

Appendix 2

Traffic Impact Assessment

TRANSPORTATION IMPACT ANALYSIS

MST SURF! Busway and Bus Rapid Transit Project

Monterey County, California



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TRANSPORTATION IMPACT ANALYSIS

FOR

MST SURF! BUSWAY AND BUS RAPID TRANSIT PROJECT

Prepared for:

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Table of Contents

EXECUTIVE SUMMARY 1

 Study Intersections and Freeway Segments 1

 Existing (2018/2019) Conditions 2

 Existing Plus Project Conditions 3

 Cumulative (2045) Conditions 5

 Cumulative (2045) Plus Project Conditions 7

 Vehicle Miles Travelled (VMT) and Estimated Trip Reduction 9

1. INTRODUCTION 11

 Analysis Methodology 13

 Study Intersections 16

 Report Organization 16

2. EXISTING CONDITIONS 20

 Existing Roadway Network 20

 Existing Bicycle and Pedestrian Facilities 20

 Existing Peak-Hour Turning Movement Volumes 21

 Existing Level of Service at Study Intersections 24

 Existing Conditions Queueing 25

3. PROPOSED PROJECT 28

4. EXISTING PLUS PROJECT CONDITIONS 28

 Existing Plus Project Intersection Level of Service 28

 Existing Plus Project Intersection Queueing 32

5. CUMULATIVE CONDITIONS 35

 Cumulative Transportation Network Improvements 35

 Cumulative Volumes 35

 Cumulative Intersection Level of Service 36

 Cumulative Conditions Queueing 40

6. CUMULATIVE CONDITIONS PLUS PROPOSED IMPROVEMENTS 43

7. CUMULATIVE PLUS PROJECT INTERSECTION LEVEL OF SERVICE 50

 Cumulative Plus Project Intersection Level of Service 50

8. CUMULATIVE PLUS PROJECT IMPROVEMENTS/ MITIGATIONS 56

Figure

Figure 1 – Project Study Location and Proposed Transit Route 12

Figure 2 – Marina Study Intersections..... 18

Figure 3 – Sand City and Seaside Study Intersections 19

Figure 4 – Existing Conditions Lane Geometry and Intersection Control.....22

Figure 5 – Existing Conditions Peak Hour Turning Movement Volumes.....23

Figure 6 – Existing Plus Project Conditions Lane Geometry and Intersection Control29

Figure 7 – Existing Plus Project Conditions Peak Hour Turning Movement Volumes30

Figure 8 – Cumulative Conditions Lane Geometry and Intersection Control37

Figure 9 – Cumulative Conditions Peak Hour Turning Movement Volumes38

Figure 10 – California Avenue and Edgewater (Intersection 9) Peak Hour Signal Warrant.....44

Figure 11 – California Avenue and La Playa (Intersection 10) Peak Hour Signal Warrant44

Figure 12 – Del Monte Avenue and La Salle Avenue (Intersection 12) Peak Hour Signal Warrant44

Figure 13 – Cumulative Plus Project Conditions Lane Geometry and Intersection Control51

Figure 14 – Cumulative Plus Project Conditions Peak Hour Turning Movement Volumes52

Tables

Table ES 1 – Existing Conditions Intersection Level of Service (LOS)2

Table ES 2 – Existing Plus Project Conditions Intersection Level of Service.....4

Table ES 3 – Cumulative Conditions Intersection Level of Service Summary6

Table ES 4 – Intersection LOS Summary for Cumulative Conditions With Proposed Improvements7

Table ES 5 – Cumulative Plus Project Conditions Intersection Level of Service Summary8

Table ES 6 – Estimated Vehicle Trip Reduction9

Table 1 – Intersection Level of Service Definitions 14

Table 2 – Existing Conditions Intersection Level of Service.....24

Table 3 – Existing Conditions 95th Percentile Queue Summary.....26

Table 4 – Existing Plus Project Conditions Intersection Level of Service31

Table 5 – Existing Plus Project Conditions 95th Percentile Queue Summary.....33

Table 6 – Cumulative Conditions Intersection Level of Service39

Table 7 – Cumulative Conditions 95th Percentile Queue Summary41

Table 8 – Intersection LOS Summary for Cumulative Conditions With Proposed Improvements45

Table 9 – Intersection Queue length Summary for Cumulative Conditions With Proposed Improvements (Signalized Control)46

Table 10 – Intersection Queue Length Summary for Cumulative Conditions With Proposed Improvements (Roundabout Control)47

Table 11 – Intersection Level of Service Summary Cumulative Conditions With Road Diet.....49

Table 12 – Intersection Level of Service Summary for Cumulative Plus Project Conditions53

Table 13 – Queue Summary for Cumulative Plus Project Conditions 95th Percentile54

Table 14 – Cumulative Plus Project Mitigated Conditions.....57

Table 15 – Cumulative Mitigated Conditions 95th Percentile Queue Summary (Signalized Control)58

Table 16 – Cumulative Mitigated Conditions 95th Percentile Queue Summary (Roundabout Control).....59

Table 17 – Cumulative Plus Project Mitigated Conditions (Road Diet)61

Table 18 – Estimated Vehicle Trip Reduction62

EXECUTIVE SUMMARY

This study presents the traffic analysis findings for the proposed MST SURF! Busway and Bus Rapid Transit Project in Monterey County, California. The project is planned to extend from the Monterey-Salinas Transit (MST) station in the City of Marina, along the Monterey Branch Line right-of-way and along California and Del Monte Avenue in the City of Seaside, before terminating in the heart of Sand City at the intersection of Contra Costa Street and Broadway Avenue. This transit route has three stops strategically located along the corridor. With the addition of express service both to and from work and school during peak commute times, this project will provide a commute alternative that improves travel time by avoiding Highway 1 when it is heavily congested.

The traffic analysis has been conducted for the following scenarios:

- ❖ Scenario 1: Existing Conditions
- ❖ Scenario 2: Existing Plus Project Conditions
- ❖ Scenario 3: Cumulative (2045) Conditions
- ❖ Scenario 4: Cumulative (2045) Plus Project Conditions

Study Intersections and Freeway Segments

Based on consulting with TAMC and local agencies on the proposed BRT route, the following intersections have been identified to study for this project.

1. DeForest Road/Reservation Road (Signal)
2. McDonalds Road /Reservation Road (Signal)
3. Seacrest Avenue/Reservation Road (Signal)
4. Vista Del Camino Circle/Reservation Road (Signal)
5. Del Monte Boulevard/Reservation Road (Signal)
6. Del Monte Boulevard/Palm Avenue (Signal)
7. 8th Street/Beach Range Road (AWSC)
8. Del Monte Boulevard/Monterey Road/California Avenue/Highway 1 (both intersections operate with single controller) (Signal)
9. Edgewater Mall/California Avenue (AWSC)
10. Playa Avenue/California Avenue (AWSC)
11. Del Monte Boulevard/Playa Avenue (Signal)
12. Del Monte Boulevard/LaSalle Avenue (SSSC)
13. Del Monte Boulevard/Tioga Avenue (Signal)
14. Del Monte Boulevard/Clementina Avenue (Signal)
15. Del Monte Boulevard/Contra Costa Street/Broadway Avenue (both intersections operate with single controller) (Signal)

The traffic counts used in this analysis are based on pre-COVID-19 conditions. The City of Marina study intersection count data was pulled from the “Marina Downtown Study” conducted on September 26, 2018. The City of Seaside and Sand City traffic count data were collected on December 11, 2019 with the exception of Intersection 8, which was collected on August 20, 2019.

Existing (2018/2019) Conditions

The existing intersection counts counted in 2018/2019 were collected in pre-COVID-19 conditions and includes passenger cars, heavy vehicles, bicycles, and pedestrians. Volumes for intersections were collected during the AM and PM peak periods of 7:00-9:00 AM and 4:00-6:00 PM, respectively. All traffic counts were collected when local schools were in session and the weather was fair.

Peak hour volumes at each intersection's respective peak were conservatively used in this analysis; therefore, some volume imbalances were observed between study intersections. Where imbalances occurred, volumes were conservatively increased above what was counted. U-turns were analyzed (and illustrated in all figures) as left-turns since *Highway Capacity Manual (HCM)* methodologies do not support analysis of U-turns.

Traffic operations were evaluated at the study intersections based on existing conditions, lane geometry, traffic control, and peak hour traffic volumes. Software values were adjusted to match the field conditions. Intersection analysis results are presented in **Table ES 1**.

Table ES 1 – Existing Conditions Intersection Level of Service (LOS)

#	Intersection	Maintaining Agency	Control Type	Existing (2018/2019) Conditions					
				AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	14.4	B	-	14.5	B
2	Reservation Rd & Shopping Center	Marina	Signal	-	6.3	A	-	7.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	9.6	A	-	11.8	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	8.5	A	-	15.8	B
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	19.5	B	-	19.7	B
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	16.9	B	-	14.3	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	40.3	D	-	37.9	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	9.2	A	-	11.9	B
10	California Ave & Playa Ave	Sand City	AWSC	-	9.9	A	-	20.2	C
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	14.1	B	-	15.9	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	2.9	A	-	2.5	A
	<i>Worst Approach</i>			<i>WB</i>	16.2	C	<i>WB</i>	19.6	C
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	10.7	B	-	13.5	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	6.7	A	-	6.2	A
15	Del Monte Blvd & Contra Costa St	Seaside	Signal	-	8.3	A	-	7.6	A

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control; MVMT-Movement
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Based on the results, all the intersections are operating at acceptable LOS except California Avenue/Highway 1/Monterey Road. This intersection is currently operating at a LOS D during the peak hour, mainly due to closely spaced intersections, phasing, and high traffic volumes.

After completing the intersection LOS, queuing summary for all study intersections were prepared. The queuing summary is provided in the Existing Conditions section starting on page 22. Based on existing conditions observed from field and Google Maps congestion historical data from pre-COVID-19 conditions, most of the intersection queues are within available storage length. Even though few intersection queues exceed the available storage length, they were able to clear within one or two cycle lengths.

Existing Plus Project Conditions

Based on discussions with the project team, it was assumed that the transit headways for the project would be about 10 minutes for both the northbound and southbound directions. Based on this assumption, there will be six southbound and six northbound buses operating during the AM and PM peak hours. For analysis purposes, these transit trips were converted to Passenger Car Equivalent (PCE). PCE is a unit used in the transportation industry to represent a large vehicle on a road by expressing it as the number of equivalent passenger vehicles. PCE for transit was roughly two, the six buses were equivalent to 12 regular vehicles, and these 12 vehicles were added to Existing Plus Project Conditions for inbound and outbound. These project trips were assigned to study intersections based on the proposed transit route.

Intersection LOS results are presented in Table ES 2 for existing plus project conditions. All study intersections continue to operate at acceptable LOS similar to existing conditions with minor increases in intersection delay observed at study intersections.

In addition to the LOS analysis, an existing plus project queuing summary is included in **Table 5** of existing plus project condition. Overall no impact at study intersections is anticipated with implementation of the project. In addition to queuing summary from sim-traffic modeling, transit signal priority (TSP) was tested at key study locations where transit makes left or right turns. Whenever TSP is activated, there is minor increase in side street delay and queue, however within a couple of cycles the intersection operation is at normal conditions. There is no impact to any of the study intersections with proposed transit operations or option of TSP implementation. TSP implementation will result in only the extension of green phases in the direction of bus travel and thus the effect on coordinated signal timing plans are minor.

Table ES 2 – Existing Plus Project Conditions Intersection Level of Service

#	Intersection	Maintaining Agency	Control Type	Existing Conditions						Existing Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	14.4	B	-	14.5	B	-	14.5	B	-	14.5	B
2	Reservation Rd & Mc Donalds Dwy	Marina	Signal	-	6.3	A	-	7.0	A	-	6.3	A	-	7.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	9.6	A	-	11.8	B	-	9.6	A	-	11.8	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	8.5	A	-	15.8	B	-	8.5	A	-	15.8	B
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	19.5	B	-	19.7	B	-	19.6	B	-	19.7	B
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	16.9	B	-	14.3	B	-	16.9	B	-	14.4	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A	-	7.0	A	-	7.1	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	40.3	D	-	37.9	D	-	40.9	D	-	38.2	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	9.2	A	-	11.9	B	-	9.3	A	-	12.1	B
10	California Ave & Playa Ave	Sand City	AWSC	-	9.9	A	-	20.2	C	-	10.0	A	-	21.2	C
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	14.1	B	-	15.9	B	-	14.5	B	-	16.1	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	2.9	A	-	2.5	A	-	2.9	A	-	2.5	A
	<i>Worst Approach</i>			<i>WB</i>	16.2	C	<i>WB</i>	19.6	C	<i>WB</i>	16.6	C	<i>WB</i>	20.0	C
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	10.7	B	-	13.5	B	-	10.7	B	-	13.5	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	6.7	A	-	6.2	A	-	6.7	A	-	6.2	A
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	8.3	A	-	7.6	A	-	8.3	A	-	7.6	A

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Cumulative (2045) Conditions

Cumulative volume growth in the study area was determined based on the Association of Monterey Bay Area Governments (AMBAG) to estimate the study area's future volume growth. Year 2040 roadway link volumes from the recently certified AMBAG Travel Demand Forecast model were obtained for cumulative traffic volume growth estimates. The model was used to plot bi-directional AM and PM peak-hour traffic volumes on each segment along roadways within the study area. Model base year (2015) and horizon year (2040) forecast volumes were compared to determine the annual incremental growth in traffic volumes at study intersection approach and departure links.

For this project, the year 2045 was utilized for Cumulative Conditions. Since the model only analyzes 2040 conditions, the annual incremental growth in traffic to 2040 was interpolated to 2045 turning movement volumes by adding the growth increment to the current year (e.g. 2018/2019) traffic count volumes accordingly to calculate the final adjusted roadway link forecast volume. Final adjusted forecast volumes were then converted to Cumulative (2045) intersection turning movement volumes using a process commonly referred to as the Furness method. The Furness method uses an iterative process to derive future turning movement volumes based on future year roadway link volumes and an initial estimate of turning percentages (obtained from the existing 2018 intersection turning movement counts).

Intersection LOS results are presented in **Table ES 3** for cumulative conditions. All study intersections, except the following, continue to operate at acceptable LOS. These intersections would operate at an unacceptable LOS under cumulative conditions:

- Intersection 8 – California Avenue and Highway 1/Monterey Road (Signal)
- Intersection 10 – California Avenue and La Playa Street (AWSC)
- Intersection 12 – Del Monte Boulevard and La Salle Avenue (SSSC)

Before assuming the signal or roundabout options at these impacted intersections, signal warrant analysis was performed for Intersection 10 and Intersection 12. Both intersections meet the signal warrant for at least one of the peak conditions.

These three intersections were analyzed as signal and roundabout options. Roundabout analysis was performed with SIDRA software. **Table ES 4** provides the LOS summary results with signal or roundabout options. Both options would improve the intersection operations.

Table ES 3 – Cumulative Conditions Intersection Level of Service Summary

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions					
				AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	20.4	C	-	16.8	B
2	Reservation Rd & Mc Donalds Dwy	Marina	Signal	-	8.1	A	-	8.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	12.2	B	-	13.9	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	16.7	B	-	20.9	C
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	25.6	C	-	27.8	C
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	20.9	C	-	16.8	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	38.8	D	-	36.4	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	10.2	B	-	13.9	B
10	California Ave & Playa Ave	Sand City	AWSC	-	11.9	B	-	45.6	E
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	18.8	B	-	19.1	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	6.5	A	-	11.9	B
	<i>Worst Approach</i>			WB	48.5	E	WB	103	F
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	13.3	B	-	15.9	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	7.5	A	-	6.9	A
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	13.1	B	-	10.5	B

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Table ES 4 – Intersection LOS Summary for Cumulative Conditions With Proposed Improvements

#	Intersection	Maintaining Agency	Cumulative Conditions With Proposed Improvements									
			Signal				Roundabout (SIDRA)					
			AM Peak		PM Peak		AM Peak			PM Peak		
			Delay	LOS	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
8	California Ave & Highway 1/Monterey Rd	Caltrans	n/a				0.366	5.6	A	0.587	7.6	A
10	California Ave & Playa Ave	Sand City	11.0	B	16.4	C	0.303	5.0	A	0.455	8.1	A
12	Del Monte Blvd & La Salle Ave	Seaside	5.5	A	5.4	A	0.434	6.4	A	0.406	6.5	A

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Cumulative (2045) Plus Project Conditions

As discussed in the Existing Plus Project Conditions, transit trips were added to cumulative condition volumes. These project trips were assigned to study intersections based on the proposed transit route. The proposed project is not planning to modify the lane geometry at any of the study intersections. Only BRT signal preemption will be added at key study locations along the transit route, which will minimize transit delay and improve efficiency. The signal preemptions will only be provided on extension of green signal phases to allow the bus to pass through the intersection.

The Cumulative Plus Project Condition intersection LOS presented in **Table 12**. All study intersections continue to operate similar to cumulative conditions with a minor increase in overall intersection delay. The following intersections would continue to operate at an unacceptable LOS under Cumulative and Cumulative Plus Conditions:

- Intersection 8 – California Avenue and Highway 1/Monterey Road (Signal)
- Intersection 10 – California Avenue and La Playa Street (AWSC)
- Intersection 12 – Del Monte Boulevard and La Salle Avenue (SSSC)

The above intersections already met the signal warrant, and as identified in the earlier Cumulative Conditions with Improvements section, operations would improve with proposed mitigations.

There is no substantial change in queuing at all the study intersections. The transit operations can be further improved with TSP at key study intersections.

No additional mitigation measures beyond the proposed improvements already identified for the Cumulative (No Project) Condition area needed.

Table ES 5 – Cumulative Plus Project Conditions Intersection Level of Service Summary

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	20.4	C	-	16.8	B	-	20.4	C	-	17.0	B
2	Reservation Rd & Mc Donalds Dwy	Marina	Signal	-	8.1	A	-	8.0	A	-	8.1	A	-	8.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	12.2	B	-	13.9	B	-	12.2	B	-	13.9	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	16.7	B	-	20.9	C	-	16.7	B	-	21.1	C
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	25.6	C	-	27.8	C	-	25.6	C	-	27.8	C
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	20.9	C	-	16.8	B	-	20.9	C	-	16.9	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A	-	7.0	A	-	7.1	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	38.8	D	-	36.4	D	-	39.3	D	-	36.6	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	10.2	B	-	13.9	B	-	10.4	B	-	14.1	B
10	California Ave & Playa Ave	Sand City	AWSC	-	11.9	B	-	45.6	E	-	12.2	B	-	49.6	E
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	18.8	B	-	19.1	B	-	19.5	B	-	19.4	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	6.5	A	-	11.9	B	-	6.8	A	-	12.6	B
	<i>Worst Approach</i>			WB	48.5	E	WB	103	F	WB	52.2	F	WB	111.2	F
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	13.3	B	-	15.9	B	-	13.3	B	-	16.0	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	7.5	A	-	6.9	A	-	7.6	A	-	6.9	A
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	13.1	B	-	10.5	B	-	13.2	B	-	10.6	B

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Vehicle Miles Travelled (VMT) and Estimated Trip Reduction

With the passage of SB 743 in 2018, VMT has become an important indicator for determining if a proposed project would result in a “significant transportation impact.” Although jurisdictions (lead agencies) had until July 1, 2020 to adopt thresholds of significance and fully implement the requirements of SB 743, many agencies are still in the process of adopting local thresholds and developing analysis methods. Regardless of an individual agency’s familiarity with analyzing VMT, this analysis is now the standard of review under the California Environmental Quality Act (CEQA) for projects that are subject to CEQA.

MST is the lead agency under CEQA for this project but is not a traditional land use agency. As such, MST would not be expected to develop and adopt specific policies related to VMT as they apply to their projects. Moreover, SB 743 guidance issued by the Office of Planning and Research (OPR) clearly states that initiation of new transit service would be exempt from new VMT requirements under CEQA. This is because transit projects would be expected to reduce regional VMT and therefore result in beneficial impacts.

The project’s fundamental purpose and objective is to reduce congestion on Highway 1 from local and inter-regional commuter traffic and improve overall mobility for residents and visitors. The project would therefore result in clear environmental benefits by providing a public transit option as an alternative to single-occupancy driving along this section of Highway 1 from Marina to Sand City (and points beyond).

Table ES-6 provides an estimate of vehicle trip reduction resulting from the project:

Table ES 6 – Estimated Vehicle Trip Reduction

Metric	Units/Values
Transit headways during the AM/PM peak period (6:00-10:00 AM; 4:00-8:00 PM)	10-minute headways
Number of buses in one direction for 8 hours	48 bus trips
Total number of buses for both directions	96 bus trips
Bus occupancy for peak direction	90 percent
Bus occupancy for off peak direction	30 percent
Capacity of bus carriage	40 passengers
Total number of daily passengers on SURF!	2,304 daily passengers
Estimated Annual Ridership	601,344
Private vehicle occupancy rate	1.1 persons per vehicle
Total reduction in vehicle trips per week	2,095 trips per day

Metric	Units/Values
Number of days operating per week	5 days per week
Total reduction in vehicle trips per week	10,473 trips per week
Total reduction in vehicle trips per year	544,582 trips per year

Secondary environmental benefits would be realized from reductions in criteria air pollutants and greenhouse gas emissions.

Trip reduction would also result in a corresponding reduction in vehicle miles travelled (VMT). As noted above, as a transit project, an analysis of VMT is not required based on OPR Guidelines. However, based on ridership, trip reduction and assumptions for per capita rider trip length¹, it is estimated that the project could eliminate approximately 2.7 million vehicle miles traveled on the roadway network each year.

¹ Average trip length is estimated at 5 miles, which is the travel length of the busway route from the Palm Avenue platform to where the route ends in Seaside.

1. INTRODUCTION

Monterey-Salinas Transit (MST), as the sole local transit service operator in Monterey County, will be the primary project sponsor while partnering with the Cities of Marina, Sand City, and Seaside. MST will operate the MST SURF! Busway and Bus Rapid Transit service, which includes the buses and transit stops. The proposed project will complement the existing JAZZ service through the expansion of the BRT service throughout the Monterey Peninsula area along existing and future high travel demand corridors.

Traffic Impact Analysis

This Transportation Impact Analysis (TIA) presents the findings of the proposed MST SURF! Busway and Bus Rapid Transit route in the County of Monterey, California. The project is planned to extend from the MST station in the City of Marina, along the Transportation Agency for Monterey County (TAMC) Branch Line, and along California Avenue and Del Monte Boulevard in the cities of Sand City and Seaside.

Description of Corridor

Given the topographical and geographical conditions in the Monterey Bay Area, Highway 1 is the major travel corridor available for commuters driving to local employers. Due to lack of mobility options, residents and visitors traveling to and from the Monterey peninsula rely on single occupancy driving. This generates a large interregional commuter traffic pattern, highway congestion, and mobile-source emissions and pollutants from private vehicles. The MST SURF! Busway and Bus Rapid Transit Project will help alleviate these problems while providing a reliable and affordable connection to employment, education, and healthcare centers.


The project will extend approximately six miles along California's coastline in Monterey County and will connect three key cities within the County of Monterey (Marina, Seaside, and Sand City). In addition to connecting these three cities, the MST SURF! Busway and Bus Rapid Transit alignment and stops will benefit several disadvantaged communities by providing direct connections to key neighborhoods and employment centers, including California State University at Monterey Bay. Transit stops along the project corridor will also offer multimodal connections to some of Monterey County's most popular biking and walking infrastructure, including the Monterey Bay Coastal Recreation Trail and the anticipated Fort Ord Regional Trail and Greenway (FORTAG).

The project begins at the existing Marina Transit Exchange and has three stops strategically located along the corridor before terminating in the heart of Sand City at the intersection of Contra Costa and Broadway. This project will add express service both to and from work and school during peak commute times, avoiding Highway 1 when it is heavily congested and improving travel time. **Figure 1** presents the project location, overall transit route, and proposed stops.



Source: Kimley Horn, 2020; Nearmap, 2020

Figure 1: Project Study Location and Proposed Transit Route
 MST SURF! Busway and Bus Rapid Transit Project

 Not to scale

Kimley»Horn
 TAMC
 TRANSPORTATION AGENCY FOR MONTEREY COUNTY

 MST
 MONTEREY-SALINAS TRANSIT

Analysis Methodology

Development Conditions

This transportation study is based on the following development conditions:

Scenario 1: Existing Conditions

Based on current (pre-Covid) traffic counts taken in 2018/2019, existing roadway geometry, and traffic control.

Scenario 2: Existing Plus Project Conditions

Based on existing traffic volumes, existing roadway geometry, and implementation of the proposed project.

Scenario 3: Cumulative Conditions (Year 2045)

Based on the cumulative roadway network, as well as traffic forecasted for developments anticipated to occur by the year 2045. These forecasts were calculated by using Association of Monterey Bay Area Governments (AMBAG) travel demand forecasts and applying difference and Furnessing methodologies.

Scenario 4: Cumulative Plus Project Conditions

Based on cumulative conditions traffic volumes, roadway geometry, and proposed project data/information.

Operating Conditions and Criteria for Intersections

Analysis of potential deficiencies caused by the project at roadway intersections is based on the concept of Level of Service (LOS). The LOS of an intersection is a qualitative measure used to describe operational conditions. LOS ranges from A (best), which represents minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. LOS for this study were determined using methods defined in the *Highway Capacity Manual (HCM)* and *Synchro 10* traffic analysis software.

HCM methodologies include procedures for analyzing side-street stop-controlled (SSSC), all-way stop-controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the overall intersection. **Table 1** relates the operational characteristics associated with each LOS category for signalized and unsignalized intersections.

Table 1 – Intersection Level of Service Definitions

Level of Service	Description	Signalized (Avg. control delay per vehicle-sec/veh)	Unsignalized (Avg. control delay per vehicle-sec/veh)	Roundabout (Avg. control delay per vehicle-sec/veh)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream.	< 10	≤ 10	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	> 10 – 20	> 10 – 15	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 – 35	> 15 – 25	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 – 55	> 25 – 35	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 – 80	> 35 – 50	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80 or V/C > 1.0	> 50 or V/C > 1.0	> 50 or V/C > 0.85

Sources: Transportation Research Board, *Highway Capacity Manual 6th Edition*, National Research Council

Project-related deficiencies are determined by comparing conditions without the proposed project to those with the proposed project. Project-related deficiencies at study intersections are created when traffic from the proposed project causes the LOS to fall below the maintaining agency’s LOS threshold or causes deficient intersections to deteriorate further.

Roadway facilities evaluated in this study are located in and maintained by various agencies including the City of Marina, the City of Seaside, Sand City, the California Department of Transportation (Caltrans) District 5, and the Federal Highway Administration (FHWA). Each agency has developed unique LOS standards, which are summarized below:

City of Marina

The City of Marina has established a minimum LOS D traffic operation standard for all intersections, highway segments, and major roads within the Marina Planning Area. In the event that an existing intersection is operating at an unacceptable LOS, the existing LOS will be maintained or improved. Projects which will cause highway segments or major roads within the Marina Planning Area to fall below LOS D shall not be approved unless the City finds that feasible mitigation measures are not available.

City of Seaside

The City of Seaside has established the following guidelines for the following intersection types:

- **Signalized Intersections:**
 - LOS Standard: LOS C
 - If an intersection operates at an unacceptable LOS D, a significant impact would occur if a project increases average delay more than 2.0 seconds.
 - If an intersection operates at an unacceptable LOS E or F, a significant impact would occur if a project increases average delay more than 1.0 second.
 - In addition, the LOS of a signal can be exceeded if all the following are satisfied:
 - LOS deficiency is short-term
 - Physical or environmental constraints
 - The forecasted average vehicle delay is within 2.0 seconds of the acceptable LOS standard
 - The project has minimal impact at the location in question
 - Credit can be given for signal timing optimization, implementation of signal coordination, and/or implementation of intelligent transportation systems
- **Unsignalized Intersections**
 - LOS Standard
 - LOS C for the average delay for all entering traffic at most locations
 - LOS D or E or F for side street in conjunction with peak hour signal warrants described in the most recent version of the Caltrans Traffic Manual
- **Roundabouts**
 - LOS Standard: C
 - Must be consistent with the FHWA *Roundabouts: An Informational Guide*, June 2000, or the most recent update. A summary of FHWA roundabout requirements is provided below.

Sand City

Sand City has established a minimum LOS D traffic operation standard or as indicated within the Congestion Management Plan of TAMC.

Caltrans

LOS thresholds for Caltrans are taken from the December 2002 Guide for the Preparation of Traffic Impact Studies. As of May 20, 2020, Caltrans has updated their guidelines based on SB 743 (Vehicle Miles Traveled - Focused Transportation Impact Study Guidelines); however, No LOS thresholds are stated in the updated guidelines.

For the purposes of this analysis, project-related operational deficiencies at study intersections are defined to occur when the addition of project traffic:

1. Causes operations to deteriorate from an acceptable level (LOS C) to an unacceptable level (LOS D or worse).
2. Causes the existing measure of effectiveness (average delay) to deteriorate at a State-operated intersection operating at worse than LOS C.

Under some circumstances, Caltrans will work with local agencies to determine an acceptable LOS standard on a case-by-case basis when the study roadway facility is constrained, and the LOS C objective is infeasible.

The volume-to-capacity (V/C) ratios Measure of Effectiveness (MOE) was assumed for the freeway analysis and calculated using Highway Capacity Software (HCS). This is because the freeway roadway network is oversaturated during the peak periods with and without the project and segment densities do not accurately describe operating conditions.

Roundabout Analysis - FHWA Requirements

Roundabouts: An Information Guide (June 2000) by the FHWA was used for additional roundabout guidance. In this guide, the FHWA states that, for acceptable roundabout operation, it is advised that the critical V/C ratio not exceed 0.85 on any leg of a roundabout. A V/C over 0.85 is considered overcapacity and a LOS F. Therefore, all roundabouts must operate at a volume to capacity ratio of 0.85 or better for any leg regardless of intersection LOS.

Study Intersections

The proposed project would operate through several existing intersections. To assess changes in traffic conditions, the following intersections were selected for evaluation in consultation with TAMC:

1. DeForest Road/Reservation Road (Signal)
2. McDonalds Road/Reservation Road (Signal)
3. Seacrest Avenue/Reservation Road (Signal)
4. Vista Del Camino Circle/Reservation Road (Signal)
5. Del Monte Boulevard/Reservation Road (Signal)
6. Del Monte Boulevard/Palm Avenue (Signal)
7. 8th Street/Beach Range Road (AWSC)
8. Del Monte Boulevard/Monterey Road/California Avenue/Highway 1 (Signal)
9. Edgewater Mall/California Avenue (AWSC)
10. Playa Avenue/California Avenue (AWSC)
11. Del Monte Boulevard/Playa Avenue (Signal)
12. Del Monte Boulevard/LaSalle Avenue (SSSC)
13. Del Monte Boulevard/Tioga Avenue (Signal)
14. Del Monte Boulevard/Clementina Avenue (Signal)
15. Del Monte Boulevard/Contra Costa Street/Broadway Avenue (both intersections operate on the same controller) (Signal)

These study intersections are illustrated **Figure 2** and **Figure 3**.

Report Organization

This transportation impact analysis includes the following chapters:

Chapter 2 describes the existing pedestrian, bike, transit, and motorist transportation system in the project vicinity, as well as current operating conditions at study intersections.

Chapter 3 discusses the proposed project's signal and roadway improvements as well as methodologies and assumptions used to create the model for project conditions.

Chapter 4 describes Existing Plus Project Conditions and analysis.

Chapter 5 discusses Cumulative Conditions with and without the project.

A technical appendix is also attached containing traffic count data, intersection LOS, and analysis output sheets.



LEGEND



STUDY INTERSECTION



SURF BRT ROUTE

Figure 2
Marina Study Intersections
SURF BRT



NOT TO SCALE

LEGEND

X STUDY INTERSECTION

— SURF BRT ROUTE



2. EXISTING CONDITIONS

Existing Roadway Network

Below is a description of the principal roadways that the BRT route will operate along:

Reservation Road is a 96-foot wide four-lane arterial with a posted speed of 35 miles per hour (mph) and wide raised or two-way left turn lane median. There are marked bike lanes and pedestrian facilities on both sides of the street as well as some on-street parking. Surrounding land uses are retail, restaurant, office, and residential. Reservation Road not only serves local Marina traffic, but also regional traffic between Salinas and the Monterey Bay.

Del Monte Boulevard (City of Marina and Seaside) is a four-lane arterial with a posted speed limit of 35 mph. The width of Del Monte Boulevard is approximately 90 feet in the City of Marina and approximately 63 feet in the City of Seaside. Del Monte Boulevard has pedestrian facilities on both sides of the street with connections to the Monterey Peninsula Recreational Trail (MPRT) in the City of Marina. Surrounding land uses are retail, restaurant, office, and residential. Del Monte Boulevard not only serves local Marina and Seaside traffic, but also regional traffic between Salinas and the Monterey Bay.

California Avenue is a 46-foot two-lane arterial with a posted speed limit of 40 mph. Pedestrian facilities, bus facilities, and Class II bicycle lanes exist on both sides of California Avenue. The surrounding land use includes the Edgewater Shopping Center. California Avenue not only serves local Sand City traffic, but also regional traffic to/from the City of Seaside and Monterey Bay.

Playa Avenue is a 48-foot two-lane collector with a posted speed limit of 25 mph and a two-way left turn lane. West of Del Monte Boulevard, a Class II bicycle facility and sidewalks are provided on both sides of the road, and a transit facility exists along the north side of Playa Avenue just west of California Avenue. The Monterey Peninsula Recreational Trail connects to the west end of Playa Ave. These surrounding land uses include retail, restaurant, school, and residential uses.

Existing Bicycle and Pedestrian Facilities

Pedestrian facilities exist along the project corridor for passengers to access the existing bus facilities. Sidewalks are provided along Reservation Road and Del Monte Avenue, as well as a Class I multi-use path along Del Monte Boulevard in the City of Marina. In addition, sidewalks are also provided along California Avenue, La Playa Avenue and Del Monte Boulevard in the cities of Seaside and Sand City.

Existing Class I, II, & III bikeway facilities in the project corridor are discussed below:

Class I facilities are paved bicycle paths that are physically separated from the vehicular travel lane. A Class I bike facility (e.g. Beach Range Road/Monterey Peninsula Recreational Trail) exists along the beach within the project vicinity.

Class II facilities are striped bike lanes along the street. Class II bike lanes currently exist along Reservation Road, Del Monte Boulevard (in the City of Marina only), California Avenue, La Playa Avenue (west of California Avenue), and Broadway Avenue.

Class III bicycle facilities are bike routes denoted by signs that are shared with vehicles along the roadway. Class III bike lanes do not currently exist within the Project Vicinity.

Existing Peak-Hour Turning Movement Volumes

Weekday intersection turning movement volumes for the existing study intersections were collected on the following days:

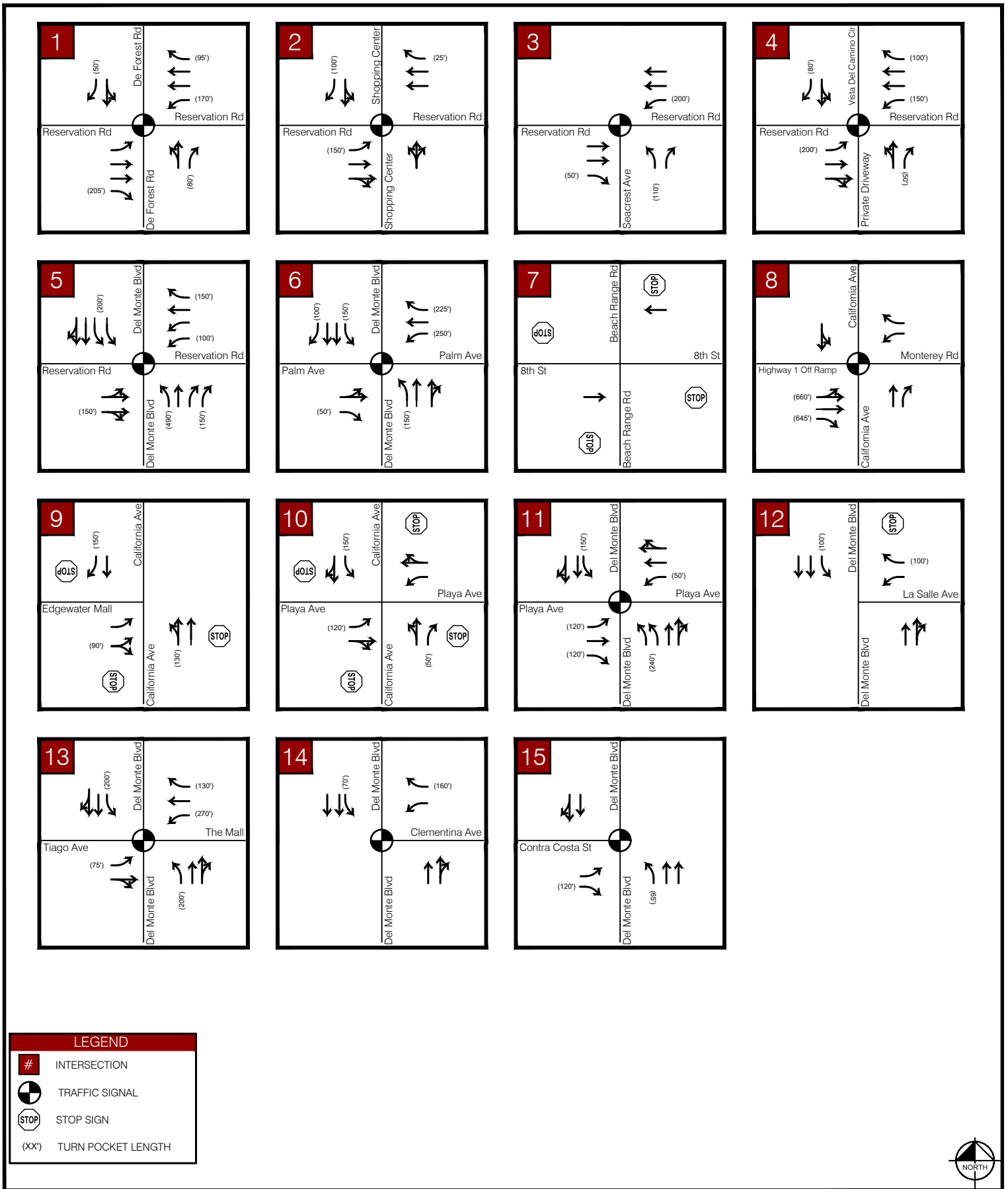
- Marina Intersection (from the Marina Downtown Study)
 - September 26, 2018
- Seaside and Sand City Intersections
 - Intersection 8: August 20, 2019
 - All other intersections: December 11, 2019

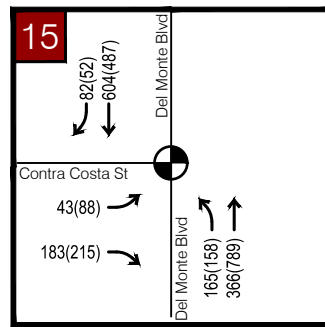
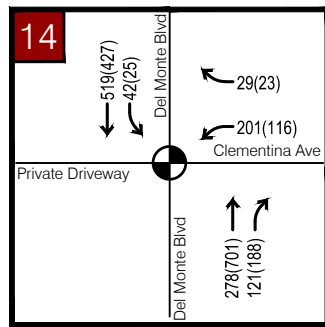
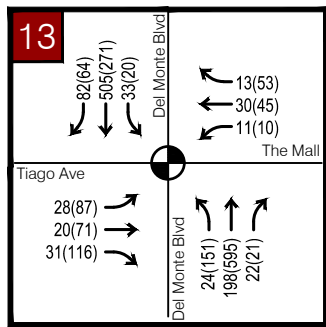
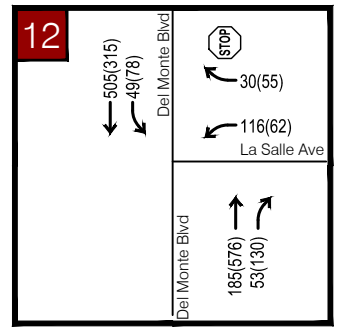
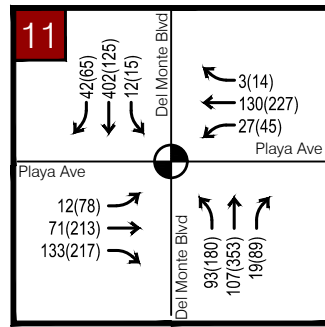
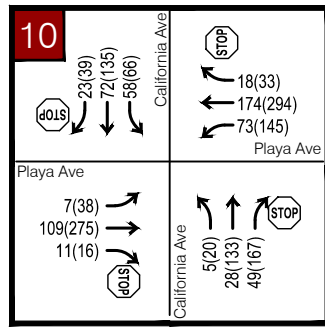
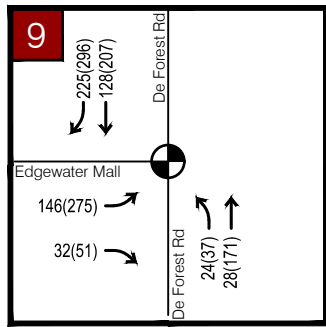
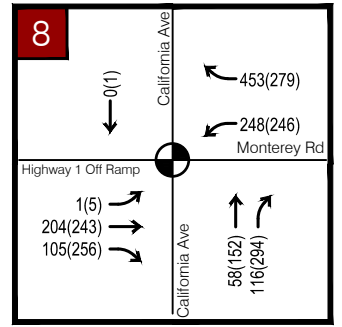
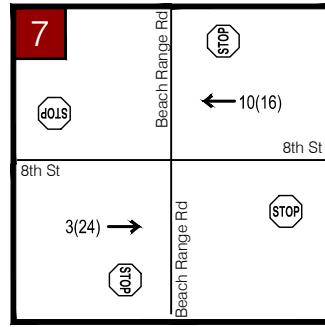
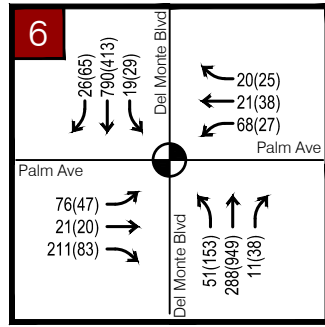
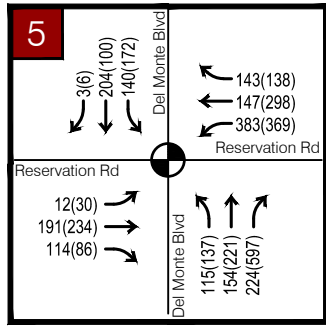
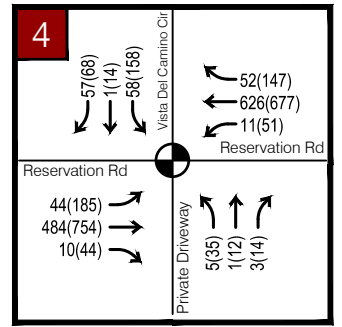
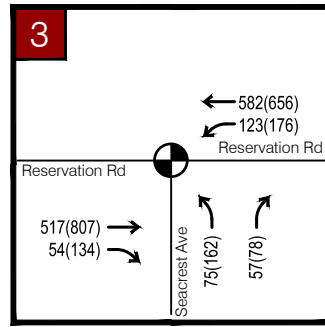
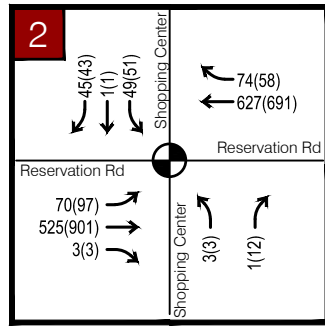
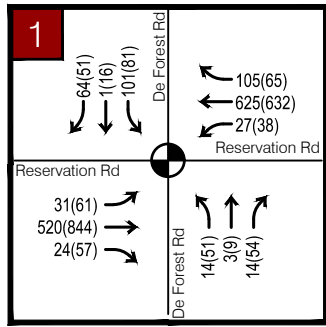
These counts included passenger cars, heavy vehicles, bicycles, and pedestrians. Volumes for intersections were collected during the AM and PM peak periods of 7:00-9:00 AM and 4:00-6:00 PM, respectively. All traffic counts were collected when local schools were in session and the weather was fair.

Peak hour volumes at each intersection's respective peak were conservatively used in this analysis, therefore, some volume imbalances were observed between study intersections. Where imbalances occurred, volumes were conservatively increased above what was counted. Existing conditions lane geometry and intersection control is shown in **Figure 4**. Existing peak hour turning movement volumes are shown in **Figure 5**.

A site visit was completed in March 2020; however, due to California restrictions and an increase in employees working from home as a result of COVID-19, observed traffic patterns were not representative of typical weekday AM and PM peak commute traffic. To accurately model existing conditions, typical weekday traffic queueing and travel speed information was obtained from Google Maps.

U-turns are analyzed (and illustrated in all figures) as left-turns since HCM methodologies do not support analysis of U-turns. Intersection volume data sheets for all traffic counts are provided in **Appendix B**.





LEGEND

- # INTERSECTION
- TRAFFIC SIGNAL
- STOP SIGN
- XX(YY) AM(PM)



Existing Level of Service at Study Intersections

Traffic operations were evaluated at the study intersections based existing conditions lane geometry, traffic control, and peak hour traffic volumes. Software values were adjusted to match the field conditions.

Intersection analysis results are presented in **Table 2** and output calculation sheets are included in **Appendix C**.

Table 2 – Existing Conditions Intersection Level of Service

#	Intersection	Maintaining Agency	Control Type	Existing (2018/2019) Conditions					
				AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	14.4	B	-	14.5	B
2	Reservation Rd & Shopping Center	Marina	Signal	-	6.3	A	-	7.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	9.6	A	-	11.8	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	8.5	A	-	15.8	B
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	19.5	B	-	19.7	B
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	16.9	B	-	14.3	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	40.3	D	-	37.9	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	9.2	A	-	11.9	B
10	California Ave & Playa Ave	Sand City	AWSC	-	9.9	A	-	20.2	C
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	14.1	B	-	15.9	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	2.9	A	-	2.5	A
	<i>Worst Approach</i>			<i>WB</i>	16.2	C	<i>WB</i>	19.6	C
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	10.7	B	-	13.5	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	6.7	A	-	6.2	A
15	Del Monte Blvd & Contra Costa St	Seaside	Signal	-	8.3	A	-	7.6	A

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control; MVMT-Movement
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Based on the results, all the intersections are operating at acceptable level of service except California Avenue/Highway 1/Monterey Road. Currently, this intersection is operating at LOS D during the peak hour. This is mainly due to closely spaced intersections, phasing, and traffic volumes.

Existing Conditions Queueing

After completing the intersection LOS, queuing summary for all study intersections was prepared.

Table 3 provides a summary of approximate queue lengths and number of vehicles in each queue during AM and PM peak hours of operations for all study intersections.

Table 3 – Existing Conditions 95th Percentile Queue Summary

Intersection	MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles		
			AM Peak	PM Peak	AM Peak	PM Peak	
1	Reservation Rd & DeForest Rd	NBL/T	-	50	75	2	3
		NBR	80	50	75	2	3
		SBLT	-	100	100	4	4
		SBR	50	75	50	3	2
		EBL	320	50	75	2	3
		EBR	320	25	25	1	1
		WBL	170	75	75	3	3
WBR	95	50	25	2	1		
2	Reservation Rd & Shopping Center	NBL/T	-	50	50	2	2
		SBL/T	-	75	75	3	3
		SBR	100	50	50	2	2
		EBL	150	75	125	3	5
WBR	25	75	75	3	3		
3	Reservation Rd & Seacrest Ave	NBL	110	100	125	4	5
		EBR	50	75	100	3	4
		WBL	200	125	175	5	7
4	Reservation Rd & Vista Del Camino	NBR	50	25	50	1	2
		SBR	80	25	75	1	3
		EBL	200	75	175	3	7
		WBL	150	50	100	2	4
		WBR	100	50	150	2	6
5	Reservation Rd & Del Monte Blvd	NBL	490	125	150	5	6
		NBR 1	665	75	125	3	5
		NBR 2	665	75	150	3	6
		SBL 1	200	75	100	3	4
		SBL 2	200	125	125	5	5
		EBR	150	150	175	6	7
		WBL 1	100	175	175	7	7
		WBL 2	100	275	275	11	11
WBR	150	100	175	4	7		
6	Del Monte Blvd & Palm Ave	NBL	150	75	150	3	6
		SBL	150	50	75	2	3
		SBR	100	75	75	3	3
		EBL/T	-	125	100	5	4
		EBR	50	100	75	4	3
		WBL	-	100	50	4	2
		WBR	225	50	50	2	2
7	8 th St & Beach Range Rd	EBT	-	25	50	1	2
		WBT	-	50	50	2	2
8	Hwy 1/Monterey Rd & California Ave	NBR	-	150	250	6	10
		EBL/T	660	475	900	19	36
		EBR	645	275	675	11	27
		WBL	-	125	100	5	4
		WBR	-	100	100	4	4
9	California Ave & Edgewater Mall	NBL/T	130	50	150	2	6
		SBR	-	100	100	4	4
		EBL/R	90	50	225	2	9
10	California Ave & La Playa Ave	NBL/T	-	50	100	2	4
		NBR	50	75	100	3	4
		SBL	150	50	50	2	2

Table 3 – Existing Conditions 95th Percentile Queue Summary (Cont.)

Intersection		MVM T	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak
10	California Ave & La Playa Ave	EBL	120	50	75	2	3
		WBL	-	75	100	3	4
		WBR/T	-	100	150	4	6
11	Del Monte Ave & La Playa Ave	NBL 1	240	50	100	2	4
		NBL 2	240	75	125	3	5
		SBL	150	50	50	2	2
		EBL	120	50	100	2	4
		EBR	-	75	100	3	4
		WBL	50	75	75	3	3
12	Del Monte Ave & La Salle Rd	NBR/T	-	25	50	1	2
		SBL	100	50	75	2	3
		WBL	-	75	75	3	3
		WBR	100	50	50	2	2
13	Del Monte Ave & Tioga Ave	NBL	200	75	125	3	5
		SBL	220	50	50	2	2
		EBL	75	75	100	3	4
		WBL	275	50	50	2	2
		WBR	150	50	50	2	2
14	Del Monte Ave & Clementina Ave	SBL	70	75	50	3	2
		WBR	175	75	50	3	2
15	Del Monte Ave & Contra Costa Rd	NBL	75	125	100	5	4
		EBR	120	100	100	4	4

XX indicates queue exceeds available storage length

Based on existing conditions field observations conducted in the downtown study and Google Map congestion historical data from pre-COVID-19 conditions, even though few intersection queues exceeded the available storage length, they were able to clear within one or two cycle lengths.

