Truck Haul Route I-5 Freeway to Lower Curtis Park
Mission Viejo, CA
Traffic Analysis

November 7, 2019

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Keith R. Rutherfurd

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1.0 INTRODUCTION

The purpose of this traffic analysis is to evaluate potential traffic circulation issues associated with three (3) proposed haul routes to be used for the importation of dirt from the I-5 widening project on the southwest side of the City to a deposit site at Lower Curtis Park along Olympiad Road 0.37-miles north of La Paz Road, and to identify mitigation measures, if necessary, to meet City of Mission Viejo circulation network level of service (LOS) criteria.

The proposed truck haul routes are shown on Figure 1 and each haul route is located entirely within the City of Mission Viejo. The three routes originate at the I-5 Freeway via the City's three southerly east-west arterial roadways, La Paz Road (Route 1), Oso Parkway (Route 2), and Crown Valley Parkway (Route 3). Each route continues east toward Felipe Road/Olympiad Road and then travels north to the deposit site at Lower Curtis Park.

A total of 760,000 CY of material will be transported in three (3) phases: two phases with 300,000 CY each and one phase with 160,000 CY of material. At total of 3,000 CY of material will be hauled per workday so that the duration of the first two phases is 100 working days each and 54 working days for the final phase. Each haul route has been evaluated at the total capacity of 3,000 CY per day. As the phases progress, the active haul route(s) may shift or operate simultaneously, however, the total daily amount of transported material will not exceed 3,000 CY.

The proposed haul routes will be operated 6 hours per workday from 9 am to 3 pm on weekdays, outside of the am and pm peak hours. Truck volumes during each of the six hours of haul route operation are estimated at 25 loads (20 CY average capacity truck loads) and 25 empties per hour. Using a passenger car equivalent (PCE) factor of 2.0 for trucks, the haul route will generate 100 two-way PCE trips per hour and 600 PCE trips per workday.

To evaluate potential traffic impacts along each haul route during hours of operation, traffic counts were taken between 11 am and 1 pm at all twenty-nine (29) signalized haul route intersections to determine existing weekday midday peak hour volumes. Haul route volumes have been added to these existing volumes together with traffic generated by identified cumulative projects to evaluate potential impacts.

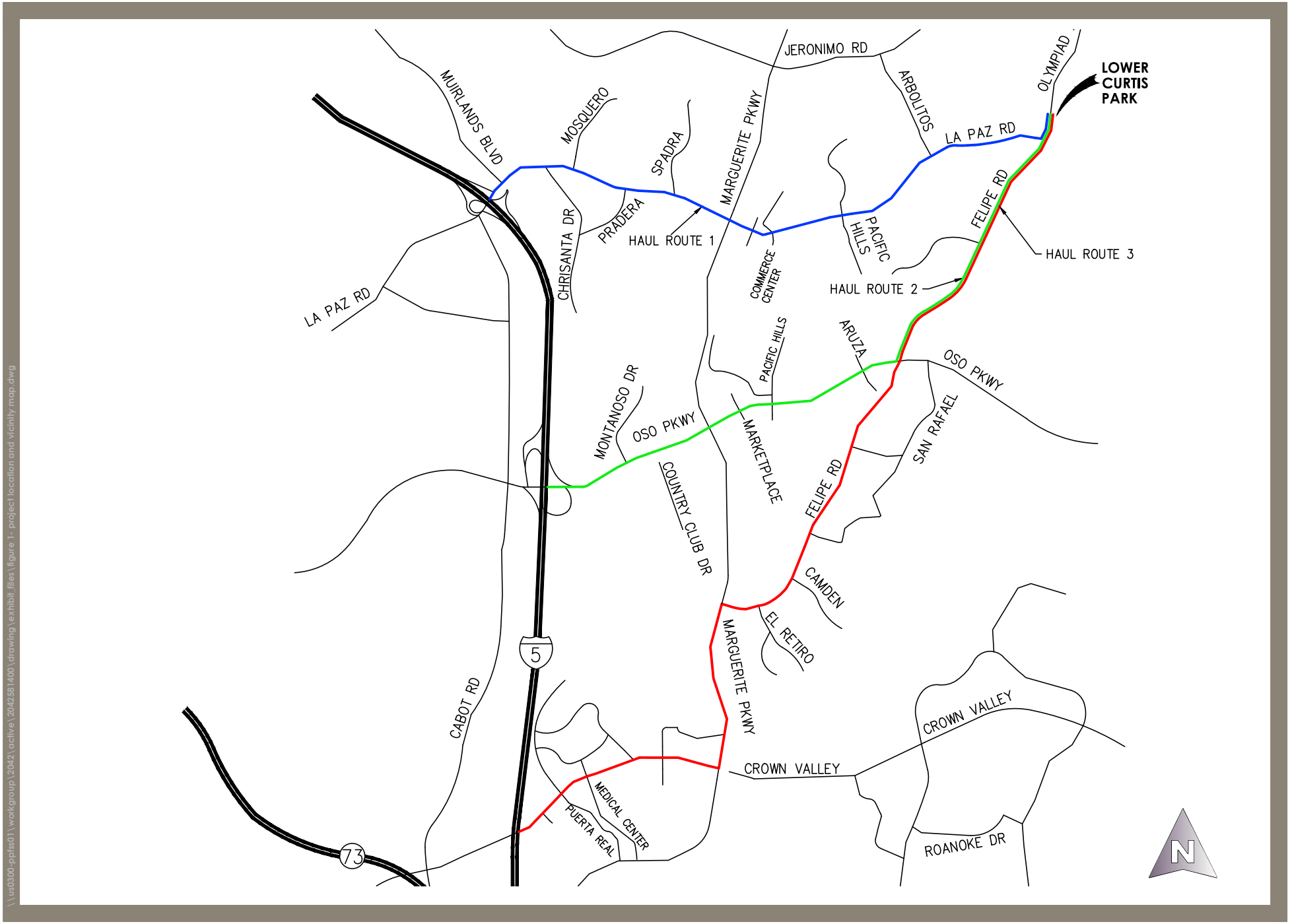

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Figure 1
Haul Routes and Vicinity Map

2.0 ANALYSIS METHODOLOGY

2.1 LEVEL OF SERVICE

LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION OPERATIONS ANALYSIS

To provide a detailed analysis of existing weekday midday peak hour traffic operation within the study area and to provide a baseline for existing level of service (LOS), signalized intersection LOS was determined using the Intersection Capacity Utilization (ICU) method. The ICU methodology estimates the volume-to-capacity (V/C) ratio for a signalized intersection based on the individual V/C ratios for the conflicting traffic movements. ICU's are calculated for the peak hours of traffic and include the unique features of the intersection such as turning movement volumes, intersection lane configurations, and traffic signal phasing.

The calculated percentage represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic and provides a guide to the number and types of lanes required at the intersection The ICU value represents the percent signal green time or capacity of the intersection movements. This percentage can also be used to determine a level of service (LOS) based on the utilized capacity of the intersection. Table 1 provides ICU level of service ranges and descriptions. It should be noted that the ICU method assumes uniform traffic distribution per intersection approach lane and optimal signal timing. The City of Mission Viejo follows the *Orange County Traffic Impact Analysis Study Guidelines* and per City of Mission Viejo criteria, ICU calculations use:

- Lane capacity of 1,700 vehicles per hour per lane (vphpl) for left-turn, through and right-turn lanes.
- Clearance Interval = 5%

2.3 INTERSECTION THRESHOLD OF SIGNIFICANCE

The City of Mission Viejo sets the minimum acceptable LOS as “D”, with the exception of the Interstate 5 (I-5) interchange with Crown Valley Parkway where the acceptable LOS is “E”.

The significance of the potential impacts of the haul routes was evaluated using the City of Mission Viejo’s LOS standards and impact criteria defined below:

- For signalized intersections, the project increases traffic demand at the study intersection by 1.0% of the capacity (ICU increase ≥ 0.010), causing or worsening LOS E or F (ICU > 0.900).

2.4 ROADWAY SEGMENT THRESHOLD OF SIGNIFICANCE

The City of Mission Viejo General Plan Circulation Element (Policy 1.3) states that the City has a goal to maintain a least a Level of Service D, except along Crown Valley Parkway which is a Principal Arterial on the Orange County CMP Highway System, where the goal is to maintain a Level of Service E.

Table 1
Intersection Capacity Utilization (ICU) Analysis
Level of Service Descriptions
for Signalized Intersections

Level of Service	Traffic Flow Description	Nominal Range of ICU
A	Low volumes; high speeds; speed not restricted by other vehicles; all signal cycles clear with no vehicles waiting through more than one signal cycle.	0.00 - 0.60
B	Operating speeds beginning to be affected by other traffic; between one and ten percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods.	0.61 - 0.70
C	Operating speeds and maneuverability closely controlled by other traffic; between 11 and 30 percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods; recommended ideal design standard.	0.71 - 0.80
D	Tolerable operating speeds; 31 to 70 percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods; often used as design standard in urban areas.	0.81 - 0.90
E	Capacity; the maximum traffic volume an intersection can accommodate; restricted speeds; 71 to 100 percent of the signal cycles have one or more vehicles which wait through more than one cycle during peak traffic periods.	0.91 - 1.00
F	Long queues of traffic; unstable flow; stoppages of long duration; traffic volumes and traffic speed can drop to zero; traffic volumes will be less than the volume which occurs at Level of Service E.	over 1.00

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3.0 EXISTING STUDY AREA CONDITIONS

Figure 2 shows the existing roadway network and intersections surrounding the Project site. The following 29 signalized intersections are included in the study area for analysis:

1. Crown Valley Parkway and Kaleidoscope
2. Crown Valley Parkway and Puerte Real
3. Crown Valley Parkway and Medical Center
4. Crown Valley Parkway and Los Altos
5. Crown Valley Parkway and Bellogente
6. Crown Valley Parkway and Marguerite Parkway
7. Marguerite Parkway and Felipe Road
8. El Retiro and Felipe Road
9. Camden and Felipe Road
10. Felipe Road and Barbadanes
11. Felipe Road and Buscador
12. Felipe Road and Oso Parkway
13. Felipe Road and Fieldcrest
14. Montanoso Drive and Oso Parkway
15. Oso Parkway and Country Club Drive
16. Marguerite Parkway and Oso Parkway
17. Marketplace and Oso Parkway
18. Alpera/Pacific Hills and Oso Parkway
19. Mirasol and Oso Parkway
20. Muirlands Boulevard and La Paz Road
21. Chrisanta Drive and La Paz Road
22. Mosquero Lane and La Paz Road
23. Pradera and La Paz Road
24. Spadra and La Paz Road
25. Marguerite Parkway and La Paz Road
26. La Paz Center Driveway and La Paz Road
27. Commerce Center and La Paz Road
28. Pacific Hills Drive and La Paz Road
29. Felipe Road and La Paz Road

Figure 2 also shows existing intersection geometrics and controls and the number of through lanes for roadways within the study area. The proposed truck haul routes are in a developed, urban environment surrounded by commercial, retail, office, restaurant, and single-family and multi-family housing land uses.

Existing Study Area Conditions

The study haul routes utilize only arterial roadways located in the City of Mission Viejo, the routes do not pass through residential areas or streets. Three haul routes have been identified to provide efficient access to the haul site:

Route 1- La Paz Road to Olympiad Road (site)
Route 2- Oso Parkway to Felipe/Olympiad Road (site)
Route 3- Crown Valley to Marguerite Parkway-Felipe/Olympiad Road (site)

Crown Valley Parkway is an eight-lane, divided, east-west roadway classified as a major arterial per the City of Mission Viejo General Plan Circulation Element. The posted speed limit is 45 mph, with improved sidewalks on both sides. Traffic signals control study intersections located along Crown Valley Parkway at Kaleidoscope, Puerta Real, Medical Center Road, Los Altos, Bellogente, and Marguerite Parkway.

Felipe/Olympiad Road is a four-lane, divided, north-south roadway classified as a secondary arterial per the City of Mission Viejo General Plan Circulation Element. The posted speed limit is 45 mph, with improved sidewalks on both sides. Traffic signals control study intersections located along Felipe/Olympiad Road at El Retiro. Camden, Barbadanes, Buscador, Oso Parkway, and La Paz Road.

La Paz Road is a four-lane, divided east-west roadway classified as a primary arterial per the City of Mission Viejo General Plan Circulation Element. The posted speed limit is 40 mph, with improved sidewalks on both sides, Class II striped on-street bike lanes in each direction outside of the I-5 interchange area, and no on-street parking. This roadway provides a secondary right-in/right-out only access to the project site and a vehicle capacity of 37,500 per day. Traffic signals control study intersections located along La Paz Road at Chrisanta Drive, Mosquero Lane, Pradera, Spadra, Marguerite Parkway, La Paz Center Driveway, Commerce Center, Pacific Hills Drive, and Felipe Road.

Marguerite Parkway is a four-lane, divided, north-south roadway classified as a primary arterial per the City of Mission Viejo General Plan Circulation Element. The posted speed limit is 45 mph,

with improved sidewalks on both sides and no curbside parking permitted. Traffic signals control study intersections located along Marguerite Parkway at Crown Valley Parkway, Felipe Road, Oso Parkway, and La Paz Road.

Oso Parkway is an eight-lane, divided, east-west roadway classified as a major arterial per the City of Mission Viejo General Plan Circulation Element. The posted speed limit is 45 mph, with improved sidewalks on both sides and no curbside parking permitted. Traffic signals control study intersections located along Oso Parkway at Felipe Road, Montanoso Drive, County Club Drive, Marguerite Parkway, Alpera/Pacific Hills, and Mirasol.

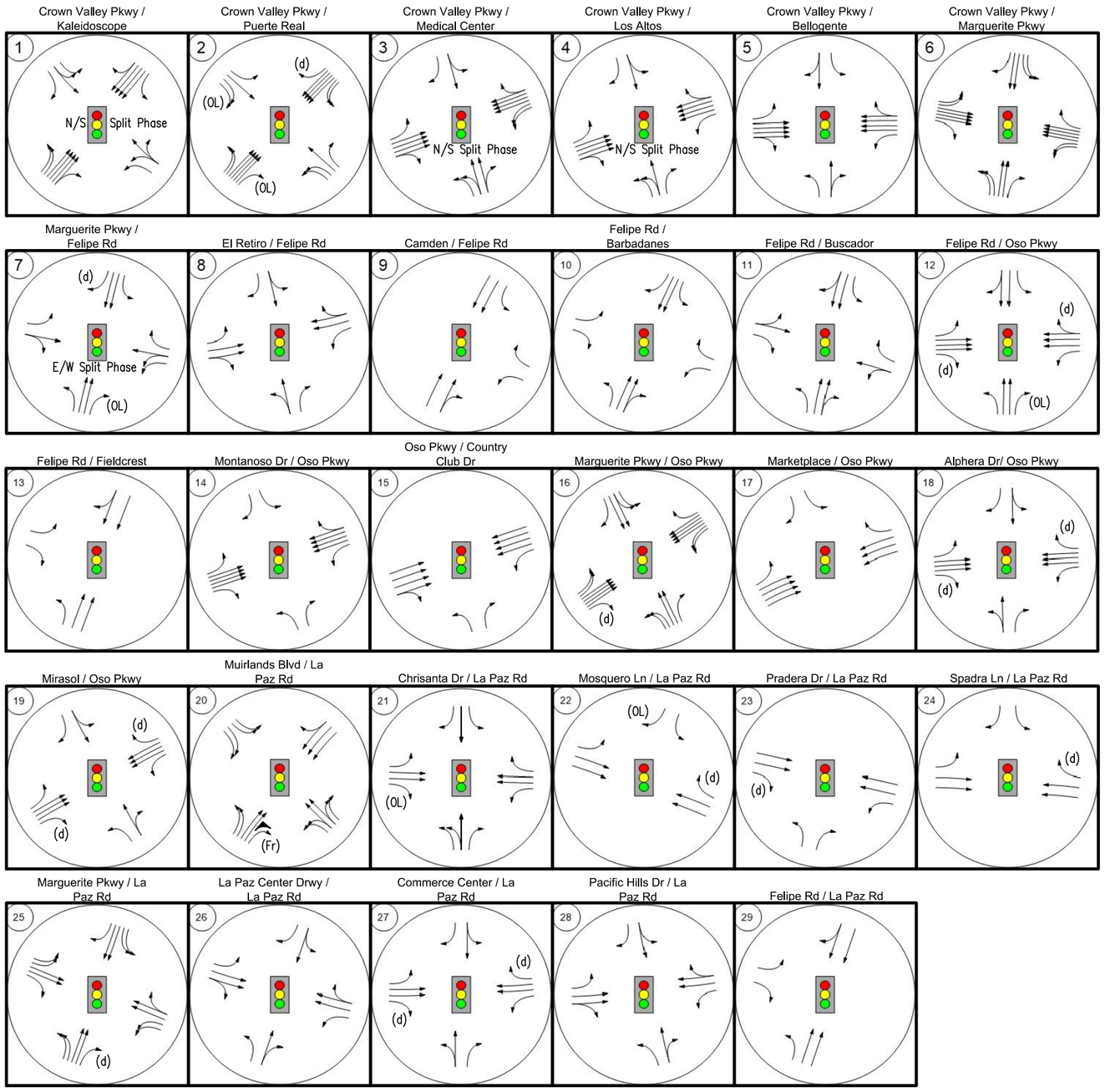
3.1 EXISTING TRAFFIC VOLUMES

Figure 3 show existing (September 2019) weekday Midday peak hour intersection turning movement volumes within the project study area. Figure 4 shows existing weekday 24-hour volumes on roadway segments. Turning movement counts were collected on Tuesday, September 17, 2019 for this study by NDS and are included in the appendix. Roadway segment counts were taken from the OCTA 2019 Traffic Flow Map. Schools were in session when this traffic volume data was collected.

3.2 EXISTING (2019) LEVEL OF SERVICE (LOS) ANALYSIS

Table 2 shows the results of intersection level of service analysis for the study area intersections under Existing (2019) conditions. Table 2 shows that all 29 study area intersections are currently operating at Level of Service B (3) or A (26) during midday peak hours with Existing (2019) traffic volumes and improvements.

Figure 4 shows that existing weekday 24-hour traffic volumes on the study area haul route segments are below theoretical daily capacities. Many of these roadways have additional turn lanes at major intersections which increase daily capacities and are not reflected in the volume-to-capacity ratios shown. Therefore, these capacity volumes are considered conservative and consistent with the high LOS A and B operation identified for the existing midday peak hour.



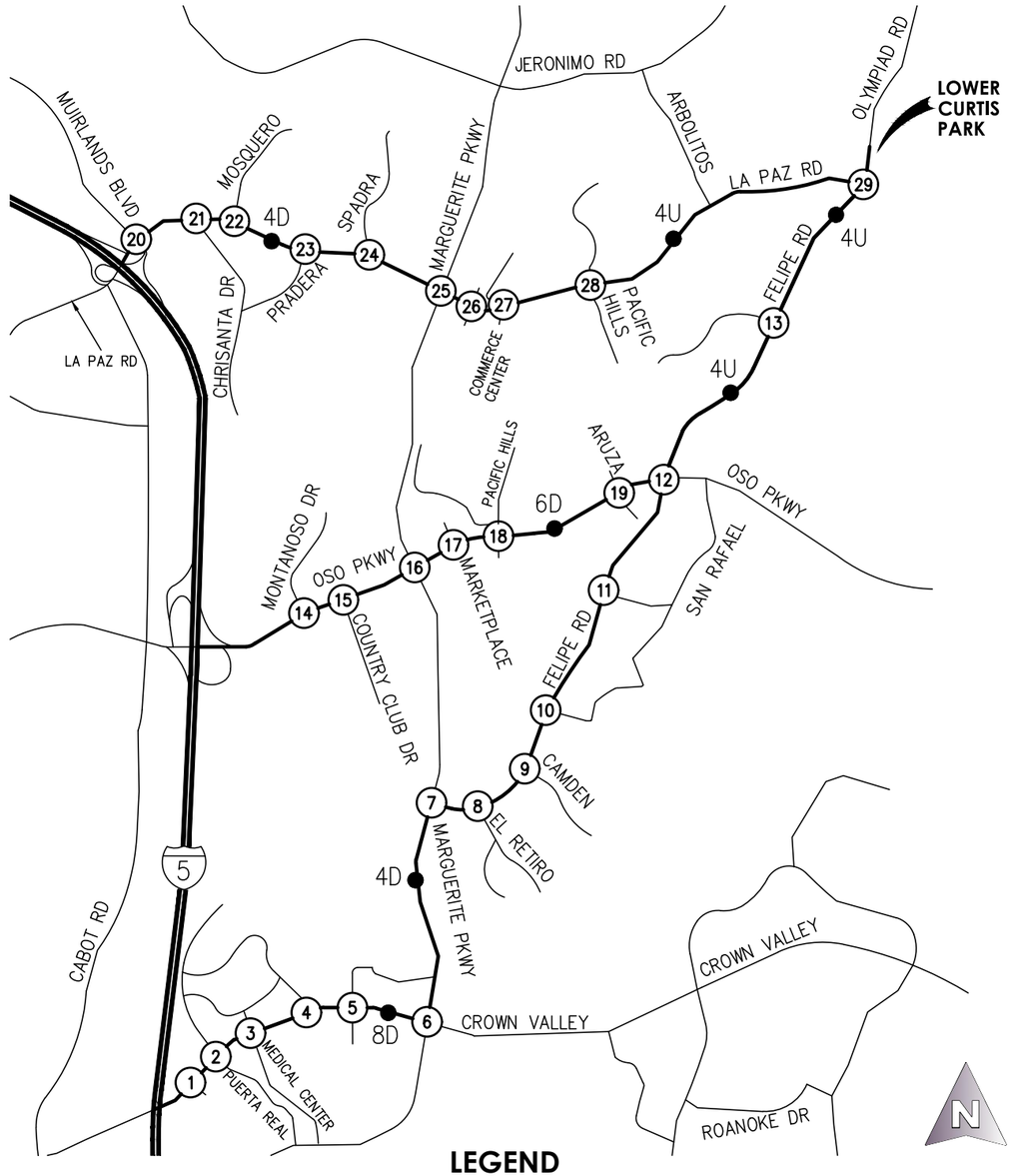


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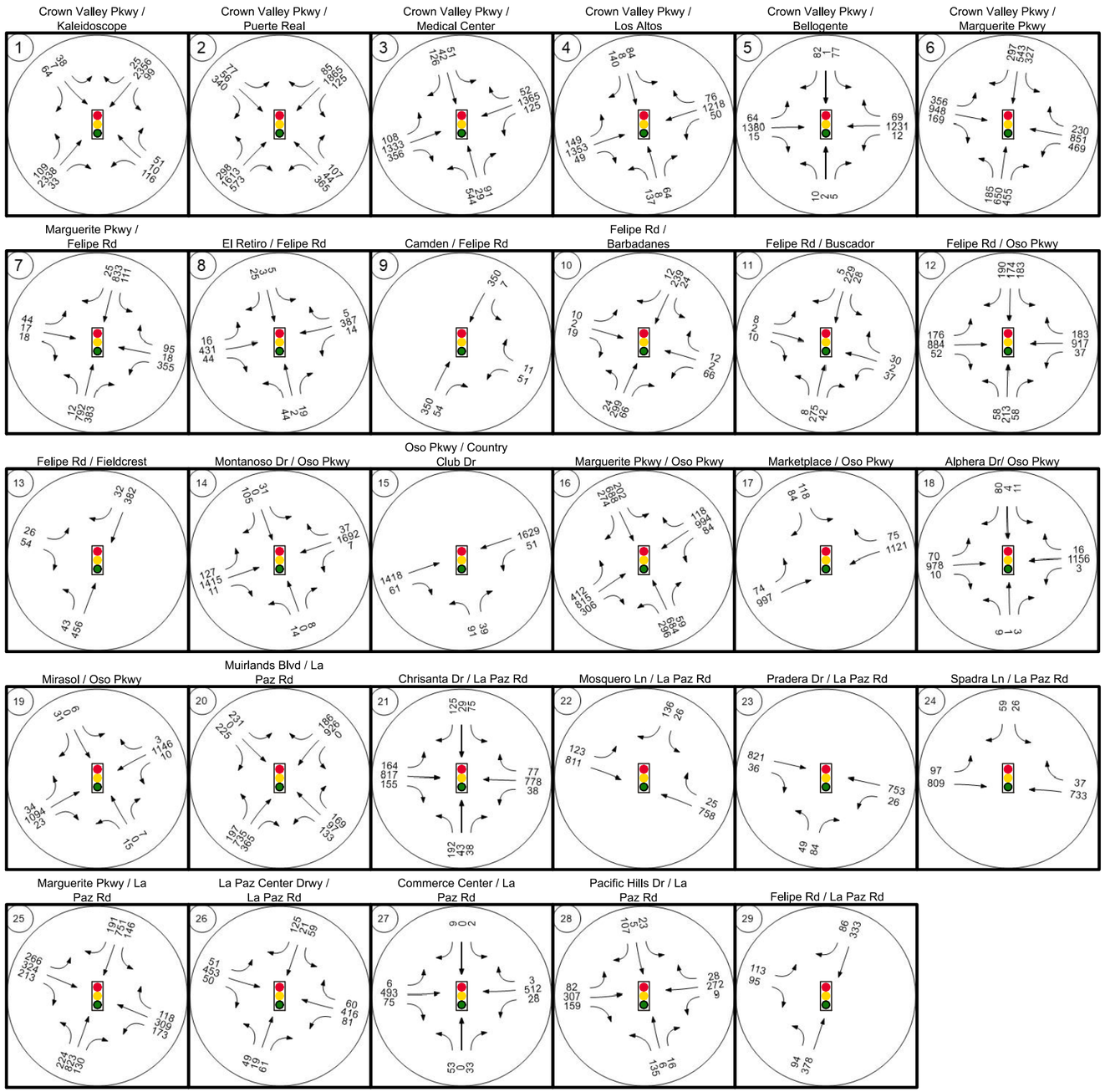
Figure 2
Existing Study Area Traffic Controls and Intersection Geometrics



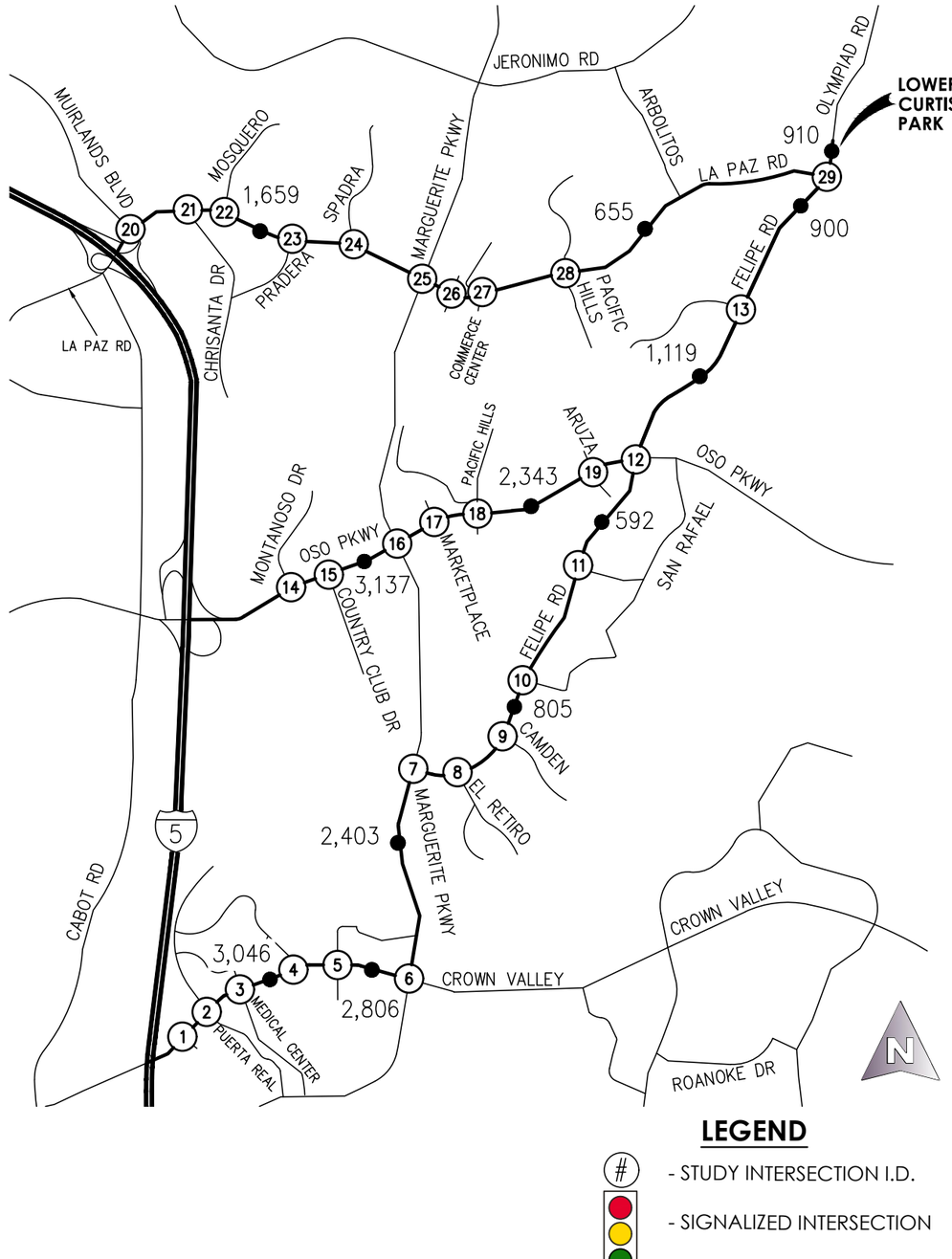


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Figure 3
Existing Midday Peak Hour Turning Movement and Link Volumes

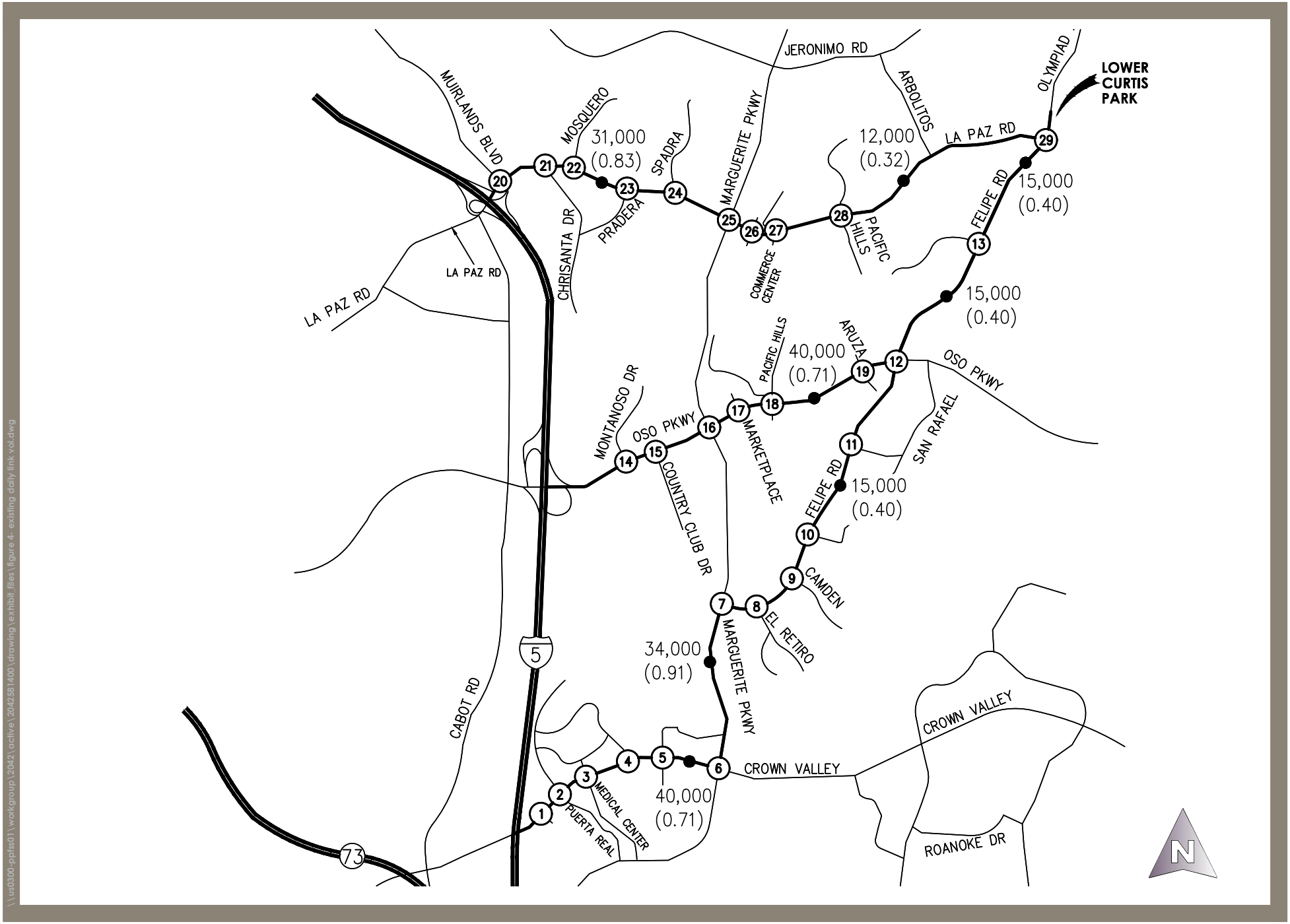

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Figure 4
Existing Daily Link Volumes and V/C Ratio

Table 2
Existing 2019 - Study Area Intersections Level of Service

Signalized Intersections	Midday Peak	
	V/C	LOS
1. Crown Valley Parkway and Kaleidoscope	0.55	A
2. Crown Valley Parkway and Puerte Real	0.57	A
3. Crown Valley Parkway and Medical Center	0.61	B
4. Crown Valley Parkway and Los Altos	0.43	A
5. Crown Valley Parkway and Bellogente	0.34	A
6. Crown Valley Parkway and Marguerite Parkway	0.62	B
7. Marguerite Parkway and Felipe Road	0.52	A
8. El Retiro and Felipe Road	0.24	A
9. Camden and Felipe Road	0.20	A
10. Felipe Road and Barbadanes	0.21	A
11. Felipe Road and Buscador	0.19	A
12. Felipe Road and Oso Parkway	0.50	A
13. Felipe Road and Fieldcrest	0.22	A
14. Montanoso Drive and Oso Parkway	0.39	A
15. Oso Parkway and Country Club Drive	0.35	A
16. Marguerite Parkway and Oso Parkway	0.61	B
17. Marketplace and Oso Parkway	0.38	A
18. Alphera/Pacific Hills and Oso Parkway	0.35	A
19. Mirasol and Oso Parkway	0.30	A
20. Muirlands Boulevard and La Paz Road	0.47	A
21. Chrisanta Drive and La Paz Road	0.50	A
22. Mosquero Lane and La Paz Road	0.36	A
23. Pradera and La Paz Road	0.35	A
24. Spadra and La Paz Road	0.35	A
25. Marguerite Parkway and La Paz Road	0.55	A
26. La Paz Center Driveway and La Paz Road	0.35	A
27. Commerce Center and La Paz Road	0.25	A
28. Pacific Hills Drive and La Paz Road	0.31	A
29. Felipe Road and La Paz Road	0.30	A

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4.0 PROJECTED FUTURE TRAFFIC

4.1 TRIP GENERATION

Forecast hourly dump truck volumes are estimated at 25 loads and 25 return empties per hour based on an average headway of 2.4 minutes between vehicles. Truck volumes are converted to a passenger car equivalent (PCE) using a factor of 2.0 for a total of 100 two-way PCE trips per hour. Based on the haul route operating 6 hours per workday and an average load of 20 CY per truck, 3,000 CY of export will be transmitted to the Lower Curtis Park deposit site and generate 600 two-way PCE trips per workday. Therefore, to transport the 300,000 CY of material for both Phases 1 and 2 would require 100 working days each. The final phase with export of 160,000 CY of material would require 54 working days.

In addition to haul route volumes, traffic volumes associated with the following identified cumulative development projects have been considered in this analysis:

1. 2800 sf. Fast Food Restaurant with Drive-Through, 25892 Muirlands Boulevard
2. 108,791 sf. Medical Office Building/4-level parking structure, The Shops at Mission Viejo

A list of the cumulative projects and locations are shown on Figure 5. Cumulative projects add a total of 5,293 daily trips with 583 trips in the Midday Peak Hour (241 inbound, 342 outbound).

4.2 TRIP DISTRIBUTION AND ASSIGNMENT

Figure 6A through 6C show assignment of traffic on Haul Routes 1-3, respectively. Figure 6A shows Route 1 traffic travels to/from the east and west along La Paz Road and north-south along Olympiad Road.

Figure 6B shows Route 2 traffic travels to/from the east and west along Oso Parkway and north-south along Felipe Road/Olympiad Road.

Figure 6C shows Route 3 haul traffic travels to/from the east and west along Crown Valley Boulevard, followed by north-south along Marguerite Parkway, and north-south along Felipe/Olympiad Road.

4.3 HAUL ROUTE MIDDAY PEAK HOUR INTERSECTION TURNING MOVEMENT AND DAILY TRAFFIC VOLUMES

Figures 7A through 7C show haul route only midday peak hour turning movement volumes at study area intersections and the total (two-way) midday peak hourly volumes on roadway links between intersections for Routes 1-3, respectively. Figure 8 shows haul route only workday total traffic volumes.

4.4 EXISTING (2019) WITH HAUL ROUTES TRAFFIC VOLUMES

Existing (2019) and haul route traffic volumes have been combined to produce forecasts of existing traffic conditions with haul route implementation. Figures 9A through 9C show Existing (2019) with haul route traffic volumes for Midday peak hour conditions for Routes 1-3, respectively. Figure 10 shows Existing (2019) with haul route total workday traffic volumes.

4.5 EXISTING (2019) WITH HAUL ROUTES WITH CUMULATIVE TRAFFIC VOLUMES

Existing (2019), haul route, and cumulative traffic volumes have been combined to produce forecasts of existing traffic conditions with haul route and cumulative projects implementation. Figures 11A through 11C show Existing (2019) with Haul Route and Cumulative traffic volumes for Midday peak hour conditions for Routes 1-3, respectively. Figure 12 shows Existing (2019) with Haul Routes and Cumulative weekday daily 24-hour traffic volumes.

