hill Set Up	Friday	6-9 pm	Local area	10	20
10/19/2019	1	0	Saturday	3:45-6:30pm	Private cars	Harvest on the Hill Fundraiser	Saturday	9-10:30 pm	Southern California	160	200
10/20/2019	1	0	Sunday	8:30-9 am	Private cars	San Gabriel Region Young Adult Day of Recollection	Sunday	6-6:30 pm	San Gabriel Valley	50	100
10/21/2019	1	0	Monday	10 am -12:30 pm	Private cars	Spiritual Direction	Monday	11:15am - 2pm	Local area	3	6
10/22/2024	3	2	Tuesday	1 pm & 4 pm	2 vans, 1 bus & 5 cars	Chaminade College Prep High School	Thursday	1:30 PM	Chatsworth	42	18
10/23-25/2019	3	2	Wednesday	1-3 pm	Private cars	Christian Reformed Church of NA	Monday	11:30-11:45 am	South California	15	30
10/24/2019	1	0	Thursday	6:45-7 pm	Private cars	Open Book Bible Study	Thursday	8:30-8:45 am	Local area	25	50
10/25/2019	1	0	Friday	7:00 AM	Private cars	Children's Hospital of Los Angeles	Friday	3:30 PM	Los Angeles	7	14
10/25/2019	1	0	Friday	10:00 AM	2 buses	Immaculate Heart High School	Friday	2:30	Los Angeles	98	4
10/25/2019	1	0	Friday	8:15-8:30 am	Private cars	Property Committee Meeting	Friday	11:30	Local area	4	8
10/26/2019	1	0	Saturday	9-9:30 am	Private cars	Flourish	Saturday	3:30-3:45	LA County	22	44
10/28-31/2019	4	3	Monday	2-3 pm	Private cars	APU-Flourishing Leaders	Thursday	11-11:30 am	South California	23	46
10/28/2019	1	0	Monday	6:15-6:30 pm	Private cars	Breve Retiro	Monday	9:30-9:45 pm	LA County	12	15
10/30-31/2019	2	1	Wednesday	1-3 pm	Private cars	National Religious Vocation Conference	Thursday	3:30-3:45 pm	California	29	58
10/30-31/2019	2	1	Wednesday	9:00 AM	1 bus	Loyola High School	Thursday	1:00 PM	Los Angeles	36	4

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
11/3/2019	1	0	Sunday	3:30-4:30 pm	Private cars	Retreat Captains Meeting	Sunday	6-6:30 pm	Southern California	61	114
11/5-8/2019	4	3	Tuesday	1 pm & 4 pm	5 cars & 1 bus	Chaminade College Prep	Friday	4:30 PM	Chatsworth	55	14
11/6/2019	1	0	Wednesday	8:00 AM	1 car & 1 bus	Holy Family High School	Wednesday	3:00 PM	Glendale	23	6
11/7/2019	1	0	Thursday	8:00 AM	1 car & 1 bus	Holy Family High School	Thursday	3:00 PM	Glendale	28	6
11/12/2019	1	0	Tuesday	6:50-7 am	Private cars	Bldg & Grounds Committee	Tuesday	8:15-8:30 am	Local area	6	12
11/12-15/2019	4	3	Tuesday	1 pm & 4 pm	1 van, 1 bus & 5 cars	Loyola High School	Friday	4:30 PM	Los Angeles	49	16
11/13/2019	1	0	Wednesday	2:45-5pm	Private cars	Spiritual Direction	Wednesday	4-6 pm	Local area	3	6
11/13/2019	1	0	Wednesday	7-7:30 pm	Private cars	Young Adult Team Meeting	Wednesday	10:00 PM	LA County	10	20
11/14/2019	1	0	Thursday	10:30 AM	Bus	St Joseph School	Thursday	12:00 PM	La Puente	50	2
11/14/2019	1	0	Thursday	6:45-7 pm	Private cars	Open Book Bible Study	Thursday	8:30-8:45 am	Local area	25	50
11/15/2019	1	0	Friday	7:45-8 am	Private cars	Fuller Seminary	Friday	2:30 PM	Local area	17	34
11/15/2019	1	0	Thursday	9-9:30 am	Private cars	En Plein Aire Painting Group	Thursday	1:30-1:45 pm	Local Area	6	12
11/18/2019	1	0	Monday	7:45-8 am	Private cars	Fellowship Monrovia	Monday	4-4:15 pm	Local area	33	66
11/18-19/2019	2	1	Monday	9:45-10 am	Private cars	La Placita Catholic Church	Tuesday	5-5:15 pm	Los Angeles	21	42
11/18/2019	1	0	Monday	6:15-6:30 pm	Private cars	Breve Retiro	Monday	9:30-9:45 pm	LA County	15	15
11/19/2019	1	0	Tuesday	2:45-3 pm	Private cars	Spiritual Direction	Tuesday	5:30 PM	Local area	2	4
11/20/2019	1	0	Wednesday	12:45 pm - 5:15 pm	Private Cars	Spiritual Direction	Wednesday	2 pm-7 pm	Local area	5	10
11/21/2019	1	0	Thursday	6:45-7 pm	Private cars	Open Book Bible Study	Thursday	8:30-8:45 am	Local area	25	50
11/22/2019	1	0	Friday	9:15-9:30 am	Private cars	Franciscan Friars	Friday	2:30-2:45 pm	LA County	28	56
11/22/2019	1	0	Friday	7:45-8 am	Private cars	Fuller Seminary	Friday	2:30 PM	Local area	22	44
11/24/2019	1	0	Sunday	3:45-4:30 pm	Private cars	Young Adult Mass & Potluck	Sunday	7-7:30 pm	LA County	35	70
11/25/2019	1	0	Monday	4:15-4:30 pm	Private cars	MDPRC Board Meeting & Board Committee Chairs Meeting	Monday	6:30-6:45 pm	Local area	10	20
11/26/2019	1	0	Tuesday	4:15-4:30 pm	Private cars	Finance & Audit Committee Meeting	Tuesday	6:30-6:45 pm	Local area	12	24

Event Date	Number of Days	Number of Nights	Day of Week Arrival	Arrival Window	Mode	Group	Day of Week Departure	Departure Window	Geographic Location	# of Attendees	Estimated # of Vehicles Round Trip
12/2-5/2019	4	3	Monday	12:00 PM	1 car & 1 bus	Aquinas High School	Thursday	3:30 PM	San Bernardino	57	6
12/3/2019	1	0	Tuesday	10:45-11 am	Private cars	St Philip the Apostle Church	Tuesday	4-4:15 pm	Pasadena	12	24
12/3/2019	1	0	Tuesday	3:45-4 pm	Private cars	MDPRC Board Meeting	Tuesday	7:30-8 pm	Local Area	20	40
12/4/2019	1	0	Wednesday	5-6 pm	Private cars	Divine Mercy Clinic	Wednesday	7:30-7:45 pm	Local Area	25	50
12/5-6/2019	2	1	Thursday	9:00 AM	1 bus	Loyola High School	Friday	1:00 PM	Los Angeles	33	4
12/5/2019	1	0	Thursday	6:30-6:45 pm	Private cars	Ambassadors Meeting	Thursday	8-8:15 pm	LA County	10	20
12/8/2019	1	0	Sunday	3:45-5 pm	Private cars	Retreat Center Directors Advent Dinner	Sunday	8-8:30 pm	Southern California	95	110
12/9/2019	1	0	Monday	7-7:30 pm	Private cars	San Gabriel Region Young Adult Meeting	Monday	10:00 PM	San Gabriel Valley	25	50
12/10-13/2019	4	3	Tuesday	12 noon	1 van, 1 car & 1 bus	St Bernard High School	Friday	5:00 PM	Los Angeles	50	8
12/11/2019	1	0	Wednesday	1:45 pm - 6:15 pm	Private Cars	Spiritual Direction	Wednesday	3 pm-7:30 pm	Local area	4	8
12/11/2019	1	0	Wednesday	7-7:30 pm	Private cars	Young Adult Team Meeting	Wednesday	10:00 PM	LA County	10	20
12/15/2019	1	0	Sunday	3-3:45 pm	Private cars	Las Posadas	Sunday	7:30-8 pm	LA County	120	140
12/16/2019	1	0	Monday	11:30 am - 12 pm	Private cars	Deanery 10 Advent Luncheon	Monday	1:30 PM	San Gabriel Valley	30	60
12/18-21/2019	4	3	Wednesday	8:45-9 am	Private cars	De La Salle Institute (Christian Bros.)	Saturday	1-1:30pm	LA County & San Francisco	15	30
12/18/2019	1	0	Wednesday	1:45-2 pm	Private cars	Spiritual Direction	Wednesday	4:00 PM	Local Area	2	4

# **Appendix C - Traffic Counts**



### INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Thu, Oct 8, 20

**LOCATION:**  
NORTH & SOUTH:  
EAST & WEST:

Sierra Madre  
Sunnyside  
Fairview

**PROJECT #:** SC2677  
**LOCATION #:** 1  
**CONTROL:** STOP E/W

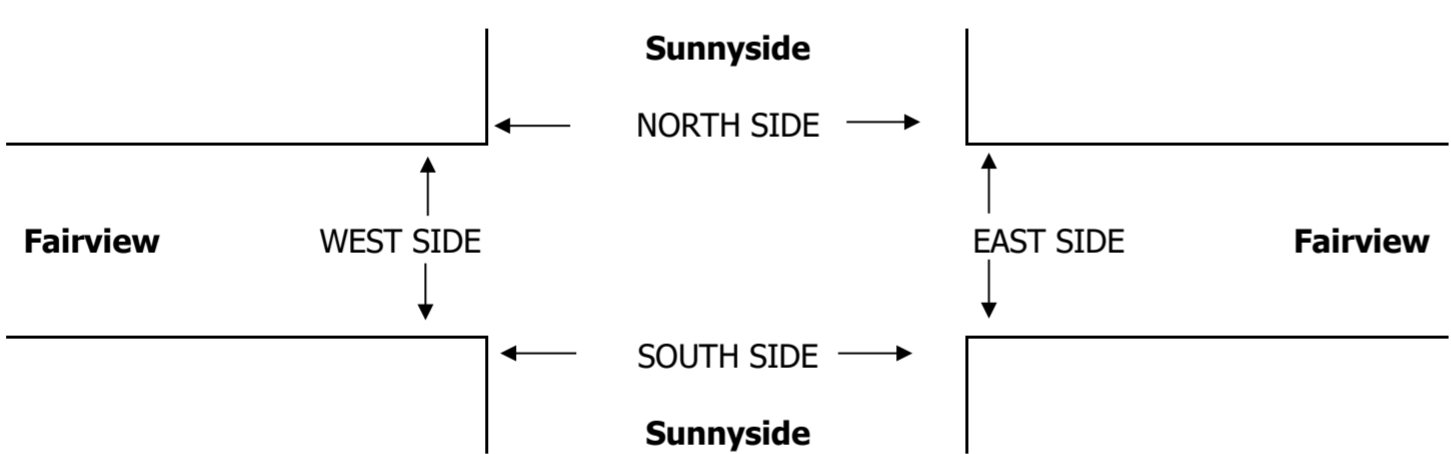
NOTES:	AM PM MD OTHER OTHER	◀ W S ▶	▲ N ▼	E ▶
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Add U-Turns to Left Turns

	NORTHBOUND <small>Sunnyside</small>			SOUTHBOUND <small>Sunnyside</small>			EASTBOUND <small>Fairview</small>			WESTBOUND <small>Fairview</small>			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
<b>LANES:</b>	0	1	0	0	1	0	0	1	0	0	1	0	
<b>AM</b>													
7:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	2
7:15 AM	0	0	0	0	1	1	1	2	0	0	1	0	6
7:30 AM	0	0	0	0	0	1	1	0	0	1	1	0	4
7:45 AM	0	1	0	0	1	0	1	1	0	1	3	0	8
8:00 AM	1	1	2	0	1	1	0	3	0	2	2	0	13
8:15 AM	1	0	1	0	0	1	1	0	0	0	5	0	9
8:30 AM	0	2	1	0	2	1	1	0	0	0	3	0	10
8:45 AM	3	0	0	0	1	1	3	1	0	1	2	0	12
VOLUMES	5	5	4	0	6	6	8	7	0	5	18	0	64
APPROACH %	36%	36%	29%	0%	50%	50%	53%	47%	0%	22%	78%	0%	
APP/DEPART	14	/	13	12	/	12	15	/	11	23	/	28	0
BEGIN PEAK HR	8:00 AM												
VOLUMES	5	3	4	0	4	4	5	4	0	3	12	0	44
APPROACH %	42%	25%	33%	0%	50%	50%	56%	44%	0%	20%	80%	0%	
PEAK HR FACTOR	0.750												
APP/DEPART	12	/	8	8	/	8	9	/	8	15	/	20	0
<b>PM</b>													
4:00 PM	2	3	2	0	2	0	1	1	1	0	4	0	16
4:15 PM	1	4	2	1	3	1	0	1	1	3	5	0	22
4:30 PM	1	1	3	0	1	1	1	2	2	0	2	0	14
4:45 PM	0	1	3	1	1	1	3	5	2	2	5	1	25
5:00 PM	0	2	1	0	0	0	0	2	1	0	3	0	9
5:15 PM	2	2	1	1	1	0	0	2	2	0	1	1	13
5:30 PM	2	2	2	0	1	2	3	10	0	0	2	0	24
5:45 PM	0	2	2	1	0	1	1	4	0	3	3	0	17
VOLUMES	8	17	16	4	9	6	9	27	9	8	25	2	140
APPROACH %	20%	41%	39%	21%	47%	32%	20%	60%	20%	23%	71%	6%	
APP/DEPART	41	/	27	19	/	27	45	/	47	35	/	39	0
BEGIN PEAK HR	4:00 PM												
VOLUMES	4	9	10	2	7	3	5	9	6	5	16	1	77
APPROACH %	17%	39%	43%	17%	58%	25%	25%	45%	30%	23%	73%	5%	
PEAK HR FACTOR	0.821												
APP/DEPART	23	/	15	12	/	18	20	/	21	22	/	23	0

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
1	0	0	0	1

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	0	1	0	1
0	0	0	0	0
1	0	1	0	2