3. PROPOSED PROJECT

As described in the introduction chapter, this project will extend approximately six miles along California's coastline in Monterey County and will connect three key cities within the county (Marina, Seaside, and Sand City). The MST SURF! Busway and Bus Rapid Transit Project begins at the existing Marina Transit Exchange and has three stops strategically located along the corridor before terminating in the heart of Sand City at the intersection of Contra Costa Street and Broadway Avenue. The proposed transit stop locations are: Palm Avenue at Del Monte Boulevard, 5th Street multimodal location, and the Sand City transit center on Playa Avenue. The project proposes to add express service in both directions during peak commute times to improve the travel time by avoiding the Highway 1 during the heavily congested peak periods.

4. EXISTING PLUS PROJECT CONDITIONS

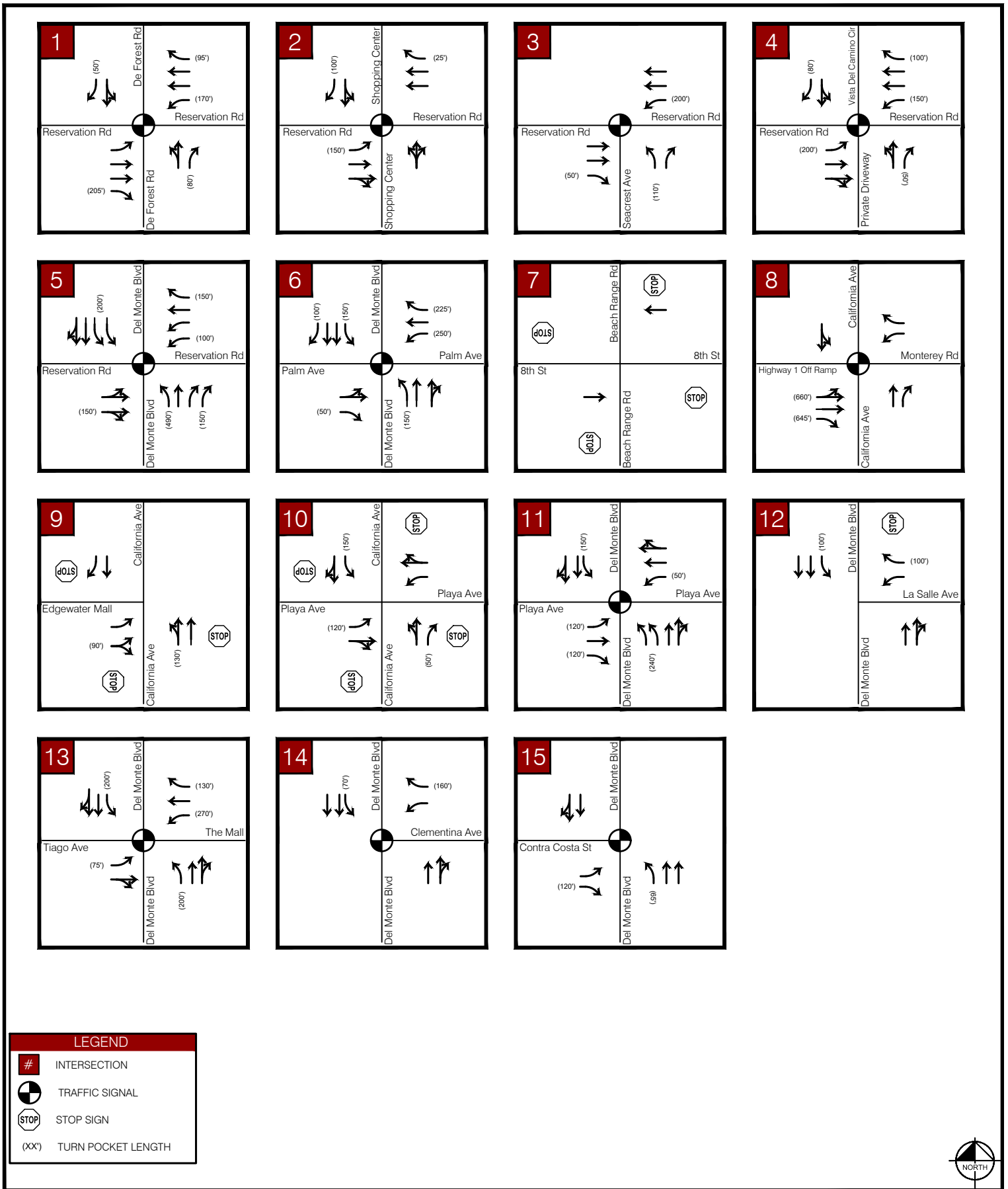
Based on discussions with the project team, it was assumed that the transit headways for the project would be 10 minutes for both the northbound and southbound directions. Based on this assumption, there will be six southbound and six northbound buses operating during the AM and PM peak hours. For analysis purposes, these transit trips were converted to Passenger Car Equivalent (PCE). PCE is a unit used in the transportation industry to represent a large vehicle on a road by expressing it as the number of equivalent passenger vehicles. PCE for transit was roughly two, the six buses were equivalent to 12 regular vehicles, and these 12 vehicles were added to Existing Plus Project Conditions for inbound and outbound. These project trips were assigned to study intersections based on the proposed transit route.

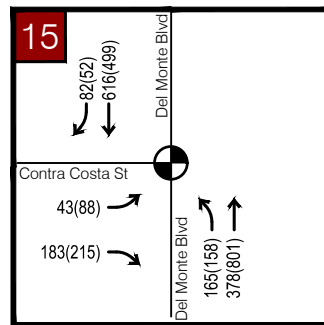
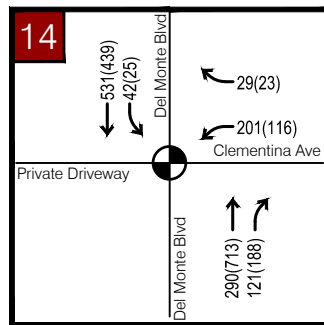
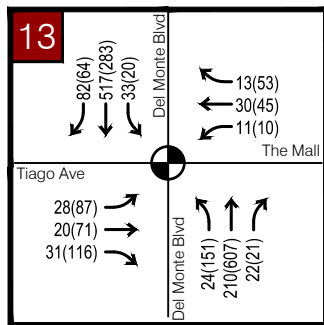
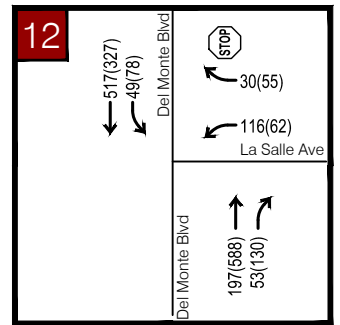
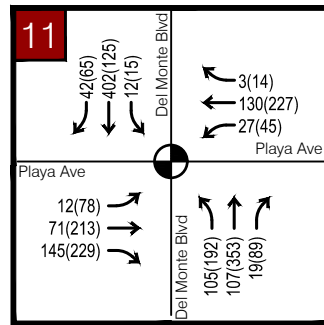
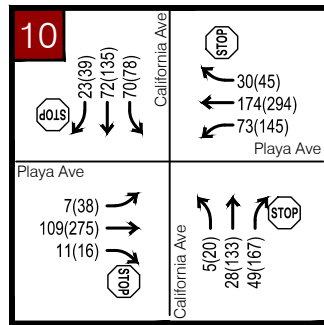
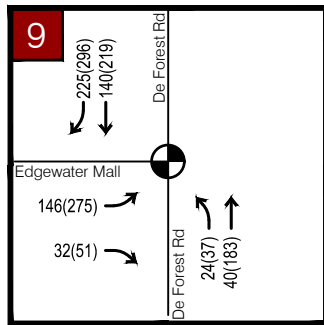
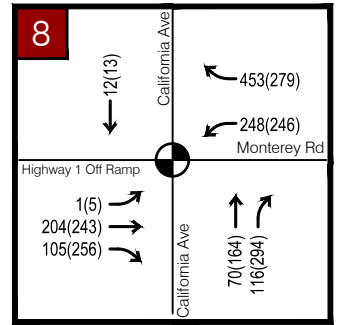
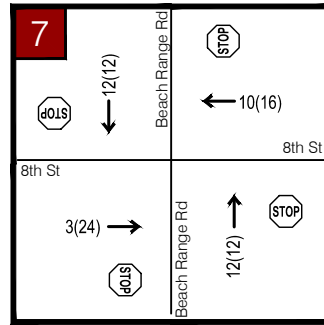
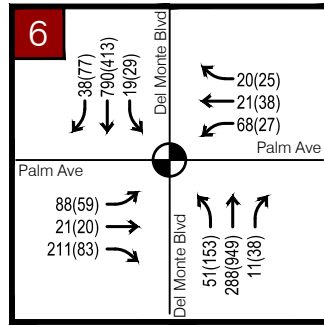
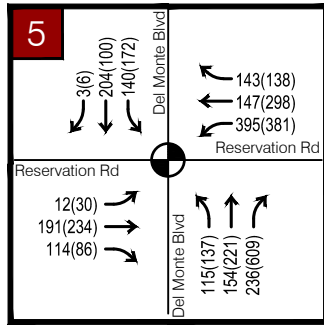
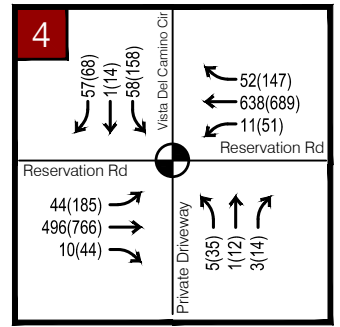
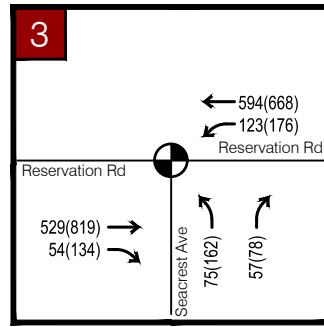
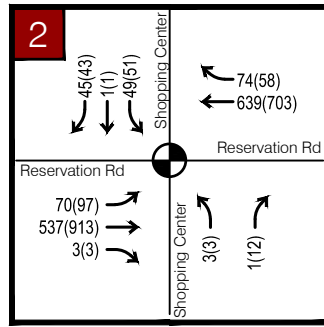
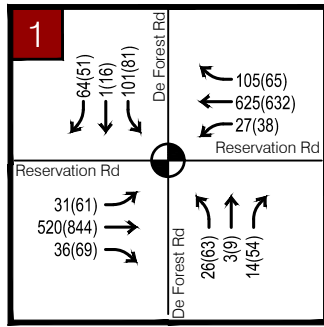
These "added" vehicle trips represent a very conservative analysis to examine the effect of adding BRT buses to existing traffic operations on the local roadway network. The analysis does not account for the significant number of vehicle trips that would be taken off both the freeway and local roadways.

Existing Plus Project Intersection Level of Service

The Existing Plus Project Condition lane geometry and volumes are presented in **Figure 6** and **Figure 7**. This project does not propose to modify the lane geometry at any study intersections and only proposes to add BRT signal preemption at key intersections along the transit route. The possible preemption signals would be, Reservation Road/Del Monte Road, Del Monte Road/Palm Avenue, and Del Monte Boulevard/Playa Avenue intersections. Preemptive improvements would minimize transit delay and improve efficiency of the system.

Intersection LOS results are presented in **Table 4** for Existing Plus Project Conditions. All study intersections continue to operate at acceptable LOS similar to existing conditions LOS, with minor increases in intersection delay observed at study intersections.





LEGEND

- # INTERSECTION
- TRAFFIC SIGNAL
- STOP SIGN
- XX(YY) AM(PM)



Table 4 – Existing Plus Project Conditions Intersection Level of Service

#	Intersection	Maintaining Agency	Control Type	Existing Conditions						Existing Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	14.4	B	-	14.5	B	-	14.5	B	-	14.5	B
2	Reservation Rd & Mc Donalds Dwy	Marina	Signal	-	6.3	A	-	7.0	A	-	6.3	A	-	7.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	9.6	A	-	11.8	B	-	9.6	A	-	11.8	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	8.5	A	-	15.8	B	-	8.5	A	-	15.8	B
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	19.5	B	-	19.7	B	-	19.6	B	-	19.7	B
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	16.9	B	-	14.3	B	-	16.9	B	-	14.4	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A	-	7.0	A	-	7.1	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	40.3	D	-	37.9	D	-	40.9	D	-	38.2	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	9.2	A	-	11.9	B	-	9.3	A	-	12.1	B
10	California Ave & Playa Ave	Sand City	AWSC	-	9.9	A	-	20.2	C	-	10.0	A	-	21.2	C
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	14.1	B	-	15.9	B	-	14.5	B	-	16.1	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	2.9	A	-	2.5	A	-	2.9	A	-	2.5	A
	<i>Worst Approach</i>			<i>WB</i>	16.2	C	<i>WB</i>	19.6	C	<i>WB</i>	16.6	C	<i>WB</i>	20.0	C
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	10.7	B	-	13.5	B	-	10.7	B	-	13.5	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	6.7	A	-	6.2	A	-	6.7	A	-	6.2	A
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	8.3	A	-	7.6	A	-	8.3	A	-	7.6	A

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Existing Plus Project Intersection Queuing

In addition to the LOS analysis, an existing plus project queuing summary is included in **Table 5**.

Overall, there is no anticipated impact at study intersections with implementation of the project. In addition to queuing summary from sim-traffic modeling, transit signal priority (TSP) was tested at key study locations where transit makes left or right turns. Whenever TSP is activated, there is minor increase in side street delay and queue; however, within two cycles the intersection operation is in normal conditions. There is no impact to any of the study intersections with proposed transit operations or option of TSP implementation.

Table 5 – Existing Plus Project Conditions 95th Percentile Queue Summary

Intersection		MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak
1	Reservation Rd & DeForest Rd	NBL/T	-	50	75	2	3
		NBR	80	50	75	2	3
		SBLT	-	75	100	3	4
		SBR	50	75	75	3	3
		EBL	320	50	75	2	3
		EBR	320	50	50	2	2
		WBL	170	50	75	2	3
WBR	95	25	50	1	2		
2	Reservation Rd & Shopping Center	NBL/T	-	25	50	1	2
		SBL/T	-	75	75	3	3
		SBR	100	50	50	2	2
		EBL	150	75	100	3	4
		WBR	25	75	75	3	3
3	Reservation Rd & Seacrest Ave	NBL	110	100	125	4	5
		EBR	50	75	100	3	4
		WBL	200	125	150	5	6
4	Reservation Rd & Vista Del Camino	NBR	50	25	50	1	2
		SBR	80	25	75	1	3
		EBL	200	75	175	3	7
		WBL	150	50	100	2	4
		WBR	100	50	150	2	6
5	Reservation Rd & Del Monte Blvd	NBL	490	150	150	6	6
		NBR 1	665	75	150	3	6
		NBR 2	665	75	150	3	6
		SBL 1	200	75	100	3	4
		SBL 2	200	125	125	5	5
		EBR	150	150	150	6	6
		WBL 1	100	250	175	10	7
		WBL 2	100	250	250	10	10
		WBR	150	100	175	4	7
6	Del Monte Blvd & Palm Ave	NBL	150	75	150	3	6
		SBL	150	50	75	2	3
		SBR	100	100	75	4	3
		EBL/T	-	175	100	7	4
		EBR	50	100	75	4	3
		WBL	-	100	50	4	2
		WBR	225	50	50	2	2
7	8 th St & Beach Range Rd	EBT	-	25	50	1	2
		WBT	-	50	50	2	2
8	Hwy 1/Monterey Rd & California Ave	NBR	-	175	225	7	9
		EBL/T	660	600	925	24	37
		EBR	645	300	600	12	24
		WBL	-	100	100	4	4
		WBR	-	100	100	4	4
9	California Ave & Edgewater Mall	NBL/T	130	75	200	3	8
		SBR	-	75	100	3	4
		EBL/R	90	50	225	2	9
10	California Ave & La Playa Ave	NBL/T	-	50	125	2	5
		NBR	50	75	100	3	4
		SBL	150	50	50	2	2

Table 5 – Existing Plus Project Conditions 95th Percentile Queue Summary (Cont.)

Intersection		MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak
10	California Ave & La Playa Ave	EBL	120	25	75	1	3
		WBL	-	75	100	3	4
		WBR/T	-	125	175	5	7
11	Del Monte Ave & La Playa Ave	NBL 1	240	75	100	3	4
		NBL 2	240	100	150	4	6
		SBL	150	50	50	2	2
		EBL	120	50	100	2	4
		EBR	-	75	125	3	5
		WBL	50	75	75	3	3
12	Del Monte Ave & La Salle Rd	NBR/T	-	25	50	1	2
		SBL	100	50	75	2	3
		WBL	-	75	75	3	3
		WBR	100	50	50	2	2
13	Del Monte Ave & Tioga Ave	NBL	200	75	150	3	6
		SBL	220	50	50	2	2
		EBL	75	75	100	3	4
		WBL	275	50	50	2	2
		WBR	150	50	50	2	2
14	Del Monte Ave & Clementina Ave	SBL	70	75	50	3	2
		WBR	175	50	50	2	2
15	Del Monte Ave & Contra Costa Rd	NBL	75	125	100	5	4
		EBR	120	100	100	4	4

XX indicates queue exceeds available storage length

5. CUMULATIVE CONDITIONS

Traffic operations were evaluated under the following cumulative conditions:

- Cumulative (2045) Conditions
- Cumulative (2045) Plus Project Conditions

Cumulative Transportation Network Improvements

Future Conditions describes the conditions anticipated in 2045. AMBAG Regional Travel Demand Model was used to determine future traffic growth on Reservation Road and Del Monte Boulevard with the proposed Downtown Plan Redevelopment representing the average trips that would be generated. The 2018 Regional Travel Demand Model incorporates regional growth, traffic congestion, and alternative transportation mode share. The intersection volumes were developed by Furnessing the AMBAG Baseline (2015) and Metropolitan Transportation Plan Year (2040) link data as well as existing traffic counts.

Figure 8 illustrates the intersection geometry and traffic control used in the Cumulative (2040) conditions analysis. It is assumed that signal timing changes will be implemented prior to 2040 to service traffic pattern changes and increases.

Cumulative Volumes

Cumulative volume growth in the study area was determined based on the AMBAG model to estimate future volume growth in the study area.

Year 2040 roadway link volumes from the recently certified AMBAG Travel Demand Forecast model were obtained for Cumulative traffic volume growth estimates. The model was used to plot bi-directional AM and PM peak-hour traffic volumes on each segment along roadways within the study area. Model base year (2015) and horizon year (2040) forecast volumes were compared to determine the annual incremental growth in traffic volumes at study intersection approach and departure links.

For this project, the year 2045 was utilized for Cumulative Conditions. The model only analyzes 2040 conditions so, the annual incremental growth in traffic to 2040 was interpolated to 2045 turning movement volumes by adding the growth increment to the current year (2018) traffic count volumes to calculate the final adjusted roadway link forecast volume. Final adjusted forecast volumes were then converted to Cumulative (2045) intersection turning movement volumes using a process commonly referred to as the Furness method. The Furness method uses an iterative process to derive future turning movement volumes based on future year roadway link volumes and an initial estimate of turning percentages (obtained from the existing 2018 intersection turning movement counts).

Cumulative (2045) conditions peak hour traffic volumes are shown in **Figure 9**.

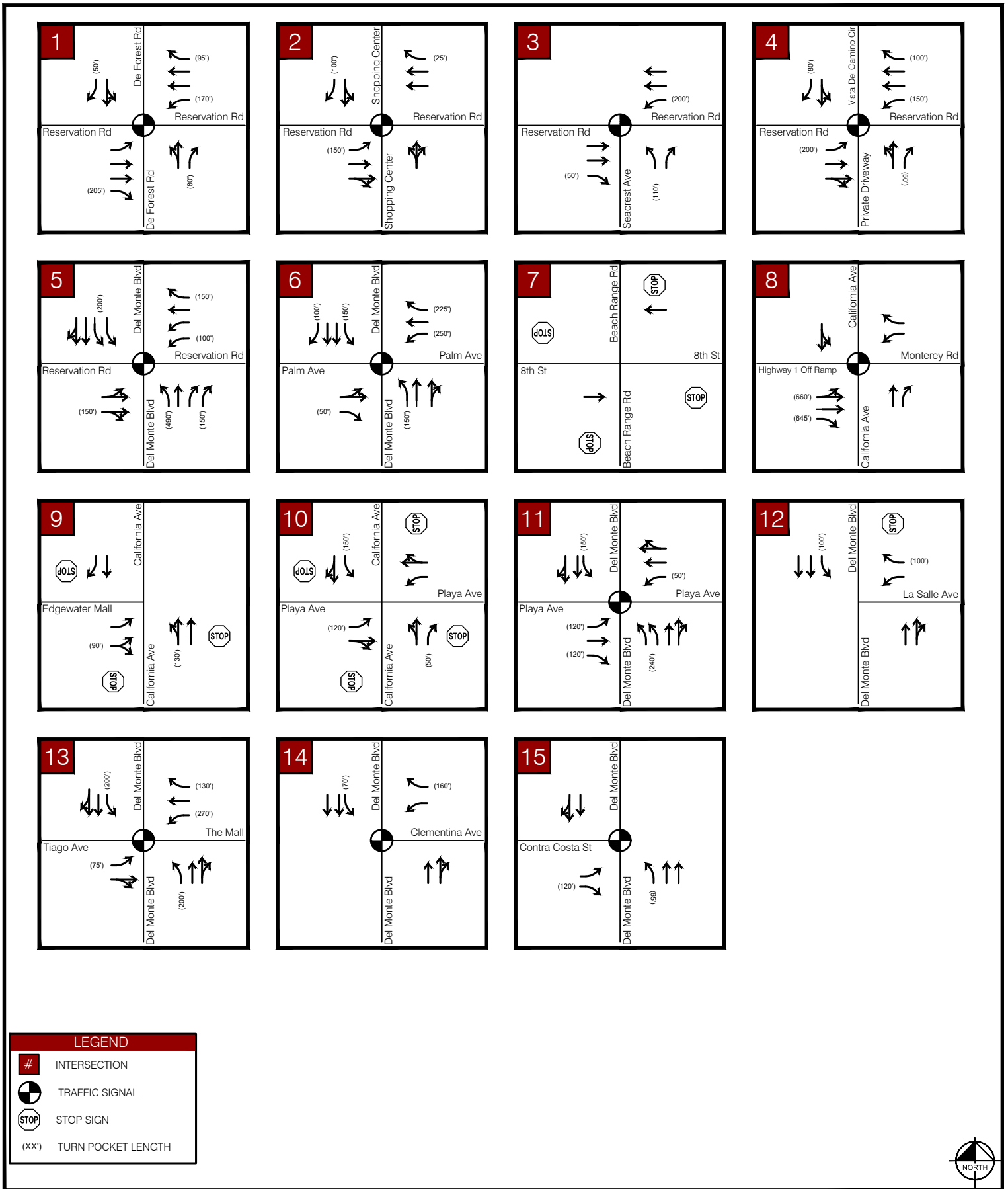
Cumulative Intersection Level of Service

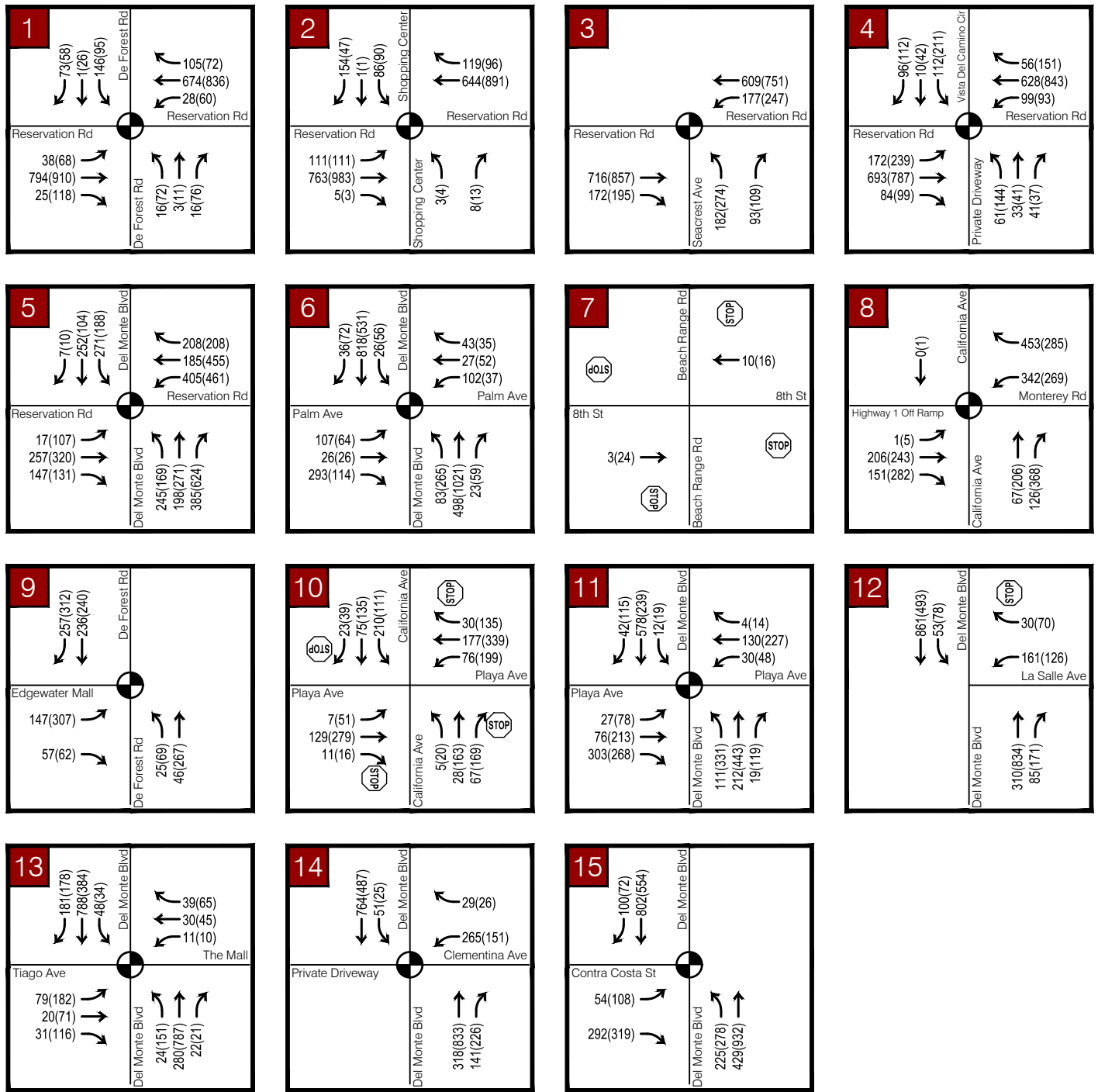
Traffic operations were evaluated at the study intersections based on Cumulative Conditions lane geometry and traffic control as shown in **Figure 8** and Cumulative peak hour traffic volumes as shown in **Figure 9**.

The following intersections would operate at an unacceptable LOS under Cumulative conditions:

- Intersection 8 – California Avenue and Highway 1/Monterey Road (Signal)
- Intersection 10 – California Avenue and La Playa Street (AWSC)
- Intersection 12 – Del Monte Boulevard and La Salle Avenue (SSSC)

Results of the analysis are presented in **Table 6** and Synchro output sheets are provided in **Appendix E**.





LEGEND

- # INTERSECTION
- Traffic Signal Symbol TRAFFIC SIGNAL
- STOP SIGN Symbol STOP SIGN
- XX(YY) AM(PM)



Table 6 – Cumulative Conditions Intersection Level of Service

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions					
				AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	20.4	C	-	16.8	B
2	Reservation Rd & Mc Donalds Dwy	Marina	Signal	-	8.1	A	-	8.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	12.2	B	-	13.9	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	16.7	B	-	20.9	C
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	25.6	C	-	27.8	C
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	20.9	C	-	16.8	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	38.8	D	-	36.4	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	10.2	B	-	13.9	B
10	California Ave & Playa Ave	Sand City	AWSC	-	11.9	B	-	45.6	E
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	18.8	B	-	19.1	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	6.5	A	-	11.9	B
	<i>Worst Approach</i>			WB	48.5	E	WB	103	F
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	13.3	B	-	15.9	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	7.5	A	-	6.9	A
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	13.1	B	-	10.5	B

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Cumulative Conditions Queueing

After completing the intersection level of service, a queuing summary for all study intersections was prepared. **Table 7** provides the queuing summary, length of queue and number of vehicles in the queue for all study intersections.

Table 7 – Cumulative Conditions 95th Percentile Queue Summary

Intersection	MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles		
			AM Peak	PM Peak	AM Peak	PM Peak	
1	Reservation Rd & DeForest Rd	NBL/T	-	50	100	2	4
		NBR	80	50	75	2	3
		SBLT	-	100	100	4	4
		SBR	50	75	75	3	3
		EBL	320	50	75	2	3
		EBR	320	25	50	1	2
		WBL	170	75	75	3	3
2	Reservation Rd & Shopping Center	NBL/T	-	50	50	2	2
		SBL/T	-	75	100	3	4
		SBR	100	75	50	3	2
		EBL	150	125	125	5	5
		WBR	25	75	75	3	3
3	Reservation Rd & Seacrest Ave	NBL	110	150	150	6	6
		EBR	50	100	125	4	5
		WBL	200	175	225	7	9
4	Reservation Rd & Vista Del Camino	NBR	50	75	100	3	4
		SBR	80	50	150	2	6
		EBL	200	175	225	7	9
		WBL	150	150	175	6	7
		WBR	100	75	175	3	7
5	Reservation Rd & Del Monte Blvd	NBL	490	275	200	11	8
		NBR 1	665	100	150	4	6
		NBR 2	665	125	175	5	7
		SBL 1	200	150	100	6	4
		SBL 2	200	175	150	7	6
		EBR	150	225	250	9	10
		WBL 1	100	175	175	7	7
		WBL 2	100	325	525	13	21
6	Del Monte Blvd & Palm Ave	NBL	150	125	225	5	9
		SBL	150	100	100	4	4
		SBR	100	100	125	4	5
		EBL/T	-	250	125	10	5
		EBR	50	100	100	4	4
		WBL	-	125	75	5	3
		WBR	225	75	75	3	3
7	8 th St & Beach Range Rd	EBT	-	25	50	1	2
		WBT	-	50	50	2	2
8	Hwy 1/Monterey Rd & California Ave	NBR	-	150	225	6	9
		EBL/T	660	475	925	19	37
		EBR	645	175	425	7	17
		WBL	-	125	100	5	4
		WBR	-	100	100	4	4
9	California Ave & Edgewater Mall	NBL/T	130	50	250	2	10
		SBR	-	75	100	3	4
		EBL/R	90	50	200	2	8
10	California Ave & La Playa Ave	NBL/T	-	50	450	2	18
		NBR	50	75	100	3	4
		SBL	150	75	75	3	3

Table 7 – Queue Summary for Cumulative Conditions 95th Percentile (Cont.)

Intersection		MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak
10	California Ave & La Playa Ave	EBL	120	25	125	1	5
		WBL	-	75	175	3	7
		WBR/T	-	100	225	4	9
11	Del Monte Ave & La Playa Ave	NBL 1	240	75	325	3	13
		NBL 2	240	100	375	4	15
		SBL	150	50	75	2	3
		EBL	120	75	175	3	7
		EBR	-	125	125	5	5
		WBL	50	75	75	3	3
12	Del Monte Ave & La Salle Rd	NBR/T	-	25	275	1	11
		SBL	100	50	75	2	3
		WBL	-	125	350	5	14
		WBR	100	75	150	3	6
13	Del Monte Ave & Tioga Ave	NBL	200	75	200	3	8
		SBL	220	75	75	3	3
		EBL	75	100	125	4	5
		WBL	275	50	50	2	2
		WBR	150	50	100	2	4
14	Del Monte Ave & Clementina Ave	SBL	70	75	50	3	2
		WBR	175	75	50	3	2
15	Del Monte Ave & Contra Costa Rd	NBL	75	150	150	6	6
		EBR	120	150	125	6	5

XX indicates queue exceeds available storage length

6. CUMULATIVE CONDITIONS PLUS PROPOSED IMPROVEMENTS

There are no planned improvements for the study intersections in the City of Marina; however, the City of Marina is planning a roundabout at the intersection of Del Monte Blvd/Palm Avenue in the future as a separate project.

The City of Seaside General Plan assumes the following improvements may be anticipated in cumulative conditions. The additional intersection analysis was performed assuming the following improvements.

- Intersection 6 – Del Monte Boulevard/Palm Avenue
 - Convert signal to a two-lane roundabout
- **Intersection 8*** – California Avenue and Highway 1/Monterey Road
 - Convert dual signals with single controller to dual roundabouts
- Intersection 9 – California Avenue/Edgewater Mall
 - Convert all-way stop to a signal
- **Intersection 10*** – California Avenue/La Playa Avenue
 - Option 1: Convert all-way stop to a signal
 - Option 2: Convert all-way stop to a roundabout
- Intersection 11 – Del Monte Boulevard/La Playa Avenue
 - Option 1: Convert signal to a roundabout
- **Intersection 12*** – Del Monte Boulevard/La Salle Avenue
 - Option 1: Convert side-street stop control to a signal
 - Option 2: Convert side-street stop control to roundabout
- Del Monte Boulevard – Broadway to Highway 1⁺
 - Convert four-lane facility to a three-lane facility with two southbound lanes and one northbound lane
- Fremont Boulevard – Broadway to Highway 1⁺
 - Convert four-lane facility to a three-lane facility with one southbound lanes and two northbound lane

* *These intersections are not operating at acceptable level of service in cumulative conditions.*

+ *The new general plan has not been approved yet.*

Intersection Improvements

As discussed above, some of the intersections (#8, #10 and #12) would operate at unacceptable levels in cumulative conditions. Before assuming the signal or roundabout options at these impacted intersections, a signal warrant analysis was performed for these intersections. Signal warrant results are presented in **Figure 10** through **Figure 12**, and all intersections meet the signal warrant for at least one of the peak conditions.

Table 8 provides the LOS results for the signal mitigation/improvements while **Table 9** and **Table 10** provide queuing for the signal and roundabout mitigation, respectively.

Figure 10 – California Avenue and Edgewater (Intersection 9) Peak Hour Signal Warrant

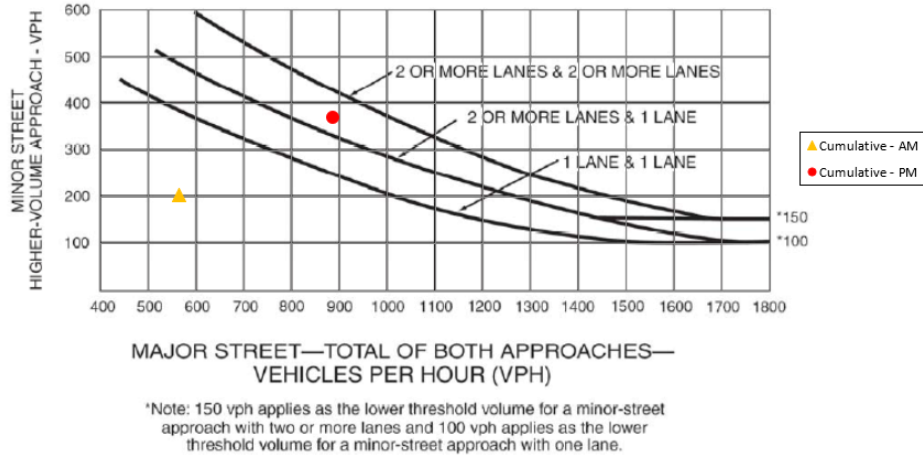


Figure 11 – California Avenue and La Playa (Intersection 10) Peak Hour Signal Warrant

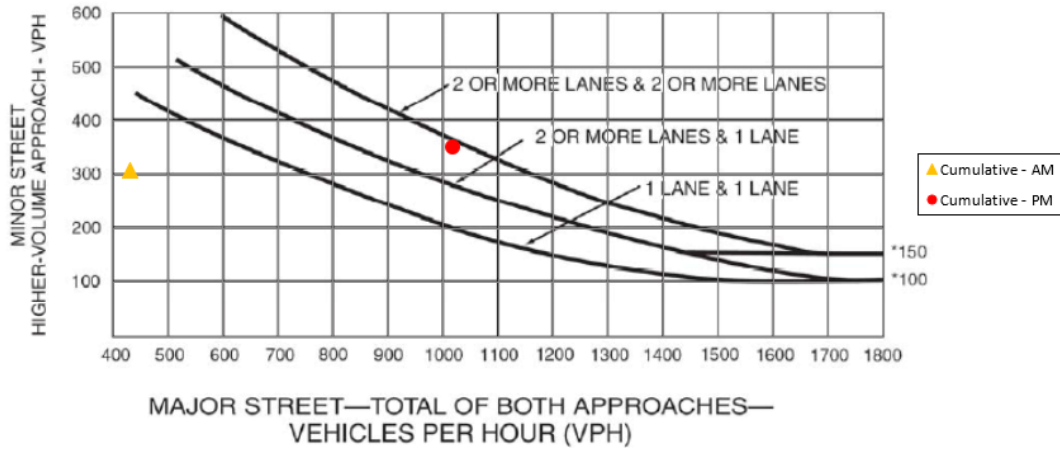


Figure 12 – Del Monte Avenue and La Salle Avenue (Intersection 12) Peak Hour Signal Warrant

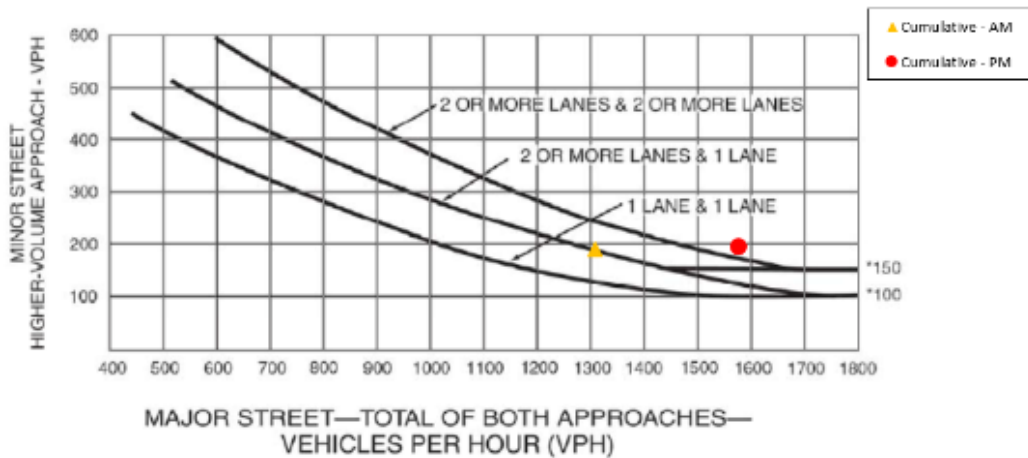


Table 8 – Intersection LOS Summary for Cumulative Conditions With Proposed Improvements

#	Intersection	Maintaining Agency	Cumulative Conditions						Cumulative Conditions With Proposed Improvements									
			AM Peak			PM Peak			Signal				Roundabout					
			MVMT	Delay	LOS	MVMT	Delay	LOS	AM Peak		PM Peak		AM Peak			PM Peak		
									V/C	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS	
6	Del Monte Blvd & Palm Ave	Marina	-	20.9	C	-	16.8	B	N/A				0.735	10.4	B	0.571	9.1	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	-	38.8	D	-	36.4	D	N/A				0.366	5.6	A	0.587	7.6	A
9	California Ave & Edgewater Mall	Sand City	-	10.2	B	-	13.9	B	5.9	A	6.2	A	N/A					
10	California Ave & Playa Ave	Sand City	-	11.9	B	-	45.6	E	11.0	B	16.4	C	0.303	5.0	A	0.455	8.1	A
11	Del Monte Blvd & Playa Ave	Seaside	-	18.8	B	-	19.1	B	N/A				0.560	7.8	A	0.487	9.2	A
12	Del Monte Blvd & La Salle Ave	Seaside	-	6.5	A	-	11.9	B	5.5	A	5.4	A	0.434	6.4	A	0.406	6.5	A
	<i>Worst Approach</i>		WB	48.5	E	WB	103	F										

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Table 9 – Intersection Queue length Summary for Cumulative Conditions With Proposed Improvements (Signalized Control)

Intersection	MVMТ	Pocket Length (ft)	Cumulative Conditions				Cumulative Conditions With Proposed Improvements (Signal Conditions)				
			95 th Percentile Queue Length (ft)		# Vehicles		95 th Percentile Queue Length (ft)		# Vehicles		
			AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	
9	California Ave & Edgewater Mall	NBL/T	130	50	250	2	10	50	250	2	10
		SBR	-	75	100	3	4	100	100	4	4
		EBL/R	90	50	200	2	8	50	150	2	6
10	California Ave & La Playa Ave	NBL/T	-	50	450	2	18	50	350	2	14
		NBR	50	75	100	3	4	75	150	3	6
		SBL	150	75	75	3	3	100	100	4	4
		EBL	120	25	125	1	5	50	125	2	5
		WBL	-	75	175	3	7	75	150	3	6
WBR/T	-	100	225	4	9	125	225	5	9		
12	Del Monte Ave & La Salle Rd	NBR/T	-	25	275	1	11	100	275	4	11
		SBL	100	50	75	2	3	75	125	3	5
		WBL	-	125	350	5	14	100	200	4	8
		WBR	100	75	150	3	6	50	100	2	4

XX indicates queue exceeds available storage length

Table 10 – Intersection Queue Length Summary for Cumulative Conditions With Proposed Improvements (Roundabout Control)

Intersection		MVMT	Cumulative Conditions With Proposed Improvements (Roundabout Conditions)			
			95 th Percentile Queue Length (ft)		# Vehicles	
			AM Peak	PM Peak	AM Peak	PM Peak
6	Del Monte Blvd & Palm Ave	NB	50	125	2	5
		SB	75	50	3	2
		EB	175	50	7	2
		WB	25	50	1	2
10	California Ave & La Playa Ave	NB	10	75	1	3
		SB	50	50	2	2
		EB	25	75	1	3
		WB	25	75	1	3
11	Del Monte Ave & La Playa Ave	NB	25	75	1	3
		SB	50	50	2	2
		EB	100	75	4	3
		WB	25	75	1	3
12	Del Monte Ave & La Salle Rd	NB	25	75	1	3
		SB	75	50	3	2
		WB	25	50	1	2

Del Monte Boulevard Road Diet Improvements

Table 11 provides the LOS summary results for the proposed road diet project based on the City of Seaside's General Plan Update (in process). Although not yet approved, these future improvements have been analyzed and the results presented below.

With the road diet project, the study intersections continue to operate at acceptable levels of service with a minor increase in delay.

Table 11 – Intersection Level of Service Summary Cumulative Conditions With Road Diet

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions						Cumulative Conditions With Road Diet					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	18.8	B	-	19.1	B	-	19.0	B	-	23.1	C
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	6.5	A	-	11.9	B	-	5.7	A	-	10.4	B
	<i>Worst Approach</i>			WB	48.5	E	WB	103	F	WB	42.6	E	WB	89.5	F
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	13.3	B	-	15.9	B	-	13.5	B	-	22.3	C
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	7.5	A	-	6.9	A	-	8.5	A	-	16.9	B
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	13.1	B	-	10.5	B	-	13.1	B	-	16.9	B

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

7. CUMULATIVE PLUS PROJECT INTERSECTION LEVEL OF SERVICE

As discussed in the Existing Plus Project Condition chapter, the transit headways for the project will be 10 minutes for both the northbound and southbound direction. Based on this assumption, there will be six southbound and six northbound buses operating during the AM and PM peak hours. For the analysis purpose these transit trips were converted to PCE. PCE is a unit used to represent a large vehicle on a road by expressing it as the number of equivalent passenger vehicles. PCE for transit was roughly two. The six buses were equivalent to 12 regular vehicles. These 12 vehicles were added to Cumulative Plus Project Conditions for inbound and outbound. These project trips were assigned to study intersections based on the proposed transit route.

Cumulative Plus Project Intersection Level of Service

The Cumulative Plus Project Condition lane geometry and volumes are presented in **Figure 13** and **Figure 14**. The proposed project is not planning to modify the lane geometry at any of the study intersections other than modifying BRT signal preemption at key locations along the transit route. This would minimize the transit delay and improve the efficiency.

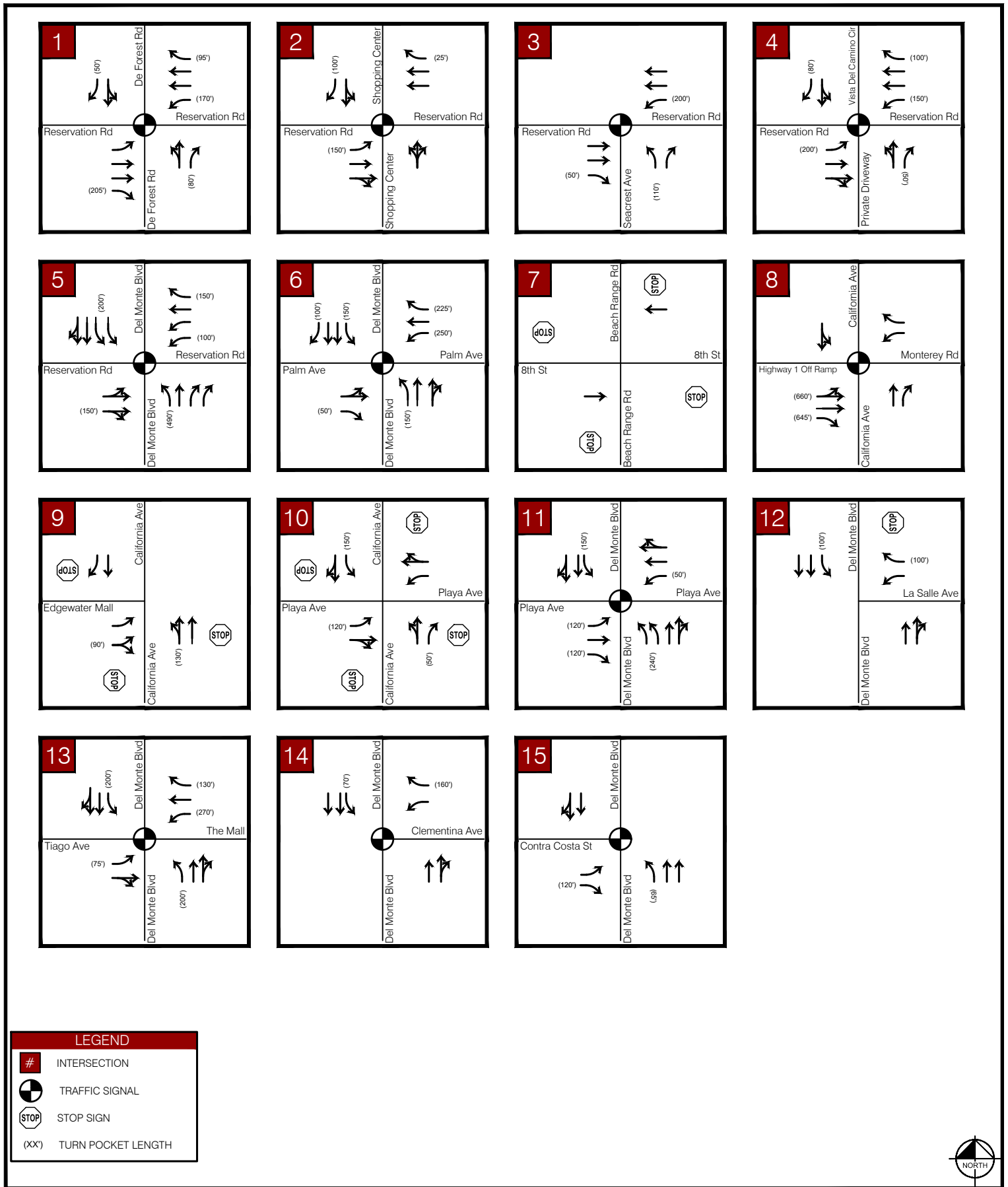
The Cumulative Plus Project Condition intersection level of service is presented in **Table 12**, while queuing reports are provided in **Table 13**. The Synchro calculation output sheets are provided in **Appendix E**.