PROJECT NO.	ADDRESS	PROJECT DESCRIPTION
1	25892 Muirlands Blvd, Mission Viejo, CA 92691	2,800 SF FAST FOOD RESTAURANT WITH DRIVE-THORUGH
2	9600 FLAIR DR, EL MONTE, CA 91731	110,000 SF. MEDICAL AND DENTAL OFFICE BUILDING

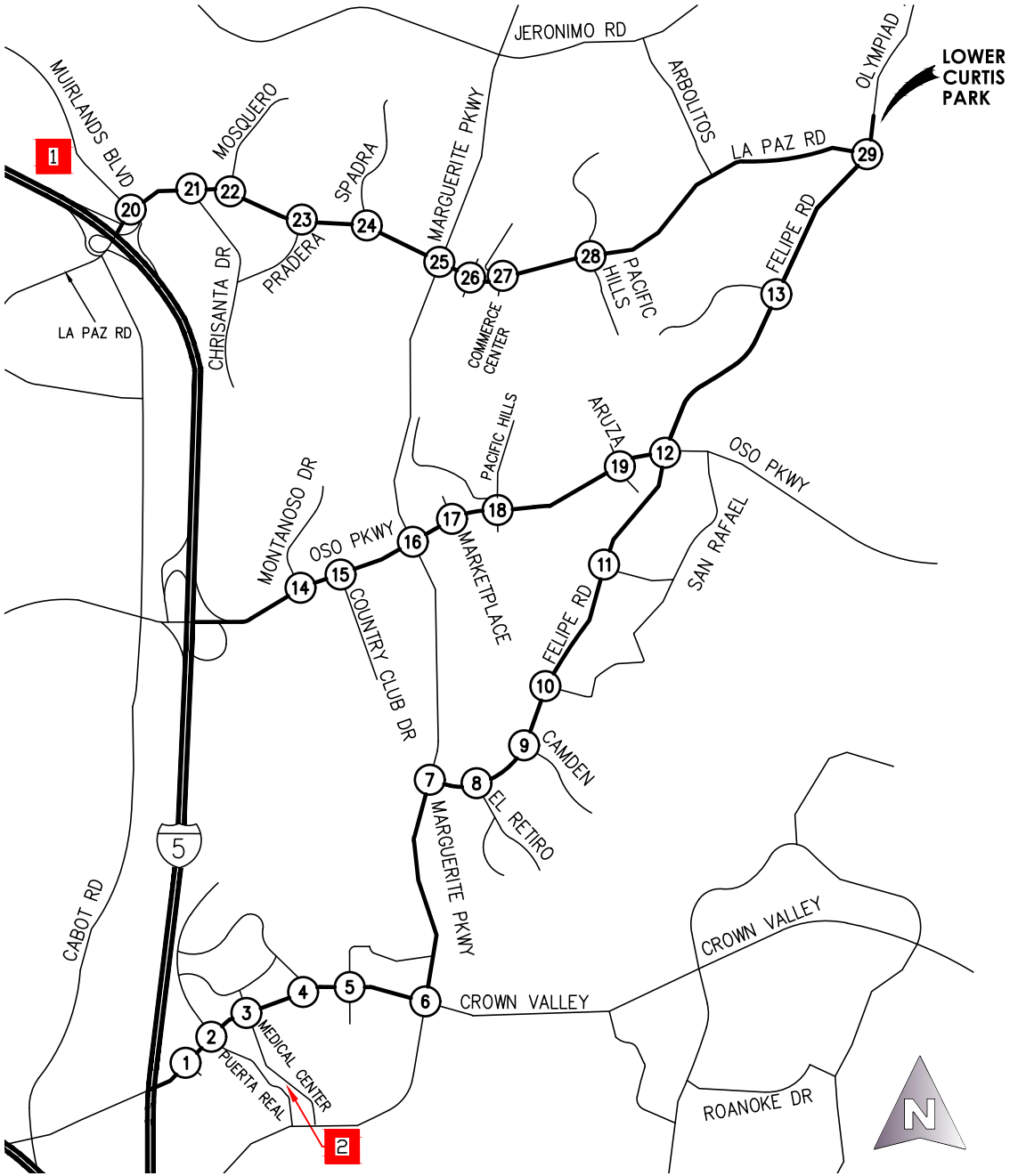

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Figure 5
Cumulative Project Location Map

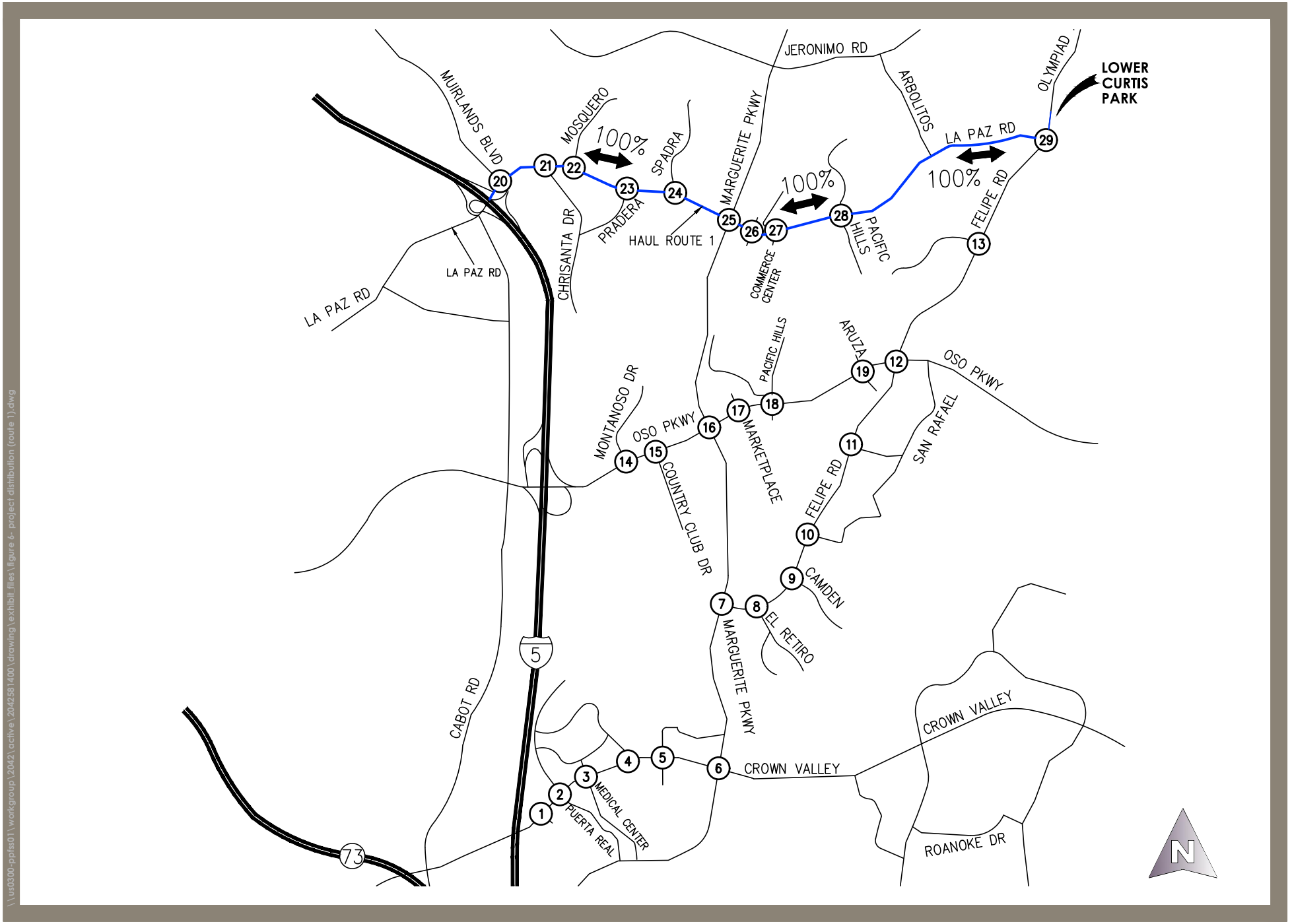

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Figure 6A
Haul Route 1 - Traffic Distribution

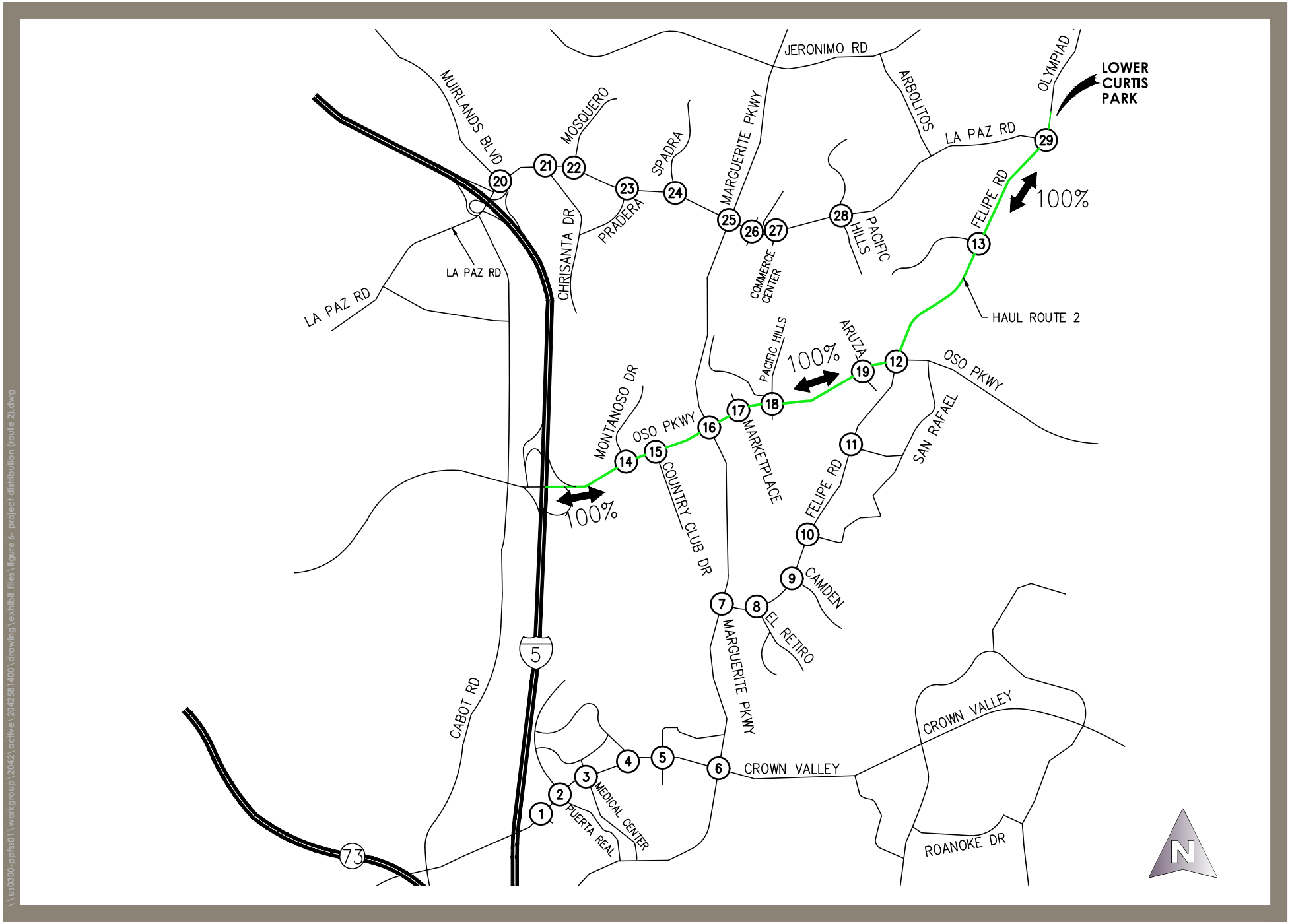

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Figure 6B
Haul Route 2 - Traffic Distribution

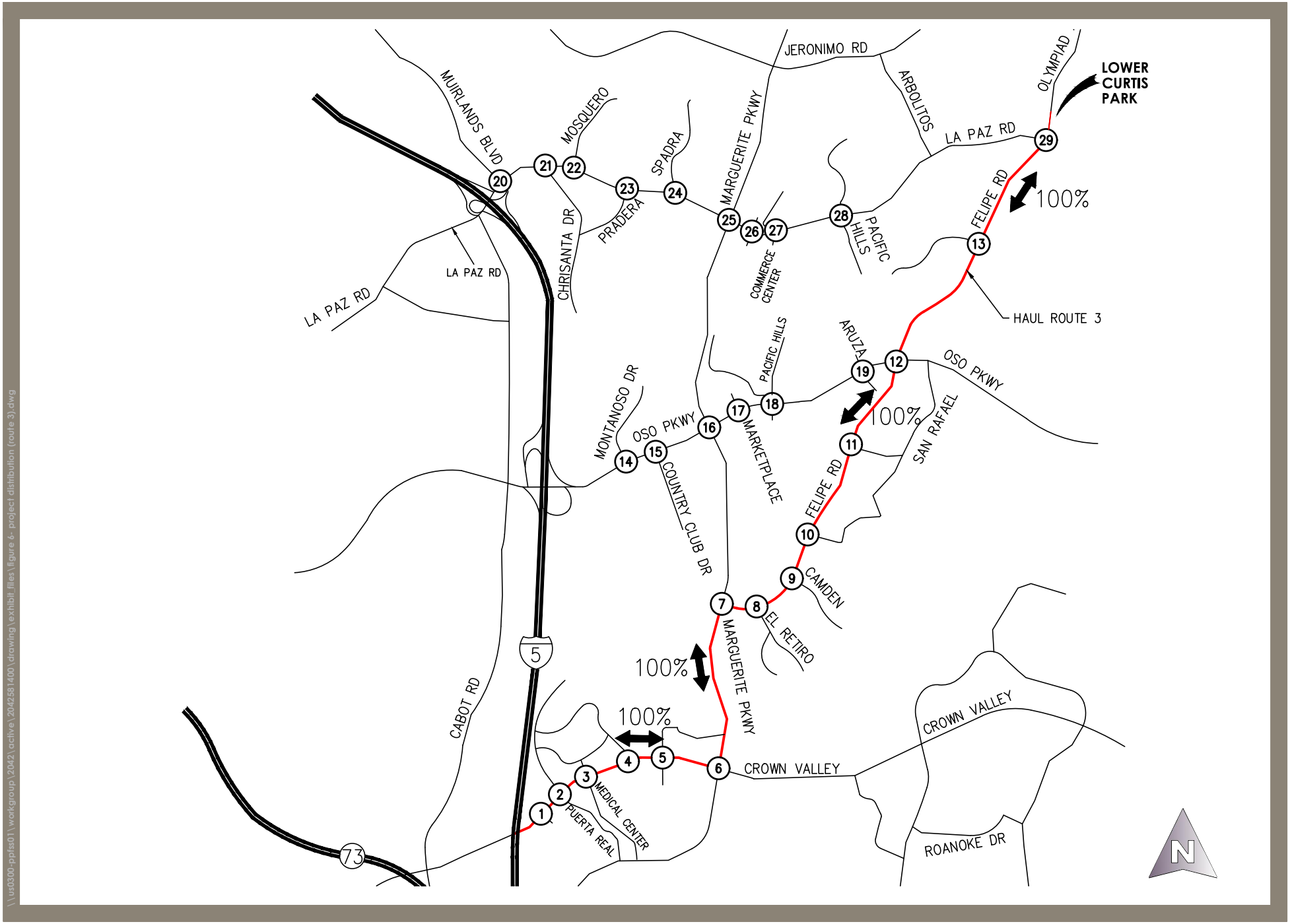

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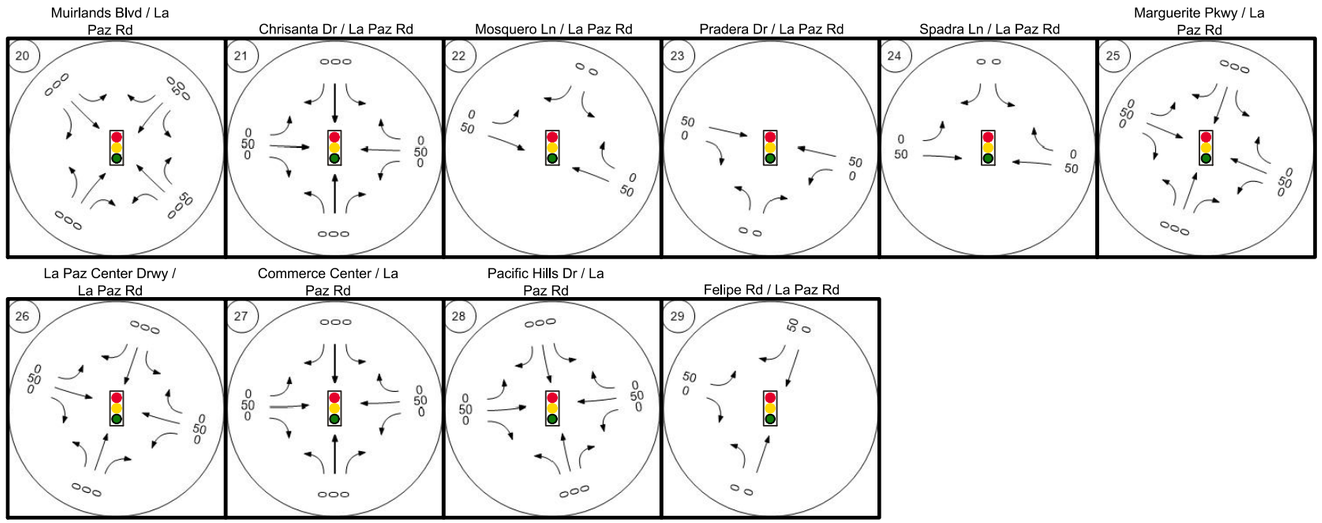
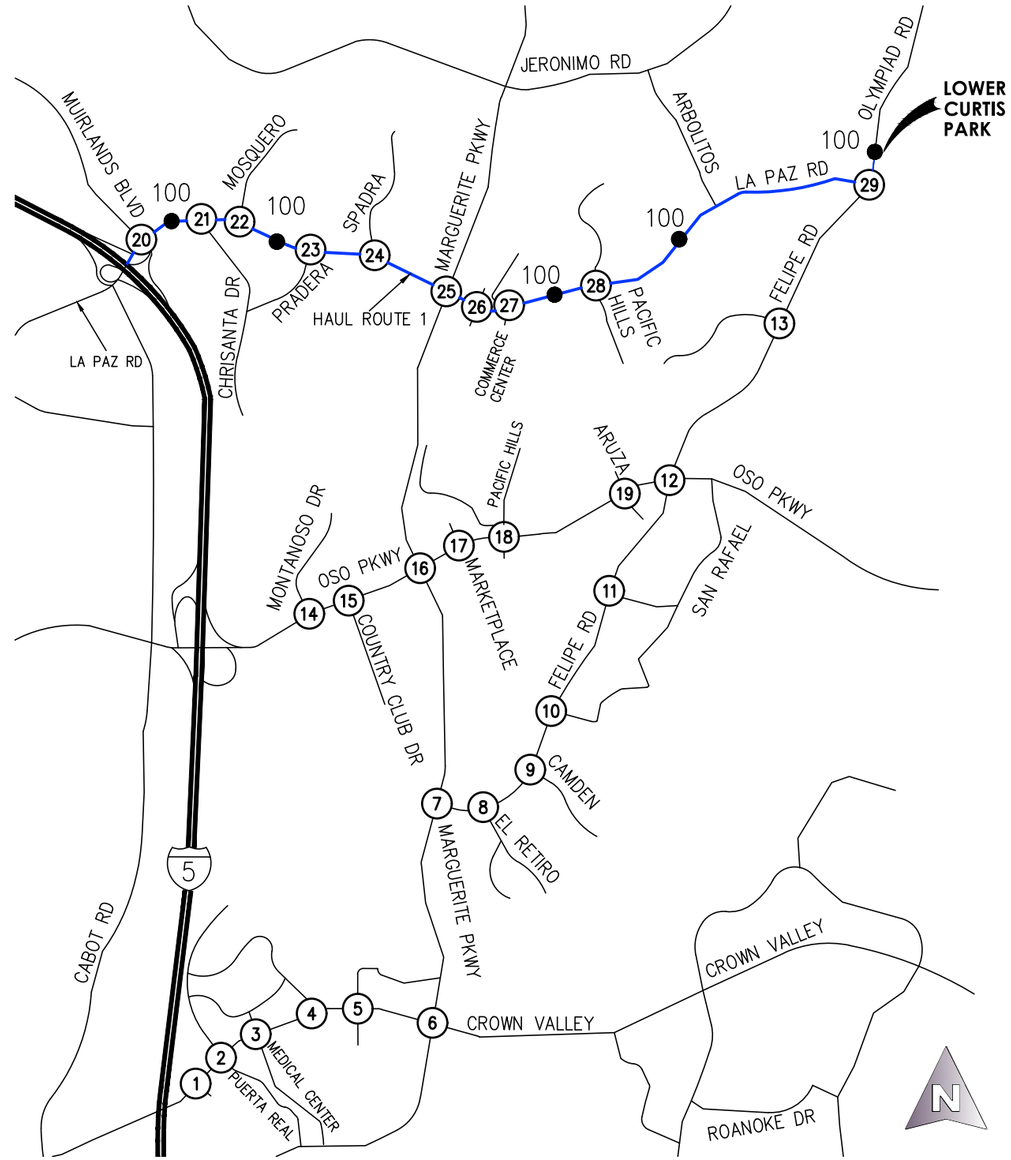
Figure 6C
Haul Route 3 - Traffic Distribution





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(#) - STUDY INTERSECTION I.D.

- SIGNALIZED INTERSECTION

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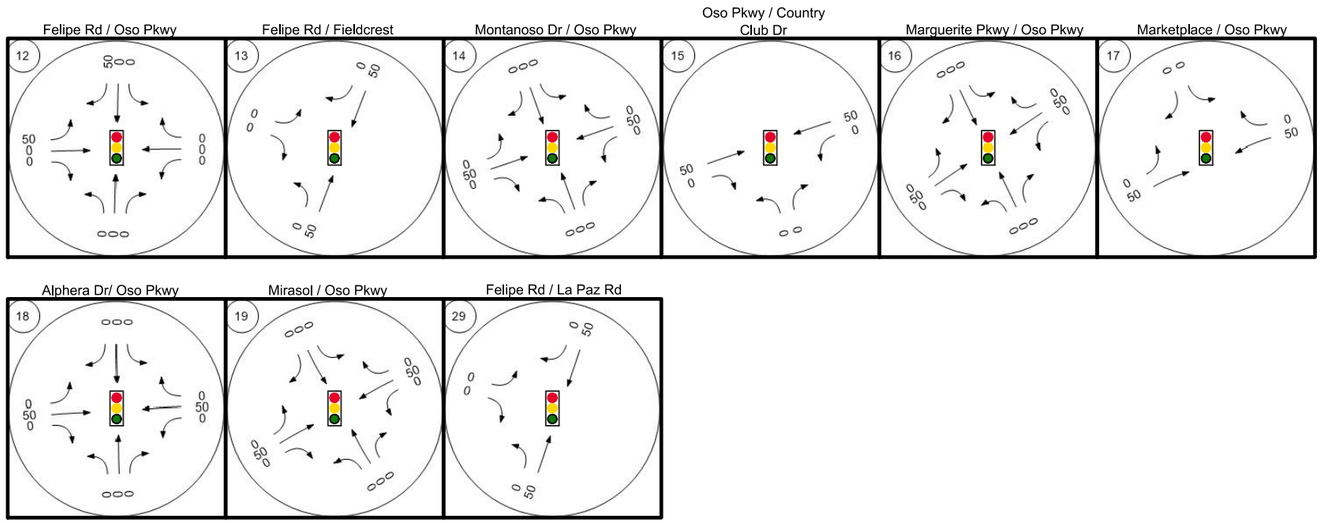
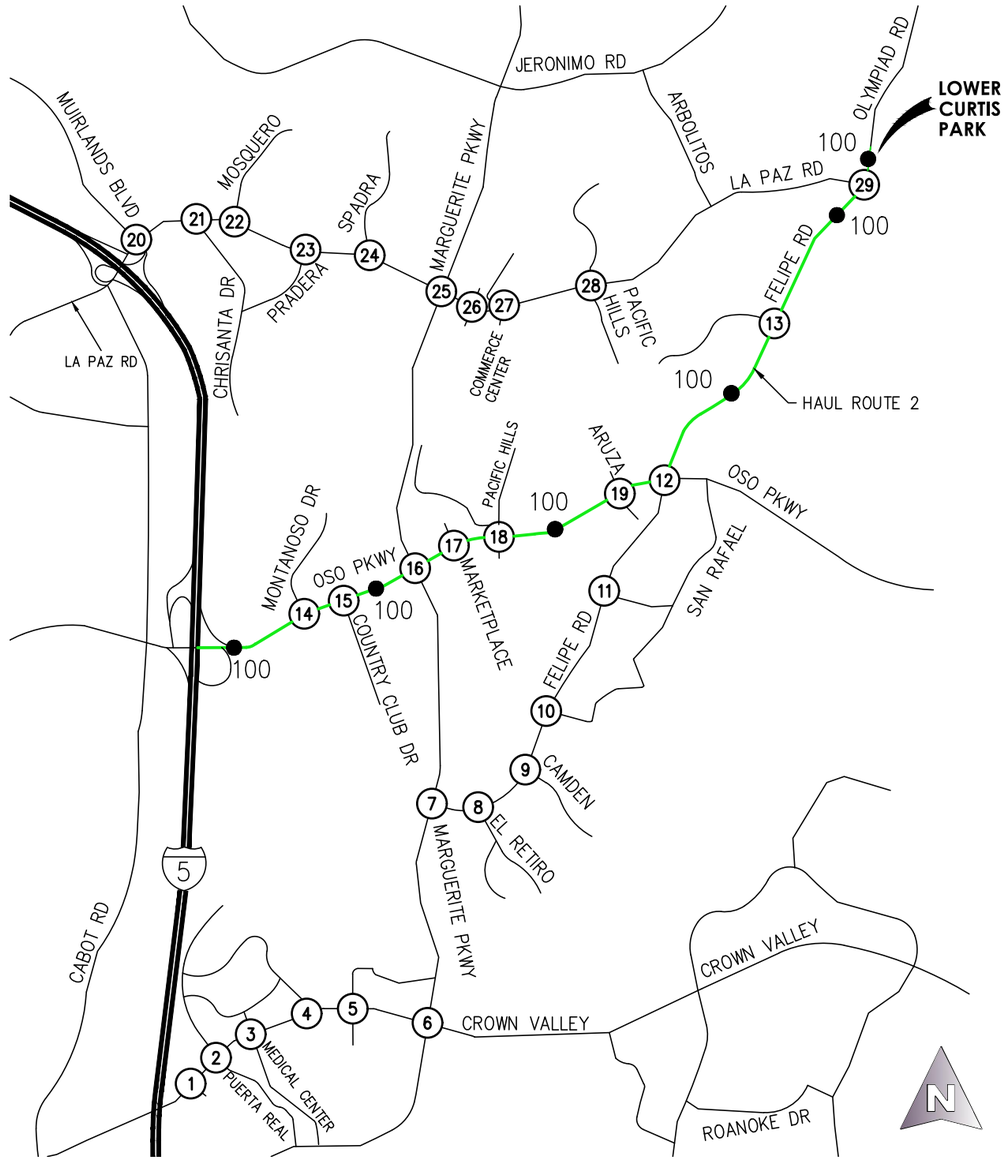
Figure 7A
Haul Route 1 Midday Peak Hour Turning Movement and Link Volumes





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- SIGNALIZED INTERSECTION

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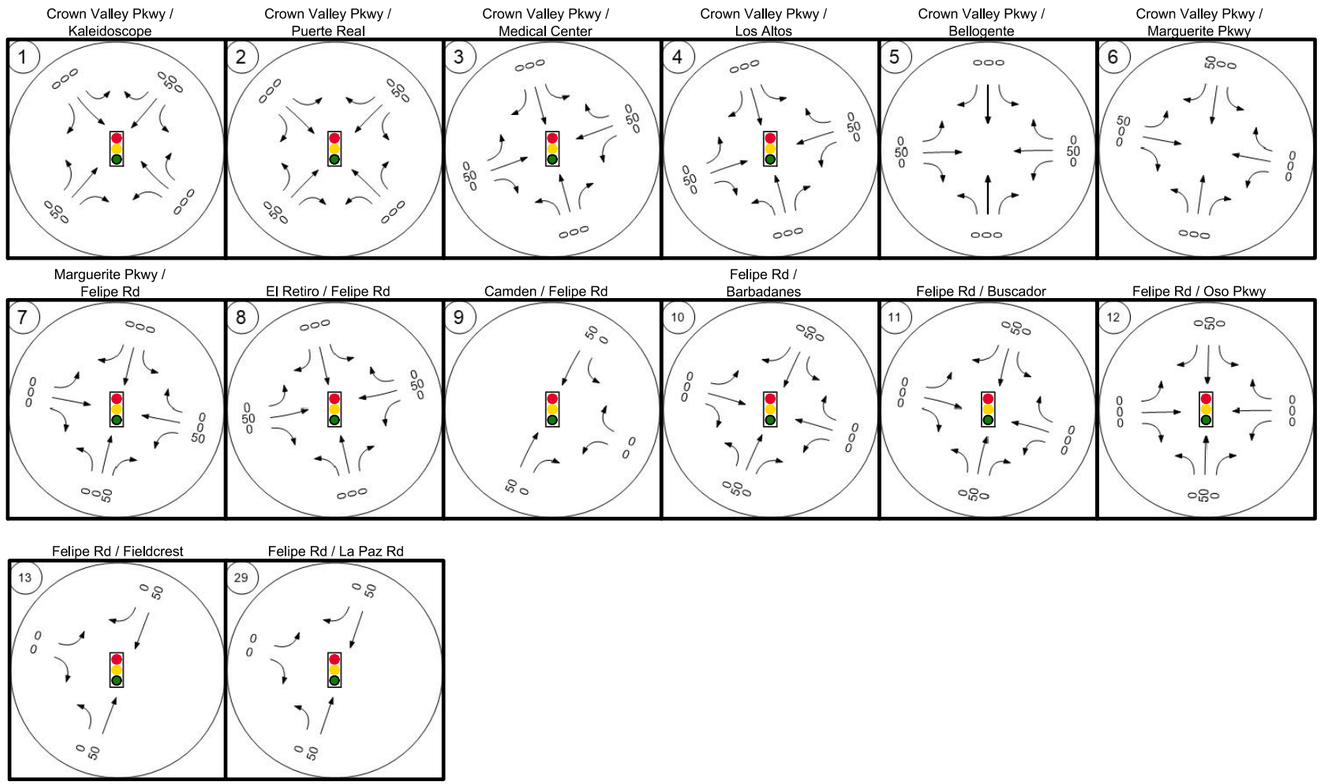
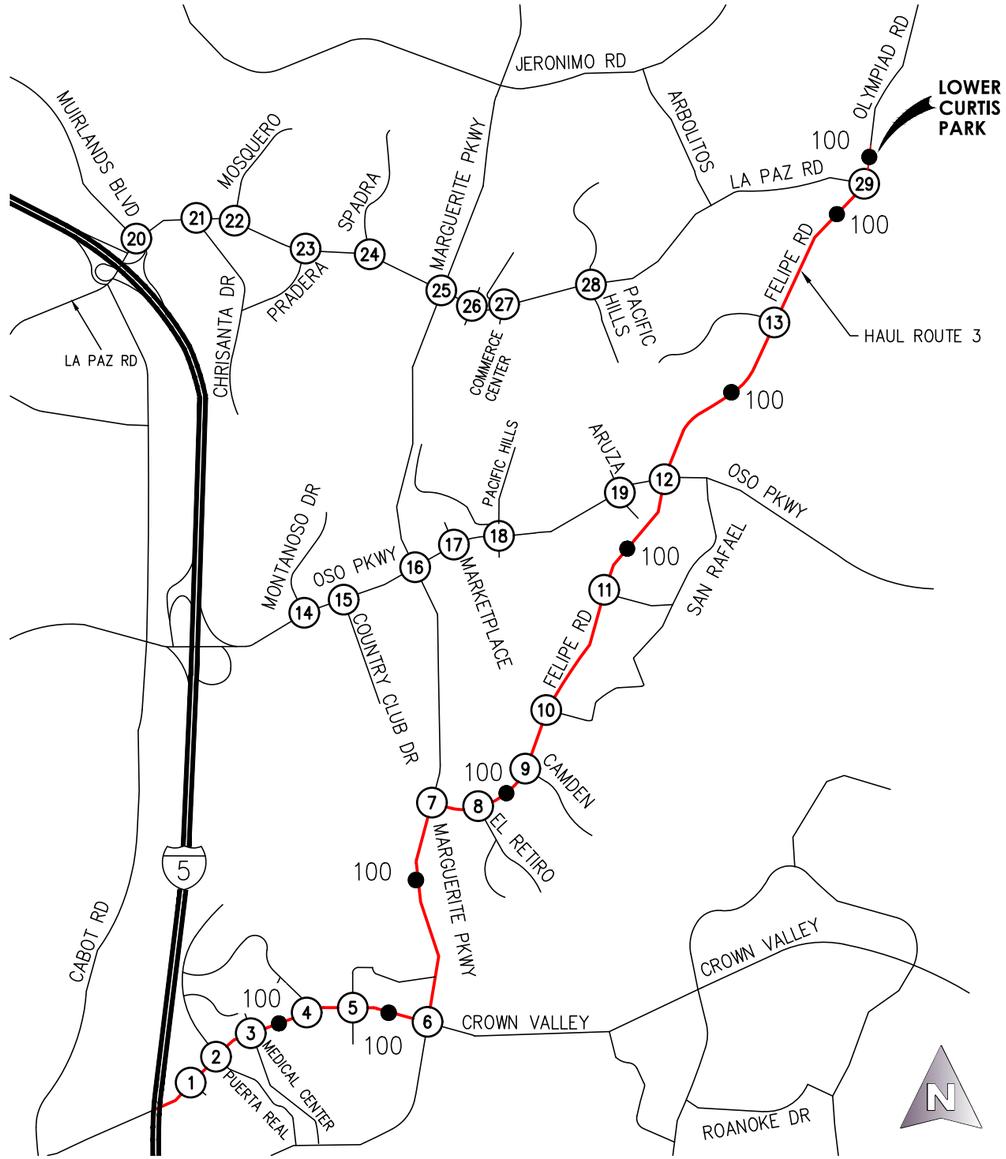
Figure 7B
Haul Route 2 Midday Peak Hour Turning Movement and Link Volumes





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(#) - STUDY INTERSECTION I.D.

- SIGNALIZED INTERSECTION

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Figure 7C
Haul Route 3 Midday Peak Hour Turning Movement and Link Volumes

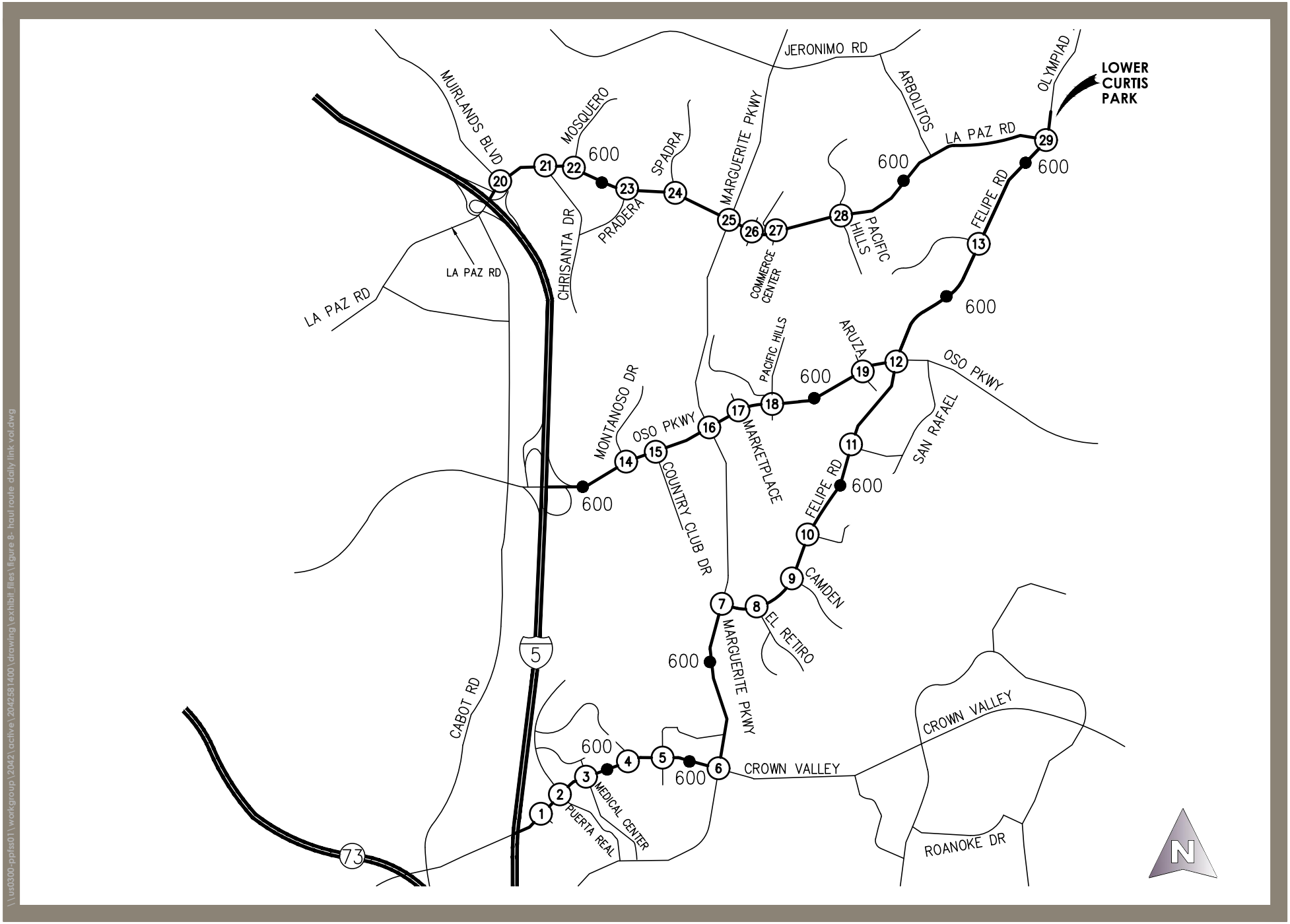

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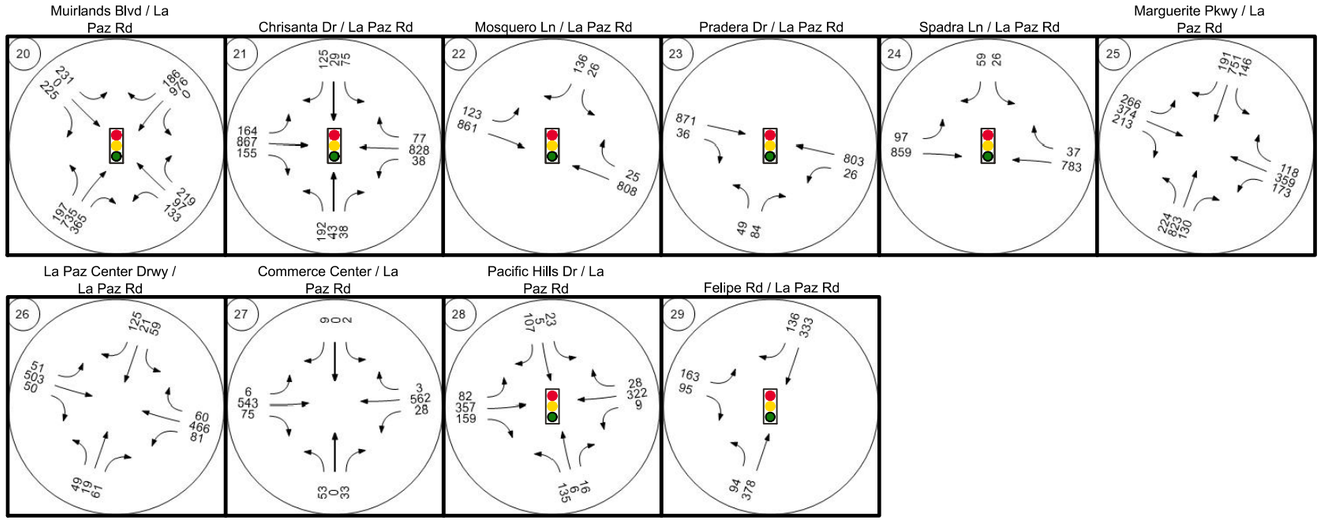
Figure 8
Haul Routes Daily Link Volumes and V/C Ratio



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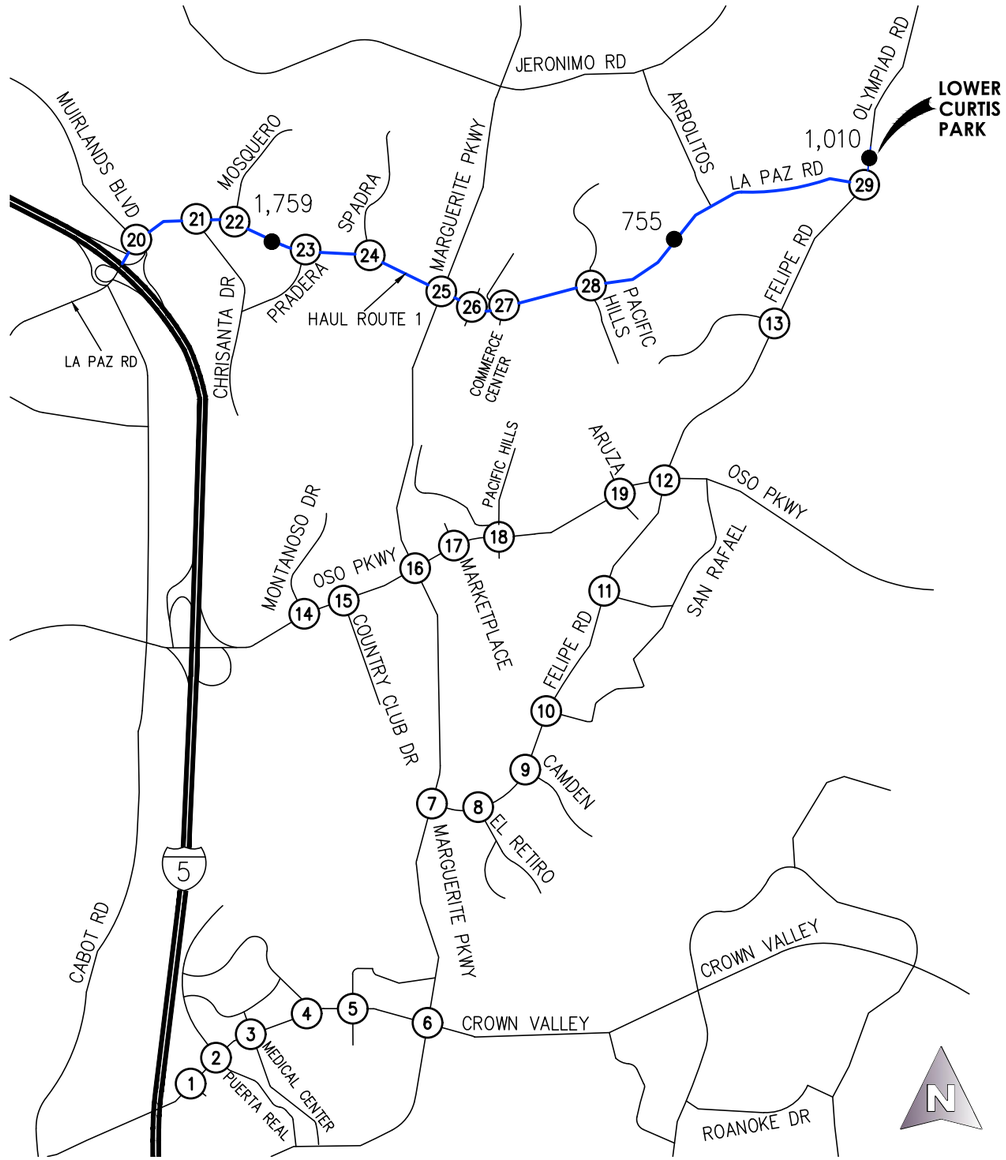
(#) - STUDY INTERSECTION I.D.