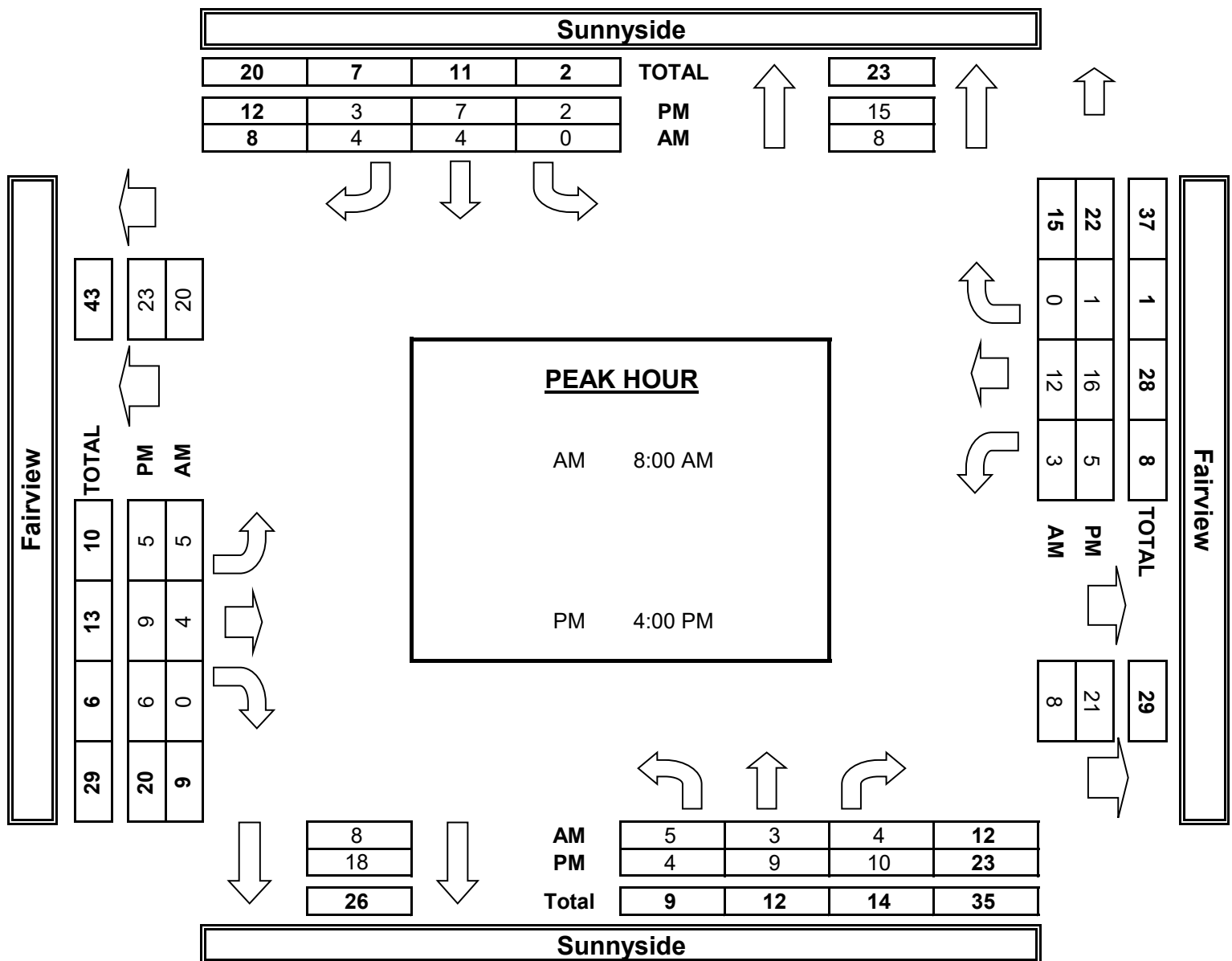
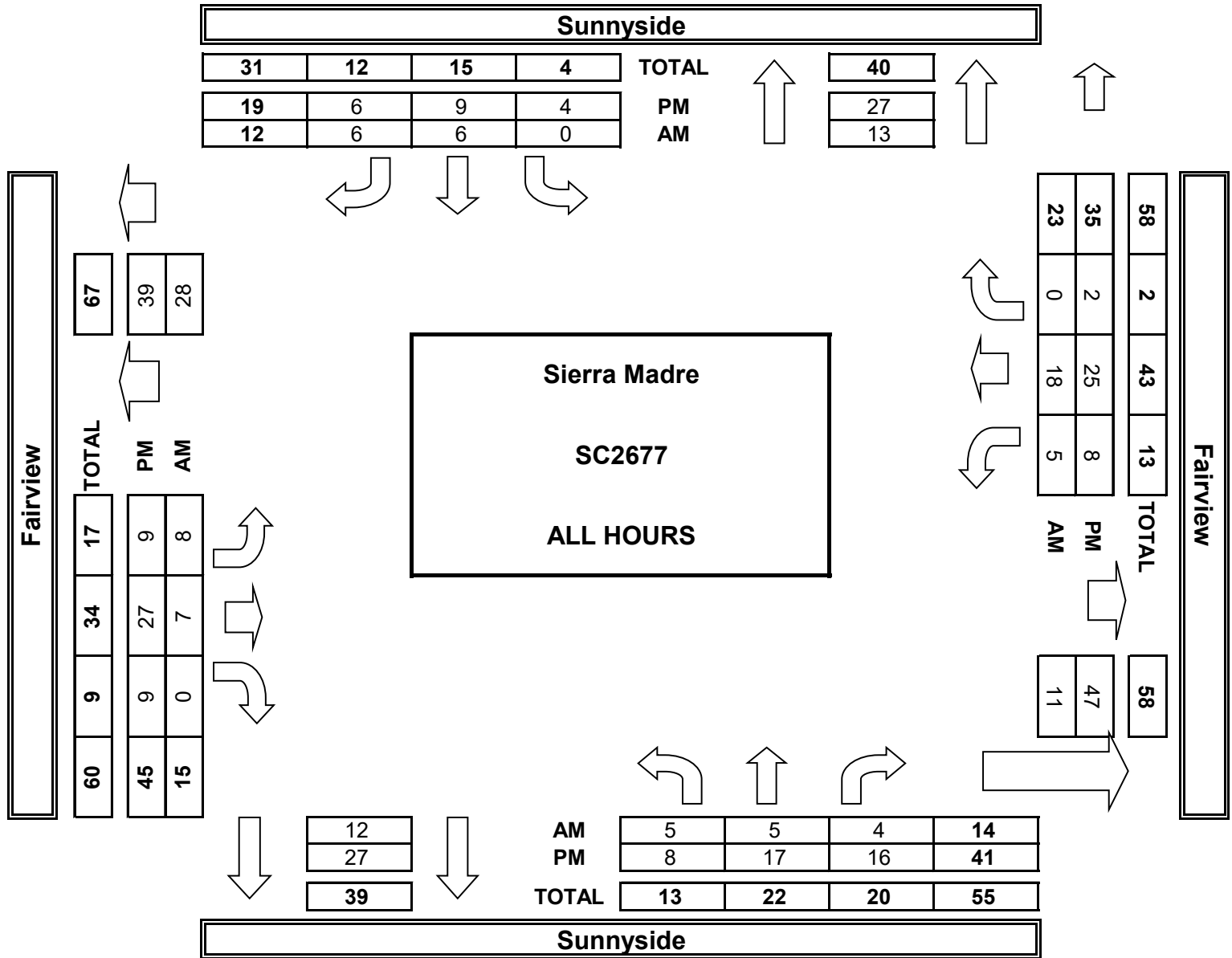
	AM	PM
7:00 AM	0	
7:15 AM	1	
7:30 AM	0	
7:45 AM	2	
8:00 AM	0	
8:15 AM	3	
8:30 AM	1	
8:45 AM	3	
TOTAL	10	
AM BEGIN PEAK HR	8:00 AM	
4:00 PM		0
4:15 PM		0
4:30 PM		5
4:45 PM		3
5:00 PM		1
5:15 PM		1
5:30 PM		3
5:45 PM		0
TOTAL		13
PM BEGIN PEAK HR	4:00 PM	

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	3	0	3
1	4	2	0	7
0	3	1	0	4
2	0	2	0	4
0	2	2	2	6
3	1	1	0	5
1	2	1	0	4
3	6	4	2	15
10	18	16	4	48
8:00 AM				
0	0	1	0	1
0	1	1	0	2
5	1	0	2	8
3	2	0	2	7
1	1	0	2	4
1	2	1	3	7
3	0	3	0	6
0	1	0	0	1
13	8	6	9	36
4:00 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
0	0	3	0	3
1	4	2	0	7
0	3	1	0	4
2	0	2	0	4
0	2	2	2	6
2	1	1	0	4
1	1	1	0	3
2	6	4	2	14
8	17	16	4	45
8:00 AM				
0	0	1	0	1
0	1	1	0	2
3	1	0	2	6
1	2	0	2	5
1	0	0	2	3
1	2	1	3	7
3	0	3	0	6
0	1	0	0	1
9	7	6	9	31
4:00 PM				

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
1	0	0	0	1
0	1	0	0	1
1	0	0	0	1
2	1	0	0	3
8:00 AM				
0	0	0	0	0
0	0	0	0	0
2	0	0	0	2
2	0	0	0	2
0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
4	1	0	0	5

**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Thu, Oct 8, 20

**LOCATION:**  
NORTH & SOUTH: Sierra Madre  
EAST & WEST: Sunnyside  
Sierra Madre

**PROJECT #:** SC2677  
**LOCATION #:** 2  
**CONTROL:** STOP ALL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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Add U-Turns to Left Turns

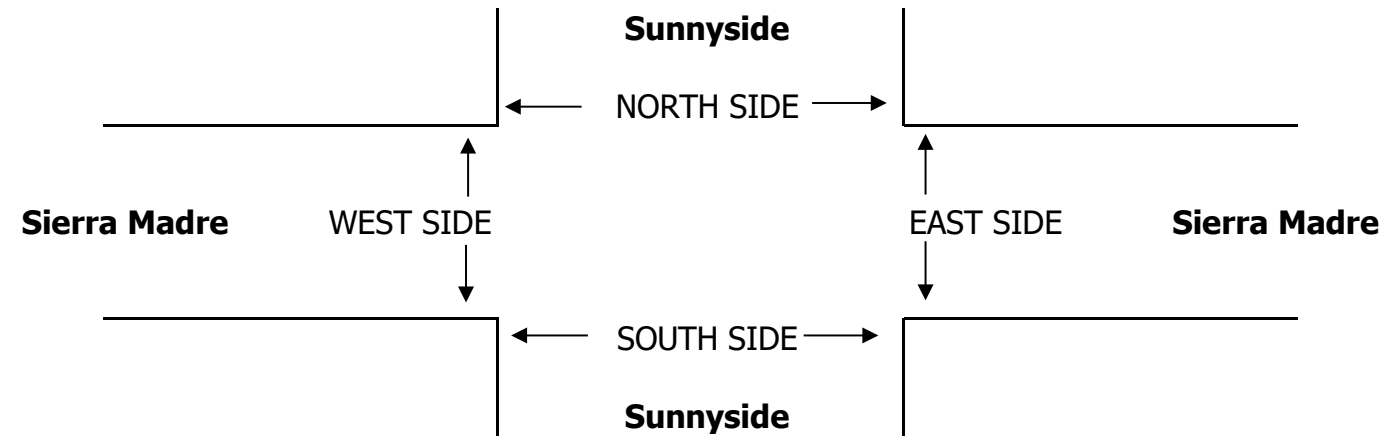
LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	1	0	1	0	

U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

<b>AM</b>	7:00 AM	4	2	0	0	0	3	1	12	1	1	15	0	39
	7:15 AM	1	2	0	1	2	1	2	23	2	0	19	3	56
	7:30 AM	1	3	2	0	3	0	0	27	2	0	38	1	77
	7:45 AM	3	3	0	3	3	5	3	29	0	2	34	3	88
	8:00 AM	3	4	0	5	6	2	4	49	0	1	38	1	113
	8:15 AM	1	2	1	2	3	1	2	43	1	0	33	0	89
	8:30 AM	1	3	1	7	6	4	5	31	2	2	28	0	90
	8:45 AM	3	1	1	2	1	2	5	46	1	1	42	0	105
	VOLUMES	17	20	5	20	24	18	22	260	9	7	247	8	657
	APPROACH %	40%	48%	12%	32%	39%	29%	8%	89%	3%	3%	94%	3%	
APP/DEPART	42	/	50	62	/	40	291	/	285	262	/	282	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	8	10	3	16	16	9	16	169	4	4	141	1	397	
APPROACH %	38%	48%	14%	39%	39%	22%	8%	89%	2%	3%	97%	1%		
PEAK HR FACTOR	0.750			0.603			0.892			0.849			0.878	
APP/DEPART	21	/	27	41	/	24	189	/	188	146	/	158	0	
<b>PM</b>	4:00 PM	2	4	1	4	3	7	5	80	1	4	36	3	150
	4:15 PM	1	3	3	5	7	7	6	81	5	1	47	4	170
	4:30 PM	3	5	2	2	0	7	5	81	1	3	58	5	172
	4:45 PM	4	1	3	2	3	3	6	80	3	3	48	0	156
	5:00 PM	4	4	1	2	6	2	4	93	3	2	44	2	167
	5:15 PM	1	5	2	4	1	3	4	77	3	4	42	2	148
	5:30 PM	1	4	5	3	7	1	6	87	4	3	38	1	160
	5:45 PM	3	2	3	2	3	0	5	64	2	2	43	0	129
	VOLUMES	19	28	20	24	30	30	41	643	22	22	356	17	1,252
	APPROACH %	28%	42%	30%	29%	36%	36%	6%	91%	3%	6%	90%	4%	
APP/DEPART	67	/	86	84	/	74	706	/	687	395	/	405	0	
BEGIN PEAK HR	4:15 PM													
VOLUMES	12	13	9	11	16	19	21	335	12	9	197	11	665	
APPROACH %	35%	38%	26%	24%	35%	41%	6%	91%	3%	4%	91%	5%		
PEAK HR FACTOR	0.850			0.605			0.920			0.822			0.967	
APP/DEPART	34	/	45	46	/	37	368	/	355	217	/	228	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
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0	0	0	0	0
0	0	0	0	0
0	0	0	0	0