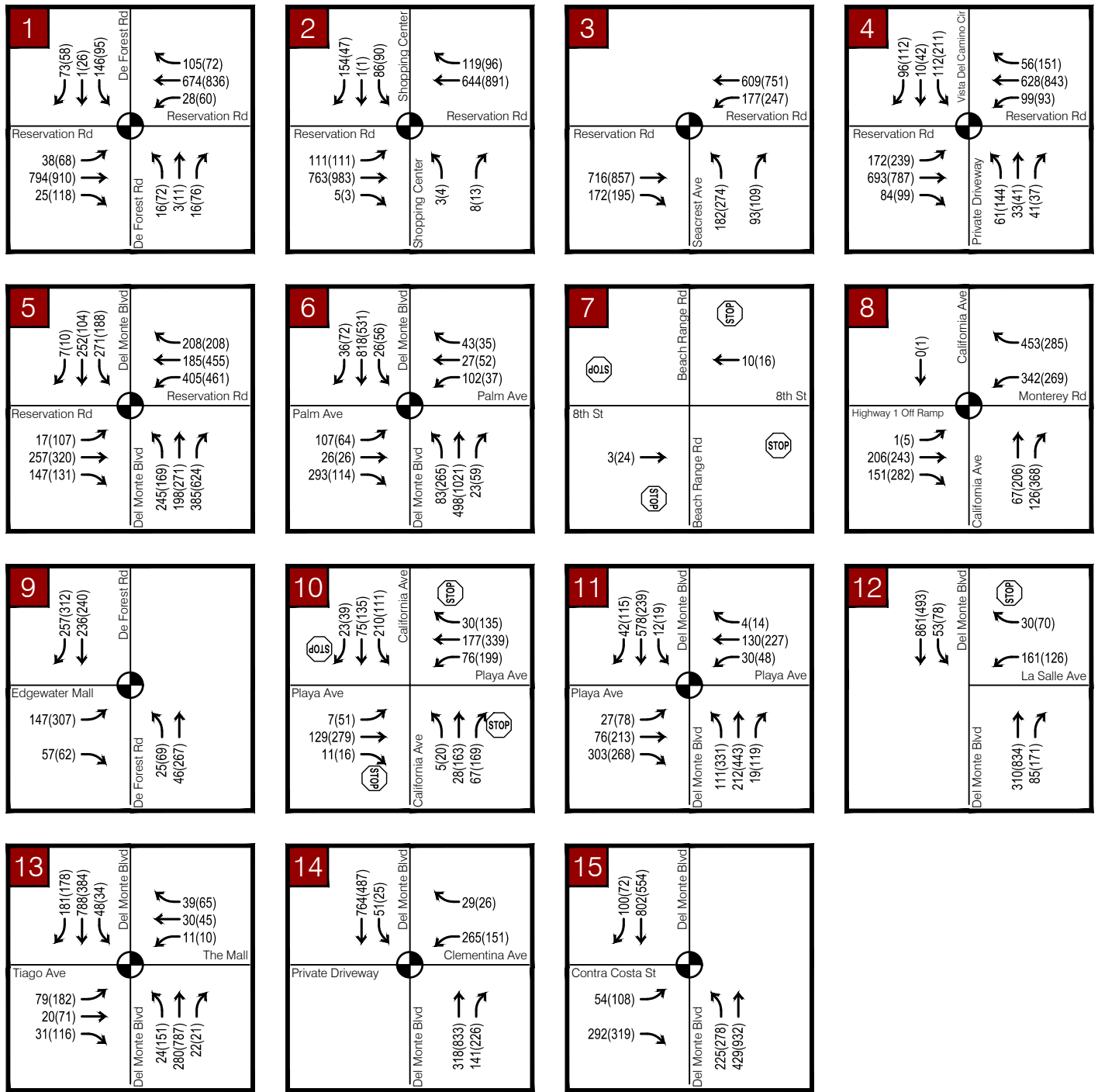
All study intersections continue to operate similar to Cumulative Conditions with minor increase in overall intersection delay. The following intersections operated at an unacceptable LOS under Cumulative and Cumulative Plus Conditions:

- Intersection 8 – California Avenue and Highway 1/Monterey Road (Signal)
- Intersection 10 – California Avenue and La Playa Street (AWSC)
- Intersection 12 – Del Monte Boulevard and La Salle Avenue (SSSC)

The above intersections already met the signal warrant and operations would improve with proposed mitigations as identified in the earlier Cumulative Condition with Proposed Improvements section.

There is no substantial change in queuing at any study intersections. The transit operations can be improved with TSP at key study intersections.





LEGEND	
#	INTERSECTION
	TRAFFIC SIGNAL
	STOP SIGN
XX(YY)	AM(PM)



Table 12 – Intersection Level of Service Summary for Cumulative Plus Project Conditions

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions						Cumulative Plus Project Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
1	Reservation Rd & DeForest Rd	Marina	Signal	-	20.4	C	-	16.8	B	-	20.4	C	-	17.0	B
2	Reservation Rd & Mc Donalds Dwy	Marina	Signal	-	8.1	A	-	8.0	A	-	8.1	A	-	8.0	A
3	Reservation Rd & Seacrest Ave	Marina	Signal	-	12.2	B	-	13.9	B	-	12.2	B	-	13.9	B
4	Reservation Rd & Vista Del Camino Cir	Marina	Signal	-	16.7	B	-	20.9	C	-	16.7	B	-	21.1	C
5	Reservation Rd & Del Monte Blvd	Marina	Signal	-	25.6	C	-	27.8	C	-	25.6	C	-	27.8	C
6	Del Monte Blvd & Palm Ave	Marina	Signal	-	20.9	C	-	16.8	B	-	20.9	C	-	16.9	B
7	8 th Street & Beach Range Rd	Marina	AWSC	-	7.0	A	-	7.0	A	-	7.0	A	-	7.1	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	Signal	-	38.8	D	-	36.4	D	-	39.3	D	-	36.6	D
9	California Ave & Edgewater Mall	Sand City	AWSC	-	10.2	B	-	13.9	B	-	10.4	B	-	14.1	B
10	California Ave & Playa Ave	Sand City	AWSC	-	11.9	B	-	45.6	E	-	12.2	B	-	49.6	E
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	18.8	B	-	19.1	B	-	19.5	B	-	19.4	B
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	6.5	A	-	11.9	B	-	6.8	A	-	12.6	B
	<i>Worst Approach</i>			WB	48.5	E	WB	103	F	WB	52.2	F	WB	111.2	F
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	13.3	B	-	15.9	B	-	13.3	B	-	16.0	B
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	7.5	A	-	6.9	A	-	7.6	A	-	6.9	A
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	13.1	B	-	10.5	B	-	13.2	B	-	10.6	B

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Table 13 – Queue Summary for Cumulative Plus Project Conditions 95th Percentile

Intersection		MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak
1	Reservation Rd & DeForest Rd	NBL/T	-	50	100	2	4
		NBR	80	50	75	2	3
		SBLT	-	100	100	4	4
		SBR	50	75	75	3	3
		EBL	320	75	75	3	3
		EBR	320	25	50	1	2
		WBL	170	50	100	2	4
		WBR	95	52	75	3	3
2	Reservation Rd & Shopping Center	NBL/T	-	25	50	1	2
		SBL/T	-	75	100	3	4
		SBR	100	75	50	3	2
		EBL	150	125	125	5	5
		WBR	25	75	75	3	3
3	Reservation Rd & Seacrest Ave	NBL	110	150	175	6	7
		EBR	50	100	125	4	5
		WBL	200	150	225	6	9
4	Reservation Rd & Vista Del Camino	NBR	50	75	100	3	4
		SBR	80	54	175	3	7
		EBL	200	200	225	8	9
		WBL	150	150	150	6	6
		WBR	100	75	175	3	7
5	Reservation Rd & Del Monte Blvd	NBL	490	275	200	11	8
		NBR 1	665	100	175	4	7
		NBR 2	665	125	175	5	7
		SBL 1	200	150	100	6	4
		SBL 2	200	175	125	7	5
		EBR	150	225	250	9	10
		WBL 1	100	175	175	7	7
		WBL 2	100	325	500	13	20
		WBR	150	150	250	6	10
6	Del Monte Blvd & Palm Ave	NBL	150	125	200	5	8
		SBL	150	50	100	2	4
		SBR	100	100	125	4	5
		EBL/T	-	250	150	10	6
		EBR	50	100	100	4	4
		WBL	-	125	75	5	3
		WBR	225	75	75	3	3
7	8 th St & Beach Range Rd	EBT	-	25	50	1	2
		WBT	-	50	50	2	2
8	Hwy 1/Monterey Rd & California Ave	NBR	-	175	200	7	8
		EBL/T	660	550	900	22	36
		EBR	645	325	325	13	13
		WBL	-	100	100	4	4
		WBR	-	100	100	4	4
9	California Ave & Edgewater Mall	NBL/T	130	75	250	3	10
		SBR	-	75	100	3	4
		EBL/R	90	50	200	2	8
10	California Ave & La Playa Ave	NBL/T	-	50	575	2	23
		NBR	50	75	100	3	4
		SBL	150	75	75	3	3

Table 13 – Cumulative Plus Project Conditions 95th Percentile Queue Summary

Intersection		MVMT	Pocket Length (ft)	95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak
10	California Ave & La Playa Ave	EBL	120	50	125	2	5
		WBL	-	75	150	3	6
		WBR/T	-	125	225	5	9
11	Del Monte Ave & La Playa Ave	NBL 1	240	75	325	3	13
		NBL 2	240	100	400	4	16
		SBL	150	50	75	2	3
		EBL	120	50	125	2	5
		EBR	-	125	150	5	6
		WBL	50	75	75	3	3
12	Del Monte Ave & La Salle Rd	NBR/T	-	25	300	1	12
		SBL	100	50	75	2	3
		WBL	-	125	400	5	16
		WBR	100	50	150	2	6
13	Del Monte Ave & Tioga Ave	NBL	200	75	200	3	8
		SBL	220	75	75	3	3
		EBL	75	125	125	5	5
		WBL	275	50	50	2	2
		WBR	150	50	125	2	5
14	Del Monte Ave & Clementina Ave	SBL	70	100	50	4	2
		WBR	175	75	75	3	3
15	Del Monte Ave & Contra Costa Rd	NBL	75	150	150	6	6
		EBR	120	150	250	6	10

XX indicates queue exceeds available storage length

8. CUMULATIVE PLUS PROJECT IMPROVEMENTS/ MITIGATIONS

There are no planned improvements for the study intersections in the City of Marina; however, City of Marina is planning a roundabout at the intersection of Del Monte Boulevard/Palm Avenue in the future as a separate, unrelated project. The City of Seaside general plan assumes the following improvements may be anticipated in cumulative conditions. The additional intersection analysis was performed assuming the following improvements:

- Intersection 6 – Del Monte Boulevard/Palm Avenue
 - Convert signal to a two-lane roundabout
- **Intersection 8*** – California Avenue and Highway 1/Monterey Road
 - Convert dual signals with single controller to dual roundabouts
- Intersection 9 – California Avenue/Edgewater Mall
 - Convert all-way stop to a signal
- **Intersection 10*** – California Avenue/La Playa Avenue
 - Option 1: Convert all-way stop to a signal
 - Option 2: Convert all-way stop to a roundabout
- Intersection 11 – Del Monte Boulevard/La Playa Avenue
 - Option 1: Convert signal to a roundabout
- **Intersection 12*** – Del Monte Boulevard/La Salle Avenue
 - Option 1: Convert side-street stop control to a signal
 - Option 2: Convert side-street stop control to roundabout
- Del Monte Boulevard – Broadway to Highway 1⁺
 - Convert four-lane facility to a three-lane facility with two southbound lanes and one northbound lane
- Fremont Boulevard – Broadway to Highway 1⁺
 - Convert four-lane facility to a three-lane facility with one southbound lanes and two northbound lane

* *These intersections are not operating at acceptable level of service in cumulative conditions.*

+ *The new general plan has not been approved yet.*

Intersection Improvements

Table 14 provides the LOS results for the signal mitigation/improvements while **Table 15** and **Table 16** provide queuing for the signal and roundabout mitigation, respectively.

It is important to note that no additional mitigation measures beyond those proposed improvements already identified for the Cumulative (No Project) Condition are needed as a result of the Surf! Busway and Bus Rapid Transit Project.

Table 14 – Cumulative Plus Project Mitigated Conditions

#	Intersection	Maintaining Agency	Cumulative Plus Project						Cumulative Plus Project With Proposed Improvements									
			AM Peak			PM Peak			Signal				Roundabout					
			MVMT	Delay	LOS	MVMT	Delay	LOS	AM Peak		PM Peak		AM Peak			PM Peak		
									Delay	LOS	Delay	LOS	V/C	Delay	LOS	V/C	Delay	LOS
6	Del Monte Blvd & Palm Ave	Marina	-	20.9	C	-	16.8	B	n/a				0.755	10.7	B	0.566	8.9	A
8	California Ave & Highway 1/Monterey Rd	Caltrans	-	38.8	D	-	36.4	D	n/a				0.599	8.4	A	0.370	5.9	A
9	California Ave & Edgewater Mall	Sand City	-	10.2	B	-	13.9	B	5.9	A	6.2	A	n/a					
10	California Ave & Playa Ave	Sand City	-	11.9	B	-	45.6	E	11.1	B	17.1	B	0.314	5.1	A	0.467	8.3	A
11	Del Monte Blvd & Playa Ave	Seaside	-	18.8	B	-	19.1	B	n/a				0.577	8.0	A	0.490	9.3	A
12	Del Monte Blvd & La Salle Ave	Seaside	-	6.5	A	-	11.9	B	5.5	A	5.4	A	0.440	6.5	A	0.411	6.6	A
	Worst Approach		WB	48.5	E	WB	103	F										

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Table 15 – Cumulative Mitigated Conditions 95th Percentile Queue Summary (Signalized Control)

Intersection		MVMT	Pocket Length (ft)	Cumulative				Cumulative Plus Project With Proposed Improvements (Signal Conditions)			
				95 th Percentile Queue Length (ft)		# Vehicles		95 th Percentile Queue Length (ft)		# Vehicles	
				AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
9	California Ave & Edgewater Mall	NBL/T	130	50	250	2	10	50	125	2	5
		SBR	-	75	100	3	4	75	100	3	4
		EBL/R	90	50	200	2	8	75	725	3	29
10	California Ave & La Playa Ave	NBL/T	-	50	450	2	18	50	425	2	17
		NBR	50	75	100	3	4	75	100	3	4
		SBL	150	75	75	3	3	125	100	5	4
		EBL	120	25	125	1	5	50	125	2	5
		WBL	-	75	175	3	7	75	150	3	6
		WBR/T	-	100	225	4	9	125	225	5	9
12	Del Monte Ave & La Salle Rd	NBR/T	-	25	275	1	11	50	250	2	10
		SBL	100	50	75	2	3	75	100	3	4
		WBL	-	125	350	5	14	100	175	4	7
		WBR	100	75	150	3	6	50	100	2	4

Table 16 – Cumulative Mitigated Conditions 95th Percentile Queue Summary (Roundabout Control)

Intersection		MVMT	Cumulative Plus Project With Proposed Improvements (Roundabout Conditions)			
			95 th Percentile Queue Length (ft)		# Vehicles	
			AM Peak	PM Peak	AM Peak	PM Peak
6	Del Monte Blvd & Palm Ave	NB	50	125	2	5
		SB	75	50	3	2
		EB	175	50	7	2
		WB	25	50	1	2
10	California Ave & La Playa Ave	NB	25	75	1	3
		SB	50	50	2	2
		EB	25	75	1	3
		WB	25	75	1	3
11	Del Monte Ave & La Playa Ave	NB	25	75	1	3
		SB	50	50	2	2
		EB	125	75	5	3
		WB	25	75	1	3
12	Del Monte Ave & La Salle Rd	NB	25	75	1	3
		SB	75	50	3	2
		WB	25	50	1	2

Del Monte Boulevard Road Diet Improvements

Table 17 provides the LOS results for the proposed road diet under cumulative conditions.

Table 17 – Cumulative Plus Project Mitigated Conditions (Road Diet)

#	Intersection	Maintaining Agency	Control Type	Cumulative Conditions						Cumulative Plus Project Road Diet Conditions					
				AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
				MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS	MVMT	Delay	LOS
11	Del Monte Blvd & Playa Ave	Seaside	Signal	-	18.8	B	-	19.1	B	-	19.7	B	-	23.4	C
12	Del Monte Blvd & La Salle Ave	Seaside	SSSC	-	6.5	A	-	11.9	B	-	6.0	A	-	10.8	B
	<i>Worst Approach</i>			WB	48.5	E	WB	103	F		45.5	E	WB	94.4	F
13	Del Monte Blvd & Tioga Ave	Seaside	Signal	-	13.3	B	-	15.9	B	-	13.5	B	-	22.7	C
14	Del Monte Blvd & Clementina Ave	Seaside	Signal	-	7.5	A	-	6.9	A	-	8.6	A	-	17.6	B
15	Del Monte Blvd & Contra Costa/Broadway Ave	Seaside	Signal	-	13.1	B	-	10.5	B	-	13.2	B	-	19.0	B

Notes:

1. Analysis performed using HCM 6th & HCM 2000 Edition methodologies.
2. Delay indicated in seconds/vehicle.
3. Signal = Signal Control; AWSC = All-Way Stop Control; SSSC = Side-Street Stop Control
4. LOS Standards:
 - Marina: LOS D
 - Sand City: LOS D
 - Seaside: LOS C
 - Caltrans: LOS C/D
5. Intersections that operate below maintaining agency's LOS standard are highlighted and shown in **bold**.

Vehicle Miles Travelled (VMT) and Estimated Trip Reduction

With the passage of SB 743 in 2018, VMT has become an important indicator for determining if a proposed project would result in a “significant transportation impact.” Although jurisdictions (lead agencies) had until July 1, 2020 to adopt thresholds of significance and fully implement the requirements of SB 743, many agencies are still in the process of adopting local thresholds and developing analysis methods. Regardless of an individual agency’s familiarity with analyzing VMT, this analysis is now the standard of review under the California Environmental Quality Act (CEQA) for projects that are subject to CEQA.

MST is the lead agency under CEQA for this project but is not a traditional land use agency. As such, MST would not be expected to develop and adopt specific policies related to VMT as they apply to their projects. Moreover, SB 743 guidance issued by the Office of Planning and Research (OPR) clearly states that initiation of new transit service would be exempt from new VMT requirements under CEQA. This is because transit projects would be expected to reduce regional VMT and therefore result in beneficial impacts.

The project’s fundamental purpose and objective is to reduce congestion on Highway 1 from local and inter-regional commuter traffic and improve overall mobility for residents and visitors. The project would therefore result in clear environmental benefits by providing a public transit option as an alternative to single-occupancy driving along this section of Highway 1 from Marina to Sand City (and points beyond).

Table 18 provides an estimate of vehicle trip reduction resulting from the project:

Table 18 – Estimated Vehicle Trip Reduction

Metric	Units/Values
Transit headways during the AM/PM peak period (6:00-10:00 AM; 4:00-8:00 PM)	10-minute headways
Number of buses in one direction for 8 hours	48 bus trips
Total number of buses for both directions	96 bus trips
Bus occupancy for peak direction	90 percent
Bus occupancy for off peak direction	30 percent
Capacity of bus carriage	40 passengers
Total number of daily passengers on SURF!	2,304 daily passengers
Estimated Annual Ridership	601,344
Private vehicle occupancy rate	1.1 persons per vehicle
Total reduction in vehicle trips per week	2,095 trips per day
Number of days operating per week	5 days per week
Total reduction in vehicle trips per week	10,473 trips per week
Total reduction in vehicle trips per year	544,582 trips per year

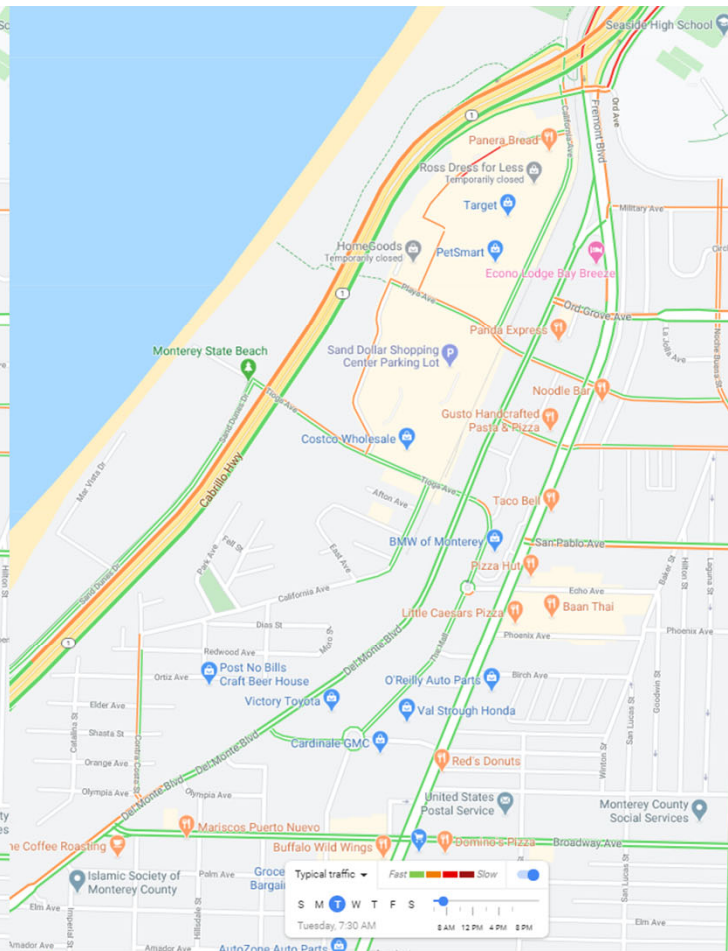
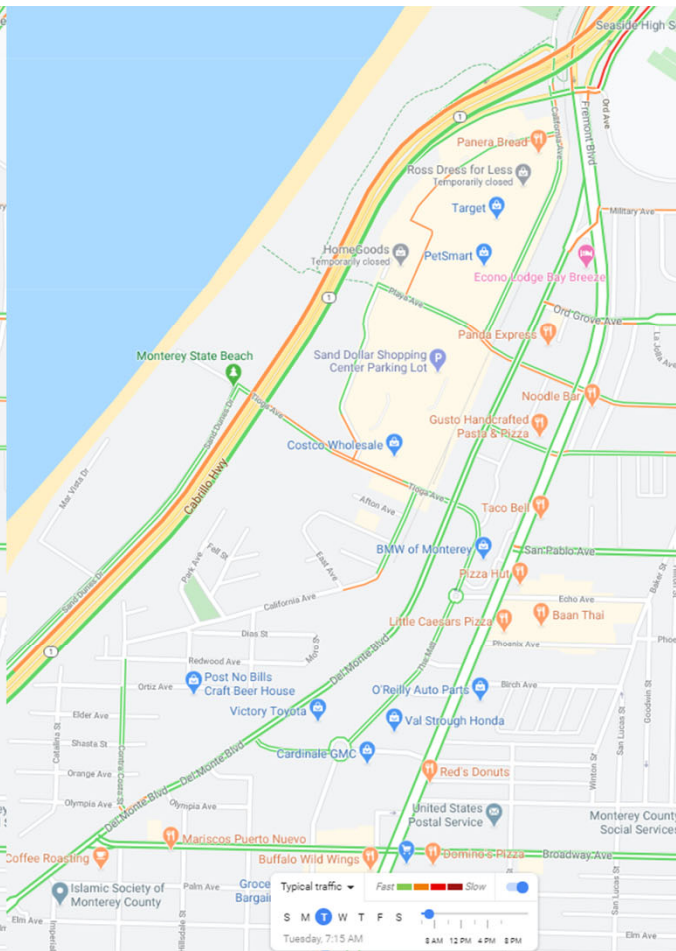
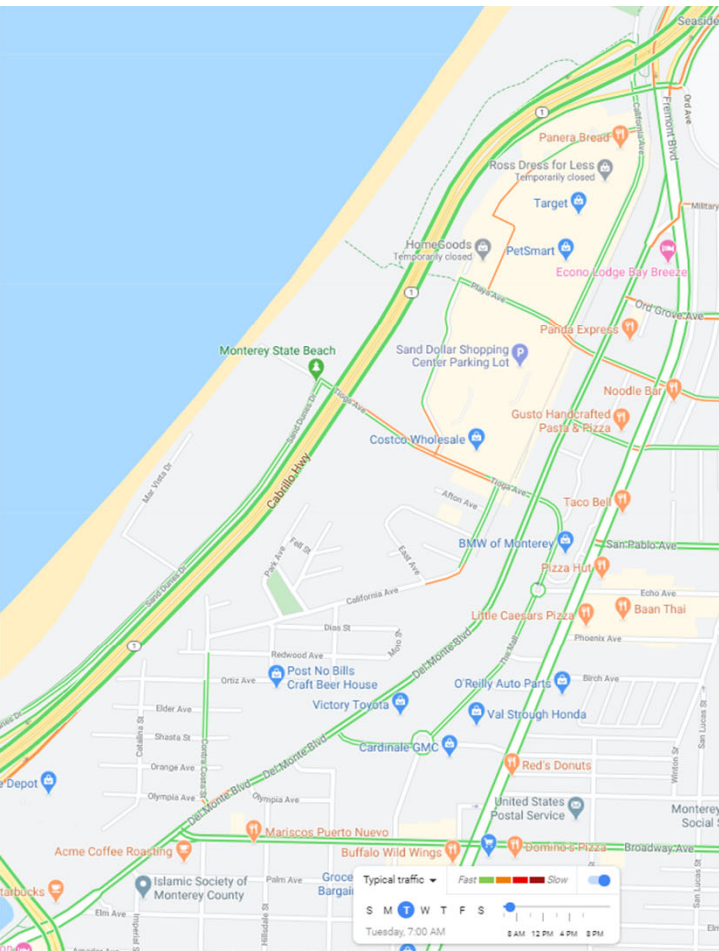
Secondary environmental benefits would be realized from reductions in criteria air pollutants and greenhouse gas emissions.

Trip reduction would also result in a corresponding reduction in VMT. As noted above, as a transit project, an analysis of VMT is not required based on OPR Guidelines. However, based on ridership, trip reduction and assumptions for per capita rider trip length², it is estimated that the project could eliminate approximately 2.7 million vehicle miles traveled on the roadway network each year.

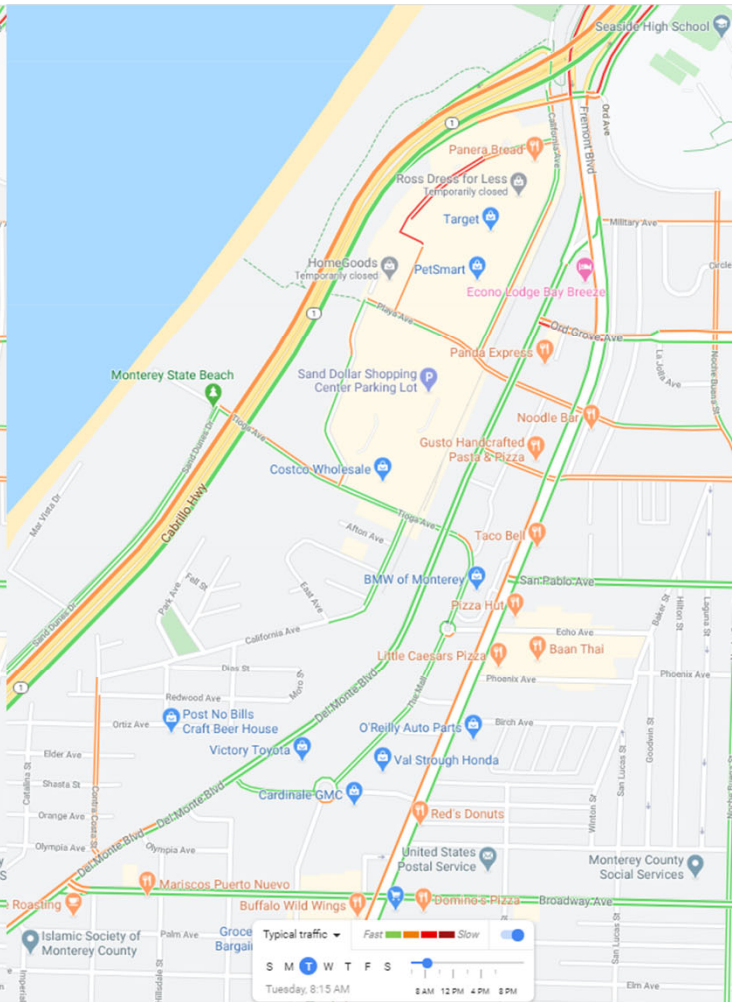
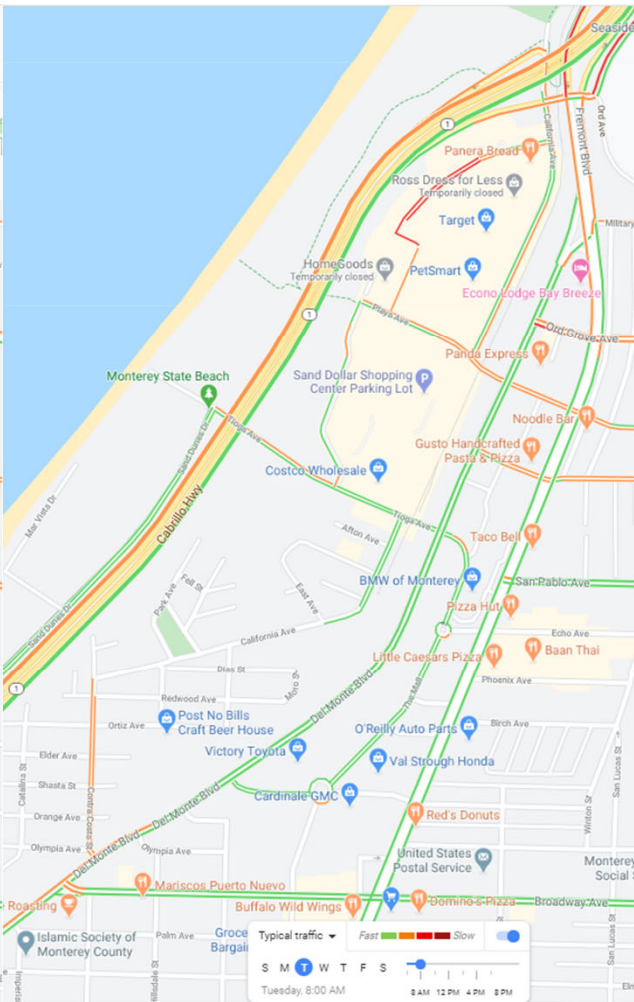
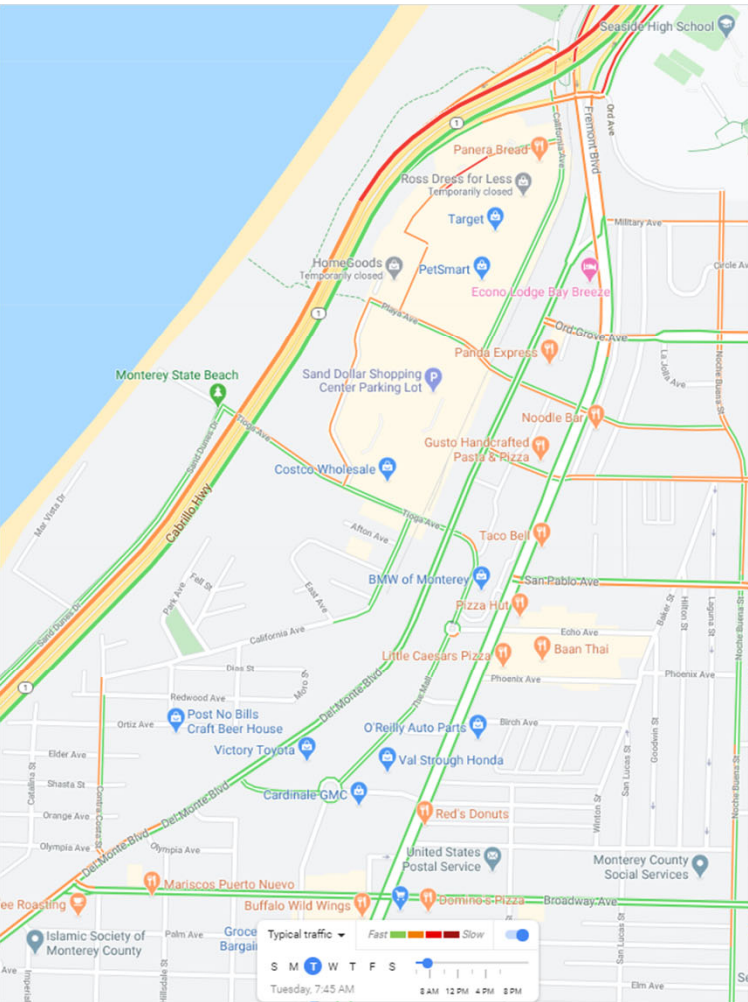
² Average trip length is estimated at 5 miles, which is the travel length of the busway route from the Palm Avenue platform.

APPENDIX

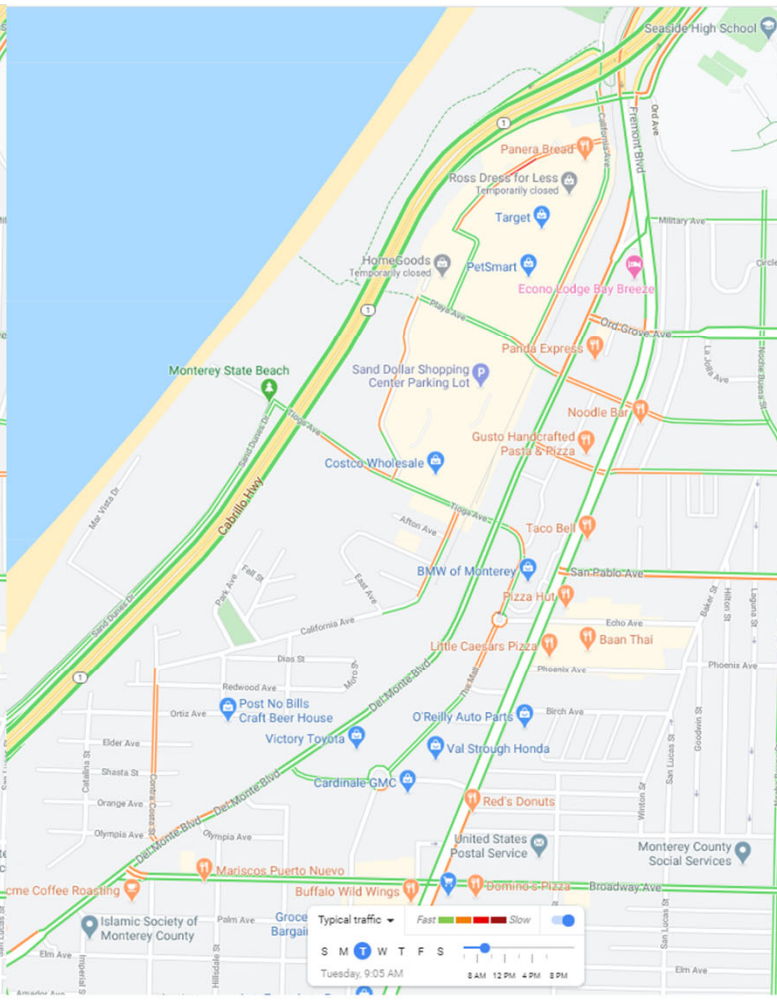
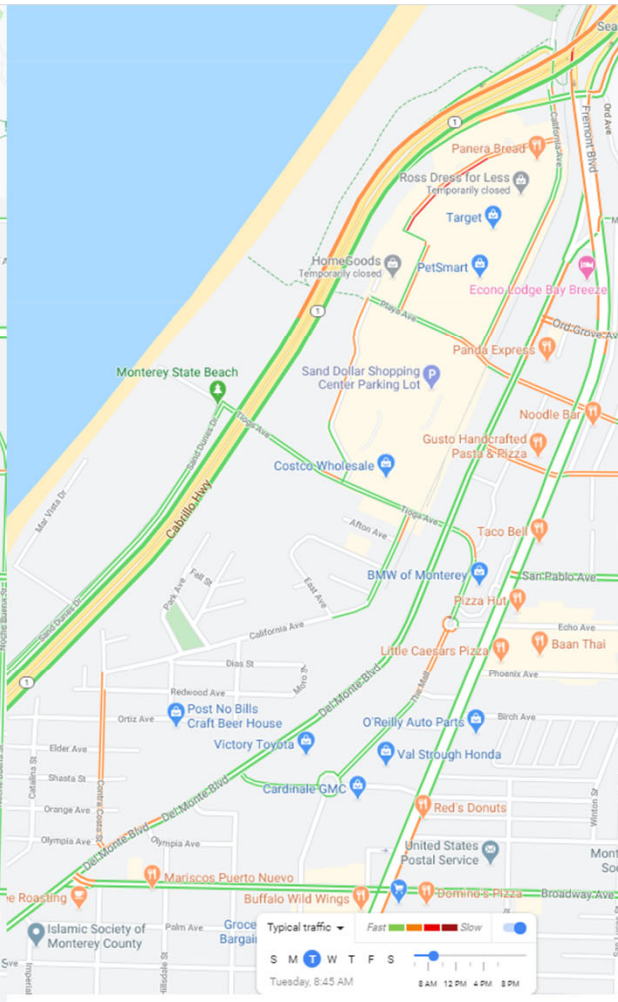
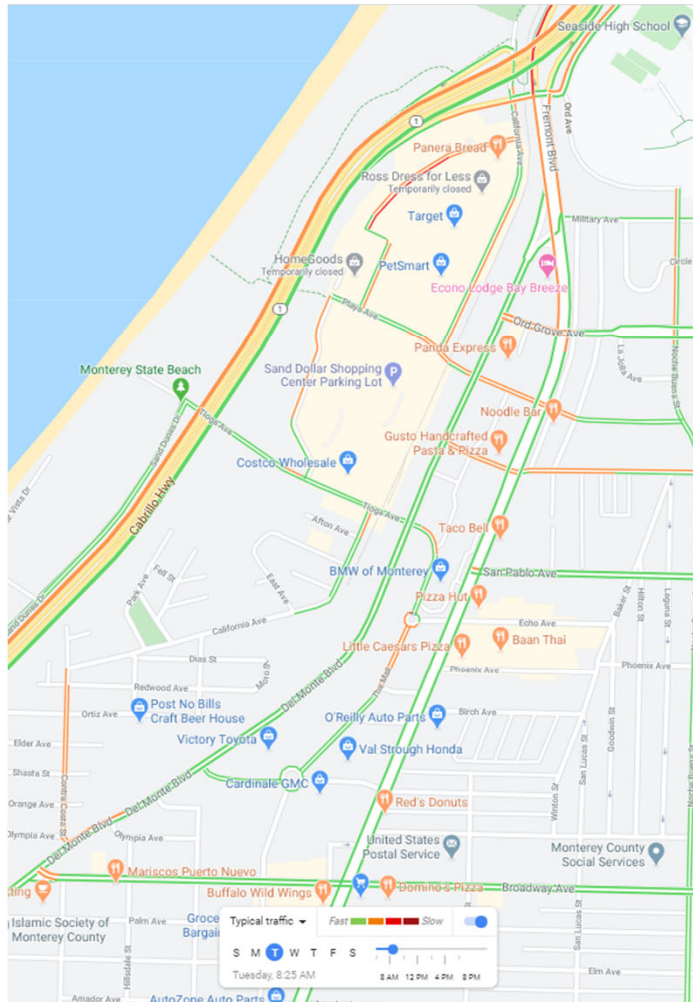
- A. EXISTING GOOGLE TRAFFIC DATA
- B. EXISTING CONDITIONS TRAFFIC COUNTS
- C. EXISTING CONDITIONS SYNCHRO OUTPUT SHEETS
- D. EXISTING PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS
- E. CUMULATIVE CONDITIONS SYNCHRO OUTPUT SHEETS
- F. CUMULATIVE MITIGATED CONDITIONS SYNCHRO OUTPUT SHEETS
- G. CUMULATIVE MITIGATED CONDITIONS SIDRA OUTPUT SHEETS
- H. CUMULATIVE PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS
- I. CUMULATIVE PLUS PROJECT MITIGATED CONDITIONS SYNCHRO OUTPUT SHEETS
- J. CUMULATIVE PLUS PROJECT MITIGATED CONDITIONS SIDRA OUTPUT SHEETS



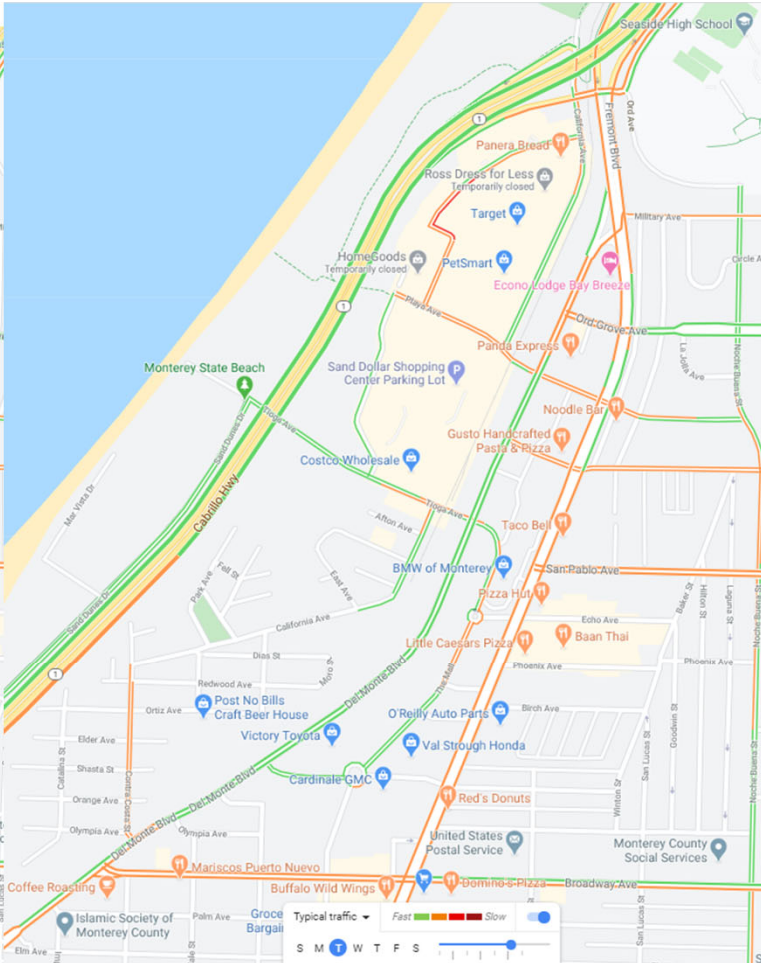
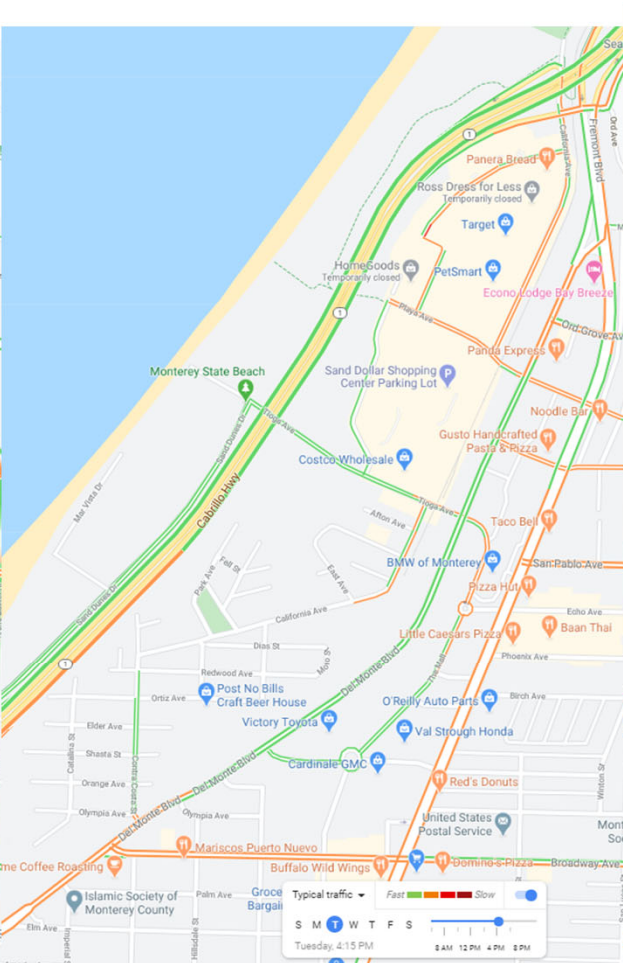
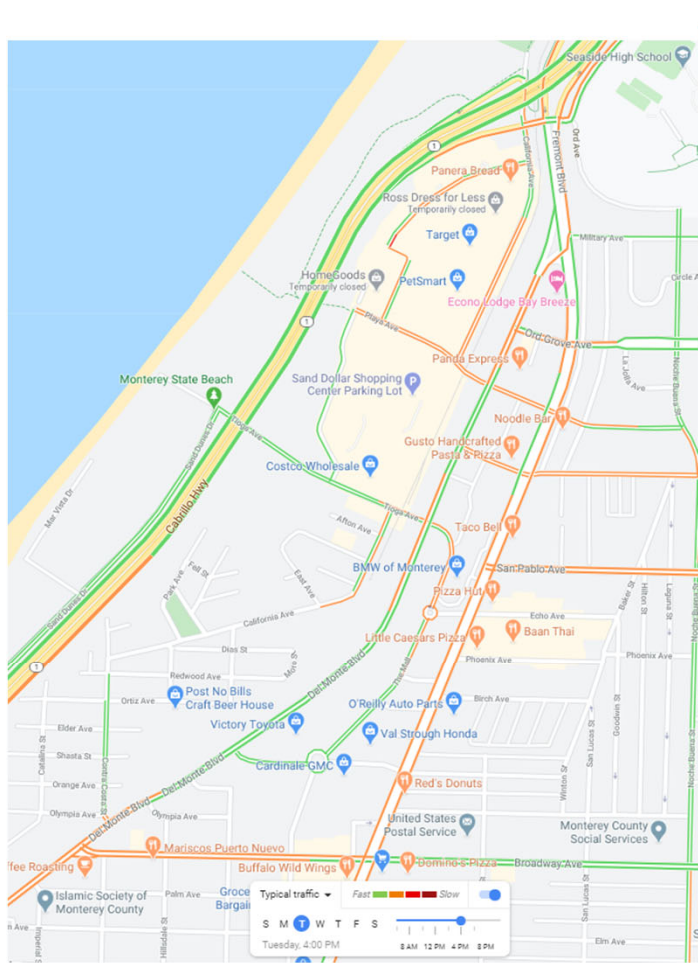
AM PEAK HOUR



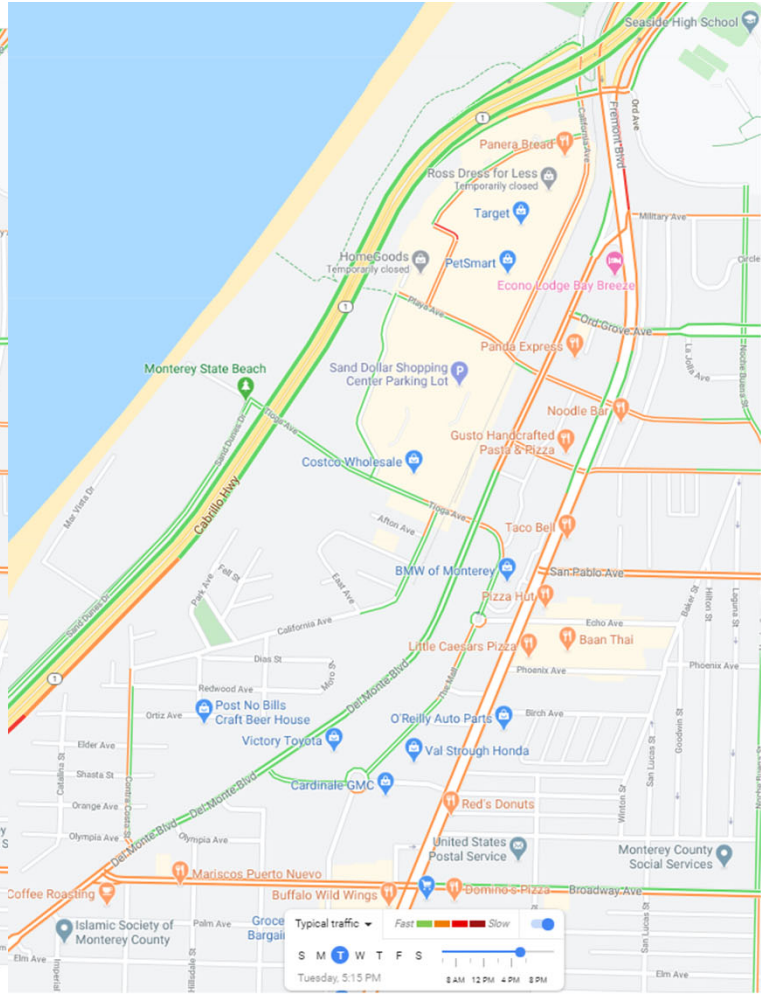
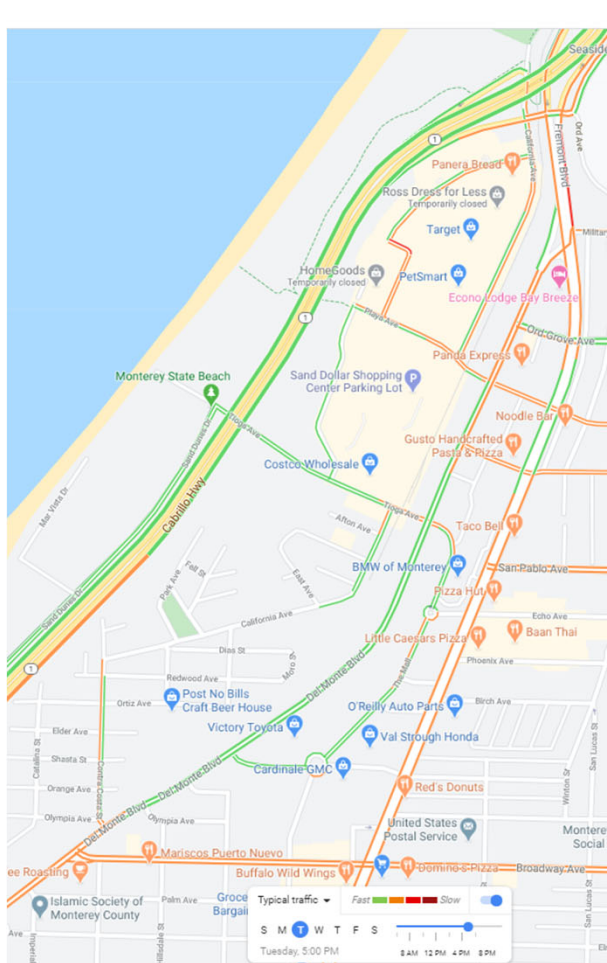
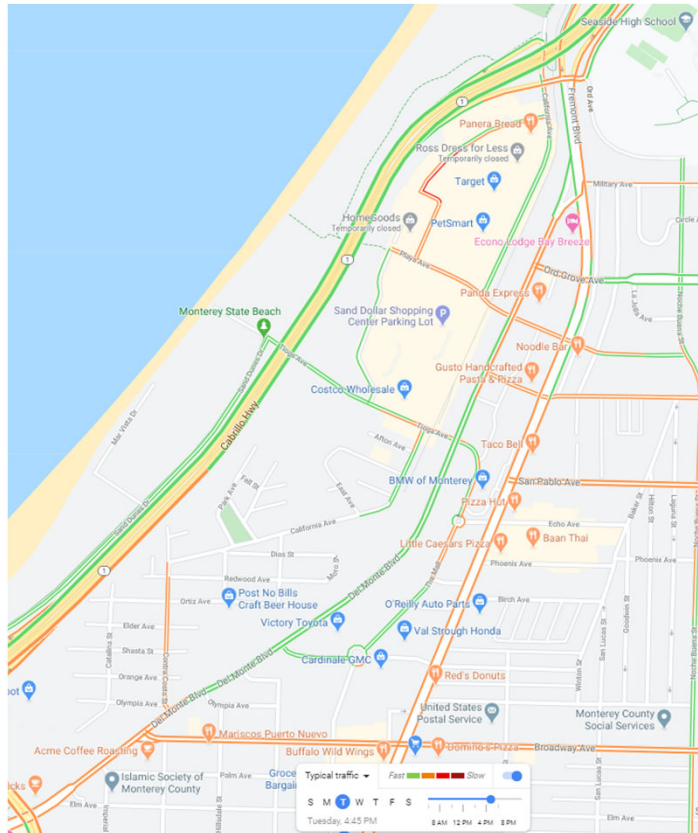
AM PEAK HOUR