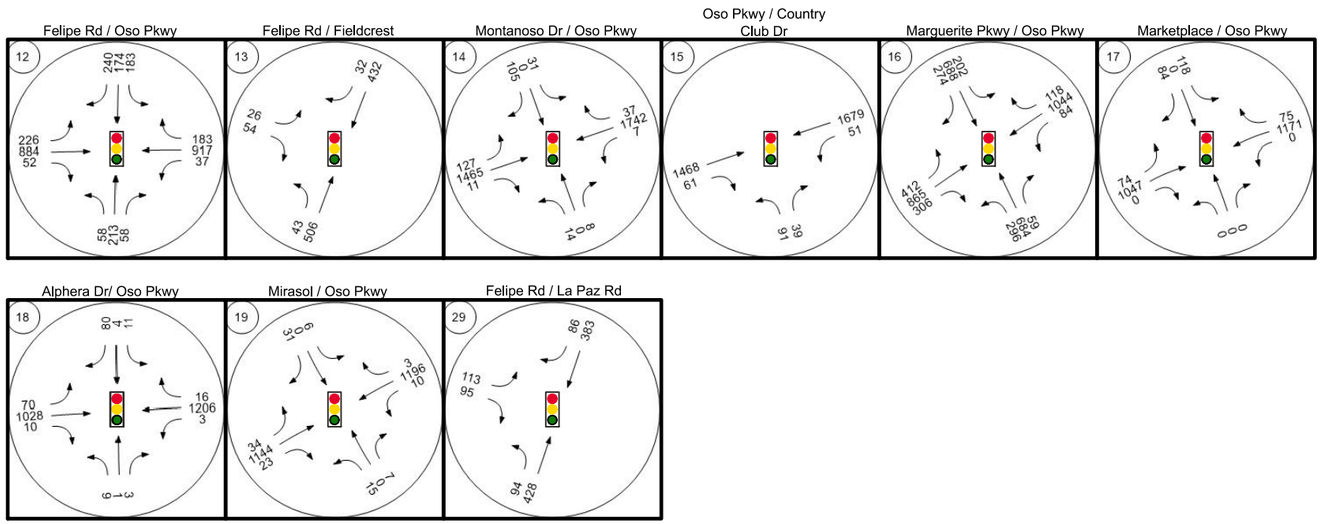
- SIGNALIZED INTERSECTION

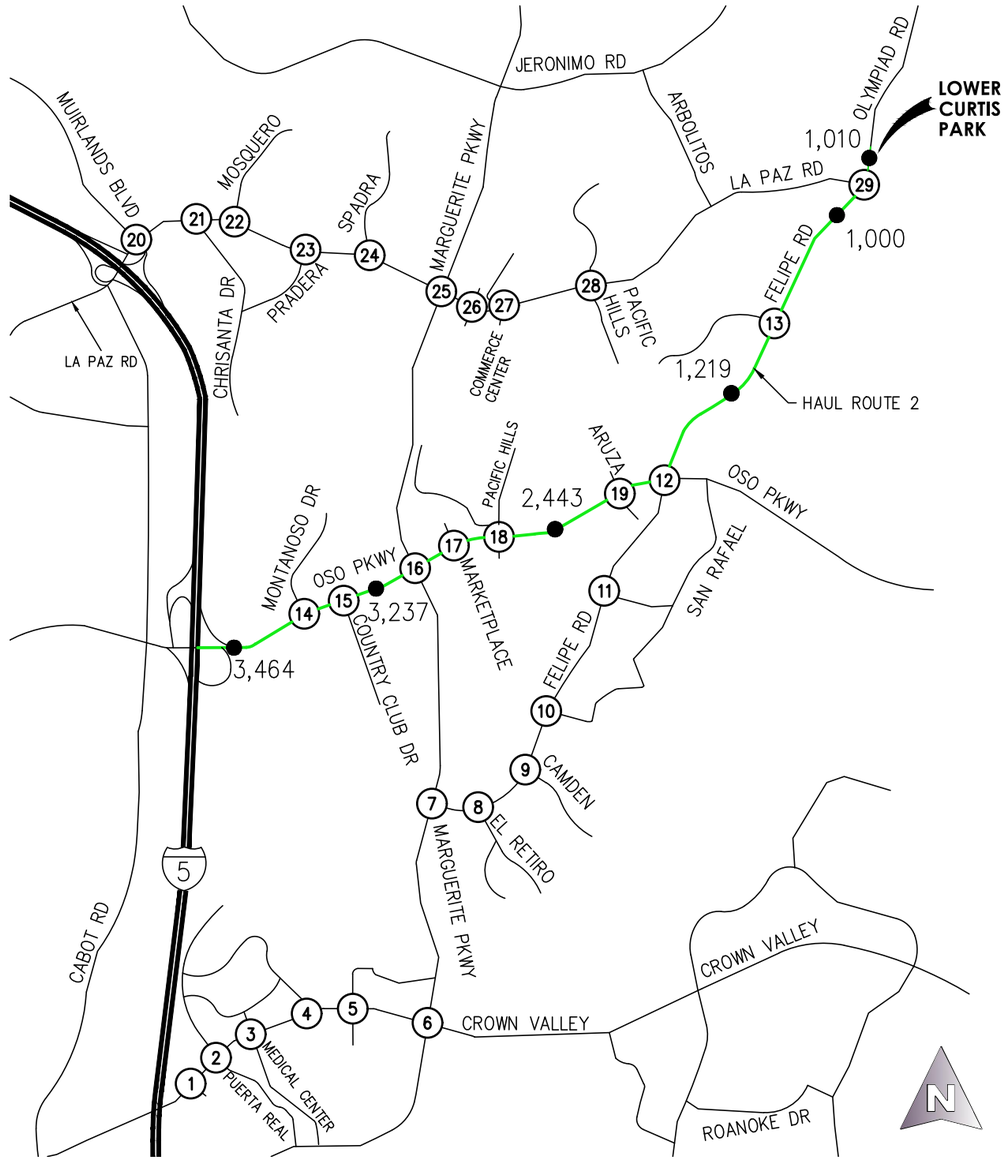


Stantec

Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 9A
Existing with Haul Route 1 Midday Peak Hour Turning Movement and Link Volumes





LEGEND

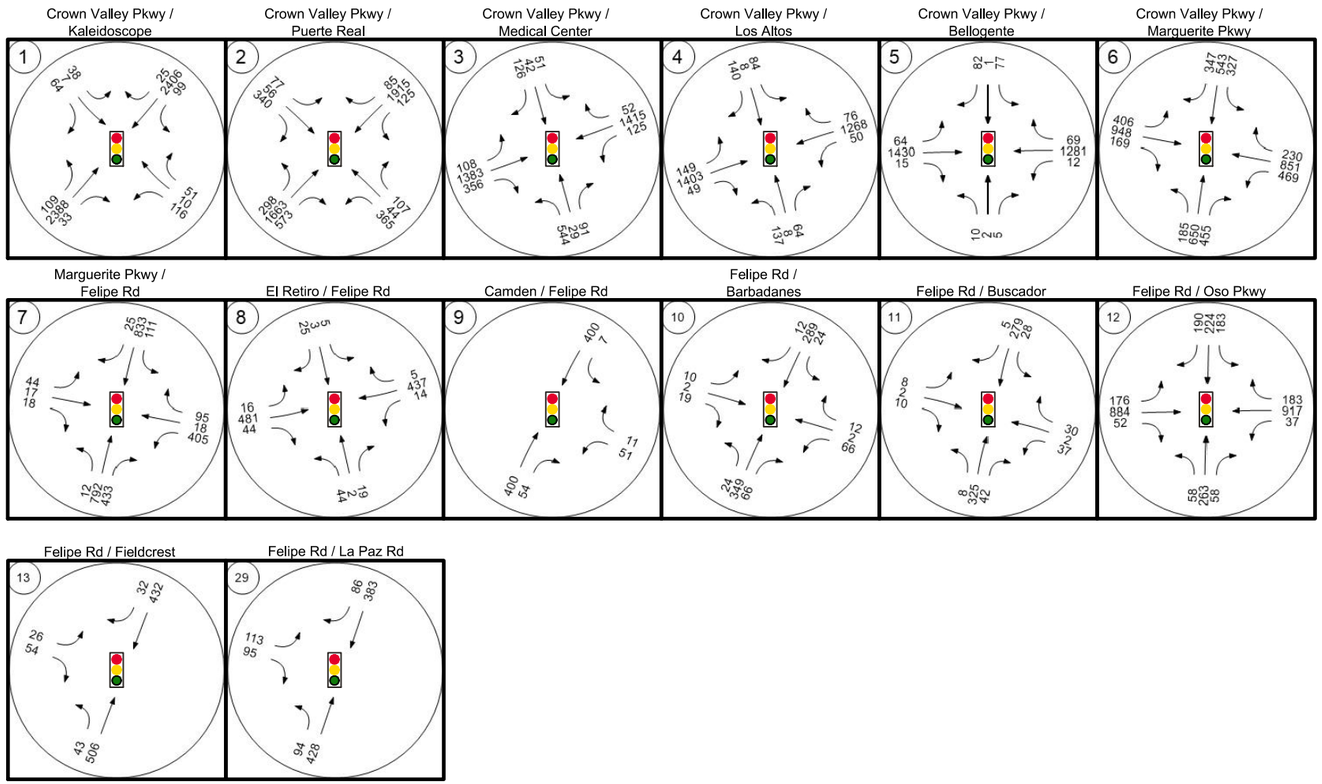
(#) - STUDY INTERSECTION I.D.

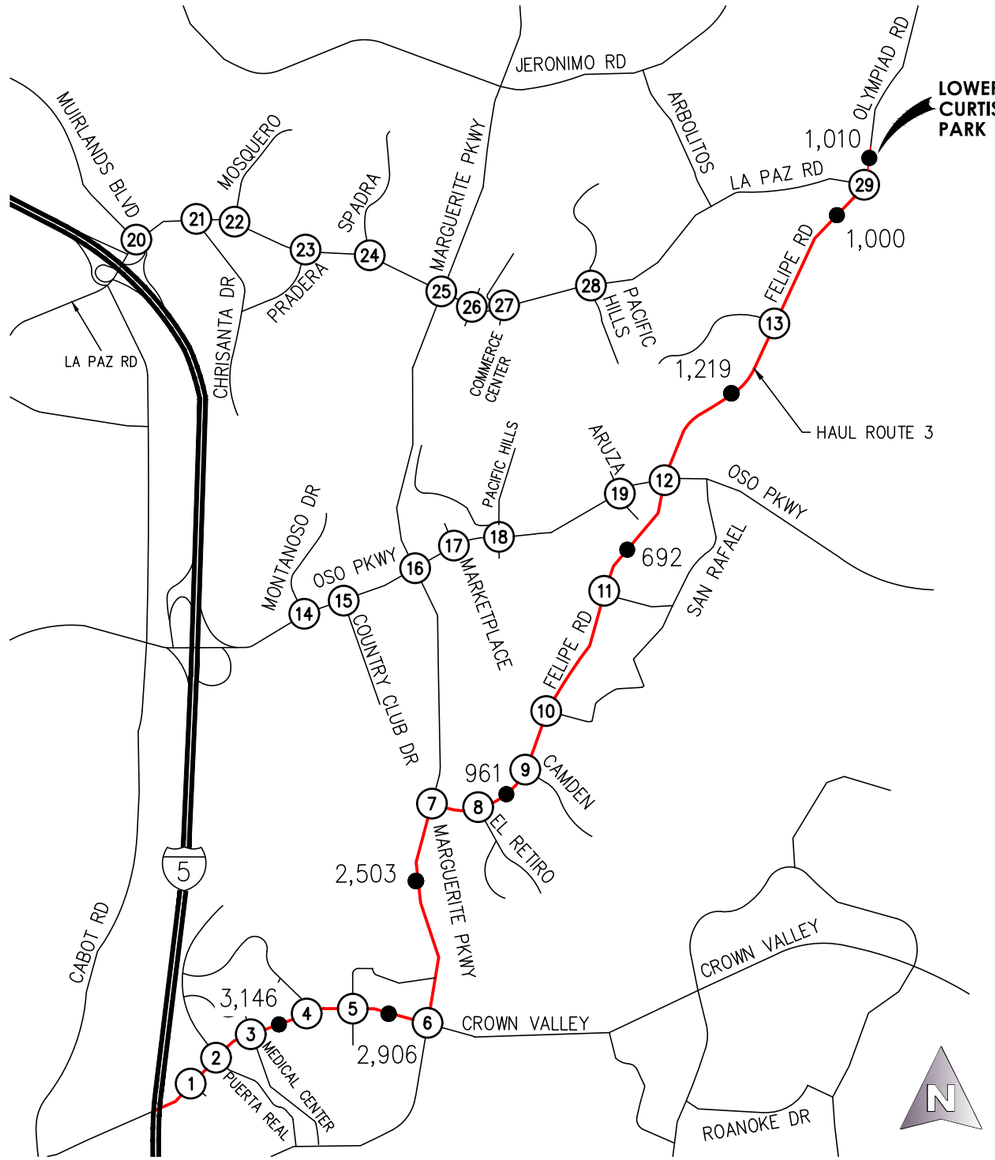
- SIGNALIZED INTERSECTION

Stantec

Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 9B
Existing with Haul Route 2 Midday Peak Hour Turning Movement and Link Volumes





LEGEND

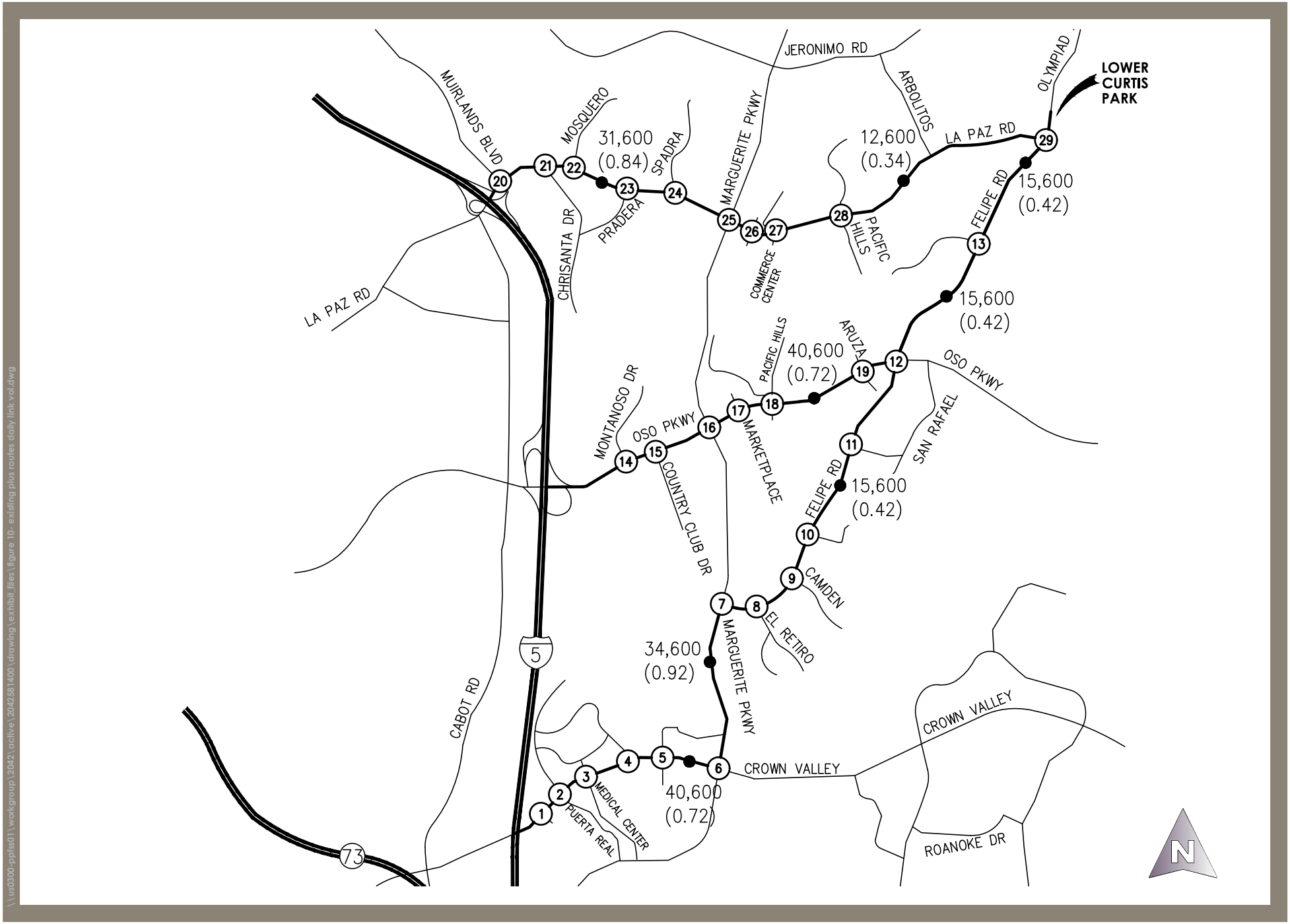
(#) - STUDY INTERSECTION I.D.

- SIGNALIZED INTERSECTION

Stantec

Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 9C
Existing with Haul Route 3 Midday Peak Hour Turning Movement and Link Volumes



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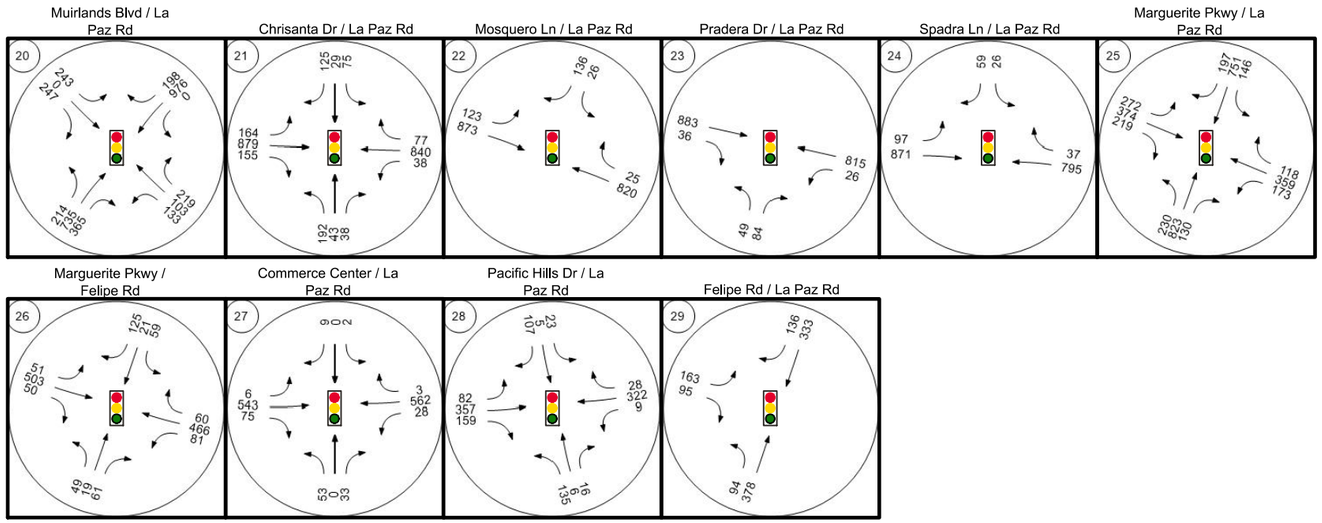
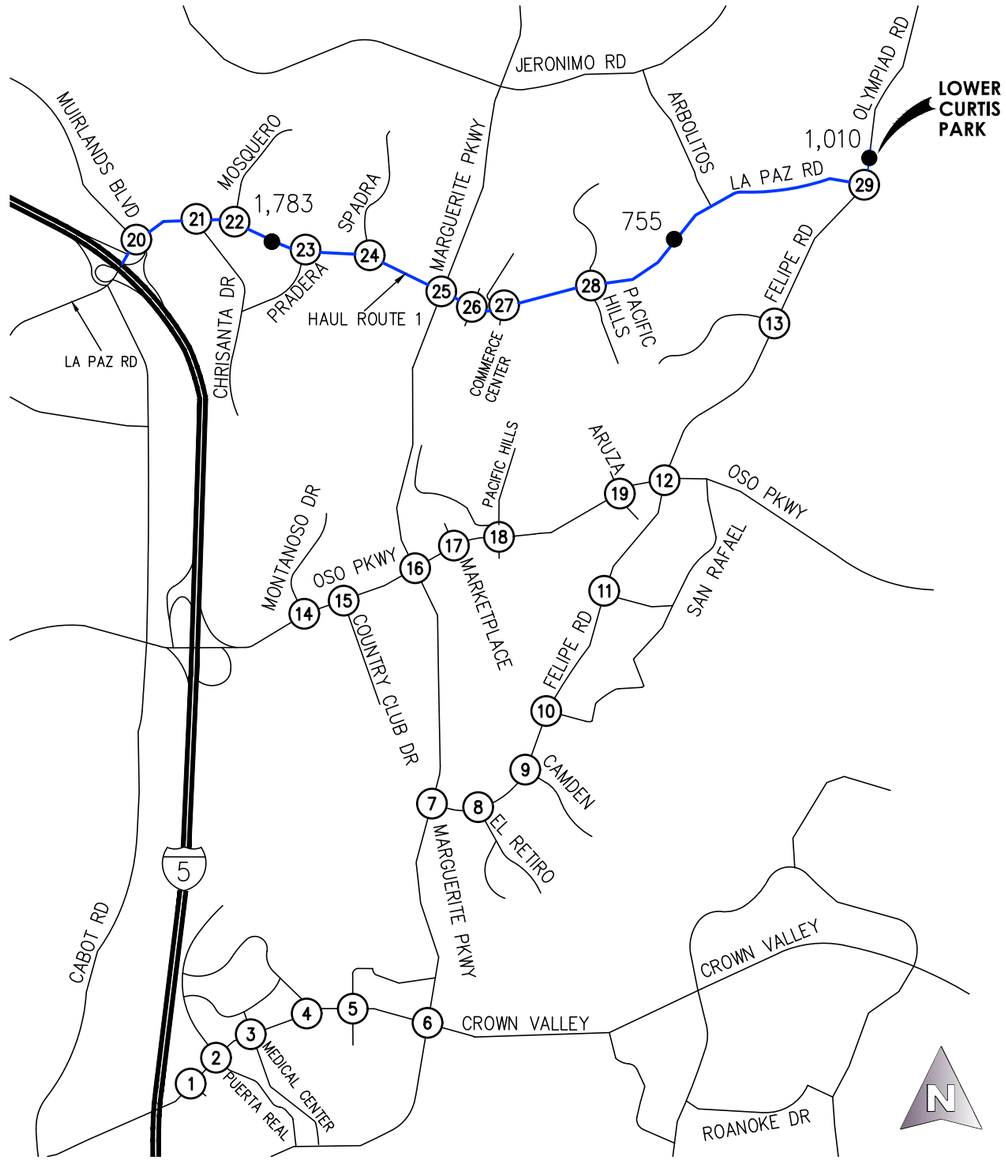
Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 10
Existing with Haul Routes
Daily Link Volumes and V/C Ratios





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(#) - STUDY INTERSECTION I.D.

- SIGNALIZED INTERSECTION

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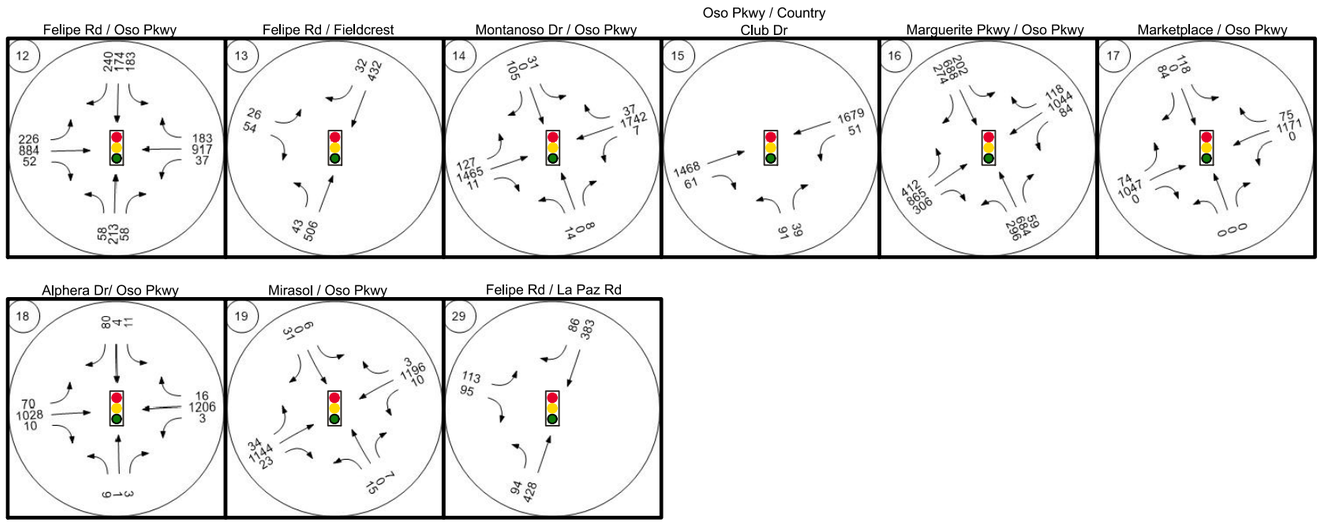
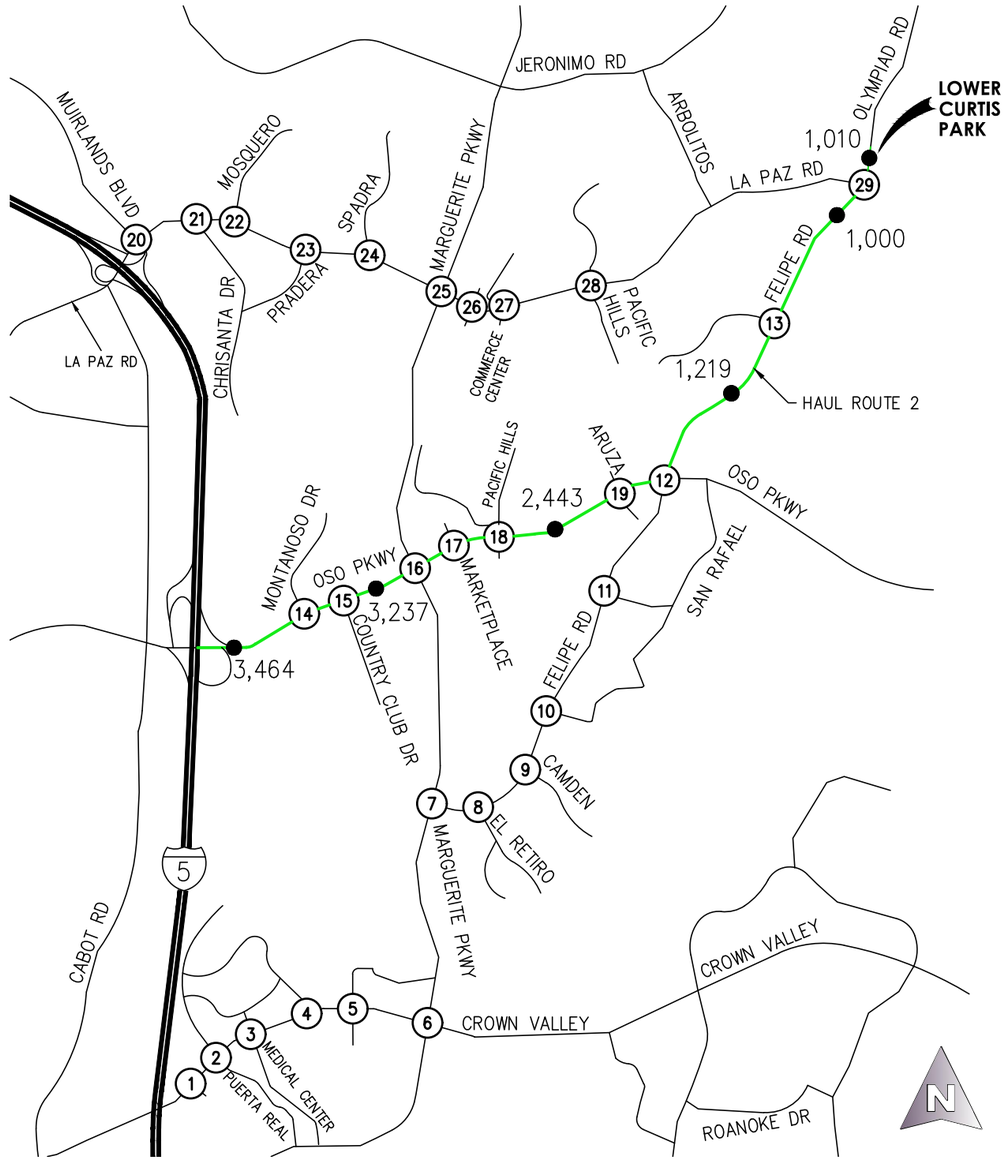
Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 11A

Existing with Haul Route 1 plus Cumulative
Midday Peak Hour Turning Movement and Link Volumes





LEGEND

(#) - STUDY INTERSECTION I.D.

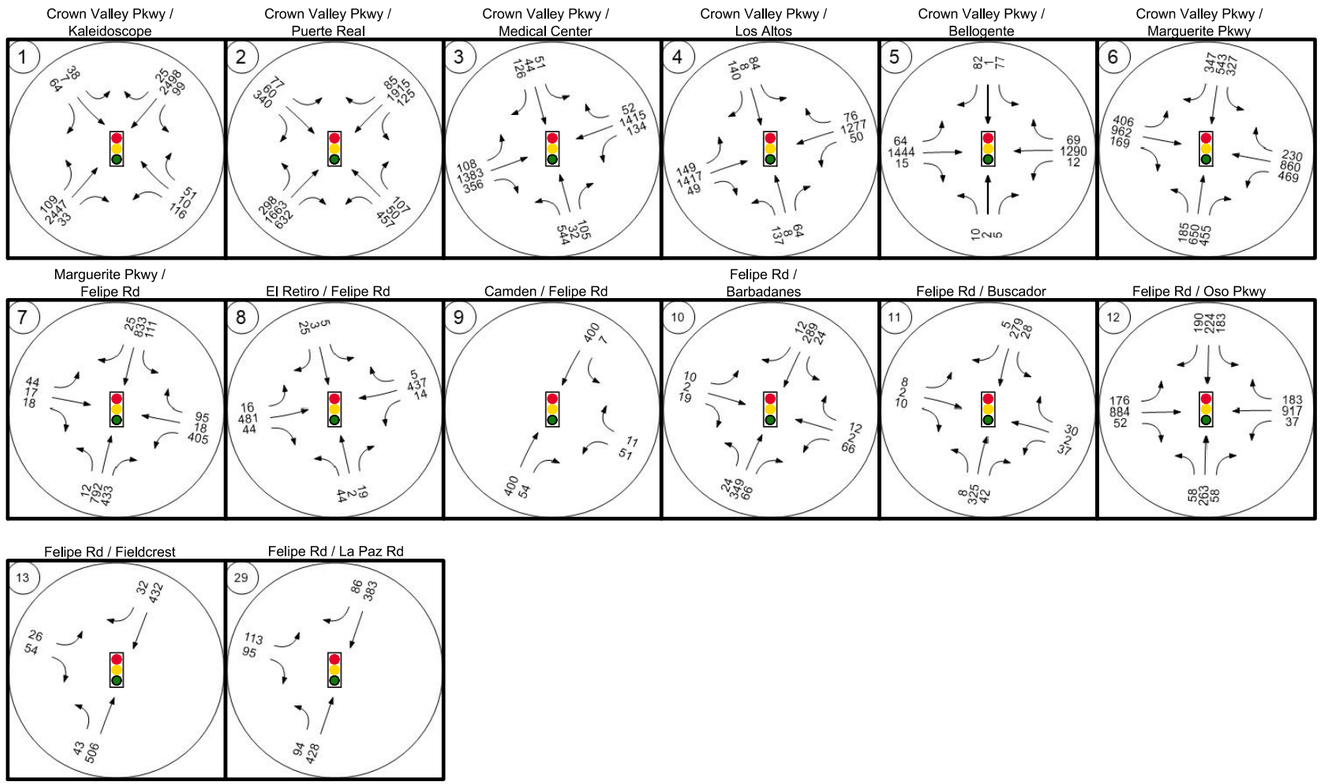
- SIGNALIZED INTERSECTION

Stantec

Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 11B

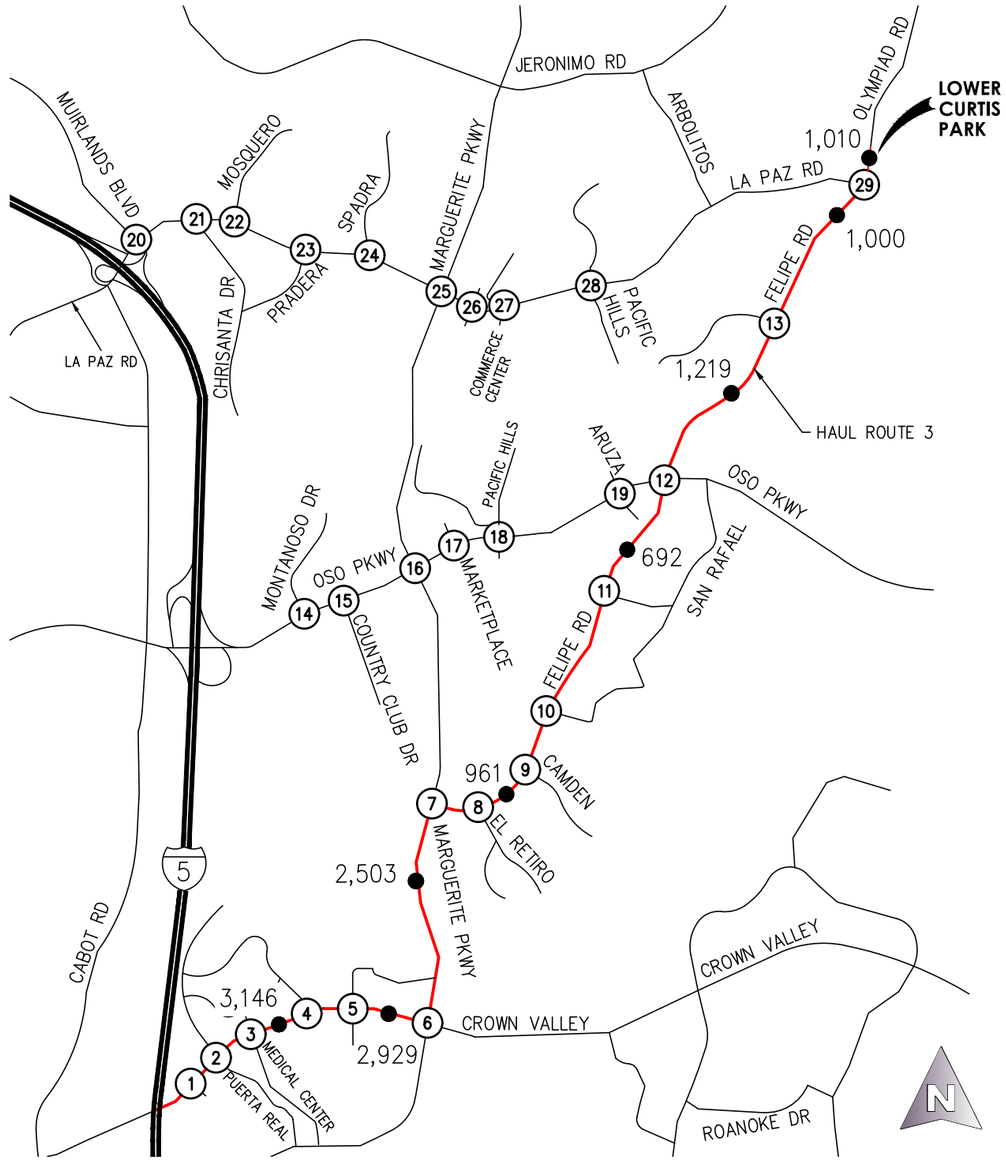
Existing with Haul Route 2 plus Cumulative
Midday Peak Hour Turning Movement and Link Volumes



LEGEND

(#) - STUDY INTERSECTION I.D.

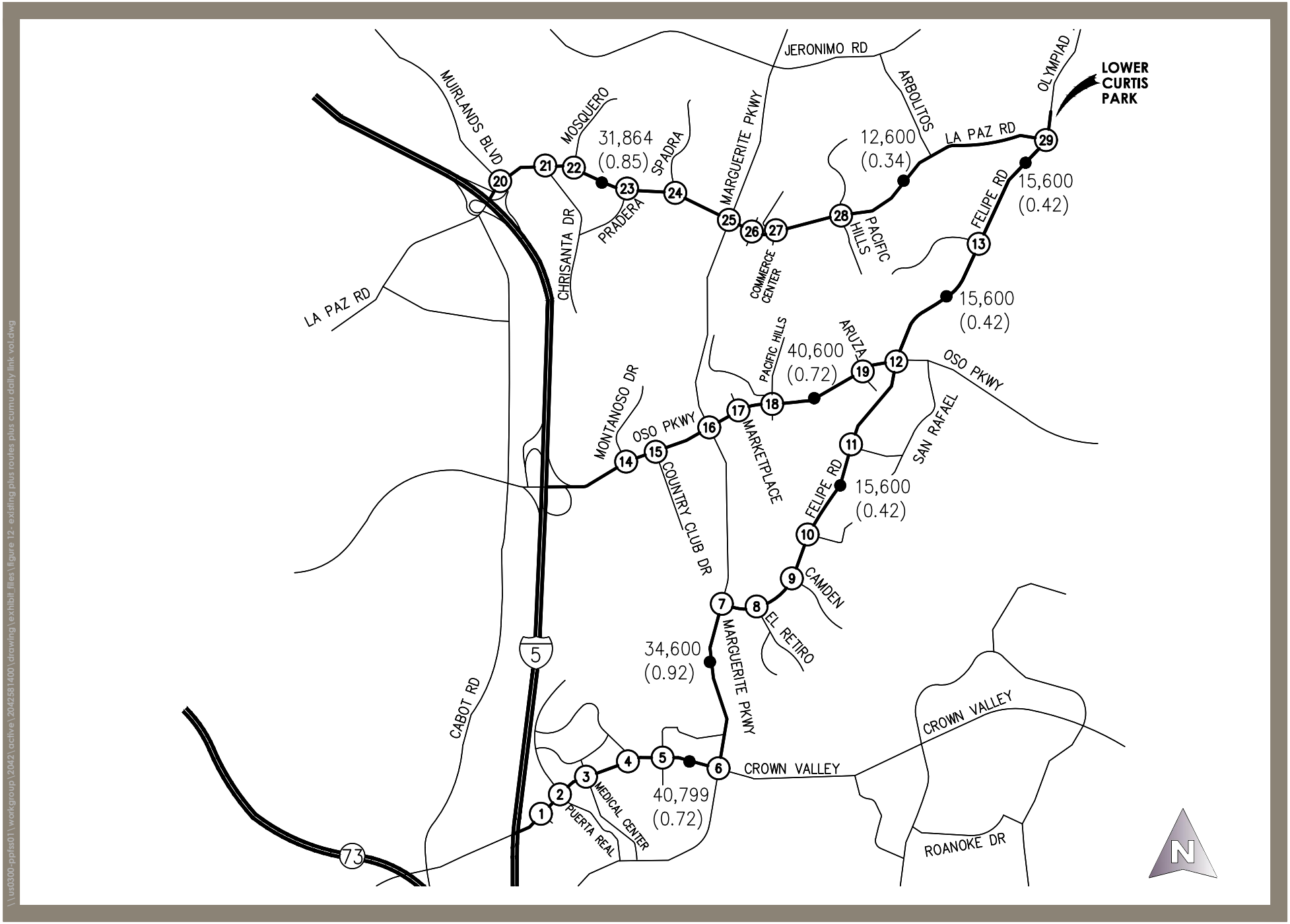
- SIGNALIZED INTERSECTION



Stantec

Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 11C
Existing with Haul Route 3 plus Cumulative Midday Peak Hour Turning Movement and Link Volumes



Stantec

Truck Haul Route I-5 Freeway to Lower Curtis Park
Traffic Analysis
Mission Viejo, CA

Figure 12

Existing with Haul Route plus Cumulative Daily Link Volumes and V/C Ratios

5.0 TRAFFIC ANALYSIS

To evaluate level of service at study area intersections for all scenarios, the Intersection Capacity Utilization (ICU) method has been used for signalized intersections. The target level of service to be maintained throughout the project study area has been established by the City of Mission Viejo as Level of Service D. City of Mission Viejo specifies the significance of potential impacts of an intersection in the *Orange County CMP Traffic Impact Analysis Guidelines, 2011*. The project's significant transportation impact is stated previously in Section 2.3, Threshold of Significance.

5.1 EXISTING (2019) CONDITIONS

Table 2 in Section 2 of this report shows that all 29 signalized intersections within the haul route study area are operating at LOS B (3) or LOS A (26) under existing weekday midday peak hour conditions.

5.2 EXISTING (2019) WITH HAUL ROUTE CONDITIONS

Tables 3A through 3C show the results of intersection level of service analysis for Existing (2019) with Haul Route traffic volume conditions for Routes 1-3, respectively. Tables 3A through 3C show that with forecast Existing (2019) with Haul Route midday peak hour volumes all the intersections within the study area will continue to operate at the same Level of Service as the Existing (2019) traffic volume condition.

Figure 10 shows that the roadways along the truck haul routes are predicted to continue to operate below capacity based on 24-hour volumes for Existing (2019) with Haul Route conditions.

5.3 EXISTING (2019) WITH HAUL ROUTE WITH CUMULATIVE CONDITIONS

Tables 4A through 4C show the results of intersection level of service analysis for Existing (2019) With Haul Route and Cumulative Project traffic volume conditions. Table 4 shows that

with forecast Existing (2019) with Haul Route and Cumulative Project midday peak hour volumes all the intersections within the study area will continue to operate at the same Level of Service as the Existing (2019) traffic volume condition.

Figure 12 shows that the roadways along the truck haul route are predicted to continue to operate below capacity based on 24-hour volumes for Existing (2019) with Haul Routes and Cumulative development project conditions.