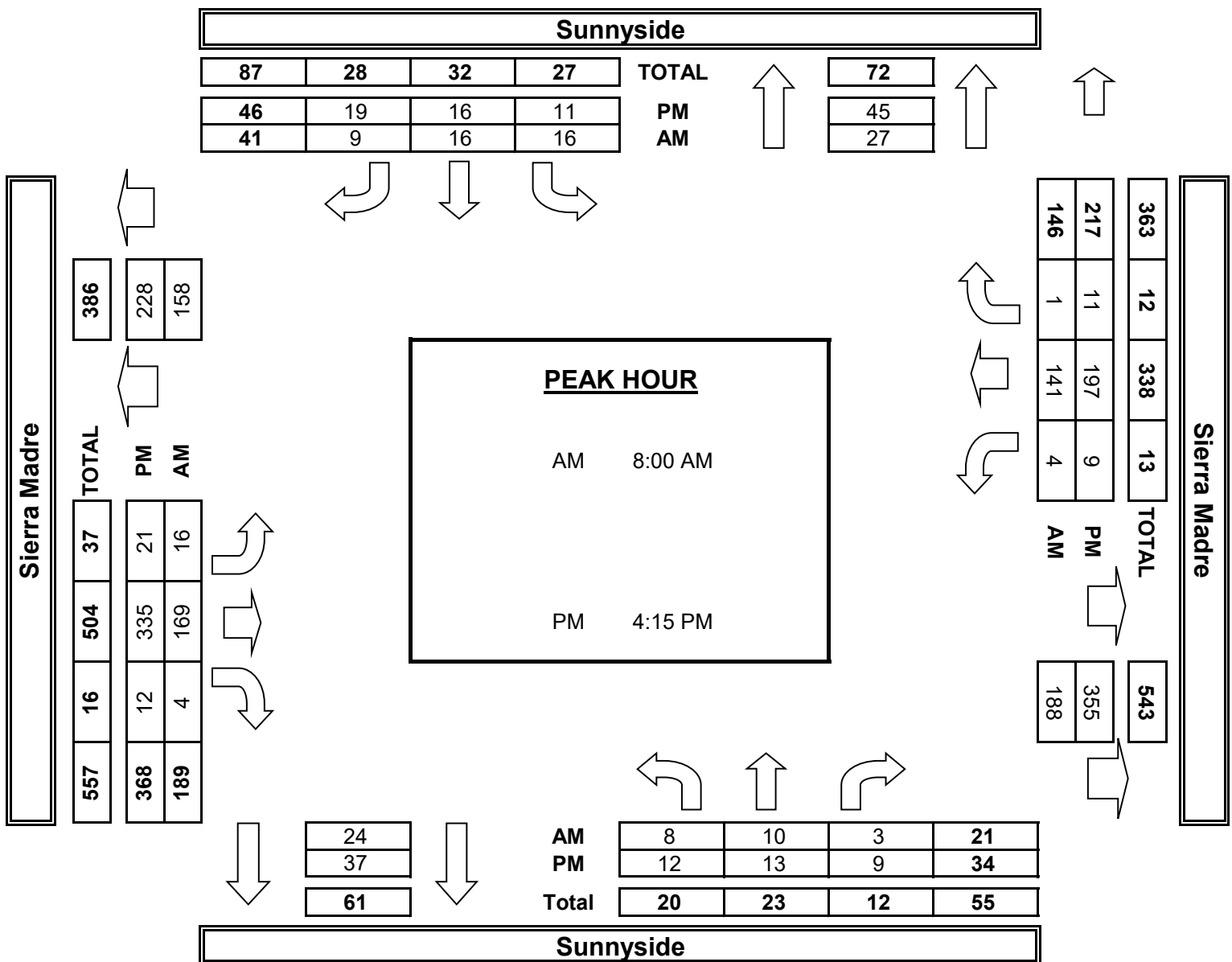
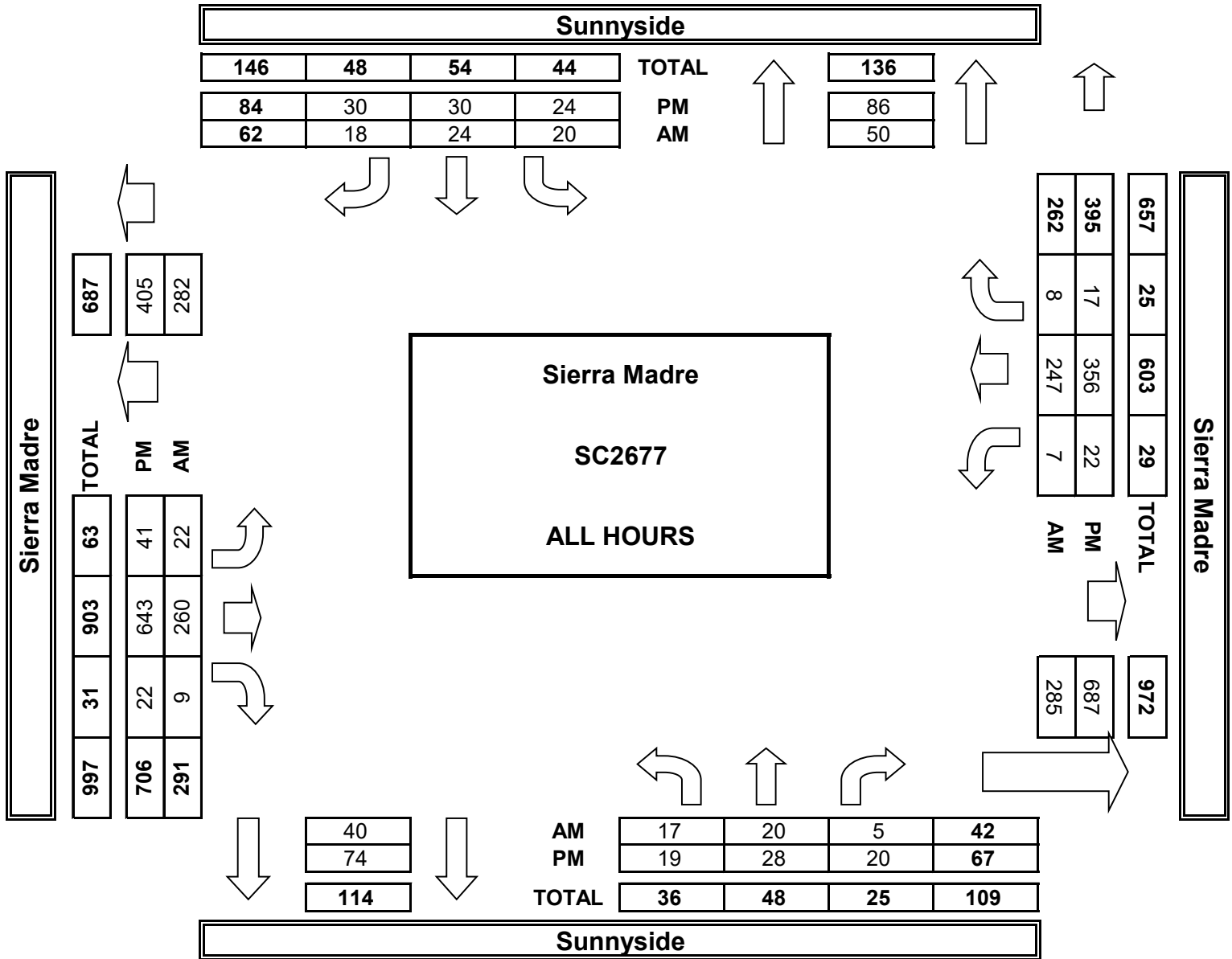
<b>AM</b>	7:00 AM	11	2	3	3	19
	7:15 AM	11	6	1	2	20
	7:30 AM	4	5	2	2	13
	7:45 AM	5	5	0	2	12
	8:00 AM	6	2	2	3	13
	8:15 AM	8	9	2	3	22
	8:30 AM	1	5	4	0	10
	8:45 AM	8	9	7	3	27
	TOTAL	54	43	21	18	136
	AM BEGIN PEAK HR	8:00 AM				
<b>PM</b>	4:00 PM	5	4	1	0	10
	4:15 PM	0	3	0	4	7
	4:30 PM	2	1	3	0	6
	4:45 PM	7	2	0	2	11
	5:00 PM	1	4	4	3	12
	5:15 PM	4	5	3	0	12
	5:30 PM	10	8	5	0	23
	5:45 PM	4	4	1	3	12
	TOTAL	33	31	17	12	93
	PM BEGIN PEAK HR	4:15 PM				

PEDESTRIAN + BIKE CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
11	2	3	3	19	
11	6	1	2	20	
4	5	2	2	13	
5	5	0	2	12	
6	2	2	3	13	
8	9	2	3	22	
1	5	4	0	10	
8	9	7	3	27	
54	43	21	18	136	
8:00 AM					
5	4	1	0	10	
0	3	0	4	7	
2	1	3	0	6	
7	2	0	2	11	
1	4	4	3	12	
4	5	3	0	12	
10	8	5	0	23	
4	4	1	3	12	
33	31	17	12	93	
4:15 PM					

PEDESTRIAN CROSSINGS					
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL	
10	2	3	3	18	
10	1	1	2	14	
2	4	1	2	9	
5	3	0	2	10	
6	1	2	3	12	
3	5	2	3	13	
1	4	4	0	9	
6	5	6	2	19	
43	25	19	17	104	
16	15	14	8	53	
5	0	1	0	6	
0	3	0	3	6	
1	1	3	0	5	
5	1	0	2	8	
1	2	4	3	10	
3	5	3	0	11	
7	5	5	0	17	
3	1	0	2	6	
25	18	16	10	69	
7	7	7	8	29	

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
1	0	0	0	1
1	5	0	0	6
2	1	1	0	4
0	2	0	0	2
0	1	0	0	1
5	4	0	0	9
0	1	0	0	1
2	4	1	1	8
11	18	2	1	32
0	4	0	0	4
0	0	0	1	1
1	0	0	0	1
2	1	0	0	3
0	2	0	0	2
1	0	0	0	1
3	3	0	0	6
1	3	1	1	6
8	13	1	2	24

**AimTD LLC**  
TURNING MOVEMENT COUNTS



# INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Thu, Oct 8, 20

**LOCATION:**  
NORTH & SOUTH: Sierra Madre  
EAST & WEST: Michillinda  
Sierra Madre

**PROJECT #:** SC2677  
**LOCATION #:** 3  
**CONTROL:** SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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Add U-Turns to Left Turns

LANES:	NORTHBOUND <small>Michillinda</small>			SOUTHBOUND <small>Michillinda</small>			EASTBOUND <small>Sierra Madre</small>			WESTBOUND <small>Sierra Madre</small>			TOTAL
	NL 1	NT 1	NR 0	SL 1	ST 1	SR 0	EL 1	ET 2	ER 1	WL 1	WT 2	WR 1	

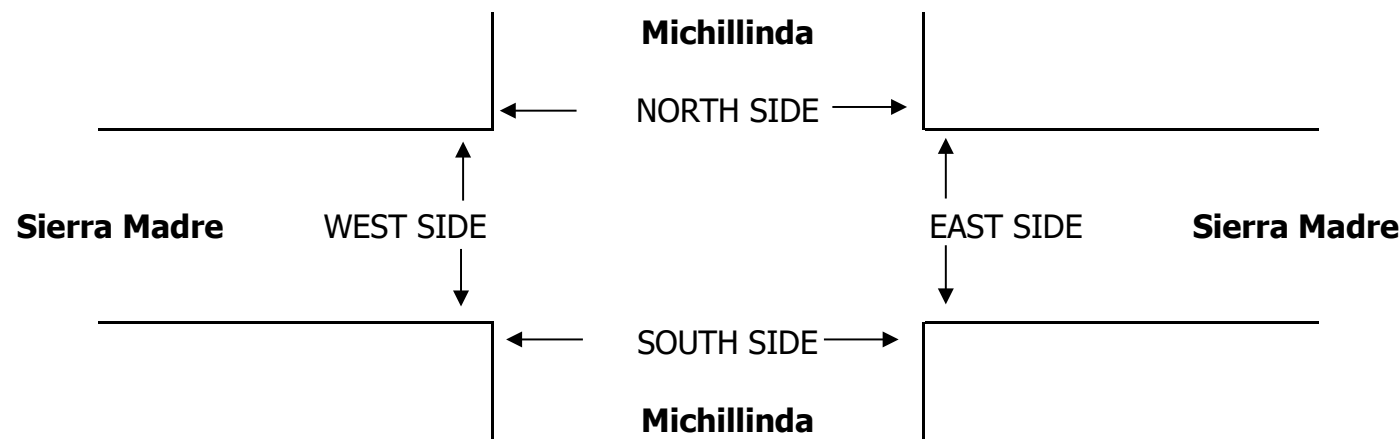
U-TURNS				
NB	SB	EB	WB	TTL
0	0	0	0	0

<b>AM</b>	7:00 AM	11	19	2	0	20	14	3	13	11	8	16	1	118
	7:15 AM	10	10	3	2	31	17	10	18	14	10	16	0	141
	7:30 AM	23	19	6	0	37	25	13	25	17	10	29	1	205
	7:45 AM	17	36	4	4	30	15	19	25	11	9	29	4	203
	8:00 AM	21	25	12	2	42	22	16	36	16	6	31	4	233
	8:15 AM	19	31	13	2	47	24	18	38	20	10	30	3	255
	8:30 AM	23	26	6	2	60	20	13	31	26	11	21	3	242
	8:45 AM	20	30	10	0	37	29	14	41	29	6	37	3	256
	VOLUMES	144	196	56	12	304	166	106	227	144	70	209	19	1,653
	APPROACH %	36%	49%	14%	2%	63%	34%	22%	48%	30%	23%	70%	6%	
APP/DEPART	396	/	319	482	/	518	477	/	295	298	/	521	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	83	112	41	6	186	95	61	146	91	33	119	13	986	
APPROACH %	35%	47%	17%	2%	65%	33%	20%	49%	31%	20%	72%	8%		
PEAK HR FACTOR	0.937													
APP/DEPART	236	/	185	287	/	310	298	/	193	165	/	298	0	

0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	2	0	2

<b>PM</b>	4:00 PM	17	33	12	3	42	24	39	70	65	7	34	4	350
	4:15 PM	35	19	16	4	30	27	37	79	69	12	39	0	367
	4:30 PM	35	26	8	5	34	21	28	65	79	15	44	3	363
	4:45 PM	28	37	13	7	41	27	50	68	86	18	37	4	416
	5:00 PM	28	33	13	6	43	19	37	87	82	10	44	3	405
	5:15 PM	20	50	10	3	42	25	33	71	71	7	30	6	368
	5:30 PM	15	36	15	2	42	21	45	79	53	10	29	1	348
	5:45 PM	20	40	10	1	33	22	34	69	53	10	30	5	327
	VOLUMES	198	274	97	31	307	186	303	588	558	89	287	26	2,944
	APPROACH %	35%	48%	17%	6%	59%	35%	21%	41%	39%	22%	71%	6%	
APP/DEPART	569	/	589	524	/	954	1,449	/	716	402	/	685	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	111	146	44	21	160	92	148	291	318	50	155	16	1,552	
APPROACH %	37%	49%	15%	8%	59%	34%	20%	38%	42%	23%	70%	7%		
PEAK HR FACTOR	0.941													
APP/DEPART	301	/	303	273	/	528	757	/	356	221	/	365	0	

0	0	3	0	3
0	0	4	0	4
0	0	1	0	1
0	0	4	0	4
0	0	2	0	2
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	14	0	14