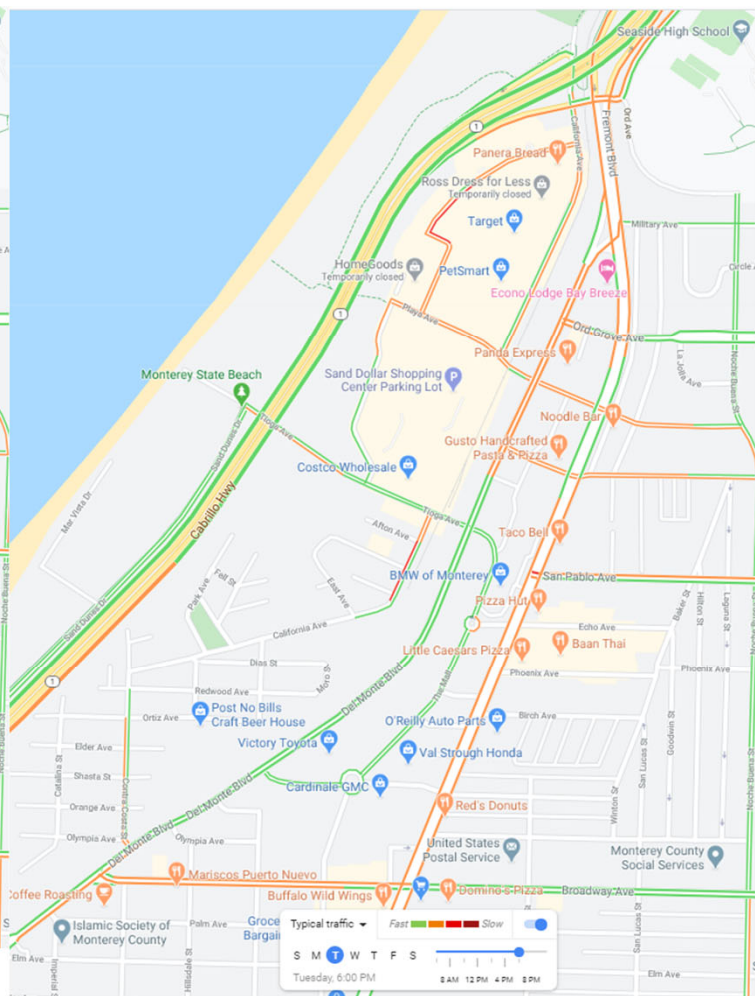
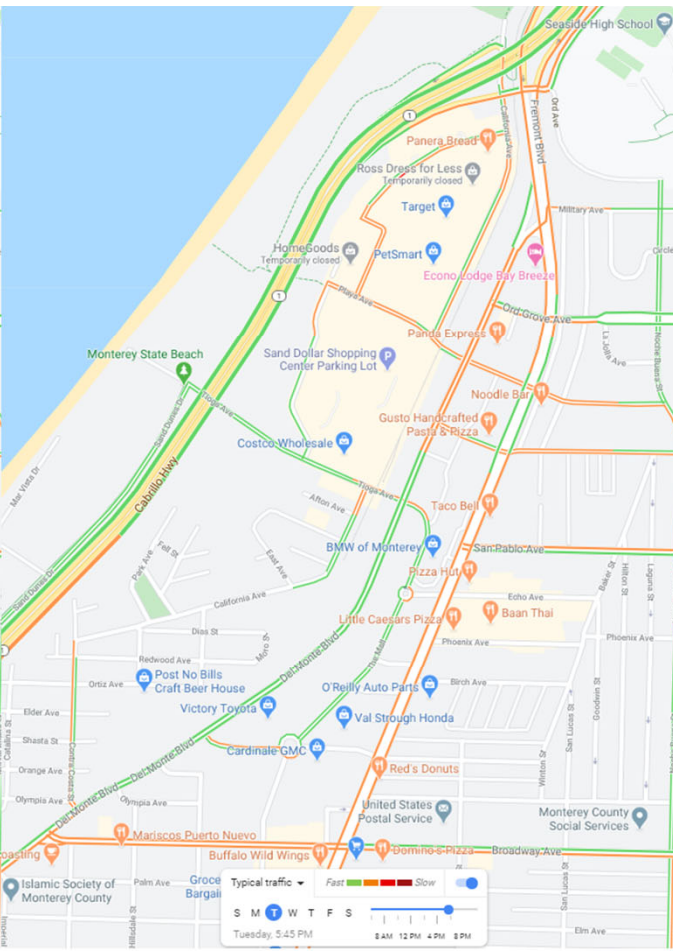
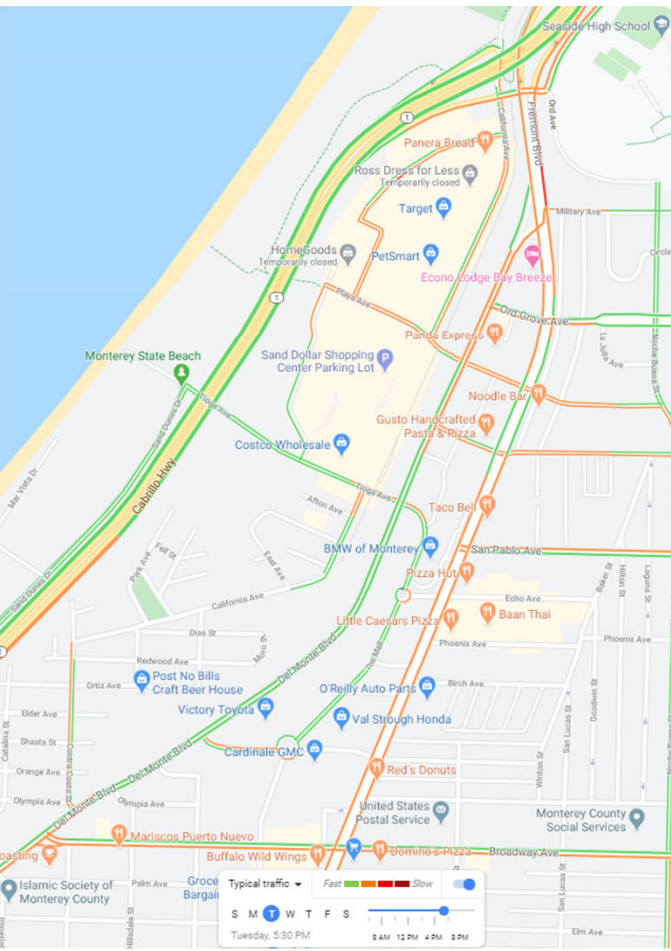
AM PEAK HOUR



PM PEAK HOUR



PM PEAK HOUR



PM PEAK HOUR

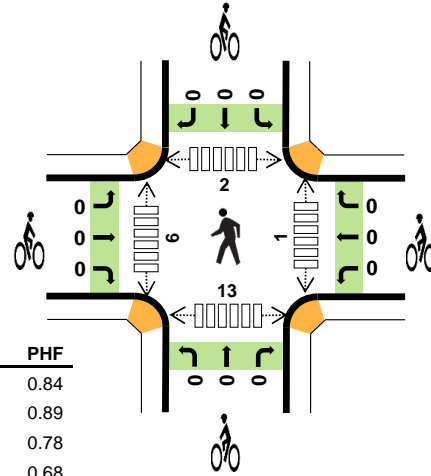
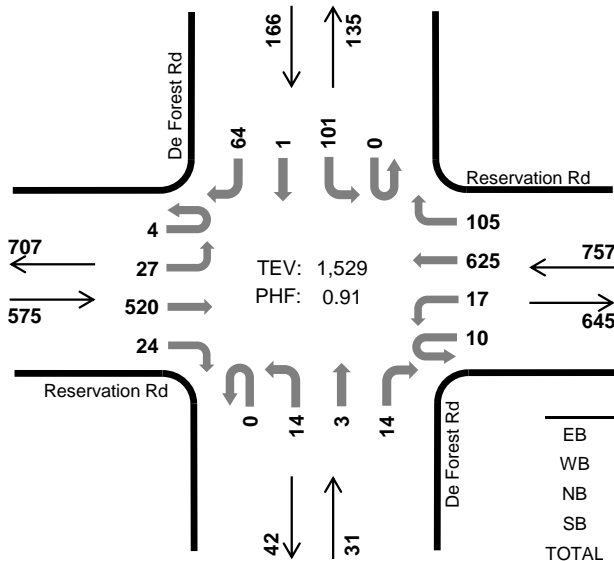
B. EXISTING CONDITIONS TRAFFIC COUNTS

De Forest Rd Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	3.1%	0.84
WB	2.9%	0.89
NB	25.8%	0.78
SB	0.0%	0.68
TOTAL	3.1%	0.91

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				De Forest Rd Northbound				De Forest Rd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	1	72	8	1	4	177	12	0	3	0	3	0	9	1	22	313	0	
7:15 AM	2	4	99	10	2	10	137	13	0	7	2	2	0	27	0	15	330	0	
7:30 AM	2	7	137	4	3	4	152	27	0	2	1	4	0	38	0	23	404	0	
7:45 AM	2	9	154	6	6	6	154	47	0	2	1	2	0	19	0	11	419	1,466	
8:00 AM	0	6	118	6	0	6	149	20	0	7	0	3	0	24	0	16	355	1,508	
8:15 AM	0	5	111	8	1	1	170	11	0	3	1	5	0	20	1	14	351	1,529	
8:30 AM	2	6	133	7	1	10	138	14	0	10	1	3	0	10	2	13	350	1,475	
8:45 AM	2	6	79	9	0	4	116	12	0	4	1	10	0	7	1	8	259	1,315	
Count Total	10	44	903	58	14	45	1,193	156	0	38	7	32	0	154	5	122	2,781	0	
Peak Hour	All	4	27	520	24	10	17	625	105	0	14	3	14	0	101	1	64	1,529	0
	HV	0	0	14	4	0	3	17	2	0	5	0	3	0	0	0	0	48	0
	HV%	0%	0%	3%	17%	0%	18%	3%	2%	-	36%	0%	21%	-	0%	0%	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	5	2	0	12	0	0	0	0	0	0	1	0	0	1
7:15 AM	1	3	3	0	7	0	0	0	1	1	1	3	0	10	14
7:30 AM	4	5	2	0	11	0	0	0	0	0	0	1	0	3	4
7:45 AM	4	6	1	0	11	0	0	0	0	0	1	1	0	2	4
8:00 AM	6	7	4	0	17	0	0	0	0	0	0	3	2	4	9
8:15 AM	4	4	1	0	9	0	0	0	0	0	0	1	0	4	5
8:30 AM	4	7	3	0	14	0	0	0	0	0	0	2	1	3	6
8:45 AM	4	5	4	1	14	0	0	0	0	0	0	2	1	5	8
Count Total	32	42	20	1	95	0	0	0	1	1	2	14	4	31	51
Peak Hour	18	22	8	0	48	0	0	0	0	0	1	6	2	13	22

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Reservation Rd				Reservation Rd				De Forest Rd				De Forest Rd				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	3	2	0	1	4	0	0	2	0	0	0	0	0	0	0	12	0
7:15 AM	0	0	1	0	0	1	2	0	0	2	0	1	0	0	0	0	0	7	0
7:30 AM	0	0	3	1	0	1	4	0	0	1	0	1	0	0	0	0	0	11	0
7:45 AM	0	0	2	2	0	1	3	2	0	1	0	0	0	0	0	0	0	11	41
8:00 AM	0	0	6	0	0	1	6	0	0	3	0	1	0	0	0	0	0	17	46
8:15 AM	0	0	3	1	0	0	4	0	0	0	0	1	0	0	0	0	0	9	48
8:30 AM	0	0	3	1	0	3	4	0	0	2	0	1	0	0	0	0	0	14	51
8:45 AM	0	0	3	1	0	1	4	0	0	1	0	3	0	0	1	0	0	14	54
Count Total	0	0	24	8	0	9	31	2	0	12	0	8	0	0	1	0	0	95	0
Peak Hour	0	0	14	4	0	3	17	2	0	5	0	3	0	0	0	0	0	48	0

Two-Hour Count Summaries - Bikes																			
Interval Start	Reservation Rd			Reservation Rd			De Forest Rd			De Forest Rd			15-min Total	Rolling One Hour					
	Eastbound			Westbound			Northbound			Southbound									
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT							
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

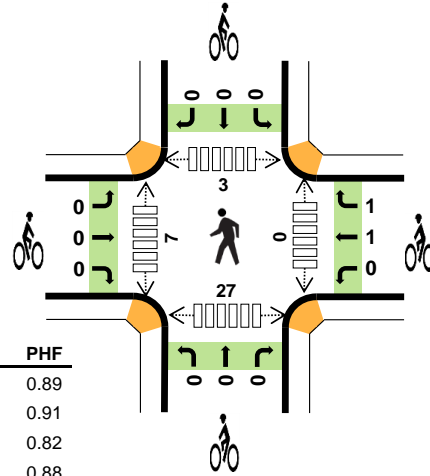
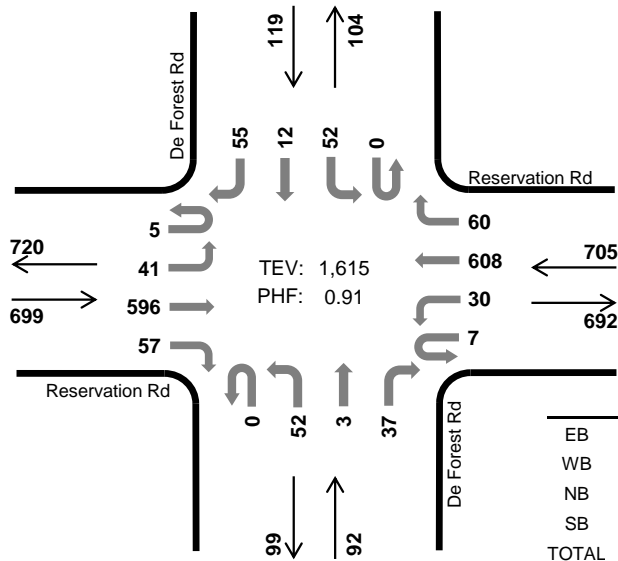
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

De Forest Rd Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 11:30 AM to 1:30 PM
Peak Hour: 12:30 PM to 1:30 PM



	HV %:	PHF
EB	3.0%	0.89
WB	2.7%	0.91
NB	12.0%	0.82
SB	3.4%	0.88
TOTAL	3.4%	0.91

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				De Forest Rd Northbound				De Forest Rd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
11:30 AM	1	6	137	10	3	7	142	5	0	15	0	9	0	9	0	9	353	0	
11:45 AM	1	6	132	17	0	11	139	10	0	16	1	12	0	13	1	13	372	0	
12:00 PM	2	10	146	15	0	13	131	8	0	20	3	10	0	9	2	13	382	0	
12:15 PM	2	11	161	12	0	9	127	16	0	11	1	8	0	13	2	16	389	1,496	
12:30 PM	1	10	169	16	3	6	160	24	0	17	0	11	0	11	3	12	443	1,586	
12:45 PM	0	15	135	12	2	10	149	11	0	8	3	8	0	18	2	14	387	1,601	
1:00 PM	1	7	148	13	1	7	142	13	0	16	0	11	0	15	3	15	392	1,611	
1:15 PM	3	9	144	16	1	7	157	12	0	11	0	7	0	8	4	14	393	1,615	
Count Total	11	74	1,172	111	10	70	1,147	99	0	114	8	76	0	96	17	106	3,111	0	
Peak Hour	All	5	41	596	57	7	30	608	60	0	52	3	37	0	52	12	55	1,615	0
	HV	0	0	16	5	0	5	10	4	0	5	1	5	0	2	1	1	55	0
	HV%	0%	0%	3%	9%	0%	17%	2%	7%	-	10%	33%	14%	-	4%	8%	2%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:30 AM	6	7	2	0	15	0	0	0	0	0	0	2	0	3	5
11:45 AM	3	7	5	2	17	0	3	0	0	3	1	0	0	3	4
12:00 PM	8	3	3	1	15	0	0	0	0	0	1	0	1	4	6
12:15 PM	4	4	1	0	9	0	0	0	0	0	1	1	0	7	9
12:30 PM	8	7	4	2	21	0	1	0	0	1	0	1	1	7	9
12:45 PM	2	7	3	1	13	0	0	0	0	0	0	2	0	9	11
1:00 PM	4	3	4	1	12	0	0	0	0	0	0	1	2	9	12
1:15 PM	7	2	0	0	9	0	1	0	0	1	0	3	0	2	5
Count Total	42	40	22	7	111	0	5	0	0	5	3	10	4	44	61
Peak Hour	21	19	11	4	55	0	2	0	0	2	0	7	3	27	37

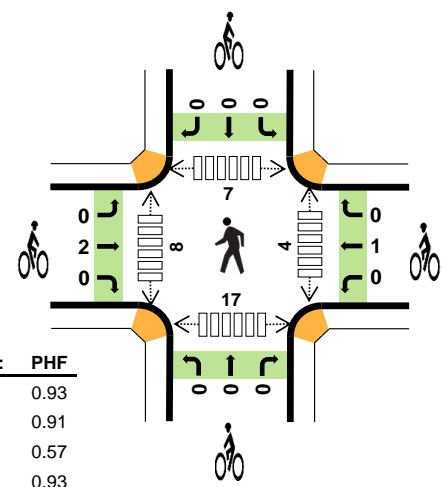
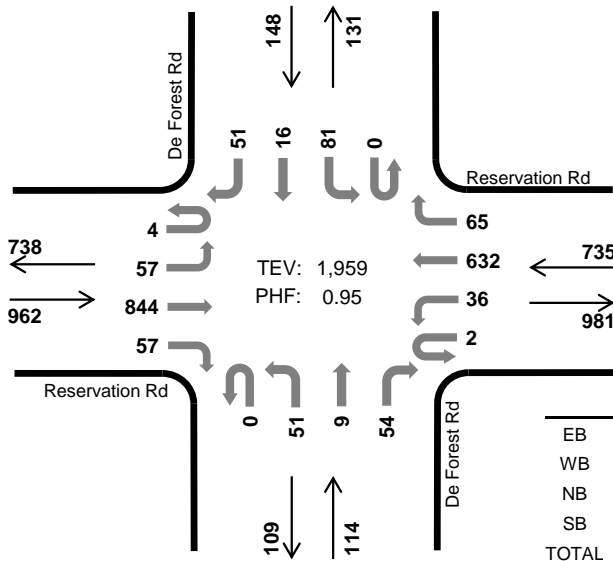
Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				De Forest Rd				De Forest Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:30 AM	0	0	5	1	0	1	5	1	0	1	0	1	0	0	0	0	15	0
11:45 AM	0	0	3	0	0	3	4	0	0	4	0	1	0	0	1	1	17	0
12:00 PM	0	0	7	1	0	1	2	0	0	2	0	1	0	0	0	1	15	0
12:15 PM	0	0	3	1	0	0	4	0	0	1	0	0	0	0	0	0	9	56
12:30 PM	0	0	5	3	0	2	4	1	0	2	0	2	0	2	0	0	21	62
12:45 PM	0	0	2	0	0	2	4	1	0	1	1	1	0	0	1	0	13	58
1:00 PM	0	0	2	2	0	1	1	1	0	2	0	2	0	0	0	1	12	55
1:15 PM	0	0	7	0	0	0	1	1	0	0	0	0	0	0	0	0	9	55
Count Total	0	0	34	8	0	10	25	5	0	13	1	8	0	2	2	3	111	0
Peak Hour	0	0	16	5	0	5	10	4	0	5	1	5	0	2	1	1	55	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Reservation Rd			Reservation Rd			De Forest Rd			De Forest Rd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	4	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2
Count Total	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	5	0
Peak Hour	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

De Forest Rd Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	1.1%	0.93
WB	1.9%	0.91
NB	7.9%	0.57
SB	1.4%	0.93
TOTAL	1.8%	0.95

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				De Forest Rd Northbound				De Forest Rd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	9	174	14	0	5	154	12	0	13	1	13	0	11	0	8	414	0	
4:15 PM	4	12	165	15	1	12	146	8	0	20	2	13	0	8	2	6	414	0	
4:30 PM	1	10	230	19	0	13	139	13	0	12	0	7	0	18	5	16	483	0	
4:45 PM	0	16	209	20	1	11	154	16	0	20	6	24	0	19	4	14	514	1,825	
5:00 PM	1	15	199	7	0	5	163	19	0	13	1	11	0	20	4	8	466	1,877	
5:15 PM	2	16	206	11	1	7	176	17	0	6	2	12	0	24	3	13	496	1,959	
5:30 PM	1	17	222	4	1	6	165	15	0	8	1	10	0	16	3	8	477	1,953	
5:45 PM	1	17	187	3	2	3	183	16	0	10	0	5	0	10	2	13	452	1,891	
Count Total	10	112	1,592	93	6	62	1,280	116	0	102	13	95	0	126	23	86	3,716	0	
Peak Hour	All	4	57	844	57	2	36	632	65	0	51	9	54	0	81	16	51	1,959	0
	HV	0	0	9	2	0	6	8	0	0	3	1	5	0	1	1	0	36	0
	HV%	0%	0%	1%	4%	0%	17%	1%	0%	-	6%	11%	9%	-	1%	6%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	4	1	1	9	0	0	0	0	0	0	0	11	3	14
4:15 PM	3	3	2	1	9	0	0	0	0	0	0	1	3	3	7
4:30 PM	3	5	1	0	9	1	0	0	0	1	0	1	1	3	5
4:45 PM	5	6	6	1	18	0	0	0	0	0	4	0	2	2	8
5:00 PM	2	2	0	1	5	1	1	0	0	2	0	7	4	8	19
5:15 PM	1	1	2	0	4	0	0	0	0	0	0	0	0	4	4
5:30 PM	4	1	2	0	7	0	0	0	0	0	2	1	2	3	8
5:45 PM	2	3	2	1	8	1	0	0	0	1	1	1	2	2	6
Count Total	23	25	16	5	69	3	1	0	0	4	7	11	25	28	71
Peak Hour	11	14	9	2	36	2	1	0	0	3	4	8	7	17	36

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				De Forest Rd				De Forest Rd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	1	2	0	0	1	3	0	0	0	0	1	0	0	0	1	9	0
4:15 PM	0	0	2	1	0	1	2	0	0	1	0	1	0	1	0	0	9	0
4:30 PM	0	0	3	0	0	2	3	0	0	0	0	1	0	0	0	0	9	0
4:45 PM	0	0	4	1	0	2	4	0	0	2	1	3	0	0	1	0	18	45
5:00 PM	0	0	1	1	0	1	1	0	0	0	0	0	0	1	0	0	5	41
5:15 PM	0	0	1	0	0	1	0	0	0	1	0	1	0	0	0	0	4	36
5:30 PM	0	0	2	2	0	1	0	0	0	1	0	1	0	0	0	0	7	34
5:45 PM	0	0	1	1	0	1	2	0	0	2	0	0	0	0	1	0	8	24
Count Total	0	1	16	6	0	10	15	0	0	7	1	8	0	2	2	1	69	0
Peak Hour	0	0	9	2	0	6	8	0	0	3	1	5	0	1	1	0	36	0

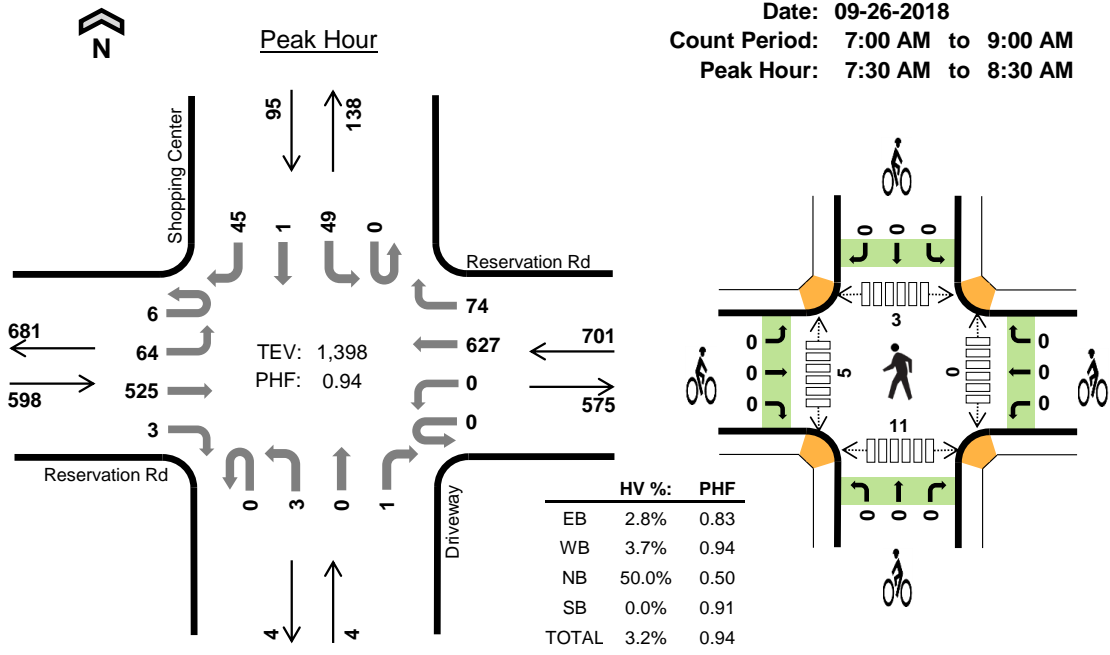
Two-Hour Count Summaries - Bikes																	
Interval Start	Reservation Rd			Reservation Rd			De Forest Rd			De Forest Rd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	3
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Count Total	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0
Peak Hour	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Shopping Center Reservation Rd



Date: 09-26-2018
 Count Period: 7:00 AM to 9:00 AM
 Peak Hour: 7:30 AM to 8:30 AM



Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Driveway Northbound				Shopping Center Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	1	12	76	0	0	0	182	12	0	0	0	0	0	4	0	11	298	0	
7:15 AM	3	13	101	0	0	0	151	12	0	1	0	0	0	14	0	11	306	0	
7:30 AM	1	10	134	0	0	0	161	18	0	1	0	1	0	14	0	12	352	0	
7:45 AM	1	17	161	1	0	0	156	14	0	1	0	0	0	13	1	8	373	1,329	
8:00 AM	1	20	117	1	0	0	146	19	0	1	0	0	0	13	0	11	329	1,360	
8:15 AM	3	17	113	1	0	0	164	23	0	0	0	0	0	9	0	14	344	1,398	
8:30 AM	2	16	127	1	1	0	151	14	0	0	1	0	0	18	0	11	342	1,388	
8:45 AM	7	17	92	0	0	0	119	15	0	0	0	0	0	9	1	6	266	1,281	
Count Total	19	122	921	4	1	0	1,230	127	0	4	1	1	0	94	2	84	2,610	0	
Peak Hour	All	6	64	525	3	0	0	627	74	0	3	0	1	0	49	1	45	1,398	0
	HV	0	0	17	0	0	0	26	0	0	2	0	0	0	0	0	0	45	0
	HV%	0%	0%	3%	0%	-	-	4%	0%	-	67%	-	0%	-	0%	0%	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	8	0	0	13	0	0	0	0	0	0	3	1	4	8
7:15 AM	1	4	1	0	6	0	1	0	0	1	0	2	0	2	4
7:30 AM	4	7	1	0	12	0	0	0	0	0	0	2	0	2	4
7:45 AM	4	5	0	0	9	0	0	0	0	0	0	0	0	3	3
8:00 AM	6	9	1	0	16	0	0	0	0	0	0	3	2	5	10
8:15 AM	3	5	0	0	8	0	0	0	0	0	0	0	1	1	2
8:30 AM	4	7	0	0	11	0	0	0	0	0	0	0	1	0	1
8:45 AM	4	6	0	0	10	0	0	0	0	0	0	0	1	7	8
Count Total	31	51	3	0	85	0	1	0	0	1	0	10	6	24	40
Peak Hour	17	26	2	0	45	0	0	0	0	0	0	5	3	11	19

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Driveway				Shopping Center				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	0	7	1	0	0	0	0	0	0	0	0	13	0
7:15 AM	0	0	1	0	0	0	4	0	0	1	0	0	0	0	0	0	6	0
7:30 AM	0	0	4	0	0	0	7	0	0	1	0	0	0	0	0	0	12	0
7:45 AM	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	9	40
8:00 AM	0	0	6	0	0	0	9	0	0	1	0	0	0	0	0	0	16	43
8:15 AM	0	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	8	45
8:30 AM	0	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	11	44
8:45 AM	0	0	4	0	0	0	5	1	0	0	0	0	0	0	0	0	10	45
Count Total	0	0	31	0	0	0	49	2	0	3	0	0	0	0	0	0	85	0
Peak Hour	0	0	17	0	0	0	26	0	0	2	0	0	0	0	0	0	45	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Reservation Rd			Reservation Rd			Driveway			Shopping Center			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

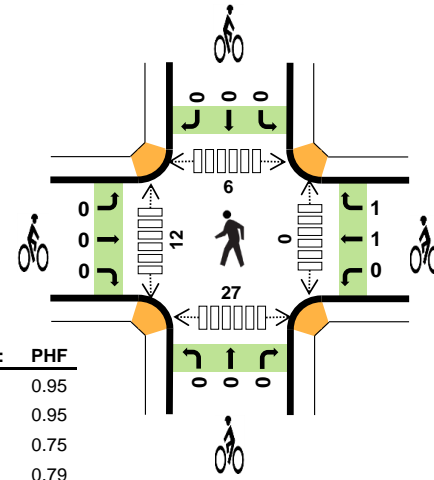
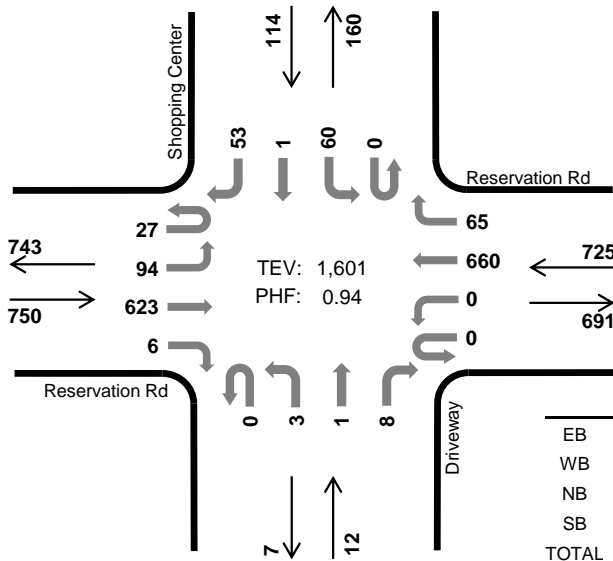
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Shopping Center Reservation Rd



Peak Hour

Date: 09-26-2018
 Count Period: 11:30 AM to 1:30 PM
 Peak Hour: 12:30 PM to 1:30 PM



	HV %:	PHF
EB	2.4%	0.95
WB	2.3%	0.95
NB	0.0%	0.75
SB	1.8%	0.79
TOTAL	2.3%	0.94

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Driveway Northbound				Shopping Center Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
11:30 AM	6	30	136	2	0	0	151	14	0	1	0	2	0	16	0	10	368	0	
11:45 AM	6	16	138	1	0	0	158	9	0	2	0	3	0	8	1	8	350	0	
12:00 PM	1	34	160	1	0	0	158	14	0	0	0	0	0	19	0	13	400	0	
12:15 PM	7	21	166	2	0	0	134	15	0	1	0	2	0	20	0	10	378	1,496	
12:30 PM	3	26	168	1	0	0	175	15	0	0	0	2	0	18	1	17	426	1,554	
12:45 PM	11	25	148	0	0	0	163	15	0	1	0	3	0	16	0	14	396	1,600	
1:00 PM	7	20	150	3	0	0	162	19	0	1	1	2	0	13	0	13	391	1,591	
1:15 PM	6	23	157	2	0	0	160	16	0	1	0	1	0	13	0	9	388	1,601	
Count Total	47	195	1,223	12	0	0	1,261	117	0	7	1	15	0	123	2	94	3,097	0	
Peak Hour	All	27	94	623	6	0	0	660	65	0	3	1	8	0	60	1	53	1,601	0
	HV	1	0	16	1	0	0	16	1	0	0	0	0	0	1	0	1	37	0
	HV%	4%	0%	3%	17%	-	-	2%	2%	-	0%	0%	0%	-	2%	0%	2%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:30 AM	8	6	0	0	14	0	0	0	0	0	0	3	2	3	8
11:45 AM	2	11	2	1	16	0	1	0	0	1	0	2	1	3	6
12:00 PM	6	6	0	0	12	0	2	0	0	2	0	2	2	6	10
12:15 PM	5	5	2	1	13	0	0	0	0	0	0	1	1	7	9
12:30 PM	7	7	0	2	16	0	2	0	0	2	0	3	2	3	8
12:45 PM	2	5	0	0	7	0	0	0	0	0	0	3	0	12	15
1:00 PM	4	4	0	0	8	0	0	0	0	0	0	4	2	7	13
1:15 PM	5	1	0	0	6	0	0	0	0	0	0	2	2	5	9
Count Total	39	45	4	4	92	0	5	0	0	5	0	20	12	46	78
Peak Hour	18	17	0	2	37	0	2	0	0	2	0	12	6	27	45

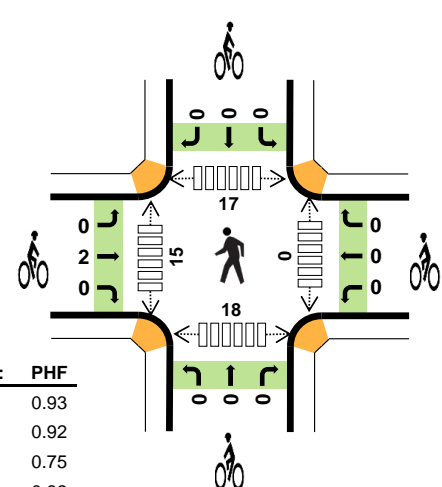
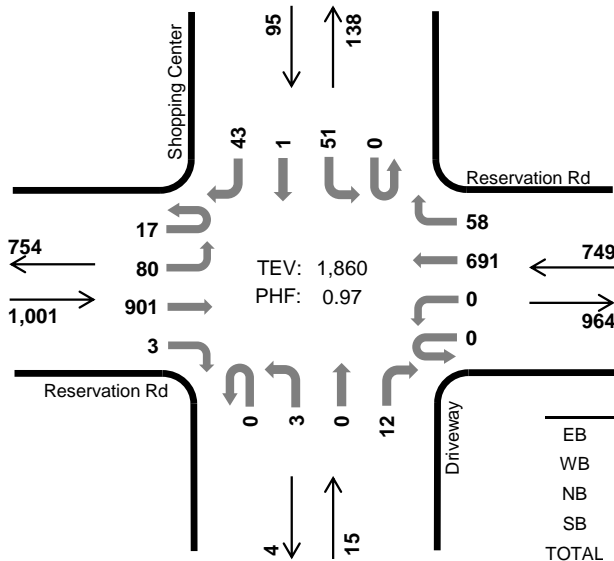
Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Driveway				Shopping Center				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:30 AM	0	1	6	1	0	0	4	2	0	0	0	0	0	0	0	0	14	0
11:45 AM	0	0	2	0	0	0	11	0	0	1	0	1	0	0	1	0	16	0
12:00 PM	0	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	12	0
12:15 PM	0	2	3	0	0	0	5	0	0	1	0	1	0	0	0	1	13	55
12:30 PM	0	0	6	1	0	0	7	0	0	0	0	0	0	1	0	1	16	57
12:45 PM	0	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	7	48
1:00 PM	1	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	8	44
1:15 PM	0	0	5	0	0	0	0	1	0	0	0	0	0	0	0	0	6	37
Count Total	1	3	33	2	0	0	42	3	0	2	0	2	0	1	1	2	92	0
Peak Hour	1	0	16	1	0	0	16	1	0	0	0	0	0	1	0	1	37	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Reservation Rd			Reservation Rd			Driveway			Shopping Center			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	5	5
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Count Total	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	5	0	0
Peak Hour	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2	0	0
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

Shopping Center Reservation Rd



Peak Hour

Date: 09-26-2018
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 4:30 PM to 5:30 PM



	HV %:	PHF
EB	1.3%	0.93
WB	1.5%	0.92
NB	0.0%	0.75
SB	2.1%	0.82
TOTAL	1.4%	0.97

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Driveway Northbound				Shopping Center Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	8	21	177	3	0	0	168	15	0	0	0	1	0	13	0	6	412	0	
4:15 PM	6	24	185	2	0	0	157	15	0	0	1	1	0	15	1	5	412	0	
4:30 PM	7	19	243	1	0	0	160	11	0	0	0	3	0	11	1	9	465	0	
4:45 PM	3	25	228	1	0	0	160	21	0	1	0	3	0	12	0	13	467	1,756	
5:00 PM	3	22	210	0	0	0	179	14	0	1	0	2	0	13	0	7	451	1,795	
5:15 PM	4	14	220	1	0	0	192	12	0	1	0	4	0	15	0	14	477	1,860	
5:30 PM	2	26	222	0	0	0	158	12	0	1	1	2	0	19	0	11	454	1,849	
5:45 PM	7	33	196	0	0	0	198	18	0	1	0	1	0	11	1	10	476	1,858	
Count Total	40	184	1,681	8	0	0	1,372	118	0	5	2	17	0	109	3	75	3,614	0	
Peak Hour	All	17	80	901	3	0	0	691	58	0	3	0	12	0	51	1	43	1,860	0
	HV	0	1	11	1	0	0	11	0	0	0	0	0	0	1	0	1	26	0
	HV%	0%	1%	1%	33%	-	-	2%	0%	-	0%	-	0%	-	2%	0%	2%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	3	6	0	0	9	0	0	0	0	0	0	4	8	5	17
4:15 PM	4	3	1	1	9	0	0	0	0	0	0	1	2	6	9
4:30 PM	3	3	0	0	6	1	0	0	0	1	0	9	2	5	16
4:45 PM	6	5	0	1	12	0	0	0	0	0	0	4	6	5	15
5:00 PM	2	2	0	1	5	1	0	0	0	1	0	1	4	5	10
5:15 PM	2	1	0	0	3	0	0	0	0	0	0	1	5	3	9
5:30 PM	4	1	0	0	5	0	0	0	0	0	0	3	2	5	10
5:45 PM	2	3	0	1	6	1	0	0	0	1	0	8	4	3	15
Count Total	26	24	1	4	55	3	0	0	0	3	0	31	33	37	101
Peak Hour	13	11	0	2	26	2	0	0	0	2	0	15	17	18	50

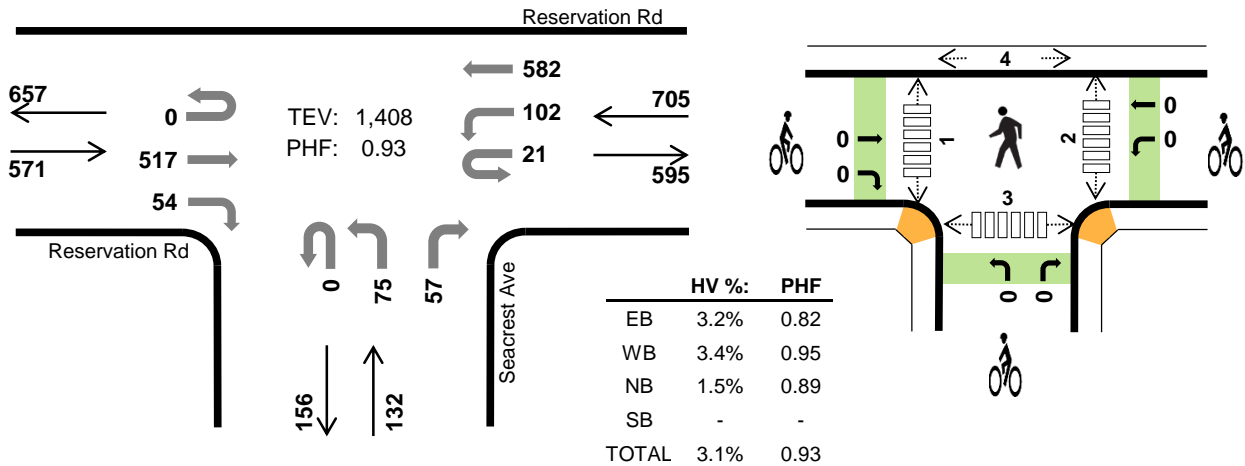
Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Driveway				Shopping Center				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	3	0	0	0	5	1	0	0	0	0	0	0	0	0	9	0
4:15 PM	0	1	3	0	0	0	3	0	0	0	1	0	0	0	1	0	9	0
4:30 PM	0	1	2	0	0	0	3	0	0	0	0	0	0	0	0	0	6	0
4:45 PM	0	0	5	1	0	0	5	0	0	0	0	0	0	0	1	0	12	36
5:00 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	5	32
5:15 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	3	26
5:30 PM	0	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	5	25
5:45 PM	0	0	2	0	0	0	3	0	0	0	0	0	0	0	1	0	6	19
Count Total	0	2	23	1	0	0	23	1	0	0	1	0	0	1	2	1	55	0
Peak Hour	0	1	11	1	0	0	11	0	0	0	0	0	0	1	0	1	26	0
Two-Hour Count Summaries - Bikes																		
Interval Start	Reservation Rd			Reservation Rd			Driveway			Shopping Center			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2
Count Total	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
Peak Hour	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
<i>Note: U-Turn volumes for bikes are included in Left-Turn, if any.</i>																		

Seacrest Ave Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:45 AM to 8:45 AM



Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Seacrest Ave Northbound				Seacrest Ave Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	0	74	2	1	11	183	0	0	3	0	10	0	0	0	0	284	0	
7:15 AM	0	0	102	6	7	13	149	0	0	9	0	10	0	0	0	0	296	0	
7:30 AM	0	0	120	11	3	30	145	0	0	15	0	9	0	0	0	0	333	0	
7:45 AM	0	0	160	14	3	25	146	0	0	20	0	10	0	0	0	0	378	1,291	
8:00 AM	0	0	123	13	6	23	137	0	0	20	0	11	0	0	0	0	333	1,340	
8:15 AM	0	0	101	13	5	26	154	0	0	22	0	12	0	0	0	0	333	1,377	
8:30 AM	0	0	133	14	7	28	145	0	0	13	0	24	0	0	0	0	364	1,408	
8:45 AM	0	0	90	16	5	14	126	0	0	19	0	16	0	0	0	0	286	1,316	
Count Total	0	0	903	89	37	170	1,185	0	0	121	0	102	0	0	0	0	2,607	0	
Peak Hour	All	0	0	517	54	21	102	582	0	0	75	0	57	0	0	0	0	1,408	0
	HV	0	0	18	0	0	3	21	0	0	2	0	0	0	0	0	0	44	0
	HV%	-	-	3%	0%	0%	3%	4%	-	-	3%	-	0%	-	-	-	-	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	6	0	0	11	0	0	0	0	0	1	0	1	0	2
7:15 AM	2	5	0	0	7	0	1	0	0	1	0	0	0	1	1
7:30 AM	5	7	1	0	13	0	0	0	0	0	1	1	3	1	6
7:45 AM	5	4	1	0	10	0	0	0	0	0	0	1	0	1	2
8:00 AM	5	9	0	0	14	0	0	0	0	0	0	0	1	1	2
8:15 AM	4	5	0	0	9	0	0	0	0	0	1	0	2	1	4
8:30 AM	4	6	1	0	11	0	0	0	0	0	1	0	1	0	2
8:45 AM	4	5	0	0	9	0	0	0	0	0	4	0	6	3	13
Count Total	34	47	3	0	84	0	1	0	0	1	8	2	14	8	32
Peak Hr	18	24	2	0	44	0	0	0	0	0	2	1	4	3	10

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Reservation Rd				Reservation Rd				Seacrest Ave				0				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	11	0
7:15 AM	0	0	1	1	0	2	3	0	0	0	0	0	0	0	0	0	7	0
7:30 AM	0	0	5	0	0	1	6	0	0	1	0	0	0	0	0	0	13	0
7:45 AM	0	0	5	0	0	1	3	0	0	1	0	0	0	0	0	0	10	41
8:00 AM	0	0	5	0	0	0	9	0	0	0	0	0	0	0	0	0	14	44
8:15 AM	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	9	46
8:30 AM	0	0	4	0	0	2	4	0	0	1	0	0	0	0	0	0	11	44
8:45 AM	0	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	9	43
Count Total	0	0	33	1	0	6	41	0	0	3	0	0	0	0	0	0	84	0
Peak Hour	0	0	18	0	0	3	21	0	0	2	0	0	0	0	0	0	44	0

Two-Hour Count Summaries - Bikes

Interval Start	Reservation Rd			Reservation Rd			Seacrest Ave			0			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0

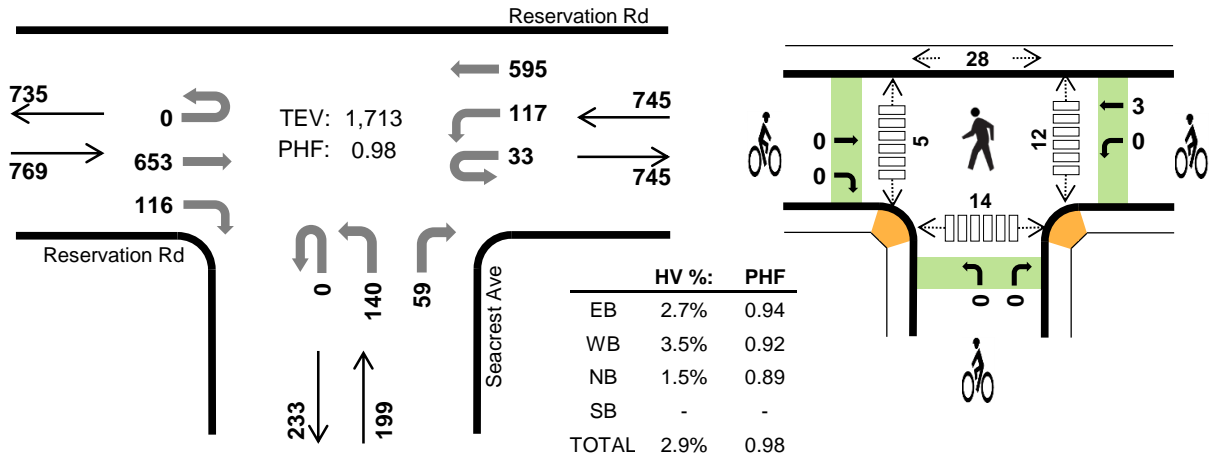
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Seacrest Ave Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 11:30 AM to 1:30 PM
Peak Hour: 12:00 PM to 1:00 PM



Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Seacrest Ave Northbound				Seacrest Ave Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
11:30 AM	0	0	161	25	12	27	139	0	0	27	0	20	0	0	0	0	411	0	
11:45 AM	0	0	132	34	13	21	143	0	0	29	0	16	0	0	0	0	388	0	
12:00 PM	0	0	167	36	5	22	159	0	0	31	0	17	0	0	0	0	437	0	
12:15 PM	0	0	164	25	9	24	133	0	0	42	0	14	0	0	0	0	411	1,647	
12:30 PM	0	0	147	26	11	40	151	0	0	39	0	15	0	0	0	0	429	1,665	
12:45 PM	0	0	175	29	8	31	152	0	0	28	0	13	0	0	0	0	436	1,713	
1:00 PM	0	0	130	37	5	36	158	0	0	35	0	16	0	0	0	0	417	1,693	
1:15 PM	0	0	155	24	8	34	154	0	0	20	0	13	0	0	0	0	408	1,690	
Count Total	0	0	1,231	236	71	235	1,189	0	0	251	0	124	0	0	0	0	3,337	0	
Peak Hour	All	0	0	653	116	33	117	595	0	0	140	0	59	0	0	0	0	1,713	0
	HV	0	0	18	3	0	5	21	0	0	1	0	2	0	0	0	0	50	0
	HV%	-	-	3%	3%	0%	4%	4%	-	-	1%	-	3%	-	-	-	-	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:30 AM	9	4	3	0	16	0	0	0	0	0	1	0	2	0	3
11:45 AM	1	11	0	0	12	0	0	0	0	0	0	0	0	1	1
12:00 PM	8	7	2	0	17	0	2	0	0	2	1	1	4	2	8
12:15 PM	4	5	0	0	9	0	0	0	0	0	5	1	6	4	16
12:30 PM	6	7	1	0	14	0	1	0	0	1	5	1	15	3	24
12:45 PM	3	7	0	0	10	0	0	0	0	0	1	2	3	5	11
1:00 PM	4	3	0	0	7	0	0	0	0	0	0	4	4	5	13
1:15 PM	6	3	1	0	10	0	0	0	0	0	1	0	3	1	5
Count Total	41	47	7	0	95	0	3	0	0	3	14	9	37	21	81
Peak Hr	21	26	3	0	50	0	3	0	0	3	12	5	28	14	59