Table 3A
Existing (2019) with Route 1 - Study Area Intersections Level of Service

Signalized Intersections	Midday Peak		Midday Peak Plus Route 1			
	V/C	LOS	V/C	LOS	Δ	IMPACT
1. Crown Valley Parkway and Kaleidoscope	0.55	A	-	-	-	-
2. Crown Valley Parkway and Puerte Real	0.57	A	-	-	-	-
3. Crown Valley Parkway and Medical Center	0.61	B	-	-	-	-
4. Crown Valley Parkway and Los Altos	0.43	A	-	-	-	-
5. Crown Valley Parkway and Bellogente	0.34	A	-	-	-	-
6. Crown Valley Parkway and Marguerite Parkway	0.62	B	-	-	-	-
7. Marguerite Parkway and Felipe Road	0.52	A	-	-	-	-
8. El Retiro and Felipe Road	0.24	A	-	-	-	-
9. Camden and Felipe Road	0.20	A	-	-	-	-
10. Felipe Road and Barbadanes	0.21	A	-	-	-	-
11. Felipe Road and Buscador	0.19	A	-	-	-	-
12. Felipe Road and Oso Parkway	0.50	A	-	-	-	-
13. Felipe Road and Fieldcrest	0.22	A	-	-	-	-
14. Montanoso Drive and Oso Parkway	0.39	A	-	-	-	-
15. Oso Parkway and Country Club Drive	0.35	A	-	-	-	-
16. Marguerite Parkway and Oso Parkway	0.61	B	-	-	-	-
17. Marketplace and Oso Parkway	0.38	A	-	-	-	-
18. Alphera/Pacific Hills and Oso Parkway	0.35	A	-	-	-	-
19. Mirasol and Oso Parkway	0.30	A	-	-	-	-
20. Muirlands Boulevard and La Paz Road	0.47	A	0.50	A	0.03	NO
21. Chrisanta Drive and La Paz Road	0.50	A	0.51	A	0.01	NO
22. Mosquero Lane and La Paz Road	0.36	A	0.38	A	0.02	NO
23. Pradera and La Paz Road	0.35	A	0.37	A	0.02	NO
24. Spadra and La Paz Road	0.35	A	0.36	A	0.01	NO
25. Marguerite Parkway and La Paz Road	0.55	A	0.56	A	0.01	NO
26. La Paz Center Driveway and La Paz Road	0.35	A	0.36	A	0.01	NO
27. Commerce Center and La Paz Road	0.25	A	0.26	A	0.01	NO
28. Pacific Hills Drive and La Paz Road	0.31	A	0.32	A	0.01	NO
29. Felipe Road and La Paz Road	0.30	A	0.35	A	0.05	NO

V:\2042\active\2042581400\design\analysis\Tables\[Table 3 - Exisitng with Project LOS.xls]Route 3

Table 3B
Existing (2019) with Route 2 - Study Area Intersections Level of Service

Signalized Intersections	Midday Peak		Midday Peak Plus Route 2			
	V/C	LOS	V/C	LOS	Δ	IMPACT
1. Crown Valley Parkway and Kaleidoscope	0.55	A	-	-	-	-
2. Crown Valley Parkway and Puerte Real	0.57	A	-	-	-	-
3. Crown Valley Parkway and Medical Center	0.61	B	-	-	-	-
4. Crown Valley Parkway and Los Altos	0.43	A	-	-	-	-
5. Crown Valley Parkway and Bellogente	0.34	A	-	-	-	-
6. Crown Valley Parkway and Marguerite Parkway	0.62	B	-	-	-	-
7. Marguerite Parkway and Felipe Road	0.52	A	-	-	-	-
8. El Retiro and Felipe Road	0.24	A	-	-	-	-
9. Camden and Felipe Road	0.20	A	-	-	-	-
10. Felipe Road and Barbadanes	0.21	A	-	-	-	-
11. Felipe Road and Buscador	0.19	A	-	-	-	-
12. Felipe Road and Oso Parkway	0.50	A	0.53	A	0.03	NO
13. Felipe Road and Fieldcrest	0.22	A	0.24	A	0.02	NO
14. Montanoso Drive and Oso Parkway	0.39	A	0.40	A	0.01	NO
15. Oso Parkway and Country Club Drive	0.35	A	0.35	A	0.00	NO
16. Marguerite Parkway and Oso Parkway	0.61	B	0.61	B	0.00	NO
17. Marketplace and Oso Parkway	0.38	A	0.39	A	0.01	NO
18. Alphera/Pacific Hills and Oso Parkway	0.35	A	0.36	A	0.01	NO
19. Mirasol and Oso Parkway	0.30	A	0.31	A	0.01	NO
20. Muirlands Boulevard and La Paz Road	0.47	A	-	-	-	-
21. Chrisanta Drive and La Paz Road	0.50	A	-	-	-	-
22. Mosquero Lane and La Paz Road	0.36	A	-	-	-	-
23. Pradera and La Paz Road	0.35	A	-	-	-	-
24. Spadra and La Paz Road	0.35	A	-	-	-	-
25. Marguerite Parkway and La Paz Road	0.55	A	-	-	-	-
26. La Paz Center Driveway and La Paz Road	0.35	A	-	-	-	-
27. Commerce Center and La Paz Road	0.25	A	-	-	-	-
28. Pacific Hills Drive and La Paz Road	0.31	A	-	-	-	-
29. Felipe Road and La Paz Road	0.30	A	0.32	A	0.02	NO

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Table 3C
Existing (2019) with Route 3 - Study Area Intersections Level of Service

Signalized Intersections	Midday Peak		Midday Peak Plus Route 3			
	V/C	LOS	V/C	LOS	Δ	IMPACT
1. Crown Valley Parkway and Kaleidoscope	0.55	A	0.56	A	0.01	NO
2. Crown Valley Parkway and Puerte Real	0.57	A	0.57	A	0.00	NO
3. Crown Valley Parkway and Medical Center	0.61	B	0.62	B	0.01	NO
4. Crown Valley Parkway and Los Altos	0.43	A	0.44	A	0.01	NO
5. Crown Valley Parkway and Bellogente	0.34	A	0.35	A	0.01	NO
6. Crown Valley Parkway and Marguerite Parkway	0.62	B	0.62	B	0.00	NO
7. Marguerite Parkway and Felipe Road	0.52	A	0.54	A	0.02	NO
8. El Retiro and Felipe Road	0.24	A	0.25	A	0.01	NO
9. Camden and Felipe Road	0.20	A	0.21	A	0.01	NO
10. Felipe Road and Barbadanes	0.21	A	0.22	A	0.01	NO
11. Felipe Road and Buscador	0.19	A	0.21	A	0.02	NO
12. Felipe Road and Oso Parkway	0.50	A	0.52	A	0.02	NO
13. Felipe Road and Fieldcrest	0.22	A	0.24	A	0.02	NO
14. Montanoso Drive and Oso Parkway	0.39	A	-	-	-	-
15. Oso Parkway and Country Club Drive	0.35	A	-	-	-	-
16. Marguerite Parkway and Oso Parkway	0.61	B	-	-	-	-
17. Marketplace and Oso Parkway	0.38	A	-	-	-	-
18. Alphera/Pacific Hills and Oso Parkway	0.35	A	-	-	-	-
19. Mirasol and Oso Parkway	0.30	A	-	-	-	-
20. Muirlands Boulevard and La Paz Road	0.47	A	-	-	-	-
21. Chrisanta Drive and La Paz Road	0.50	A	-	-	-	-
22. Mosquero Lane and La Paz Road	0.36	A	-	-	-	-
23. Pradera and La Paz Road	0.35	A	-	-	-	-
24. Spadra and La Paz Road	0.35	A	-	-	-	-
25. Marguerite Parkway and La Paz Road	0.55	A	-	-	-	-
26. La Paz Center Driveway and La Paz Road	0.35	A	-	-	-	-
27. Commerce Center and La Paz Road	0.25	A	-	-	-	-
28. Pacific Hills Drive and La Paz Road	0.31	A	-	-	-	-
29. Felipe Road and La Paz Road	0.30	A	0.32	A	0.02	NO

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Table 4A
Existing (2019) with Route 1 plus Cumulative - Study Area Intersections Level of Service

Signalized Intersections	Existing (2019)		Existing (2019) with Route 1				Existing (2019) with Route 1 with Cumulative			
	Mid-Day Peak Hour		Mid-Day Peak Hour				Mid-Day Peak Hour			
	V/C	LOS	V/C	LOS	Δ	IMPACT	V/C	LOS	Δ	IMPACT
1. Crown Valley Parkway and Kaleidoscope	0.55	A	-	-	-	-	-	-	-	-
2. Crown Valley Parkway and Puerte Real	0.57	A	-	-	-	-	-	-	-	-
3. Crown Valley Parkway and Medical Center	0.61	B	-	-	-	-	-	-	-	-
4. Crown Valley Parkway and Los Altos	0.43	A	-	-	-	-	-	-	-	-
5. Crown Valley Parkway and Bellogente	0.34	A	-	-	-	-	-	-	-	-
6. Crown Valley Parkway and Marguerite Parkway	0.62	B	-	-	-	--	-	-	-	--
7. Marguerite Parkway and Felipe Road	0.52	A	-	-	-	-	-	-	-	-
8. El Retiro and Felipe Road	0.24	A	-	-	-	-	-	-	-	-
9. Camden and Felipe Road	0.20	A	-	-	-	-	-	-	-	-
10. Felipe Road and Barbadanes	0.21	A	-	-	-	-	-	-	-	-
11. Felipe Road and Buscador	0.19	A	-	-	-	-	-	-	-	-
12. Felipe Road and Oso Parkway	0.50	A	-	-	-	-	-	-	-	-
13. Felipe Road and Fieldcrest	0.22	A	-	-	-	-	-	-	-	-
14. Montanoso Drive and Oso Parkway	0.39	A	-	-	-	-	-	-	-	-
15. Oso Parkway and Country Club Drive	0.35	A	-	-	-	-	-	-	-	-
16. Marguerite Parkway and Oso Parkway	0.61	B	-	-	-	-	-	-	-	-
17. Marketplace and Oso Parkway	0.38	A	-	-	-	-	-	-	-	-
18. Alphera/Pacific Hills and Oso Parkway	0.35	A	-	-	-	-	-	-	-	-
19. Mirasol and Oso Parkway	0.30	A	-	-	-	-	-	-	-	-
20. Muirlands Boulevard and La Paz Road	0.47	A	0.50	A	0.03	NO	0.5	A	0.03	NO
21. Chrisanta Drive and La Paz Road	0.50	A	0.51	A	0.01	NO	0.5	A	0.01	NO
22. Mosquero Lane and La Paz Road	0.36	A	0.38	A	0.02	NO	0.4	A	0.02	NO
23. Pradera and La Paz Road	0.35	A	0.37	A	0.02	NO	0.4	A	0.02	NO
24. Spadra and La Paz Road	0.35	A	0.36	A	0.01	NO	0.4	A	0.01	NO
25. Marguerite Parkway and La Paz Road	0.55	A	0.56	A	0.01	NO	0.56	A	0.01	NO
26. La Paz Center Driveway and La Paz Road	0.35	A	0.36	A	0.01	NO	0.36	A	0.01	NO
27. Commerce Center and La Paz Road	0.25	A	0.26	A	0.01	NO	0.26	A	0.01	NO
28. Pacific Hills Drive and La Paz Road	0.31	A	0.32	A	0.01	NO	0.32	A	0.01	NO
29. Felipe Road and La Paz Road	0.30	A	0.35	A	0.05	NO	0.35	A	0.05	NO

Table 4B
Existing (2019) with Route 2 plus Cumulative - Study Area Intersections Level of Service

Signalized Intersections	Existing (2019)		Existing (2019) with Route 2				Existing (2019) with Route 2 with Cumulative			
	Mid-Day Peak Hour		Mid-Day Peak Hour				Mid-Day Peak Hour			
	V/C	LOS	V/C	LOS	Δ	IMPACT	V/C	LOS	Δ	IMPACT
1. Crown Valley Parkway and Kaleidoscope	0.55	A	-	-	-	-	-	-	-	-
2. Crown Valley Parkway and Puerte Real	0.57	A	-	-	-	-	-	-	-	-
3. Crown Valley Parkway and Medical Center	0.61	B	-	-	-	-	-	-	-	-
4. Crown Valley Parkway and Los Altos	0.43	A	-	-	-	-	-	-	-	-
5. Crown Valley Parkway and Bellogente	0.34	A	-	-	-	-	-	-	-	-
6. Crown Valley Parkway and Marguerite Parkway	0.62	B	-	-	-	--	-	-	-	--
7. Marguerite Parkway and Felipe Road	0.52	A	-	-	-	-	-	-	-	-
8. El Retiro and Felipe Road	0.24	A	-	-	-	-	-	-	-	-
9. Camden and Felipe Road	0.20	A	-	-	-	-	-	-	-	-
10. Felipe Road and Barbadanes	0.21	A	-	-	-	-	-	-	-	-
11. Felipe Road and Buscador	0.19	A	-	-	-	-	-	-	-	-
12. Felipe Road and Oso Parkway	0.50	A	0.53	A	0.03	NO	0.53	A	0.03	NO
13. Felipe Road and Fieldcrest	0.22	A	0.24	A	0.02	NO	0.24	A	0.02	NO
14. Montanoso Drive and Oso Parkway	0.39	A	0.40	A	0.01	NO	0.40	A	0.01	NO
15. Oso Parkway and Country Club Drive	0.35	A	0.35	A	0.00	NO	0.35	A	0.00	NO
16. Marguerite Parkway and Oso Parkway	0.61	B	0.61	B	0.00	NO	0.61	B	0.00	NO
17. Marketplace and Oso Parkway	0.38	A	0.39	A	0.01	NO	0.39	A	0.01	NO
18. Alphera/Pacific Hills and Oso Parkway	0.35	A	0.36	A	0.01	NO	0.36	A	0.01	NO
19. Mirasol and Oso Parkway	0.30	A	0.31	A	0.01	NO	0.31	A	0.01	NO
20. Muirlands Boulevard and La Paz Road	0.47	A	-	-	-	-	-	-	-	-
21. Chrisanta Drive and La Paz Road	0.50	A	-	-	-	-	-	-	-	-
22. Mosquero Lane and La Paz Road	0.36	A	-	-	-	-	-	-	-	-
23. Pradera and La Paz Road	0.35	A	-	-	-	-	-	-	-	-
24. Spadra and La Paz Road	0.35	A	-	-	-	-	-	-	-	-
25. Marguerite Parkway and La Paz Road	0.55	A	-	-	-	-	-	-	-	-
26. La Paz Center Driveway and La Paz Road	0.35	A	-	-	-	-	-	-	-	-
27. Commerce Center and La Paz Road	0.25	A	-	-	-	-	-	-	-	-
28. Pacific Hills Drive and La Paz Road	0.31	A	-	-	-	-	-	-	-	-
29. Felipe Road and La Paz Road	0.30	A	0.32	A	0.02	NO	0.32	A	0.02	NO

Table 4C
Existing (2019) with Route 3 plus Cumulative - Study Area Intersections Level of Service

Signalized Intersections	Existing (2019)		Existing (2019) with Route 3				Existing (2019) with Route 3 with Cumulative			
	Mid-Day Peak Hour		Mid-Day Peak Hour				Mid-Day Peak Hour			
	V/C	LOS	V/C	LOS	Δ	IMPACT	V/C	LOS	Δ	IMPACT
1. Crown Valley Parkway and Kaleidoscope	0.55	A	0.6	A	0.01	NO	0.56	A	0.01	NO
2. Crown Valley Parkway and Puerte Real	0.57	A	0.57	A	0.00	NO	0.60	A	0.00	NO
3. Crown Valley Parkway and Medical Center	0.61	B	0.62	B	0.01	NO	0.62	B	0.01	NO
4. Crown Valley Parkway and Los Altos	0.43	A	0.44	A	0.01	NO	0.44	A	0.01	NO
5. Crown Valley Parkway and Bellogente	0.34	A	0.35	A	0.01	NO	0.35	A	0.01	NO
6. Crown Valley Parkway and Marguerite Parkway	0.62	B	0.62	B	0.00	NO	0.62	B	0.00	NO
7. Marguerite Parkway and Felipe Road	0.52	A	0.54	A	0.02	NO	0.54	A	0.02	NO
8. El Retiro and Felipe Road	0.24	A	0.25	A	0.01	NO	0.25	A	0.01	NO
9. Camden and Felipe Road	0.20	A	0.21	A	0.01	NO	0.21	A	0.01	NO
10. Felipe Road and Barbadanes	0.21	A	0.22	A	0.01	NO	0.22	A	0.01	NO
11. Felipe Road and Buscador	0.19	A	0.21	A	0.02	NO	0.21	A	0.02	NO
12. Felipe Road and Oso Parkway	0.50	A	0.52	A	0.02	NO	0.52	A	0.02	NO
13. Felipe Road and Fieldcrest	0.22	A	0.24	A	0.02	NO	0.24	A	0.02	NO
14. Montanoso Drive and Oso Parkway	0.39	A	-	-	-	-	-	-	-	-
15. Oso Parkway and Country Club Drive	0.35	A	-	-	-	-	-	-	-	-
16. Marguerite Parkway and Oso Parkway	0.61	B	-	-	-	-	-	-	-	-
17. Marketplace and Oso Parkway	0.38	A	-	-	-	-	-	-	-	-
18. Alphera/Pacific Hills and Oso Parkway	0.35	A	-	-	-	-	-	-	-	-
19. Mirasol and Oso Parkway	0.30	A	-	-	-	-	-	-	-	-
20. Muirlands Boulevard and La Paz Road	0.47	A	-	-	-	-	-	-	-	-
21. Chrisanta Drive and La Paz Road	0.50	A	-	-	-	-	-	-	-	-
22. Mosquero Lane and La Paz Road	0.36	A	-	-	-	-	-	-	-	-
23. Pradera and La Paz Road	0.35	A	-	-	-	-	-	-	-	-
24. Spadra and La Paz Road	0.35	A	-	-	-	-	-	-	-	-
25. Marguerite Parkway and La Paz Road	0.55	A	-	-	-	-	-	-	-	-
26. La Paz Center Driveway and La Paz Road	0.35	A	-	-	-	-	-	-	-	-
27. Commerce Center and La Paz Road	0.25	A	-	-	-	-	-	-	-	-
28. Pacific Hills Drive and La Paz Road	0.31	A	-	-	-	-	-	-	-	-
29. Felipe Road and La Paz Road	0.30	A	0.32	A	0.02	NO	0.32	A	0.02	NO

6.0 FINDINGS AND RECOMMENDATIONS

The City of Mission Viejo proposes to transport a total of 760,000 CY of material from the I-5 widening project on the southwest side of the City to a deposit site at Lower Curtis Park along Olympiad Road, north of La Paz Road on the east side of the City. Three routes along the City's southerly east-west arterial roadways, La Paz Road (Route 1), Oso Parkway (Route 2), and Crown Valley Parkway (Route 3) have been included in this study.

The material will be transported in three (3) phases: two phases with 300,000 CY each and one phase with 160,000 CY of material. At total of 3,000 CY of material will be hauled per workday so that the duration of the first two phases is 100 working days each and 54 working days for the final phase. Each haul route has been evaluated at the total capacity of 3,000 CY per day. As the I-5 Project and hauling phases progress, the active haul route(s) may shift or operate simultaneously, however, the total daily amount of transported material will not exceed 3,000 CY.

6.1 STUDY AREA CIRCULATION IMPACTS

For Existing (2019) conditions, all 29 study area intersections are operating at Level of Service B (3) or LOS A (26) based on existing midday peak hour intersection volumes and intersection improvements. Study area roadways are operating below capacity based on weekday 24-hour roadway volumes consistent with the desirable LOS identified at the intersections. For Existing (2019) with Haul Route(s) conditions and Existing (2019) with Haul Route(s) and Cumulative development project conditions, all study area intersections are predicted to continue to operate at Level of Service B (3) or LOS A (26) with no change from existing conditions. Based on these findings, operation of the haul route(s) during 9 am to 3 pm outside the traditional peak traffic periods is predicted to result in no circulation impacts and no additional mitigation measures are indicated.

7.0 REFERENCES

Mission Viejo General Plan Environmental Impact Report, 2013.

https://cityofmissionviejo.org/sites/default/files/General%20Plan%20Program%20EIR.pdf

OCTA Traffic Flow Map, 2019.

https://www.octa.net/pdf/2019-ADT.pdf

Orange County Congestion Management Program, 2019.

http://www.octa.net/pdf/2019CMP.pdf

Appendix A

Existing Peak Hour Intersection Turning Movements Counts and Roadway Link ADT's

National Data & Surveying Services

Intersection Turning Movement Count

Location: Kaleidoscope Pkwy & Crown Valley Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-001
Date: 2019-09-17

Total

NS/EW Streets:	Kaleidoscope Pkwy				Kaleidoscope Pkwy				Crown Valley Pkwy				Crown Valley Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.3	0.3	0.3	0	1.5	0.5	1	0	2	4	0	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	23	0	7	0	6	1	13	0	19	503	7	0	21	553	3	1	1157
11:15 AM	22	0	10	0	10	0	17	0	26	542	7	0	10	495	3	3	1145
11:30 AM	21	1	6	0	12	2	18	0	24	573	7	0	20	570	1	2	1257
11:45 AM	28	3	8	0	11	2	10	0	33	599	5	0	22	598	8	2	1329
12:00 PM	22	3	5	0	10	2	16	0	24	579	6	0	22	639	8	0	1336
12:15 PM	24	2	14	0	10	1	11	0	25	553	6	0	18	610	5	0	1279
12:30 PM	32	2	11	0	10	1	15	0	32	571	7	0	37	571	4	1	1294
12:45 PM	38	3	21	0	8	3	22	0	28	635	14	0	17	536	8	4	1337
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	210	14	82	0	77	12	122	0	211	4555	59	0	167	4572	40	13	10134
APPROACH %'s :	68.63%	4.58%	26.80%	0.00%	36.49%	5.69%	57.82%	0.00%	4.37%	94.40%	1.22%	0.00%	3.48%	95.41%	0.83%	0.27%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	116	10	51	0	38	7	64	0	109	2338	33	0	94	2356	25	5	5246
PEAK HR FACTOR :	0.763	0.833	0.607	0.000	0.950	0.583	0.727	0.000	0.852	0.920	0.589	0.000	0.635	0.922	0.781	0.313	0.981
	0.714				0.826				0.916				0.927				

Prepared by National Data & Surveying Services

Kaleidoscope Pkwy & Crown Valley Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-001
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

Kaleidoscope Pkwy — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	NONE
NOON	12:00 PM - 01:00 PM	11:00 AM - 01:00 PM
PM	NONE	NONE

AM	0	0	0	0	0	AM
NOON	64	7	38	0	144	NOON
PM	0	0	0	0	0	PM
	1	0.5	1.5	0		

Crown Valley Pkwy — EASTBOUND

AM	NOON	PM		
0	2536	0	⇦	
0	0	0	↶	0
0	109	0	↱	2
0	2338	0	→	4
0	33	0	↴	0
AM	NOON	PM		

Crown Valley Pkwy — WESTBOUND

PM	NOON	AM		
0	25	0	↰	0
0	2356	0	←	4
0	94	0	↰	1
0	5	0	↶	0
0	2432	0	⇨	
PM	NOON	AM		

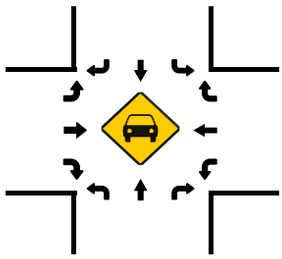
CONTROL: Signalized

	AM	NOON	PM
TEV	0	5246	0
PHF		0.98	

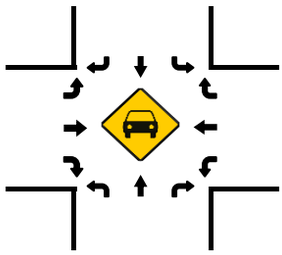
Kaleidoscope Pkwy — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	134	0	116	10	51	NOON
AM	0	0	0	0	0	AM
		0	1.3	0.3	0.3	

Total Vehicles (AM)



Total Vehicles (NOON)



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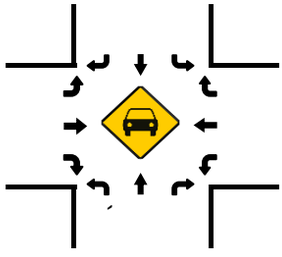
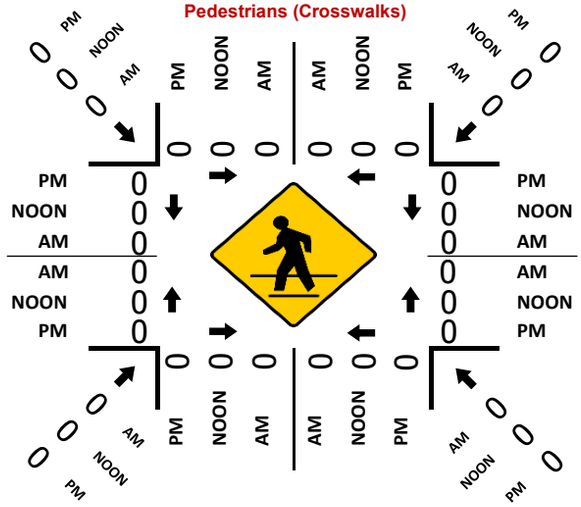


Pedestrians (Crosswalks)



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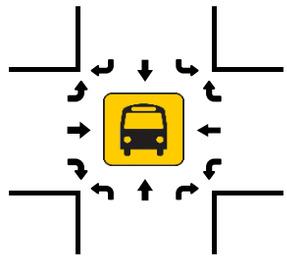

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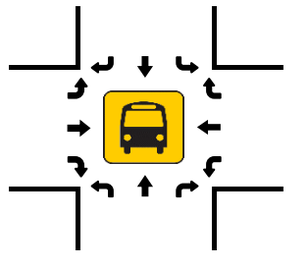
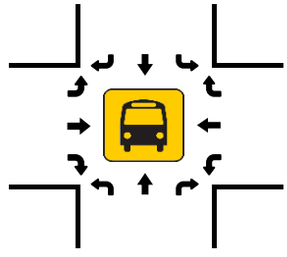


Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Puerta Real/The Shops Blvd & Crown Valley Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-002
Date: 2019-09-17

Total

NS/EW Streets:	Puerta Real/The Shops Blvd				Puerta Real/The Shops Blvd				Crown Valley Pkwy				Crown Valley Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	1	1	0	1	1	2	0	2	4	1	0	2	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	64	6	18	0	21	9	61	1	61	358	103	1	25	453	16	0	1197
11:15 AM	74	4	24	0	20	7	55	0	61	371	119	2	24	385	13	1	1160
11:30 AM	68	10	36	0	14	11	74	0	65	417	134	1	25	455	30	0	1340
11:45 AM	90	13	26	1	15	14	79	0	58	418	156	1	31	482	17	1	1402
12:00 PM	108	9	23	0	23	16	88	0	84	387	142	4	37	482	23	0	1426
12:15 PM	98	12	22	0	25	15	99	0	85	391	141	0	29	446	15	2	1380
12:30 PM	104	19	29	0	18	17	73	2	74	374	127	0	29	424	25	1	1316
12:45 PM	90	19	30	0	22	16	71	1	96	427	164	1	35	395	24	2	1393
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	696	92	208	1	158	105	600	4	584	3143	1086	10	235	3522	163	7	10614
APPROACH %'s :	69.81%	9.23%	20.86%	0.10%	18.22%	12.11%	69.20%	0.46%	12.11%	65.17%	22.52%	0.21%	5.98%	89.69%	4.15%	0.18%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	364	44	107	1	77	56	340	0	292	1613	573	6	122	1865	85	3	5548
PEAK HR FACTOR :	0.843	0.846	0.743	0.250	0.770	0.875	0.859	0.000	0.859	0.965	0.918	0.375	0.824	0.967	0.708	0.375	0.973
	0.921				0.851				0.981				0.957				

Prepared by National Data & Surveying Services

Puerta Real/The Shops Blvd & Crown Valley Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-002
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Puerta Real/The Shops Blvd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	340	56	77	0	421	NOON
PM	0	0	0	0	0	PM

Crown Valley Pkwy — EASTBOUND

AM	NOON	PM		
0	2575	0		
0	6	0	0	
0	292	0	2	
0	1613	0	4	
0	573	0	1	
AM	NOON	PM		

Crown Valley Pkwy — WESTBOUND

PM	NOON	AM	
0	85	0	0
0	1865	0	4
0	122	0	2
0	3	0	0
0	1800	0	
PM	NOON	AM	

Puerta Real/The Shops Blvd — NORTHBOUND

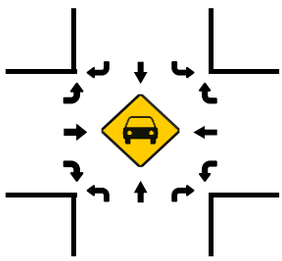
PM	0	0	0	0	0	PM
NOON	752	1	364	44	107	NOON
AM	0	0	0	0	0	AM

2	1	1	0
0	2	1	1

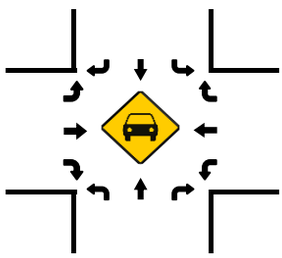
CONTROL: Signalized

	AM	NOON	PM
TEV	0	5548	0
PHF		0.97	

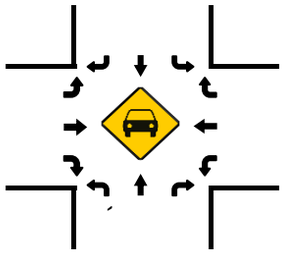
Total Vehicles (AM)



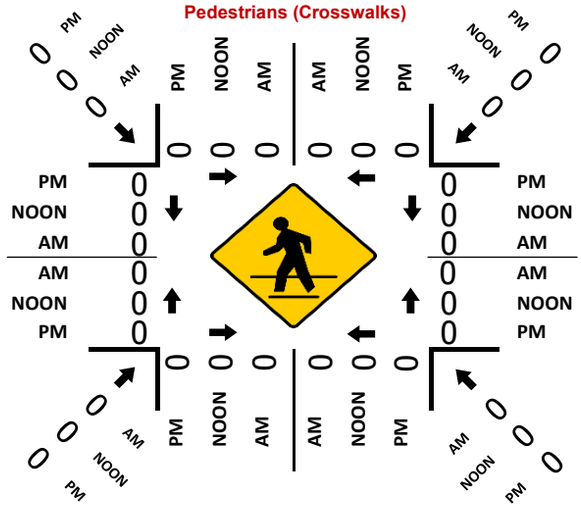
Total Vehicles (NOON)



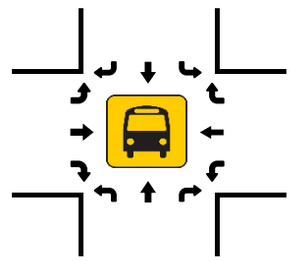
Total Vehicles (PM)



Pedestrians (Crosswalks)



Total Vehicles (AM)



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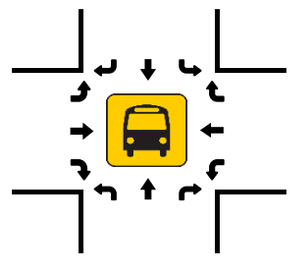
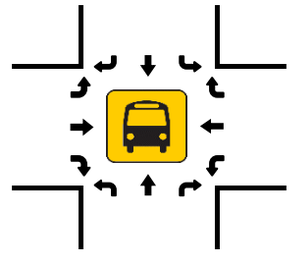


Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Dr Guevara Way/Medical Center Rd & Crown Valley Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-003
Date: 2019-09-17

Total

NS/EW Streets:	Dr Guevara Way/Medical Center Rd				Dr Guevara Way/Medical Center Rd				Crown Valley Pkwy				Crown Valley Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	1	0.5	0	0.5	0.5	1	0	1	4	0	0	2	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	93	9	11	0	9	7	23	0	23	304	87	3	32	360	13	12	986
11:15 AM	85	5	24	0	13	5	24	0	17	341	76	7	18	323	9	10	957
11:30 AM	121	9	23	0	12	7	28	0	23	338	108	3	26	346	8	11	1063
11:45 AM	132	7	18	0	14	12	32	0	19	312	101	4	28	350	12	9	1050
12:00 PM	162	6	21	0	14	11	42	0	22	352	76	8	25	349	13	8	1109
12:15 PM	129	7	29	0	11	12	24	0	28	331	71	1	15	320	19	3	1000
12:30 PM	109	12	23	0	7	5	23	0	29	333	82	4	28	332	13	9	1009
12:45 PM	117	12	17	0	11	8	22	0	22	372	94	7	46	330	14	10	1082
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	948	67	166	0	91	67	218	0	183	2683	695	37	218	2710	101	72	8256
APPROACH %'s :	80.27%	5.67%	14.06%	0.00%	24.20%	17.82%	57.98%	0.00%	5.09%	74.57%	19.32%	1.03%	7.03%	87.39%	3.26%	2.32%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	544	29	91	0	51	42	126	0	92	1333	356	16	94	1365	52	31	4222
PEAK HR FACTOR :	0.840	0.806	0.784	0.000	0.911	0.875	0.750	0.000	0.821	0.947	0.824	0.500	0.839	0.975	0.684	0.705	0.952
	0.878				0.817				0.952				0.966				

Prepared by National Data & Surveying Services

Dr Guevara Way/Medical Center Rd & Crown Valley Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-003
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

Dr Guevara Way/Medical Center Rd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	126	42	51	0	173	NOON
PM	0	0	0	0	0	PM

PEAK HOURS: NONE / 11:30 AM - 12:30 PM / NONE

COUNT PERIODS: NONE / 11:00 AM - 01:00 PM / NONE

Crown Valley Pkwy — EASTBOUND

AM	NOON	PM	
0	2051	0	
0	16	0	0
0	92	0	1
0	1333	0	4
0	356	0	0

Crown Valley Pkwy — WESTBOUND

PM	NOON	AM	
0	52	0	0
0	1365	0	4
0	94	0	2
0	31	0	0
0	1506	0	

CONTROL: Signalized

	AM	NOON	PM
TEV	0	4222	0
PHF		0.95	

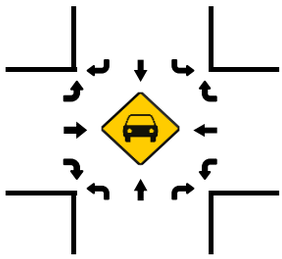
Eastbound turning movements: 1 | 0.5 | 0.5 | 0

Northbound turning movements: 0 | 1.5 | 1 | 0.5

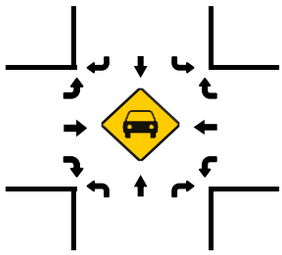
Dr Guevara Way/Medical Center Rd — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	492	0	544	29	91	NOON
AM	0	0	0	0	0	AM

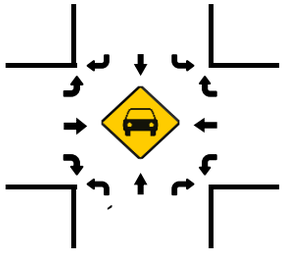
Total Vehicles (AM)



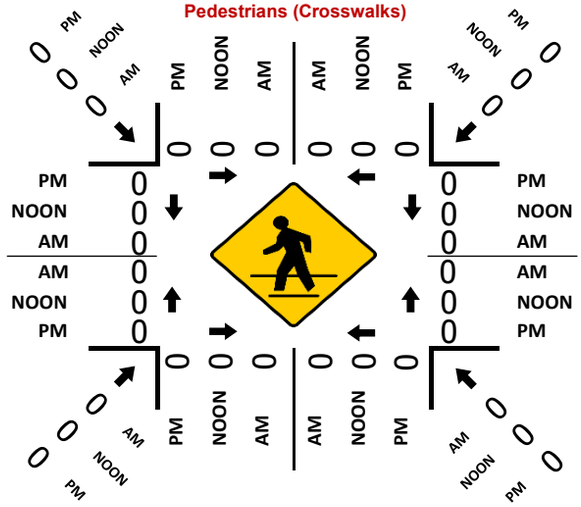
Total Vehicles (NOON)



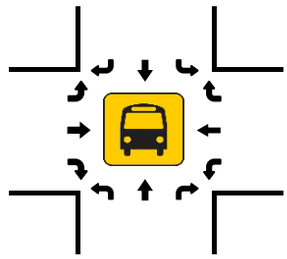
Total Vehicles (PM)



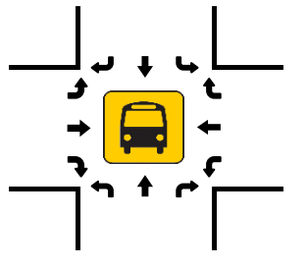
Pedestrians (Crosswalks)



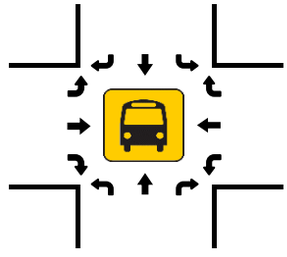
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Los Altos & Crown Valley Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-004
Date: 2019-09-17

Total

NS/EW Streets:	Los Altos				Los Altos				Crown Valley Pkwy				Crown Valley Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	0.5	0.5	1	0	1	4	0	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	39	4	20	0	11	2	39	0	21	250	28	7	13	334	14	1	783
11:15 AM	30	1	15	0	19	2	30	0	23	309	24	4	5	286	17	3	768
11:30 AM	21	1	16	0	27	3	31	0	33	336	15	15	6	333	23	4	864
11:45 AM	36	0	12	0	12	1	33	1	11	335	9	13	11	305	21	3	803
12:00 PM	40	2	17	0	24	2	43	0	27	323	12	13	8	302	15	5	833
12:15 PM	40	5	19	0	20	2	33	0	17	359	13	20	9	278	17	4	836
12:30 PM	28	0	7	0	32	1	30	0	17	309	12	7	8	307	13	3	774
12:45 PM	21	2	11	0	15	2	21	0	20	351	19	5	16	351	19	12	865
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	255	15	117	0	160	15	260	1	169	2572	132	84	76	2496	139	35	6526
APPROACH %'s :	65.89%	3.88%	30.23%	0.00%	36.70%	3.44%	59.63%	0.23%	5.72%	86.98%	4.46%	2.84%	2.77%	90.90%	5.06%	1.27%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	137	8	64	0	83	8	140	1	88	1353	49	61	34	1218	76	16	3336
PEAK HR FACTOR :	0.856	0.400	0.842	0.000	0.769	0.667	0.814	0.250	0.667	0.942	0.817	0.763	0.773	0.914	0.826	0.800	0.965
	0.816				0.841				0.948				0.918				

Prepared by National Data & Surveying Services

Los Altos & Crown Valley Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-004
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NOON	PM
NONE	11:30 AM - 12:30 PM	NONE

COUNT PERIODS

AM	NOON	PM
NONE	11:00 AM - 01:00 PM	NONE

Los Altos — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	140	8	83	1	173	NOON
PM	0	0	0	0	0	PM

Crown Valley Pkwy — EASTBOUND

AM	NOON	PM	
0	1556	0	
0	61	0	0
0	88	0	1
0	1353	0	4
0	49	0	0
AM	NOON	PM	

Crown Valley Pkwy — WESTBOUND

PM	NOON	AM	
0	76	0	0
0	1218	0	4
0	34	0	1
0	16	0	0
0	1516	0	
PM	NOON	AM	

Los Altos — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	91	0	137	8	64	NOON
AM	0	0	0	0	0	AM

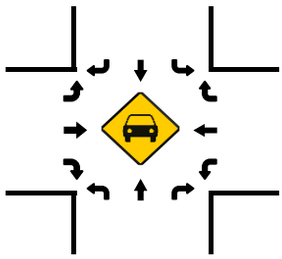
CONTROL: Signalized

	AM	NOON	PM
TEV	0	3336	0
PHF		0.97	

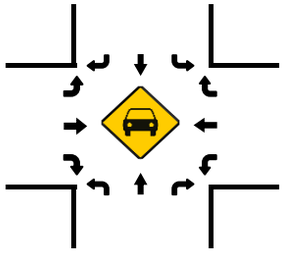
1 0.5 0.5 0

0 1.5 0.5 1

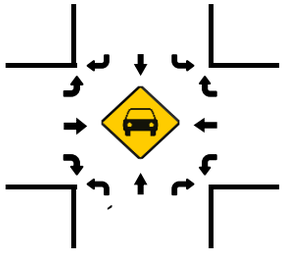
Total Vehicles (AM)



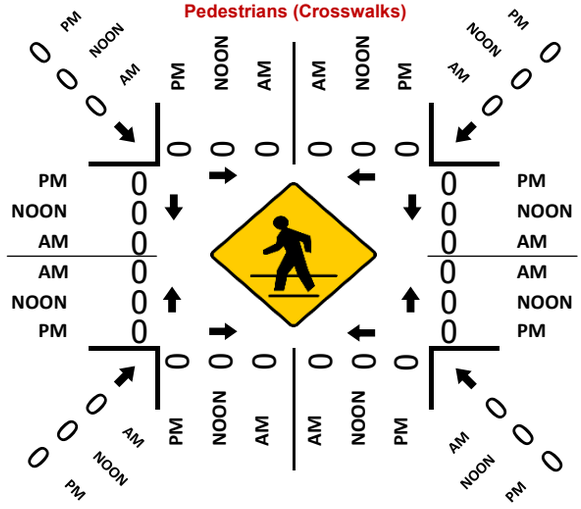
Total Vehicles (NOON)



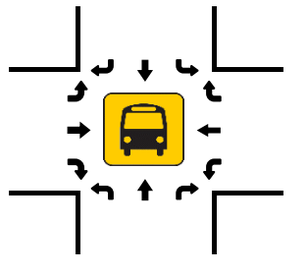
Total Vehicles (PM)



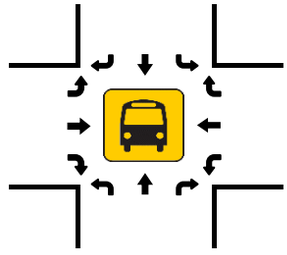
Pedestrians (Crosswalks)



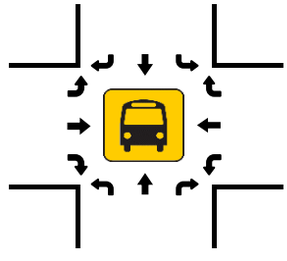
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Bellogente & Crown Valley Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-005
Date: 2019-09-17

Total

NS/EW Streets:	Bellogente				Bellogente				Crown Valley Pkwy				Crown Valley Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	1	1	0	0	1	4	0	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	4	0	1	0	12	0	21	0	15	291	5	5	0	320	14	2	690
11:15 AM	3	0	1	0	14	0	23	0	16	335	3	5	0	290	7	1	698
11:30 AM	3	0	1	0	11	0	18	0	15	356	2	4	1	323	13	5	752
11:45 AM	2	1	0	0	11	1	23	0	18	329	2	5	0	336	14	1	743
12:00 PM	4	1	1	0	20	0	26	0	13	367	4	8	2	277	9	2	734
12:15 PM	2	0	2	0	18	1	23	0	9	353	4	5	0	268	16	3	704
12:30 PM	2	1	2	0	21	0	18	0	5	321	1	6	2	308	21	1	709
12:45 PM	2	0	0	0	18	0	15	0	12	339	6	6	1	378	23	1	801
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	22	3	8	0	125	2	167	0	103	2691	27	44	6	2500	117	16	5831
APPROACH %'s :	66.67%	9.09%	24.24%	0.00%	42.52%	0.68%	56.80%	0.00%	3.60%	93.93%	0.94%	1.54%	0.23%	94.73%	4.43%	0.61%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	10	2	5	0	77	1	82	0	39	1380	15	25	5	1231	69	7	2948
PEAK HR FACTOR :	0.625	0.500	0.625	0.000	0.917	0.250	0.788	0.000	0.750	0.940	0.625	0.781	0.625	0.814	0.750	0.583	0.920
	0.708				0.870				0.930				0.814				

Prepared by National Data & Surveying Services

Bellogente & Crown Valley Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-005
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM: NONE
NOON: 12:00 PM - 01:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

SOUTHBOUND — Bellogente

AM	0	0	0	0	0	AM
NOON	82	1	77	0	110	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Crown Valley Pkwy

AM	NOON	PM	
0	1348	0	
0	25	0	0
0	39	0	1
0	1380	0	4
0	15	0	0
AM	NOON	PM	

WESTBOUND — Crown Valley Pkwy

PM	NOON	AM	
0	69	0	0
0	1231	0	4
0	5	0	1
0	7	0	0
0	1469	0	
PM	NOON	AM	

NORTHBOUND — Bellogente

PM	0	0	0	0	0	PM
NOON	21	0	10	2	5	NOON
AM	0	0	0	0	0	AM

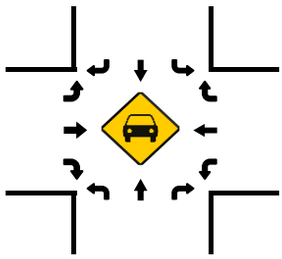
0 1 1 0

CONTROL

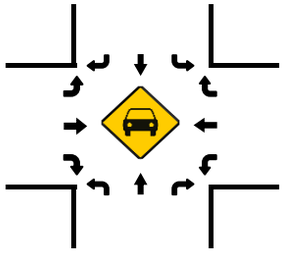
Signalized

	AM	NOON	PM
TEV	0	2948	0
PHF		0.92	

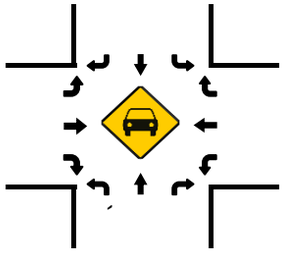
Total Vehicles (AM)



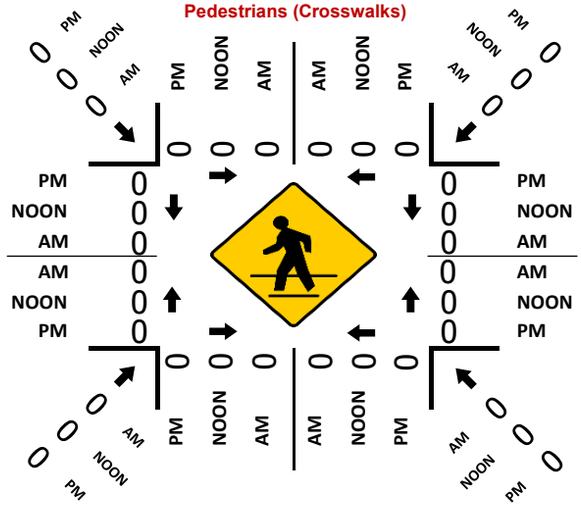
Total Vehicles (NOON)



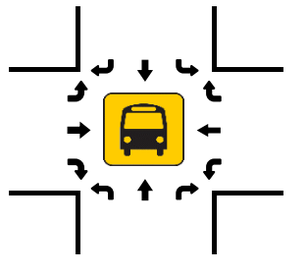
Total Vehicles (PM)



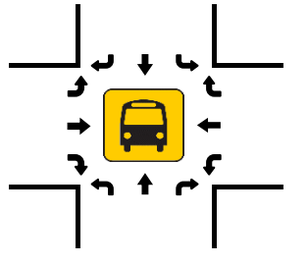
Pedestrians (Crosswalks)



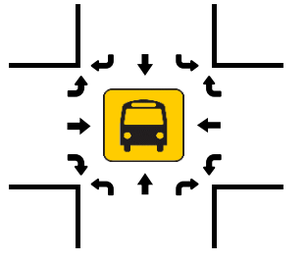
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Marguerite Pkwy & Crown Valley Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-006
Date: 2019-09-17