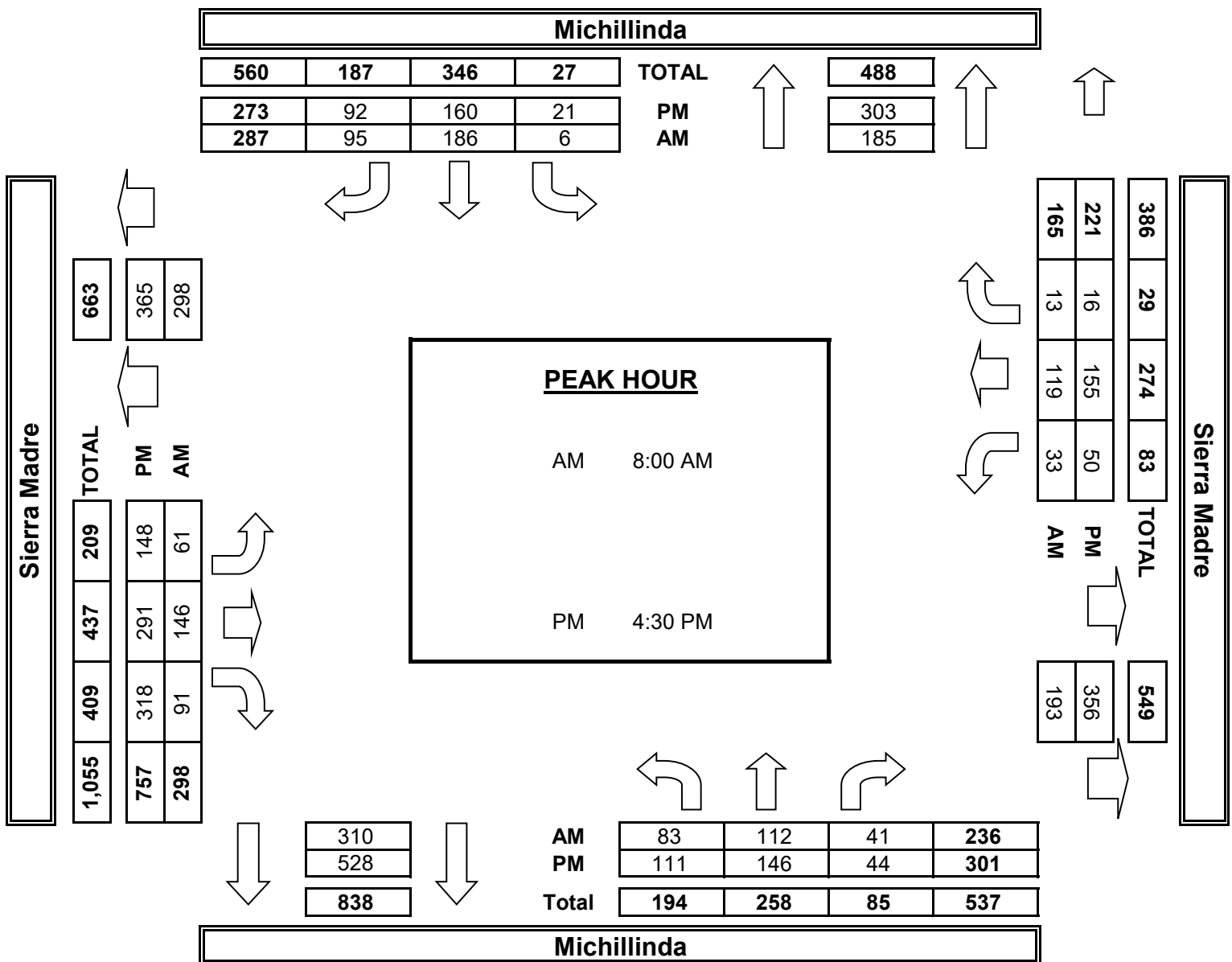
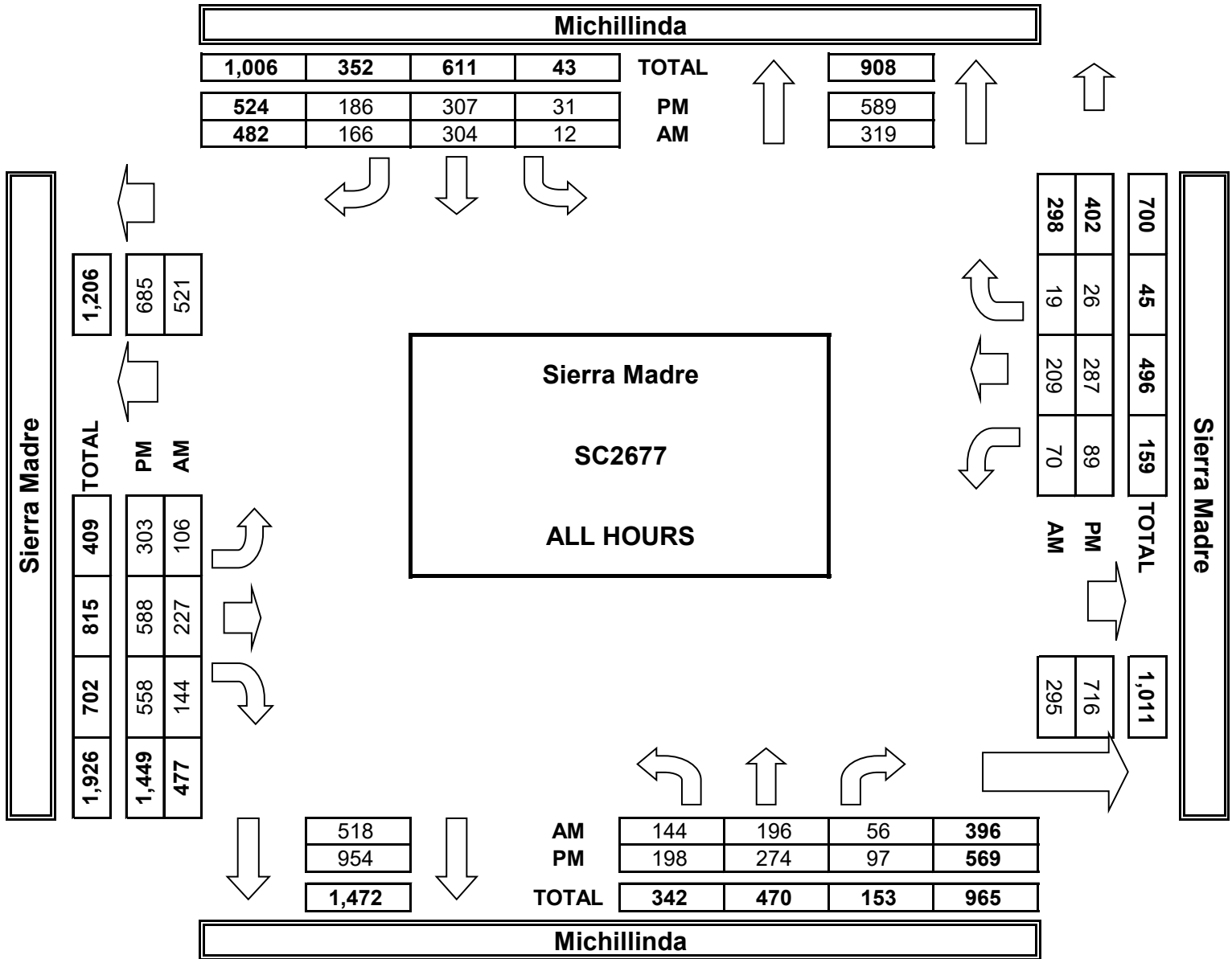
<b>AM</b>	7:00 AM	5	0	0	3	8
	7:15 AM	5	6	0	0	11
	7:30 AM	4	4	2	2	12
	7:45 AM	2	5	2	5	14
	8:00 AM	4	2	2	0	8
	8:15 AM	0	12	2	3	17
	8:30 AM	1	3	0	3	7
	8:45 AM	2	8	0	1	11
	TOTAL	23	40	8	17	88
AM BEGIN PEAK HR						
<b>PM</b>	4:00 PM	2	6	0	1	9
	4:15 PM	1	0	1	1	3
	4:30 PM	0	1	0	0	1
	4:45 PM	4	2	2	0	8
	5:00 PM	0	7	0	0	7
	5:15 PM	2	1	0	0	3
	5:30 PM	5	4	1	2	12
	5:45 PM	2	3	0	5	10
	TOTAL	16	24	4	9	53
PM BEGIN PEAK HR						

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
5	0	0	3	8
5	6	0	0	11
4	4	2	2	12
2	5	2	5	14
4	2	2	0	8
0	12	2	3	17
1	3	0	3	7
2	8	0	1	11
23	40	8	17	88
8:00 AM				
2	6	0	1	9
1	0	1	1	3
0	1	0	0	1
4	2	2	0	8
0	7	0	0	7
2	1	0	0	3
5	4	1	2	12
2	3	0	5	10
16	24	4	9	53
4:30 PM				

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
5	0	0	2	7
5	3	0	0	8
2	3	2	1	8
2	2	2	4	10
3	0	2	0	5
0	7	2	0	9
0	2	0	3	5
1	5	0	0	6
18	22	8	10	58
4	14	4	3	25
1	2	0	1	4
1	0	1	1	3
0	1	0	0	1
1	1	0	0	2
0	3	0	0	3
1	1	0	0	2
2	1	1	2	6
2	0	0	5	7
8	9	2	9	28
2	6	0	0	8

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	0	0	1	1
0	3	0	0	3
2	1	0	1	4
0	3	0	1	4
1	2	0	0	3
0	5	0	3	8
1	1	0	0	2
1	3	0	1	5
5	18	0	7	30
1	4	0	0	5
0	0	0	0	0
0	0	0	0	0
3	1	2	0	6
0	4	0	0	4
1	0	0	0	1
3	3	0	0	6
0	3	0	0	3
8	15	2	0	25

**AimTD LLC**  
TURNING MOVEMENT COUNTS





# INTERSECTION TURNING MOVEMENT COUNTS

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

**DATE:**  
Thu, Oct 8, 20

**LOCATION:**  
NORTH & SOUTH: Sierra Madre  
EAST & WEST: Michillinda  
Foothill

**PROJECT #:** SC2677  
**LOCATION #:** 4  
**CONTROL:** SIGNAL

NOTES:	AM PM MD OTHER OTHER	◀ W	▲ N ▼ S	E ▶
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Add U-Turns to Left Turns

LANES:	NORTHBOUND <small>Michillinda</small>			SOUTHBOUND <small>Michillinda</small>			EASTBOUND <small>Foothill</small>			WESTBOUND <small>Foothill</small>			TOTAL
	NL 1	NT 2	NR 1	SL 1	ST 2	SR 1	EL 1	ET 2	ER 1	WL 1	WT 3	WR 0	

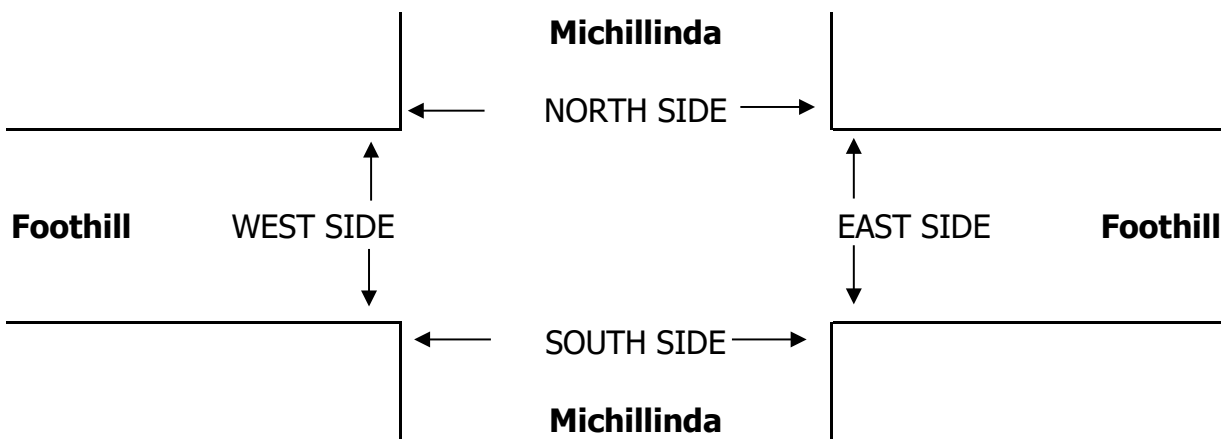
U-TURNS				
NB 0	SB 0	EB 0	WB 0	TTL 0

<b>AM</b>	7:00 AM	11	28	9	6	28	24	8	18	12	5	44	10	203
	7:15 AM	7	28	4	7	48	32	6	19	23	11	58	12	255
	7:30 AM	8	41	8	4	46	32	14	23	25	13	67	21	302
	7:45 AM	17	58	6	5	54	32	10	18	22	15	68	19	324
	8:00 AM	14	46	9	7	54	27	13	28	25	10	61	22	316
	8:15 AM	14	35	6	11	50	55	22	21	23	14	52	22	325
	8:30 AM	16	58	9	16	58	47	16	25	33	10	68	18	374
	8:45 AM	23	59	11	11	72	29	20	31	33	15	60	30	394
	VOLUMES	110	353	62	67	410	278	109	183	196	93	478	154	2,493
	APPROACH %	21%	67%	12%	9%	54%	37%	22%	38%	40%	13%	66%	21%	
APP/DEPART	525	/	616	755	/	699	488	/	312	725	/	866	0	
BEGIN PEAK HR	8:00 AM													
VOLUMES	67	198	35	45	234	158	71	105	114	49	241	92	1,409	
APPROACH %	22%	66%	12%	10%	54%	36%	24%	36%	39%	13%	63%	24%		
PEAK HR FACTOR	0.806													
APP/DEPART	300	/	361	437	/	397	290	/	185	382	/	466	0	

0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

<b>PM</b>	4:00 PM	30	64	14	42	72	38	12	140	56	10	73	16	567
	4:15 PM	27	64	29	36	75	42	21	152	44	12	77	18	597
	4:30 PM	26	50	38	39	100	36	17	139	51	12	59	26	593
	4:45 PM	36	74	19	35	91	31	18	130	59	10	83	21	607
	5:00 PM	39	61	21	50	85	46	19	214	66	13	86	24	724
	5:15 PM	18	79	27	41	105	36	25	170	52	12	70	19	654
	5:30 PM	20	56	29	33	86	33	19	123	47	6	87	21	560
	5:45 PM	18	77	31	26	82	41	20	143	50	15	83	32	618
	VOLUMES	214	525	208	302	696	303	151	1,211	425	90	618	177	4,920
	APPROACH %	23%	55%	22%	23%	53%	23%	8%	68%	24%	10%	70%	20%	
APP/DEPART	947	/	855	1,301	/	1,211	1,787	/	1,717	885	/	1,137	0	
BEGIN PEAK HR	4:30 PM													
VOLUMES	119	264	105	165	381	149	79	653	228	47	298	90	2,578	
APPROACH %	24%	54%	22%	24%	55%	21%	8%	68%	24%	11%	69%	21%		
PEAK HR FACTOR	0.946													
APP/DEPART	488	/	433	695	/	656	960	/	922	435	/	567	0	

0	1	0	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	1	1	0	2
0	0	0	0	0
0	0	1	0	1
0	2	0	0	2
0	4	2	0	6