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Reservation Rd				Reservation Rd				Seacrest Ave				0				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:30 AM	0	0	8	1	0	2	2	0	0	2	0	1	0	0	0	0	16	0
11:45 AM	0	0	1	0	0	0	11	0	0	0	0	0	0	0	0	0	12	0
12:00 PM	0	0	7	1	0	2	5	0	0	1	0	1	0	0	0	0	17	0
12:15 PM	0	0	3	1	0	1	4	0	0	0	0	0	0	0	0	0	9	54
12:30 PM	0	0	5	1	0	0	7	0	0	0	0	1	0	0	0	0	14	52
12:45 PM	0	0	3	0	0	2	5	0	0	0	0	0	0	0	0	0	10	50
1:00 PM	0	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	7	40
1:15 PM	0	0	6	0	0	1	2	0	0	0	0	1	0	0	0	0	10	41
Count Total	0	0	37	4	0	8	39	0	0	3	0	4	0	0	0	0	95	0
Peak Hour	0	0	18	3	0	5	21	0	0	1	0	2	0	0	0	0	50	0

Two-Hour Count Summaries - Bikes

Interval Start	Reservation Rd			Reservation Rd			Seacrest Ave			0			15-min Total	Rolling One Hour
	Eastbound			Westbound			Northbound			Southbound				
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT		
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	3
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	3	0	0	0	0	0	0	0	3	0
Peak Hour	0	0	0	0	3	0	0	0	0	0	0	0	3	0

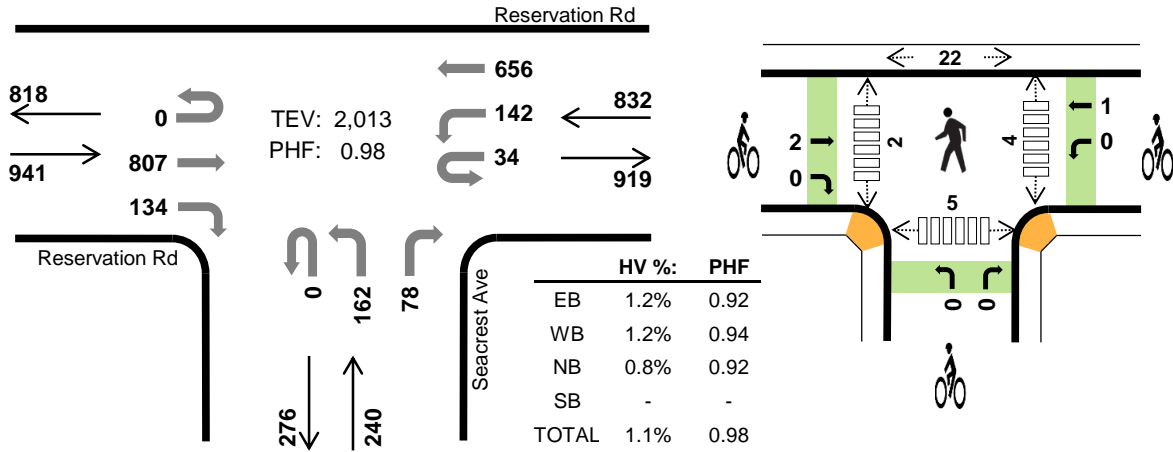
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Seacrest Ave Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 5:00 PM to 6:00 PM



Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Seacrest Ave Northbound				Seacrest Ave Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	178	27	5	35	149	0	0	36	0	25	0	0	0	0	455	0	
4:15 PM	0	0	173	36	10	37	141	0	0	33	0	20	0	0	0	0	450	0	
4:30 PM	0	0	221	24	14	33	131	0	0	42	0	18	0	0	0	0	483	0	
4:45 PM	0	0	219	33	10	21	157	0	0	26	0	16	0	0	0	0	482	1,870	
5:00 PM	0	0	192	37	8	26	164	0	0	43	0	22	0	0	0	0	492	1,907	
5:15 PM	0	0	204	27	6	47	168	0	0	36	0	21	0	0	0	0	509	1,966	
5:30 PM	0	0	221	34	8	35	154	0	0	44	0	15	0	0	0	0	511	1,994	
5:45 PM	0	0	190	36	12	34	170	0	0	39	0	20	0	0	0	0	501	2,013	
Count Total	0	0	1,598	254	73	268	1,234	0	0	299	0	157	0	0	0	0	3,883	0	
Peak Hour	All	0	0	807	134	34	142	656	0	0	162	0	78	0	0	0	0	2,013	0
	HV	0	0	9	2	0	2	8	0	0	1	0	1	0	0	0	0	23	0
	HV%	-	-	1%	1%	0%	1%	1%	-	-	1%	-	1%	-	-	-	-	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	4	1	0	7	0	0	0	0	0	4	0	4	1	9
4:15 PM	3	2	1	0	6	0	0	0	0	0	0	1	1	1	3
4:30 PM	2	3	0	0	5	1	0	0	0	1	1	2	8	2	13
4:45 PM	7	4	0	0	11	1	0	0	0	1	0	0	6	4	10
5:00 PM	2	3	0	0	5	1	0	0	0	1	0	1	5	1	7
5:15 PM	2	3	0	0	5	0	1	0	0	1	1	0	3	2	6
5:30 PM	4	1	1	0	6	0	0	0	0	0	1	0	6	1	8
5:45 PM	3	3	1	0	7	1	0	0	0	1	2	1	8	1	12
Count Total	25	23	4	0	52	4	1	0	0	5	9	5	41	13	68
Peak Hr	11	10	2	0	23	2	1	0	0	3	4	2	22	5	33

Two-Hour Count Summaries - Heavy Vehicles

Interval Start	Reservation Rd				Reservation Rd				Seacrest Ave				0				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	2	0	0	1	3	0	0	0	0	1	0	0	0	0	7	0
4:15 PM	0	0	3	0	0	0	2	0	0	1	0	0	0	0	0	0	6	0
4:30 PM	0	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	5	0
4:45 PM	0	0	6	1	0	0	4	0	0	0	0	0	0	0	0	0	11	29
5:00 PM	0	0	1	1	0	0	3	0	0	0	0	0	0	0	0	0	5	27
5:15 PM	0	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	5	26
5:30 PM	0	0	3	1	0	1	0	0	0	0	0	1	0	0	0	0	6	27
5:45 PM	0	0	3	0	0	0	3	0	0	1	0	0	0	0	0	0	7	23
Count Total	0	0	22	3	0	4	19	0	0	2	0	2	0	0	0	0	52	0
Peak Hour	0	0	9	2	0	2	8	0	0	1	0	1	0	0	0	0	23	0

Two-Hour Count Summaries - Bikes

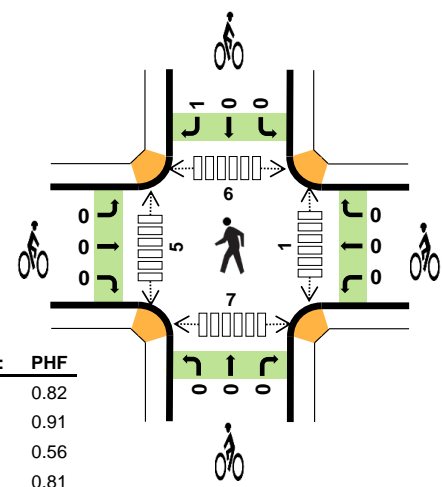
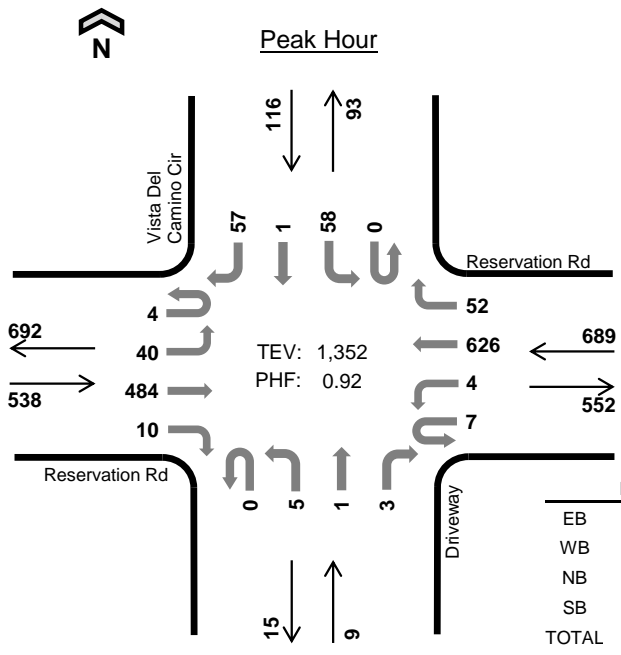
Interval Start	Reservation Rd			Reservation Rd			Seacrest Ave			0			15-min Total	Rolling One Hour	
	Eastbound			Westbound			Northbound			Southbound					
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT			
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	2
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3
5:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	1	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	1	3
Count Total	0	3	1	0	0	1	0	0	0	0	0	0	0	5	0
Peak Hour	0	2	0	0	0	1	0	0	0	0	0	0	0	3	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Vista Del Camino Cir Reservation Rd



Date: 09-26-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	3.9%	0.82
WB	3.5%	0.91
NB	0.0%	0.56
SB	1.7%	0.81
TOTAL	3.5%	0.92

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Driveway Northbound				Vista Del Camino Cir Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	2	73	0	2	0	183	5	0	0	0	0	0	7	0	21	293	0	
7:15 AM	3	3	101	0	1	0	158	6	0	1	0	0	0	6	0	10	289	0	
7:30 AM	1	12	124	2	1	1	161	6	0	1	1	0	0	8	0	19	337	0	
7:45 AM	2	11	149	2	2	1	156	14	0	2	0	0	0	16	1	11	367	1,286	
8:00 AM	1	10	115	1	2	2	136	18	0	1	0	0	0	19	0	17	322	1,315	
8:15 AM	0	7	96	5	2	0	173	14	0	1	0	3	0	15	0	10	326	1,352	
8:30 AM	4	11	127	4	5	1	142	11	0	5	0	1	0	8	2	14	335	1,350	
8:45 AM	2	17	96	2	5	1	124	19	0	2	1	2	0	8	1	12	292	1,275	
Count Total	13	73	881	16	20	6	1,233	93	0	13	2	6	0	87	4	114	2,561	0	
Peak Hour	All	4	40	484	10	7	4	626	52	0	5	1	3	0	58	1	57	1,352	0
	HV	0	4	17	0	0	1	21	2	0	0	0	0	0	0	0	2	47	0
	HV%	0%	10%	4%	0%	0%	25%	3%	4%	-	0%	0%	0%	-	0%	0%	4%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	5	5	0	0	10	0	0	0	0	0	0	0	0	0	0
7:15 AM	3	3	0	0	6	0	1	0	0	1	0	0	0	0	1
7:30 AM	5	7	0	1	13	0	0	0	1	1	1	2	2	2	7
7:45 AM	5	3	0	0	8	0	0	0	0	0	0	2	1	1	4
8:00 AM	6	10	0	1	17	0	0	0	0	0	0	0	1	2	3
8:15 AM	5	4	0	0	9	0	0	0	0	0	0	1	2	2	5
8:30 AM	6	4	0	0	10	0	0	0	0	0	2	1	1	1	5
8:45 AM	3	5	0	1	9	0	0	0	0	0	0	1	2	2	5
Count Total	38	41	0	3	82	0	1	0	1	2	3	7	9	11	30
Peak Hour	21	24	0	2	47	0	0	0	1	1	1	5	6	7	19

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Driveway				Vista Del Camino Cir				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	10	0
7:15 AM	0	0	3	0	0	0	2	1	0	0	0	0	0	0	0	0	6	0
7:30 AM	0	1	4	0	0	0	6	1	0	0	0	0	0	0	0	1	13	0
7:45 AM	0	1	4	0	0	0	3	0	0	0	0	0	0	0	0	0	8	37
8:00 AM	0	1	5	0	0	1	8	1	0	0	0	0	0	0	0	1	17	44
8:15 AM	0	1	4	0	0	0	4	0	0	0	0	0	0	0	0	0	9	47
8:30 AM	0	2	4	0	0	0	4	0	0	0	0	0	0	0	0	0	10	44
8:45 AM	0	0	3	0	0	0	4	1	0	0	0	0	0	0	1	0	9	45
Count Total	0	6	32	0	0	1	36	4	0	0	0	0	0	0	1	0	82	0
Peak Hour	0	4	17	0	0	1	21	2	0	0	0	0	0	0	0	2	47	0

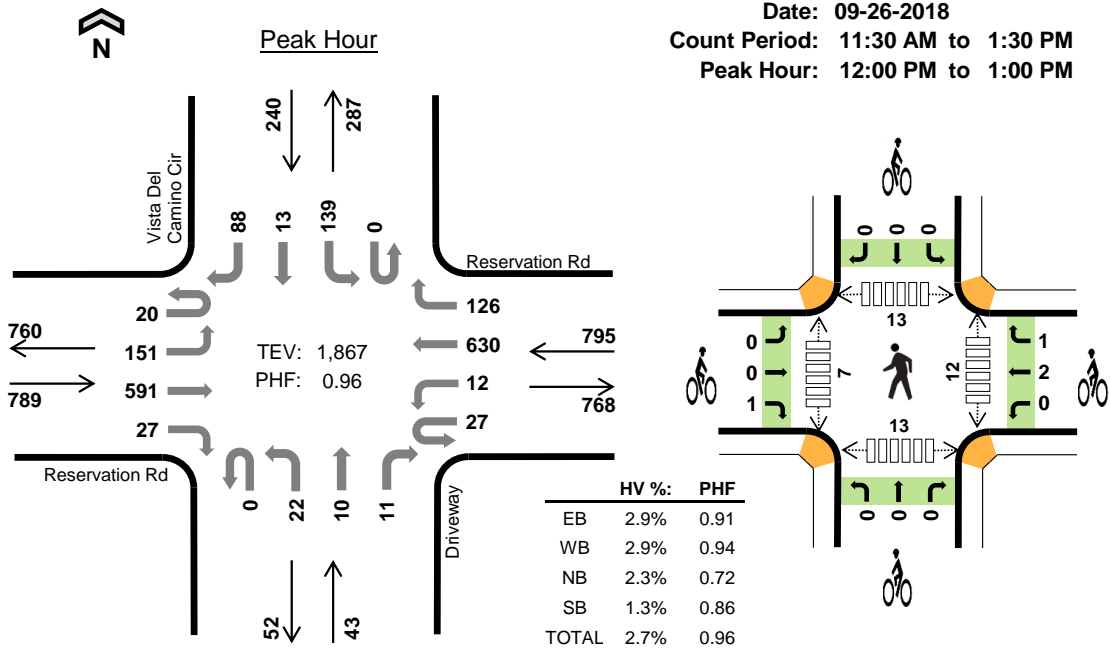
Two-Hour Count Summaries - Bikes																		
Interval Start	Reservation Rd			Reservation Rd			Driveway			Vista Del Camino Cir			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Vista Del Camino Cir Reservation Rd



Date: 09-26-2018
Count Period: 11:30 AM to 1:30 PM
Peak Hour: 12:00 PM to 1:00 PM



Two-Hour Count Summaries

Interval Start	Reservation Rd				Reservation Rd				Driveway				Vista Del Camino Cir				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
11:30 AM	2	23	147	5	6	1	145	23	0	4	1	3	0	29	0	13	402	0	
11:45 AM	4	36	120	3	6	4	134	33	0	2	2	2	0	40	2	15	403	0	
12:00 PM	7	44	158	7	5	4	152	35	0	6	2	3	0	41	4	20	488	0	
12:15 PM	5	47	151	7	6	4	158	30	0	2	1	1	0	32	2	15	461	1,754	
12:30 PM	6	34	139	7	7	4	172	28	0	9	3	3	0	33	5	18	468	1,820	
12:45 PM	2	26	143	6	9	0	148	33	0	5	4	4	0	33	2	35	450	1,867	
1:00 PM	3	34	149	4	9	5	173	24	0	5	1	4	0	24	3	20	458	1,837	
1:15 PM	4	38	152	5	2	6	136	33	0	6	2	4	0	25	1	21	435	1,811	
Count Total	33	282	1,159	44	50	28	1,218	239	0	39	16	24	0	257	19	157	3,565	0	
Peak Hour	All	20	151	591	27	27	12	630	126	0	22	10	11	0	139	13	88	1,867	0
	HV	0	1	22	0	0	0	20	3	0	0	0	1	0	2	0	1	50	0
	HV%	0%	1%	4%	0%	0%	0%	3%	2%	-	0%	0%	9%	-	1%	0%	1%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:30 AM	8	5	0	0	13	0	0	0	0	0	4	1	3	1	9
11:45 AM	3	11	0	0	14	0	0	0	0	0	0	0	2	1	3
12:00 PM	6	7	0	1	14	1	2	0	0	3	5	0	2	1	8
12:15 PM	7	4	0	0	11	0	0	0	0	0	3	0	3	3	9
12:30 PM	8	8	0	1	17	0	1	0	0	1	4	1	8	4	17
12:45 PM	2	4	1	1	8	0	0	0	0	0	0	6	0	5	11
1:00 PM	6	3	0	0	9	0	0	0	0	0	4	2	2	2	10
1:15 PM	4	3	1	0	8	0	0	0	0	0	5	0	4	1	10
Count Total	44	45	2	3	94	1	3	0	0	4	25	10	24	18	77
Peak Hour	23	23	1	3	50	1	3	0	0	4	12	7	13	13	45

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Driveway				Vista Del Camino Cir				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:30 AM	0	0	8	0	0	0	4	1	0	0	0	0	0	0	0	0	13	0
11:45 AM	0	1	2	0	0	1	9	1	0	0	0	0	0	0	0	0	14	0
12:00 PM	0	0	6	0	0	0	7	0	0	0	0	0	0	1	0	0	14	0
12:15 PM	0	0	7	0	0	0	3	1	0	0	0	0	0	0	0	0	11	52
12:30 PM	0	1	7	0	0	0	8	0	0	0	0	0	0	0	1	0	17	56
12:45 PM	0	0	2	0	0	0	2	2	0	0	0	1	0	0	0	1	8	50
1:00 PM	0	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	9	45
1:15 PM	0	0	4	0	0	0	2	1	0	0	0	1	0	0	0	0	8	42
Count Total	0	2	42	0	0	1	38	6	0	0	0	2	0	2	0	1	94	0
Peak Hour	0	1	22	0	0	0	20	3	0	0	0	1	0	2	0	1	50	0

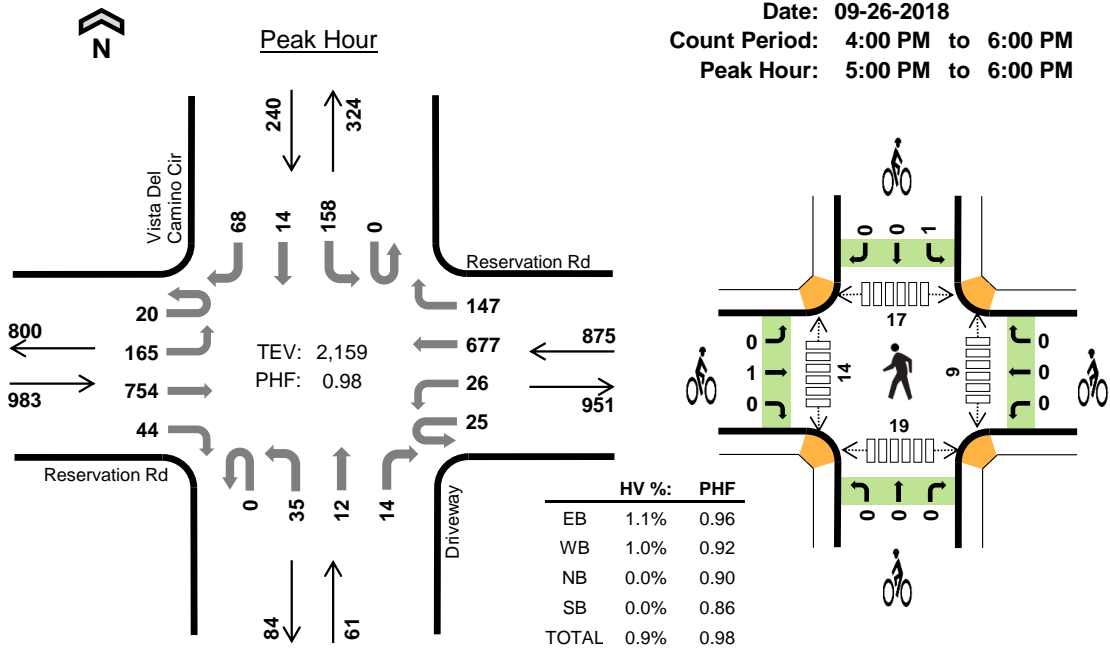
Two-Hour Count Summaries - Bikes																	
Interval Start	Reservation Rd			Reservation Rd			Driveway			Vista Del Camino Cir			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	4
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	4	0
Peak Hour	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	4	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Vista Del Camino Cir Reservation Rd



Date: 09-26-2018
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 5:00 PM to 6:00 PM



Two-Hour Count Summaries

Interval Start	Reservation Rd				Reservation Rd				Driveway				Vista Del Camino Cir				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	7	34	155	6	9	4	152	36	0	6	2	9	0	22	2	18	462	0	
4:15 PM	3	41	175	7	6	4	132	32	0	5	0	2	0	33	5	20	465	0	
4:30 PM	4	23	208	13	6	0	150	35	0	10	0	4	0	33	2	21	509	0	
4:45 PM	3	61	201	4	6	2	151	31	0	6	2	3	0	46	3	10	529	1,965	
5:00 PM	6	35	186	10	7	6	180	44	0	10	2	5	0	39	4	14	548	2,051	
5:15 PM	4	41	201	11	3	5	166	36	0	9	3	1	0	31	3	17	531	2,117	
5:30 PM	5	39	195	12	8	10	158	30	0	7	6	3	0	42	2	18	535	2,143	
5:45 PM	5	50	172	11	7	5	173	37	0	9	1	5	0	46	5	19	545	2,159	
Count Total	37	324	1,493	74	52	36	1,262	281	0	62	16	32	0	292	26	137	4,124	0	
Peak Hour	All	20	165	754	44	25	26	677	147	0	35	12	14	0	158	14	68	2,159	0
	HV	0	0	11	0	0	0	9	0	0	0	0	0	0	0	0	0	20	0
	HV%	0%	0%	1%	0%	0%	0%	1%	0%	-	0%	0%	0%	-	0%	0%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	3	0	0	5	0	0	1	1	2	4	2	2	4	12
4:15 PM	3	3	0	1	7	0	0	0	0	0	7	6	4	5	22
4:30 PM	3	3	0	0	6	1	0	0	0	1	1	1	5	1	8
4:45 PM	6	3	0	0	9	1	0	0	0	1	2	4	5	11	22
5:00 PM	3	4	0	0	7	1	0	0	0	1	1	3	2	2	8
5:15 PM	1	1	0	0	2	0	0	0	0	0	4	4	5	4	17
5:30 PM	4	0	0	0	4	0	0	0	0	0	1	3	8	4	16
5:45 PM	3	4	0	0	7	0	0	0	1	1	3	4	2	9	18
Count Total	25	21	0	1	47	3	0	1	2	6	23	27	33	40	123
Peak Hour	11	9	0	0	20	1	0	0	1	2	9	14	17	19	59

Two-Hour Count Summaries - Heavy Vehicles																			
Interval Start	Reservation Rd				Reservation Rd				Driveway				Vista Del Camino Cir				15-min Total	Rolling One Hour	
	Eastbound				Westbound				Northbound				Southbound						
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	0	2	0	0	0	2	1	0	0	0	0	0	0	0	0	0	5	0
4:15 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	1	0	7	0
4:30 PM	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6	0
4:45 PM	0	1	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	9	27
5:00 PM	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7	29
5:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	24
5:30 PM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	22
5:45 PM	0	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7	20
Count Total	0	1	24	0	0	0	20	1	0	0	0	0	0	0	0	1	0	47	0
Peak Hour	0	0	11	0	0	0	9	0	0	0	0	0	0	0	0	0	0	20	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Reservation Rd			Reservation Rd			Driveway			Vista Del Camino Cir			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0			
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0			
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	4			
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	3			
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3			
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2			
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	2			
Count Total	0	3	0	0	0	0	0	1	0	0	1	1	6	0			
Peak Hour	0	1	0	0	0	0	0	0	0	0	1	0	2	0			

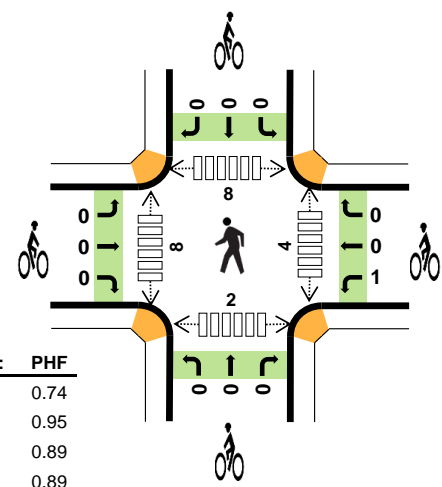
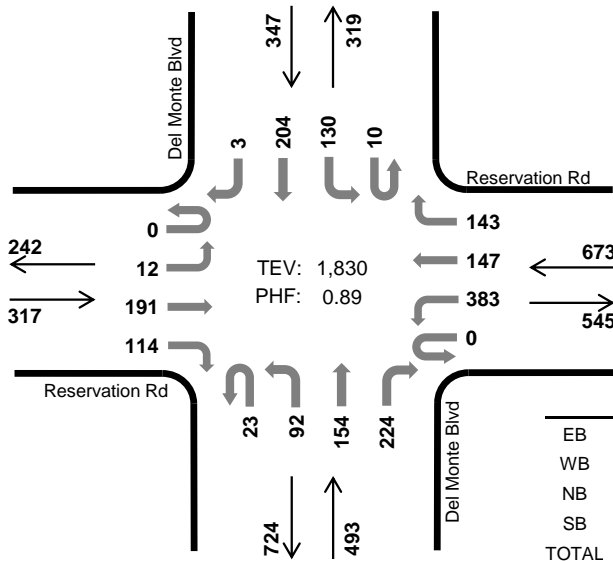
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Del Monte Blvd Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:30 AM to 8:30 AM



	HV %:	PHF
EB	3.5%	0.74
WB	3.6%	0.95
NB	1.6%	0.89
SB	3.2%	0.89
TOTAL	3.0%	0.89

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Del Monte Blvd Northbound				Del Monte Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	4	38	16	0	158	24	29	7	19	15	21	0	17	25	0	373	0	
7:15 AM	0	1	41	22	0	129	24	17	5	11	23	38	1	29	46	0	387	0	
7:30 AM	0	1	64	31	0	117	21	33	3	20	36	55	0	23	68	1	473	0	
7:45 AM	0	8	63	36	0	88	36	48	3	20	50	66	3	39	55	0	515	1,748	
8:00 AM	0	2	36	20	0	83	36	33	6	19	38	57	4	33	41	1	409	1,784	
8:15 AM	0	1	28	27	0	95	54	29	11	33	30	46	3	35	40	1	433	1,830	
8:30 AM	0	5	51	20	0	114	38	20	6	17	28	62	3	34	25	0	423	1,780	
8:45 AM	0	2	40	14	0	90	30	19	5	13	36	67	1	13	23	2	355	1,620	
Count Total	0	24	361	186	0	874	263	228	46	152	256	412	15	223	323	5	3,368	0	
Peak Hour	All	0	12	191	114	0	383	147	143	23	92	154	224	10	130	204	3	1,830	0
	HV	0	0	9	2	0	14	5	5	0	2	0	6	0	6	5	0	54	0
	HV%	-	0%	5%	2%	-	4%	3%	3%	0%	2%	0%	3%	0%	5%	2%	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	4	7	3	3	17	0	0	0	0	0	4	2	0	1	7
7:15 AM	3	3	0	1	7	0	1	0	0	1	2	1	1	0	4
7:30 AM	4	7	2	1	14	0	1	0	0	1	0	4	2	0	6
7:45 AM	4	4	3	2	13	0	0	0	0	0	1	3	0	2	6
8:00 AM	2	8	2	5	17	0	0	0	0	0	3	1	3	0	7
8:15 AM	1	5	1	3	10	0	0	0	0	0	0	0	3	0	3
8:30 AM	1	6	5	2	14	0	0	0	0	0	0	6	2	0	8
8:45 AM	0	6	3	1	10	0	0	0	0	0	3	1	3	0	7
Count Total	19	46	19	18	102	0	2	0	0	2	13	18	14	3	48
Peak Hour	11	24	8	11	54	0	1	0	0	1	4	8	8	2	22

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	3	1	0	0	4	1	2	0	0	1	2	0	2	1	0	17	0
7:15 AM	0	0	2	1	0	3	0	0	0	0	0	0	0	1	0	0	7	0
7:30 AM	0	0	4	0	0	3	2	2	0	1	0	1	0	0	1	0	14	0
7:45 AM	0	0	2	2	0	4	0	0	0	0	0	3	0	0	2	0	13	51
8:00 AM	0	0	2	0	0	4	2	2	0	1	0	1	0	3	2	0	17	51
8:15 AM	0	0	1	0	0	3	1	1	0	0	0	1	0	3	0	0	10	54
8:30 AM	0	0	1	0	0	5	0	1	0	1	0	4	0	1	1	0	14	54
8:45 AM	0	0	0	0	0	5	1	0	0	0	1	2	0	1	0	0	10	51
Count Total	0	3	13	3	0	31	7	8	0	3	2	14	0	11	7	0	102	0
Peak Hour	0	0	9	2	0	14	5	5	0	2	0	6	0	6	5	0	54	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Reservation Rd			Reservation Rd			Del Monte Blvd			Del Monte Blvd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0
Peak Hour	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0

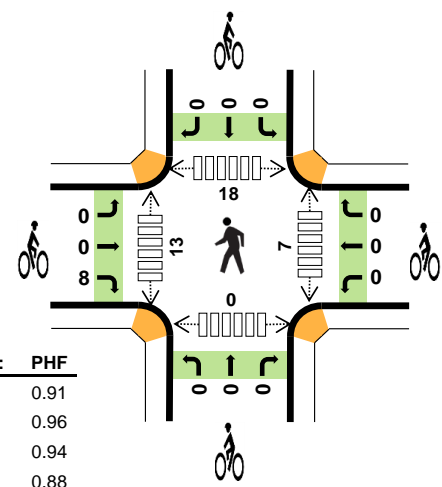
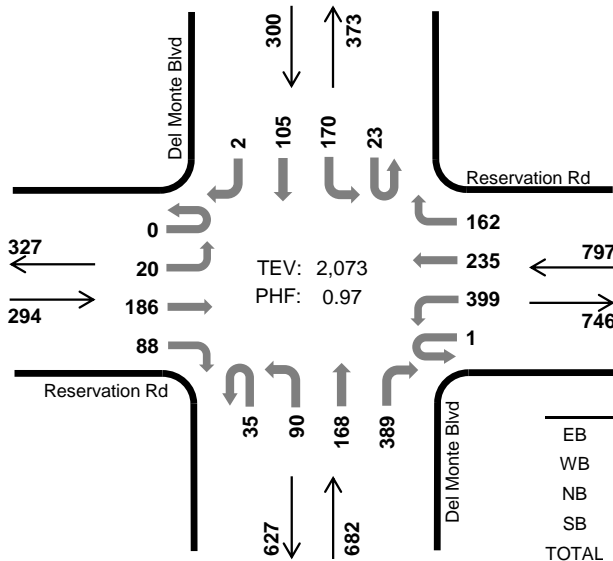
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Del Monte Blvd Reservation Rd



Peak Hour

Date: 09-26-2018
Count Period: 11:30 AM to 1:30 PM
Peak Hour: 12:15 PM to 1:15 PM



	HV %:	PHF
EB	1.7%	0.91
WB	2.3%	0.96
NB	3.1%	0.94
SB	3.3%	0.88
TOTAL	2.6%	0.97

Two-Hour Count Summaries

Interval Start	Reservation Rd Eastbound				Reservation Rd Westbound				Del Monte Blvd Northbound				Del Monte Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
11:30 AM	0	10	43	18	0	86	41	37	5	15	28	93	4	41	19	0	440	0	
11:45 AM	0	3	43	16	0	92	46	28	2	15	32	84	5	41	14	1	422	0	
12:00 PM	0	7	59	19	0	105	54	33	8	19	33	117	2	43	22	2	523	0	
12:15 PM	0	4	53	24	0	97	48	44	8	20	38	108	5	47	23	0	519	1,904	
12:30 PM	0	4	47	24	0	109	52	40	13	22	38	97	5	35	22	0	508	1,972	
12:45 PM	0	4	48	16	1	104	71	32	7	22	40	88	6	40	31	1	511	2,061	
1:00 PM	0	8	38	24	0	89	64	46	7	26	52	96	7	48	29	1	535	2,073	
1:15 PM	0	4	45	16	0	103	52	28	7	37	32	116	3	33	27	2	505	2,059	
Count Total	0	44	376	157	1	785	428	288	57	176	293	799	37	328	187	7	3,963	0	
Peak Hour	All	0	20	186	88	1	399	235	162	35	90	168	389	23	170	105	2	2,073	0
	HV	0	0	5	0	0	10	4	4	0	3	5	13	0	3	7	0	54	0
	HV%	-	0%	3%	0%	0%	3%	2%	2%	0%	3%	3%	3%	0%	2%	7%	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:30 AM	2	5	5	5	17	0	0	1	0	1	2	0	3	0	5
11:45 AM	1	9	3	3	16	0	0	0	0	0	3	9	4	0	16
12:00 PM	2	7	3	2	14	0	0	0	0	0	3	2	3	0	8
12:15 PM	2	4	5	1	12	0	0	0	0	0	4	2	4	0	10
12:30 PM	2	5	5	2	14	0	0	0	0	0	1	8	8	0	17
12:45 PM	0	6	4	3	13	0	0	0	0	0	2	0	4	0	6
1:00 PM	1	3	7	4	15	8	0	0	0	8	0	3	2	0	5
1:15 PM	1	3	3	3	10	0	0	0	0	0	1	2	0	0	3
Count Total	11	42	35	23	111	8	0	1	0	9	16	26	28	0	70
Peak Hour	5	18	21	10	54	8	0	0	0	8	7	13	18	0	38

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:30 AM	0	0	2	0	0	3	1	1	0	0	2	3	0	3	2	0	17	0
11:45 AM	0	0	1	0	0	4	3	2	0	2	0	1	0	2	1	0	16	0
12:00 PM	0	0	2	0	0	6	0	1	0	0	0	3	0	2	0	0	14	0
12:15 PM	0	0	2	0	0	2	0	2	0	1	1	3	0	1	0	0	12	59
12:30 PM	0	0	2	0	0	3	1	1	0	0	0	5	0	0	2	0	14	56
12:45 PM	0	0	0	0	0	2	3	1	0	2	1	1	0	1	2	0	13	53
1:00 PM	0	0	1	0	0	3	0	0	0	0	3	4	0	1	3	0	15	54
1:15 PM	0	1	0	0	0	1	1	1	0	1	0	2	0	1	2	0	10	52
Count Total	0	1	10	0	0	24	9	9	0	6	7	22	0	11	12	0	111	0
Peak Hour	0	0	5	0	0	10	4	4	0	3	5	13	0	3	7	0	54	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Reservation Rd			Reservation Rd			Del Monte Blvd			Del Monte Blvd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0			
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1			
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
1:00 PM	0	0	8	0	0	0	0	0	0	0	0	0	8	8			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	8			
Count Total	0	0	8	0	0	0	0	0	1	0	0	0	9	0			
Peak Hour	0	0	8	0	0	0	0	0	0	0	0	0	8	0			

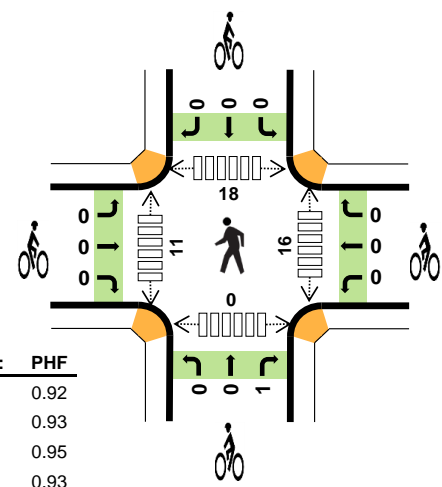
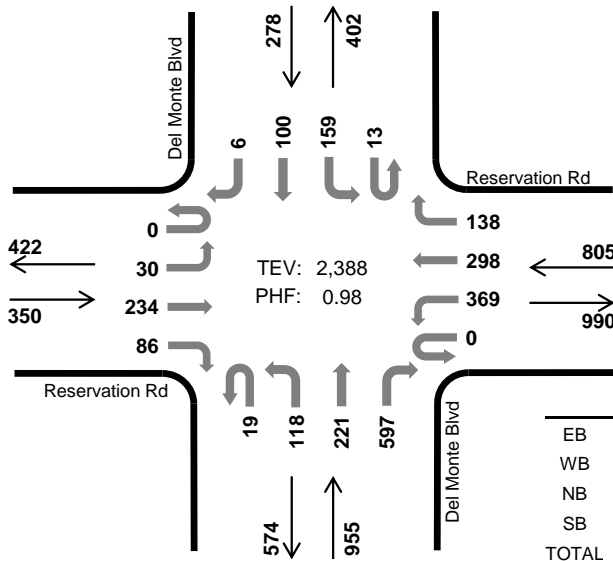
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Del Monte Blvd Reservation Rd



Peak Hour

Date: 09-26-2018
 Count Period: 4:00 PM to 6:00 PM
 Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	2.9%	0.92
WB	1.2%	0.93
NB	1.0%	0.95
SB	1.8%	0.93
TOTAL	1.5%	0.98

Two-Hour Count Summaries

Interval Start	Reservation Rd				Reservation Rd				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour	
	Eastbound		Westbound		Northbound		Southbound		UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	5	48	27	0	85	62	37	5	23	38	113	3	47	25	2	520	0	
4:15 PM	0	2	54	22	0	76	54	30	6	25	35	133	3	36	19	1	496	0	
4:30 PM	0	5	74	21	1	98	62	32	4	28	38	137	8	38	24	0	570	0	
4:45 PM	0	8	58	20	0	81	70	30	4	31	49	167	6	38	29	1	592	2,178	
5:00 PM	0	5	53	28	0	82	78	35	6	32	68	138	3	36	24	2	590	2,248	
5:15 PM	0	8	57	18	0	103	75	35	7	29	47	156	3	39	21	1	599	2,351	
5:30 PM	0	9	66	20	0	103	75	38	2	26	57	136	1	46	26	2	607	2,388	
5:45 PM	0	7	49	21	0	93	86	30	1	28	38	151	10	38	21	1	574	2,370	
Count Total	0	49	459	177	1	721	562	267	35	222	370	1,131	37	318	189	10	4,548	0	
Peak Hour	All	0	30	234	86	0	369	298	138	19	118	221	597	13	159	100	6	2,388	0
	HV	0	1	7	2	0	4	3	3	0	1	5	4	0	3	2	0	35	0
	HV%	-	3%	3%	2%	-	1%	1%	2%	0%	1%	2%	1%	0%	2%	2%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	2	3	2	2	9	0	0	0	0	0	7	4	5	1	17
4:15 PM	0	3	4	1	8	0	0	0	0	0	4	3	5	0	12
4:30 PM	2	1	1	2	6	0	0	1	0	1	5	5	6	0	16
4:45 PM	5	4	5	1	15	0	0	0	0	0	4	2	6	0	12
5:00 PM	1	3	3	2	9	0	0	1	0	1	1	2	1	0	4
5:15 PM	2	3	0	0	5	0	0	0	0	0	2	0	2	0	4
5:30 PM	2	0	2	2	6	0	0	0	0	0	9	7	9	0	25
5:45 PM	1	4	3	0	8	0	0	0	0	0	1	3	7	1	12
Count Total	15	21	20	10	66	0	0	2	0	2	33	26	41	2	102
Peak Hour	10	10	10	5	35	0	0	1	0	1	16	11	18	0	45

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Reservation Rd				Reservation Rd				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	2	0	1	1	1	0	1	0	1	0	1	0	1	9	0
4:15 PM	0	0	0	0	0	2	0	1	0	1	1	2	0	1	0	0	8	0
4:30 PM	0	0	2	0	0	0	1	0	0	0	0	1	0	0	2	0	6	0
4:45 PM	0	1	3	1	0	2	2	0	0	1	2	2	0	1	0	0	15	38
5:00 PM	0	0	1	0	0	0	1	2	0	0	2	1	0	1	1	0	9	38
5:15 PM	0	0	1	1	0	2	0	1	0	0	0	0	0	0	0	0	5	35
5:30 PM	0	0	2	0	0	0	0	0	0	0	1	1	0	1	1	0	6	35
5:45 PM	0	0	1	0	0	2	2	0	0	1	0	2	0	0	0	0	8	28
Count Total	0	1	10	4	0	9	7	5	0	4	6	10	0	5	4	1	66	0
Peak Hour	0	1	7	2	0	4	3	3	0	1	5	4	0	3	2	0	35	0

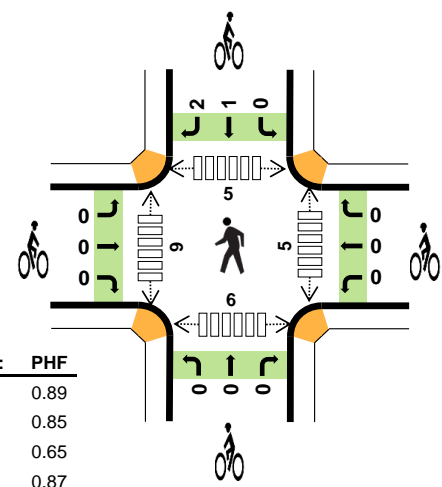
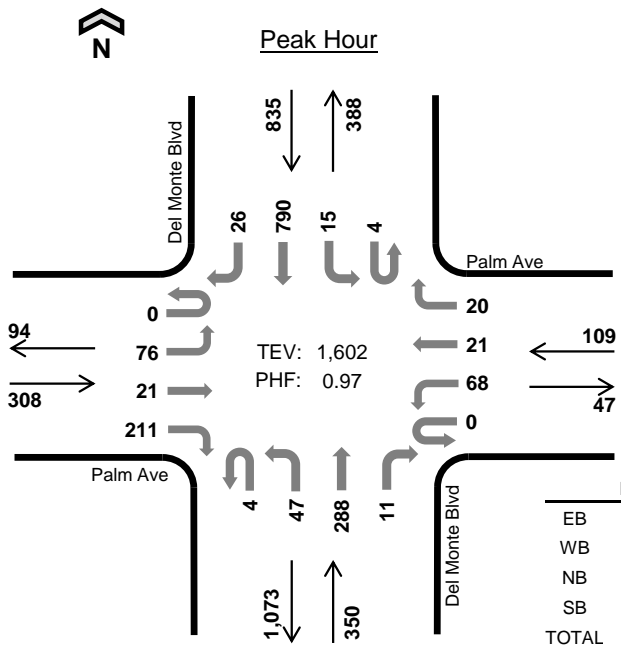
Two-Hour Count Summaries - Bikes																		
Interval Start	Reservation Rd			Reservation Rd			Del Monte Blvd			Del Monte Blvd			15-min Total	Rolling One Hour				
	Eastbound			Westbound			Northbound			Southbound								
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT						
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Count Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0

Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Del Monte Blvd Palm Ave



Date: 09-26-2018
Count Period: 7:00 AM to 9:00 AM
Peak Hour: 7:00 AM to 8:00 AM



	HV %:	PHF
EB	0.3%	0.89
WB	1.8%	0.85
NB	3.1%	0.65
SB	1.8%	0.87
TOTAL	1.8%	0.97

Two-Hour Count Summaries

Interval Start	Palm Ave Eastbound				Palm Ave Westbound				Del Monte Blvd Northbound				Del Monte Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
7:00 AM	0	9	7	60	0	13	2	6	0	8	45	3	1	1	235	2	392	0	
7:15 AM	0	20	4	61	0	28	1	3	1	7	54	4	0	5	211	6	405	0	
7:30 AM	0	24	5	58	0	15	3	6	1	8	82	2	3	3	196	7	413	0	
7:45 AM	0	23	5	32	0	12	15	5	2	24	107	2	0	6	148	11	392	1,602	
8:00 AM	0	9	12	33	0	7	15	8	1	23	99	3	1	4	111	12	338	1,548	
8:15 AM	0	13	9	26	0	16	18	9	4	17	81	5	2	9	149	22	380	1,523	
8:30 AM	0	28	4	58	0	11	14	9	2	22	83	3	1	3	153	15	406	1,516	
8:45 AM	0	16	3	33	0	9	5	3	6	6	88	5	4	2	134	5	319	1,443	
Count Total	0	142	49	361	0	111	73	49	17	115	639	27	12	33	1,337	80	3,045	0	
Peak Hour	All	0	76	21	211	0	68	21	20	4	47	288	11	4	15	790	26	1,602	0
	HV	0	0	0	1	0	1	0	1	0	1	9	1	0	0	15	0	29	0
	HV%	-	0%	0%	0%	-	1%	0%	5%	0%	2%	3%	9%	0%	0%	2%	0%	2%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	1	1	2	4	8	0	0	0	1	1	1	0	2	1	4
7:15 AM	0	0	1	3	4	0	0	0	1	1	1	2	0	1	4
7:30 AM	0	0	5	4	9	0	0	0	1	1	2	4	0	1	7
7:45 AM	0	1	3	4	8	0	0	0	0	0	1	3	3	3	10
8:00 AM	0	0	1	4	5	0	0	0	0	0	1	1	0	2	4
8:15 AM	0	0	1	5	6	0	0	0	0	0	2	3	0	5	10
8:30 AM	2	1	7	5	15	0	0	0	0	0	0	1	3	2	6
8:45 AM	2	0	2	3	7	0	0	0	0	0	1	1	0	3	5
Count Total	5	3	22	32	62	0	0	0	3	3	9	15	8	18	50
Peak Hour	1	2	11	15	29	0	0	0	3	3	5	9	5	6	25

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Palm Ave				Palm Ave				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
7:00 AM	0	0	0	1	0	0	0	1	0	0	2	0	0	0	4	0	8	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	4	0
7:30 AM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	4	0	9	0
7:45 AM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	4	0	8	29
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	5	26
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	0	6	28
8:30 AM	0	2	0	0	0	0	1	0	0	2	5	0	0	1	3	1	15	34
8:45 AM	0	0	0	2	0	0	0	0	0	0	1	1	0	1	2	0	7	33
Count Total	0	2	0	3	0	1	1	1	0	3	17	2	0	2	29	1	62	0
Peak Hour	0	0	0	1	0	1	0	1	0	1	9	1	0	0	15	0	29	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Palm Ave			Palm Ave			Del Monte Blvd			Del Monte Blvd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	3	0

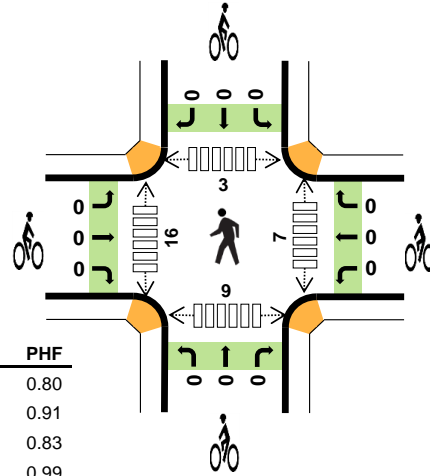
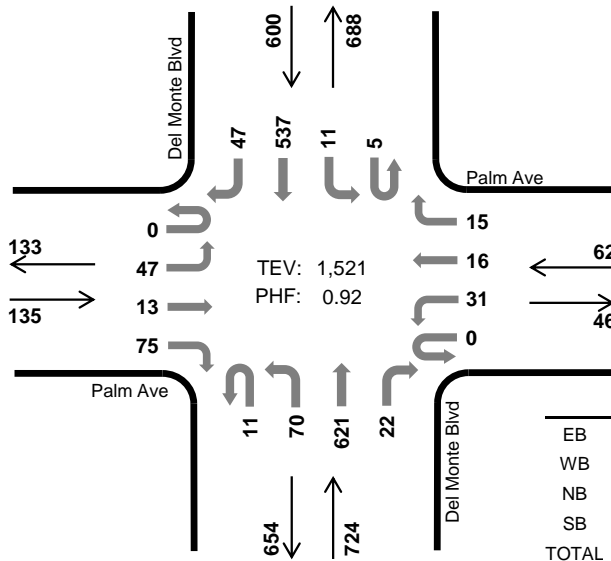
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Del Monte Blvd Palm Ave



Peak Hour

Date: 09-26-2018
Count Period: 11:00 AM to 1:00 PM
Peak Hour: 12:00 PM to 1:00 PM



	HV %:	PHF
EB	2.2%	0.80
WB	6.5%	0.91
NB	2.8%	0.83
SB	2.5%	0.99
TOTAL	2.8%	0.92

Two-Hour Count Summaries

Interval Start	Palm Ave Eastbound				Palm Ave Westbound				Del Monte Blvd Northbound				Del Monte Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
11:00 AM	0	19	5	35	0	5	8	4	6	21	121	6	1	3	98	15	347	0	
11:15 AM	0	19	4	22	0	5	4	2	3	23	129	8	1	7	105	4	336	0	
11:30 AM	0	9	2	21	0	4	2	5	4	30	159	3	3	0	130	8	380	0	
11:45 AM	0	14	3	18	0	6	1	1	3	25	155	5	0	6	121	17	375	1,438	
12:00 PM	0	11	3	26	0	8	3	4	3	14	142	4	1	2	134	12	367	1,458	
12:15 PM	0	16	6	20	0	7	3	6	2	18	132	9	0	0	141	9	369	1,491	
12:30 PM	0	9	2	12	0	6	6	2	5	20	155	3	2	7	131	12	372	1,483	
12:45 PM	0	11	2	17	0	10	4	3	1	18	192	6	2	2	131	14	413	1,521	
Count Total	0	108	27	171	0	51	31	27	27	169	1,185	44	10	27	991	91	2,959	0	
Peak Hour	All	0	47	13	75	0	31	16	15	11	70	621	22	5	11	537	47	1,521	0
	HV	0	2	1	0	0	0	0	4	0	1	16	3	0	3	12	0	42	0
	HV%	-	4%	8%	0%	-	0%	0%	27%	0%	1%	3%	14%	0%	27%	2%	0%	3%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:00 AM	2	1	5	3	11	0	0	1	0	1	1	4	1	9	15
11:15 AM	2	0	4	4	10	0	1	0	0	1	3	8	2	4	17
11:30 AM	0	0	5	6	11	0	0	0	0	0	1	1	0	5	7
11:45 AM	1	0	7	1	9	0	0	0	0	0	0	2	1	0	3
12:00 PM	1	0	8	8	17	0	0	0	0	0	1	4	1	5	11
12:15 PM	1	2	6	1	10	0	0	0	0	0	1	0	0	1	2
12:30 PM	1	0	3	6	10	0	0	0	0	0	4	11	2	3	20
12:45 PM	0	2	3	0	5	0	0	0	0	0	1	1	0	0	2
Count Total	8	5	41	29	83	0	1	1	0	2	12	31	7	27	77
Peak Hour	3	4	20	15	42	0	0	0	0	0	7	16	3	9	35

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Palm Ave				Palm Ave				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
11:00 AM	0	1	0	1	0	0	1	0	0	2	3	0	0	0	2	1	11	0
11:15 AM	0	0	1	1	0	0	0	0	0	1	3	0	0	0	4	0	10	0
11:30 AM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	4	2	11	0
11:45 AM	0	0	1	0	0	0	0	0	0	1	6	0	0	0	1	0	9	41
12:00 PM	0	1	0	0	0	0	0	0	0	0	7	1	0	1	7	0	17	47
12:15 PM	0	0	1	0	0	0	0	2	0	0	4	2	0	0	1	0	10	47
12:30 PM	0	1	0	0	0	0	0	0	0	0	3	0	0	2	4	0	10	46
12:45 PM	0	0	0	0	0	0	0	2	0	1	2	0	0	0	0	0	5	42
Count Total	0	3	3	2	0	0	1	4	0	6	32	3	0	3	23	3	83	0
Peak Hour	0	2	1	0	0	0	0	4	0	1	16	3	0	3	12	0	42	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Palm Ave			Palm Ave			Del Monte Blvd			Del Monte Blvd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
11:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	
11:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Count Total	0	0	0	1	0	0	0	0	1	0	0	0	0	0	2	0	
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

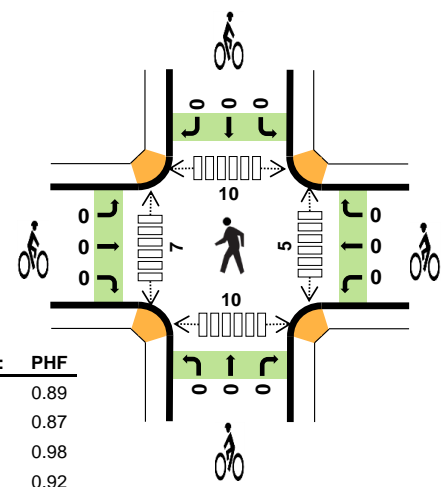
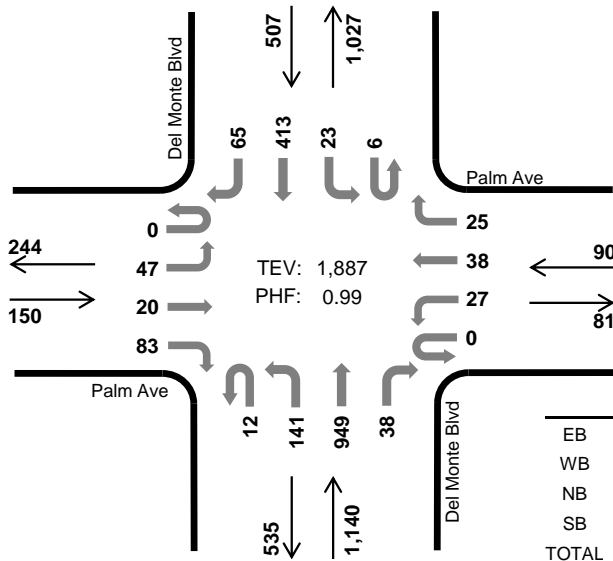
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Del Monte Blvd Palm Ave



Peak Hour

Date: 09-26-2018
Count Period: 4:00 PM to 6:00 PM
Peak Hour: 4:45 PM to 5:45 PM



	HV %:	PHF
EB	0.0%	0.89
WB	2.2%	0.87
NB	0.9%	0.98
SB	1.0%	0.92
TOTAL	0.9%	0.99

Two-Hour Count Summaries

Interval Start	Palm Ave Eastbound				Palm Ave Westbound				Del Monte Blvd Northbound				Del Monte Blvd Southbound				15-min Total	Rolling One Hour	
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT			
4:00 PM	0	10	3	23	0	10	5	8	1	34	176	9	1	4	115	6	405	0	
4:15 PM	0	5	2	17	0	4	6	4	1	48	213	9	1	7	94	11	422	0	
4:30 PM	0	6	3	25	0	14	12	5	2	27	210	5	2	4	113	10	438	0	
4:45 PM	0	17	1	24	0	7	7	5	3	26	253	8	1	5	94	11	462	1,727	
5:00 PM	0	8	10	17	0	4	7	9	4	35	236	11	3	4	102	20	470	1,792	
5:15 PM	0	11	5	21	0	4	14	8	4	36	235	11	1	5	100	23	478	1,848	
5:30 PM	0	11	4	21	0	12	10	3	1	44	225	8	1	9	117	11	477	1,887	
5:45 PM	0	12	2	20	0	7	6	6	1	41	214	9	1	3	112	3	437	1,862	
Count Total	0	80	30	168	0	62	67	48	17	291	1,762	70	11	41	847	95	3,589	0	
Peak Hour	All	0	47	20	83	0	27	38	25	12	141	949	38	6	23	413	65	1,887	0
	HV	0	0	0	0	0	0	1	1	0	0	10	0	0	2	3	0	17	0
	HV%	-	0%	0%	0%	-	0%	3%	4%	0%	0%	1%	0%	0%	9%	1%	0%	1%	0

Note: Two-hour count summary volumes include heavy vehicles but exclude bicycles in overall count.