Total

NS/EW Streets:	Marguerite Pkwy				Marguerite Pkwy				Crown Valley Pkwy				Crown Valley Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	1	0	2	2	1	0	2	4	1	0	2	4	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	48	106	66	1	53	81	64	7	62	193	42	2	67	196	58	5	1051
11:15 AM	42	99	91	0	63	152	82	5	95	217	39	3	93	186	74	5	1246
11:30 AM	33	140	93	2	70	177	76	4	62	252	60	1	100	235	60	3	1368
11:45 AM	47	199	99	0	82	181	78	4	81	201	49	1	130	206	41	9	1408
12:00 PM	39	127	122	1	81	136	56	6	86	274	45	1	96	174	36	8	1288
12:15 PM	56	177	124	1	65	142	77	6	80	237	45	0	90	177	63	6	1346
12:30 PM	42	171	96	0	80	139	85	10	101	218	31	3	136	213	82	16	1423
12:45 PM	46	175	113	0	76	126	79	3	83	219	48	2	105	287	49	12	1423
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	353	1194	804	5	570	1134	597	45	650	1811	359	13	817	1674	463	64	10553
APPROACH %'s :	14.98%	50.68%	34.13%	0.21%	24.30%	48.34%	25.45%	1.92%	22.94%	63.93%	12.67%	0.46%	27.07%	55.47%	15.34%	2.12%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	183	650	455	2	302	543	297	25	350	948	169	6	427	851	230	42	5480
PEAK HR FACTOR :	0.817	0.918	0.917	0.500	0.932	0.956	0.874	0.625	0.866	0.865	0.880	0.500	0.785	0.741	0.701	0.656	0.963
	0.901				0.929				0.907				0.855				

Prepared by National Data & Surveying Services

Marguerite Pkwy & Crown Valley Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-006
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

Marguerite Pkwy

SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	AM
NOON	12:00 PM - 01:00 PM	NOON
PM	NONE	PM

AM	0	0	0	0	0	AM
NOON	297	543	302	25	1255	NOON
PM	0	0	0	0	0	PM
	1	2	2	0		

Crown Valley Pkwy — **EASTBOUND**

AM	NOON	PM	
0	1337	0	
0	6	0	0
0	350	0	2
0	948	0	4
0	169	0	1
AM	NOON	PM	

CONTROL

Signalized

	AM	NOON	PM
TEV	0	5480	0
PHF		0.96	

WESTBOUND — **Crown Valley Pkwy**

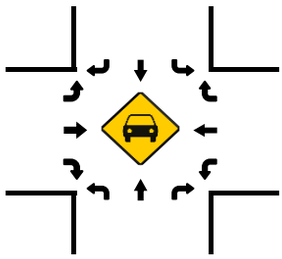
PM	NOON	AM	
0	230	0	1
0	851	0	4
0	427	0	2
0	42	0	0
0	1747	0	
PM	NOON	AM	

	0	2	2	1		
PM	0	0	0	0	0	PM
NOON	1141	2	183	650	455	NOON
AM	0	0	0	0	0	AM

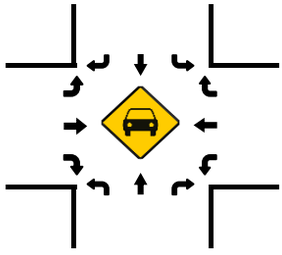
NORTHBOUND

Marguerite Pkwy

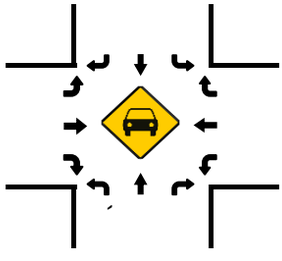
Total Vehicles (AM)



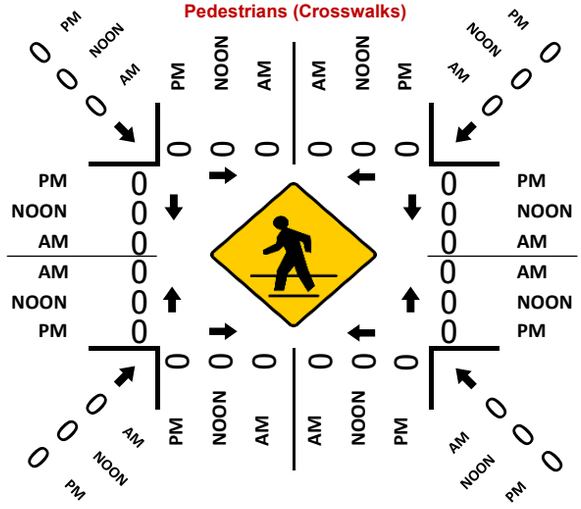
Total Vehicles (NOON)



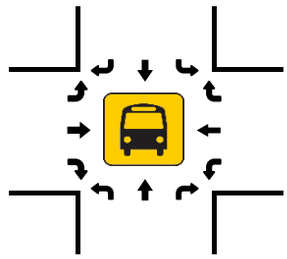
Total Vehicles (PM)



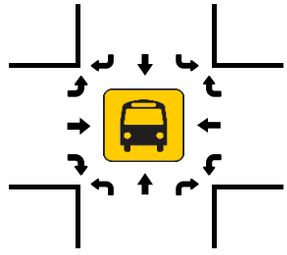
Pedestrians (Crosswalks)



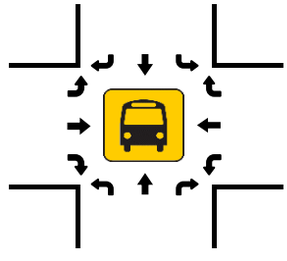
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Marguerite Pkwy & La Mancha/Felipe Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-007
Date: 2019-09-17

Total

NS/EW Streets:	Marguerite Pkwy				Marguerite Pkwy				La Mancha/Felipe Rd				La Mancha/Felipe Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	1	1	0	0	1.5	0.5	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	3	137	52	1	18	164	6	1	11	3	4	0	52	3	32	0	487
11:15 AM	1	189	54	0	29	188	3	7	5	1	5	0	68	8	31	0	589
11:30 AM	4	171	85	0	30	190	4	1	14	7	4	0	75	5	27	0	617
11:45 AM	3	219	94	0	29	253	8	0	7	3	5	0	120	5	29	0	775
12:00 PM	2	175	110	0	25	183	9	0	12	4	9	0	70	7	23	0	629
12:15 PM	1	191	66	0	21	186	4	2	11	6	3	0	104	3	20	0	618
12:30 PM	5	207	113	1	33	211	4	1	14	4	1	0	61	3	23	0	681
12:45 PM	7	203	103	1	23	237	5	0	9	8	3	0	89	3	28	0	719
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	26	1492	677	3	208	1612	43	12	83	36	34	0	639	37	213	0	5115
APPROACH %'s :	1.18%	67.88%	30.80%	0.14%	11.09%	85.97%	2.29%	0.64%	54.25%	23.53%	22.22%	0.00%	71.88%	4.16%	23.96%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	11	792	383	1	108	833	25	3	44	17	18	0	355	18	95	0	2703
PEAK HR FACTOR :	0.550	0.904	0.847	0.250	0.818	0.823	0.694	0.375	0.786	0.708	0.500	0.000	0.740	0.643	0.819	0.000	0.872
	0.910				0.835				0.790				0.760				

Prepared by National Data & Surveying Services

Marguerite Pkwy & La Mancha/Felipe Rd

Peak Hour Turning Movement Count

ID: 19-01187-007
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Marguerite Pkwy — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	25	833	108	3	934	NOON
PM	0	0	0	0	0	PM

La Mancha/Felipe Rd — EASTBOUND

AM	NOON	PM		
0	54	0	⇦	
0	0	0	↰	0
0	44	0	↑	1
0	17	0	→	1
0	18	0	↱	0
AM	NOON	PM		

La Mancha/Felipe Rd — WESTBOUND

PM	NOON	AM		
0	95	0	↰	1
0	18	0	←	0.5
0	355	0	↰	1.5
0	0	0	↰	0
0	508	0	⇨	
PM	NOON	AM		

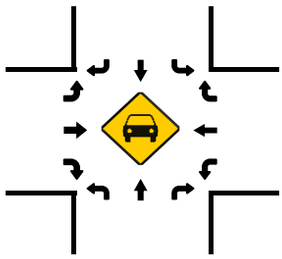
Marguerite Pkwy — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	1207	1	11	792	383	NOON
AM	0	0	0	0	0	AM

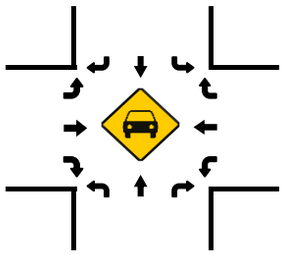
0	1	2	1	
↰	↰	↑	↱	⇩

CONTROL			
Signalized			
TEV	0 AM	2703 NOON	0 PM
PHF		0.87	

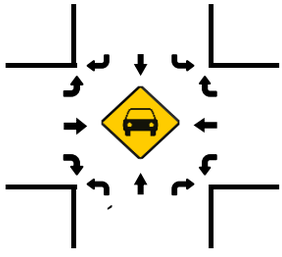
Total Vehicles (AM)



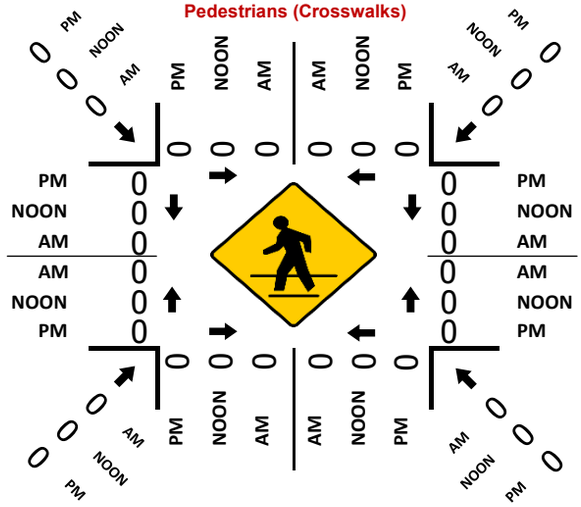
Total Vehicles (NOON)



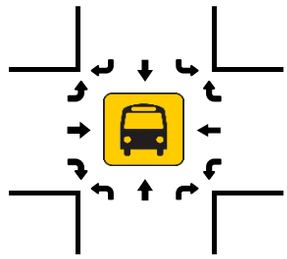
Total Vehicles (PM)



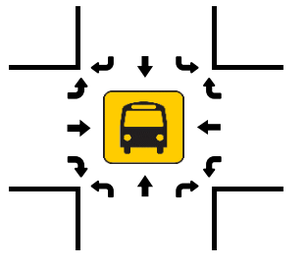
Pedestrians (Crosswalks)



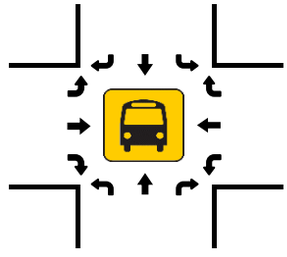
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: El Retiro & Felipe Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-008
Date: 2019-09-17

Total

NS/EW Streets:	El Retiro				El Retiro				Felipe Rd				Felipe Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	1	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	17	1	1	0	0	0	8	0	3	61	8	0	5	61	1	0	166
11:15 AM	12	2	8	0	0	1	0	0	5	65	21	0	3	108	0	0	225
11:30 AM	18	0	5	0	4	2	4	0	3	103	12	0	3	95	2	0	251
11:45 AM	4	0	5	0	0	1	6	0	6	128	9	0	5	112	1	0	277
12:00 PM	12	1	3	0	0	0	4	0	3	104	14	0	2	94	0	0	237
12:15 PM	10	1	6	0	1	0	11	0	4	96	9	0	4	86	2	0	230
12:30 PM	9	0	5	0	1	1	5	0	7	120	12	0	3	82	1	0	246
12:45 PM	11	2	5	0	1	1	4	0	7	116	11	0	6	90	0	0	254
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	93	7	38	0	7	6	42	0	38	793	96	0	31	728	7	0	1886
APPROACH %'s :	67.39%	5.07%	27.54%	0.00%	12.73%	10.91%	76.36%	0.00%	4.10%	85.54%	10.36%	0.00%	4.05%	95.04%	0.91%	0.00%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	44	2	19	0	5	3	25	0	16	431	44	0	14	387	5	0	995
PEAK HR FACTOR :	0.611	0.500	0.792	0.000	0.313	0.375	0.568	0.000	0.667	0.842	0.786	0.000	0.700	0.864	0.625	0.000	0.898
	0.707				0.688				0.858				0.860				

Prepared by National Data & Surveying Services

El Retiro & Felipe Rd

Peak Hour Turning Movement Count

ID: 19-01187-008
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

SOUTHBOUND — El Retiro

	Left	Thru	Right	U-Turn	Peds	
AM	0	0	0	0	0	AM
NOON	25	3	5	0	23	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Felipe Rd

AM	NOON	PM	
0	456	0	⇦
0	0	0	0 ↶
0	16	0	1 ↱
0	431	0	2 →
0	44	0	0 ↷
AM	NOON	PM	

WESTBOUND — Felipe Rd

PM	NOON	AM	
0	5	0	0 ↶
0	387	0	2 ←
0	14	0	1 ↰
0	0	0	0 ↷
0	455	0	⇨
PM	NOON	AM	

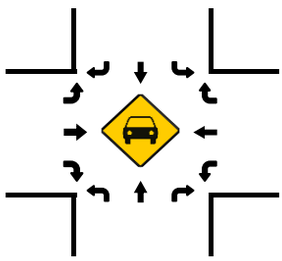
NORTHBOUND — El Retiro

	Peds	U-Turn	Right	Thru	Left	
PM	0	0	0	0	0	PM
NOON	61	0	44	2	19	NOON
AM	0	0	0	0	0	AM

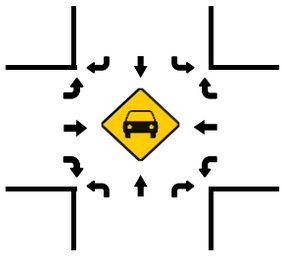
CONTROL: Signalized

	AM	NOON	PM
TEV	0	995	0
PHF		0.90	

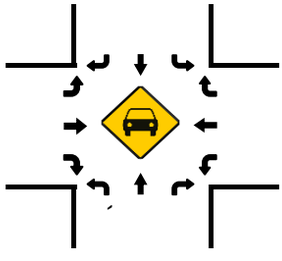
Total Vehicles (AM)



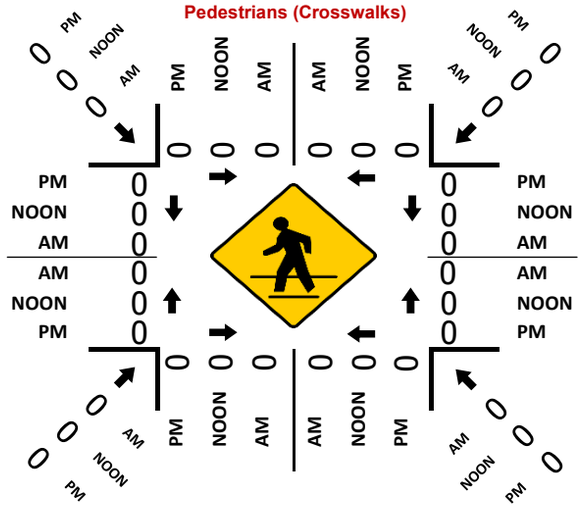
Total Vehicles (NOON)



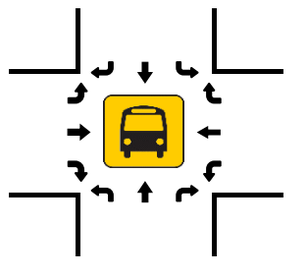
Total Vehicles (PM)



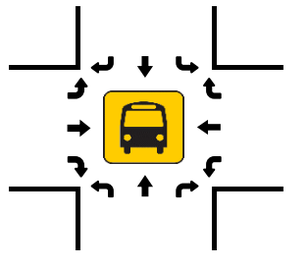
Pedestrians (Crosswalks)



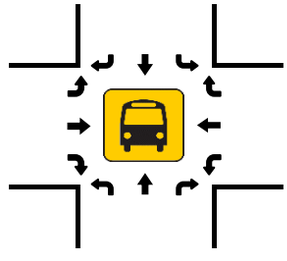
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Felipe Rd & Camden
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-009
Date: 2019-09-17

Total

NS/EW Streets:	Felipe Rd				Felipe Rd				Camden				Camden				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	1	2	0	0	0	0	0	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	47	9	0	2	49	0	0	0	0	0	0	9	0	1	0	117
11:15 AM	0	52	16	0	0	89	0	0	0	0	0	0	18	0	2	0	177
11:30 AM	0	103	13	0	2	85	0	0	0	0	0	0	9	0	2	0	214
11:45 AM	0	95	12	0	2	96	0	0	0	0	0	0	9	0	6	0	220
12:00 PM	0	100	13	0	3	80	0	0	0	0	0	0	15	0	1	0	212
12:15 PM	0	67	11	0	0	78	0	0	0	0	0	0	13	0	2	0	171
12:30 PM	0	113	10	0	3	64	0	0	0	0	0	0	15	0	0	0	205
12:45 PM	0	107	14	0	2	70	0	0	0	0	0	0	16	0	2	0	211
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	684	98	0	14	611	0	0	0	0	0	0	104	0	16	0	1527
APPROACH %'s :	0.00%	87.47%	12.53%	0.00%	2.24%	97.76%	0.00%	0.00%					86.67%	0.00%	13.33%	0.00%	
PEAK HR :	11:15 AM - 12:15 PM																TOTAL
PEAK HR VOL :	0	350	54	0	7	350	0	0	0	0	0	0	51	0	11	0	823
PEAK HR FACTOR :	0.000	0.850	0.844	0.000	0.583	0.911	0.000	0.000	0.000	0.000	0.000	0.000	0.708	0.000	0.458	0.000	0.935
	0.871				0.911								0.775				

Prepared by National Data & Surveying Services

Felipe Rd & Camden

Peak Hour Turning Movement Count

ID: 19-01187-009
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:15 AM - 12:15 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Felipe Rd

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	350	7	0	361	NOON
PM	0	0	0	0	0	PM

0 2 1 0

EASTBOUND (Camden)

AM	NOON	PM	
0	0	0	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
AM	NOON	PM	

WESTBOUND (Camden)

PM	NOON	AM	
0	11	0	1
0	0	0	0
0	51	0	1
0	0	0	0
0	61	0	
PM	NOON	AM	

CONTROL

Signalized

	AM	NOON	PM
TEV	0	823	0
PHF		0.94	

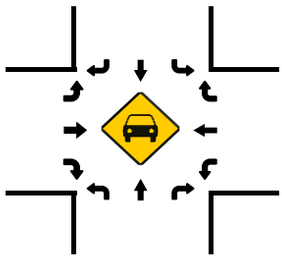
0 0 2 0

PM	0	0	0	0	0	PM
NOON	401	0	0	350	54	NOON
AM	0	0	0	0	0	AM

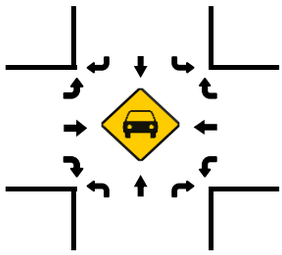
NORTHBOUND

Felipe Rd

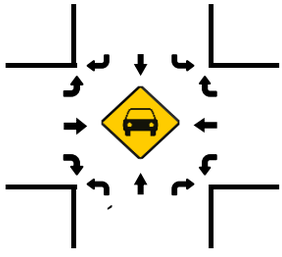
Total Vehicles (AM)



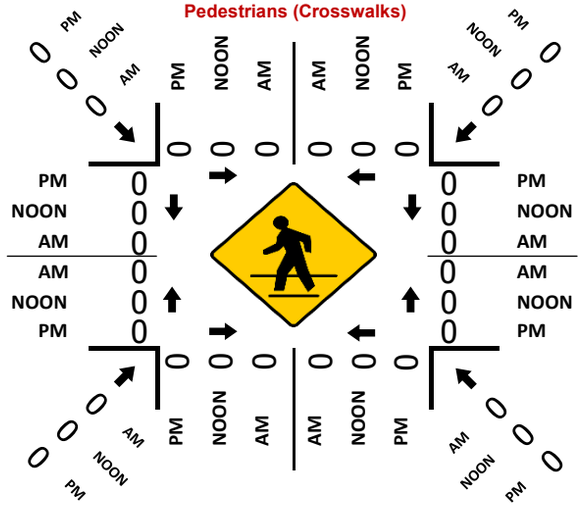
Total Vehicles (NOON)



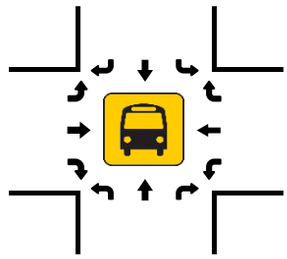
Total Vehicles (PM)



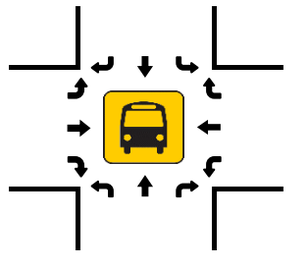
Pedestrians (Crosswalks)



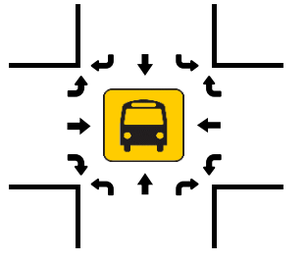
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Felipe Rd & Barbadanes
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-010
Date: 2019-09-17

Total

NS/EW Streets:	Felipe Rd				Felipe Rd				Barbadanes				Barbadanes				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	1	0	1	0	1	0	1	0	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	1	32	13	0	4	30	2	0	1	0	5	0	11	0	3	0	102
11:15 AM	2	36	20	0	8	79	1	0	1	0	3	0	15	1	4	0	170
11:30 AM	5	73	24	0	5	58	2	0	1	0	12	0	14	0	6	0	200
11:45 AM	6	89	17	0	2	74	3	0	3	1	8	0	22	0	2	0	227
12:00 PM	4	66	17	0	4	53	4	0	3	0	6	0	15	0	0	0	172
12:15 PM	8	58	12	0	9	59	1	0	1	1	4	0	15	1	5	0	174
12:30 PM	6	86	20	0	9	53	4	0	3	0	1	0	14	1	5	0	202
12:45 PM	6	88	15	0	4	53	2	0	3	1	9	0	17	1	4	0	203
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	38	528	138	0	45	459	19	0	16	3	48	0	123	4	29	0	1450
APPROACH %'s :	5.40%	75.00%	19.60%	0.00%	8.60%	87.76%	3.63%	0.00%	23.88%	4.48%	71.64%	0.00%	78.85%	2.56%	18.59%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	24	299	66	0	24	239	12	0	10	2	19	0	66	2	12	0	775
PEAK HR FACTOR :	0.750	0.840	0.825	0.000	0.667	0.807	0.750	0.000	0.833	0.500	0.594	0.000	0.750	0.500	0.600	0.000	0.854
	0.868				0.870				0.646				0.833				

Prepared by National Data & Surveying Services

Felipe Rd & Barbadanes

Peak Hour Turning Movement Count

ID: 19-01187-010
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Felipe Rd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	12	239	24	0	321	NOON
PM	0	0	0	0	0	PM
	1	2	1	0		

Barbadanes — EASTBOUND

AM	NOON	PM	
0	38	0	
0	0	0	0
0	10	0	1
0	2	0	0
0	19	0	1
AM	NOON	PM	

CONTROL

Signalized

	AM	NOON	PM
TEV	0	775	0
PHF		0.85	

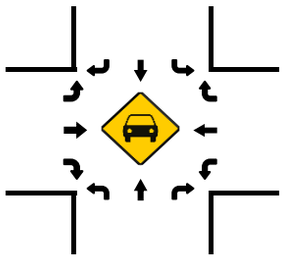
WESTBOUND — Barbadanes

PM	NOON	AM	
0	12	0	1
0	2	0	0
0	66	0	1
0	0	0	0
0	92	0	
PM	NOON	AM	

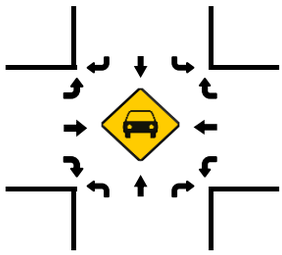
Felipe Rd — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	324	0	24	299	66	NOON
AM	0	0	0	0	0	AM
		0	1	2	0	

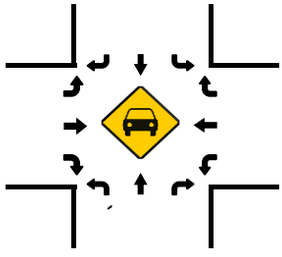
Total Vehicles (AM)



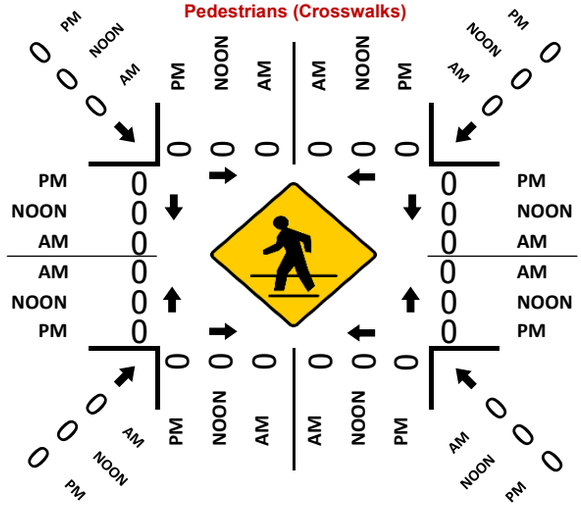
Total Vehicles (NOON)



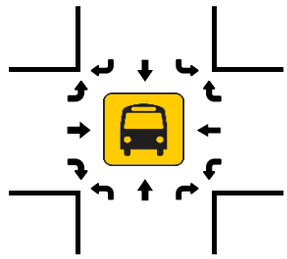
Total Vehicles (PM)



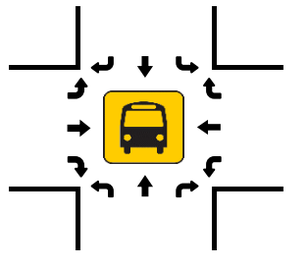
Pedestrians (Crosswalks)



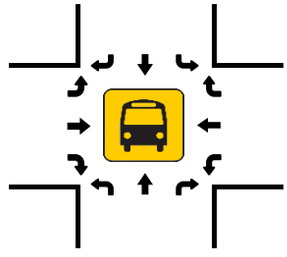
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Felipe Rd & Buscador/Athens Ct
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-011
Date: 2019-09-17

Total

NS/EW Streets:	Felipe Rd				Felipe Rd				Buscador/Athens Ct				Buscador/Athens Ct				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	1	2	0	0	0	1	1	0	0	1	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	32	3	0	8	47	3	0	1	0	1	0	3	0	14	0	112
11:15 AM	2	42	3	0	10	67	2	0	1	1	1	0	8	1	12	0	150
11:30 AM	0	74	5	0	9	55	5	0	2	0	2	0	4	2	10	0	168
11:45 AM	2	80	11	0	8	67	0	0	2	0	1	0	8	1	6	0	186
12:00 PM	3	59	8	0	6	58	0	0	2	0	3	0	11	0	12	0	162
12:15 PM	0	60	7	0	9	47	2	0	1	0	3	0	7	0	8	0	144
12:30 PM	3	76	16	0	5	57	3	0	3	2	3	0	11	1	4	0	184
12:45 PM	2	80	9	1	9	55	3	0	0	0	0	0	8	1	10	0	178
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	12	503	62	1	64	453	18	0	12	3	14	0	60	6	76	0	1284
APPROACH %'s :	2.08%	87.02%	10.73%	0.17%	11.96%	84.67%	3.36%	0.00%	41.38%	10.34%	48.28%	0.00%	42.25%	4.23%	53.52%	0.00%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	8	275	42	0	28	229	5	0	8	2	10	0	37	2	30	0	676
PEAK HR FACTOR :	0.667	0.859	0.656	0.000	0.778	0.854	0.417	0.000	0.667	0.250	0.833	0.000	0.841	0.500	0.625	0.000	0.909
	0.855				0.873				0.625				0.750				

Prepared by National Data & Surveying Services

Felipe Rd & Buscador/Athens Ct

Peak Hour Turning Movement Count

ID: 19-01187-011
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:45 AM - 12:45 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Felipe Rd

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	5	229	28	0	313	NOON
PM	0	0	0	0	0	PM

0 2 1 0

EASTBOUND (Buscador/Athens Ct)

AM	NOON	PM	
0	15	0	
0	0	0	0
0	8	0	0
0	2	0	1
0	10	0	1

AM NOON PM

CONTROL

Signalized

	AM	NOON	PM
TEV	0	676	0
PHF		0.91	

WESTBOUND (Buscador/Athens Ct)

	PM	NOON	AM
1	0	30	0
1	0	2	0
0	0	37	0
0	0	0	0
	0	72	0

PM NOON AM

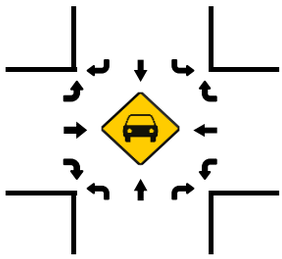
0 1 2 0

NORTHBOUND

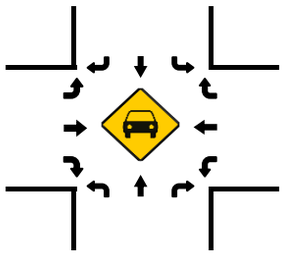
PM	0	0	0	0	0	PM
NOON	276	0	8	275	42	NOON
AM	0	0	0	0	0	AM

Felipe Rd

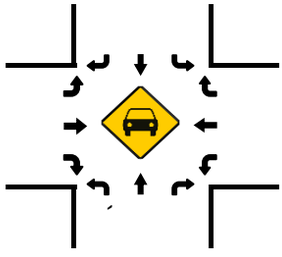
Total Vehicles (AM)



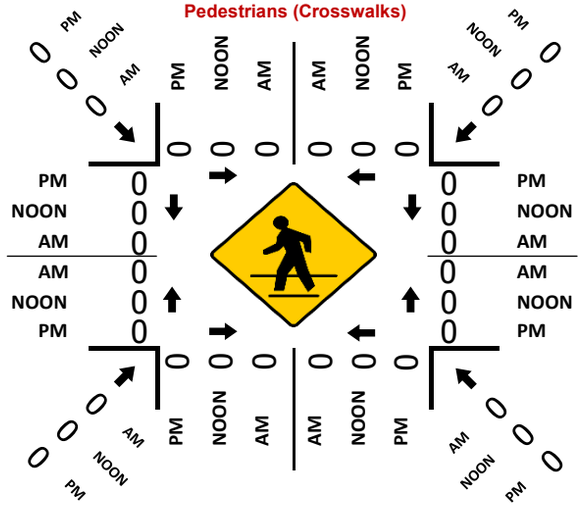
Total Vehicles (NOON)



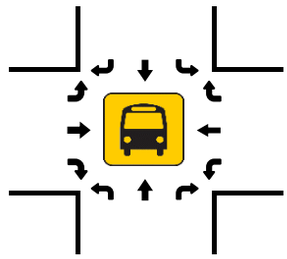
Total Vehicles (PM)



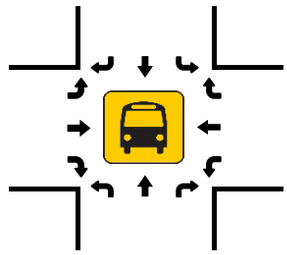
Pedestrians (Crosswalks)



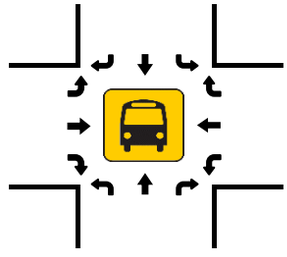
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Felipe Rd & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-012
Date: 2019-09-17

Total

NS/EW Streets:	Felipe Rd				Felipe Rd				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	1	0	1	2	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	14	30	8	0	40	26	49	0	36	189	13	0	11	242	39	0	697
11:15 AM	11	34	9	0	39	49	44	0	41	177	19	0	18	237	28	0	706
11:30 AM	15	49	16	0	39	38	45	0	34	181	14	0	15	239	40	0	725
11:45 AM	7	43	19	0	44	47	44	0	34	238	12	0	15	239	57	0	799
12:00 PM	13	53	20	0	49	50	45	0	40	197	13	0	8	227	46	0	761
12:15 PM	18	28	9	0	45	35	56	0	42	238	9	0	9	255	41	0	785
12:30 PM	14	64	17	0	44	37	36	0	47	217	19	0	8	214	53	0	770
12:45 PM	13	68	12	0	45	52	53	0	47	232	11	0	12	221	43	0	809
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	105	369	110	0	345	334	372	0	321	1669	110	0	96	1874	347	0	6052
APPROACH %'s :	17.98%	63.18%	18.84%	0.00%	32.83%	31.78%	35.39%	0.00%	15.29%	79.48%	5.24%	0.00%	4.14%	80.88%	14.98%	0.00%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	58	213	58	0	183	174	190	0	176	884	52	0	37	917	183	0	3125
PEAK HR FACTOR :	0.806	0.783	0.725	0.000	0.934	0.837	0.848	0.000	0.936	0.929	0.684	0.000	0.771	0.899	0.863	0.000	0.966
	0.866				0.912				0.959				0.932				

Prepared by National Data & Surveying Services

Felipe Rd & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-012
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	12:00 PM - 01:00 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Felipe Rd

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	190	174	183	0	572	NOON
PM	0	0	0	0	0	PM
	0	2	1	0		

EASTBOUND (Oso Pkwy)

AM	NOON	PM	
0	1165	0	
0	0	0	0
0	176	0	1
0	884	0	3
0	52	0	0
AM	NOON	PM	

CONTROL

Signalized

	AM	NOON	PM
TEV	0	3125	0
PHF		0.97	

WESTBOUND (Oso Pkwy)

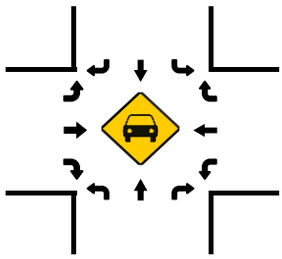
PM	NOON	AM	
0	183	0	0
0	917	0	3
0	37	0	1
0	0	0	0
0	1125	0	
PM	NOON	AM	

	0	1	2	1		
PM	0	0	0	0	0	PM
NOON	263	0	58	213	58	NOON
AM	0	0	0	0	0	AM

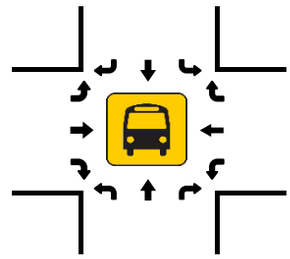
NORTHBOUND

Felipe Rd

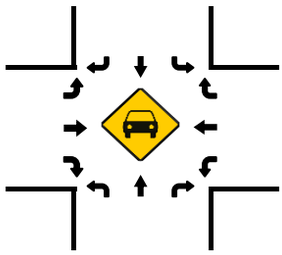
Total Vehicles (AM)



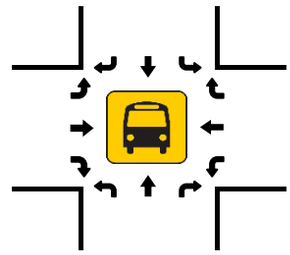
Total Vehicles (AM)



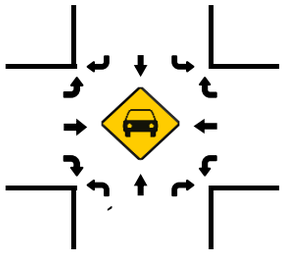
Total Vehicles (NOON)



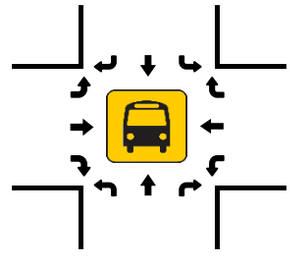
Total Vehicles (NOON)



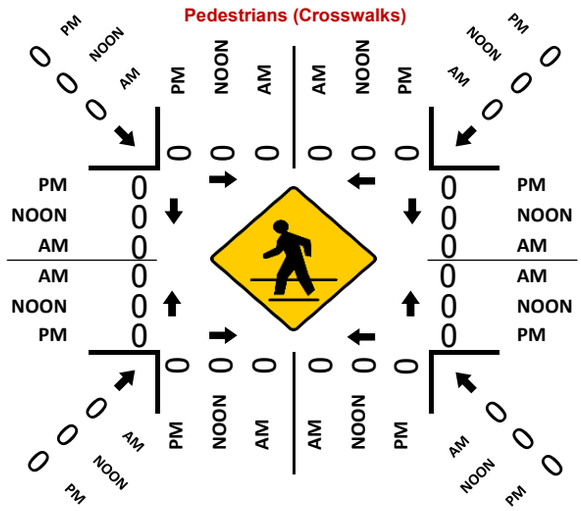
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Felipe Rd & E Fieldcrest Ln
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-013
Date: 2019-09-17

Total

NS/EW Streets:	Felipe Rd				Felipe Rd				E Fieldcrest Ln				E Fieldcrest Ln				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	8	82	0	0	0	103	5	0	9	0	6	0	0	0	0	0	213
11:15 AM	10	81	0	0	0	103	5	0	7	0	13	0	0	0	0	0	219
11:30 AM	12	120	0	0	0	116	2	0	8	0	9	0	0	0	0	0	267
11:45 AM	13	107	0	0	0	98	8	0	5	0	8	0	0	0	0	0	239
12:00 PM	7	106	0	0	0	109	7	0	2	0	21	0	0	0	0	0	252
12:15 PM	13	115	0	0	0	81	8	0	7	0	9	0	0	0	0	0	233
12:30 PM	9	112	0	1	0	92	9	0	7	0	9	0	0	0	0	0	239
12:45 PM	13	123	0	0	0	100	8	0	10	0	15	0	0	0	0	0	269
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	85	846	0	1	0	802	52	0	55	0	90	0	0	0	0	0	1931
APPROACH %'s :	9.12%	90.77%	0.00%	0.11%	0.00%	93.91%	6.09%	0.00%	37.93%	0.00%	62.07%	0.00%					
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	42	456	0	1	0	382	32	0	26	0	54	0	0	0	0	0	993
PEAK HR FACTOR :	0.808	0.927	0.000	0.250	0.000	0.876	0.889	0.000	0.650	0.000	0.643	0.000	0.000	0.000	0.000	0.000	0.923
	0.917				0.892				0.800								

Prepared by National Data & Surveying Services

Felipe Rd & E Fieldcrest Ln

Peak Hour Turning Movement Count

ID: 19-01187-013
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM: NONE
NOON: 12:00 PM - 01:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

Felipe Rd — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	32	382	0	0	482	NOON
PM	0	0	0	0	0	PM

E Fieldcrest Ln — EASTBOUND

AM	NOON	PM	
0	74	0	⇦
0	0	0	↰ 0
0	26	0	↑ 1
0	0	0	→ 0
0	54	0	↱ 1
AM	NOON	PM	

E Fieldcrest Ln — WESTBOUND

PM	NOON	AM	
0	0	0	↰ 0
0	0	0	← 0
0	0	0	↰ 0
0	0	0	↰ 0
0	0	0	⇨
PM	NOON	AM	

CONTROL: Signalized

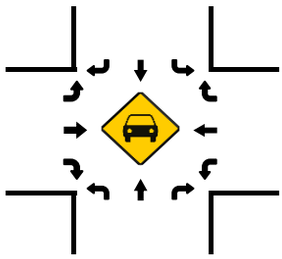
	AM	NOON	PM
TEV	0	993	0
PHF		0.92	

Felipe Rd — NORTHBOUND

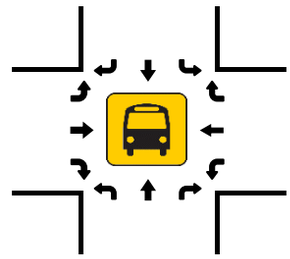
PM	0	0	0	0	0	PM
NOON	437	1	42	456	0	NOON
AM	0	0	0	0	0	AM

Turning movement totals: 0 (↰) 2 (↓) 0 (↱) 0 (↱) | 0 (↑) | 0 (↰) 1 (↑) 2 (↑) 0 (↱)

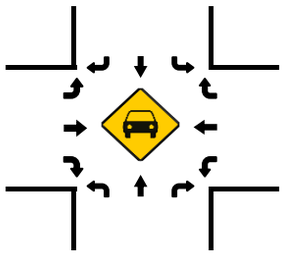
Total Vehicles (AM)



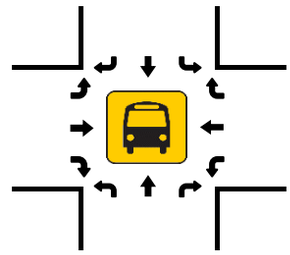
Total Vehicles (AM)



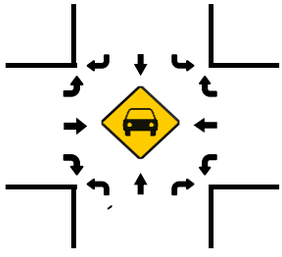
Total Vehicles (NOON)



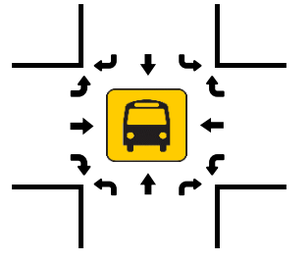
Total Vehicles (NOON)



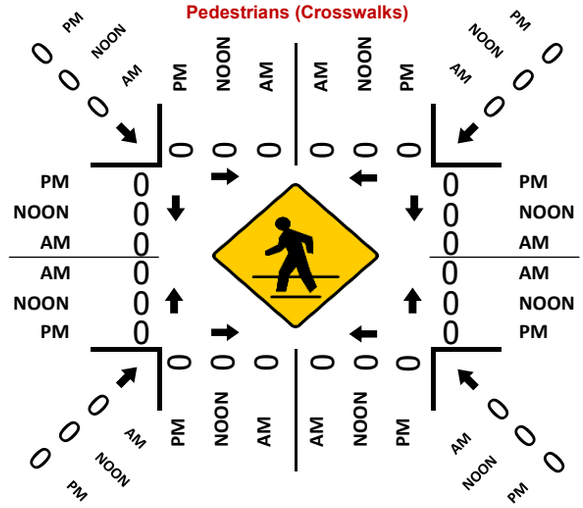
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Montanoso Dr & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-014
Date: 2019-09-17