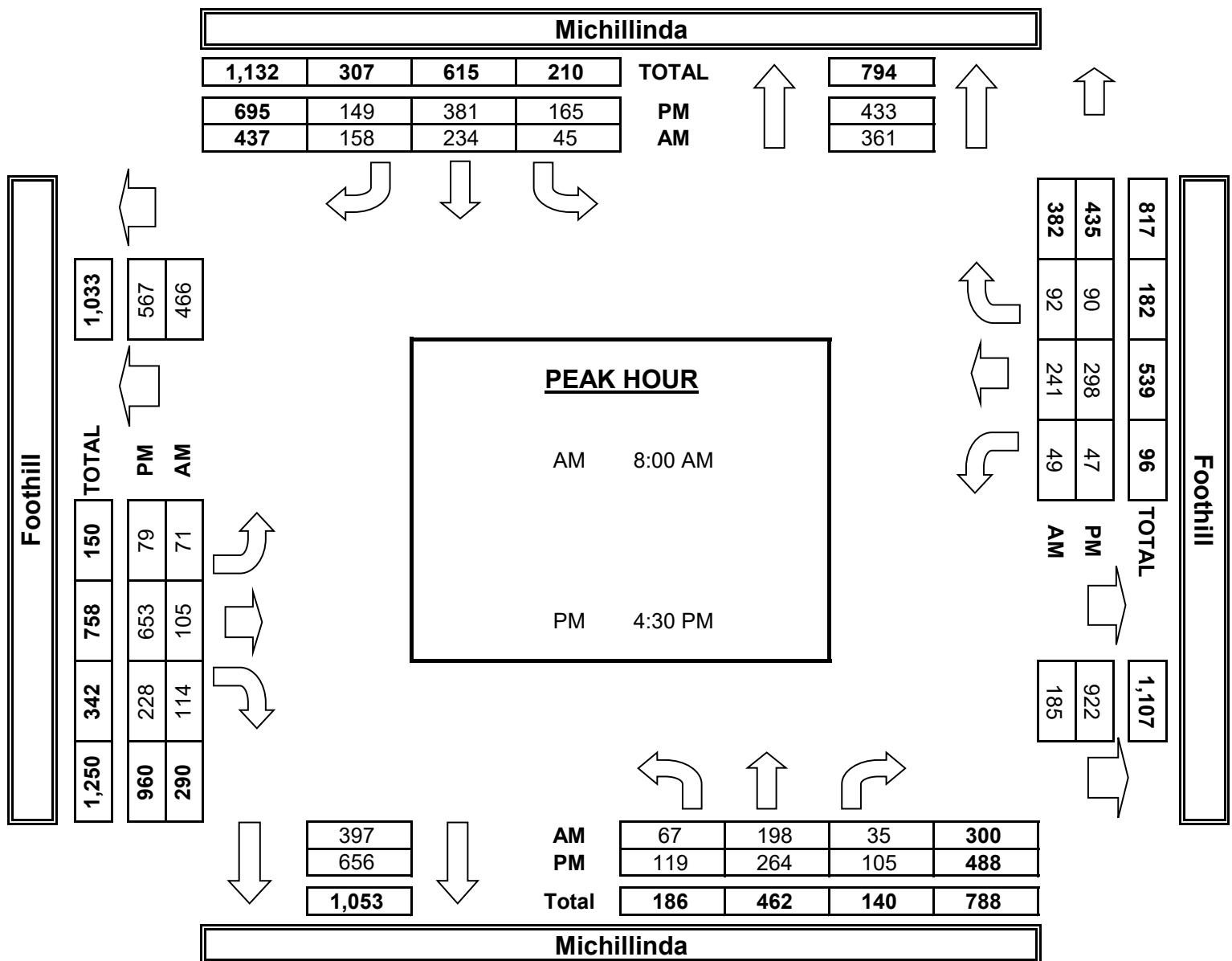
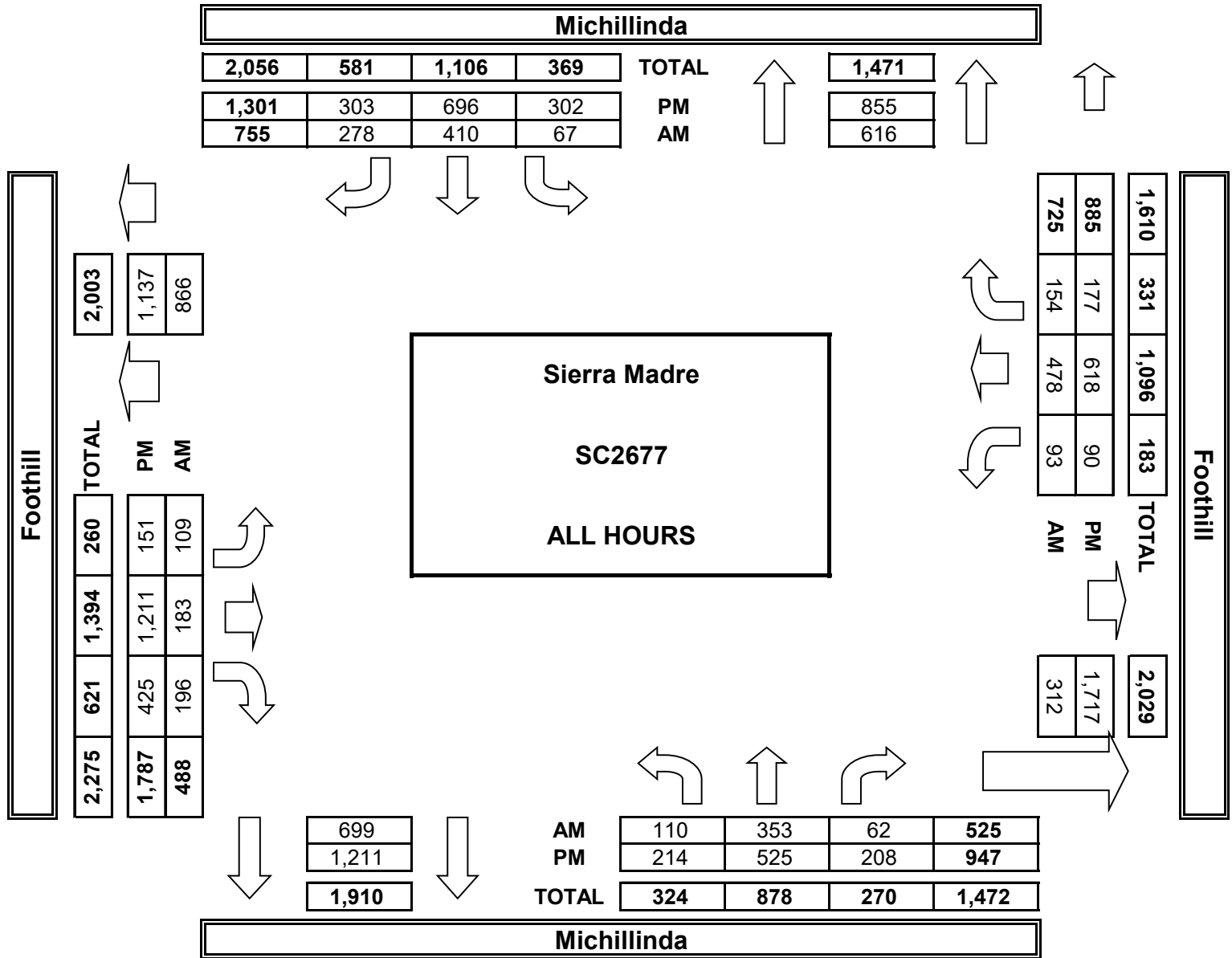
<b>AM</b>	7:00 AM	1	1	0	1	3
	7:15 AM	0	0	0	1	1
	7:30 AM	0	1	1	1	3
	7:45 AM	1	0	1	0	2
	8:00 AM	1	2	0	0	3
	8:15 AM	0	0	0	3	3
	8:30 AM	0	1	0	2	3
	8:45 AM	0	0	0	0	0
	TOTAL	3	5	2	8	18
AM BEGIN PEAK HR	8:00 AM					
<b>PM</b>	4:00 PM	0	0	0	0	0
	4:15 PM	0	1	0	2	3
	4:30 PM	0	2	0	0	2
	4:45 PM	0	0	0	3	3
	5:00 PM	0	1	0	1	2
	5:15 PM	0	1	0	3	4
	5:30 PM	0	0	1	1	2
	5:45 PM	2	0	1	2	5
	TOTAL	2	5	2	12	21
PM BEGIN PEAK HR	4:30 PM					

PEDESTRIAN + BIKE CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	1	0	1	3
0	0	0	1	1
0	1	1	1	3
1	0	1	0	2
1	2	0	0	3
0	0	0	3	3
0	1	0	2	3
0	0	0	0	0
TOTAL	3	5	2	8
8:00 AM				
0	0	0	0	0
0	1	0	2	3
0	2	0	0	2
0	0	0	3	3
0	1	0	1	2
0	1	0	3	4
0	0	1	1	2
2	0	1	2	5
TOTAL	2	5	2	12
4:30 PM				
0	0	0	0	0
0	1	0	2	3
0	2	0	0	2
0	0	0	3	3
0	1	0	1	2
0	1	0	3	4
0	0	1	1	2
2	0	1	2	5
TOTAL	2	5	2	12

PEDESTRIAN CROSSINGS				
N SIDE	S SIDE	E SIDE	W SIDE	TOTAL
1	0	0	0	1
0	0	0	1	1
0	1	1	0	2
1	0	1	0	2
1	0	0	0	1
0	0	0	0	0
0	0	0	2	2
0	0	0	0	0
TOTAL	3	1	2	3
8:00 AM				
1	0	0	2	3
0	0	0	0	0
0	1	0	2	3
0	0	0	0	0
0	0	0	3	3
0	1	0	1	2
0	0	0	1	1
0	0	0	1	1
2	0	0	1	3
TOTAL	2	2	0	9
4:30 PM				
0	1	0	5	6

BICYCLE CROSSINGS				
NS	SS	ES	WS	TOTAL
0	1	0	1	2
0	0	0	0	0
0	0	0	1	1
0	0	0	0	0
0	2	0	0	2
0	0	0	3	3
0	1	0	0	1
0	0	0	0	0
TOTAL	0	4	0	5
8:00 AM				
0	0	0	0	0
0	0	0	0	0
0	2	0	0	2
0	0	0	0	0
0	0	0	0	0
0	1	0	2	3
0	0	1	0	1
0	0	1	1	2
TOTAL	0	3	2	3

**AimTD LLC**  
TURNING MOVEMENT COUNTS







**ADT1 Sunnyside Avenue between Project Site and Fairview Avenue\_SAT.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB					
0:00	0	0	0	0	12:00	3	4	0	0					
0:15	0	0	0	0	12:15	2	4	0	0					
0:30	0	0	0	0	12:30	3	2	0	0					
0:45	0	0	0	0	12:45	3	11	4	14	0	0	0	0	25
1:00	0	0	0	0	13:00	5	5	0	0					
1:15	0	0	0	0	13:15	3	3	0	0					
1:30	0	0	0	0	13:30	1	0	0	0					
1:45	0	0	0	0	13:45	3	12	3	11	0	0	0	0	23
2:00	0	0	0	0	14:00	5	1	0	0					
2:15	0	0	0	0	14:15	3	3	0	0					
2:30	0	0	0	0	14:30	2	3	0	0					
2:45	0	0	0	0	14:45	6	16	2	9	0	0	0	0	25
3:00	0	0	0	0	15:00	2	2	0	0					
3:15	0	0	0	0	15:15	1	1	0	0					
3:30	0	0	0	0	15:30	4	2	0	0					
3:45	0	0	0	0	15:45	1	8	0	5	0	0	0	0	13
4:00	0	0	0	0	16:00	1	3	0	0					
4:15	0	0	0	0	16:15	3	3	0	0					
4:30	0	0	0	0	16:30	3	6	0	0					
4:45	0	0	0	0	16:45	4	11	4	16	0	0	0	0	27
5:00	0	0	0	0	17:00	1	0	0	0					
5:15	0	0	0	0	17:15	4	4	0	0					
5:30	1	0	0	0	17:30	4	4	0	0					
5:45	0	1	1	1	17:45	6	15	2	10	0	0	0	0	25
6:00	0	0	0	0	18:00	3	3	0	0					
6:15	0	0	0	0	18:15	0	5	0	0					
6:30	1	0	0	0	18:30	1	2	0	0					
6:45	0	1	1	1	18:45	1	5	3	13	0	0	0	0	18
7:00	2	0	0	0	19:00	0	1	0	0					
7:15	0	2	0	0	19:15	1	0	0	0					
7:30	0	0	0	0	19:30	1	1	0	0					
7:45	0	2	0	2	19:45	1	3	1	3	0	0	0	0	6
8:00	0	0	0	0	20:00	0	2	0	0					
8:15	0	4	0	0	20:15	2	1	0	0					
8:30	0	1	0	0	20:30	1	0	0	0					
8:45	2	2	4	9	20:45	3	6	2	5	0	0	0	0	11
9:00	2	0	0	0	21:00	0	1	0	0					
9:15	2	2	0	0	21:15	0	1	0	0					
9:30	2	1	0	0	21:30	1	3	0	0					
9:45	2	8	3	6	21:45	1	2	0	5	0	0	0	0	7
10:00	1	3	0	0	22:00	0	0	0	0					
10:15	2	2	0	0	22:15	1	1	0	0					
10:30	1	1	0	0	22:30	2	0	0	0					
10:45	1	5	1	7	22:45	1	4	1	2	0	0	0	0	6
11:00	0	0	0	0	23:00	0	0	0	0					
11:15	3	1	0	0	23:15	0	1	0	0					
11:30	3	3	0	0	23:30	0	0	0	0					
11:45	2	8	0	4	23:45	0	0	0	1	0	0	0	0	1

**Total Vol.** 27 30 57 93 94 187

**Daily Totals**

NB	SB	EB	WB	Combined
120	124			244

**AM**

**PM**

Split %	47.4%	52.6%	23.4%	49.7%	50.3%	76.6%
<b>Peak Hour</b>	11:15	11:30	11:30	17:15	16:00	17:15
<b>Volume</b>	11	11	21	17	16	30
<b>P.H.F.</b>	0.92	0.69	0.75	0.83	0.67	0.94









**ADT3 Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue TH.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0	6	2	12:00	0	0	68	47
0:15	0	0	7	2	12:15	0	0	60	60
0:30	0	0	7	3	12:30	0	0	50	46
0:45	0	0	5	7	12:45	0	0	58	32
1:00	0	0	0	4	13:00	0	0	67	62
1:15	0	0	3	1	13:15	0	0	68	50
1:30	0	0	2	1	13:30	0	0	65	46
1:45	0	0	3	8	13:45	0	0	56	256
2:00	0	0	3	1	14:00	0	0	58	65
2:15	0	0	0	1	14:15	0	0	71	48
2:30	0	0	1	1	14:30	0	0	64	66
2:45	0	0	1	5	14:45	0	0	76	269
3:00	0	0	1	0	15:00	0	0	90	46
3:15	0	0	0	0	15:15	0	0	85	64
3:30	0	0	0	3	15:30	0	0	85	57
3:45	0	0	1	2	15:45	0	0	97	357
4:00	0	0	2	2	16:00	0	0	85	45
4:15	0	0	1	0	16:15	0	0	99	51
4:30	0	0	1	3	16:30	0	0	78	62
4:45	0	0	4	8	16:45	0	0	88	350
5:00	0	0	0	3	17:00	0	0	101	57
5:15	0	0	7	6	17:15	0	0	84	43
5:30	0	0	2	2	17:30	0	0	96	41
5:45	0	0	13	22	17:45	0	0	80	361
6:00	0	0	12	5	18:00	0	0	85	43
6:15	0	0	14	10	18:15	0	0	76	40
6:30	0	0	17	13	18:30	0	0	64	42
6:45	0	0	16	59	18:45	0	0	50	275
7:00	0	0	15	25	19:00	0	0	53	33
7:15	0	0	23	26	19:15	0	0	43	35
7:30	0	0	31	40	19:30	0	0	45	28
7:45	0	0	33	102	19:45	0	0	33	174
8:00	0	0	50	41	20:00	0	0	28	27
8:15	0	0	53	43	20:15	0	0	39	14
8:30	0	0	37	35	20:30	0	0	22	23
8:45	0	0	51	191	20:45	0	0	22	111
9:00	0	0	53	47	21:00	0	0	17	15
9:15	0	0	49	35	21:15	0	0	16	14
9:30	0	0	31	44	21:30	0	0	21	10
9:45	0	0	46	179	21:45	0	0	13	67
10:00	0	0	50	44	22:00	0	0	8	13
10:15	0	0	47	45	22:15	0	0	17	13
10:30	0	0	51	33	22:30	0	0	10	9
10:45	0	0	62	210	22:45	0	0	12	47
11:00	0	0	62	41	23:00	0	0	14	3
11:15	0	0	62	33	23:15	0	0	4	7
11:30	0	0	69	63	23:30	0	0	5	6
11:45	0	0	67	260	23:45	0	0	2	25