Interval Start	Heavy Vehicle Totals					Bicycles					Pedestrians (Crossing Leg)				
	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:00 PM	0	1	3	3	7	0	0	0	0	0	0	3	1	4	8
4:15 PM	0	0	3	2	5	0	0	0	0	0	0	3	0	3	6
4:30 PM	0	0	2	2	4	0	0	1	0	1	1	3	5	2	11
4:45 PM	0	0	5	2	7	0	0	0	0	0	3	0	0	3	6
5:00 PM	0	1	2	0	3	0	0	0	0	0	0	0	3	3	6
5:15 PM	0	0	1	2	3	0	0	0	0	0	0	2	3	2	7
5:30 PM	0	1	2	1	4	0	0	0	0	0	2	5	4	2	13
5:45 PM	0	0	2	3	5	0	0	0	0	0	3	3	6	4	16
Count Total	0	3	20	15	38	0	0	1	0	1	9	19	22	23	73
Peak Hour	0	2	10	5	17	0	0	0	0	0	5	7	10	10	32

Two-Hour Count Summaries - Heavy Vehicles																		
Interval Start	Palm Ave				Palm Ave				Del Monte Blvd				Del Monte Blvd				15-min Total	Rolling One Hour
	Eastbound				Westbound				Northbound				Southbound					
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT		
4:00 PM	0	0	0	0	0	1	0	0	0	0	3	0	0	0	3	0	7	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	5	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	1	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	7	23
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	3	19
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	3	17
5:30 PM	0	0	0	0	0	0	1	0	0	0	2	0	0	1	0	0	4	17
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	5	15
Count Total	0	0	0	0	0	1	1	1	0	1	19	0	0	3	12	0	38	0
Peak Hour	0	0	0	0	0	0	1	1	0	0	10	0	0	2	3	0	17	0

Two-Hour Count Summaries - Bikes																	
Interval Start	Palm Ave			Palm Ave			Del Monte Blvd			Del Monte Blvd			15-min Total	Rolling One Hour			
	Eastbound			Westbound			Northbound			Southbound							
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT					
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Count Total	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
Peak Hour	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

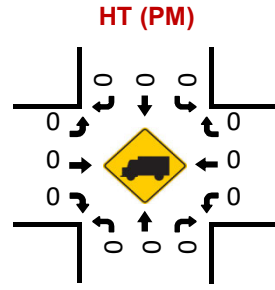
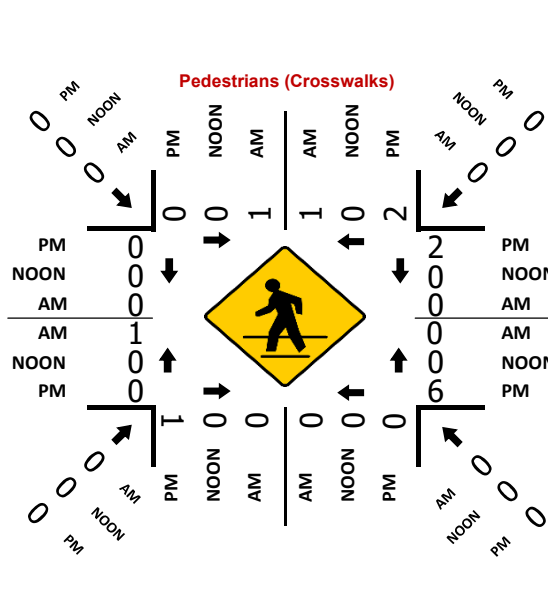
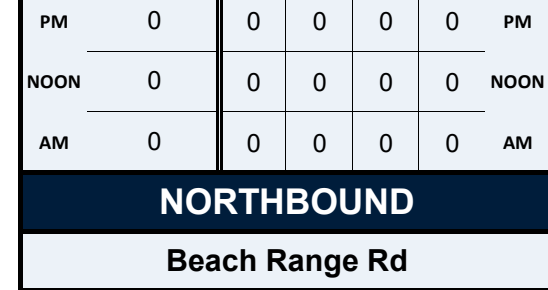
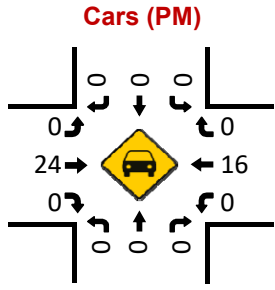
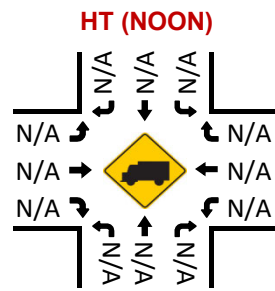
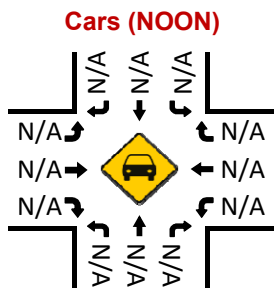
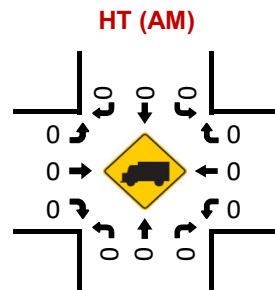
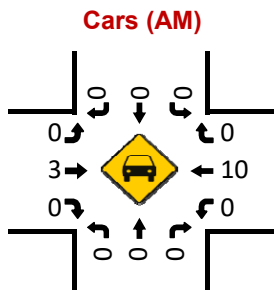
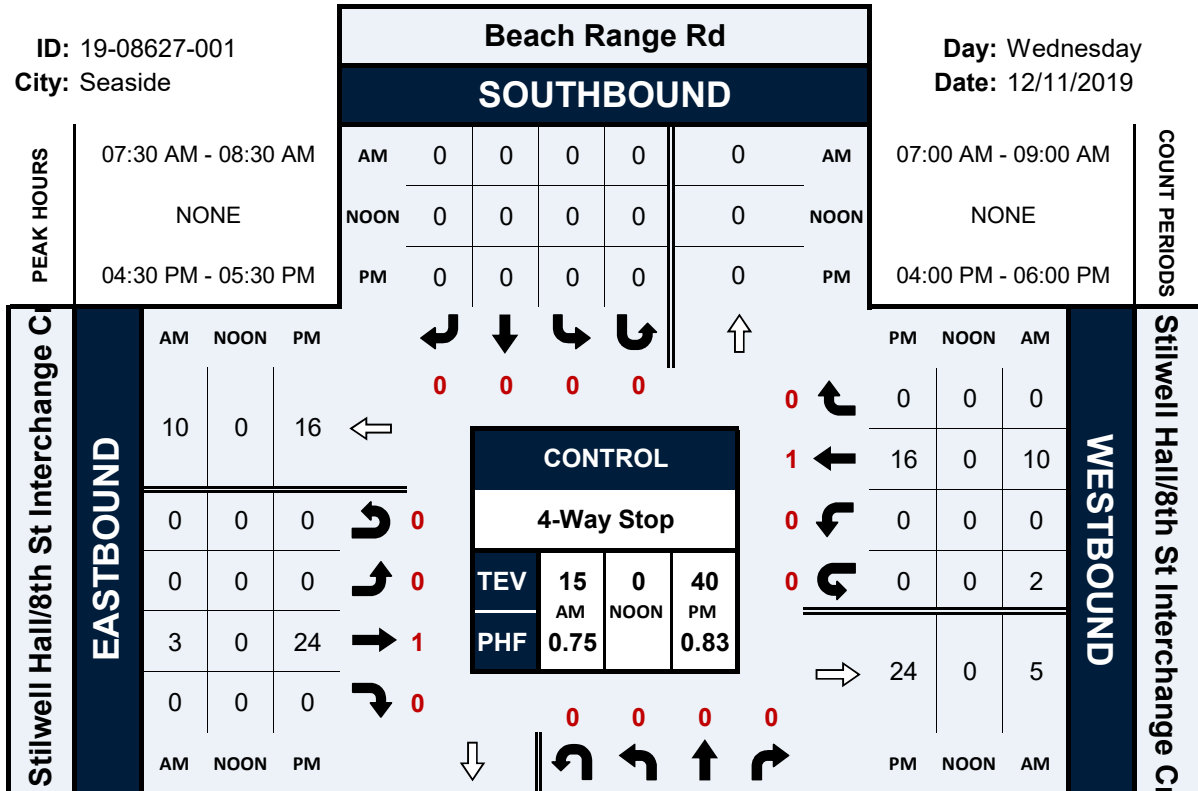
Note: U-Turn volumes for bikes are included in Left-Turn, if any.

Beach Range Rd & Stilwell Hall/8th St Interchange Crossing

Peak Hour Turning Movement Count

ID: 19-08627-001
City: Seaside

Day: Wednesday
Date: 12/11/2019



California Ave & SR 1 ramps

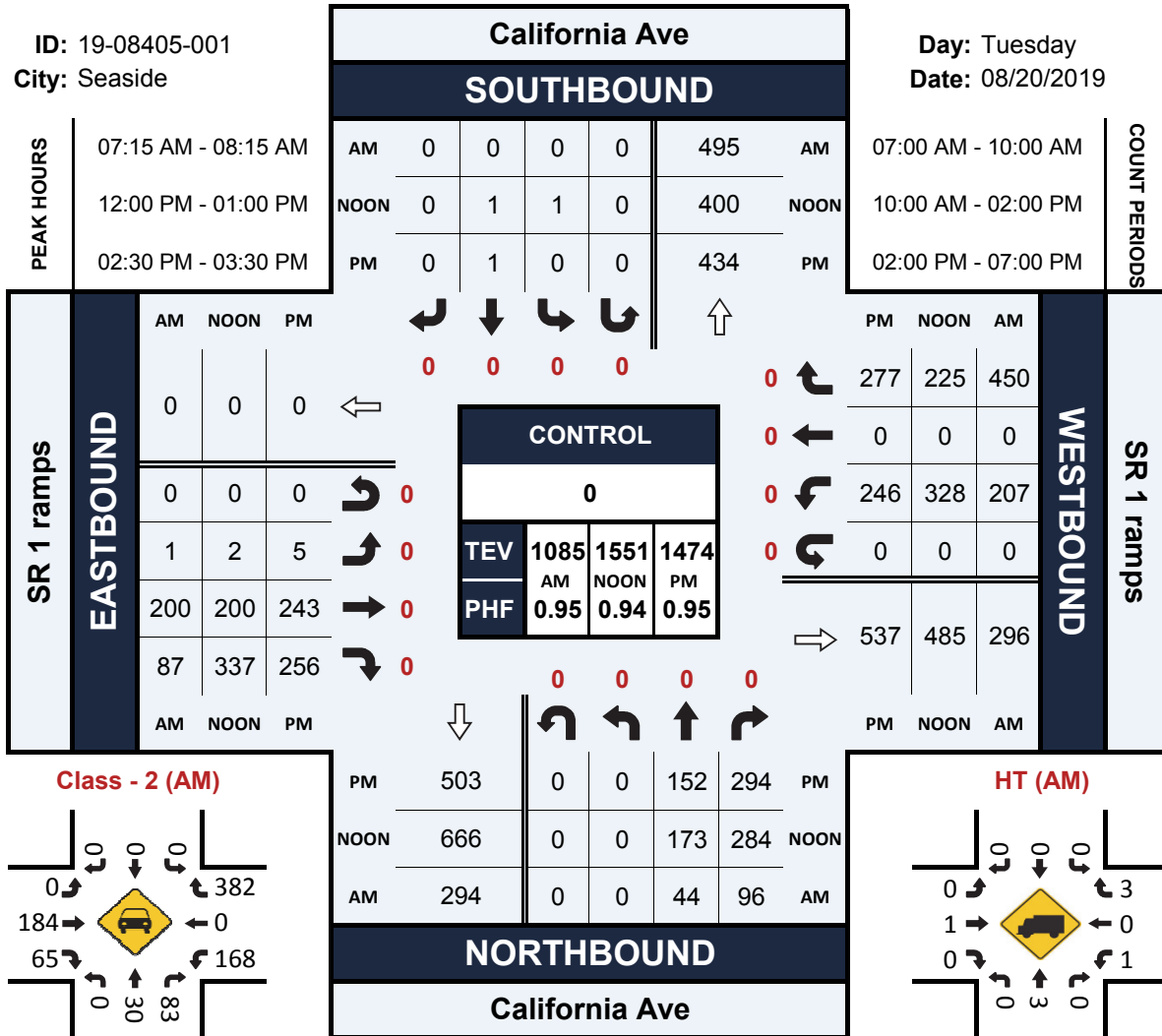
Peak Hour Turning Movement Count

ID: 19-08405-001

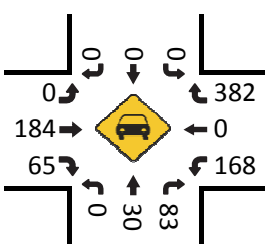
City: Seaside

Day: Tuesday

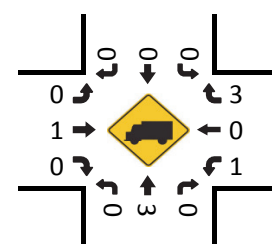
Date: 08/20/2019



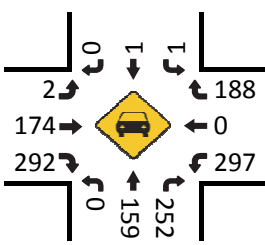
Class - 2 (AM)



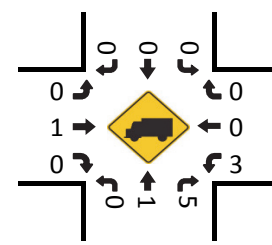
HT (AM)



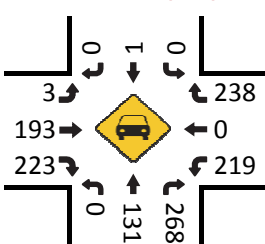
Class - 2 (NOON)



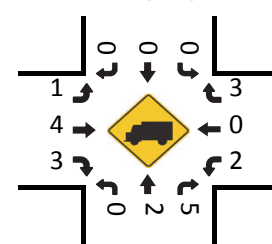
HT (NOON)



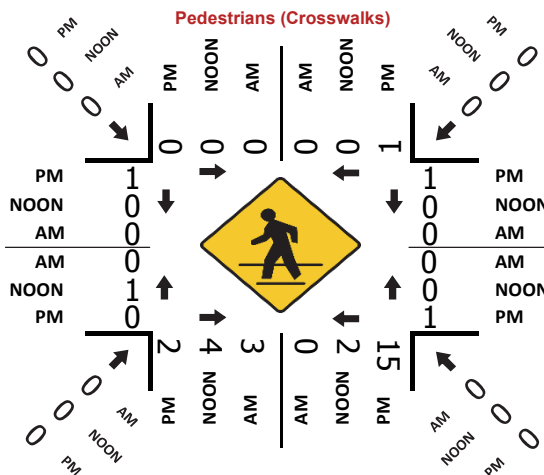
Class - 2 (PM)



HT (PM)



Pedestrians (Crosswalks)

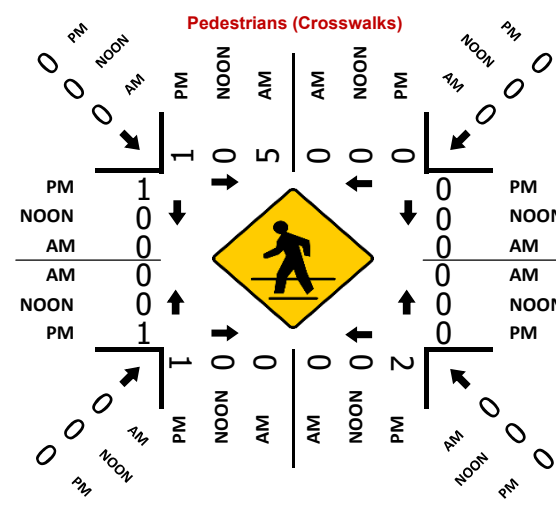
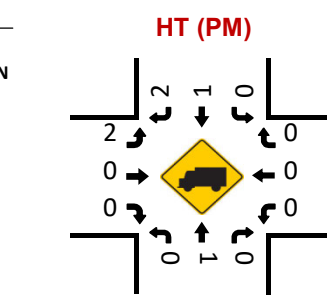
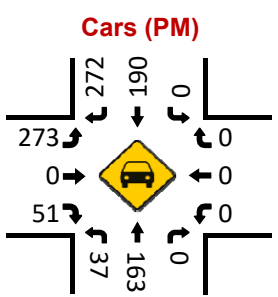
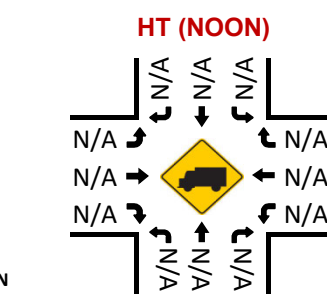
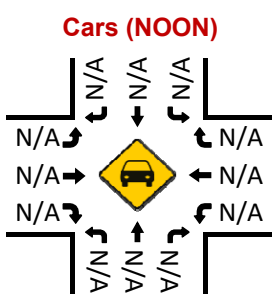
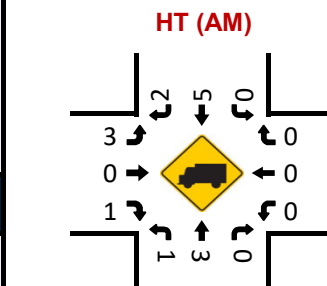
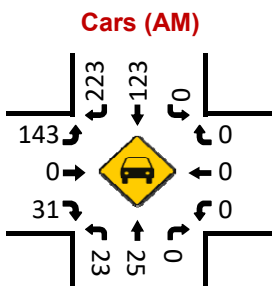
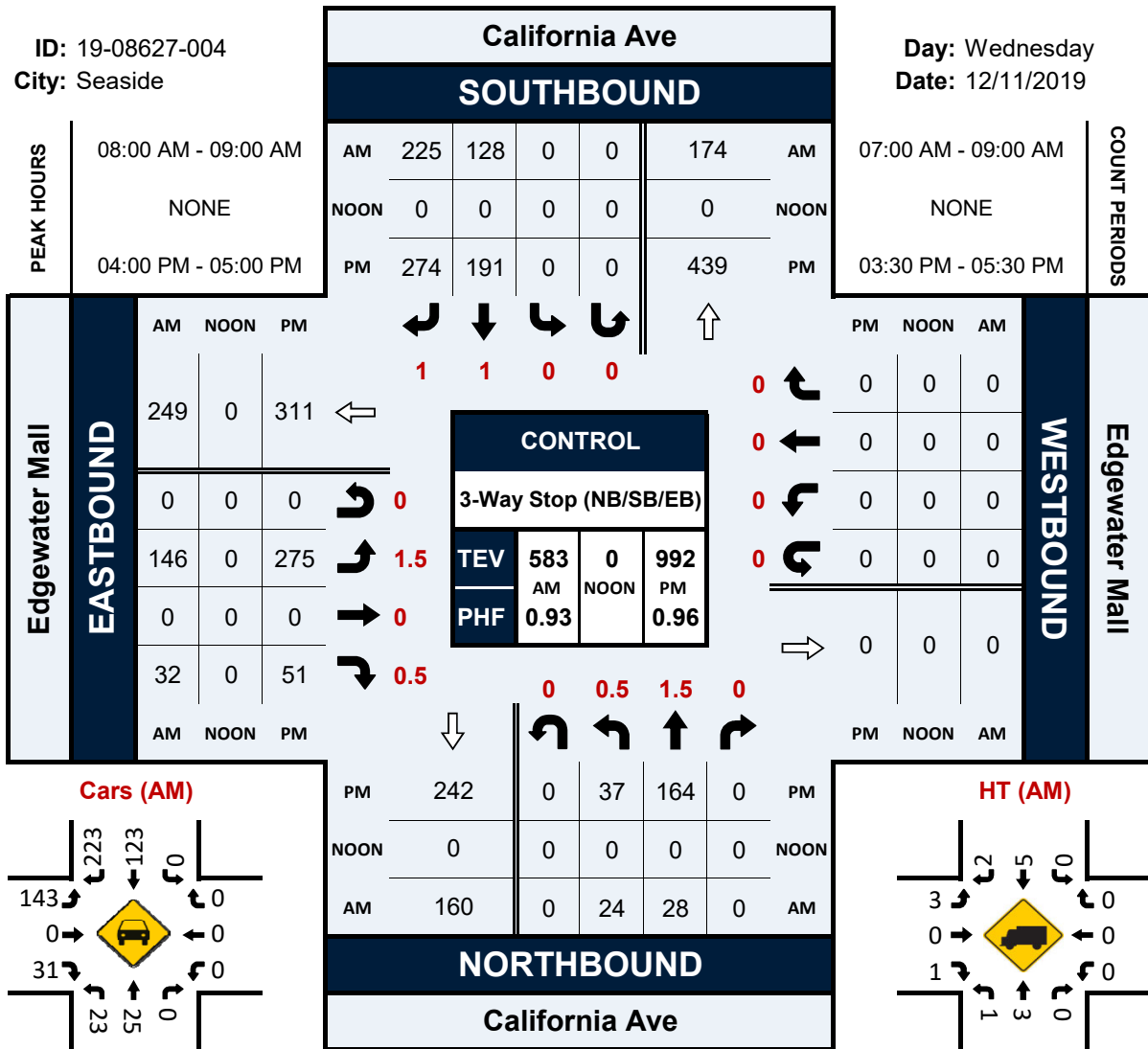


California Ave & Edgewater Mall

Peak Hour Turning Movement Count

ID: 19-08627-004
City: Seaside

Day: Wednesday
Date: 12/11/2019

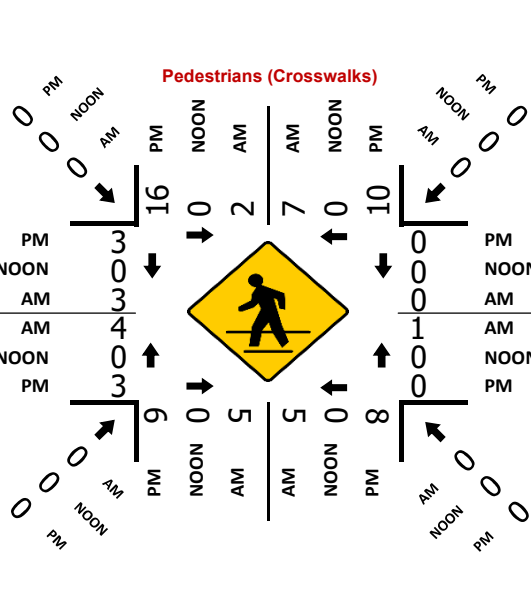
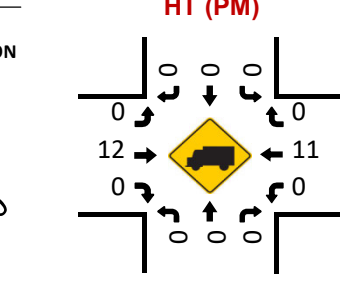
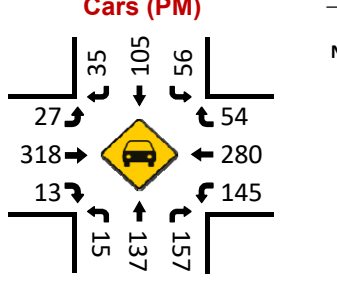
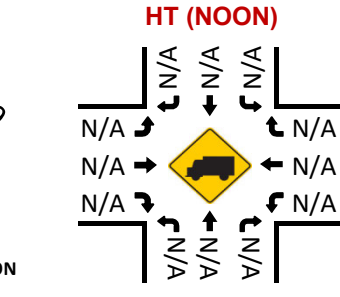
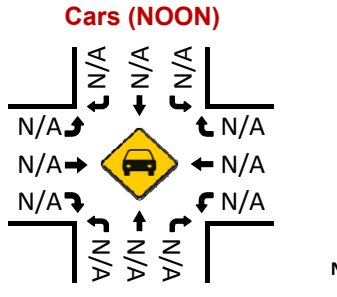
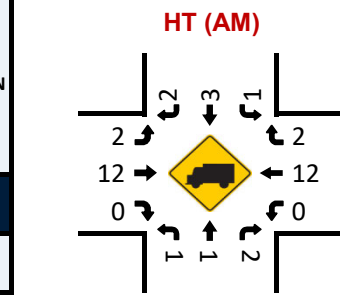
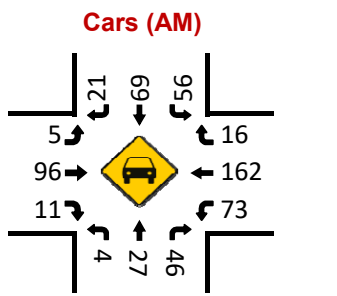
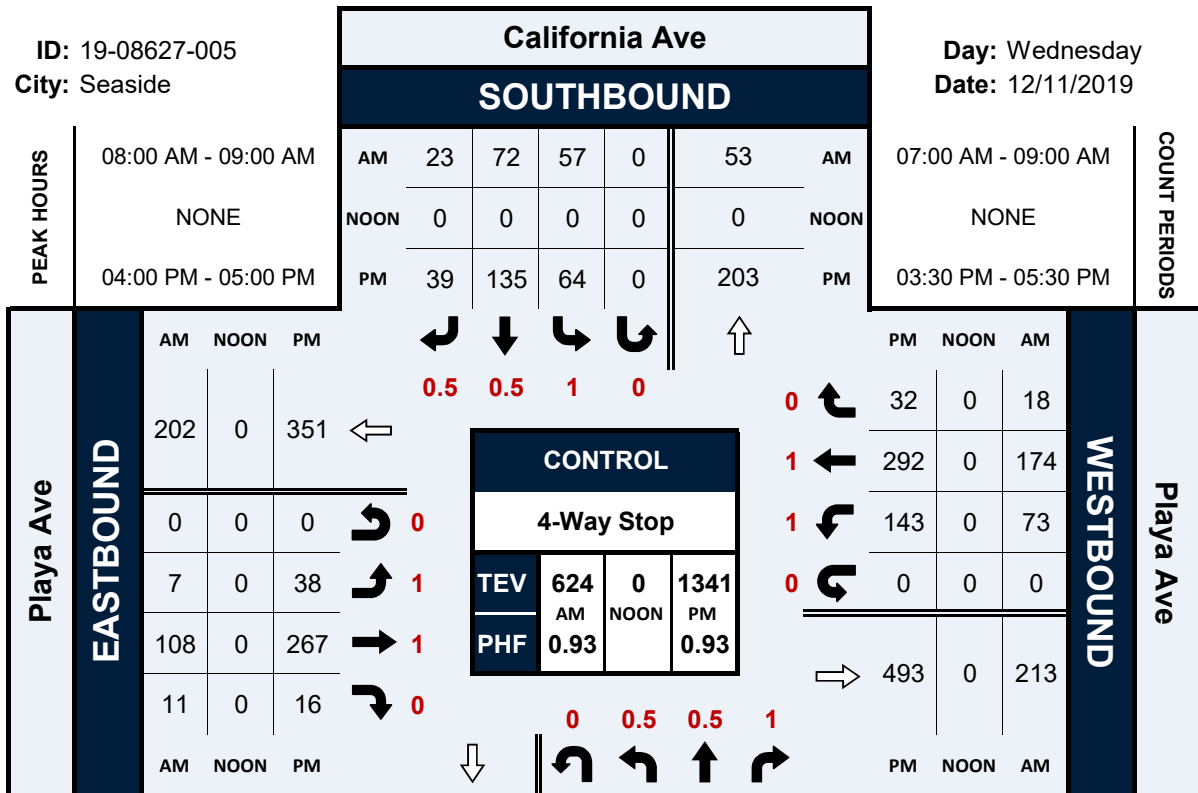


California Ave & Playa Ave

Peak Hour Turning Movement Count

ID: 19-08627-005
City: Seaside

Day: Wednesday
Date: 12/11/2019

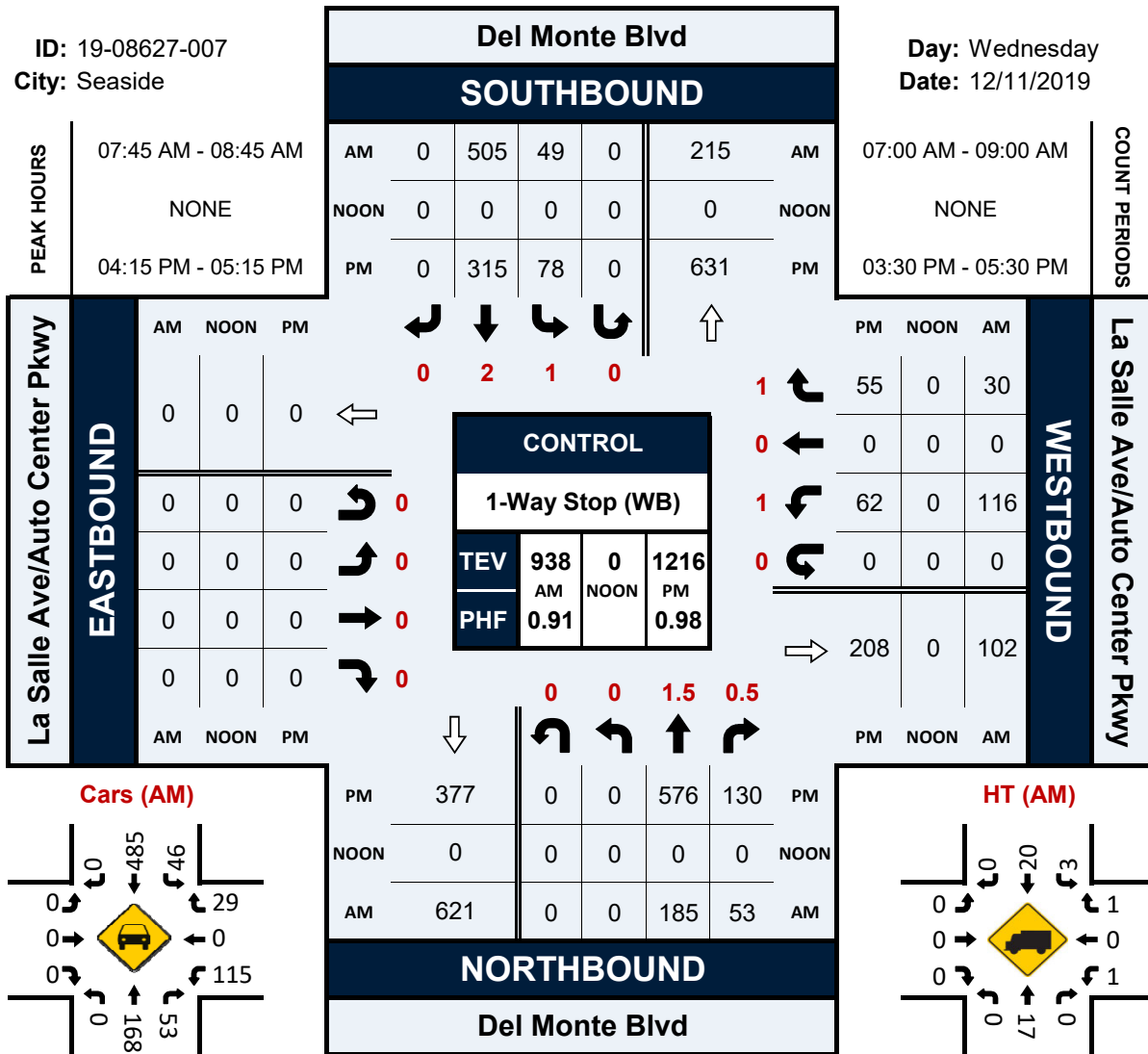


Del Monte Blvd & La Salle Ave/Auto Center Pkwy

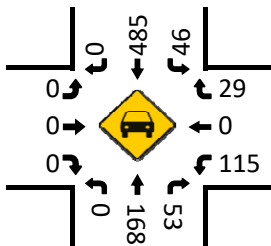
Peak Hour Turning Movement Count

ID: 19-08627-007
City: Seaside

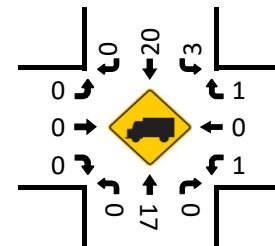
Day: Wednesday
Date: 12/11/2019



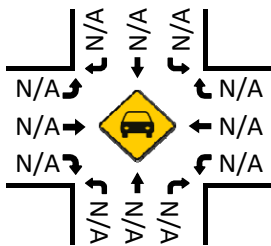
Cars (AM)



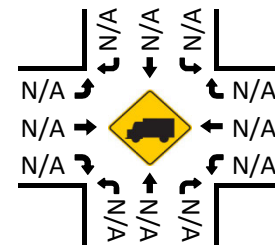
HT (AM)



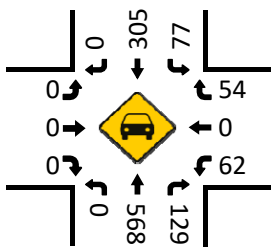
Cars (NOON)



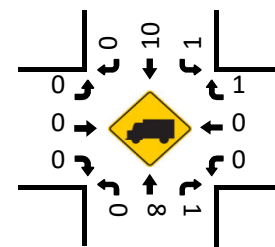
HT (NOON)



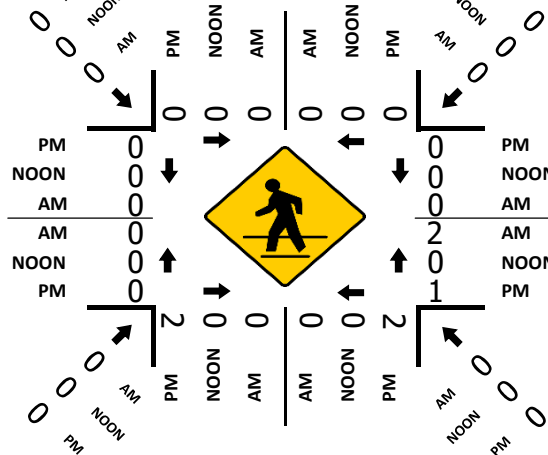
Cars (PM)



HT (PM)



Pedestrians (Crosswalks)

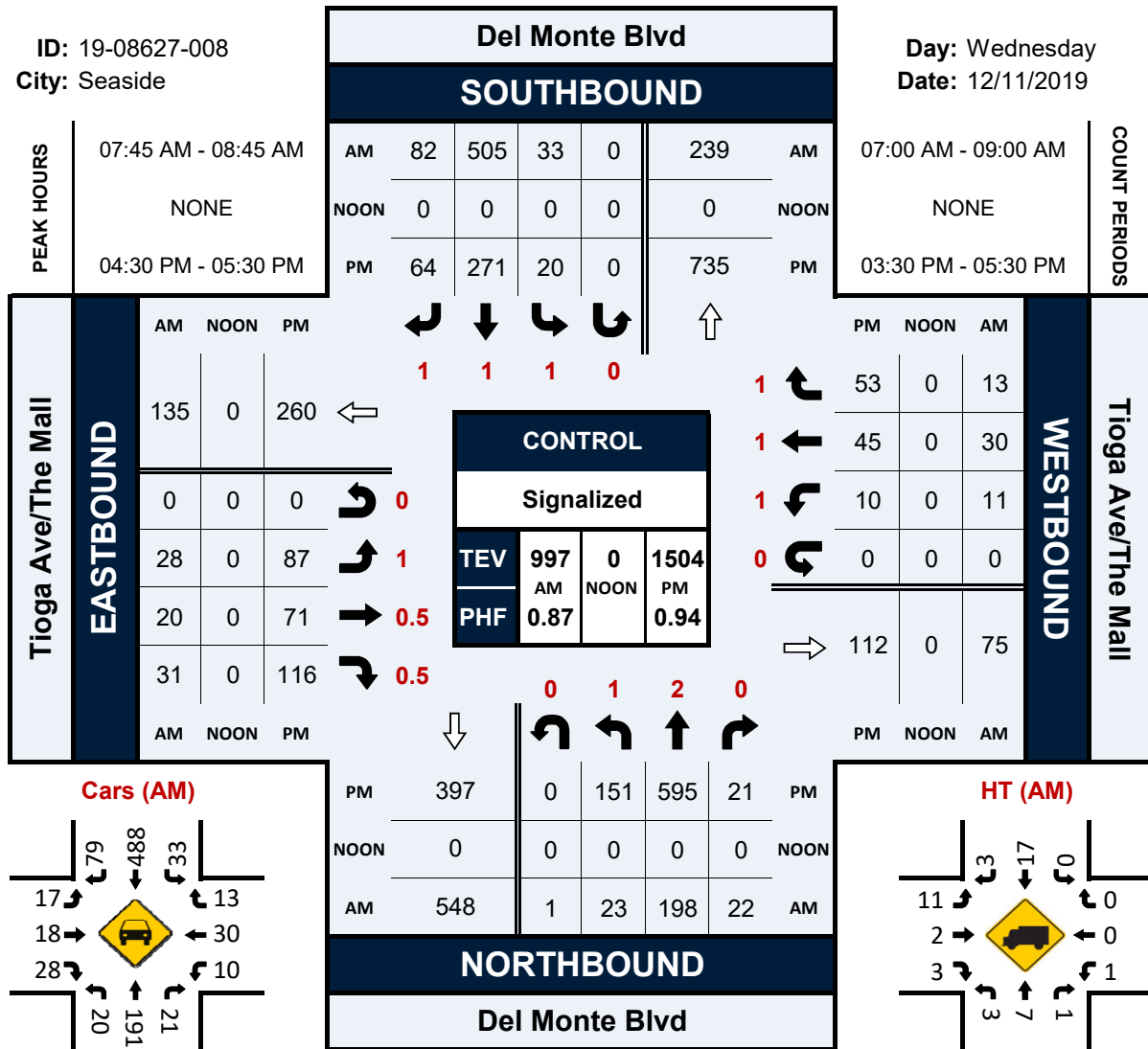


Del Monte Blvd & Tioga Ave/The Mall

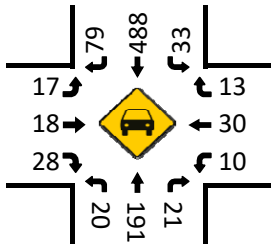
Peak Hour Turning Movement Count

ID: 19-08627-008
City: Seaside

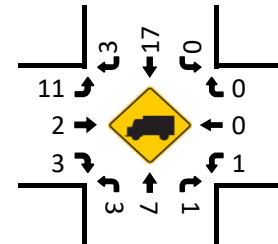
Day: Wednesday
Date: 12/11/2019



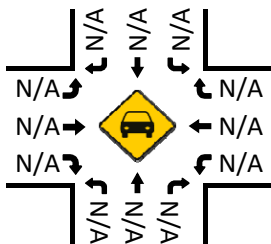
Cars (AM)



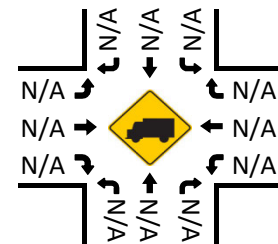
HT (AM)



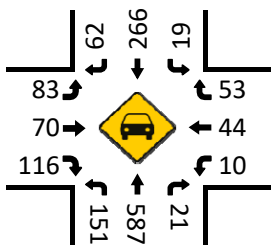
Cars (NOON)



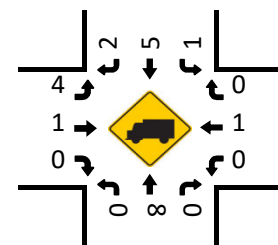
HT (NOON)



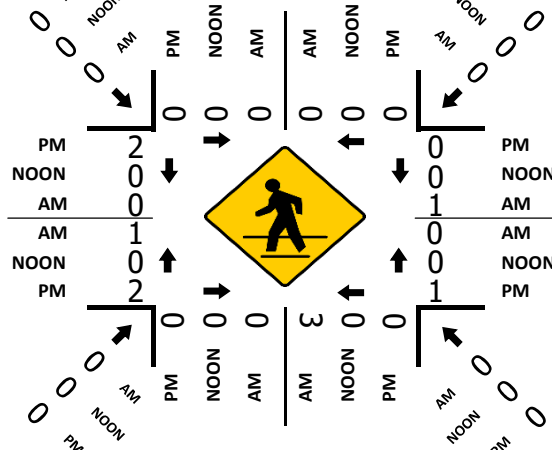
Cars (PM)



HT (PM)



Pedestrians (Crosswalks)