Total

NS/EW Streets:	Montanoso Dr				Montanoso Dr				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	1	0	1	0	1	4	1	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	3	0	4	1	5	0	28	0	14	306	5	10	0	406	11	1	794
11:15 AM	6	0	3	0	5	0	26	0	18	349	2	8	1	431	6	0	855
11:30 AM	5	0	3	0	4	0	24	0	22	338	3	12	1	401	11	1	825
11:45 AM	1	0	2	0	12	0	31	0	21	382	1	12	1	456	14	1	934
12:00 PM	2	0	0	0	10	0	24	0	23	346	5	11	2	404	6	0	833
12:15 PM	0	0	2	0	9	0	27	0	20	379	2	8	0	367	7	0	821
12:30 PM	2	0	2	0	11	0	37	0	29	379	5	8	1	348	7	1	830
12:45 PM	4	0	2	0	9	0	24	0	16	408	2	4	1	421	10	0	901
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	23	0	18	1	65	0	221	0	163	2887	25	73	7	3234	72	4	6793
APPROACH %'s :	54.76%	0.00%	42.86%	2.38%	22.73%	0.00%	77.27%	0.00%	5.18%	91.71%	0.79%	2.32%	0.21%	97.50%	2.17%	0.12%	
PEAK HR :	11:15 AM - 12:15 PM																TOTAL
PEAK HR VOL :	14	0	8	0	31	0	105	0	84	1415	11	43	5	1692	37	2	3447
PEAK HR FACTOR :	0.583	0.000	0.667	0.000	0.646	0.000	0.847	0.000	0.913	0.926	0.550	0.896	0.625	0.928	0.661	0.500	0.923
	0.611				0.791				0.933				0.919				

Prepared by National Data & Surveying Services

Montanoso Dr & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-014
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NOON	PM
NONE	11:15 AM - 12:15 PM	NONE

COUNT PERIODS

AM	NOON	PM
NONE	11:00 AM - 01:00 PM	NONE

Montanoso Dr — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	105	0	31	0	121	NOON
PM	0	0	0	0	0	PM

Oso Pkwy — EASTBOUND

AM	NOON	PM	
0	1854	0	
0	43	0	0
0	84	0	1
0	1415	0	4
0	11	0	1
AM	NOON	PM	

Oso Pkwy — WESTBOUND

PM	NOON	AM	
0	37	0	0
0	1692	0	4
0	5	0	1
0	2	0	0
0	1456	0	
PM	NOON	AM	

Montanoso Dr — NORTHBOUND

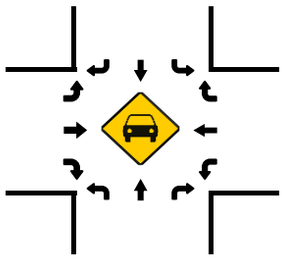
PM	0	0	0	0	0	PM
NOON	16	0	14	0	8	NOON
AM	0	0	0	0	0	AM

1	0	1	0
0	1	0	1

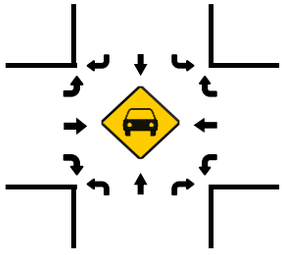
CONTROL: Signalized

	AM	NOON	PM
TEV	0	3447	0
PHF		0.92	

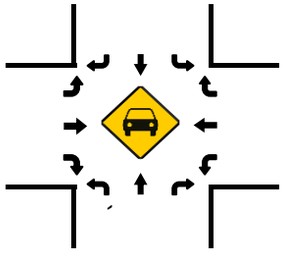
Total Vehicles (AM)



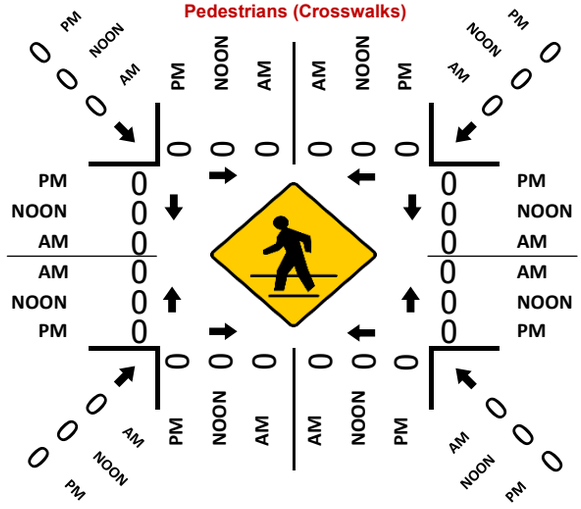
Total Vehicles (NOON)



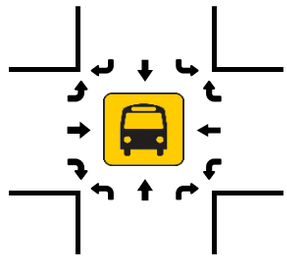
Total Vehicles (PM)



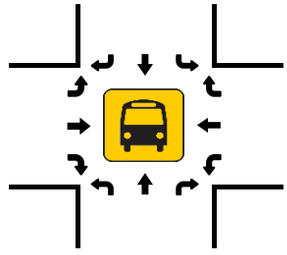
Pedestrians (Crosswalks)



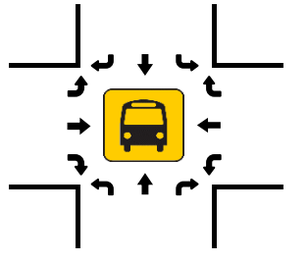
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Country Club Dr & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-015
Date: 2019-09-17

Total

NS/EW Streets:	Country Club Dr				Country Club Dr				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	0	0	0	0	0	4	0	0	1	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	37	0	17	0	0	0	0	0	0	288	20	0	10	379	0	3	754
11:15 AM	22	0	8	0	0	0	0	0	0	345	16	0	7	401	0	3	802
11:30 AM	32	0	13	0	0	0	0	0	0	350	14	0	7	392	0	10	818
11:45 AM	14	0	11	0	0	0	0	0	0	370	16	0	9	461	0	5	886
12:00 PM	23	0	7	0	0	0	0	0	0	353	15	0	10	375	0	0	783
12:15 PM	23	0	6	0	0	0	0	0	0	382	15	0	13	361	0	1	801
12:30 PM	25	0	12	0	0	0	0	0	0	364	23	0	8	340	0	2	774
12:45 PM	18	0	7	0	0	0	0	0	0	388	22	0	8	401	0	3	847
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	194	0	81	0	0	0	0	0	0	2840	141	0	72	3110	0	27	6465
APPROACH %'s :	70.55%	0.00%	29.45%	0.00%					0.00%	95.27%	4.73%	0.00%	2.24%	96.91%	0.00%	0.84%	
PEAK HR :	11:15 AM - 12:15 PM																TOTAL
PEAK HR VOL :	91	0	39	0	0	0	0	0	0	1418	61	0	33	1629	0	18	3289
PEAK HR FACTOR :	0.711	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.958	0.953	0.000	0.825	0.883	0.000	0.450	0.928
	0.722								0.958				0.884				

Prepared by National Data & Surveying Services

Country Club Dr & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-015
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

Country Club Dr — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	AM
NOON	11:15 AM - 12:15 PM	NOON
PM	NONE	PM

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM
	0	0	0	0		

Oso Pkwy — EASTBOUND

AM	NOON	PM	
0	1720	0	⇦
0	0	0	0
0	0	0	0
0	1418	0	4
0	61	0	0
AM	NOON	PM	

CONTROL

Signalized

	AM	NOON	PM
TEV	0	3289	0
PHF		0.93	

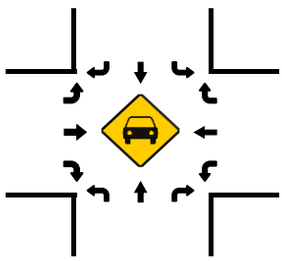
WESTBOUND — Oso Pkwy

PM	NOON	AM	
0	0	0	0
0	1629	0	4
0	33	0	1
0	18	0	0
0	1475	0	⇨
PM	NOON	AM	

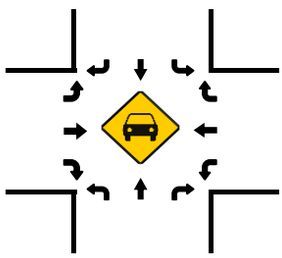
Country Club Dr — NORTHBOUND

	0	1	0	1		
PM	0	0	0	0	0	PM
NOON	94	0	91	0	39	NOON
AM	0	0	0	0	0	AM

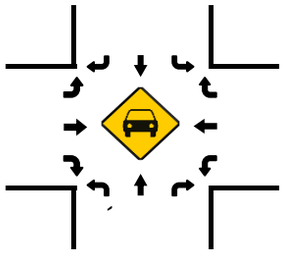
Total Vehicles (AM)



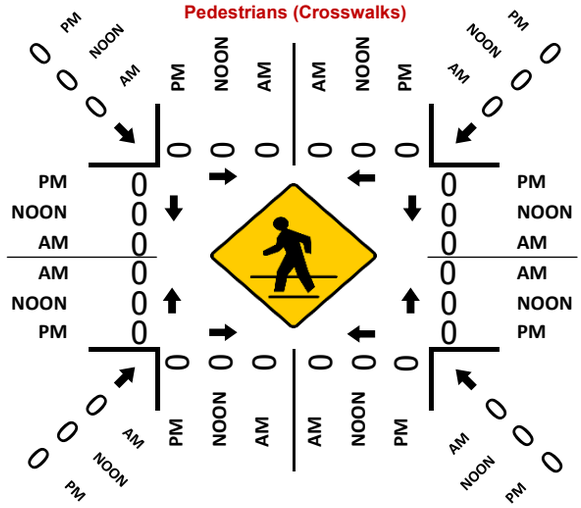
Total Vehicles (NOON)



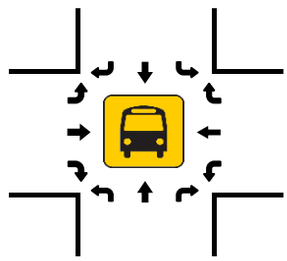
Total Vehicles (PM)



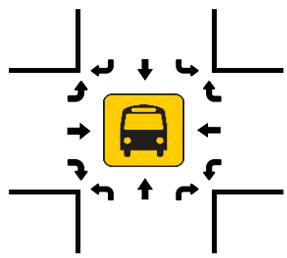
Pedestrians (Crosswalks)



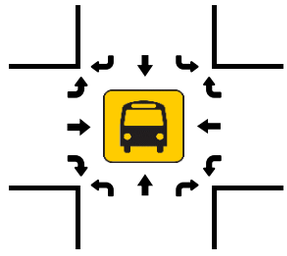
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Marguerite Pkwy & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-016
Date: 9/17/2019

Total

NS/EW Streets:	Marguerite Pkwy				Marguerite Pkwy				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	1	0	2	2	1	0	2	4	0	0	2	4	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	61	161	17	0	51	179	78	7	118	179	60	10	18	231	39	0	1209
11:15 AM	72	152	18	0	33	117	52	1	96	164	77	7	25	268	33	0	1115
11:30 AM	79	204	13	1	49	211	61	1	83	191	88	4	16	279	16	0	1296
11:45 AM	78	154	14	1	51	177	76	7	90	192	74	1	20	273	32	0	1240
12:00 PM	68	165	16	0	50	162	78	8	126	193	65	10	21	219	38	0	1219
12:15 PM	69	161	16	0	34	138	59	2	91	239	79	7	27	223	32	0	1177
12:30 PM	86	197	16	2	52	203	62	6	79	201	86	6	23	189	28	0	1236
12:45 PM	80	161	16	1	54	163	79	6	93	237	84	3	25	237	37	0	1276
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	593	1355	126	5	374	1350	545	38	776	1596	613	48	175	1919	255	0	9768
APPROACH %'s :	28.52%	65.18%	6.06%	0.24%	16.21%	58.52%	23.62%	1.65%	25.59%	52.62%	20.21%	1.58%	7.45%	81.69%	10.86%	0.00%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	294	684	59	2	184	688	274	18	390	815	306	22	84	994	118	0	4932
PEAK HR FACTOR :	0.930	0.838	0.922	0.500	0.902	0.815	0.878	0.563	0.774	0.853	0.869	0.550	0.778	0.891	0.776	0.000	0.951
	0.875				0.904				0.921				0.920				

Prepared by National Data & Surveying Services

Marguerite Pkwy & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-016
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

PM	NONE
NOON	11:00 AM - 01:00 PM
AM	NONE

Marguerite Pkwy — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	274	688	184	18	1210	NOON
PM	0	0	0	0	0	PM

Oso Pkwy — EASTBOUND

AM	NOON	PM	
0	1584	0	⇦
0	22	0	↰ 0
0	390	0	↑ 2
0	815	0	→ 4
0	306	0	↱ 0
AM	NOON	PM	

Oso Pkwy — WESTBOUND

PM	NOON	AM	
0	118	0	0 ↰
0	994	0	4 ←
0	84	0	2 ↰
0	0	0	0 ↰
0	1058	0	⇨
PM	NOON	AM	

CONTROL: Signalized

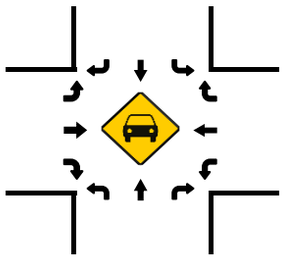
	AM	NOON	PM
TEV	0	4932	0
PHF		0.95	

Marguerite Pkwy — NORTHBOUND

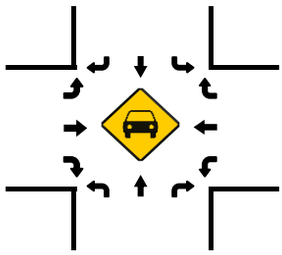
PM	0	0	0	0	0	PM
NOON	1080	2	294	684	59	NOON
AM	0	0	0	0	0	AM

Turning movements (SB): 1 | 2 | 2 | 0
Turning movements (NB): 0 | 2 | 2 | 1

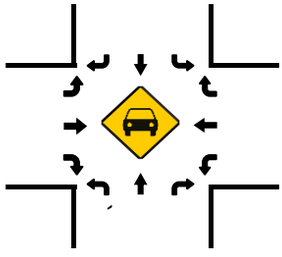
Total Vehicles (AM)



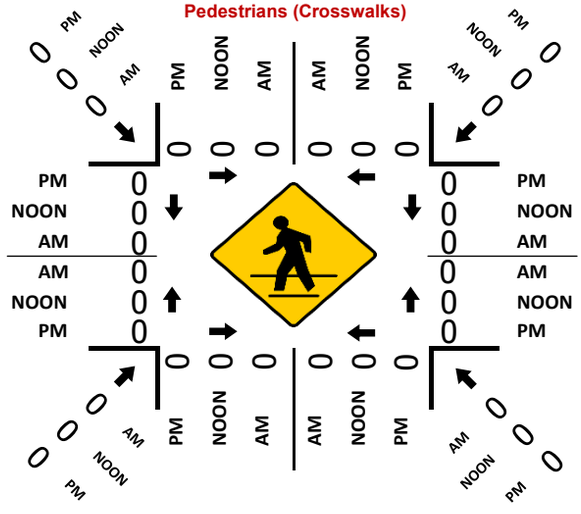
Total Vehicles (NOON)



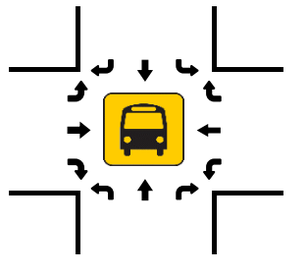
Total Vehicles (PM)



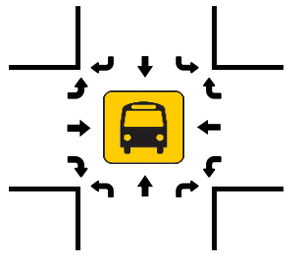
Pedestrians (Crosswalks)



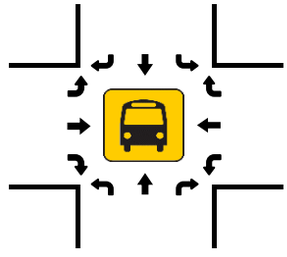
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Marketplace & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-017
Date: 2019-09-17

Total

NS/EW Streets:	Marketplace				Marketplace				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	4	0	0	0	3	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	0	0	0	21	0	18	0	8	243	0	2	0	290	22	0	604
11:15 AM	0	0	0	0	29	0	14	0	11	196	0	3	0	296	22	0	571
11:30 AM	0	0	0	0	26	0	26	0	17	243	0	1	0	298	27	0	638
11:45 AM	0	0	0	0	30	0	21	0	16	235	0	1	0	305	14	0	622
12:00 PM	0	0	0	0	27	0	18	0	14	249	0	1	0	275	21	0	605
12:15 PM	0	0	0	0	35	0	19	0	20	270	0	4	0	243	13	0	604
12:30 PM	0	0	0	0	31	0	15	0	19	246	0	1	0	245	21	0	578
12:45 PM	0	0	0	0	25	0	18	0	17	280	0	4	0	266	22	0	632
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	224	0	149	0	122	1962	0	17	0	2218	162	0	4854
APPROACH %'s :					60.05%	0.00%	39.95%	0.00%	5.81%	93.38%	0.00%	0.81%	0.00%	93.19%	6.81%	0.00%	
PEAK HR :	**11:30 AM - 12:30 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	118	0	84	0	67	997	0	7	0	1121	75	0	2469
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.843	0.000	0.808	0.000	0.838	0.923	0.000	0.438	0.000	0.919	0.694	0.000	0.967
					0.935				0.911				0.920				

Prepared by National Data & Surveying Services

Marketplace & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-017
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	NOON	PM
NONE	11:30 AM - 12:30 PM	NONE

COUNT PERIODS

AM	NOON	PM
NONE	11:00 AM - 01:00 PM	NONE

Marketplace — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	84	0	118	0	142	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Oso Pkwy

AM	NOON	PM	
0	1212	0	⇦
0	7	0	0
0	67	0	1
0	997	0	4
0	0	0	0
AM	NOON	PM	

WESTBOUND — Oso Pkwy

PM	NOON	AM	
0	75	0	1
0	1121	0	3
0	0	0	0
0	0	0	0
0	1115	0	⇨
PM	NOON	AM	

CONTROL: Signalized

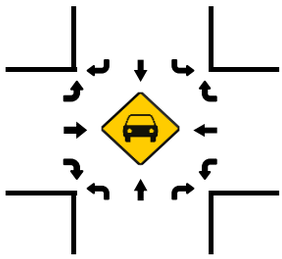
	AM	NOON	PM
TEV	0	2469	0
PHF		0.97	

1 0 1 0 — 0 0 0 0

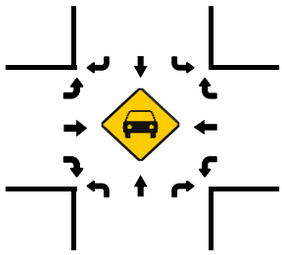
NORTHBOUND — Marketplace

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

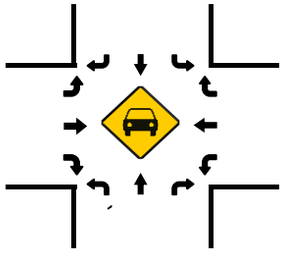
Total Vehicles (AM)



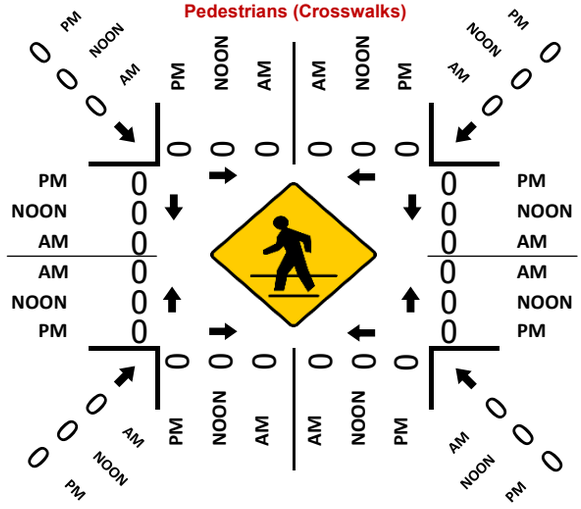
Total Vehicles (NOON)



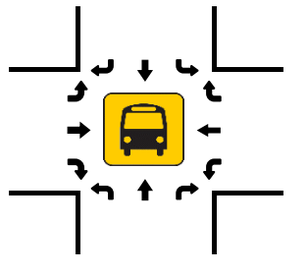
Total Vehicles (PM)



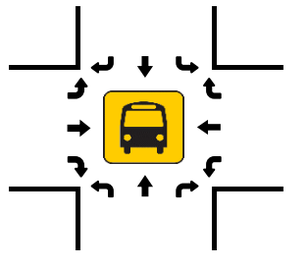
Pedestrians (Crosswalks)



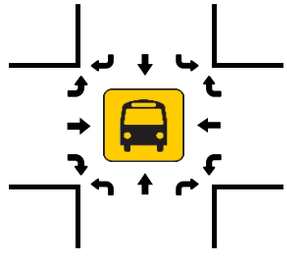
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pacific Hills Dr/Alpera & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-018
Date: 2019-09-17

Total

NS/EW Streets:	Pacific Hills Dr/Alpera				Pacific Hills Dr/Alpera				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0.5	0.5	1	0	0.5	0.5	1	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	4	0	1	0	0	0	17	0	22	218	1	0	0	295	4	0	562
11:15 AM	3	1	2	0	2	1	16	0	16	229	2	0	1	288	5	0	566
11:30 AM	4	0	1	0	2	1	26	0	19	254	4	2	0	297	4	1	615
11:45 AM	1	0	0	0	2	1	18	0	20	219	2	0	0	304	1	0	568
12:00 PM	1	0	0	0	5	1	20	0	13	276	2	0	1	267	6	0	592
12:15 PM	1	0	1	0	3	0	11	0	16	259	3	0	1	255	3	0	553
12:30 PM	2	0	1	0	1	0	15	0	20	282	1	1	1	266	6	0	596
12:45 PM	2	0	1	0	4	0	24	0	20	269	7	0	1	246	3	0	577
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	18	1	7	0	19	4	147	0	146	2006	22	3	5	2218	32	1	4629
APPROACH %'s :	69.23%	3.85%	26.92%	0.00%	11.18%	2.35%	86.47%	0.00%	6.71%	92.15%	1.01%	0.14%	0.22%	98.32%	1.42%	0.04%	
PEAK HR :	**11:15 AM - 12:15 PM**																TOTAL
PEAK HR VOL :	9	1	3	0	11	4	80	0	68	978	10	2	2	1156	16	1	2341
PEAK HR FACTOR :	0.563	0.250	0.375	0.000	0.550	1.000	0.769	0.000	0.850	0.886	0.625	0.250	0.500	0.951	0.667	0.250	0.952
	0.542				0.819				0.909				0.963				

Prepared by National Data & Surveying Services

Pacific Hills Dr/Alpera & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-018
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

Pacific Hills Dr/Alpera — SOUTHBOUND

PEAK HOURS		COUNT PERIODS
AM	NONE	NONE
NOON	11:15 AM - 12:15 PM	11:00 AM - 01:00 PM
PM	NONE	NONE

AM	0	0	0	0	0	AM
NOON	80	4	11	0	85	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Oso Pkwy

AM	NOON	PM	
0	1247	0	
0	2	0	0
0	68	0	1
0	978	0	3
0	10	0	0

WESTBOUND — Oso Pkwy

PM	NOON	AM	
0	16	0	0
0	1156	0	3
0	2	0	1
0	1	0	0
0	993	0	

1 0.5 0.5 0

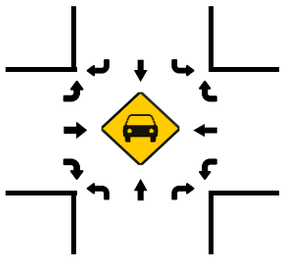
0 0.5 0.5 1

CONTROL			
Signalized			
TEV	0 AM	2341 NOON	0 PM
PHF		0.95	

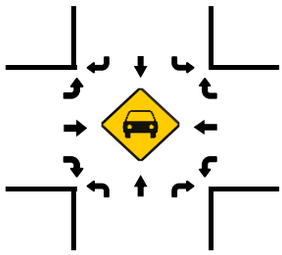
NORTHBOUND — Pacific Hills Dr/Alpera

PM	0	0	0	0	0	PM
NOON	16	0	9	1	3	NOON
AM	0	0	0	0	0	AM

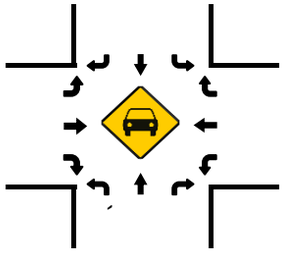
Total Vehicles (AM)



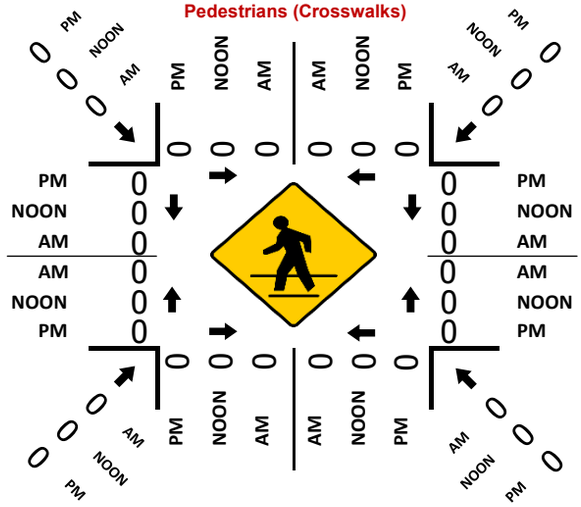
Total Vehicles (NOON)



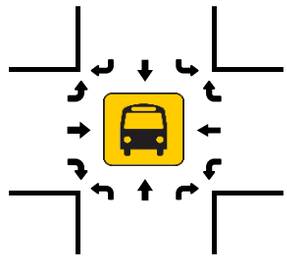
Total Vehicles (PM)



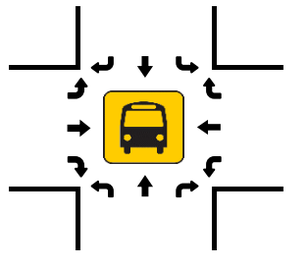
Pedestrians (Crosswalks)



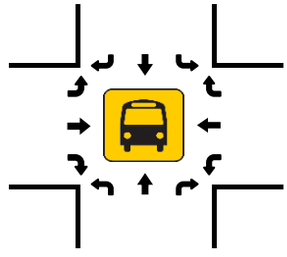
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Mirasol/Aruza & Oso Pkwy
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-019
Date: 2019-09-17

Total

NS/EW Streets:	Mirasol/Aruza				Mirasol/Aruza				Oso Pkwy				Oso Pkwy				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	0	0	1	3	0	0	1	3	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	1	0	2	0	2	0	6	0	10	230	2	0	2	301	0	0	556
11:15 AM	2	0	0	0	2	0	10	0	8	238	1	2	1	295	1	0	560
11:30 AM	1	0	0	0	2	0	10	0	4	240	3	1	4	278	0	0	543
11:45 AM	5	0	1	0	0	0	14	0	6	267	4	0	2	302	2	0	603
12:00 PM	5	0	2	0	1	0	14	0	9	262	1	0	2	270	1	1	568
12:15 PM	7	0	2	0	0	0	5	0	2	274	5	0	0	334	0	0	629
12:30 PM	2	0	1	0	3	0	2	0	13	280	13	1	2	245	1	2	565
12:45 PM	1	0	2	0	2	0	10	0	9	278	4	0	2	297	1	1	607
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	24	0	10	0	12	0	71	0	61	2069	33	4	15	2322	6	4	4631
APPROACH %'s :	70.59%	0.00%	29.41%	0.00%	14.46%	0.00%	85.54%	0.00%	2.81%	95.48%	1.52%	0.18%	0.64%	98.93%	0.26%	0.17%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	15	0	7	0	6	0	31	0	33	1094	23	1	6	1146	3	4	2369
PEAK HR FACTOR :	0.536	0.000	0.875	0.000	0.500	0.000	0.554	0.000	0.635	0.977	0.442	0.250	0.750	0.858	0.750	0.500	0.942
	0.611				0.617				0.937				0.868				

Prepared by National Data & Surveying Services

Mirasol/Aruza & Oso Pkwy

Peak Hour Turning Movement Count

ID: 19-01187-019
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM: NONE
NOON: 12:00 PM - 01:00 PM
PM: NONE

COUNT PERIODS

AM: NONE
NOON: 11:00 AM - 01:00 PM
PM: NONE

Mirasol/Aruza — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	31	0	6	0	36	NOON
PM	0	0	0	0	0	PM

EASTBOUND — Oso Pkwy

AM	NOON	PM	
0	1193	0	⇦
0	1	0	↰ 0
0	33	0	↱ 1
0	1094	0	→ 3
0	23	0	↳ 0
AM	NOON	PM	

WESTBOUND — Oso Pkwy

PM	NOON	AM	
0	3	0	0 ↰
0	1146	0	3 ←
0	6	0	1 ↰
0	4	0	0 ↳
0	1111	0	⇨
PM	NOON	AM	

CONTROL

Signalized

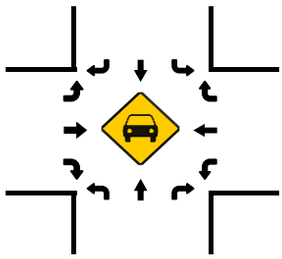
	AM	NOON	PM
TEV	0	2369	0
PHF		0.94	

NORTHBOUND — Mirasol/Aruza

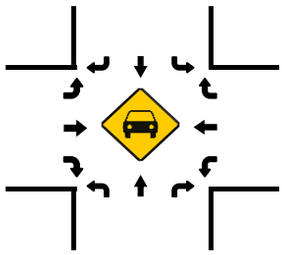
PM	0	0	0	0	0	PM
NOON	29	0	15	0	7	NOON
AM	0	0	0	0	0	AM

0 1 0 0 (EB) — 0 1 1 0 (NB) — 0 3 1 0 (WB)

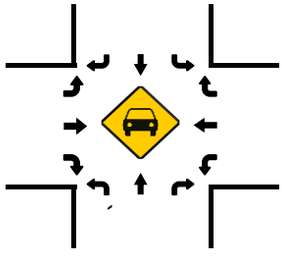
Total Vehicles (AM)



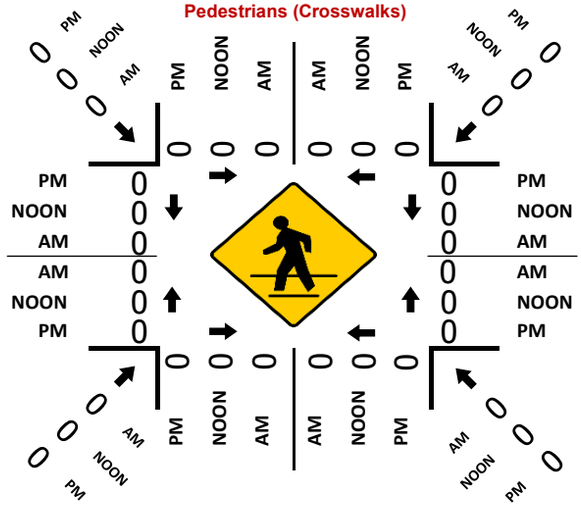
Total Vehicles (NOON)



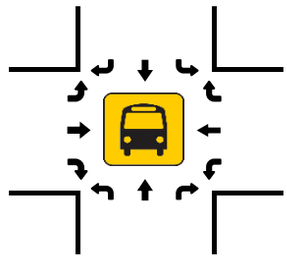
Total Vehicles (PM)



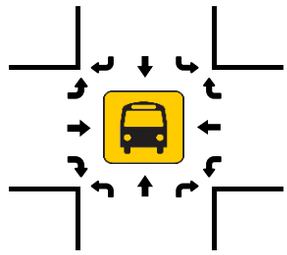
Pedestrians (Crosswalks)



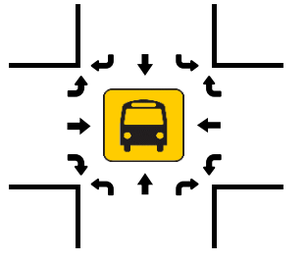
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Muirlands Blvd & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-020
Date: 2019-09-18

Total

NS/EW Streets:	Muirlands Blvd				Muirlands Blvd				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	1	1.5	0	2	0	2	0	2	2	1	0	0	2.5	0.5	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	23	23	28	0	45	0	43	0	38	132	105	0	0	206	38	0	681
11:15 AM	30	12	18	0	45	0	36	0	45	167	95	0	0	194	28	0	670
11:30 AM	33	32	22	0	39	0	45	0	45	156	89	0	0	212	38	0	711
11:45 AM	23	29	39	0	47	0	47	0	46	210	97	0	0	234	39	0	811
12:00 PM	37	27	49	0	51	0	56	0	56	166	86	0	0	229	37	0	794
12:15 PM	28	27	35	0	59	0	66	0	55	186	91	0	0	211	38	0	796
12:30 PM	41	20	41	0	56	0	40	0	43	171	102	0	0	226	57	0	797
12:45 PM	27	23	44	0	65	0	63	0	43	212	86	0	0	260	54	0	877
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	242	193	276	0	407	0	396	0	371	1400	751	0	0	1772	329	0	6137
APPROACH %'s :	34.04%	27.14%	38.82%	0.00%	50.68%	0.00%	49.32%	0.00%	14.71%	55.51%	29.78%	0.00%	0.00%	84.34%	15.66%	0.00%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	133	97	169	0	231	0	225	0	197	735	365	0	0	926	186	0	3264
PEAK HR FACTOR :	0.811	0.898	0.862	0.000	0.888	0.000	0.852	0.000	0.879	0.867	0.895	0.000	0.000	0.890	0.816	0.000	0.930
	0.883				0.891				0.951				0.885				

Prepared by National Data & Surveying Services

Muirlands Blvd & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-020
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

PEAK HOURS

AM	NOON	PM
NONE	12:00 PM - 01:00 PM	NONE

COUNT PERIODS

AM	NOON	PM
NONE	11:00 AM - 01:00 PM	NONE

Muirlands Blvd

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	225	0	231	0	480	NOON
PM	0	0	0	0	0	PM

La Paz Rd — EASTBOUND

AM	NOON	PM	
0	1284	0	
0	0	0	0
0	197	0	2
0	735	0	2
0	365	0	1
AM	NOON	PM	

WESTBOUND — La Paz Rd

PM	NOON	AM	
0	186	0	0.5
0	926	0	2.5
0	0	0	0
0	0	0	0
0	1135	0	
PM	NOON	AM	

	2	0	2	0
	0	1.5	1	1.5

CONTROL: Signalized

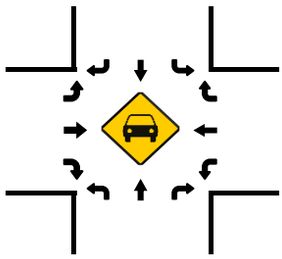
	AM	NOON	PM
TEV	0	3264	0
PHF		0.93	

PM	0	0	0	0	0	PM
NOON	365	0	133	97	169	NOON
AM	0	0	0	0	0	AM

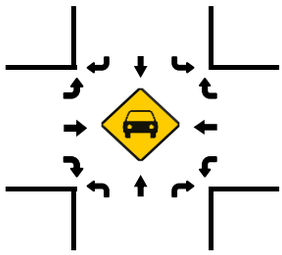
NORTHBOUND

Muirlands Blvd

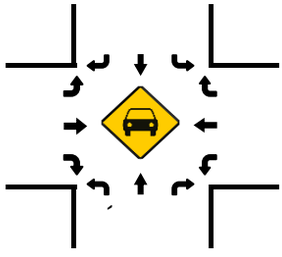
Total Vehicles (AM)



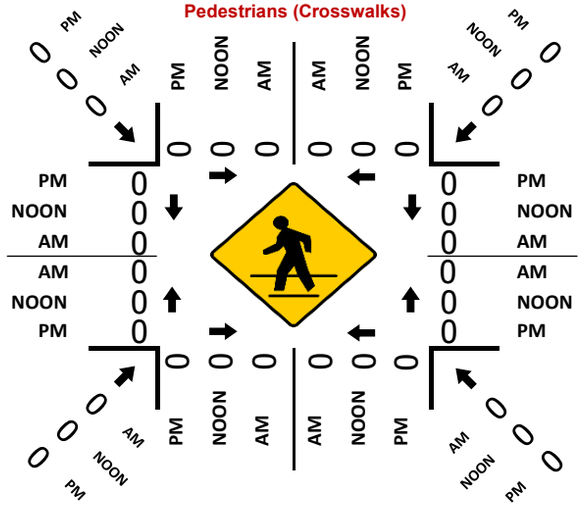
Total Vehicles (NOON)



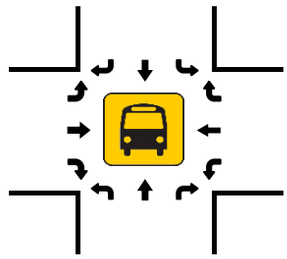
Total Vehicles (PM)



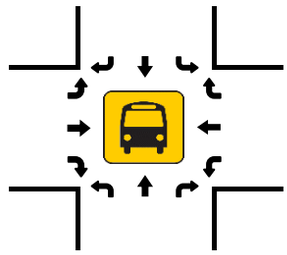
Pedestrians (Crosswalks)



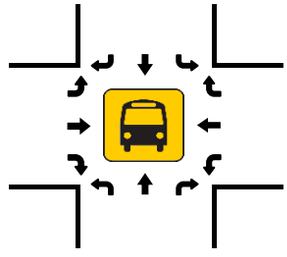
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Chrisanta Dr & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-021
Date: 2019-09-18

Total

NS/EW Streets:	Chrisanta Dr				Chrisanta Dr				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1.5	0.5	1	0	1	1	1	0	1	2	1	0	1	2	1	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	25	3	5	0	21	3	28	0	20	162	23	6	0	188	16	8	508
11:15 AM	25	3	8	0	10	2	17	0	19	163	25	6	3	164	10	5	460
11:30 AM	39	5	8	0	16	6	32	0	29	182	16	9	4	205	20	4	575
11:45 AM	52	2	3	0	25	3	22	0	44	207	28	10	2	176	23	4	601
12:00 PM	22	9	9	0	23	7	34	0	20	210	36	9	6	193	15	2	595
12:15 PM	37	8	9	0	14	7	20	0	31	193	35	7	5	184	19	2	571
12:30 PM	98	17	11	0	19	8	31	0	29	194	43	10	7	206	14	8	695
12:45 PM	35	9	9	0	19	7	40	0	44	220	41	14	3	195	29	5	670
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	333	56	62	0	147	43	224	0	236	1531	247	71	30	1511	146	38	4675
APPROACH %'s :	73.84%	12.42%	13.75%	0.00%	35.51%	10.39%	54.11%	0.00%	11.32%	73.43%	11.85%	3.41%	1.74%	87.59%	8.46%	2.20%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	192	43	38	0	75	29	125	0	124	817	155	40	21	778	77	17	2531
PEAK HR FACTOR :	0.490	0.632	0.864	0.000	0.815	0.906	0.781	0.000	0.705	0.928	0.901	0.714	0.750	0.944	0.664	0.531	0.910
	0.542				0.867				0.890				0.950				

Prepared by National Data & Surveying Services

Chrisanta Dr & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-021
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

Chrisanta Dr — SOUTHBOUND

PEAK HOURS								COUNT PERIODS
NONE	AM	0	0	0	0	0	AM	NONE
12:00 PM - 01:00 PM	NOON	125	29	75	0	244	NOON	11:00 AM - 01:00 PM
NONE	PM	0	0	0	0	0	PM	NONE

Peak hour turning movements: 1 | 1 | 1 | 0

La Paz Rd — EASTBOUND

AM	NOON	PM	
0	1135	0	
0	40	0	0
0	124	0	1
0	817	0	2
0	155	0	1
AM	NOON	PM	

La Paz Rd — WESTBOUND

PM	NOON	AM	
0	77	0	1
0	778	0	2
0	21	0	1
0	17	0	0
0	947	0	
PM	NOON	AM	

Peak hour turning movements: 0 | 1.5 | 0.5 | 1

CONTROL

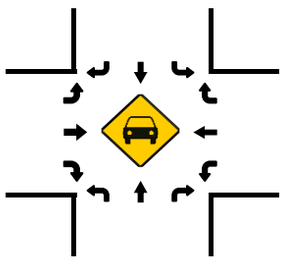
Signalized

	AM	NOON	PM
TEV	0	2531	0
PHF		0.91	

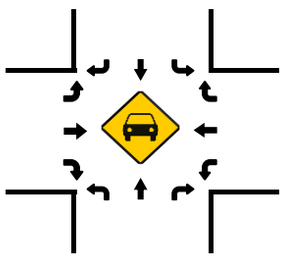
Chrisanta Dr — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	205	0	192	43	38	NOON
AM	0	0	0	0	0	AM

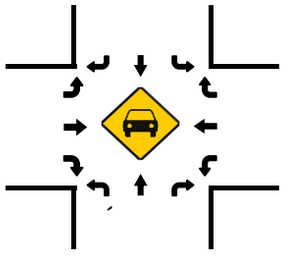
Total Vehicles (AM)



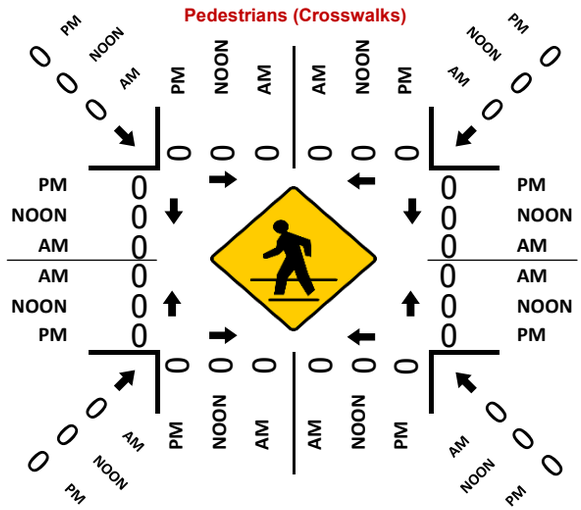
Total Vehicles (NOON)



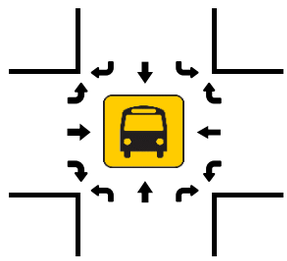
Total Vehicles (PM)



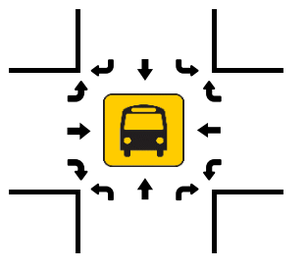
Pedestrians (Crosswalks)



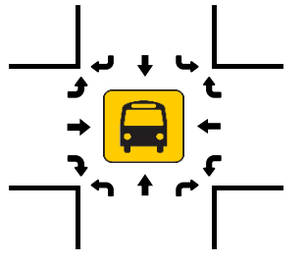
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Mosquero Ln & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-022
Date: 2019-09-18