**Total Vol.** 1071 895 **1966** 2528 1716 **4244**

Daily Totals				
NB	SB	EB	WB	Combined
		3599	2611	<b>6210</b>

**AM**

**PM**

Split %	54.5%	45.5%	<b>31.7%</b>	59.6%	40.4%	<b>68.3%</b>
<b>Peak Hour</b>	11:15	11:30	<b>11:30</b>	16:45	16:15	<b>16:15</b>
<b>Volume</b>	266	219	<b>483</b>	369	229	<b>595</b>
<b>P.H.F.</b>	0.96	0.87	<b>0.91</b>	0.91	0.92	<b>0.94</b>

**ADT3 Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue FR.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
0:00	0	0	6	4	12:00	0	0	55	48			
0:15	0	0	4	1	12:15	0	0	92	57			
0:30	0	0	6	0	12:30	0	0	65	53			
0:45	0	0	0	16	12:45	0	0	72	284	43	201	485
1:00	0	0	1	0	13:00	0	0	79	59			
1:15	0	0	1	0	13:15	0	0	67	64			
1:30	0	0	1	0	13:30	0	0	77	45			
1:45	0	0	3	6	13:45	0	0	78	301	53	221	522
2:00	0	0	1	2	14:00	0	0	77	40			
2:15	0	0	2	0	14:15	0	0	80	50			
2:30	0	0	2	1	14:30	0	0	92	55			
2:45	0	0	2	7	14:45	0	0	95	344	55	200	544
3:00	0	0	1	1	15:00	0	0	75	59			
3:15	0	0	1	1	15:15	0	0	89	56			
3:30	0	0	1	0	15:30	0	0	114	72			
3:45	0	0	0	3	15:45	0	0	113	391	56	243	634
4:00	0	0	1	0	16:00	0	0	79	62			
4:15	0	0	0	1	16:15	0	0	90	51			
4:30	0	0	1	3	16:30	0	0	90	65			
4:45	0	0	0	2	16:45	0	0	99	358	60	238	596
5:00	0	0	4	2	17:00	0	0	106	64			
5:15	0	0	4	1	17:15	0	0	103	51			
5:30	0	0	6	6	17:30	0	0	79	49			
5:45	0	0	15	29	17:45	0	0	80	368	54	218	586
6:00	0	0	7	4	18:00	0	0	73	51			
6:15	0	0	14	9	18:15	0	0	75	56			
6:30	0	0	13	13	18:30	0	0	64	47			
6:45	0	0	20	54	18:45	0	0	65	277	56	210	487
7:00	0	0	16	19	19:00	0	0	64	27			
7:15	0	0	18	22	19:15	0	0	62	38			
7:30	0	0	28	30	19:30	0	0	63	37			
7:45	0	0	41	103	19:45	0	0	46	235	39	141	376
8:00	0	0	35	40	20:00	0	0	31	29			
8:15	0	0	35	35	20:15	0	0	26	22			
8:30	0	0	44	39	20:30	0	0	15	17			
8:45	0	0	50	164	20:45	0	0	30	102	13	81	183
9:00	0	0	54	52	21:00	0	0	24	16			
9:15	0	0	48	24	21:15	0	0	28	18			
9:30	0	0	50	38	21:30	0	0	22	16			
9:45	0	0	59	211	21:45	0	0	16	90	15	65	155
10:00	0	0	47	42	22:00	0	0	19	12			
10:15	0	0	43	60	22:15	0	0	29	21			
10:30	0	0	53	44	22:30	0	0	15	11			
10:45	0	0	53	196	22:45	0	0	15	78	10	54	132
11:00	0	0	54	62	23:00	0	0	10	13			
11:15	0	0	56	45	23:15	0	0	10	12			
11:30	0	0	65	51	23:30	0	0	7	8			
11:45	0	0	71	246	23:45	0	0	7	34	3	36	70

**Total Vol.** 1037 882 **1919** 2862 1908 **4770**

Daily Totals				
NB	SB	EB	WB	Combined
		3899	2790	<b>6689</b>

**AM**

**PM**

Split %	54.0%	46.0%	<b>28.7%</b>	60.0%	40.0%	<b>71.3%</b>
<b>Peak Hour</b>	11:30	10:15	<b>11:45</b>	16:30	15:15	<b>15:15</b>
<b>Volume</b>	283	209	<b>491</b>	398	246	<b>641</b>
<b>P.H.F.</b>	0.77	0.84	<b>0.82</b>	0.94	0.85	<b>0.86</b>

**ADT3 Sierra Madre Boulevard between Michillinda Avenue and Sunnyside Avenue\_SAT.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB
0:00	0	0	5	3	12:00	0	0	65	57
0:15	0	0	7	3	12:15	0	0	60	58
0:30	0	0	3	1	12:30	0	0	73	48
0:45	0	0	5	20	12:45	0	0	80	278
1:00	0	0	2	2	13:00	0	0	63	64
1:15	0	0	1	1	13:15	0	0	56	40
1:30	0	0	2	5	13:30	0	0	74	51
1:45	0	0	4	9	13:45	0	0	63	256
2:00	0	0	1	1	14:00	0	0	55	52
2:15	0	0	0	1	14:15	0	0	56	41
2:30	0	0	4	2	14:30	0	0	59	47
2:45	0	0	1	6	14:45	0	0	53	223
3:00	0	0	0	1	15:00	0	0	78	53
3:15	0	0	1	2	15:15	0	0	52	50
3:30	0	0	0	1	15:30	0	0	50	46
3:45	0	0	2	3	15:45	0	0	68	248
4:00	0	0	1	0	16:00	0	0	49	42
4:15	0	0	1	0	16:15	0	0	59	50
4:30	0	0	1	3	16:30	0	0	57	43
4:45	0	0	0	3	16:45	0	0	53	218
5:00	0	0	1	2	17:00	0	0	70	42
5:15	0	0	2	0	17:15	0	0	46	42
5:30	0	0	3	1	17:30	0	0	48	46
5:45	0	0	6	12	17:45	0	0	67	231
6:00	0	0	7	5	18:00	0	0	58	39
6:15	0	0	9	6	18:15	0	0	47	37
6:30	0	0	10	4	18:30	0	0	38	29
6:45	0	0	22	48	18:45	0	0	49	192
7:00	0	0	16	15	19:00	0	0	37	33
7:15	0	0	15	19	19:15	0	0	59	26
7:30	0	0	19	20	19:30	0	0	32	28
7:45	0	0	26	76	19:45	0	0	31	159
8:00	0	0	32	33	20:00	0	0	29	27
8:15	0	0	30	25	20:15	0	0	21	21
8:30	0	0	28	32	20:30	0	0	42	31
8:45	0	0	46	136	20:45	0	0	28	120
9:00	0	0	48	29	21:00	0	0	25	21
9:15	0	0	42	30	21:15	0	0	31	16
9:30	0	0	41	44	21:30	0	0	19	23
9:45	0	0	61	192	21:45	0	0	25	100
10:00	0	0	52	43	22:00	0	0	13	14
10:15	0	0	53	64	22:15	0	0	22	10
10:30	0	0	58	53	22:30	0	0	16	16
10:45	0	0	53	216	22:45	0	0	8	59
11:00	0	0	76	51	23:00	0	0	16	10
11:15	0	0	71	53	23:15	0	0	7	9
11:30	0	0	73	58	23:30	0	0	7	5
11:45	0	0	68	288	23:45	0	0	6	36

**Total Vol.** 1009 834 **1843** 2120 1666 **3786**

Daily Totals				
NB	SB	EB	WB	Combined
		3129	2500	<b>5629</b>

**AM**

**PM**

Split %	54.7%	45.3%	<b>32.7%</b>	56.0%	44.0%	<b>67.3%</b>
<b>Peak Hour</b>	11:00	11:30	<b>11:00</b>	12:00	12:15	<b>12:15</b>
<b>Volume</b>	288	230	<b>507</b>	278	219	<b>495</b>
<b>P.H.F.</b>	0.95	0.99	<b>0.97</b>	0.87	0.86	<b>0.96</b>

**ADT4 Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard\_TH.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB					
0:00	3	4	0	0	12:00	61	64	0	0					
0:15	1	6	0	0	12:15	54	60	0	0					
0:30	1	2	0	0	12:30	59	63	0	0					
0:45	4	9	0	12	12:45	52	226	66	253	0	0	0	0	479
1:00	5	2	0	0	13:00	51	62	0	0					
1:15	1	1	0	0	13:15	70	49	0	0					
1:30	0	0	0	0	13:30	65	71	0	0					
1:45	2	8	1	4	13:45	54	240	53	235	0	0	0	0	475
2:00	3	2	0	0	14:00	56	59	0	0					
2:15	0	2	0	0	14:15	47	57	0	0					
2:30	0	0	0	0	14:30	57	51	0	0					
2:45	2	5	1	5	14:45	63	223	60	227	0	0	0	0	450
3:00	1	1	0	0	15:00	62	75	0	0					
3:15	0	1	0	0	15:15	75	65	0	0					
3:30	2	0	0	0	15:30	67	61	0	0					
3:45	1	4	3	5	15:45	63	267	58	259	0	0	0	0	526
4:00	0	4	0	0	16:00	76	69	0	0					
4:15	0	3	0	0	16:15	55	61	0	0					
4:30	2	5	0	0	16:30	59	60	0	0					
4:45	2	4	9	21	16:45	90	280	67	257	0	0	0	0	537
5:00	0	3	0	0	17:00	74	68	0	0					
5:15	3	9	0	0	17:15	92	70	0	0					
5:30	4	5	0	0	17:30	85	65	0	0					
5:45	5	12	16	33	17:45	82	333	56	259	0	0	0	0	592
6:00	6	15	0	0	18:00	68	53	0	0					
6:15	10	15	0	0	18:15	71	53	0	0					
6:30	12	26	0	0	18:30	58	56	0	0					
6:45	15	43	35	91	18:45	53	250	37	199	0	0	0	0	449
7:00	19	32	0	0	19:00	62	42	0	0					
7:15	20	48	0	0	19:15	60	32	0	0					
7:30	29	60	0	0	19:30	47	41	0	0					
7:45	55	123	47	187	19:45	41	210	23	138	0	0	0	0	348
8:00	41	64	0	0	20:00	46	17	0	0					
8:15	48	71	0	0	20:15	25	26	0	0					
8:30	38	80	0	0	20:30	27	26	0	0					
8:45	42	169	64	279	20:45	24	122	14	83	0	0	0	0	205
9:00	34	68	0	0	21:00	28	16	0	0					
9:15	53	52	0	0	21:15	19	23	0	0					
9:30	44	56	0	0	21:30	18	14	0	0					
9:45	40	171	54	230	21:45	21	86	14	67	0	0	0	0	153
10:00	41	61	0	0	22:00	12	8	0	0					
10:15	45	66	0	0	22:15	12	11	0	0					
10:30	37	63	0	0	22:30	14	8	0	0					
10:45	50	173	59	249	22:45	10	48	8	35	0	0	0	0	83
11:00	39	69	0	0	23:00	10	10	0	0					
11:15	50	68	0	0	23:15	5	6	0	0					
11:30	68	62	0	0	23:30	4	3	0	0					
11:45	51	208	61	260	23:45	2	21	2	21	0	0	0	0	42
<b>Total Vol.</b>	929	1376			<b>2305</b>	2306	2033							<b>4339</b>
										<b>Daily Totals</b>				
						NB	SB	EB	WB	<b>Combined</b>				
						3235	3409			<b>6644</b>				
										<b>AM</b>				
<b>Split %</b>	40.3%	59.7%			<b>34.7%</b>	53.1%	46.9%			<b>PM</b>				
<b>Peak Hour</b>	11:30	8:15			<b>11:15</b>	16:45	16:45			<b>16:45</b>				
<b>Volume</b>	234	283			<b>485</b>	341	270			<b>611</b>				
<b>P.H.F.</b>	0.86	0.88			<b>0.93</b>	0.95	0.96			<b>0.94</b>				



**ADT4 Michillinda Avenue between Fairview Avenue and Sierra Madre Boulevard\_FR.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB					
0:00	7	5	0	0	12:00	55	73	0	0					
0:15	7	2	0	0	12:15	67	73	0	0					
0:30	8	3	0	0	12:30	83	64	0	0					
0:45	3	25	1	11	12:45	55	260	86	296	0	0	0	0	556
1:00	3	2	0	0	13:00	82	69	0	0					
1:15	1	1	0	0	13:15	70	75	0	0					
1:30	1	1	0	0	13:30	71	66	0	0					
1:45	0	5	0	4	13:45	62	285	86	296	0	0	0	0	581
2:00	2	0	0	0	14:00	73	77	0	0					
2:15	2	0	0	0	14:15	67	65	0	0					
2:30	1	0	0	0	14:30	75	65	0	0					
2:45	0	5	5	5	14:45	73	288	79	286	0	0	0	0	574
3:00	0	2	0	0	15:00	68	79	0	0					
3:15	2	2	0	0	15:15	59	82	0	0					
3:30	0	0	0	0	15:30	76	74	0	0					
3:45	0	2	0	4	15:45	82	285	61	296	0	0	0	0	581
4:00	0	1	0	0	16:00	72	56	0	0					
4:15	0	4	0	0	16:15	84	53	0	0					
4:30	3	2	0	0	16:30	81	75	0	0					
4:45	0	3	3	10	16:45	83	320	80	264	0	0	0	0	584
5:00	0	3	0	0	17:00	77	74	0	0					
5:15	1	7	0	0	17:15	76	61	0	0					
5:30	2	10	0	0	17:30	90	58	0	0					
5:45	6	9	5	25	17:45	91	334	65	258	0	0	0	0	592
6:00	5	12	0	0	18:00	77	65	0	0					
6:15	6	18	0	0	18:15	66	66	0	0					
6:30	8	25	0	0	18:30	56	55	0	0					
6:45	17	36	33	88	18:45	78	277	48	234	0	0	0	0	511
7:00	17	34	0	0	19:00	39	52	0	0					
7:15	26	46	0	0	19:15	51	44	0	0					
7:30	37	52	0	0	19:30	71	26	0	0					
7:45	40	120	49	181	19:45	48	209	43	165	0	0	0	0	374
8:00	41	43	0	0	20:00	40	26	0	0					
8:15	58	65	0	0	20:15	21	10	0	0					
8:30	29	76	0	0	20:30	22	25	0	0					
8:45	44	172	54	238	20:45	23	106	20	81	0	0	0	0	187
9:00	38	66	0	0	21:00	24	21	0	0					
9:15	38	59	0	0	21:15	28	11	0	0					
9:30	47	76	0	0	21:30	23	23	0	0					
9:45	56	179	68	269	21:45	15	90	6	61	0	0	0	0	151
10:00	39	56	0	0	22:00	17	17	0	0					
10:15	42	83	0	0	22:15	15	10	0	0					
10:30	46	51	0	0	22:30	15	15	0	0					
10:45	63	190	70	260	22:45	16	63	7	49	0	0	0	0	112
11:00	46	58	0	0	23:00	9	11	0	0					
11:15	47	67	0	0	23:15	9	4	0	0					
11:30	56	57	0	0	23:30	5	8	0	0					
11:45	59	208	69	251	23:45	10	33	4	27	0	0	0	0	60
<b>Total Vol.</b>	954	1346			<b>2300</b>	2550	2313							<b>4863</b>
										<b>Daily Totals</b>				
						NB	SB	EB	WB	<b>Combined</b>				
						3504	3659			<b>7163</b>				
					<b>AM</b>					<b>PM</b>				
<b>Split %</b>	41.5%	58.5%			<b>32.1%</b>	52.4%	47.6%							<b>67.9%</b>
<b>Peak Hour</b>	11:45	9:30			<b>11:45</b>	17:00	14:45							<b>16:15</b>
<b>Volume</b>	264	283			<b>543</b>	334	314							<b>607</b>
<b>P.H.F.</b>	0.80	0.85			<b>0.92</b>	0.93	0.96							<b>0.93</b>