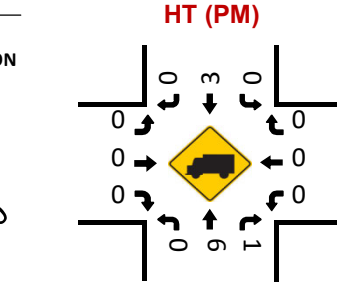
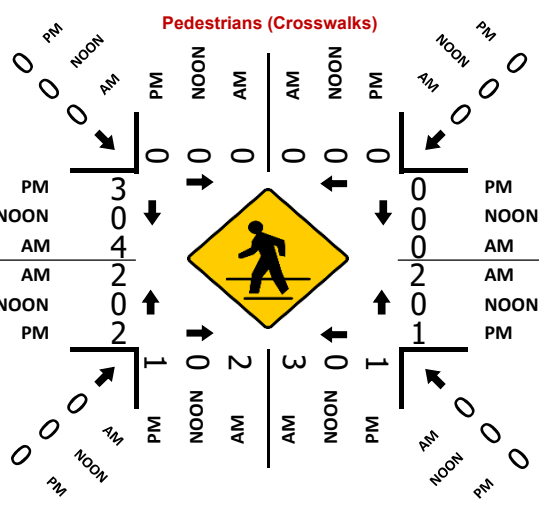
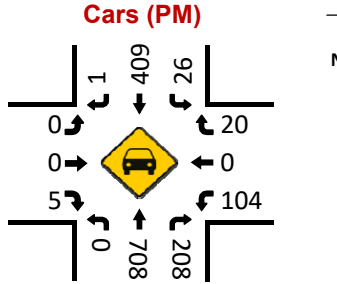
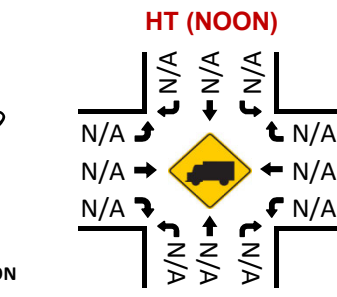
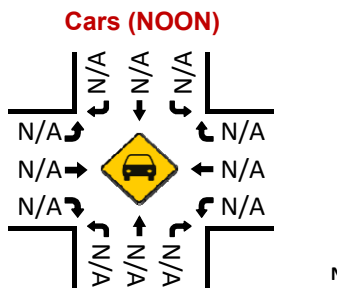
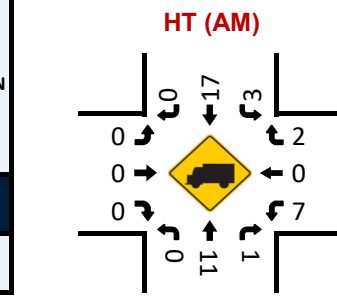
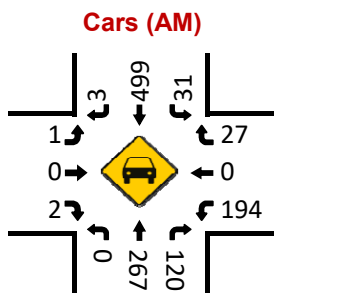
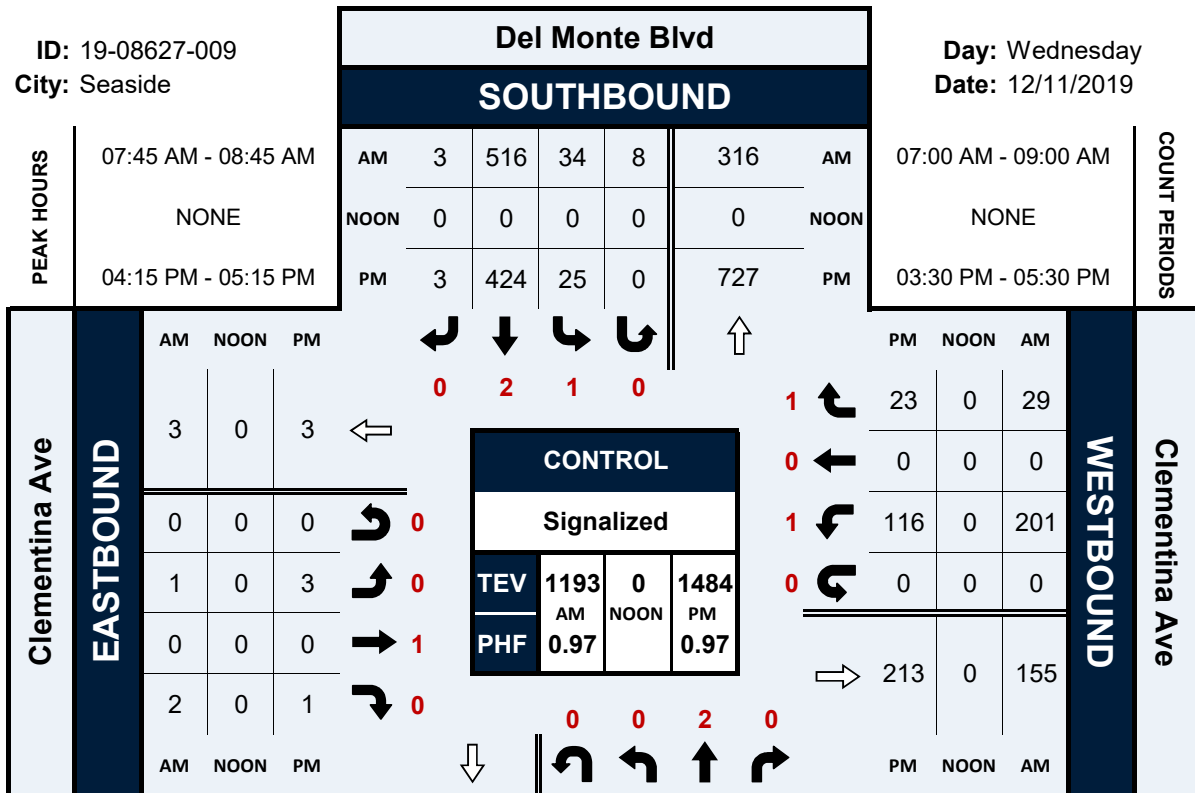


Del Monte Blvd & Clementina Ave

Peak Hour Turning Movement Count

ID: 19-08627-009
City: Seaside

Day: Wednesday
Date: 12/11/2019

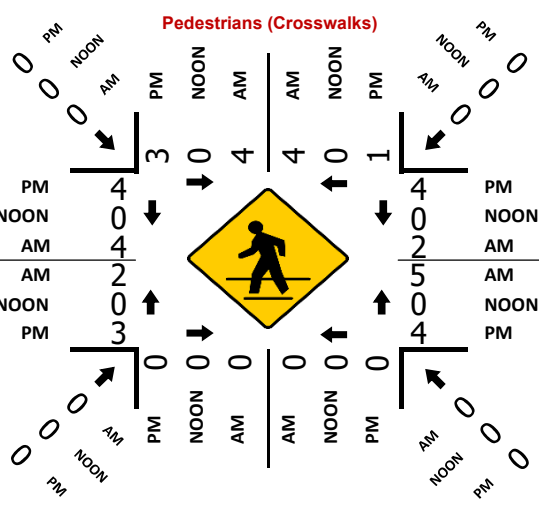
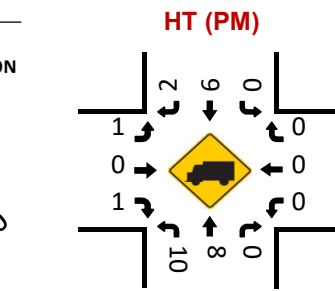
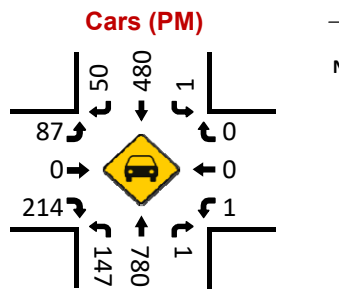
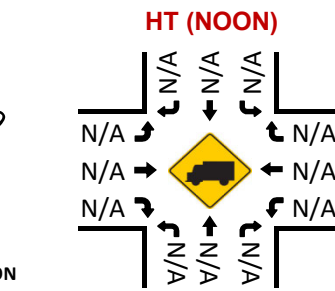
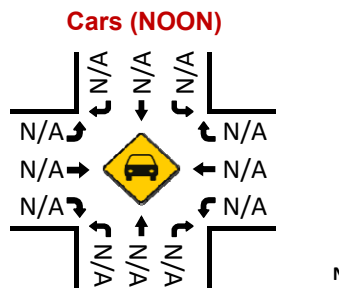
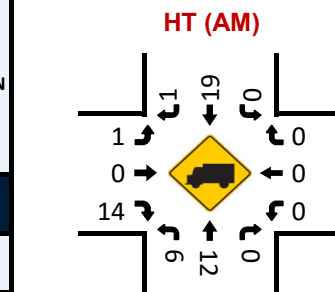
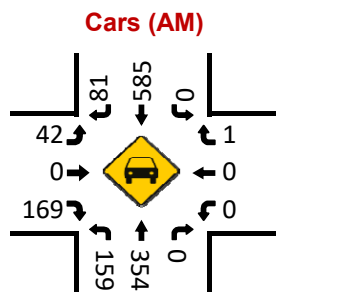
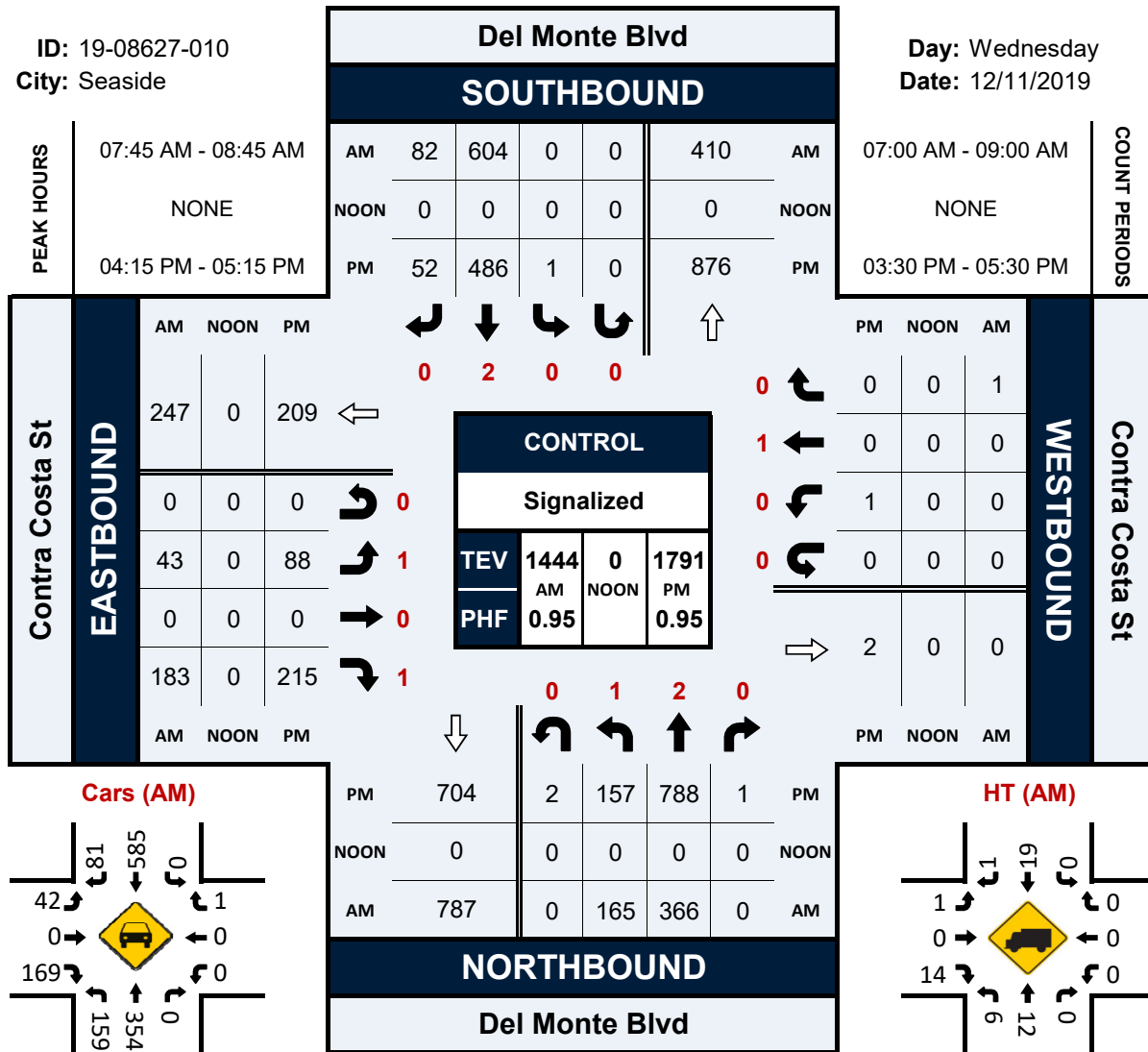


Del Monte Blvd & Contra Costa St

Peak Hour Turning Movement Count

ID: 19-08627-010
City: Seaside

Day: Wednesday
Date: 12/11/2019



Fremont Blvd & SR 1 ramps

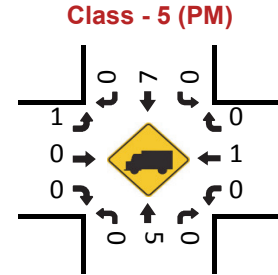
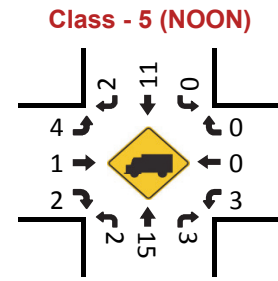
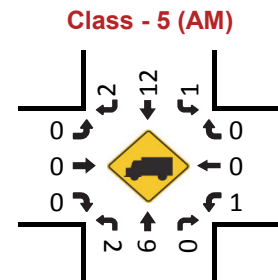
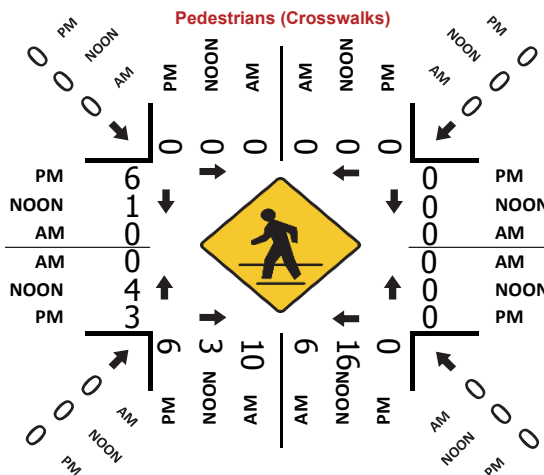
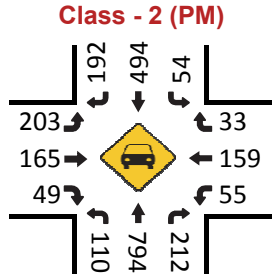
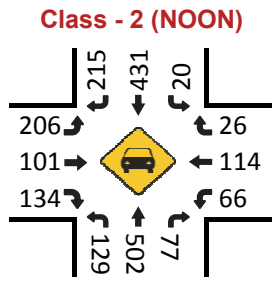
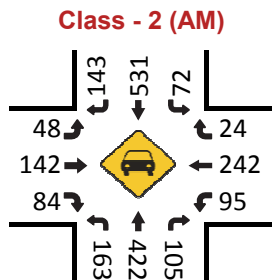
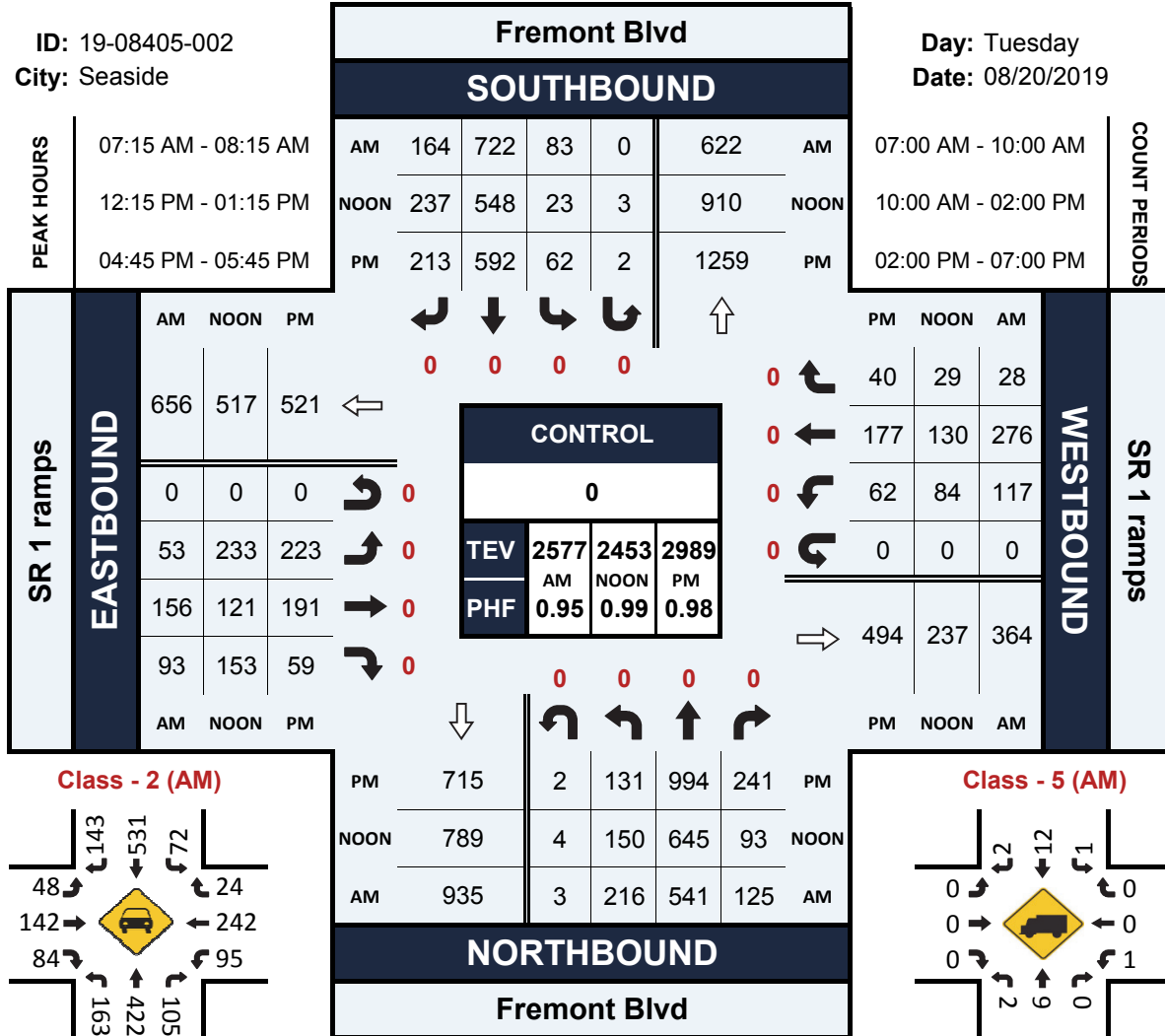
Peak Hour Turning Movement Count

ID: 19-08405-002

City: Seaside

Day: Tuesday

Date: 08/20/2019



C. EXISTING CONDITIONS SYNCHRO
OUTPUT SHEETS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔↔	↔	↔		↔		↔	↔		↔		
Traffic Volume (vph)	1	204	105	248	0	453	0	58	116	0	0	0	
Future Volume (vph)	1	204	105	248	0	453	0	58	116	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2				
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00				
Frbp, ped/bikes		1.00	0.98	1.00		1.00		1.00	1.00				
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00				
Frt		1.00	0.85	1.00		0.85		1.00	0.85				
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00				
Satd. Flow (prot)		3574	1587	1787		1599		1776	1615				
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00				
Satd. Flow (perm)		3574	1587	1787		1599		1776	1615				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	1	215	111	261	0	477	0	61	122	0	0	0	
RTOR Reduction (vph)	0	0	99	0	0	145	0	0	112	0	0	0	
Lane Group Flow (vph)	0	216	12	261	0	332	0	61	10	0	0	0	
Confl. Peds. (#/hr)			3	3									
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	7%	0%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm				
Protected Phases		1		2				4			8		
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		13.9	13.9	87.0		87.0		10.4	10.4				
Effective Green, g (s)		13.9	13.9	87.0		87.0		10.4	10.4				
Actuated g/C Ratio		0.11	0.11	0.70		0.70		0.08	0.08				
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2				
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0				
Lane Grp Cap (vph)		397	176	1243		1112		147	134				
v/s Ratio Prot				0.15				c0.03					
v/s Ratio Perm		0.06	0.01			c0.21			0.01				
v/c Ratio		0.54	0.07	0.21		0.30		0.41	0.08				
Uniform Delay, d1		52.6	49.8	6.8		7.3		54.4	52.9				
Progression Factor		1.00	1.00	0.88		6.21		1.00	1.00				
Incremental Delay, d2		1.5	0.2	0.0		0.1		1.9	0.2				
Delay (s)		54.1	49.9	6.0		45.4		56.3	53.1				
Level of Service		D	D	A		D		E	D				
Approach Delay (s)		52.7			31.4			54.2			0.0		
Approach LOS		D			C			D			A		
Intersection Summary													
HCM 2000 Control Delay			40.3		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.34										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			53.8%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Existing
Timing Plan: AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	43	183	165	366	604	82
Future Volume (vph)	43	183	165	366	604	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1495	1728	3505	3436	
Flt Permitted	0.95	1.00	0.38	1.00	1.00	
Satd. Flow (perm)	1770	1495	686	3505	3436	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	193	174	385	636	86
RTOR Reduction (vph)	0	151	0	0	7	0
Lane Group Flow (vph)	45	42	174	385	715	0
Confl. Peds. (#/hr)	8		6			6
Confl. Bikes (#/hr)						8
Heavy Vehicles (%)	2%	8%	4%	3%	3%	1%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	14.7	14.7	35.7	35.7	43.6	
Effective Green, g (s)	14.7	14.7	35.7	35.7	43.6	
Actuated g/C Ratio	0.22	0.22	0.53	0.53	0.65	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	385	325	362	1853	2219	
v/s Ratio Prot	0.03			0.11	c0.21	
v/s Ratio Perm		c0.03	c0.25			
v/c Ratio	0.12	0.13	0.48	0.21	0.32	
Uniform Delay, d1	21.2	21.2	10.0	8.4	5.3	
Progression Factor	1.00	1.00	0.52	0.48	1.00	
Incremental Delay, d2	0.3	0.4	4.5	0.3	0.4	
Delay (s)	21.5	21.6	9.6	4.3	5.7	
Level of Service	C	C	A	A	A	
Approach Delay (s)	21.6			5.9	5.7	
Approach LOS	C			A	A	

Intersection Summary

HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Existing
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↔	↕↕	↔	↔	↕↕
Traffic Volume (vph)	493	82	449	212	39	748
Future Volume (vph)	493	82	449	212	39	748
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	3539	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	519	86	473	223	41	787
RTOR Reduction (vph)	0	40	0	42	0	0
Lane Group Flow (vph)	519	46	473	181	41	787
Confl. Peds. (#/hr)					7	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	16.2	16.2	35.7	35.7	4.4	43.6
Effective Green, g (s)	16.2	16.2	35.7	35.7	4.4	43.6
Actuated g/C Ratio	0.24	0.24	0.53	0.53	0.07	0.65
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	823	379	1871	837	115	2285
v/s Ratio Prot	c0.15		0.13		0.02	c0.22
v/s Ratio Perm		0.03		0.11		
v/c Ratio	0.63	0.12	0.25	0.22	0.36	0.34
Uniform Delay, d1	23.0	20.1	8.6	8.5	30.2	5.4
Progression Factor	1.00	1.00	1.00	1.00	1.34	0.53
Incremental Delay, d2	1.8	0.2	0.3	0.6	1.9	0.4
Delay (s)	24.8	20.3	9.0	9.1	42.2	3.3
Level of Service	C	C	A	A	D	A
Approach Delay (s)	24.1		9.0			5.2
Approach LOS	C		A			A

Intersection Summary

HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	41.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
1: De Forest Rd & Reservation Rd

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Traffic Volume (veh/h)	31	520	24	27	625	105	14	3	14	101	1	64
Future Volume (veh/h)	31	520	24	27	625	105	14	3	14	101	1	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1648	1633	1856	1870	1900	1900	1589	1900	1900	1900
Adj Flow Rate, veh/h	34	571	26	30	687	115	15	3	15	111	1	70
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	3	17	18	3	2	0	0	21	0	0	0
Cap, veh/h	237	1375	535	65	1059	466	144	17	439	157	1	525
Arrive On Green	0.13	0.39	0.39	0.04	0.30	0.30	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1810	3526	1373	1555	3526	1551	0	51	1339	0	2	1601
Grp Volume(v), veh/h	34	571	26	30	687	115	18	0	15	112	0	70
Grp Sat Flow(s),veh/h/ln	1810	1763	1373	1555	1763	1551	51	0	1339	2	0	1601
Q Serve(g_s), s	0.8	5.4	0.5	0.9	7.7	2.6	0.0	0.0	0.3	0.0	0.0	1.4
Cycle Q Clear(g_c), s	0.8	5.4	0.5	0.9	7.7	2.6	15.0	0.0	0.3	15.0	0.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	0.83		1.00	0.99		1.00
Lane Grp Cap(c), veh/h	237	1375	535	65	1059	466	161	0	439	157	0	525
V/C Ratio(X)	0.14	0.42	0.05	0.46	0.65	0.25	0.11	0.00	0.03	0.71	0.00	0.13
Avail Cap(c_a), veh/h	791	1542	601	510	1542	678	161	0	439	157	0	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	10.2	8.7	21.4	13.9	12.1	12.8	0.0	10.4	22.8	0.0	10.8
Incr Delay (d2), s/veh	0.3	0.2	0.0	5.1	0.7	0.3	0.3	0.0	0.0	13.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.6	0.1	0.4	2.6	0.8	0.1	0.0	0.1	1.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	10.4	8.7	26.5	14.6	12.4	13.1	0.0	10.5	36.7	0.0	10.9
LnGrp LOS	B	B	A	C	B	B	B	A	B	D	A	B
Approach Vol, veh/h		631			832			33				182
Approach Delay, s/veh		10.7			14.7			11.9				26.8
Approach LOS		B			B			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	21.8		18.5	9.5	17.7		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	2.9	7.4		17.0	2.8	9.7		17.0				
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	3.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



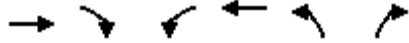
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	525	3	0	627	74	3	0	1	49	1	45
Future Volume (veh/h)	70	525	3	0	627	74	3	0	1	49	1	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	0	1841	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	559	3	0	667	79	3	0	1	52	1	48
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	4	0	0	0	0	0	0	0
Cap, veh/h	166	2151	12	0	1368	627	345	29	55	459	7	247
Arrive On Green	0.09	0.60	0.60	0.00	0.39	0.39	0.15	0.00	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1810	3595	19	0	3589	1604	888	186	358	1450	43	1598
Grp Volume(v), veh/h	74	274	288	0	667	79	4	0	0	53	0	48
Grp Sat Flow(s),veh/h/ln	1810	1763	1852	0	1749	1604	1431	0	0	1494	0	1598
Q Serve(g_s), s	1.2	2.2	2.2	0.0	4.4	1.0	0.0	0.0	0.0	0.0	0.0	0.8
Cycle Q Clear(g_c), s	1.2	2.2	2.2	0.0	4.4	1.0	0.8	0.0	0.0	0.8	0.0	0.8
Prop In Lane	1.00		0.01	0.00		1.00	0.75		0.25	0.98		1.00
Lane Grp Cap(c), veh/h	166	1054	1108	0	1368	627	429	0	0	466	0	247
V/C Ratio(X)	0.45	0.26	0.26	0.00	0.49	0.13	0.01	0.00	0.00	0.11	0.00	0.19
Avail Cap(c_a), veh/h	1788	2323	2440	0	4608	2113	1611	0	0	1660	0	1579
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.1	2.9	2.9	0.0	7.0	5.9	10.9	0.0	0.0	11.2	0.0	11.2
Incr Delay (d2), s/veh	1.9	0.1	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.1	0.0	0.9	0.2	0.0	0.0	0.0	0.3	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.9	3.0	3.0	0.0	7.2	6.0	10.9	0.0	0.0	11.3	0.0	11.6
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		636			746			4			101	
Approach Delay, s/veh		4.4			7.1			10.9			11.4	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		22.2		8.2	6.3	15.9		8.2				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+I1), s		4.2		2.8	3.2	6.4		2.8				
Green Ext Time (p_c), s		3.5		0.0	0.2	5.3		0.4				

Intersection Summary

HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

MST BRT
3: Seacrest Ave & Reservation Rd

Existing
Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↑
Traffic Volume (veh/h)	517	54	123	582	75	57
Future Volume (veh/h)	517	54	123	582	75	57
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1841	1856	1900
Adj Flow Rate, veh/h	556	58	132	626	81	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3	4	3	0
Cap, veh/h	1404	639	294	2249	301	274
Arrive On Green	0.40	0.40	0.17	0.64	0.17	0.17
Sat Flow, veh/h	3618	1604	1767	3589	1767	1610
Grp Volume(v), veh/h	556	58	132	626	81	61
Grp Sat Flow(s),veh/h/ln	1763	1604	1767	1749	1767	1610
Q Serve(g_s), s	5.7	1.1	3.4	4.0	2.0	1.7
Cycle Q Clear(g_c), s	5.7	1.1	3.4	4.0	2.0	1.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1404	639	294	2249	301	274
V/C Ratio(X)	0.40	0.09	0.45	0.28	0.27	0.22
Avail Cap(c_a), veh/h	2080	946	1042	2249	1042	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	9.6	19.1	3.9	18.4	18.2
Incr Delay (d2), s/veh	0.2	0.1	0.4	0.1	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.3	1.3	0.8	0.8	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.1	9.6	19.5	4.0	18.9	18.7
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	614			758	142	
Approach Delay, s/veh	11.0			6.7	18.8	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	22.5	24.8		13.7		37.2
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+I), s	15.4	7.7		4.0		6.0
Green Ext Time (p_c), s	0.2	3.9		0.5		4.3
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	484	10	11	626	52	5	1	3	58	1	57
Future Volume (veh/h)	44	484	10	11	626	52	5	1	3	58	1	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1752	1841	1841	1530	1856	1841	1900	1900	1900	1900	1900	1841
Adj Flow Rate, veh/h	48	526	11	12	680	0	5	1	3	63	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	4	4	25	3	4	0	0	0	0	0	4
Cap, veh/h	85	1701	36	45	1643		432	73	364	483	6	
Arrive On Green	0.05	0.49	0.49	0.03	0.47	0.00	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1668	3502	73	1457	3526	1560	1226	323	1603	1393	28	1560
Grp Volume(v), veh/h	48	262	275	12	680	0	6	0	3	64	0	0
Grp Sat Flow(s),veh/h/ln	1668	1749	1827	1457	1763	1560	1549	0	1603	1422	0	1560
Q Serve(g_s), s	1.2	3.9	3.9	0.3	5.5	0.0	0.0	0.0	0.1	1.5	0.0	0.0
Cycle Q Clear(g_c), s	1.2	3.9	3.9	0.3	5.5	0.0	0.1	0.0	0.1	1.6	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	0.83		1.00	0.98		1.00
Lane Grp Cap(c), veh/h	85	849	887	45	1643		505	0	364	489	0	
V/C Ratio(X)	0.57	0.31	0.31	0.27	0.41		0.01	0.00	0.01	0.13	0.00	
Avail Cap(c_a), veh/h	972	1019	1064	849	2875		1904	0	1868	1165	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.9	6.7	6.7	20.3	7.6	0.0	12.9	0.0	12.8	13.5	0.0	0.0
Incr Delay (d2), s/veh	5.8	0.2	0.2	3.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.0	1.0	0.1	1.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	6.9	6.9	23.4	7.7	0.0	12.9	0.0	12.9	13.6	0.0	0.0
LnGrp LOS	C	A	A	C	A		B	A	B	B	A	
Approach Vol, veh/h		585			692	A		9			64	A
Approach Delay, s/veh		8.4			8.0			12.9			13.6	
Approach LOS		A			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	24.8		13.2	5.7	24.0		13.2				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1), s	12.3	5.9		2.1	3.2	7.5		3.6				
Green Ext Time (p_c), s	0.0	3.0		0.0	0.1	4.9		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↗↘	↑	↗	↗	↑	↗↘	↗↘	↕↕	
Traffic Volume (veh/h)	12	191	114	383	147	143	115	154	224	140	204	3
Future Volume (veh/h)	12	191	114	383	147	143	115	154	224	140	204	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1856	1856	1870	1900	1856	1826	1870	1870
Adj Flow Rate, veh/h	13	215	128	430	165	161	129	173	252	157	229	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	4	3	3	2	0	3	5	2	2
Cap, veh/h	20	337	208	678	370	310	171	448	1193	341	864	11
Arrive On Green	0.17	0.17	0.17	0.20	0.20	0.20	0.10	0.24	0.24	0.10	0.24	0.24
Sat Flow, veh/h	122	2029	1249	3401	1856	1554	1781	1900	2721	3374	3591	47
Grp Volume(v), veh/h	194	0	162	430	165	161	129	173	252	157	113	119
Grp Sat Flow(s),veh/h/ln	1820	0	1580	1700	1856	1554	1781	1900	1360	1687	1777	1861
Q Serve(g_s), s	5.3	0.0	5.1	6.2	4.2	5.0	3.8	4.1	3.1	2.4	2.8	2.8
Cycle Q Clear(g_c), s	5.3	0.0	5.1	6.2	4.2	5.0	3.8	4.1	3.1	2.4	2.8	2.8
Prop In Lane	0.07		0.79	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	303	0	263	678	370	310	171	448	1193	341	427	448
V/C Ratio(X)	0.64	0.00	0.62	0.63	0.45	0.52	0.75	0.39	0.21	0.46	0.26	0.27
Avail Cap(c_a), veh/h	678	0	588	1899	1036	868	663	707	1565	1256	662	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	0.0	20.8	19.7	18.9	19.2	23.7	17.3	9.5	22.8	16.5	16.6
Incr Delay (d2), s/veh	2.3	0.0	2.3	0.4	0.3	0.5	6.6	0.2	0.0	1.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.9	2.2	1.6	1.6	1.8	1.6	1.2	0.9	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	23.1	20.1	19.2	19.7	30.2	17.5	9.5	23.7	16.7	16.7
LnGrp LOS	C	A	C	C	B	B	C	B	A	C	B	B
Approach Vol, veh/h		356			756			554			389	
Approach Delay, s/veh		23.2			19.8			16.8			19.5	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	16.7		12.9	9.2	16.9		14.7				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	20.0	20.0		20.0	20.0	20.0		30.0				
Max Q Clear Time (g_c+1), s	14.4	6.1		7.3	5.8	4.8		8.2				
Green Ext Time (p_c), s	0.4	1.0		1.6	0.3	0.7		1.6				

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↔		↖	↕↕	↗
Traffic Volume (veh/h)	76	21	211	68	21	20	51	288	11	19	790	26
Future Volume (veh/h)	76	21	211	68	21	20	51	288	11	19	790	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1870	1856	1856	1900	1870	1900
Adj Flow Rate, veh/h	78	22	218	70	22	21	53	297	11	20	814	27
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	5	2	3	3	0	2	0
Cap, veh/h	277	78	309	142	150	120	136	1447	53	23	1257	551
Arrive On Green	0.19	0.19	0.19	0.08	0.08	0.08	0.08	0.42	0.42	0.01	0.35	0.35
Sat Flow, veh/h	1426	402	1595	1795	1900	1512	1781	3466	128	1810	3554	1556
Grp Volume(v), veh/h	100	0	218	70	22	21	53	151	157	20	814	27
Grp Sat Flow(s),veh/h/ln	1829	0	1595	1795	1900	1512	1781	1763	1831	1810	1777	1556
Q Serve(g_s), s	2.4	0.0	6.7	2.0	0.6	0.7	1.5	2.8	2.9	0.6	10.0	0.6
Cycle Q Clear(g_c), s	2.4	0.0	6.7	2.0	0.6	0.7	1.5	2.8	2.9	0.6	10.0	0.6
Prop In Lane	0.78		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	355	0	309	142	150	120	136	736	765	23	1257	551
V/C Ratio(X)	0.28	0.00	0.70	0.49	0.15	0.18	0.39	0.20	0.21	0.88	0.65	0.05
Avail Cap(c_a), veh/h	1051	0	917	688	728	579	682	1519	1578	520	3063	1341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	0.0	19.6	23.0	22.4	22.5	23.0	9.7	9.7	25.7	14.1	11.1
Incr Delay (d2), s/veh	0.4	0.0	2.9	2.6	0.4	0.7	1.8	0.1	0.1	60.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	2.5	0.9	0.3	0.2	0.6	0.9	1.0	0.6	3.4	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	0.0	22.6	25.7	22.8	23.1	24.8	9.8	9.8	86.6	14.7	11.1
LnGrp LOS	B	A	C	C	C	C	C	A	A	F	B	B
Approach Vol, veh/h		318			113			361			861	
Approach Delay, s/veh		21.3			24.7			12.0			16.3	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	26.3		14.1	7.5	23.0		7.6				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	12.6	4.9		8.7	3.5	12.0		4.0				
Green Ext Time (p_c), s	0.0	1.8		1.3	0.1	6.4		0.3				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
7: Beach Range Rd & Stilwel Hall/8th St

Existing
Timing Plan: AM

Intersection

Intersection Delay, s/veh 7
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	3	0	0	10	0	0	0	0	0	0	0
Future Vol, veh/h	0	3	0	0	10	0	0	0	0	0	0	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	0	0	13	0	0	0	0	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7	0	0
HCM LOS	A	A	-	-

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	3	10	0
LT Vol	0	0	0	0
Through Vol	0	3	10	0
RT Vol	0	0	0	0
Lane Flow Rate	0	4	13	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.004	0.014	0
Departure Headway (Hd)	3.931	3.91	3.903	3.931
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	920	923	0
Service Time	1.935	1.912	1.903	1.935
HCM Lane V/C Ratio	0	0.004	0.014	0
HCM Control Delay	6.9	6.9	7	6.9
HCM Lane LOS	N	A	A	N
HCM 95th-tile Q	0	0	0	0

Intersection	
Intersection Delay, s/veh	9.2
Intersection LOS	A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TTT			TT	T	T
Traffic Vol, veh/h	146	32	24	28	128	225
Future Vol, veh/h	146	32	24	28	128	225
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	3	4	11	4	1
Mvmt Flow	157	34	26	30	138	242
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left	SB	EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right	NB	EB	
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.6	8.8	9.1
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	72%	0%	100%	60%	0%	0%
Vol Thru, %	28%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	40%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	33	19	97	81	128	225
LT Vol	24	0	97	49	0	0
Through Vol	9	19	0	0	128	0
RT Vol	0	0	0	32	0	225
Lane Flow Rate	36	20	105	87	138	242
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.058	0.031	0.175	0.134	0.198	0.298
Departure Headway (Hd)	5.836	5.593	6.007	5.546	5.184	4.428
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	612	638	596	644	692	810
Service Time	3.587	3.344	3.758	3.297	2.915	2.16
HCM Lane V/C Ratio	0.059	0.031	0.176	0.135	0.199	0.299
HCM Control Delay	8.9	8.5	10	9.2	9.2	9
HCM Lane LOS	A	A	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0.6	0.5	0.7	1.3

Intersection

Intersection Delay, s/veh 9.9

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	109	11	73	174	18	5	28	49	58	72	23
Future Vol, veh/h	7	109	11	73	174	18	5	28	49	58	72	23
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	29	11	0	0	7	11	20	4	4	2	4	9
Mvmt Flow	8	117	12	78	187	19	5	30	53	62	77	25
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	9.9	10.3	8.8	9.6
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %		15%	0%	100%	0%	100%	0%	100%
Vol Thru, %		85%	0%	0%	91%	0%	91%	0%
Vol Right, %		0%	100%	0%	9%	0%	9%	0%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		33	49	7	120	73	192	58
LT Vol		5	0	7	0	73	0	58
Through Vol		28	0	0	109	0	174	0
RT Vol		0	49	0	11	0	18	0
Lane Flow Rate		35	53	8	129	78	206	62
Geometry Grp		7	7	7	7	7	7	7
Degree of Util (X)		0.061	0.076	0.014	0.202	0.127	0.309	0.108
Departure Headway (Hd)		6.234	5.176	6.501	5.624	5.834	5.385	6.239
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap		570	684	546	632	611	663	570
Service Time		4.029	2.969	4.289	3.411	3.61	3.16	4.023
HCM Lane V/C Ratio		0.061	0.077	0.015	0.204	0.128	0.311	0.109
HCM Control Delay		9.4	8.4	9.4	9.9	9.5	10.6	9.8
HCM Lane LOS		A	A	A	A	A	B	A
HCM 95th-tile Q		0.2	0.2	0	0.8	0.4	1.3	0.4

MST BRT
11: Del Monte Blvd & Playa Ave

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	71	133	27	130	3	93	107	19	12	402	42
Future Volume (veh/h)	12	71	133	27	130	3	93	107	19	12	402	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1737	1811	1900	1811	1811	1856	1678	1678	1900	1856	1856
Adj Flow Rate, veh/h	13	80	149	30	146	3	104	120	21	13	452	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	8	11	6	0	6	6	3	15	15	0	3	3
Cap, veh/h	23	347	303	51	740	15	232	975	167	24	979	101
Arrive On Green	0.01	0.20	0.20	0.03	0.21	0.21	0.07	0.36	0.36	0.01	0.30	0.30
Sat Flow, veh/h	1697	1737	1514	1810	3446	71	3428	2721	466	1810	3219	333
Grp Volume(v), veh/h	13	80	149	30	73	76	104	69	72	13	247	252
Grp Sat Flow(s),veh/h/ln	1697	1737	1514	1810	1721	1796	1714	1594	1593	1810	1763	1790
Q Serve(g_s), s	0.3	1.6	3.6	0.7	1.4	1.4	1.2	1.2	1.2	0.3	4.7	4.7
Cycle Q Clear(g_c), s	0.3	1.6	3.6	0.7	1.4	1.4	1.2	1.2	1.2	0.3	4.7	4.7
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.29	1.00		0.19
Lane Grp Cap(c), veh/h	23	347	303	51	369	385	232	571	571	24	536	544
V/C Ratio(X)	0.57	0.23	0.49	0.59	0.20	0.20	0.45	0.12	0.13	0.54	0.46	0.46
Avail Cap(c_a), veh/h	823	1054	918	878	1044	1090	1664	1160	1160	878	1283	1303
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	13.8	14.6	19.8	13.3	13.3	18.5	8.9	8.9	20.2	11.6	11.6
Incr Delay (d2), s/veh	8.1	0.3	1.2	3.9	0.3	0.2	0.5	0.2	0.2	6.6	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.6	1.1	0.3	0.5	0.5	0.4	0.4	0.4	0.2	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.3	14.2	15.9	23.7	13.5	13.5	19.0	9.1	9.1	26.8	12.9	12.9
LnGrp LOS	C	B	B	C	B	B	B	A	A	C	B	B
Approach Vol, veh/h		242			179			245			512	
Approach Delay, s/veh		16.0			15.2			13.3			13.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	19.3	5.2	12.2	6.8	17.0	4.6	12.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.3	3.2	2.7	5.6	3.2	6.7	2.3	3.4				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.9	0.1	5.7	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.1								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	116	30	185	53	49	505
Future Vol, veh/h	116	30	185	53	49	505
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	3	9	0	6	4
Mvmt Flow	127	33	203	58	54	555

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	620	133	0	0	263
Stage 1	234	-	-	-	-
Stage 2	386	-	-	-	-
Critical Hdwy	6.82	6.96	-	-	4.22
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.33	-	-	2.26
Pot Cap-1 Maneuver	422	888	-	-	1270
Stage 1	786	-	-	-	-
Stage 2	659	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	403	886	-	-	1268
Mov Cap-2 Maneuver	403	-	-	-	-
Stage 1	784	-	-	-	-
Stage 2	631	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.2	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	403	886	1268	-
HCM Lane V/C Ratio	-	-	0.316	0.037	0.042	-
HCM Control Delay (s)	-	-	18	9.2	8	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1.3	0.1	0.1	-

MST BRT
13: Del Monte Blvd & Tioga Ave/The Mall

Existing
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↕	↕	↖	↗	
Traffic Volume (veh/h)	28	20	31	11	30	13	24	198	22	33	505	82
Future Volume (veh/h)	28	20	31	11	30	13	24	198	22	33	505	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1322	1752	1752	1767	1900	1900	1707	1841	1841	1900	1856	1856
Adj Flow Rate, veh/h	32	23	36	13	34	15	28	228	25	38	580	94
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	39	10	10	9	0	0	13	4	4	0	3	3
Cap, veh/h	38	69	107	23	183	151	44	1242	135	64	1208	195
Arrive On Green	0.03	0.11	0.11	0.01	0.10	0.10	0.03	0.39	0.39	0.04	0.40	0.40
Sat Flow, veh/h	1259	607	950	1682	1900	1572	1626	3174	344	1810	3026	489
Grp Volume(v), veh/h	32	0	59	13	34	15	28	124	129	38	337	337
Grp Sat Flow(s),veh/h/ln	1259	0	1556	1682	1900	1572	1626	1749	1770	1810	1763	1752
Q Serve(g_s), s	0.9	0.0	1.2	0.3	0.6	0.3	0.6	1.6	1.7	0.7	5.0	5.0
Cycle Q Clear(g_c), s	0.9	0.0	1.2	0.3	0.6	0.3	0.6	1.6	1.7	0.7	5.0	5.0
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.19	1.00		0.28
Lane Grp Cap(c), veh/h	38	0	176	23	183	151	44	684	692	64	704	700
V/C Ratio(X)	0.83	0.00	0.34	0.57	0.19	0.10	0.63	0.18	0.19	0.59	0.48	0.48
Avail Cap(c_a), veh/h	1082	0	1337	1445	1632	1351	1397	2003	2027	1555	2019	2007
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	0.0	14.3	17.1	14.5	14.4	16.8	7.0	7.0	16.6	7.8	7.8
Incr Delay (d2), s/veh	15.4	0.0	0.4	8.0	0.2	0.1	13.9	0.2	0.2	8.5	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.4	0.1	0.2	0.1	0.4	0.4	0.5	0.4	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.2	0.0	14.7	25.2	14.7	14.5	30.7	7.1	7.2	25.1	8.5	8.5
LnGrp LOS	C	A	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		91			62			281			712	
Approach Delay, s/veh		20.9			16.8			9.5			9.4	
Approach LOS		C			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	18.3	4.0	7.4	5.0	18.5	4.6	6.9				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	2.7	3.7	2.3	3.2	2.6	7.0	2.9	2.6				
Green Ext Time (p_c), s	0.1	2.2	0.0	0.2	0.0	6.9	0.0	0.1				

Intersection Summary

HCM 6th Ctrl Delay	10.7
HCM 6th LOS	B

MST BRT
14: Del Monte Blvd & Clementina Ave

Existing
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	201	29	278	121	42	519
Future Volume (veh/h)	201	29	278	121	42	519
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1856	1796	1841	1841	1767	1856
Adj Flow Rate, veh/h	207	30	287	125	43	535
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	7	4	4	9	3
Cap, veh/h	291	250	779	330	86	1869
Arrive On Green	0.16	0.16	0.33	0.33	0.05	0.53
Sat Flow, veh/h	1767	1522	2465	1005	1682	3618
Grp Volume(v), veh/h	207	30	209	203	43	535
Grp Sat Flow(s),veh/h/ln	1767	1522	1749	1629	1682	1763
Q Serve(g_s), s	2.9	0.4	2.4	2.5	0.7	2.2
Cycle Q Clear(g_c), s	2.9	0.4	2.4	2.5	0.7	2.2
Prop In Lane	1.00	1.00		0.62	1.00	
Lane Grp Cap(c), veh/h	291	250	574	535	86	1869
V/C Ratio(X)	0.71	0.12	0.36	0.38	0.50	0.29
Avail Cap(c_a), veh/h	2665	2296	2638	2457	1586	5318
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	9.4	6.8	6.8	12.3	3.5
Incr Delay (d2), s/veh	1.2	0.1	0.6	0.6	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.5	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.7	9.5	7.4	7.5	13.9	3.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h	237		412			578
Approach Delay, s/veh	11.4		7.4			4.3
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.4	13.3			18.7	7.9
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+1), s	12.7	4.5			4.2	4.9
Green Ext Time (p_c), s	0.0	3.8			5.5	0.3
Intersection Summary						
HCM 6th Ctrl Delay			6.7			
HCM 6th LOS			A			

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.9	0.0	0.2	1.3	0.1	0.0	0.0	0.0	0.3	0.0	0.1
Avg Speed (mph)	8	16	18	18	26	27	16	16	19	16	14	19

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	3.1
Avg Speed (mph)	23

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Delay (hr)	0.4	0.9	0.0	1.2	0.1	0.0	0.0	0.2	0.0	0.1	2.8
Avg Speed (mph)	12	22	16	15	14	11	17	12	19	17	17

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	1.5	0.1	0.7	0.8	0.4	0.1	3.5
Avg Speed (mph)	17	17	11	24	11	17	18

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	1.1	0.0	0.1	1.4	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Avg Speed (mph)	12	20	18	9	19	22	11	7	17	16	13	23

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.1
Avg Speed (mph)	19

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.1	1.5	0.4	3.0	1.0	0.3	1.0	1.0	0.2	1.3	1.4	0.0
Avg Speed (mph)	17	16	21	10	13	19	8	11	21	15	18	17

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	11.2
Avg Speed (mph)	15

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.1	0.6	0.5	0.1	0.0	0.4	0.9	0.0	0.2	3.4	0.0
Avg Speed (mph)	13	13	17	11	12	19	21	28	30	13	20	24

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	6.7
Avg Speed (mph)	21

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Avg Speed (mph)	14	24	21

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	11.3	0.3	1.8	0.0	0.4	0.9	1.2	15.9
Avg Speed (mph)	16	3	22	2	11	8	3	4	5

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.0	0.0	0.1	0.2	0.2	0.7
Avg Speed (mph)	18	18	28	27	12	12	17

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.0	0.1	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.0
Avg Speed (mph)	20	20	20	12	12	12	17	17	17	27	27	27

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.1
Avg Speed (mph)	20

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.3	0.2	0.2	0.5	0.0	0.5	0.2	0.0	0.1	1.1	0.1
Avg Speed (mph)	5	7	11	10	15	19	10	19	20	13	21	23

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.2
Avg Speed (mph)	17

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.0	0.1	0.0	0.1	0.2	0.7
Avg Speed (mph)	13	18	29	24	20	27	24

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.3	0.0	0.2	0.6	0.1
Avg Speed (mph)	15	16	21	12	14	20	21	27	26	11	22	21

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.8
Avg Speed (mph)	23

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.0	0.5	0.1	0.3	0.9	2.6
Avg Speed (mph)	13	19	26	25	22	30	26

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.3	0.8	0.5	1.4	0.1	3.4
Avg Speed (mph)	14	20	6	15	22	21	19

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.2
Total Delay (hr)	2.6	0.1	1.1	0.2	0.4	1.0	5.3
Avg Speed (mph)	8	19	19	21	3	15	14

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	42.8	110.9	11.3	0.1	0.0	0.0	1.6	16.6	4.1
Total Delay (hr)	0.8	2.6	0.3	10.5	27.6	2.4	6.7	3.8	0.6	4.7	40.0	5.9
Avg Speed (mph)	2	2	5	0	0	0	7	18	19	3	4	6

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	187.6
Total Delay (hr)	105.9
Avg Speed (mph)	4

Total Network Performance

Denied Delay (hr)	189.8
Total Delay (hr)	176.5
Avg Speed (mph)	15

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R	
Maximum Queue (ft)	56	136	130	34	74	144	140	53	76	54	92	72	
Average Queue (ft)	14	41	41	4	18	54	42	10	11	9	38	21	
95th Queue (ft)	39	92	93	19	52	113	95	33	43	33	76	55	
Link Distance (ft)	225	225	225	225		1234	1234		616		786		
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)					170			95			80		50
Storage Blk Time (%)					0			1			0		6
Queuing Penalty (veh)					0			1			0		4

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB	
Directions Served	L	T	TR	T	T	R	LTR	LT	R	
Maximum Queue (ft)	83	38	235	177	170	50	57	61	43	
Average Queue (ft)	41	5	68	66	56	29	5	23	19	
95th Queue (ft)	74	23	173	137	126	59	27	50	41	
Link Distance (ft)		508	508	225	225		428	478		
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150						25		100	
Storage Blk Time (%)					14		3		0	
Queuing Penalty (veh)					10		9		0	