Total

NS/EW Streets:	Mosquero Ln				Mosquero Ln				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	0	1	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	0	0	0	10	0	25	0	18	179	0	0	0	172	5	0	409
11:15 AM	0	0	0	0	7	0	37	0	22	151	0	0	0	158	4	0	379
11:30 AM	0	0	0	0	10	0	39	0	37	186	0	0	0	191	7	0	470
11:45 AM	0	0	0	0	3	0	26	0	20	198	0	0	0	189	6	0	442
12:00 PM	0	0	0	0	8	0	31	0	34	212	0	0	0	195	6	0	486
12:15 PM	0	0	0	0	6	0	28	0	24	171	0	0	0	190	6	0	425
12:30 PM	0	0	0	0	6	0	29	0	32	215	0	0	0	195	7	0	484
12:45 PM	0	0	0	0	6	0	48	0	33	213	0	0	0	178	6	0	484
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	56	0	263	0	220	1525	0	0	0	1468	47	0	3579
APPROACH %'s :					17.55%	0.00%	82.45%	0.00%	12.61%	87.39%	0.00%	0.00%	0.00%	96.90%	3.10%	0.00%	
PEAK HR :	12:00 PM - 01:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	26	0	136	0	123	811	0	0	0	758	25	0	1879
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.813	0.000	0.708	0.000	0.904	0.943	0.000	0.000	0.000	0.972	0.893	0.000	0.967
							0.750				0.945				0.969		

Prepared by National Data & Surveying Services

Mosquero Ln & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-022
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

PEAK HOURS	COUNT PERIODS
NONE	NONE
12:00 PM - 01:00 PM	11:00 AM - 01:00 PM
NONE	NONE

Mosquero Ln — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	136	0	26	0	148	NOON
PM	0	0	0	0	0	PM

La Paz Rd — EASTBOUND

AM	NOON	PM	
0	894	0	⇦
0	0	0	↰ 0
0	123	0	↑ 1
0	811	0	→ 2
0	0	0	↱ 0
AM	NOON	PM	

La Paz Rd — WESTBOUND

PM	NOON	AM	
0	25	0	0 ↰
0	758	0	2 ←
0	0	0	0 ↰
0	0	0	0 ↰
0	837	0	⇨
PM	NOON	AM	

Mosquero Ln — NORTHBOUND

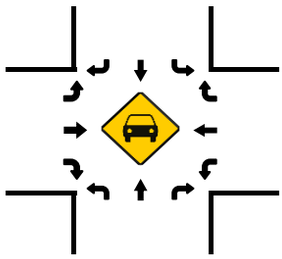
PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

↰ 0	↰ 0	↑ 0	↱ 0	⇩

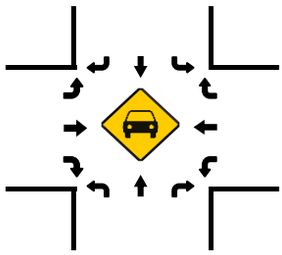
CONTROL			
Signalized			
TEV	0 AM	1879 NOON	0 PM
PHF		0.97	

↰ 1	↓ 0	↱ 1	↱ 0	⇧

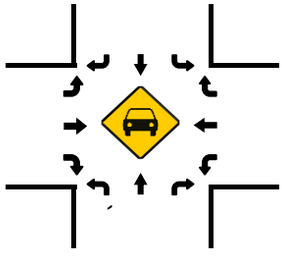
Total Vehicles (AM)



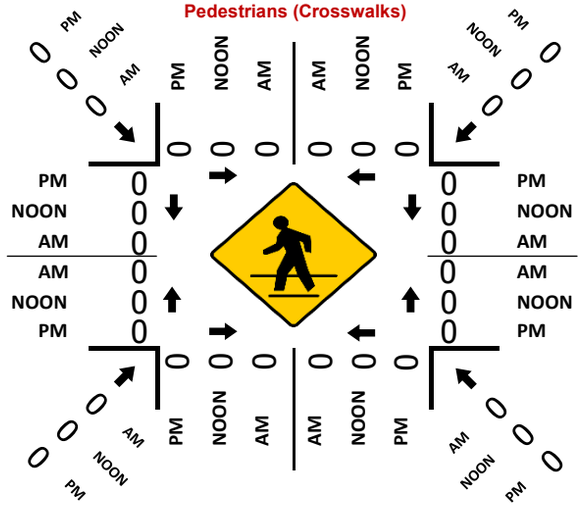
Total Vehicles (NOON)



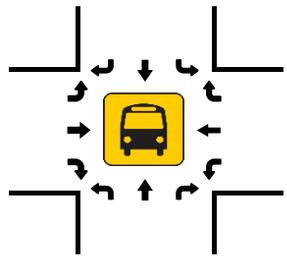
Total Vehicles (PM)



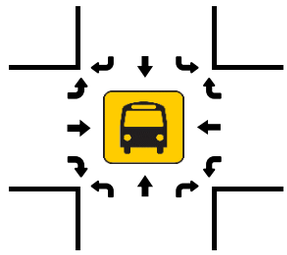
Pedestrians (Crosswalks)



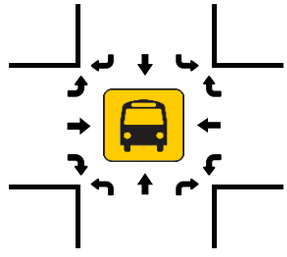
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pradera Dr & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-023
Date: 2019-09-18

Total

NS/EW Streets:	Pradera Dr				Pradera Dr				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	0	1	0	0	0	0	0	0	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	4	0	14	0	0	0	0	0	0	189	7	0	8	166	0	0	388
11:15 AM	10	0	9	0	0	0	0	0	0	197	6	0	9	163	0	0	394
11:30 AM	9	0	4	0	0	0	0	0	0	236	8	0	2	196	0	0	455
11:45 AM	5	0	5	0	0	0	0	0	0	241	6	0	5	196	0	0	458
12:00 PM	27	0	46	0	0	0	0	0	0	174	12	0	12	162	0	0	433
12:15 PM	8	0	29	0	0	0	0	0	0	170	10	0	7	199	0	0	423
12:30 PM	4	0	19	0	0	0	0	0	0	183	10	0	14	181	0	0	411
12:45 PM	10	0	10	0	0	0	0	0	0	188	11	0	6	185	0	0	410
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	77	0	136	0	0	0	0	0	0	1578	70	0	63	1448	0	0	3372
APPROACH %'s :	36.15%	0.00%	63.85%	0.00%					0.00%	95.75%	4.25%	0.00%	4.17%	95.83%	0.00%	0.00%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	49	0	84	0	0	0	0	0	0	821	36	0	26	753	0	0	1769
PEAK HR FACTOR :	0.454	0.000	0.457	0.000	0.000	0.000	0.000	0.000	0.000	0.852	0.750	0.000	0.542	0.946	0.000	0.000	0.966
	0.455								0.867				0.945				

Prepared by National Data & Surveying Services

Pradera Dr & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-023
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

PEAK HOURS

AM	NONE
NOON	11:30 AM - 12:30 PM
PM	NONE

COUNT PERIODS

AM	NONE
NOON	11:00 AM - 01:00 PM
PM	NONE

Pradera Dr — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

La Paz Rd — EASTBOUND

AM	NOON	PM		
0	802	0	⇦	
0	0	0	↰	0
0	0	0	↑	0
0	821	0	→	2
0	36	0	↱	0
AM	NOON	PM		

La Paz Rd — WESTBOUND

PM	NOON	AM		
0	0	0	↱	0
0	753	0	←	2
0	26	0	↰	1
0	0	0	↰	0
0	905	0	⇨	
PM	NOON	AM		

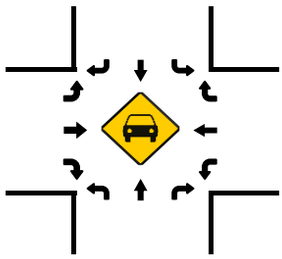
Pradera Dr — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	62	0	49	0	84	NOON
AM	0	0	0	0	0	AM

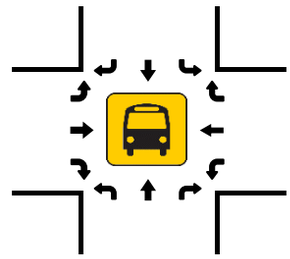
CONTROL: Signalized

	AM	NOON	PM
TEV	0	1769	0
PHF		0.97	

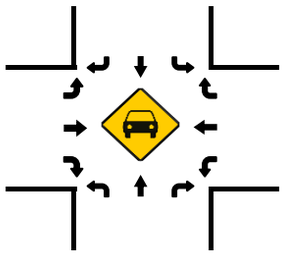
Total Vehicles (AM)



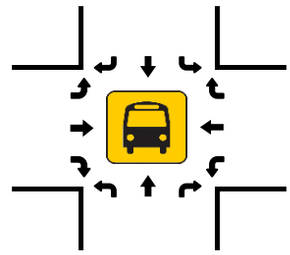
Total Vehicles (AM)



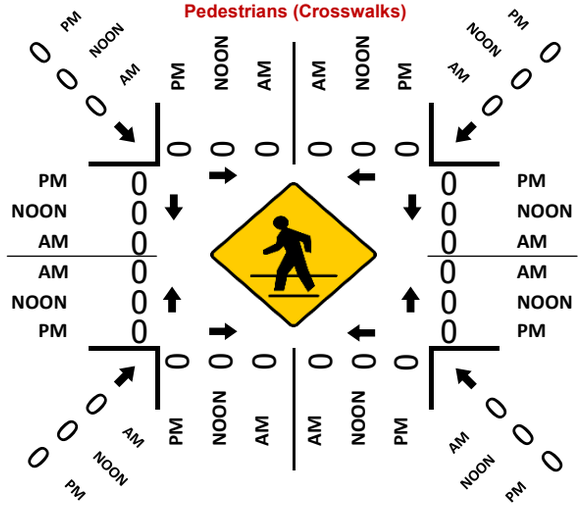
Total Vehicles (NOON)



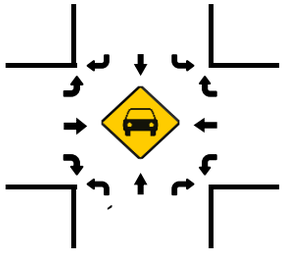
Total Vehicles (NOON)



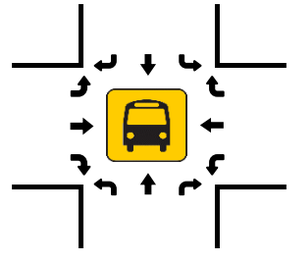
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Spadra Ln & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-024
Date: 2019-09-18

Total

NS/EW Streets:	Spadra Ln				Spadra Ln				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	1	1	0	0	1	2	0	0	0	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	0	0	0	0	11	0	10	0	18	196	0	1	0	172	7	0	415
11:15 AM	0	0	0	0	4	0	6	0	9	187	0	1	0	156	7	0	370
11:30 AM	0	0	0	0	7	0	8	0	17	231	0	2	0	195	7	0	467
11:45 AM	0	0	0	0	5	0	15	0	30	207	0	0	0	175	10	0	442
12:00 PM	0	0	0	0	5	0	6	0	31	195	0	1	0	177	10	0	425
12:15 PM	0	0	0	0	9	0	30	0	16	176	0	0	0	186	10	0	427
12:30 PM	0	0	0	0	8	0	18	0	9	200	0	0	0	168	12	0	415
12:45 PM	0	0	0	0	7	0	13	0	12	183	0	0	0	179	7	0	401
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	56	0	106	0	142	1575	0	5	0	1408	70	0	3362
APPROACH %'s :					34.57%	0.00%	65.43%	0.00%	8.25%	91.46%	0.00%	0.29%	0.00%	95.26%	4.74%	0.00%	
PEAK HR :	**11:30 AM - 12:30 PM**																TOTAL
PEAK HR VOL :	0	0	0	0	26	0	59	0	94	809	0	3	0	733	37	0	1761
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.722	0.000	0.492	0.000	0.758	0.876	0.000	0.375	0.000	0.940	0.925	0.000	0.943
							0.545				0.906				0.953		

Prepared by National Data & Surveying Services

Spadra Ln & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-024
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

Spadra Ln — SOUTHBOUND

PEAK HOURS							COUNT PERIODS
NONE	AM	0	0	0	0	0	AM	NONE
11:30 AM - 12:30 PM	NOON	59	0	26	0	131	NOON	11:00 AM - 01:00 PM
NONE	PM	0	0	0	0	0	PM	NONE

La Paz Rd — EASTBOUND

AM	NOON	PM		
0	795	0	⇦	
0	3	0	↰	0
0	94	0	↑	1
0	809	0	→	2
0	0	0	↱	0
AM	NOON	PM		

La Paz Rd — WESTBOUND

PM	NOON	AM		
0	37	0	↰	0
0	733	0	←	2
0	0	0	↰	0
0	0	0	↱	0
0	835	0	⇨	
PM	NOON	AM		

Turning movements (SOUTHBOUND): 0 | 1 | 1 | 0 — (NORTHBOUND): 0 | 0 | 0 | 0

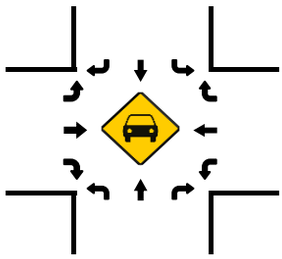
CONTROL: Signalized

	AM	NOON	PM
TEV	0	1761	0
PHF		0.94	

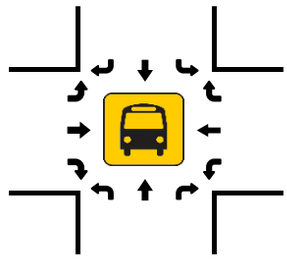
Spadra Ln — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

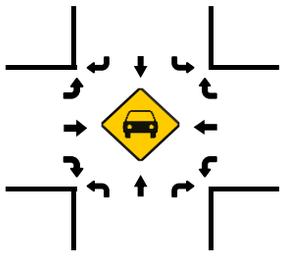
Total Vehicles (AM)



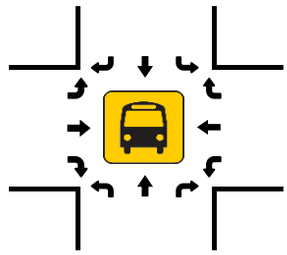
Total Vehicles (AM)



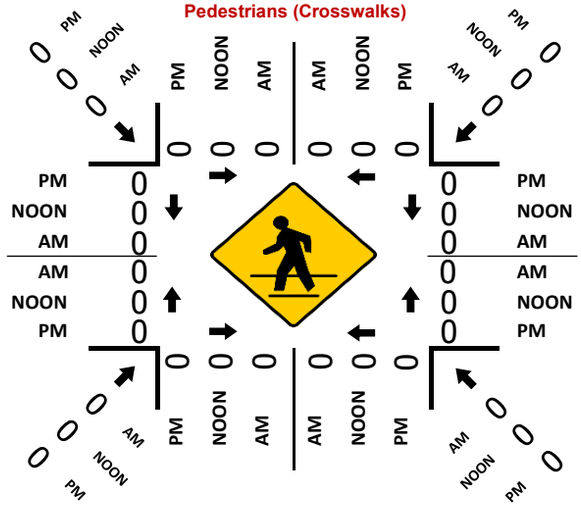
Total Vehicles (NOON)



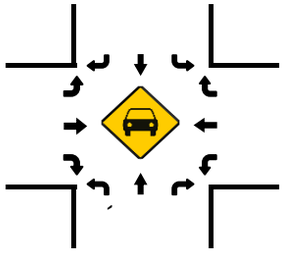
Total Vehicles (NOON)



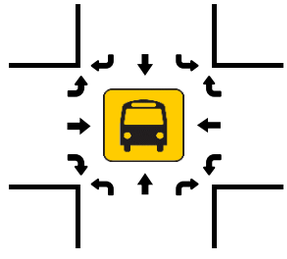
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Marguerite Pkwy & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-025
Date: 2019-09-18

Total

NS/EW Streets:	Marguerite Pkwy				Marguerite Pkwy				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	2	2	0	0	2	2	1	0	2	2	1	0	2	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	48	144	29	0	25	172	42	0	46	81	58	0	41	87	25	0	798
11:15 AM	39	161	28	0	38	184	39	0	45	68	48	0	45	72	23	0	790
11:30 AM	44	196	27	1	35	190	48	1	53	59	49	0	37	63	28	0	831
11:45 AM	58	187	37	0	39	177	42	0	74	79	53	0	44	90	31	0	911
12:00 PM	56	206	25	0	37	187	52	2	58	64	55	0	47	53	26	1	869
12:15 PM	47	214	30	0	28	193	51	1	67	97	49	0	38	96	39	0	950
12:30 PM	63	216	38	0	39	194	46	0	67	84	56	0	43	70	22	0	938
12:45 PM	50	205	37	0	31	167	53	0	68	80	57	0	35	69	22	0	874
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	405	1529	251	1	272	1464	373	4	478	612	425	0	330	600	216	1	6961
APPROACH %'s :	18.53%	69.95%	11.48%	0.05%	12.87%	69.29%	17.65%	0.19%	31.55%	40.40%	28.05%	0.00%	28.77%	52.31%	18.83%	0.09%	
PEAK HR :	**11:45 AM - 12:45 PM**																TOTAL
PEAK HR VOL :	224	823	130	0	143	751	191	3	266	324	213	0	172	309	118	1	3668
PEAK HR FACTOR :	0.889	0.953	0.855	0.000	0.917	0.968	0.918	0.375	0.899	0.835	0.951	0.000	0.915	0.805	0.756	0.250	0.965
	0.928				0.975				0.942				0.867				

Prepared by National Data & Surveying Services

Marguerite Pkwy & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-025
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

PEAK HOURS

AM	NOON	PM
NONE	11:45 AM - 12:45 PM	NONE

COUNT PERIODS

AM	NOON	PM
NONE	11:00 AM - 01:00 PM	NONE

Marguerite Pkwy

SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	191	751	143	3	1210	NOON
PM	0	0	0	0	0	PM

1 2 2 0

La Paz Rd — EASTBOUND

AM	NOON	PM	
0	724	0	
0	0	0	0
0	266	0	2
0	324	0	2
0	213	0	1
AM	NOON	PM	

CONTROL

Signalized

	AM	NOON	PM
TEV	0	3668	0
PHF		0.97	

WESTBOUND — La Paz Rd

PM	NOON	AM	
0	118	0	0
0	309	0	2
0	172	0	2
0	1	0	0
0	598	0	
PM	NOON	AM	

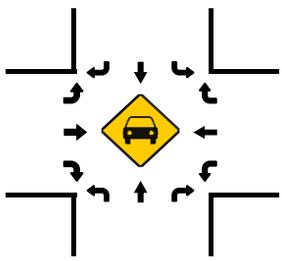
0 2 2 0

NORTHBOUND

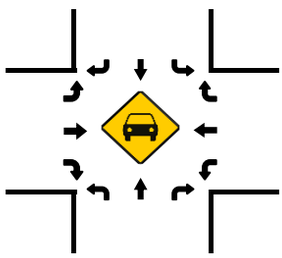
PM	0	0	0	0	0	PM
NOON	1136	0	224	823	130	NOON
AM	0	0	0	0	0	AM

Marguerite Pkwy

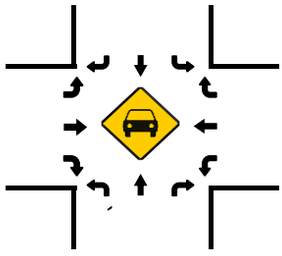
Total Vehicles (AM)



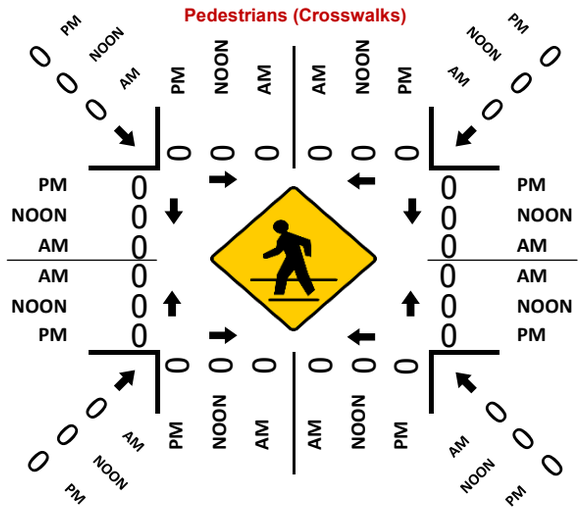
Total Vehicles (NOON)



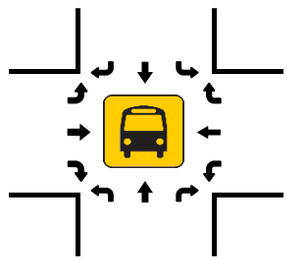
Total Vehicles (PM)



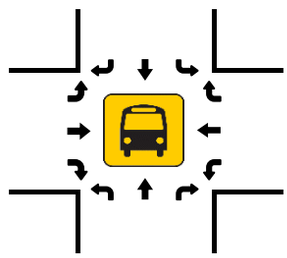
Pedestrians (Crosswalks)



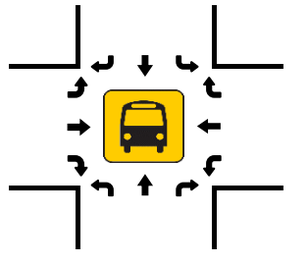
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: La Paz Center Dwy & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-026
Date: 2019-09-18

Total

NS/EW Streets:	La Paz Center Dwy				La Paz Center Dwy				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0	1	1	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	7	8	12	0	12	2	24	0	17	87	9	0	9	115	11	4	317
11:15 AM	9	5	8	0	14	4	30	0	16	103	4	0	17	101	21	3	335
11:30 AM	4	5	10	0	10	8	24	0	10	101	10	0	19	110	19	5	335
11:45 AM	7	7	11	0	17	3	30	0	12	122	10	0	19	109	21	2	370
12:00 PM	6	5	14	0	11	7	33	0	10	98	11	1	17	95	22	1	331
12:15 PM	19	4	20	0	18	10	37	0	11	109	13	1	22	101	10	4	379
12:30 PM	17	3	16	0	13	1	25	0	15	124	16	1	16	111	7	0	365
12:45 PM	10	8	15	0	7	3	24	0	18	111	16	2	14	75	11	3	317
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	79	45	106	0	102	38	227	0	109	855	89	5	133	817	122	22	2749
APPROACH %'s :	34.35%	19.57%	46.09%	0.00%	27.79%	10.35%	61.85%	0.00%	10.30%	80.81%	8.41%	0.47%	12.16%	74.68%	11.15%	2.01%	
PEAK HR :	11:45 AM - 12:45 PM																TOTAL
PEAK HR VOL :	49	19	61	0	59	21	125	0	48	453	50	3	74	416	60	7	1445
PEAK HR FACTOR :	0.645	0.679	0.763	0.000	0.819	0.525	0.845	0.000	0.800	0.913	0.781	0.750	0.841	0.937	0.682	0.438	0.953
	0.750				0.788				0.888				0.922				

Prepared by National Data & Surveying Services

La Paz Center Dwy & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-026
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

La Paz Center Dwy — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	125	21	59	0	127	NOON
PM	0	0	0	0	0	PM

PEAK HOURS: NONE | 11:45 AM - 12:45 PM | NONE

COUNT PERIODS: NONE | 11:00 AM - 01:00 PM | NONE

La Paz Rd — EASTBOUND

AM	NOON	PM	
0	593	0	⇦
0	3	0	0 ↶
0	48	0	1 ↱
0	453	0	2 →
0	50	0	0 ↷
AM	NOON	PM	

La Paz Rd — WESTBOUND

PM	NOON	AM	
0	60	0	0 ↶
0	416	0	2 ←
0	74	0	1 ↰
0	7	0	0 ↷
			⇨
0	580	0	
PM	NOON	AM	

CONTROL: Signalized

	AM	NOON	PM
TEV	0	1445	0
PHF		0.95	

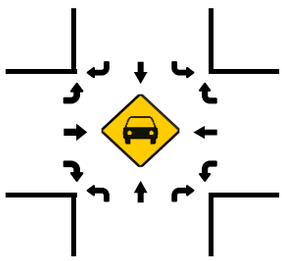
1 1 0 0 (EASTBOUND turning movements)

0 1 1 0 (WESTBOUND turning movements)

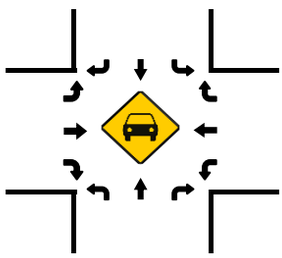
La Paz Center Dwy — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	145	0	49	19	61	NOON
AM	0	0	0	0	0	AM

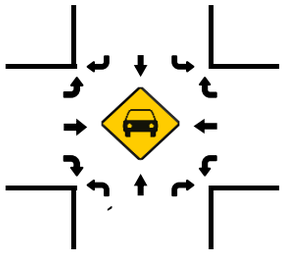
Total Vehicles (AM)



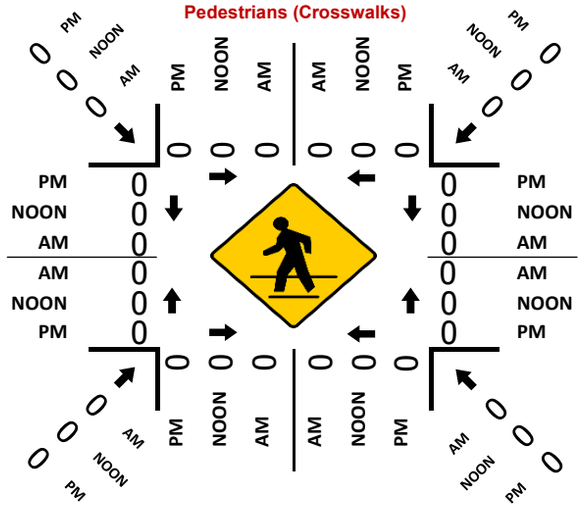
Total Vehicles (NOON)



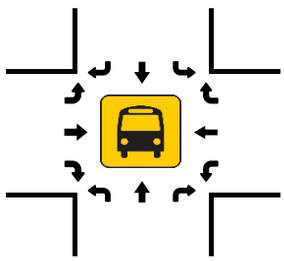
Total Vehicles (PM)



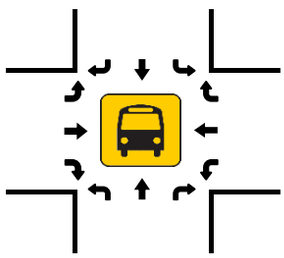
Pedestrians (Crosswalks)



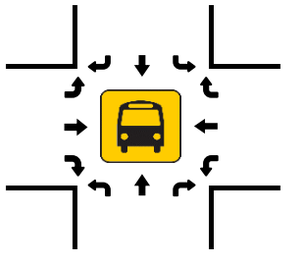
Total Vehicles (AM)



Total Vehicles (NOON)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Commerce Center & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-027
Date: 2019-09-18

Total

NS/EW Streets:	Commerce Center				Commerce Center				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	1	0	0	1	1	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	16	0	6	0	0	0	5	0	1	107	11	0	7	114	1	0	268
11:15 AM	16	0	13	0	0	0	2	0	3	97	18	0	11	130	0	0	290
11:30 AM	14	0	7	0	2	0	1	0	2	118	18	0	4	140	2	0	308
11:45 AM	11	0	8	0	0	0	3	0	0	120	23	0	8	133	1	0	307
12:00 PM	13	0	7	0	0	0	1	0	1	113	18	0	6	128	0	1	288
12:15 PM	15	0	11	0	0	0	4	0	3	142	16	0	9	111	0	0	311
12:30 PM	25	0	8	0	1	0	2	0	2	128	11	0	9	102	0	0	288
12:45 PM	11	0	6	0	3	0	1	0	0	124	12	0	5	92	0	0	254
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	121	0	66	0	6	0	19	0	12	949	127	0	59	950	4	1	2314
APPROACH %'s :	64.71%	0.00%	35.29%	0.00%	24.00%	0.00%	76.00%	0.00%	1.10%	87.22%	11.67%	0.00%	5.82%	93.69%	0.39%	0.10%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	53	0	33	0	2	0	9	0	6	493	75	0	27	512	3	1	1214
PEAK HR FACTOR :	0.883	0.000	0.750	0.000	0.250	0.000	0.563	0.000	0.500	0.868	0.815	0.000	0.750	0.914	0.375	0.250	0.976
	0.827				0.688				0.891				0.930				

Prepared by National Data & Surveying Services

Commerce Center & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-027
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

PEAK HOURS	COUNT PERIODS
NONE	NONE
11:30 AM - 12:30 PM	11:00 AM - 01:00 PM
NONE	NONE

Commerce Center — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	9	0	2	0	9	NOON
PM	0	0	0	0	0	PM

La Paz Rd — EASTBOUND

AM	NOON	PM	
0	574	0	⇦
0	0	0	0 ↰
0	6	0	1 ↑
0	493	0	2 →
0	75	0	0 ↱
AM	NOON	PM	

La Paz Rd — WESTBOUND

PM	NOON	AM	
0	3	0	0 ↰
0	512	0	2 ←
0	27	0	1 ↰
0	1	0	0 ↱
			⇨
0	529	0	
PM	NOON	AM	

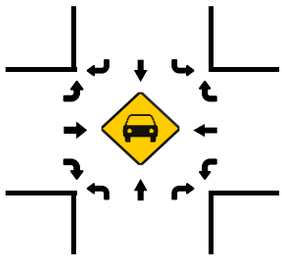
CONTROL: Signalized

	AM	NOON	PM
TEV	0	1214	0
PHF		0.98	

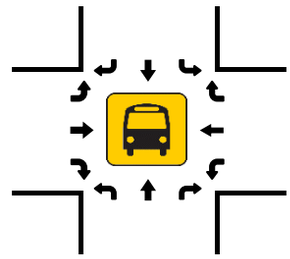
Commerce Center — NORTHBOUND

PM	0	0	0	0	0	PM
NOON	102	0	53	0	33	NOON
AM	0	0	0	0	0	AM

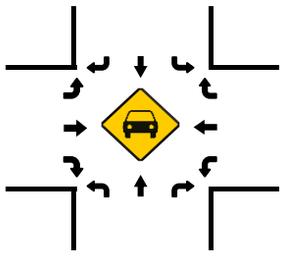
Total Vehicles (AM)



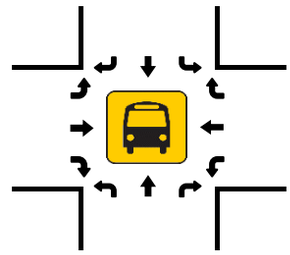
Total Vehicles (AM)



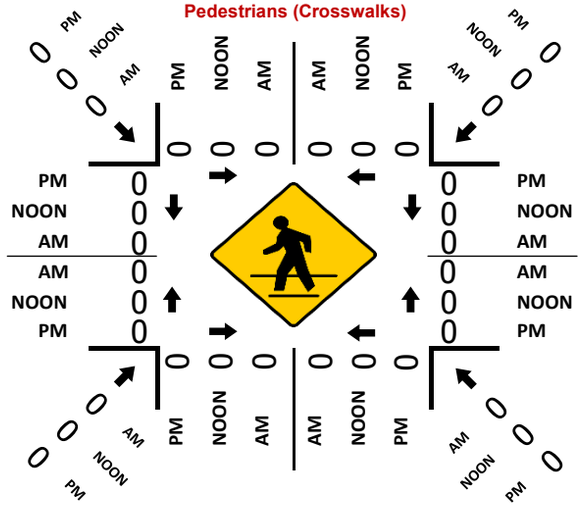
Total Vehicles (NOON)



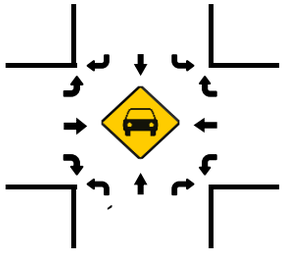
Total Vehicles (NOON)



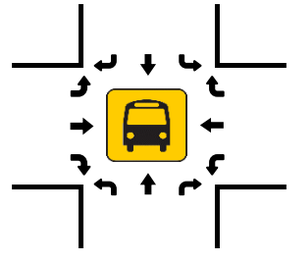
Pedestrians (Crosswalks)



Total Vehicles (PM)



Total Vehicles (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Pacific Hills Dr/Veterans Way & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-028
Date: 2019-09-18

Total

NS/EW Streets:	Pacific Hills Dr/Veterans Way				Pacific Hills Dr/Veterans Way				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	1	0	0	0.5	0.5	1	0	1	2	0	0	1	2	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	40	0	1	0	2	3	15	0	15	79	35	0	0	77	6	0	273
11:15 AM	31	2	0	0	12	5	24	0	7	65	27	0	2	78	5	0	258
11:30 AM	37	2	3	0	7	1	37	0	22	79	44	0	1	69	4	0	306
11:45 AM	31	1	4	0	6	1	32	0	18	64	36	0	1	72	5	0	271
12:00 PM	37	1	5	0	6	2	24	0	22	78	40	0	6	69	10	0	300
12:15 PM	30	2	4	0	4	1	14	0	20	86	39	0	1	62	9	0	272
12:30 PM	35	1	7	0	2	2	5	0	13	93	42	0	1	76	4	0	281
12:45 PM	29	0	1	0	7	0	9	0	8	83	33	0	1	60	4	0	235
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	270	9	25	0	46	15	160	0	125	627	296	0	13	563	47	0	2196
APPROACH %'s :	88.82%	2.96%	8.22%	0.00%	20.81%	6.79%	72.40%	0.00%	11.93%	59.83%	28.24%	0.00%	2.09%	90.37%	7.54%	0.00%	
PEAK HR :	11:30 AM - 12:30 PM																TOTAL
PEAK HR VOL :	135	6	16	0	23	5	107	0	82	307	159	0	9	272	28	0	1149
PEAK HR FACTOR :	0.912	0.750	0.800	0.000	0.821	0.625	0.723	0.000	0.932	0.892	0.903	0.000	0.375	0.944	0.700	0.000	0.939
	0.913				0.750				0.945				0.909				

Prepared by National Data & Surveying Services

Pacific Hills Dr/Veterans Way & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-028
City: Mission Viejo

Day: Wednesday
Date: 09/18/2019

Pacific Hills Dr/Veterans Way — SOUTHBOUND

PEAK HOURS								COUNT PERIODS
NONE	AM	0	0	0	0	0	AM	NONE
11:30 AM - 12:30 PM	NOON	107	5	23	0	116	NOON	11:00 AM - 01:00 PM
NONE	PM	0	0	0	0	0	PM	NONE

La Paz Rd — EASTBOUND	AM	NOON	PM
	0	514	0
0	0	0	0
1	0	82	0
2	0	307	0
0	0	159	0
	AM	NOON	PM

WESTBOUND — La Paz Rd	PM	NOON	AM
0	0	28	0
2	0	272	0
1	0	9	0
0	0	0	0
	0	346	0
	PM	NOON	AM

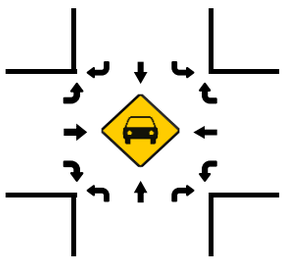
CONTROL			
Signalized			
TEV	0 AM	1149 NOON	0 PM
PHF		0.94	

	1	0.5	0.5	0	
	0	1	1	0	

NORTHBOUND					
PM	0	0	0	0	0 PM
NOON	173	0	135	6	16 NOON
AM	0	0	0	0	0 AM

Pacific Hills Dr/Veterans Way — NORTHBOUND

Total Vehicles (AM)



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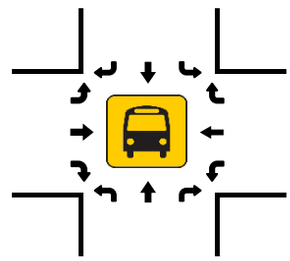
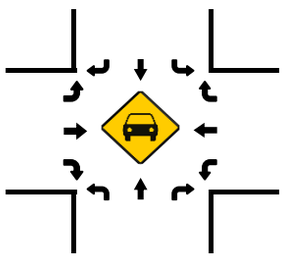


Total Vehicles (NOON)



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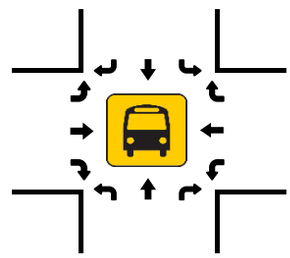

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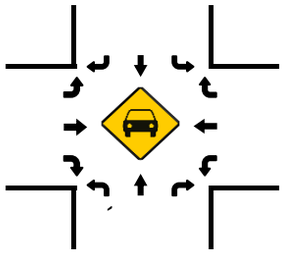

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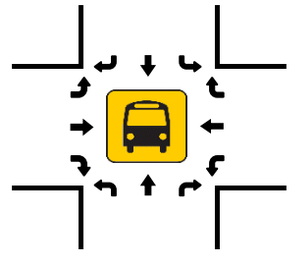
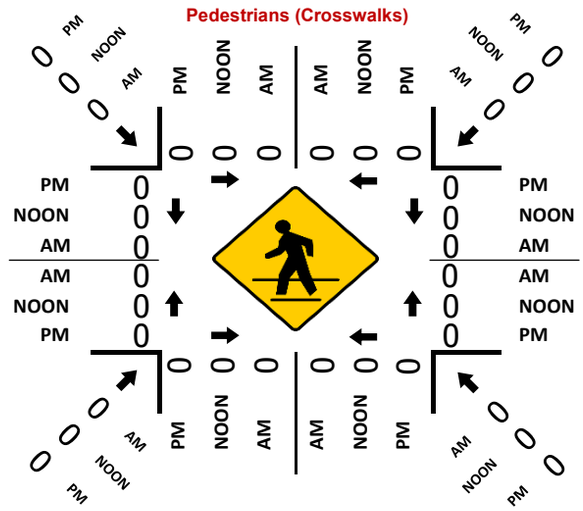


Pedestrians (Crosswalks)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Felipe Rd/Olympiad Rd & La Paz Rd
City: Mission Viejo
Control: Signalized

Project ID: 19-01187-029
Date: 2019-09-17

Total

NS/EW Streets:	Felipe Rd/Olympiad Rd				Felipe Rd/Olympiad Rd				La Paz Rd				La Paz Rd				
NOON	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	1	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
11:00 AM	16	64	0	0	0	88	20	0	27	0	22	0	0	0	0	0	237
11:15 AM	17	76	0	0	0	90	23	0	35	0	14	0	0	0	0	0	255
11:30 AM	34	103	0	0	0	101	26	0	33	0	20	0	0	0	0	0	317
11:45 AM	17	89	0	0	0	82	27	0	25	0	29	1	0	0	0	0	270
12:00 PM	13	92	0	0	0	75	14	0	28	0	18	0	0	0	0	0	240
12:15 PM	30	94	0	0	0	75	19	0	26	0	28	0	0	0	0	0	272
12:30 PM	25	102	0	0	0	87	22	0	22	0	28	0	0	0	0	0	286
12:45 PM	38	92	0	0	0	76	14	0	24	0	27	0	0	0	0	0	271
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	190	712	0	0	0	674	165	0	220	0	186	1	0	0	0	0	2148
APPROACH %'s :	21.06%	78.94%	0.00%	0.00%	0.00%	80.33%	19.67%	0.00%	54.05%	0.00%	45.70%	0.25%					
PEAK HR :	**11:30 AM - 12:30 PM**																TOTAL
PEAK HR VOL :	94	378	0	0	0	333	86	0	112	0	95	1	0	0	0	0	1099
PEAK HR FACTOR :	0.691	0.917	0.000	0.000	0.000	0.824	0.796	0.000	0.848	0.000	0.819	0.250	0.000	0.000	0.000	0.000	0.867
	0.861				0.825				0.945								

Prepared by National Data & Surveying Services

Felipe Rd/Olympiad Rd & La Paz Rd

Peak Hour Turning Movement Count

ID: 19-01187-029
City: Mission Viejo

Day: Tuesday
Date: 09/17/2019

Felipe Rd/Olympiad Rd

SOUTHBOUND

PEAK HOURS		COUNT PERIODS
NONE	AM	NONE
11:30 AM - 12:30 PM	NOON	11:00 AM - 01:00 PM
NONE	PM	NONE

AM	0	0	0	0	0	AM
NOON	86	333	0	0	490	NOON
PM	0	0	0	0	0	PM

La Paz Rd

EASTBOUND

AM	NOON	PM	
0	181	0	
0	1	0	0
0	112	0	1
0	0	0	0
0	95	0	1
AM	NOON	PM	

0 2 0 0

CONTROL

Signalized

	AM	NOON	PM
TEV	0	1099	0
PHF		0.87	

WESTBOUND

PM	NOON	AM	
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	
PM	NOON	AM	

0 1 2 0

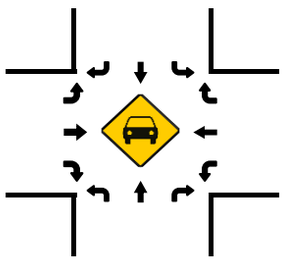
La Paz Rd

NORTHBOUND

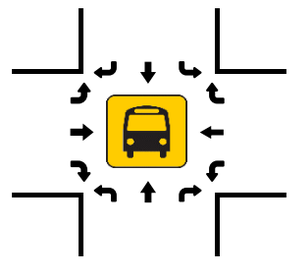
PM	0	0	0	0	PM
NOON	428	0	94	378	0 NOON
AM	0	0	0	0	AM

Felipe Rd/Olympiad Rd

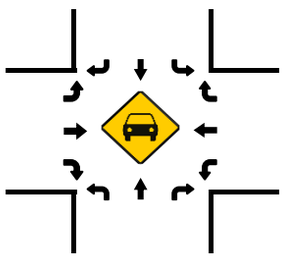
Total Vehicles (AM)



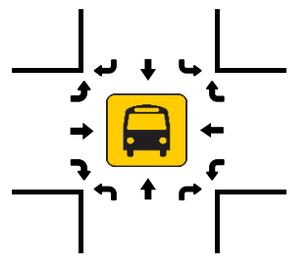
Total Vehicles (AM)



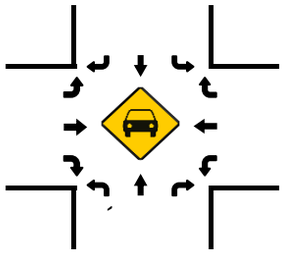
Total Vehicles (NOON)



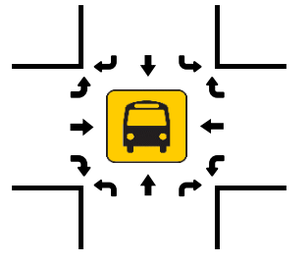
Total Vehicles (NOON)



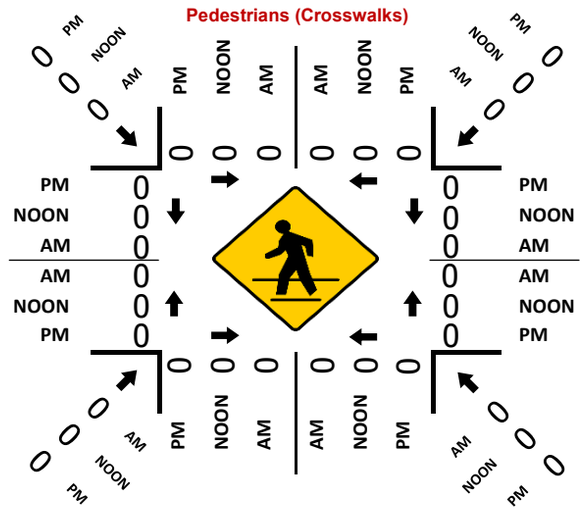
Total Vehicles (PM)