**ADT5 Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard\_FR.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	6	6	0	0	12:00	75	93	0	0	
0:15	10	1	0	0	12:15	74	70	0	0	
0:30	12	7	0	0	12:30	76	87	0	0	
0:45	3 31	2 16	0 0	0 0	12:45	51 276	88 338	0 0	0 0	
1:00	1	2	0	0	13:00	99	96	0	0	
1:15	1	2	0	0	13:15	74	111	0	0	
1:30	2	1	0	0	13:30	71	100	0	0	
1:45	1 5	0 5	0 0	0 0	13:45	61 305	105 412	0 0	0 0	
2:00	4	0	0	0	14:00	73	91	0	0	
2:15	3	0	0	0	14:15	65	120	0	0	
2:30	0	1	0	0	14:30	80	99	0	0	
2:45	2 9	6 7	0 0	0 0	14:45	73 291	133 443	0 0	0 0	
3:00	2	1	0	0	15:00	67	120	0	0	
3:15	1	1	0	0	15:15	63	151	0	0	
3:30	1	0	0	0	15:30	74	160	0	0	
3:45	1 5	0 2	0 0	0 0	15:45	90 294	136 567	0 0	0 0	
4:00	1	4	0	0	16:00	78	115	0	0	
4:15	1	5	0	0	16:15	83	127	0	0	
4:30	6	5	0	0	16:30	80	135	0	0	
4:45	0 8	5 19	0 0	0 0	16:45	93 334	144 521	0 0	0 0	
5:00	4	5	0	0	17:00	85	130	0	0	
5:15	2	9	0	0	17:15	74	113	0	0	
5:30	6	12	0	0	17:30	81	111	0	0	
5:45	14 26	10 36	0 0	0 0	17:45	87 327	110 464	0 0	0 0	
6:00	7	12	0	0	18:00	83	96	0	0	
6:15	21	21	0	0	18:15	82	106	0	0	
6:30	13	26	0	0	18:30	70	92	0	0	
6:45	21 62	36 95	0 0	0 0	18:45	79 314	87 381	0 0	0 0	
7:00	24	37	0	0	19:00	49	63	0	0	
7:15	44	48	0	0	19:15	58	55	0	0	
7:30	50	47	0	0	19:30	62	46	0	0	
7:45	44 162	62 194	0 0	0 0	19:45	46 215	52 216	0 0	0 0	
8:00	54	48	0	0	20:00	37	32	0	0	
8:15	63	55	0	0	20:15	28	19	0	0	
8:30	36	77	0	0	20:30	25	35	0	0	
8:45	74 227	68 248	0 0	0 0	20:45	28 118	29 115	0 0	0 0	
9:00	50	61	0	0	21:00	28	30	0	0	
9:15	60	56	0	0	21:15	26	15	0	0	
9:30	55	65	0	0	21:30	32	22	0	0	
9:45	68 233	79 261	0 0	0 0	21:45	20 106	12 79	0 0	0 0	
10:00	44	71	0	0	22:00	21	16	0	0	
10:15	48	85	0	0	22:15	19	16	0	0	
10:30	54	72	0	0	22:30	26	21	0	0	
10:45	60 206	76 304	0 0	0 0	22:45	20 86	11 64	0 0	0 0	
11:00	68	80	0	0	23:00	12	12	0	0	
11:15	67	83	0	0	23:15	12	7	0	0	
11:30	72	69	0	0	23:30	3	12	0	0	
11:45	69 276	95 327	0 0	0 0	23:45	12 39	4 35	0 0	0 0	
<b>Total Vol.</b>	1250	1514		<b>2764</b>		2705	3635		<b>6340</b>	
								<b>Daily Totals</b>		
						NB	SB	EB	WB	<b>Combined</b>
						3955	5149			<b>9104</b>
								<b>PM</b>		
<b>Split %</b>	45.2%	54.8%		<b>30.4%</b>		42.7%	57.3%			<b>69.6%</b>
<b>Peak Hour</b>	11:45	11:45		<b>11:45</b>		16:15	15:00			<b>16:15</b>
<b>Volume</b>	294	345		<b>639</b>		341	567			<b>877</b>
<b>P.H.F.</b>	0.97	0.91		<b>0.95</b>		0.94	0.89			<b>0.93</b>

**ADT5 Michillinda Avenue between Sierra Madre Boulevard and Foothill Boulevard\_SAT.**

Prepared by AimTD LLC tel. 714 253 7888

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB	
0:00	6	2	0	0	12:00	78	74	0	0	
0:15	4	5	0	0	12:15	71	79	0	0	
0:30	1	3	0	0	12:30	63	75	0	0	
0:45	6 17	2 12	0 0	0 0	12:45	67 279	85 313	0 0	0 0	
1:00	3	5	0	0	13:00	74	96	0	0	
1:15	2	2	0	0	13:15	71	74	0	0	
1:30	6	4	0	0	13:30	75	82	0	0	
1:45	6 17	3 14	0 0	0 0	13:45	66 286	89 341	0 0	0 0	
2:00	2	3	0	0	14:00	64	90	0	0	
2:15	5	1	0	0	14:15	69	67	0	0	
2:30	3	3	0	0	14:30	62	92	0	0	
2:45	2 12	1 8	0 0	0 0	14:45	58 253	97 346	0 0	0 0	
3:00	3	3	0	0	15:00	66	63	0	0	
3:15	1	2	0	0	15:15	64	61	0	0	
3:30	3	3	0	0	15:30	66	75	0	0	
3:45	2 9	0 8	0 0	0 0	15:45	73 269	77 276	0 0	0 0	
4:00	0	3	0	0	16:00	68	77	0	0	
4:15	0	2	0	0	16:15	61	79	0	0	
4:30	4	1	0	0	16:30	58	71	0	0	
4:45	2 6	3 9	0 0	0 0	16:45	62 249	59 286	0 0	0 0	
5:00	2	4	0	0	17:00	70	73	0	0	
5:15	4	5	0	0	17:15	66	69	0	0	
5:30	2	5	0	0	17:30	71	71	0	0	
5:45	8 16	7 21	0 0	0 0	17:45	85 292	70 283	0 0	0 0	
6:00	3	7	0	0	18:00	53	71	0	0	
6:15	9	16	0	0	18:15	65	55	0	0	
6:30	13	12	0	0	18:30	52	57	0	0	
6:45	9 34	14 49	0 0	0 0	18:45	66 236	60 243	0 0	0 0	
7:00	17	22	0	0	19:00	54	55	0	0	
7:15	21	23	0	0	19:15	60	35	0	0	
7:30	17	43	0	0	19:30	43	44	0	0	
7:45	33 88	32 120	0 0	0 0	19:45	31 188	35 169	0 0	0 0	
8:00	37	39	0	0	20:00	29	37	0	0	
8:15	45	40	0	0	20:15	36	34	0	0	
8:30	38	52	0	0	20:30	36	30	0	0	
8:45	44 164	54 185	0 0	0 0	20:45	28 129	22 123	0 0	0 0	
9:00	55	52	0	0	21:00	18	18	0	0	
9:15	46	62	0	0	21:15	24	24	0	0	
9:30	59	58	0	0	21:30	22	23	0	0	
9:45	58 218	71 243	0 0	0 0	21:45	23 87	20 85	0 0	0 0	
10:00	55	66	0	0	22:00	22	23	0	0	
10:15	60	76	0	0	22:15	20	17	0	0	
10:30	60	73	0	0	22:30	14	13	0	0	
10:45	72 247	77 292	0 0	0 0	22:45	15 71	13 66	0 0	0 0	
11:00	57	65	0	0	23:00	20	20	0	0	
11:15	70	92	0	0	23:15	12	11	0	0	
11:30	78	91	0	0	23:30	9	12	0	0	
11:45	59 264	74 322	0 0	0 0	23:45	2 43	11 54	0 0	0 0	
<b>Total Vol.</b>	1092	1283		<b>2375</b>		2382	2585		<b>4967</b>	
								<b>Daily Totals</b>		
						NB	SB	EB	WB	<b>Combined</b>
						3474	3868			<b>7342</b>
				<b>AM</b>					<b>PM</b>	
<b>Split %</b>	46.0%	54.0%		<b>32.3%</b>		48.0%	52.0%			<b>67.7%</b>
<b>Peak Hour</b>	11:30	11:15		<b>11:15</b>		17:00	14:00			<b>13:00</b>
<b>Volume</b>	286	331		<b>616</b>		292	346			<b>627</b>
<b>P.H.F.</b>	0.92	0.90		<b>0.91</b>		0.98	0.89			<b>0.92</b>



**ADT6 N Lima Street between W Carter Ave and W Grand View Ave.TH.**

**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB	SB	PM Period	NB	SB			
0:00	1	1	12:00	9	5			
0:15	0	3	12:15	9	11			
0:30	0	1	12:30	8	12			
0:45	0	1	12:45	12	38	7	35	73
1:00	0	0	13:00	9	4			
1:15	0	0	13:15	7	6			
1:30	0	0	13:30	9	6			
1:45	1	1	13:45	2	27	6	22	49
2:00	1	0	14:00	9	12			
2:15	1	0	14:15	6	9			
2:30	0	0	14:30	9	7			
2:45	0	2	14:45	11	35	9	37	72
3:00	0	1	15:00	15	5			
3:15	1	0	15:15	12	8			
3:30	0	0	15:30	7	13			
3:45	0	1	15:45	11	45	6	32	77
4:00	0	0	16:00	11	7			
4:15	0	0	16:15	10	8			
4:30	1	1	16:30	11	6			
4:45	0	1	16:45	10	42	9	30	72
5:00	0	1	17:00	13	12			
5:15	0	1	17:15	9	2			
5:30	0	1	17:30	12	6			
5:45	1	1	17:45	8	42	10	30	72
6:00	3	2	18:00	13	7			
6:15	3	4	18:15	9	8			
6:30	2	3	18:30	12	4			
6:45	6	14	18:45	11	45	3	22	67
7:00	3	6	19:00	4	4			
7:15	2	6	19:15	5	4			
7:30	3	7	19:30	6	3			
7:45	8	16	19:45	3	18	6	17	35
8:00	11	16	20:00	7	4			
8:15	3	8	20:15	12	3			
8:30	5	15	20:30	4	5			
8:45	13	32	20:45	3	26	3	15	41
9:00	5	13	21:00	2	2			
9:15	7	9	21:15	5	4			
9:30	10	9	21:30	4	1			
9:45	9	31	21:45	3	14	2	9	23
10:00	9	9	22:00	6	3			
10:15	6	13	22:15	3	0			
10:30	8	14	22:30	3	2			
10:45	5	28	22:45	1	13	2	7	20
11:00	9	6	23:00	1	2			
11:15	7	11	23:15	2	0			
11:30	8	10	23:30	2	0			
11:45	6	30	23:45	0	5	1	3	8
<b>Total Vol.</b>	158	229	<b>387</b>	350	259	<b>609</b>		

Daily Totals			Combined
NB	SB		
508	488		<b>996</b>

	AM			PM		
<b>Split %</b>	40.8%	59.2%	<b>38.9%</b>	57.5%	42.5%	<b>61.1%</b>
<b>Peak Hour</b>	8:45	8:00	<b>8:00</b>	14:30	14:00	<b>14:45</b>
<b>Volume</b>	35	53	<b>85</b>	47	37	<b>80</b>
<b>P.H.F.</b>	0.67	0.83	<b>0.79</b>	0.83	0.77	<b>1.00</b>



**ADT6 N Lima Street between W Carter Ave and W Grand View Ave.SAT.**

**Prepared by AimTD LLC tel. 714 253 7888**

AM Period	NB	SB	PM Period	NB	SB	
0:00	0	1	12:00	10	11	
0:15	2	0	12:15	7	10	
0:30	1	0	12:30	6	6	
0:45	2	5	12:45	9	32	8 35 67
1:00	0	0	13:00	12	4	
1:15	0	0	13:15	13	9	
1:30	0	0	13:30	13	7	
1:45	0	0	13:45	9	47	11 31 78
2:00	0	1	14:00	9	13	
2:15	0	2	14:15	8	11	
2:30	1	1	14:30	8	7	
2:45	1	2	14:45	12	37	9 40 77
3:00	1	0	15:00	7	5	
3:15	0	0	15:15	9	8	
3:30	0	1	15:30	4	5	
3:45	1	2	15:45	13	33	6 24 57
4:00	0	1	16:00	3	5	
4:15	0	1	16:15	10	3	
4:30	1	0	16:30	10	8	
4:45	2	3	16:45	11	34	7 23 57
5:00	0	1	17:00	10	11	
5:15	0	2	17:15	4	7	
5:30	0	0	17:30	14	4	
5:45	1	1	17:45	8	36	6 28 64
6:00	3	4	18:00	8	10	
6:15	2	2	18:15	7	9	
6:30	3	1	18:30	9	6	
6:45	2	10	18:45	8	32	5 30 62
7:00	1	0	19:00	7	2	
7:15	5	1	19:15	6	12	
7:30	2	2	19:30	5	1	
7:45	3	11	19:45	3	21	4 19 40
8:00	4	4	20:00	4	5	
8:15	2	3	20:15	3	7	
8:30	6	7	20:30	1	1	
8:45	7	19	20:45	2	10	1 14 24
9:00	7	7	21:00	4	2	
9:15	6	9	21:15	5	1	
9:30	5	4	21:30	4	3	
9:45	6	24	21:45	4	17	2 8 25
10:00	8	10	22:00	3	4	
10:15	4	14	22:15	0	0	
10:30	10	12	22:30	4	1	
10:45	7	29	22:45	3	10	1 6 16
11:00	9	7	23:00	2	2	
11:15	9	4	23:15	1	3	
11:30	10	9	23:30	2	2	
11:45	9	37	23:45	1	6	0 7 13
<b>Total Vol.</b>	143	160	<b>303</b>	315	265	<b>580</b>
				<b>Daily Totals</b>		
				NB	SB	<b>Combined</b>
				458	425	<b>883</b>
	<b>AM</b>			<b>PM</b>		
<b>Split %</b>	47.2%	52.8%	<b>34.3%</b>	54.3%	45.7%	<b>65.7%</b>
<b>Peak Hour</b>	11:15	9:45	<b>11:30</b>	12:45	13:30	<b>13:15</b>
<b>Volume</b>	38	45	<b>77</b>	47	42	<b>84</b>
<b>P.H.F.</b>	0.95	0.80	<b>0.92</b>	0.90	0.81	<b>0.95</b>

# **Appendix D - LOS Calculations**

## Sierra Madre Residential Project

Vistro File: N:\...\Project Assignment\_V1.vistro

Scenario 4 2025 Without Project AM

Report File: N:\...\2025 NB AM LOS Report.pdf

7/29/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sunnyside Ave and Fairview Ave	Two-way stop	HCM 6th Edition	WB Thru	0.024	9.5	A
2	Sunnyside Ave and Sierra Madre Blvd	All-way stop	HCM 6th Edition	EB Thru	0.280	8.8	A
3	Michillinda Ave and Sierra Madre Blvd	Signalized	ICU 1	SB Thru	0.356	-	A
4	Michillinda Ave and Foothill Blvd	Signalized	ICU 1	SB Right	0.398	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Sunnyside Ave and Fairview Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.024

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	10	20	10	0	10	10	10	10	0	10	20	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	20	10	0	10	10	10	10	0	10	20	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	3	0	3	3	3	3	0	3	5	0
Total Analysis Volume [veh/h]	10	20	10	0	10	10	10	10	0	10	20	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.00
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	7.27	0.00	0.00	9.10	9.49	8.48	9.09	9.54	8.58
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.07	0.07	0.07	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.47	0.47	0.47	0.00	0.00	0.00	1.79	1.79	1.79	2.74	2.74	2.74
d_A, Approach Delay [s/veh]	1.82			0.00			9.29			9.39		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	4.91											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 2: Sunnyside Ave and Sierra Madre Blvd**

Control Type:	All-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.280

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	10	20	10	20	20	20	30	190	10	10	160	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	20	10	20	20	20	30	190	10	10	160	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	3	5	5	5	8	48	3	3	40	3
Total Analysis Volume [veh/h]	10	20	10	20	20	20	30	190	10	10	160	10
Pedestrian Volume [ped/h]	0			0			0			0		



**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	743	752	821	816
Degree of Utilization, x	0.05	0.08	0.28	0.22

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.17	0.26	1.15	0.84
95th-Percentile Queue Length [ft]	4.26	6.48	28.73	21.02
Approach Delay [s/veh]	8.12	8.20	9.08	8.66
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.75			
Intersection LOS	A			

**Intersection Level Of Service Report**  
**Intersection 3: Michillinda Ave and Sierra Madre Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.356

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T			T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	100	130	60	10	210	110	70	170	110	40	140	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	130	60	10	210	110	70	170	110	40	140	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	33	15	3	53	28	18	43	28	10	35	5
Total Analysis Volume [veh/h]	100	130	60	10	210	110	70	170	110	40	140	20
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.12	0.12	0.01	0.20	0.20	0.04	0.05	0.07	0.03	0.04	0.01
Intersection LOS	A											
Intersection V/C	0.356											

**Intersection Level Of Service Report**  
**Intersection 4: Michillinda Ave and Foothill Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.398

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	↔↔↔			↔↔↔			↔↔↔			↔↔↔		
Lane Configuration	↔↔↔			↔↔↔			↔↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	80	230	40	50	260	180	90	120	130	60	270	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	230	40	50	260	180	90	120	130	60	270	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	58	10	13	65	45	23	30	33	15	68	28
Total Analysis Volume [veh/h]	80	230	40	50	260	180	90	120	130	60	270	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.07	0.03	0.03	0.08	0.11	0.06	0.04	0.08	0.04	0.08	0.08
Intersection LOS	A											
Intersection V/C	0.398											

## Sierra Madre Residential Project

Vistro File: N:\...\Project Assignment\_V1.vistro

Scenario 5 2025 Without Project PM

Report File: N:\...\2025 NB PM LOS Report.pdf

7/29/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sunnyside Ave and Fairview Ave	Two-way stop	HCM 6th Edition	WB Thru	0.025	9.7	A
2	Sunnyside Ave and Sierra Madre Blvd	All-way stop	HCM 6th Edition	EB Thru	0.545	11.4	B
3	Michillinda Ave and Sierra Madre Blvd	Signalized	ICU 1	EB Right	0.525	-	A
4	Michillinda Ave and Foothill Blvd	Signalized	ICU 1	EB Thru	0.588	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.



**Intersection Level Of Service Report**  
**Intersection 1: Sunnyside Ave and Fairview Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.7
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.025

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	10	10	20	10	10	10	10	10	10	10	20	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	10	20	10	10	10	10	10	10	10	20	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	3	5	3	3	3	3	3	3	3	5	3
Total Analysis Volume [veh/h]	10	10	20	10	10	10	10	10	10	10	20	10
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.03	0.01
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	7.29	0.00	0.00	9.32	9.67	8.52	9.31	9.70	8.60
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.02	0.02	0.10	0.10	0.10	0.14	0.14	0.14
95th-Percentile Queue Length [ft/ln]	0.47	0.47	0.47	0.48	0.48	0.48	2.60	2.60	2.60	3.60	3.60	3.60
d_A, Approach Delay [s/veh]	1.82			2.43			9.17			9.33		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.67											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 2: Sunnyside Ave and Sierra Madre Blvd**

Control Type:	All-way stop	Delay (sec / veh):	11.4
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.545

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	20	20	10	20	20	30	30	380	20	10	220	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	20	10	20	20	30	30	380	20	10	220	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	3	5	5	8	8	95	5	3	55	5
Total Analysis Volume [veh/h]	20	20	10	20	20	30	30	380	20	10	220	20
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

**Lanes**

Capacity per Entry Lane [veh/h]	644	667	789	761
Degree of Utilization, x	0.08	0.10	0.54	0.33

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.25	0.35	3.34	1.44
95th-Percentile Queue Length [ft]	6.30	8.75	83.52	35.88
Approach Delay [s/veh]	9.07	9.03	12.88	10.03
Approach LOS	A	A	B	B
Intersection Delay [s/veh]	11.41			
Intersection LOS	B			

**Intersection Level Of Service Report**  
**Intersection 3: Michillinda Ave and Sierra Madre Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.525

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	↵			↵			↵↵↵			↵↵↵		
Lane Configuration	↵			↵			↵↵↵			↵↵↵		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	130	170	50	30	180	110	170	330	360	60	180	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	170	50	30	180	110	170	330	360	60	180	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	43	13	8	45	28	43	83	90	15	45	5
Total Analysis Volume [veh/h]	130	170	50	30	180	110	170	330	360	60	180	20
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.14	0.14	0.02	0.18	0.18	0.11	0.10	0.23	0.04	0.06	0.01
Intersection LOS	A											
Intersection V/C	0.525											

**Intersection Level Of Service Report**  
**Intersection 4: Michillinda Ave and Foothill Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.588

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach												
Lane Configuration	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Turning Movement												
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	140	300	120	190	430	170	90	730	260	60	340	100
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	140	300	120	190	430	170	90	730	260	60	340	100
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	75	30	48	108	43	23	183	65	15	85	25
Total Analysis Volume [veh/h]	140	300	120	190	430	170	90	730	260	60	340	100
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		



**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.09	0.09	0.08	0.12	0.13	0.11	0.06	0.23	0.16	0.04	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.588											

Sierra Madre Residential Project

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Scenario 6 2025 With Project AM

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**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sunnyside Ave and Fairview Ave	Two-way stop	HCM 6th Edition	WB Thru	0.026	9.9	A
2	Sunnyside Ave and Sierra Madre Blvd	All-way stop	HCM 6th Edition	EB Thru	0.309	9.0	A
3	Michillinda Ave and Sierra Madre Blvd	Signalized	ICU 1	SB Thru	0.369	-	A
4	Michillinda Ave and Foothill Blvd	Signalized	ICU 1	SB Right	0.404	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Sunnyside Ave and Fairview Ave**

Control Type:	Two-way stop	Delay (sec / veh):	9.9
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	10	40	10	0	40	10	10	10	0	10	20	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	40	10	0	40	10	10	10	0	10	20	0
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	10	3	0	10	3	3	3	0	3	5	0
Total Analysis Volume [veh/h]	10	40	10	0	40	10	10	10	0	10	20	0
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.03	0.00
d_M, Delay for Movement [s/veh]	7.33	0.00	0.00	7.31	0.00	0.00	9.43	9.79	8.63	9.42	9.85	8.69
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.00	0.00	0.00	0.08	0.08	0.08	0.12	0.12	0.12
95th-Percentile Queue Length [ft/ln]	0.48	0.48	0.48	0.00	0.00	0.00	1.92	1.92	1.92	2.94	2.94	2.94
d_A, Approach Delay [s/veh]	1.22			0.00			9.61			9.71		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.48											
Intersection LOS	A											

**Intersection Level Of Service Report**  
**Intersection 2: Sunnyside Ave and Sierra Madre Blvd**

Control Type:	All-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 6th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.309

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	10	20	10	20	20	40	50	190	10	10	160	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	20	10	20	20	40	50	190	10	10	160	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	5	3	5	5	10	13	48	3	3	40	3
Total Analysis Volume [veh/h]	10	20	10	20	20	40	50	190	10	10	160	10
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings****Lanes**

Capacity per Entry Lane [veh/h]	730	762	808	801
Degree of Utilization, x	0.05	0.11	0.31	0.22

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.17	0.35	1.32	0.86
95th-Percentile Queue Length [ft]	4.34	8.77	32.98	21.49
Approach Delay [s/veh]	8.22	8.28	9.44	8.79
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.97			
Intersection LOS	A			

**Intersection Level Of Service Report**  
**Intersection 3: Michillinda Ave and Sierra Madre Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.369

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	T T			T T			T T T			T T T		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	100	130	70	10	210	110	70	180	110	60	150	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	100	130	70	10	210	110	70	180	110	60	150	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	33	18	3	53	28	18	45	28	15	38	5
Total Analysis Volume [veh/h]	100	130	70	10	210	110	70	180	110	60	150	20
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		



**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.06	0.13	0.13	0.01	0.20	0.20	0.04	0.06	0.07	0.04	0.05	0.01
Intersection LOS	A											
Intersection V/C	0.369											

**Intersection Level Of Service Report**  
**Intersection 4: Michillinda Ave and Foothill Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.404

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	↔↔↔			↔↔↔			↔↔↔			↔↔↔		
Lane Configuration	↔↔↔			↔↔↔			↔↔↔			↔↔↔		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	80	240	40	60	280	190	90	120	130	60	270	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	80	240	40	60	280	190	90	120	130	60	270	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	60	10	15	70	48	23	30	33	15	68	28
Total Analysis Volume [veh/h]	80	240	40	60	280	190	90	120	130	60	270	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.05	0.08	0.03	0.04	0.09	0.12	0.06	0.04	0.08	0.04	0.08	0.08
Intersection LOS	A											
Intersection V/C	0.404											

## Sierra Madre Residential Project

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Scenario 7 2025 With Project PM

Report File: N:\...\2025 PP PM LOS Report.pdf

7/28/2021

**Intersection Analysis Summary**

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Sunnyside Ave and Fairview Ave	Two-way stop	HCM 6th Edition	WB Thru	0.027	10.2	B
2	Sunnyside Ave and Sierra Madre Blvd	All-way stop	HCM 6th Edition	EB Thru	0.595	12.3	B
3	Michillinda Ave and Sierra Madre Blvd	Signalized	ICU 1	EB Right	0.538	-	A
4	Michillinda Ave and Foothill Blvd	Signalized	ICU 1	EB Thru	0.591	-	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

**Intersection Level Of Service Report**  
**Intersection 1: Sunnyside Ave and Fairview Ave**

Control Type:	Two-way stop	Delay (sec / veh):	10.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.027

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			No			No		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	10	50	20	10	40	10	10	10	10	10	20	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	50	20	10	40	10	10	10	10	10	20	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	13	5	3	10	3	3	3	3	3	5	3
Total Analysis Volume [veh/h]	10	50	20	10	40	10	10	10	10	10	20	10
Pedestrian Volume [ped/h]	0			0			0			0		

**Intersection Settings**

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.01	0.01	0.03	0.01
d_M, Delay for Movement [s/veh]	7.33	0.00	0.00	7.37	0.00	0.00	9.82	10.12	8.68	9.81	10.16	8.82
Movement LOS	A	A	A	A	A	A	A	B	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.02	0.02	0.02	0.02	0.11	0.11	0.11	0.16	0.16	0.16
95th-Percentile Queue Length [ft/ln]	0.48	0.48	0.48	0.49	0.49	0.49	2.83	2.83	2.83	3.94	3.94	3.94
d_A, Approach Delay [s/veh]	0.92			1.23			9.54			9.74		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	3.92											
Intersection LOS	B											

**Intersection Level Of Service Report**  
**Intersection 2: Sunnyside Ave and Sierra Madre Blvd**

Control Type:	All-way stop	Delay (sec / veh):	12.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.595

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	+			+			+			+		
Lane Configuration	+			+			+			+		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	30.00			30.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	20	20	10	20	20	50	60	380	20	10	220	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	20	10	20	20	50	60	380	20	10	220	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	5	3	5	5	13	15	95	5	3	55	5
Total Analysis Volume [veh/h]	20	20	10	20	20	50	60	380	20	10	220	20
Pedestrian Volume [ped/h]	0			0			0			0		



**Intersection Settings****Lanes**

Capacity per Entry Lane [veh/h]	625	664	773	741
Degree of Utilization, x	0.08	0.14	0.59	0.34

**Movement, Approach, & Intersection Results**

95th-Percentile Queue Length [veh]	0.26	0.47	4.00	1.49
95th-Percentile Queue Length [ft]	6.50	11.69	99.97	37.26
Approach Delay [s/veh]	9.26	9.28	14.26	10.31
Approach LOS	A	A	B	B
Intersection Delay [s/veh]	12.27			
Intersection LOS	B			

**Intersection Level Of Service Report**  
**Intersection 3: Michillinda Ave and Sierra Madre Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.538

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	T			T			TL			TL		
Lane Configuration	T			T			TL			TL		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	1	0	1	1	0	1
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	130	170	70	30	180	110	170	340	360	80	190	20
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	170	70	30	180	110	170	340	360	80	190	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	43	18	8	45	28	43	85	90	20	48	5
Total Analysis Volume [veh/h]	130	170	70	30	180	110	170	340	360	80	190	20
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	0.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.08	0.15	0.15	0.02	0.18	0.18	0.11	0.11	0.23	0.05	0.06	0.01
Intersection LOS	A											
Intersection V/C	0.538											

**Intersection Level Of Service Report**  
**Intersection 4: Michillinda Ave and Foothill Blvd**

Control Type:	Signalized	Delay (sec / veh):	-
Analysis Method:	ICU 1	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.591

**Intersection Setup**

Name	Northbound			Southbound			Eastbound			Westbound		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration	[Diagram]			[Diagram]			[Diagram]			[Diagram]		
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	1	1	0	1	1	0	1	1	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	35.00			35.00			35.00			35.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

**Volumes**

Name	Northbound			Southbound			Eastbound			Westbound		
Base Volume Input [veh/h]	140	310	120	190	440	170	100	730	260	60	340	110
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	140	310	120	190	440	170	100	730	260	60	340	110
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	35	78	30	48	110	43	25	183	65	15	85	28
Total Analysis Volume [veh/h]	140	310	120	190	440	170	100	730	260	60	340	110
Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

**Intersection Settings**

Cycle Length [s]	100
Lost time [s]	10.00

**Phasing & Timing**

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis	Protect	Permis	Permis
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-

**Movement, Approach, & Intersection Results**

V/C, Movement V/C Ratio	0.09	0.10	0.08	0.12	0.14	0.11	0.06	0.23	0.16	0.04	0.09	0.09
Intersection LOS	A											
Intersection V/C	0.591											