Total Vehicles (PM)



Pedestrians (Crosswalks)



Appendix B

ICU Calculations

EXISTING (2019) WEEKDAY MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 1. Kaleidoscope (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	116	0.05	
NT	0.5	850	10	0.07	*
NR	0	0	51	0.03	
SL	1.5	2550	38	0.01	*
ST	0.5	850	7	0.01	
SR	1	1700	64	0.04	
EL	2	3400	109	0.03	
ET	4	6800	2338	0.35	*
ER	0	0	33	0.02	
WL	1	1700	99	0.06	*
WT	4	6800	2356	0.35	
WR	0	0	25	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.55
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 2. Puerta Real (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	365	0.11	*
NT	1	1700	44	0.03	
NR	1	1700	107	0.06	
SL	1	1700	77	0.05	
ST	1	1700	56	0.03	*
SR (OL)	2	3400	340	0.10	
EL	2	3400	298	0.09	*
ET	4	6800	1613	0.24	
ER (OL)	1	1700	573	0.34	
WL	2	3400	125	0.04	
WT	4	6800	1865	0.29	*
WR (d)	0	0	85	0.05	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.57
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 3. Medical Center (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	544	0.21	*
NT	1	1700	29	0.02	
NR	0.5	850	91	0.11	
SL	0.5	850	51	0.06	*
ST	0.5	850	42	0.05	
SR	1	1700	126	0.07	
EL	1	1700	108	0.06	
ET	4	6800	1333	0.25	*
ER	0	0	356	0.21	
WL	2	3400	125	0.04	*
WT	4	6800	1365	0.21	
WR	0	0	52	0.03	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.61
LOS	B

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 4. Los Altos (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	137	0.05	*
NT	0.5	850	8	0.01	
NR	1	1700	64	0.04	
SL	1	1700	84	0.05	*
ST	0	0	8	0.00	
SR	1	1700	140	0.08	
EL	1	1700	149	0.09	*
ET	4	6800	1353	0.21	
ER	0	0	49	0.03	
WL	1	1700	50	0.03	
WT	4	6800	1218	0.19	*
WR	0	0	76	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.43
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 5. Bellogente (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	10	0.01	*
NT	1	1700	2	0.00	
NR	0	0	5	0.00	
SL	1	1700	77	0.05	
ST	1	1700	1	0.05	*
SR	0	0	82	0.05	
EL	1	1700	64	0.04	*
ET	4	6800	1380	0.21	
ER	0	0	15	0.01	
WL	1	1700	12	0.01	
WT	4	6800	1231	0.19	*
WR	0	0	69	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.34
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 6. Marguerite Pkwy (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	185	0.05	
NT	2	3400	650	0.19	*
NR	1	1700	455	0.27	
SL	2	3400	327	0.10	*
ST	2	3400	543	0.16	
SR	1	1700	297	0.17	
EL	2	3400	356	0.10	
ET	4	6800	948	0.14	*
ER	1	1700	169	0.10	
WL	2	3400	469	0.14	*
WT	4	6800	851	0.13	
WR	1	1700	230	0.14	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.62
LOS	B

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 7. Marguerite Pkwy (N/S) and Felipe Road (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase E/W

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	12	0.01	
NT	2	3400	792	0.23	*
NR (OL)	1	1700	383	0.23	
SL	1	1700	111	0.07	*
ST	2	3400	833	0.25	
SR (d)	1	1700	25	0.01	
EL	1	1700	44	0.03	*
ET	1	1700	17	0.02	
ER	0	0	18	0.01	
WL	1.5	2550	355	0.14	*
WT	0.5	850	18	0.02	
WR	1	1700	95	0.06	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.52
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 8. El Retiro (N/S) and Felipe Road (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	0	0	44	0.03	*
NT	1	1700	2	0.03	
NR	1	1700	19	0.01	
SL	0	0	5	0.00	
ST	1	1700	3	0.00	*
SR	1	1700	25	0.01	
EL	1	1700	16	0.01	
ET	2	3400	431	0.14	*
ER	0	0	44	0.03	
WL	1	1700	14	0.01	*
WT	2	3400	387	0.12	
WR	0	0	5	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.24
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 9. Felipe Road (N/S) and CMIDDAY PEAKden (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	2	3400	350	0.12	*
NR	0	0	54	0.03	
SL	1	1700	7	0.00	*
ST	2	3400	350	0.10	
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	-	0	0	0.00	*
ER	-	0	0	0.00	
WL	1	1700	51	0.03	*
WT	-	0	0	0.00	
WR	1	1700	11	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.20
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 10. Felipe Road (N/S) and Barbadanes (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	24	0.01	
NT	2	3400	299	0.11	*
NR	0	0	66	0.04	
SL	1	1700	24	0.01	*
ST	2	3400	239	0.07	
SR	1	1700	12	0.01	
EL	1	1700	10	0.01	
ET	0	0	2	0.00	*
ER	1	1700	19	0.01	
WL	1	1700	66	0.04	*
WT	0	0	2	0.00	
WR	1	1700	12	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.21
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 11. Felipe Road (N/S) and Buscador (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	8	0.00	
NT	2	3400	275	0.09	*
NR	0	0	42	0.02	
SL	1	1700	28	0.02	*
ST	2	3400	229	0.07	
SR	0	0	5	0.00	
EL	0	0	8	0.00	
ET	1	1700	2	0.01	*
ER	1	1700	10	0.01	
WL	0	0	37	0.02	*
WT	1	1700	2	0.02	
WR	1	1700	30	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.19
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 12. Felipe Road (N/S) and Oso (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	58	0.03	
NT	2	3400	213	0.06	*
NR (OL)	1	1700	58	0.03	
SL	1	1700	183	0.11	*
ST	2	3400	174	0.11	
SR	0	0	190	0.11	
EL	1	1700	176	0.10	*
ET	3	5100	884	0.17	
ER (d)	1	1700	52	0.03	
WL	1	1700	37	0.02	
WT	3	5100	917	0.18	*
WR (d)	1	1700	183	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.50
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 13. Feliple (N/S) and Fieldcrest (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	43	0.03	*
NT	2	3400	456	0.13	
NR	-	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	382	0.12	*
SR	0	0	32	0.02	
EL	1	1700	26	0.02	*
ET	-	0	0	0.00	
ER	1	1700	54	0.03	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.22
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 14. Montanoso Dr (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	14	0.01	
NT	-	0	0	0.00	*
NR	1	1700	8	0.00	
SL	1	1700	31	0.02	*
ST	-	0	0	0.00	
SR	1	1700	105	0.06	
EL	1	1700	127	0.07	*
ET	4	6800	1415	0.21	
ER	1	1700	11	0.01	
WL	1	1700	7	0.00	
WT	4	6800	1692	0.25	*
WR	0	0	37	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.39
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 15. Country Club Drive (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	91	0.05	*
NT	-	0	0	0.00	
NR	1	1700	39	0.02	
SL	-	0	0	0.00	
ST	-	0	0	0.00	*
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	4	6800	1418	0.22	*
ER	0	0	61	0.04	
WL	1	1700	51	0.03	*
WT	4	6800	1629	0.24	
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 16. Marquerite (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	296	0.09	*
NT	2	3400	684	0.20	
NR	1	1700	59	0.03	
SL	2	3400	202	0.06	
ST	2	3400	688	0.20	*
SR	1	1700	274	0.16	
EL	2	3400	412	0.12	*
ET	4	6800	815	0.12	
ER (d)	1	1700	306	0.18	
WL	2	3400	84	0.02	
WT	4	6800	994	0.15	*
WR	1	1700	118	0.07	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.61
LOS	B

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 17. Marketplace (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	118	0.07	*
ST	0	0	0	0.00	
SR	1	1700	84	0.05	
EL	1	1700	74	0.04	*
ET	4	6800	997	0.15	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	3	5100	1121	0.22	*
WR	1	1700	75	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.38
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 18. Alpera/Pacific Hills (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	9	0.01	*
NT	0	0	1	0.00	
NR	1	1700	3	0.00	
SL	1	1700	11	0.01	
ST	0	0	4	0.00	*
SR	1	1700	80	0.05	
EL	1	1700	70	0.04	*
ET	3	5100	978	0.19	
ER (d)	1	1700	10	0.01	
WL	1	1700	3	0.00	
WT	3	5100	1156	0.23	*
WR (d)	1	1700	16	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	0.02
ICU	0.35
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 19. Aruza (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	15	0.01	*
NT	-	0	0	0.00	
NR	1	1700	7	0.00	
SL	1	1700	6	0.00	
ST	-	0	0	0.00	*
SR	1	1700	31	0.02	
EL	1	1700	34	0.02	*
ET	3	5100	1094	0.21	
ER (d)	1	1700	23	0.01	
WL	1	1700	10	0.01	
WT	3	5100	1146	0.22	*
WR (d)	1	1700	3	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.30
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 20. Muirlands Blvd (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	133	0.05	
NT	1	1700	97	0.06	*
NR	1.5	2550	169	0.07	
SL	2	3400	231	0.07	*
ST	-	0	0	0.00	
SR	2	3400	225	0.07	
EL	2	3400	197	0.06	*
ET	2	3400	735	0.22	
ER (Fr)	1	1700	365	0.21	
WL	-	0	0	0.00	
WT	3	5100	926	0.22	*
WR	0	0	186	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.47
LOS	A

(Fr)- Free Right Turn

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 21. Chrisanta Dr (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	192	0.08	*
NT	0.5	850	43	0.05	
NR	1	1700	38	0.02	
SL	1	1700	75	0.04	*
ST	1	1700	29	0.02	
SR	1	1700	125	0.07	
EL	1	1700	164	0.10	*
ET	2	3400	817	0.24	
ER (OL)	1	1700	155	0.09	
WL	1	1700	38	0.02	
WT	2	3400	778	0.23	*
WR	1	1700	77	0.05	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.50
LOS	A

(OL)- Overlap RT Turn
Signal Phasing

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 22. Mosquero Ln (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	26	0.02	*
ST	-	0	0	0.00	
SR (OL)	1	1700	136	0.08	
EL	1	1700	123	0.07	*
ET	2	3400	811	0.24	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	2	3400	758	0.22	*
WR (d)	1	1700	25	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.36
LOS	A

(OL)- Overlap RT Turn Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 23. Pradera Dr (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	49	0.03	*
NT	-	0	0	0.00	
NR	1	1700	84	0.05	
SL	-	0	0	0.00	
ST	-	0	0	0.00	*
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	2	3400	821	0.24	*
ER (d)	1	1700	36	0.02	
WL	1	1700	26	0.02	*
WT	2	3400	753	0.22	
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.35
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 24. Spadra (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	26	0.02	*
ST	-	0	0	0.00	
SR	1	1700	59	0.03	
EL	1	1700	97	0.06	*
ET	2	3400	809	0.24	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	2	3400	733	0.22	*
WR (d)	1	1700	37	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 25. Maguerite (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	224	0.07	*
NT	2	3400	823	0.24	
NR (d)	1	1700	130	0.08	
SL	2	3400	146	0.04	
ST	2	3400	751	0.22	*
SR	1	1700	191	0.11	
EL	2	3400	266	0.08	*
ET	2	3400	324	0.10	
ER	1	1700	213	0.13	
WL	2	3400	173	0.05	
WT	2	3400	309	0.13	*
WR	0	0	118	0.07	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.55
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 26. La Paz Center Dwy (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	49	0.03	
NT	1	1700	19	0.05	*
NR	0	0	61	0.04	
SL	1	1700	59	0.05	*
ST	0	0	21	0.00	
SR	1	1700	125	0.07	
EL	1	1700	51	0.03	
ET	2	3400	453	0.15	*
ER	0	0	50	0.03	
WL	1	1700	81	0.05	*
WT	2	3400	416	0.14	
WR	0	0	60	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 27. Commerce Center (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACIT (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	53	0.03	*
NT	-	0	0	0.00	
NR	1	1700	33	0.02	
SL	1	1700	2	0.00	
ST	-	0	0	0.00	*
SR	1	1700	9	0.01	
EL	1	1700	6	0.00	
ET	2	3400	493	0.15	*
ER (d)	1	1700	75	0.04	
WL	1	1700	28	0.02	*
WT	2	3400	512	0.15	
WR (d)	1	1700	3	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.25
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*) plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 28. Pacific Hills (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	135	0.08	*
NT	1	1700	6	0.01	
NR	0	0	16	0.01	
SL	0	0	23	0.01	
ST	1	1700	5	0.02	*
SR	1	1700	107	0.06	
EL	1	1700	82	0.05	
ET	2	3400	307	0.14	*
ER	0	0	159	0.09	
WL	1	1700	9	0.01	*
WT	2	3400	272	0.09	
WR	0	0	28	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.31
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*) plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	378	0.11	
NR	0	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	333	0.12	*
SR	0	0	86	0.05	
EL	1	1700	113	0.07	*
ET	1	1700	0	0.06	
ER	-	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.30
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*) plus critical right-turn value if any.

EXISTING (2019) WITH HAUL
ROUTE 1 MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 20. Muirlands Blvd (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	133	0.05	
NT	1	1700	97	0.06	*
NR	1.5	2550	219	0.09	
SL	2	3400	231	0.07	*
ST	-	0	0	0.00	
SR	2	3400	225	0.07	
EL	2	3400	197	0.06	*
ET	2	3400	735	0.22	
ER (Fr)	1	1700	365	0.21	
WL	-	0	0	0.00	
WT	3	5100	976	0.23	*
WR	0	0	186	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	0.03
ICU	0.50
LOS	A

(Fr)- Free Right Turn

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 21. Chrisanta Dr (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	192	0.08	*
NT	0.5	850	43	0.05	
NR	1	1700	38	0.02	
SL	1	1700	75	0.04	*
ST	1	1700	29	0.02	
SR	1	1700	125	0.07	
EL	1	1700	164	0.10	*
ET	2	3400	867	0.26	
ER (OL)	1	1700	155	0.09	
WL	1	1700	38	0.02	
WT	2	3400	828	0.24	*
WR	1	1700	77	0.05	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.51
LOS	A

(OL)- Overlap RT Turn
Signal Phasing

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 22. Mosquero Ln (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	26	0.02	*
ST	-	0	0	0.00	
SR (OL)	1	1700	136	0.08	
EL	1	1700	123	0.07	*
ET	2	3400	861	0.25	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	2	3400	808	0.24	*
WR (d)	1	1700	25	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.38
LOS	A

(OL)- Overlap RT Turn Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 23. Pradera Dr (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	49	0.03	*
NT	-	0	0	0.00	
NR	1	1700	84	0.05	
SL	-	0	0	0.00	
ST	-	0	0	0.00	*
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	2	3400	871	0.26	*
ER (d)	1	1700	36	0.02	
WL	1	1700	26	0.02	*
WT	2	3400	803	0.24	
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.37
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 24. Spadra (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	26	0.02	*
ST	-	0	0	0.00	
SR	1	1700	59	0.03	
EL	1	1700	97	0.06	*
ET	2	3400	859	0.25	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	2	3400	783	0.23	*
WR (d)	1	1700	37	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.36
LOS	A

(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 25. Maguerite (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	224	0.07	*
NT	2	3400	823	0.24	
NR (d)	1	1700	130	0.08	
SL	2	3400	146	0.04	
ST	2	3400	751	0.22	*
SR	1	1700	191	0.11	
EL	2	3400	266	0.08	*
ET	2	3400	374	0.11	
ER	1	1700	213	0.13	
WL	2	3400	173	0.05	
WT	2	3400	359	0.14	*
WR	0	0	118	0.07	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.56
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 26. La Paz Center Dwy (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	49	0.03	
NT	1	1700	19	0.05	*
NR	0	0	61	0.04	
SL	1	1700	59	0.05	*
ST	0	0	21	0.00	
SR	1	1700	125	0.07	
EL	1	1700	51	0.03	
ET	2	3400	503	0.16	*
ER	0	0	50	0.03	
WL	1	1700	81	0.05	*
WT	2	3400	466	0.15	
WR	0	0	60	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.36
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 27. Commerce Center (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACIT (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	53	0.03	*
NT	-	0	0	0.00	
NR	1	1700	33	0.02	
SL	1	1700	2	0.00	
ST	-	0	0	0.00	*
SR	1	1700	9	0.01	
EL	1	1700	6	0.00	
ET	2	3400	543	0.16	*
ER (d)	1	1700	75	0.04	
WL	1	1700	28	0.02	*
WT	2	3400	562	0.17	
WR (d)	1	1700	3	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.26
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 28. Pacific Hills (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	135	0.08	*
NT	1	1700	6	0.01	
NR	0	0	16	0.01	
SL	0	0	23	0.01	
ST	1	1700	5	0.02	*
SR	1	1700	107	0.06	
EL	1	1700	82	0.05	
ET	2	3400	357	0.15	*
ER	0	0	159	0.09	
WL	1	1700	9	0.01	*
WT	2	3400	322	0.10	
WR	0	0	28	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.32
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*) plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 1 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	378	0.11	
NR	0	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	333	0.14	*
SR	0	0	136	0.08	
EL	1	1700	163	0.10	*
ET	1	1700	0	0.06	
ER	-	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

EXISTING (2019) WITH HAUL
ROUTE 2 MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 12. Felipe Road (N/S) and Oso (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	58	0.03	
NT	2	3400	213	0.06	*
NR (OL)	1	1700	58	0.03	
SL	1	1700	183	0.11	*
ST	2	3400	174	0.12	
SR	0	0	240	0.14	
EL	1	1700	226	0.13	*
ET	3	5100	884	0.17	
ER (d)	1	1700	52	0.03	
WL	1	1700	37	0.02	
WT	3	5100	917	0.18	*
WR (d)	1	1700	183	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.53
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 13. Feliple (N/S) and Fieldcrest (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	43	0.03	*
NT	2	3400	506	0.15	
NR	-	0	0	0.00	
SL	0	0	0	0.00	
ST	2	3400	432	0.14	*
SR	0	0	32	0.02	
EL	1	1700	26	0.02	*
ET	-	0	0	0.00	
ER	1	1700	54	0.03	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.24
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 14. Montanoso Dr (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	14	0.01	
NT	-	0	0	0.00	*
NR	1	1700	8	0.00	
SL	1	1700	31	0.02	*
ST	-	0	0	0.00	
SR	1	1700	105	0.06	
EL	1	1700	127	0.07	*
ET	4	6800	1465	0.22	
ER	1	1700	11	0.01	
WL	1	1700	7	0.00	
WT	4	6800	1742	0.26	*
WR	0	0	37	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.40
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 15. Country Club Drive (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	91	0.05	*
NT	-	0	0	0.00	
NR	1	1700	39	0.02	
SL	-	0	0	0.00	
ST	-	0	0	0.00	*
SR	-	0	0	0.00	
EL	-	0	0	0.00	*
ET	4	6800	1468	0.22	
ER	0	0	61	0.04	
WL	1	1700	51	0.03	
WT	4	6800	1679	0.25	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 16. Marquerite (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	296	0.09	*
NT	2	3400	684	0.20	
NR	1	1700	59	0.03	
SL	2	3400	202	0.06	
ST	2	3400	688	0.20	*
SR	1	1700	274	0.16	
EL	2	3400	412	0.12	*
ET	4	6800	865	0.13	
ER (d)	1	1700	306	0.18	
WL	2	3400	84	0.02	
WT	4	6800	1044	0.15	*
WR (d)	1	1700	118	0.07	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.61
LOS	B

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 17. Marketplace (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	118	0.07	*
ST	-	0	0	0.00	
SR	1	1700	84	0.05	
EL	1	1700	74	0.04	*
ET	4	6800	1047	0.15	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	3	5100	1171	0.23	*
WR	1	1700	75	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.39
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 18. Alpera/Pacific Hills (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	9	0.01	*
NT	0	0	1	0.00	
NR	1	1700	3	0.00	
SL	1	1700	11	0.01	
ST	0	0	4	0.00	*
SR	1	1700	80	0.05	
EL	1	1700	70	0.04	*
ET	3	5100	1028	0.20	
ER (d)	1	1700	10	0.01	
WL	1	1700	3	0.00	
WT	3	5100	1206	0.24	*
WR (d)	1	1700	16	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	0.02
ICU	0.36
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 19. Aruza (N/S) and Oso Pkwy (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	15	0.01	*
NT	-	0	0	0.00	
NR	1	1700	7	0.00	
SL	1	1700	6	0.00	
ST	-	0	0	0.00	*
SR	1	1700	31	0.02	
EL	1	1700	34	0.02	*
ET	3	5100	1144	0.22	
ER (d)	1	1700	23	0.01	
WL	1	1700	10	0.01	
WT	3	5100	1196	0.23	*
WR (d)	1	1700	3	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.31
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 2 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	428	0.13	
NR	-	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	383	0.14	*
SR	0	0	86	0.05	
EL	1	1700	113	0.07	*
ET	1	1700	0	0.06	
ER	0	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.32
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

EXISTING (2019) WITH HAUL
ROUTE 3 MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 1. Kaleidoscope (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	116	0.05	
NT	0.5	850	10	0.07	*
NR	0	0	51	0.03	
SL	1.5	2550	38	0.01	*
ST	0.5	850	7	0.01	
SR	1	1700	64	0.04	
EL	2	3400	109	0.03	
ET	4	6800	2388	0.36	*
ER	0	0	33	0.02	
WL	1	1700	99	0.06	*
WT	4	6800	2406	0.36	
WR	0	0	25	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.56
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 2. Puerta Real (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	365	0.11	*
NT	1	1700	44	0.03	
NR	1	1700	107	0.06	
SL	1	1700	77	0.05	
ST	1	1700	56	0.03	*
SR (OL)	2	3400	340	0.10	
EL	2	3400	298	0.09	*
ET	4	6800	1663	0.24	
ER (OL)	1	1700	573	0.34	
WL	2	3400	125	0.04	
WT	4	6800	1915	0.29	*
WR (d)	0	0	85	0.05	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.57
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 3. Medical Center (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	544	0.21	*
NT	1	1700	29	0.02	
NR	0.5	850	91	0.11	
SL	0.5	850	51	0.06	*
ST	0.5	850	42	0.05	
SR	1	1700	126	0.07	
EL	1	1700	108	0.06	
ET	4	6800	1383	0.26	*
ER	0	0	356	0.21	
WL	2	3400	125	0.04	*
WT	4	6800	1415	0.22	
WR	0	0	52	0.03	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.62
LOS	B

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 4. Los Altos (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	137	0.05	*
NT	0.5	850	8	0.01	
NR	1	1700	64	0.04	
SL	1	1700	84	0.05	*
ST	0	0	8	0.00	
SR	1	1700	140	0.08	
EL	1	1700	149	0.09	*
ET	4	6800	1403	0.21	
ER	0	0	49	0.03	
WL	1	1700	50	0.03	
WT	4	6800	1268	0.20	*
WR	0	0	76	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.44
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 5. Bellogente (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	10	0.01	*
NT	1	1700	2	0.00	
NR	0	0	5	0.00	
SL	1	1700	77	0.05	
ST	1	1700	1	0.05	*
SR	0	0	82	0.05	
EL	1	1700	64	0.04	*
ET	4	6800	1430	0.21	
ER	0	0	15	0.01	
WL	1	1700	12	0.01	
WT	4	6800	1281	0.20	*
WR	0	0	69	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 6. Marguerite Pkwy (N/S) and Crown Valley (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	185	0.05	
NT	2	3400	650	0.19	*
NR	1	1700	455	0.27	
SL	2	3400	327	0.10	*
ST	2	3400	543	0.16	
SR	1	1700	347	0.20	
EL	2	3400	406	0.12	
ET	4	6800	948	0.14	*
ER	1	1700	169	0.10	
WL	2	3400	469	0.14	*
WT	4	6800	851	0.13	
WR	1	1700	230	0.14	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.62
LOS	B

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 7. Marguerite Pkwy (N/S) and Felipe Road (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase E/W

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	12	0.01	
NT	2	3400	792	0.23	*
NR (OL)	1	1700	433	0.25	
SL	1	1700	111	0.07	*
ST	2	3400	833	0.25	
SR (d)	1	1700	25	0.01	
EL	1	1700	44	0.03	*
ET	1	1700	17	0.02	
ER	0	0	18	0.01	
WL	1.5	2550	405	0.16	*
WT	0.5	850	18	0.02	
WR	1	1700	95	0.06	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.54
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 8. El Retiro (N/S) and Felipe Road (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	0	0	44	0.03	*
NT	1	1700	2	0.03	
NR	1	1700	19	0.01	
SL	0	0	5	0.00	
ST	1	1700	3	0.00	*
SR	1	1700	25	0.01	
EL	1	1700	16	0.01	
ET	2	3400	481	0.15	*
ER	0	0	44	0.03	
WL	1	1700	14	0.01	*
WT	2	3400	437	0.13	
WR	0	0	5	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.25
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 9. Felipe Road (N/S) and CMIDDAY PEAKden (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	2	3400	400	0.13	*
NR	0	0	54	0.03	
SL	1	1700	7	0.00	*
ST	2	3400	400	0.12	
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	-	0	0	0.00	*
ER	-	0	0	0.00	
WL	1	1700	51	0.03	*
WT	-	0	0	0.00	
WR	1	1700	11	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.21
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 10. Felipe Road (N/S) and Barbadanes (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	24	0.01	
NT	2	3400	349	0.12	*
NR	0	0	66	0.04	
SL	1	1700	24	0.01	*
ST	2	3400	289	0.09	
SR	1	1700	12	0.01	
EL	1	1700	10	0.01	
ET	0	0	2	0.00	*
ER	1	1700	19	0.01	
WL	1	1700	66	0.04	*
WT	0	0	2	0.00	
WR	1	1700	12	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.22
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 11. Felipe Road (N/S) and Buscador (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	8	0.00	
NT	2	3400	325	0.11	*
NR	0	0	42	0.02	
SL	1	1700	28	0.02	*
ST	2	3400	279	0.08	
SR	0	0	5	0.00	
EL	0	0	8	0.00	
ET	1	1700	2	0.01	*
ER	1	1700	10	0.01	
WL	0	0	37	0.02	*
WT	1	1700	2	0.02	
WR	1	1700	30	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.21
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 12. Felipe Road (N/S) and Oso (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	58	0.03	
NT	2	3400	263	0.08	*
NR (OL)	1	1700	58	0.03	
SL	1	1700	183	0.11	*
ST	2	3400	224	0.12	
SR	0	0	190	0.11	
EL	1	1700	176	0.10	*
ET	3	5100	884	0.17	
ER (d)	1	1700	52	0.03	
WL	1	1700	37	0.02	
WT	3	5100	917	0.18	*
WR (d)	1	1700	183	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.52
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 13. Feliple (N/S) and Fieldcrest (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	43	0.03	*
NT	2	3400	506	0.15	
NR	-	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	432	0.14	*
SR	0	0	32	0.02	
EL	1	1700	26	0.02	*
ET	-	0	0	0.00	
ER	1	1700	54	0.03	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.24
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Existing (2019) Plus Haul Route 3 Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	428	0.13	
NR	-	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	383	0.14	*
SR	0	0	86	0.05	
EL	1	1700	113	0.07	*
ET	1	1700	0	0.06	
ER	-	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.32
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

EXISTING (2019) WITH HAUL ROUTE 1 WITH CUMULATIVE MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 20. Muirlands Blvd (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	133	0.05	
NT	1	1700	103	0.06	*
NR	1.5	2550	219	0.09	
SL	2	3400	243	0.07	*
ST	-	0	0	0.00	
SR	2	3400	247	0.07	
EL	2	3400	214	0.06	*
ET	2	3400	735	0.22	
ER (Fr)	1	1700	365	0.21	
WL	-	0	0	0.00	
WT	3	5100	976	0.23	*
WR	0	0	198	0.12	

CLEARANCE	0.05
CRITICAL RIGHT	0.03
ICU	0.50
LOS	A

(Fr)- Free Right Turn

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 21. Chrisanta Dr (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	192	0.08	*
NT	0.5	850	43	0.05	
NR	1	1700	38	0.02	
SL	1	1700	75	0.04	*
ST	1	1700	29	0.02	
SR	1	1700	125	0.07	
EL	1	1700	164	0.10	*
ET	2	3400	879	0.26	
ER (OL)	1	1700	155	0.09	
WL	1	1700	38	0.02	
WT	2	3400	840	0.25	*
WR	1	1700	77	0.05	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.52
LOS	A

(OL)- Overlap RT Turn
Signal Phasing

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 22. Mosquero Ln (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	26	0.02	*
ST	-	0	0	0.00	
SR (OL)	1	1700	136	0.08	
EL	1	1700	123	0.07	*
ET	2	3400	873	0.26	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	2	3400	820	0.24	*
WR (d)	1	1700	25	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.38
LOS	A

(OL)- Overlap RT Turn Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 23. Pradera Dr (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	49	0.03	*
NT	-	0	0	0.00	
NR	1	1700	84	0.05	
SL	-	0	0	0.00	
ST	-	0	0	0.00	*
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	2	3400	883	0.26	*
ER (d)	1	1700	36	0.02	
WL	1	1700	26	0.02	*
WT	2	3400	815	0.24	
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.37
LOS	A

(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 24. Spadra (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	26	0.02	*
ST	-	0	0	0.00	
SR	1	1700	59	0.03	
EL	1	1700	97	0.06	*
ET	2	3400	871	0.26	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	2	3400	795	0.23	*
WR (d)	1	1700	37	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.36
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 25. Maguerite (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	230	0.07	*
NT	2	3400	823	0.24	
NR (d)	1	1700	130	0.08	
SL	2	3400	146	0.04	
ST	2	3400	751	0.22	*
SR	1	1700	197	0.12	
EL	2	3400	272	0.08	*
ET	2	3400	374	0.11	
ER	1	1700	219	0.13	
WL	2	3400	173	0.05	
WT	2	3400	359	0.14	*
WR	0	0	118	0.07	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.56
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 26. La Paz Center Dwy (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	49	0.03	
NT	1	1700	19	0.05	*
NR	0	0	61	0.04	
SL	1	1700	59	0.05	*
ST	0	0	21	0.00	
SR	1	1700	125	0.07	
EL	1	1700	51	0.03	
ET	2	3400	503	0.16	*
ER	0	0	50	0.03	
WL	1	1700	81	0.05	*
WT	2	3400	466	0.15	
WR	0	0	60	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.36
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 27. Commerce Center (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACIT (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	53	0.03	*
NT	-	0	0	0.00	
NR	1	1700	33	0.02	
SL	1	1700	2	0.00	
ST	-	0	0	0.00	*
SR	1	1700	9	0.01	
EL	1	1700	6	0.00	
ET	2	3400	543	0.16	*
ER (d)	1	1700	75	0.04	
WL	1	1700	28	0.02	*
WT	2	3400	562	0.17	
WR (d)	1	1700	3	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.26
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 28. Pacific Hills (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	135	0.08	*
NT	1	1700	6	0.01	
NR	0	0	16	0.01	
SL	0	0	23	0.01	
ST	1	1700	5	0.02	*
SR	1	1700	107	0.06	
EL	1	1700	82	0.05	
ET	2	3400	357	0.15	*
ER	0	0	159	0.09	
WL	1	1700	9	0.01	*
WT	2	3400	322	0.10	
WR	0	0	28	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.32
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 1 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	378	0.11	
NR	0	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	333	0.14	*
SR	0	0	136	0.08	
EL	1	1700	163	0.10	*
ET	1	1700	0	0.06	
ER	-	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

EXISTING (2019) WITH HAUL ROUTE 2 WITH CUMULATIVE MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 12. Felipe Road (N/S) and Oso (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	58	0.03	
NT	2	3400	213	0.06	*
NR (OL)	1	1700	58	0.03	
SL	1	1700	183	0.11	*
ST	2	3400	174	0.12	
SR	0	0	240	0.14	
EL	1	1700	226	0.13	*
ET	3	5100	884	0.17	
ER (d)	1	1700	52	0.03	
WL	1	1700	37	0.02	
WT	3	5100	917	0.18	*
WR (d)	1	1700	183	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.53
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 13. Feliple (N/S) and Fieldcrest (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	43	0.03	*
NT	2	3400	506	0.15	
NR	-	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	432	0.14	*
SR	0	0	32	0.02	
EL	1	1700	26	0.02	*
ET	-	0	0	0.00	
ER	1	1700	54	0.03	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.24
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 14. Montanoso Dr (N/S) and Oso Pkwy (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	14	0.01	
NT	-	0	0	0.00	*
NR	1	1700	8	0.00	
SL	1	1700	31	0.02	*
ST	0	0	0	0.00	
SR	1	1700	105	0.06	
EL	1	1700	127	0.07	*
ET	4	6800	1465	0.22	
ER	1	1700	11	0.01	
WL	1	1700	7	0.00	
WT	4	6800	1742	0.26	*
WR	0	0	37	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.40
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 15. Country Club Drive (N/S) and Oso Pkwy (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	91	0.05	*
NT	-	0	0	0.00	
NR	1	1700	39	0.02	
SL	-	0	0	0.00	
ST	-	0	0	0.00	*
SR	-	0	0	0.00	
EL	-	0	0	0.00	*
ET	4	6800	1468	0.22	
ER	0	0	61	0.04	
WL	1	1700	51	0.03	
WT	4	6800	1679	0.25	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 16. Marquerite (N/S) and Oso Pkwy (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	296	0.09	*
NT	2	3400	684	0.20	
NR	1	1700	59	0.03	
SL	2	3400	202	0.06	
ST	2	3400	688	0.20	*
SR	1	1700	274	0.16	
EL	2	3400	412	0.12	*
ET	4	6800	865	0.13	
ER (d)	1	1700	306	0.18	
WL	2	3400	84	0.02	
WT	4	6800	1044	0.15	*
WR (d)	1	1700	118	0.07	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.61
LOS	B

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 17. Marketplace (N/S) and Oso Pkwy (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	-	0	0	0.00	*
NR	-	0	0	0.00	
SL	1	1700	118	0.07	*
ST	0	0	0	0.00	
SR	1	1700	84	0.05	
EL	1	1700	74	0.04	*
ET	4	6800	1047	0.15	
ER	-	0	0	0.00	
WL	-	0	0	0.00	
WT	3	5100	1171	0.23	*
WR	1	1700	75	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.39
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 18. Alpera/Pacific Hills (N/S) and Oso Pkwy (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	9	0.01	*
NT	0	0	1	0.00	
NR	1	1700	3	0.00	
SL	1	1700	11	0.01	
ST	0	0	4	0.00	*
SR	1	1700	80	0.05	
EL	1	1700	70	0.04	*
ET	3	5100	1028	0.20	
ER (d)	1	1700	10	0.01	
WL	1	1700	3	0.00	
WT	3	5100	1206	0.24	*
WR (d)	1	1700	16	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	0.02
ICU	0.36
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 19. Aruza (N/S) and Oso Pkwy (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	15	0.01	*
NT	-	0	0	0.00	
NR	1	1700	7	0.00	
SL	1	1700	6	0.00	
ST	-	0	0	0.00	*
SR	1	1700	31	0.02	
EL	1	1700	34	0.02	*
ET	3	5100	1144	0.22	
ER (d)	1	1700	23	0.01	
WL	1	1700	10	0.01	
WT	3	5100	1196	0.23	*
WR (d)	1	1700	3	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.31
LOS	A

(d)- Defacto right turn lane

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Haul Route 2 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	428	0.13	
NR	0	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	383	0.14	*
SR	0	0	86	0.05	
EL	1	1700	113	0.07	*
ET	1	1700	0	0.06	
ER	-	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.32
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

EXISTING (2019) WITH HAUL ROUTE 3 WITH CUMULATIVE MID-DAY PEAK HOUR

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 1. Kaleidoscope (N/S) and Crown Valley (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	116	0.05	
NT	0.5	850	10	0.07	*
NR	0	0	51	0.03	
SL	1.5	2550	38	0.01	*
ST	0.5	850	7	0.01	
SR	1	1700	64	0.04	
EL	2	3400	109	0.03	
ET	4	6800	2447	0.36	*
ER	0	0	33	0.02	
WL	1	1700	99	0.06	*
WT	4	6800	2498	0.37	
WR	0	0	25	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.56
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 2. Puerta Real (N/S) and Crown Valley (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	457	0.13	*
NT	1	1700	50	0.03	
NR	1	1700	107	0.06	
SL	1	1700	77	0.05	
ST	1	1700	60	0.04	*
SR (OL)	2	3400	340	0.10	
EL	2	3400	298	0.09	*
ET	4	6800	1663	0.24	
ER (OL)	1	1700	632	0.37	
WL	2	3400	125	0.04	
WT	4	6800	1915	0.29	*
WR (d)	0	0	85	0.05	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.60
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 3. Medical Center (N/S) and Crown Valley (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	544	0.21	*
NT	1	1700	32	0.02	
NR	0.5	850	105	0.12	
SL	0.5	850	51	0.06	*
ST	0.5	850	44	0.05	
SR	1	1700	126	0.07	
EL	1	1700	108	0.06	
ET	4	6800	1383	0.26	*
ER	0	0	356	0.21	
WL	2	3400	134	0.04	*
WT	4	6800	1415	0.22	
WR	0	0	52	0.03	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.62
LOS	B

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 4. Los Altos (N/S) and Crown Valley (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase N/S

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1.5	2550	137	0.05	*
NT	0.5	850	8	0.01	
NR	1	1700	64	0.04	
SL	1	1700	84	0.05	*
ST	0	0	8	0.00	
SR	1	1700	140	0.08	
EL	1	1700	149	0.09	*
ET	4	6800	1417	0.22	
ER	0	0	49	0.03	
WL	1	1700	50	0.03	
WT	4	6800	1277	0.20	*
WR	0	0	76	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.44
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 5. Bellogente (N/S) and Crown Valley (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	10	0.01	*
NT	1	1700	2	0.00	
NR	0	0	5	0.00	
SL	1	1700	77	0.05	
ST	1	1700	1	0.05	*
SR	0	0	82	0.05	
EL	1	1700	64	0.04	*
ET	4	6800	1444	0.21	
ER	0	0	15	0.01	
WL	1	1700	12	0.01	
WT	4	6800	1290	0.20	*
WR	0	0	69	0.04	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.35
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 6. Marguerite Pkwy (N/S) and Crown Valley (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	2	3400	185	0.05	
NT	2	3400	650	0.19	*
NR	1	1700	455	0.27	
SL	2	3400	327	0.10	*
ST	2	3400	543	0.16	
SR	1	1700	347	0.20	
EL	2	3400	406	0.12	
ET	4	6800	962	0.14	*
ER	1	1700	169	0.10	
WL	2	3400	469	0.14	*
WT	4	6800	860	0.13	
WR	1	1700	230	0.14	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.62
LOS	B

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 7. Marguerite Pkwy (N/S) and Felipe Road (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

NOTE: Split Phase E/W

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	12	0.01	
NT	2	3400	792	0.23	*
NR (OL)	1	1700	433	0.25	
SL	1	1700	111	0.07	*
ST	2	3400	833	0.25	
SR (d)	1	1700	25	0.01	
EL	1	1700	44	0.03	*
ET	1	1700	17	0.02	
ER	0	0	18	0.01	
WL	1.5	2550	405	0.16	*
WT	0.5	850	18	0.02	
WR	1	1700	95	0.06	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.54
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 8. El Retiro (N/S) and Felipe Road (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	0	0	44	0.03	*
NT	1	1700	2	0.03	
NR	1	1700	19	0.01	
SL	0	0	5	0.00	
ST	1	1700	3	0.00	*
SR	1	1700	25	0.01	
EL	1	1700	16	0.01	
ET	2	3400	481	0.15	*
ER	0	0	44	0.03	
WL	1	1700	14	0.01	*
WT	2	3400	437	0.13	
WR	0	0	5	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	0.01
ICU	0.25
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 9. Felipe Road (N/S) and Camden (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	-	0	0	0.00	
NT	2	3400	400	0.13	*
NR	0	0	54	0.03	
SL	1	1700	7	0.00	*
ST	2	3400	400	0.12	
SR	-	0	0	0.00	
EL	-	0	0	0.00	
ET	-	0	0	0.00	*
ER	-	0	0	0.00	
WL	1	1700	51	0.03	*
WT	-	0	0	0.00	
WR	1	1700	11	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.21
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 10. Felipe Road (N/S) and Barbadanes (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	24	0.01	
NT	2	3400	349	0.12	*
NR	0	0	66	0.04	
SL	1	1700	24	0.01	*
ST	2	3400	289	0.09	
SR	1	1700	12	0.01	
EL	1	1700	10	0.01	
ET	0	0	2	0.00	*
ER	1	1700	19	0.01	
WL	1	1700	66	0.04	*
WT	0	0	2	0.00	
WR	1	1700	12	0.01	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.22
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 11. Felipe Road (N/S) and Buscador (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	8	0.00	
NT	2	3400	325	0.11	*
NR	0	0	42	0.02	
SL	1	1700	28	0.02	*
ST	2	3400	279	0.08	
SR	0	0	5	0.00	
EL	0	0	8	0.00	
ET	1	1700	2	0.01	*
ER	1	1700	10	0.01	
WL	0	0	37	0.02	*
WT	1	1700	2	0.02	
WR	1	1700	30	0.02	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.21
LOS	A

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 12. Felipe Road (N/S) and Oso (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	58	0.03	
NT	2	3400	263	0.08	*
NR (OL)	1	1700	58	0.03	
SL	1	1700	183	0.11	*
ST	2	3400	224	0.12	
SR	0	0	190	0.11	
EL	1	1700	176	0.10	*
ET	3	5100	884	0.17	
ER (d)	1	1700	52	0.03	
WL	1	1700	37	0.02	
WT	3	5100	917	0.18	*
WR (d)	1	1700	183	0.11	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.52
LOS	A

(OL)- Overlap RT Turn
Signal Phasing
(d)- Defacto right turn lane

NOTE:
ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 13. Feliple (N/S) and Fieldcrest (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	43	0.03	*
NT	2	3400	506	0.15	
NR	-	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	432	0.14	*
SR	0	0	32	0.02	
EL	1	1700	26	0.02	*
ET	-	0	0	0.00	
ER	1	1700	54	0.03	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.24
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.

INTERSECTION CAPACITY UTILIZATION
CALCULATION WORKSHEET

INTERSECTION 29. Felipe Rd (N/S) and La Paz Rd (E/W)

CONDITION: Ex (2019) Plus Route 3 Plus Cumu Midday Peak Hour

DATE: 23-Oct-19

INTERSECTION CAPACITY UTILIZATION (ICU) ANALYSIS

MOVEMENT	LANES	SAT. CAPACITY (C)	VOLUME MIDDAY PEAK	V/C MIDDAY PEAK	
NL	1	1700	94	0.06	*
NT	2	3400	428	0.13	
NR	0	0	0	0.00	
SL	-	0	0	0.00	
ST	2	3400	383	0.14	*
SR	0	0	86	0.05	
EL	1	1700	113	0.07	*
ET	1	1700	0	0.06	
ER	-	0	95	0.06	
WL	-	0	0	0.00	
WT	-	0	0	0.00	*
WR	-	0	0	0.00	

CLEARANCE	0.05
CRITICAL RIGHT	-
ICU	0.32
LOS	A

NOTE:

ICU is the sum of critical movements denoted by an asterisk (*)
plus critical right-turn value if any.