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	150	215	74	142	138	130	92	57
Average Queue (ft)	42	93	24	62	45	40	39	24
95th Queue (ft)	104	178	69	112	113	104	76	48
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50	200		110		
Storage Blk Time (%)			17	0		0		
Queuing Penalty (veh)			9	0		0		

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	88	134	175	59	167	162	79	31	34	78	18
Average Queue (ft)	32	38	72	12	67	57	4	4	2	33	1
95th Queue (ft)	72	93	146	41	140	124	42	20	14	68	10
Link Distance (ft)		624	624		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)					0	2	0	0	0	0	
Queuing Penalty (veh)					0	1	0	0	0	0	

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	175	168	125	354	155	92	144	148	64	90	117	136
Average Queue (ft)	62	80	83	145	69	47	69	70	25	30	30	57
95th Queue (ft)	123	143	156	261	130	80	124	128	54	63	76	109
Link Distance (ft)	1285			624	624			584	584	584		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	0	1	1	19	0							
Queuing Penalty (veh)	0	1	3	36	0							

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	107	134
Average Queue (ft)	18	67
95th Queue (ft)	62	121
Link Distance (ft)	1314	1314
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	171	75	91	47	49	59	104	94	54	224	230	76
Average Queue (ft)	58	56	38	14	14	26	41	32	15	104	117	14
95th Queue (ft)	125	86	75	40	42	57	86	73	41	184	203	64
Link Distance (ft)	886		829				2351	2351		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	13	10								2	11	0
Queuing Penalty (veh)	28	10								0	3	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	31	31
Average Queue (ft)	3	8
95th Queue (ft)	18	30
Link Distance (ft)	654	990
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	LT	T	R	L	R	T	R
Maximum Queue (ft)	522	616	167	88	84	135	172
Average Queue (ft)	137	314	46	74	54	50	76
95th Queue (ft)	461	675	257	107	86	102	140
Link Distance (ft)		1168		72	72	198	198
Upstream Blk Time (%)		0		34	2		0
Queuing Penalty (veh)		0		121	8		0
Storage Bay Dist (ft)	660		645				
Storage Blk Time (%)		4					
Queuing Penalty (veh)		9					

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	58	60	59	47	82	85
Average Queue (ft)	23	27	23	14	38	50
95th Queue (ft)	46	46	48	41	65	75
Link Distance (ft)	526		1460		198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	90		130			
Storage Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	39	78	58	103	46	64	48	59
Average Queue (ft)	6	31	27	50	21	28	19	29
95th Queue (ft)	26	60	51	84	44	53	38	52
Link Distance (ft)	1035		173	173	466			1460
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	120				50		150	
Storage Blk Time (%)	0				0	0		
Queuing Penalty (veh)	0				0	0		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	50	100	79	57	49	105	56	86	78	63	43	148
Average Queue (ft)	10	33	34	23	18	43	18	37	18	25	9	73
95th Queue (ft)	35	74	65	53	48	87	48	73	55	58	33	127
Link Distance (ft)			173		641	641			438	438		1009
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)		0	0	3	1							0
Queuing Penalty (veh)		0	0	2	0							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	131
Average Queue (ft)	46
95th Queue (ft)	99
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	97	43	7	52
Average Queue (ft)	40	18	0	10
95th Queue (ft)	74	43	4	37
Link Distance (ft)	379		488	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		100
Storage Blk Time (%)	0			
Queuing Penalty (veh)	0			

Intersection: 13: Del Monte Blvd & Tioga Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	92	101	45	53	30	74	79	71	60	114	133
Average Queue (ft)	29	33	8	17	9	19	21	25	19	37	44
95th Queue (ft)	74	76	28	44	30	53	57	62	47	85	99
Link Distance (ft)		873		606			2183	2183		488	488
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	1	1									
Queuing Penalty (veh)	0	0									

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	142	77	104	106	91	106	120
Average Queue (ft)	64	18	36	43	31	34	52
95th Queue (ft)	110	53	78	86	67	82	99
Link Distance (ft)	522		945	945		2183	2183
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	0				2	1	
Queuing Penalty (veh)	0				4	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	76	108	108	162	97	148	153
Average Queue (ft)	25	52	63	32	32	68	80
95th Queue (ft)	58	90	106	105	78	119	134
Link Distance (ft)	776			172	172	945	945
Upstream Blk Time (%)				0	0		
Queuing Penalty (veh)				0	0		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)		0	10	1			
Queuing Penalty (veh)		0	18	1			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	181	181	100	169	142	62	75	126	145
Average Queue (ft)	92	83	22	82	49	43	30	41	61
95th Queue (ft)	142	144	86	139	113	58	64	84	109
Link Distance (ft)	300	300		709	709			172	172
Upstream Blk Time (%)								0	0
Queuing Penalty (veh)								0	0
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		25	0		14	3	2	2	
Queuing Penalty (veh)		21	0		29	7	8	1	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	81	93	82	936	325	581	547	120	1331	1294	350
Average Queue (ft)	29	85	35	904	204	217	207	74	725	708	223
95th Queue (ft)	71	95	72	1040	347	511	465	156	1487	1472	454
Link Distance (ft)	72	72	72	918		1588	1588		1326	1326	
Upstream Blk Time (%)	3	66	2	91					21	22	
Queuing Penalty (veh)	3	70	2	0					0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					17	1		11	68	49	1
Queuing Penalty (veh)					46	2		40	57	85	3

Network Summary

Network wide Queuing Penalty: 653

MST BRT

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕	↗	↖		↗		↕	↗		↕↕		
Traffic Volume (vph)	5	243	256	246	0	279	0	152	294	0	1	0	
Future Volume (vph)	5	243	256	246	0	279	0	152	294	0	1	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.96	1.00		1.00		1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00		1.00		
Frt		1.00	0.85	1.00		0.85		1.00	0.85		1.00		
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (prot)		3524	1517	1787		1599		1881	1583		1900		
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (perm)		3524	1517	1787		1599		1881	1583		1900		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	5	256	269	259	0	294	0	160	309	0	1	0	
RTOR Reduction (vph)	0	0	234	0	0	123	0	0	254	0	0	0	
Lane Group Flow (vph)	0	261	35	259	0	171	0	160	55	0	1	0	
Confl. Peds. (#/hr)			17	17									
Heavy Vehicles (%)	20%	2%	2%	1%	0%	1%	0%	1%	2%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm		NA		
Protected Phases		1		2				4			8		
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		16.3	16.3	72.8		72.8		22.2	22.2		22.2		
Effective Green, g (s)		16.3	16.3	72.8		72.8		22.2	22.2		22.2		
Actuated g/C Ratio		0.13	0.13	0.58		0.58		0.18	0.18		0.18		
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)		459	197	1040		931		334	281		337		
v/s Ratio Prot				c0.14				c0.09			0.00		
v/s Ratio Perm		0.07	0.02			0.11			0.03				
v/c Ratio		0.57	0.18	0.25		0.18		0.48	0.20		0.00		
Uniform Delay, d1		51.0	48.4	12.7		12.2		46.2	43.8		42.3		
Progression Factor		1.00	1.00	0.78		2.25		1.00	1.00		1.00		
Incremental Delay, d2		1.6	0.4	0.1		0.0		1.1	0.3		0.0		
Delay (s)		52.7	48.8	10.0		27.5		47.3	44.1		42.3		
Level of Service		D	D	B		C		D	D		D		
Approach Delay (s)		50.7			19.3			45.2			42.3		
Approach LOS		D			B			D			D		
Intersection Summary													
HCM 2000 Control Delay			37.9		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.34										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			49.9%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Existing
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	215	158	789	487	52
Future Volume (vph)	88	215	158	789	487	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1615	1693	3574	3501	
Flt Permitted	0.95	1.00	0.44	1.00	1.00	
Satd. Flow (perm)	1787	1615	781	3574	3501	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	93	226	166	831	513	55
RTOR Reduction (vph)	0	176	0	0	6	0
Lane Group Flow (vph)	93	50	166	831	562	0
Confl. Peds. (#/hr)	4		7			7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	1%	0%	6%	1%	1%	4%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	15.2	15.2	35.8	35.8	43.8	
Effective Green, g (s)	15.2	15.2	35.8	35.8	43.8	
Actuated g/C Ratio	0.22	0.22	0.52	0.52	0.64	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	398	359	409	1876	2248	
v/s Ratio Prot	c0.05			c0.23	c0.16	
v/s Ratio Perm		0.03	0.21			
v/c Ratio	0.23	0.14	0.41	0.44	0.25	
Uniform Delay, d1	21.7	21.3	9.8	10.0	5.2	
Progression Factor	1.00	1.00	0.32	0.34	1.00	
Incremental Delay, d2	0.6	0.4	2.7	0.7	0.2	
Delay (s)	22.4	21.6	5.8	4.1	5.4	
Level of Service	C	C	A	A	A	
Approach Delay (s)	21.8			4.4	5.4	
Approach LOS	C			A	A	

Intersection Summary

HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	68.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Existing
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↗	↕↕	↗	↖	↕↕
Traffic Volume (vph)	506	84	863	218	41	661
Future Volume (vph)	506	84	863	218	41	661
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	0.98	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1557	3539	1528	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1557	3539	1528	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	533	88	908	229	43	696
RTOR Reduction (vph)	0	39	0	22	0	0
Lane Group Flow (vph)	533	49	908	207	43	696
Confl. Peds. (#/hr)		4		8	8	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	16.7	16.7	35.8	35.8	4.5	43.8
Effective Green, g (s)	16.7	16.7	35.8	35.8	4.5	43.8
Actuated g/C Ratio	0.24	0.24	0.52	0.52	0.07	0.64
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	840	381	1857	802	116	2272
v/s Ratio Prot	c0.16		c0.26		0.02	c0.20
v/s Ratio Perm		0.03		0.14		
v/c Ratio	0.63	0.13	0.49	0.26	0.37	0.31
Uniform Delay, d1	23.0	20.1	10.4	8.9	30.5	5.4
Progression Factor	1.00	1.00	1.00	1.00	1.25	0.60
Incremental Delay, d2	1.8	0.2	0.9	0.8	2.0	0.3
Delay (s)	24.8	20.3	11.3	9.7	40.0	3.5
Level of Service	C	C	B	A	D	A
Approach Delay (s)	24.2		11.0			5.7
Approach LOS	C		B			A

Intersection Summary

HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	68.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	51.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
1: De Forest Rd & Reservation Rd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Traffic Volume (veh/h)	61	844	57	38	632	65	51	9	54	81	16	51
Future Volume (veh/h)	61	844	57	38	632	65	51	9	54	81	16	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1841	1648	1885	1900	1737	1737	1767	1811	1811	1900
Adj Flow Rate, veh/h	64	888	60	40	665	68	54	9	57	85	17	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	1	4	17	1	0	11	11	9	6	6	0
Cap, veh/h	239	1341	558	82	1055	451	147	13	492	146	16	529
Arrive On Green	0.13	0.37	0.37	0.05	0.29	0.29	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1810	3582	1491	1570	3582	1530	0	39	1486	0	48	1598
Grp Volume(v), veh/h	64	888	60	40	665	68	63	0	57	102	0	54
Grp Sat Flow(s),veh/h/ln	1810	1791	1491	1570	1791	1530	39	0	1486	48	0	1598
Q Serve(g_s), s	1.4	9.4	1.2	1.1	7.3	1.5	0.0	0.0	1.2	0.0	0.0	1.1
Cycle Q Clear(g_c), s	1.4	9.4	1.2	1.1	7.3	1.5	15.0	0.0	1.2	15.0	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	0.86		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	239	1341	558	82	1055	451	160	0	492	161	0	529
V/C Ratio(X)	0.27	0.66	0.11	0.49	0.63	0.15	0.39	0.00	0.12	0.63	0.00	0.10
Avail Cap(c_a), veh/h	798	1579	657	519	1579	675	160	0	492	161	0	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.7	11.8	9.2	20.9	13.9	11.8	19.7	0.0	10.6	20.4	0.0	10.5
Incr Delay (d2), s/veh	0.6	0.8	0.1	4.4	0.6	0.2	1.6	0.0	0.1	7.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.0	0.3	0.5	2.4	0.4	0.7	0.0	0.4	1.4	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	12.6	9.3	25.3	14.5	12.0	21.2	0.0	10.7	28.1	0.0	10.6
LnGrp LOS	B	B	A	C	B	B	C	A	B	C	A	B
Approach Vol, veh/h		1012			773			120				156
Approach Delay, s/veh		12.8			14.8			16.2				22.0
Approach LOS		B			B			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	21.0		18.5	9.5	17.4		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	3.1	11.4		17.0	3.4	9.3		17.0				
Green Ext Time (p_c), s	0.0	3.9		0.0	0.1	3.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
2: Goodwill Dwy/Mc Donalds & Reservation Rd

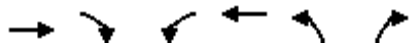
Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	901	3	0	691	58	3	0	12	51	1	43
Future Volume (veh/h)	97	901	3	0	691	58	3	0	12	51	1	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1870	1900	1900	1900	1900	1900	1900	1870
Adj Flow Rate, veh/h	100	929	3	0	712	60	3	0	12	53	1	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	2	0	0	0	0	0	0	2
Cap, veh/h	192	2167	7	0	1368	606	146	39	247	471	7	299
Arrive On Green	0.11	0.59	0.59	0.00	0.38	0.38	0.19	0.00	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1795	3662	12	0	3647	1575	118	201	1274	1378	37	1548
Grp Volume(v), veh/h	100	454	478	0	712	60	15	0	0	54	0	44
Grp Sat Flow(s),veh/h/ln	1795	1791	1883	0	1777	1575	1593	0	0	1415	0	1548
Q Serve(g_s), s	1.8	4.8	4.8	0.0	5.4	0.9	0.0	0.0	0.0	0.8	0.0	0.8
Cycle Q Clear(g_c), s	1.8	4.8	4.8	0.0	5.4	0.9	0.3	0.0	0.0	1.1	0.0	0.8
Prop In Lane	1.00		0.01	0.00		1.00	0.20		0.80	0.98		1.00
Lane Grp Cap(c), veh/h	192	1060	1114	0	1368	606	432	0	0	478	0	299
V/C Ratio(X)	0.52	0.43	0.43	0.00	0.52	0.10	0.03	0.00	0.00	0.11	0.00	0.15
Avail Cap(c_a), veh/h	1542	2052	2156	0	4071	1804	1449	0	0	1410	0	1330
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.8	3.9	3.9	0.0	8.3	6.9	11.5	0.0	0.0	11.8	0.0	11.7
Incr Delay (d2), s/veh	2.2	0.3	0.3	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.6	0.0	1.3	0.2	0.1	0.0	0.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.9	4.2	4.2	0.0	8.6	6.9	11.5	0.0	0.0	11.9	0.0	11.9
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1032			772			15				98
Approach Delay, s/veh		5.4			8.4			11.5				11.9
Approach LOS		A			A			B				B
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		24.7		10.3	7.2	17.4		10.3				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+1), s		6.8		2.3	3.8	7.4		3.1				
Green Ext Time (p_c), s		6.7		0.0	0.2	5.6		0.4				
Intersection Summary												
HCM 6th Ctrl Delay					7.0							
HCM 6th LOS					A							

MST BRT
3: Seacrest Ave & Reservation Rd

Existing
Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↵
Traffic Volume (veh/h)	807	134	176	656	162	78
Future Volume (veh/h)	807	134	176	656	162	78
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	823	137	180	669	165	80
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	1382	599	315	2281	330	293
Arrive On Green	0.39	0.39	0.18	0.64	0.18	0.18
Sat Flow, veh/h	3676	1552	1795	3676	1795	1598
Grp Volume(v), veh/h	823	137	180	669	165	80
Grp Sat Flow(s),veh/h/ln	1791	1552	1795	1791	1795	1598
Q Serve(g_s), s	9.7	3.1	4.9	4.4	4.4	2.3
Cycle Q Clear(g_c), s	9.7	3.1	4.9	4.4	4.4	2.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1382	599	315	2281	330	293
V/C Ratio(X)	0.60	0.23	0.57	0.29	0.50	0.27
Avail Cap(c_a), veh/h	2029	880	1017	2281	1017	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	11.0	20.0	4.3	19.4	18.6
Incr Delay (d2), s/veh	0.4	0.2	0.6	0.1	1.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	0.9	1.9	0.9	1.8	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	11.1	20.6	4.4	20.8	19.2
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	960			849	245	
Approach Delay, s/veh	13.1			7.8	20.3	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.3	24.9		14.7		38.2
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+I), s	10.9	11.7		6.4		6.4
Green Ext Time (p_c), s	0.2	5.9		0.9		4.6
Intersection Summary						
HCM 6th Ctrl Delay			11.8			
HCM 6th LOS			B			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	754	44	51	677	147	35	12	14	158	14	68
Future Volume (veh/h)	185	754	44	51	677	147	35	12	14	158	14	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	0.99		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1885	1900	1885	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	769	45	52	691	0	36	12	14	161	14	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	1	1	0	1	0	0	0	0	0	0	0
Cap, veh/h	248	1365	80	180	1292		465	140	483	497	38	
Arrive On Green	0.14	0.40	0.40	0.10	0.36	0.00	0.30	0.30	0.30	0.30	0.30	0.00
Sat Flow, veh/h	1810	3428	201	1810	3582	1610	1157	461	1588	1226	126	1610
Grp Volume(v), veh/h	189	402	412	52	691	0	48	0	14	175	0	0
Grp Sat Flow(s),veh/h/ln	1810	1791	1838	1810	1791	1610	1617	0	1588	1353	0	1610
Q Serve(g_s), s	5.6	9.6	9.7	1.5	8.5	0.0	0.0	0.0	0.3	5.3	0.0	0.0
Cycle Q Clear(g_c), s	5.6	9.6	9.7	1.5	8.5	0.0	1.0	0.0	0.3	6.3	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	0.75		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	248	713	732	180	1292		605	0	483	536	0	
V/C Ratio(X)	0.76	0.56	0.56	0.29	0.53		0.08	0.00	0.03	0.33	0.00	
Avail Cap(c_a), veh/h	816	807	829	816	2261		1504	0	1432	872	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.1	12.9	12.9	23.2	14.0	0.0	13.8	0.0	13.6	15.9	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.7	0.7	0.9	0.3	0.0	0.1	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.3	3.4	0.6	3.0	0.0	0.4	0.0	0.1	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	13.6	13.6	24.0	14.4	0.0	13.8	0.0	13.6	16.3	0.0	0.0
LnGrp LOS	C	B	B	C	B		B	A	B	B	A	
Approach Vol, veh/h		1003			743	A		62			175	A
Approach Delay, s/veh		16.3			15.1			13.8			16.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	26.1		20.4	11.1	24.0		20.4				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1), s	13.5	11.7		3.0	7.6	10.5		8.3				
Green Ext Time (p_c), s	0.1	4.2		0.3	0.5	4.8		1.0				

Intersection Summary

HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↑	↔	↔	↑	↔↔	↔↔	↔↔	
Traffic Volume (veh/h)	30	234	86	369	298	138	137	221	597	172	100	6
Future Volume (veh/h)	30	234	86	369	298	138	137	221	597	172	100	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	31	239	88	377	304	141	140	226	609	176	102	6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	1	1	2	1	2	1	2	2	2
Cap, veh/h	47	367	140	835	452	371	184	449	1326	328	791	46
Arrive On Green	0.16	0.16	0.16	0.24	0.24	0.24	0.10	0.24	0.24	0.09	0.23	0.23
Sat Flow, veh/h	295	2319	886	3483	1885	1549	1795	1870	2718	3456	3405	198
Grp Volume(v), veh/h	193	0	165	377	304	141	140	226	609	176	53	55
Grp Sat Flow(s),veh/h/ln	1841	0	1659	1742	1885	1549	1795	1870	1359	1728	1777	1826
Q Serve(g_s), s	5.9	0.0	5.6	5.5	8.8	4.6	4.5	6.3	9.0	2.9	1.4	1.4
Cycle Q Clear(g_c), s	5.9	0.0	5.6	5.5	8.8	4.6	4.5	6.3	9.0	2.9	1.4	1.4
Prop In Lane	0.16		0.53	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	291	0	262	835	452	371	184	449	1326	328	413	424
V/C Ratio(X)	0.66	0.00	0.63	0.45	0.67	0.38	0.76	0.50	0.46	0.54	0.13	0.13
Avail Cap(c_a), veh/h	615	0	554	1746	945	776	600	625	1582	1155	594	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	23.6	19.4	20.6	19.0	26.1	19.7	10.4	25.8	18.2	18.2
Incr Delay (d2), s/veh	2.6	0.0	2.5	0.1	0.7	0.2	6.3	0.3	0.1	1.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	2.2	2.0	3.5	1.5	2.1	2.5	3.8	1.2	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	26.0	19.5	21.3	19.3	32.4	20.0	10.5	27.2	18.2	18.2
LnGrp LOS	C	A	C	B	C	B	C	B	B	C	B	B
Approach Vol, veh/h		358		822		975		284				
Approach Delay, s/veh		26.2		20.1		15.9		23.8				
Approach LOS		C		C		B		C				
Timer - Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	9.7	18.4	13.5	10.2	17.9	18.3						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0						
Max Green Setting (Gmax), s	20.0	20.0	20.0	20.0	20.0	30.0						
Max Q Clear Time (g_c+14), s	14.5	11.0	7.9	6.5	3.4	10.8						
Green Ext Time (p_c), s	0.5	1.8	1.6	0.3	0.3	2.0						

Intersection Summary

HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↖		↖	↕↕	↗
Traffic Volume (veh/h)	47	20	83	27	38	25	153	949	38	29	413	65
Future Volume (veh/h)	47	20	83	27	38	25	153	949	38	29	413	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1856	1841	1900	1885	1885	1767	1885	1900
Adj Flow Rate, veh/h	47	20	84	27	38	25	155	959	38	29	417	66
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	3	4	0	1	1	9	1	0
Cap, veh/h	165	70	202	152	155	126	240	1490	59	32	1112	494
Arrive On Green	0.13	0.13	0.13	0.08	0.08	0.08	0.13	0.42	0.42	0.02	0.31	0.31
Sat Flow, veh/h	1288	548	1574	1810	1856	1507	1810	3511	139	1682	3582	1592
Grp Volume(v), veh/h	67	0	84	27	38	25	155	489	508	29	417	66
Grp Sat Flow(s),veh/h/ln	1836	0	1574	1810	1856	1507	1810	1791	1859	1682	1791	1592
Q Serve(g_s), s	1.5	0.0	2.2	0.6	0.9	0.7	3.7	9.7	9.7	0.8	4.1	1.3
Cycle Q Clear(g_c), s	1.5	0.0	2.2	0.6	0.9	0.7	3.7	9.7	9.7	0.8	4.1	1.3
Prop In Lane	0.70		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	235	0	202	152	155	126	240	760	789	32	1112	494
V/C Ratio(X)	0.28	0.00	0.42	0.18	0.24	0.20	0.64	0.64	0.64	0.91	0.38	0.13
Avail Cap(c_a), veh/h	1225	0	1050	805	825	670	805	1792	1860	561	3585	1593
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	18.1	19.2	19.3	19.2	18.5	10.2	10.2	22.0	12.1	11.2
Incr Delay (d2), s/veh	0.7	0.0	1.4	0.6	0.8	0.8	2.9	0.9	0.9	53.6	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	0.8	0.3	0.4	0.2	1.5	2.9	3.0	0.7	1.3	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	0.0	19.4	19.7	20.1	19.9	21.4	11.2	11.1	75.6	12.3	11.3
LnGrp LOS	B	A	B	B	C	B	C	B	B	E	B	B
Approach Vol, veh/h		151			90			1152			512	
Approach Delay, s/veh		19.0			19.9			12.5			15.8	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	23.6		9.8	9.5	18.5		7.3				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	12.8	11.7		4.2	5.7	6.1		2.9				
Green Ext Time (p_c), s	0.0	7.4		0.6	0.3	3.1		0.3				

Intersection Summary

HCM 6th Ctrl Delay	14.3
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	24	0	0	16	0	0	0	0	0	0	0
Future Vol, veh/h	0	24	0	0	16	0	0	0	0	0	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	29	0	0	19	0	0	0	0	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7	0	0
HCM LOS	A	A	-	-

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	24	16	0
LT Vol	0	0	0	0
Through Vol	0	24	16	0
RT Vol	0	0	0	0
Lane Flow Rate	0	29	19	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.031	0.021	0
Departure Headway (Hd)	3.984	3.914	3.922	3.984
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	920	917	0
Service Time	2.001	1.917	1.926	2.001
HCM Lane V/C Ratio	0	0.032	0.021	0
HCM Control Delay	7	7	7	7
HCM Lane LOS	N	A	A	N
HCM 95th-tile Q	0	0.1	0.1	0

Intersection

Intersection Delay, s/veh 11.9

Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	275	51	37	171	207	296
Future Vol, veh/h	275	51	37	171	207	296
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	286	53	39	178	216	308
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	12.6	10.7	12
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	39%	0%	100%	64%	0%	0%
Vol Thru, %	61%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	36%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	94	114	183	143	207	296
LT Vol	37	0	183	92	0	0
Through Vol	57	114	0	0	207	0
RT Vol	0	0	0	51	0	296
Lane Flow Rate	98	119	191	149	216	308
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.176	0.207	0.364	0.265	0.356	0.446
Departure Headway (Hd)	6.468	6.285	6.86	6.409	5.94	5.213
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	554	570	525	560	606	691
Service Time	4.212	4.029	4.594	4.144	3.675	2.948
HCM Lane V/C Ratio	0.177	0.209	0.364	0.266	0.356	0.446
HCM Control Delay	10.6	10.7	13.5	11.5	11.9	12.1
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	0.6	0.8	1.7	1.1	1.6	2.3

Intersection

Intersection Delay, s/veh20.2

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	38	275	16	145	294	33	20	133	167	66	135	39
Future Vol, veh/h	38	275	16	145	294	33	20	133	167	66	135	39
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	4	0	0	4	0	0	0	0	2	0	0
Mvmt Flow	41	296	17	156	316	35	22	143	180	71	145	42
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	23.6	23.9	14.9	15.5
HCM LOS	C	C	B	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %		13%	0%	100%	0%	100%	0%	100%
Vol Thru, %		87%	0%	0%	95%	0%	90%	0%
Vol Right, %		0%	100%	0%	5%	0%	10%	0%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		153	167	38	291	145	327	66
LT Vol		20	0	38	0	145	0	66
Through Vol		133	0	0	275	0	294	0
RT Vol		0	167	0	16	0	33	0
Lane Flow Rate		165	180	41	313	156	352	71
Geometry Grp		7	7	7	7	7	7	7
Degree of Util (X)		0.369	0.364	0.093	0.672	0.345	0.728	0.172
Departure Headway (Hd)		8.081	7.291	8.221	7.736	7.973	7.456	8.719
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap		444	492	434	466	449	482	410
Service Time		5.861	5.07	6	5.515	5.75	5.233	6.504
HCM Lane V/C Ratio		0.372	0.366	0.094	0.672	0.347	0.73	0.173
HCM Control Delay		15.6	14.2	11.8	25.1	14.9	27.9	13.3
HCM Lane LOS		C	B	B	D	B	D	B
HCM 95th-tile Q		1.7	1.6	0.3	4.9	1.5	5.9	0.6

MST BRT
11: Del Monte Blvd & Playa Ave

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	213	217	45	227	14	180	353	89	15	125	65
Future Volume (veh/h)	78	213	217	45	227	14	180	353	89	15	125	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	1900	1870	1870	1870	1885	1885	1900	1870	1870
Adj Flow Rate, veh/h	83	227	231	48	241	15	191	376	95	16	133	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	2	2	2	1	1	0	2	2
Cap, veh/h	107	553	452	73	946	58	326	794	198	29	464	226
Arrive On Green	0.06	0.30	0.30	0.04	0.28	0.28	0.09	0.28	0.28	0.02	0.20	0.20
Sat Flow, veh/h	1810	1856	1516	1810	3390	209	3456	2837	708	1810	2298	1122
Grp Volume(v), veh/h	83	227	231	48	125	131	191	236	235	16	101	101
Grp Sat Flow(s),veh/h/ln	1810	1856	1516	1810	1777	1823	1728	1791	1755	1810	1777	1644
Q Serve(g_s), s	2.0	4.4	5.7	1.2	2.5	2.5	2.4	4.9	5.0	0.4	2.2	2.4
Cycle Q Clear(g_c), s	2.0	4.4	5.7	1.2	2.5	2.5	2.4	4.9	5.0	0.4	2.2	2.4
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.40	1.00		0.68
Lane Grp Cap(c), veh/h	107	553	452	73	496	509	326	501	491	29	359	332
V/C Ratio(X)	0.78	0.41	0.51	0.66	0.25	0.26	0.59	0.47	0.48	0.55	0.28	0.30
Avail Cap(c_a), veh/h	803	1029	840	803	985	1011	1533	1191	1167	803	1182	1094
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.9	12.7	13.1	21.3	12.6	12.6	19.6	13.5	13.5	22.0	15.2	15.3
Incr Delay (d2), s/veh	4.5	0.5	0.9	3.8	0.3	0.3	0.6	1.5	1.5	5.9	0.9	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.6	1.7	0.5	0.9	0.9	0.9	1.9	1.9	0.2	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	13.2	14.0	25.1	12.9	12.9	20.2	14.9	15.0	27.9	16.1	16.4
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		541			304			662			218	
Approach Delay, s/veh		15.4			14.8			16.5			17.1	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	17.1	5.8	17.4	8.3	13.6	6.7	16.6				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.4	7.0	3.2	7.7	4.4	4.4	4.0	4.5				
Green Ext Time (p_c), s	0.0	5.4	0.0	2.0	0.3	2.2	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay											15.9	
HCM 6th LOS											B	

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↵	↶	↕↶		↵	↕↕
Traffic Vol, veh/h	62	55	576	130	78	315
Future Vol, veh/h	62	55	576	130	78	315
Conflicting Peds, #/hr	4	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	1	1	1	3
Mvmt Flow	63	56	588	133	80	321

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	981	362	0	0	722	0
Stage 1	656	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12	-
Critical Hdwy Stg 1	5.8	-	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21	-
Pot Cap-1 Maneuver	250	635	-	-	883	-
Stage 1	483	-	-	-	-	-
Stage 2	711	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	226	634	-	-	882	-
Mov Cap-2 Maneuver	226	-	-	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	644	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.6	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	226 634	882	-
HCM Lane V/C Ratio	-	-	0.28 0.089	0.09	-
HCM Control Delay (s)	-	-	27 11.2	9.5	-
HCM Lane LOS	-	-	D B	A	-
HCM 95th %tile Q(veh)	-	-	1.1 0.3	0.3	-

MST BRT
13: Del Monte Blvd & Tiago Ave/The Mall

Existing
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	87	71	116	10	45	53	151	595	21	20	271	64
Future Volume (veh/h)	87	71	116	10	45	53	151	595	21	20	271	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1885	1900	1870	1900	1900	1885	1885	1826	1870	1870
Adj Flow Rate, veh/h	93	76	123	11	48	56	161	633	22	21	288	68
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	1	0	2	0	0	1	1	5	2	2
Cap, veh/h	118	116	187	21	231	199	221	1341	47	36	793	184
Arrive On Green	0.07	0.18	0.18	0.01	0.12	0.12	0.12	0.38	0.38	0.02	0.28	0.28
Sat Flow, veh/h	1739	642	1039	1810	1870	1610	1810	3528	123	1739	2846	659
Grp Volume(v), veh/h	93	0	199	11	48	56	161	321	334	21	178	178
Grp Sat Flow(s),veh/h/ln	1739	0	1682	1810	1870	1610	1810	1791	1859	1739	1777	1729
Q Serve(g_s), s	2.0	0.0	4.2	0.2	0.9	1.2	3.3	5.2	5.2	0.5	3.1	3.2
Cycle Q Clear(g_c), s	2.0	0.0	4.2	0.2	0.9	1.2	3.3	5.2	5.2	0.5	3.1	3.2
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.07	1.00		0.38
Lane Grp Cap(c), veh/h	118	0	302	21	231	199	221	681	707	36	495	482
V/C Ratio(X)	0.79	0.00	0.66	0.53	0.21	0.28	0.73	0.47	0.47	0.58	0.36	0.37
Avail Cap(c_a), veh/h	1363	0	1318	1419	1466	1262	1419	1872	1943	1363	1857	1807
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.6	0.0	14.6	18.8	15.1	15.2	16.2	9.0	9.0	18.6	11.1	11.1
Incr Delay (d2), s/veh	4.4	0.0	0.9	7.4	0.2	0.3	4.5	0.7	0.7	13.6	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.4	0.1	0.3	0.4	1.4	1.6	1.6	0.3	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.0	0.0	15.5	26.3	15.2	15.5	20.7	9.7	9.7	32.2	11.7	11.8
LnGrp LOS	C	A	B	C	B	B	C	A	A	C	B	B
Approach Vol, veh/h		292			115			816			377	
Approach Delay, s/veh		17.6			16.4			11.9			12.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	19.1	3.9	10.4	8.7	15.3	6.1	8.2				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	2.5	7.2	2.2	6.2	5.3	5.2	4.0	3.2				
Green Ext Time (p_c), s	0.0	6.5	0.0	0.8	0.4	3.3	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									

MST BRT
14: Del Monte Blvd & Clementina Ave

Existing
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	116	23	701	188	25	427
Future Volume (veh/h)	116	23	701	188	25	427
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1885	1885	1900	1885
Adj Flow Rate, veh/h	120	24	723	194	26	440
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	1	1	0	1
Cap, veh/h	195	174	1426	382	58	2365
Arrive On Green	0.11	0.11	0.51	0.51	0.03	0.66
Sat Flow, veh/h	1810	1610	2869	744	1810	3676
Grp Volume(v), veh/h	120	24	467	450	26	440
Grp Sat Flow(s),veh/h/ln	1810	1610	1791	1728	1810	1791
Q Serve(g_s), s	2.2	0.5	6.0	6.0	0.5	1.7
Cycle Q Clear(g_c), s	2.2	0.5	6.0	6.0	0.5	1.7
Prop In Lane	1.00	1.00		0.43	1.00	
Lane Grp Cap(c), veh/h	195	174	920	888	58	2365
V/C Ratio(X)	0.62	0.14	0.51	0.51	0.45	0.19
Avail Cap(c_a), veh/h	2073	1845	2052	1980	1296	4104
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.9	14.1	5.6	5.6	16.6	2.3
Incr Delay (d2), s/veh	1.2	0.1	0.6	0.6	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	1.2	1.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.1	14.2	6.2	6.2	18.6	2.4
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	144		917			466
Approach Delay, s/veh	15.8		6.2			3.3
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.1	22.5			27.6	7.3
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+I), s	12.5	8.0			3.7	4.2
Green Ext Time (p_c), s	0.0	9.8			4.4	0.2
Intersection Summary						
HCM 6th Ctrl Delay			6.2			
HCM 6th LOS			A			

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Delay (hr)	0.4	2.3	0.0	0.2	1.7	0.1	0.2	0.0	0.1	0.3	0.1	0.1
Avg Speed (mph)	7	13	16	17	25	27	13	14	16	15	15	18

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	5.5
Avg Speed (mph)	19

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.7	3.4	0.0	2.0	0.1	0.0	0.0	0.2	0.0	0.1	6.6
Avg Speed (mph)	9	15	14	12	12	9	16	11	13	16	13

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	4.5	0.7	1.3	1.2	1.0	0.2	9.0
Avg Speed (mph)	11	11	9	21	11	15	13

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.5	3.4	0.2	0.5	3.3	0.2	0.3	0.1	0.0	0.9	0.1	0.0
Avg Speed (mph)	10	15	14	7	12	18	8	9	13	13	13	22

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	10.6
Avg Speed (mph)	13

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.3	2.5	0.5	3.3	2.7	0.5	1.4	1.9	1.2	1.7	0.7	0.0
Avg Speed (mph)	14	14	18	10	10	16	8	11	19	14	17	21

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	16.6
Avg Speed (mph)	13

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.1	0.2	0.3	0.0	1.3	3.3	0.1	0.3	1.5	0.1
Avg Speed (mph)	12	12	18	12	12	18	17	25	24	14	23	25

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	7.9
Avg Speed (mph)	22

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Avg Speed (mph)	14	24	17

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	1.4	48.8	52.4	0.0	0.0	0.0	0.0	0.1	0.0	102.8
Total Delay (hr)	1.2	53.6	8.4	2.4	0.0	0.3	1.2	6.6	0.0	73.7
Avg Speed (mph)	0	0	3	2	11	7	5	2	2	1

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	12.0	2.0	0.0	0.1	0.0	0.0	14.1
Total Delay (hr)	10.9	2.1	0.8	6.2	0.3	0.2	20.6
Avg Speed (mph)	2	2	9	6	11	11	4

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay (hr)	0.1	1.1	0.1	0.4	1.1	0.1	0.1	0.4	0.4	0.1	0.4	0.1
Avg Speed (mph)	19	17	16	9	9	9	14	14	15	24	24	25

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	4.3
Avg Speed (mph)	15

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	1.0	0.3	0.4	1.1	0.0	1.3	1.2	0.2	0.1	0.7	0.1
Avg Speed (mph)	4	7	12	9	14	16	9	15	15	13	17	21

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	7.0
Avg Speed (mph)	12

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	0.1	0.4	0.1	0.2	0.1	1.1
Avg Speed (mph)	10	17	27	22	15	25	23

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.4	0.3	0.1	0.3	0.1	1.0	1.4	0.1	0.1	0.7	0.1
Avg Speed (mph)	13	16	19	10	11	18	20	25	24	9	17	18

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	5.0
Avg Speed (mph)	21

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.0	1.1	0.2	0.2	0.5	2.6
Avg Speed (mph)	11	17	26	24	21	31	26

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.5	0.3	0.6	1.3	1.0	0.1	3.8
Avg Speed (mph)	12	19	8	14	22	22	18

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.0	0.3
Total Delay (hr)	2.7	0.1	3.0	0.4	0.5	0.9	7.6
Avg Speed (mph)	9	18	18	20	3	14	15

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	22.6	71.1	14.0	0.1	0.1	0.0	0.1	0.5	0.3
Total Delay (hr)	3.1	2.9	0.1	8.6	27.4	5.6	14.8	8.4	1.7	3.7	23.0	7.9
Avg Speed (mph)	1	1	7	0	0	0	2	16	17	4	5	6

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	109.0
Total Delay (hr)	107.1
Avg Speed (mph)	5

Total Network Performance

Denied Delay (hr)	228.6
Total Delay (hr)	295.5
Avg Speed (mph)	13

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R	
Maximum Queue (ft)	73	184	197	35	73	134	136	32	87	66	104	68	
Average Queue (ft)	31	78	82	7	23	63	52	7	30	22	37	20	
95th Queue (ft)	61	150	157	21	55	115	103	18	65	51	76	50	
Link Distance (ft)	225	225	225	225		1234	1234		616		786		
Upstream Blk Time (%)	0												
Queuing Penalty (veh)	0												
Storage Bay Dist (ft)					170			95			80		50
Storage Blk Time (%)					0			1			0		6
Queuing Penalty (veh)					0			1			0		3

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB	
Directions Served	L	T	TR	T	T	R	LTR	LT	R	
Maximum Queue (ft)	145	362	442	196	176	50	30	68	60	
Average Queue (ft)	57	36	181	91	87	31	8	24	20	
95th Queue (ft)	112	180	393	176	164	61	28	58	47	
Link Distance (ft)		508	508	225	225		428	478		
Upstream Blk Time (%)	0			0	0					
Queuing Penalty (veh)	0			0	0					
Storage Bay Dist (ft)	150						25		100	
Storage Blk Time (%)	0						21		3	
Queuing Penalty (veh)	1						12		10	

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	343	402	75	178	170	178	129	156
Average Queue (ft)	132	213	46	89	52	65	71	37
95th Queue (ft)	271	355	98	154	122	139	120	89
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			50	200		110		
Storage Blk Time (%)			38	1		0		
Queuing Penalty (veh)			50	4		1		

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	170	304	322	128	222	285	125	92	66	159	96
Average Queue (ft)	96	104	159	34	106	120	40	32	14	78	10
95th Queue (ft)	156	215	269	80	191	226	130	70	45	134	61
Link Distance (ft)		627	627		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	0	0			2	10	0	5	0	11	
Queuing Penalty (veh)	0	0			1	15	0	1	0	7	

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	224	193	125	326	344	175	179	223	144	162	103	139
Average Queue (ft)	98	99	82	149	160	73	81	111	62	78	39	60
95th Queue (ft)	181	173	162	266	291	171	141	192	114	139	79	109
Link Distance (ft)	1288			627	627			584	584	584		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	2	3	2	24	10	0						
Queuing Penalty (veh)	3	4	4	44	14	0						

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	60	106
Average Queue (ft)	7	45
95th Queue (ft)	32	93
Link Distance (ft)	1311	1311
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	101	74	56	81	53	165	292	264	70	145	166	98
Average Queue (ft)	41	31	20	27	17	77	107	115	22	55	66	20
95th Queue (ft)	85	62	49	60	46	133	212	210	57	112	128	65
Link Distance (ft)	886		829				1720	1720		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	9	1				0	3			0	3	0
Queuing Penalty (veh)	8	1				2	4			0	2	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	42	31
Average Queue (ft)	17	10
95th Queue (ft)	43	33
Link Distance (ft)	665	989
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	750	1199	705	91	89	184	208	10
Average Queue (ft)	646	978	178	79	48	68	194	0
95th Queue (ft)	898	1574	657	98	91	151	234	4
Link Distance (ft)		1167		70	70	200	200	252
Upstream Blk Time (%)		69		50	3	0	55	
Queuing Penalty (veh)		0		132	7	1	123	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)	66	57						
Queuing Penalty (veh)	250	220						

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	550	160	154	507	85	104
Average Queue (ft)	330	127	53	195	43	55
95th Queue (ft)	690	208	144	700	75	86
Link Distance (ft)	529			1467	200	200
Upstream Blk Time (%)	39			1		
Queuing Penalty (veh)	0			1		
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	2	68	0	27		
Queuing Penalty (veh)	3	93	0	33		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	77	198	101	166	151	75	53	99
Average Queue (ft)	19	68	40	80	51	52	17	38
95th Queue (ft)	52	135	78	138	93	77	41	72
Link Distance (ft)		1036	174	174	551			1467
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)		3			7	7		0
Queuing Penalty (veh)		1			12	11		0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	125	148	122	67	108	134	102	130	130	150	41	103
Average Queue (ft)	49	75	41	32	37	66	36	68	54	80	11	45
95th Queue (ft)	97	132	85	62	81	114	76	118	103	131	33	87
Link Distance (ft)			174		641	641			438	438		1009
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)	0	1	0	7	6							0
Queuing Penalty (veh)	0	3	0	7	2							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	103
Average Queue (ft)	44
95th Queue (ft)	87
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	71	60	24	50	69	5	24
Average Queue (ft)	29	27	1	4	29	0	1
95th Queue (ft)	57	48	11	26	58	0	10
Link Distance (ft)	383		491	491		438	438
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	0				0		
Queuing Penalty (veh)	0				0		

Intersection: 13: Del Monte Blvd & Tiago Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	95	164	37	64	52	142	145	165	50	76	105
Average Queue (ft)	47	64	9	27	26	73	56	74	14	34	47
95th Queue (ft)	84	118	31	57	49	123	107	136	41	64	85
Link Distance (ft)		855		612			2188	2188		491	491
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	3	5					0				
Queuing Penalty (veh)	6	4					0				

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	97	34	169	173	55	67	82
Average Queue (ft)	48	16	50	54	21	16	29
95th Queue (ft)	83	40	115	125	49	48	67
Link Distance (ft)	508		944	944		2188	2188
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)					0	0	
Queuing Penalty (veh)					0	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	98	96	105	138	114	143	146
Average Queue (ft)	43	48	52	45	45	57	66
95th Queue (ft)	85	79	94	94	92	107	121
Link Distance (ft)	660			179	179	944	944
Upstream Blk Time (%)				0			
Queuing Penalty (veh)				0			
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)	0		6	2			
Queuing Penalty (veh)	0		22	4			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	170	173	100	246	244	59	65	109	127
Average Queue (ft)	102	93	34	144	116	42	32	39	62
95th Queue (ft)	150	155	104	225	211	54	66	85	107
Link Distance (ft)	306	306		860	860			179	179
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		28	0		29	5	1	2	
Queuing Penalty (veh)		23	1		63	21	5	1	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	99	91	61	944	325	903	882	120	1101	1116	350
Average Queue (ft)	83	80	14	899	242	460	453	72	471	466	208
95th Queue (ft)	97	96	42	1059	406	983	954	149	1123	1129	437
Link Distance (ft)	70	70	70	922		1591	1591		1318	1318	
Upstream Blk Time (%)	76	68	0	89					5	5	
Queuing Penalty (veh)	137	122	0	0					0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					49	5		23	51	33	8
Queuing Penalty (veh)					241	6		67	33	71	24

Network Summary

Network wide Queuing Penalty: 1950

D. EXISTING PLUS PROJECT CONDITIONS
SYNCHRO OUTPUT SHEETS

MST BRT
1: De Forest Rd & Reservation Rd

Existing+Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Traffic Volume (veh/h)	31	520	36	27	625	105	26	3	14	101	1	64
Future Volume (veh/h)	31	520	36	27	625	105	26	3	14	101	1	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1648	1633	1856	1870	1900	1900	1589	1900	1900	1900
Adj Flow Rate, veh/h	34	571	40	30	687	115	29	3	15	111	1	70
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	3	17	18	3	2	0	0	21	0	0	0
Cap, veh/h	237	1375	535	65	1059	466	150	9	439	157	1	525
Arrive On Green	0.13	0.39	0.39	0.04	0.30	0.30	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1810	3526	1373	1555	3526	1551	0	26	1339	0	2	1601
Grp Volume(v), veh/h	34	571	40	30	687	115	32	0	15	112	0	70
Grp Sat Flow(s),veh/h/ln	1810	1763	1373	1555	1763	1551	26	0	1339	2	0	1601
Q Serve(g_s), s	0.8	5.4	0.8	0.9	7.7	2.6	0.0	0.0	0.3	0.0	0.0	1.4
Cycle Q Clear(g_c), s	0.8	5.4	0.8	0.9	7.7	2.6	15.0	0.0	0.3	15.0	0.0	1.4
Prop In Lane	1.00		1.00	1.00		1.00	0.91		1.00	0.99		1.00
Lane Grp Cap(c), veh/h	237	1375	535	65	1059	466	159	0	439	157	0	525
V/C Ratio(X)	0.14	0.42	0.07	0.46	0.65	0.25	0.20	0.00	0.03	0.71	0.00	0.13
Avail Cap(c_a), veh/h	791	1542	601	510	1542	678	159	0	439	157	0	525
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	10.2	8.8	21.4	13.9	12.1	18.9	0.0	10.4	22.8	0.0	10.8
Incr Delay (d2), s/veh	0.3	0.2	0.1	5.1	0.7	0.3	0.6	0.0	0.0	13.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	1.6	0.2	0.4	2.6	0.8	0.3	0.0	0.1	1.7	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	10.4	8.8	26.5	14.6	12.4	19.5	0.0	10.5	36.7	0.0	10.9
LnGrp LOS	B	B	A	C	B	B	B	A	B	D	A	B
Approach Vol, veh/h		645			832			47				182
Approach Delay, s/veh		10.7			14.7			16.6				26.8
Approach LOS		B			B			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	21.8		18.5	9.5	17.7		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	2.9	7.4		17.0	2.8	9.7		17.0				
Green Ext Time (p_c), s	0.0	3.1		0.0	0.0	3.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.



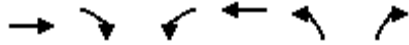
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	537	3	0	639	74	3	0	1	49	1	45
Future Volume (veh/h)	70	537	3	0	639	74	3	0	1	49	1	45
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	0	1841	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	74	571	3	0	680	79	3	0	1	52	1	48
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	4	0	0	0	0	0	0	0
Cap, veh/h	166	2160	11	0	1381	634	343	29	55	457	7	247
Arrive On Green	0.09	0.60	0.60	0.00	0.39	0.39	0.15	0.00	0.15	0.15	0.15	0.15
Sat Flow, veh/h	1810	3596	19	0	3589	1604	887	185	357	1450	43	1598
Grp Volume(v), veh/h	74	280	294	0	680	79	4	0	0	53	0	48
Grp Sat Flow(s),veh/h/ln	1810	1763	1852	0	1749	1604	1429	0	0	1494	0	1598
Q Serve(g_s), s	1.2	2.3	2.3	0.0	4.5	1.0	0.0	0.0	0.0	0.0	0.0	0.8
Cycle Q Clear(g_c), s	1.2	2.3	2.3	0.0	4.5	1.0	0.8	0.0	0.0	0.8	0.0	0.8
Prop In Lane	1.00		0.01	0.00		1.00	0.75		0.25	0.98		1.00
Lane Grp Cap(c), veh/h	166	1059	1113	0	1381	634	426	0	0	463	0	247
V/C Ratio(X)	0.45	0.26	0.26	0.00	0.49	0.12	0.01	0.00	0.00	0.11	0.00	0.19
Avail Cap(c_a), veh/h	1773	2302	2419	0	4568	2095	1597	0	0	1646	0	1565
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.2	2.9	2.9	0.0	7.0	5.9	11.0	0.0	0.0	11.3	0.0	11.3
Incr Delay (d2), s/veh	1.9	0.1	0.1	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.1	0.1	0.0	0.9	0.2	0.0	0.0	0.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.1	3.0	3.0	0.0	7.2	6.0	11.0	0.0	0.0	11.4	0.0	11.7
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		648			759			4			101	
Approach Delay, s/veh		4.4			7.1			11.0			11.5	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		22.4			8.2	6.3		16.1			8.2	
Change Period (Y+Rc), s		4.0			3.5	3.5		4.0			3.5	
Max Green Setting (Gmax), s		40.0			30.0	30.0		40.0			30.0	
Max Q Clear Time (g_c+1), s		4.3			2.8	3.2		6.5			2.8	
Green Ext Time (p_c), s		3.6			0.0	0.2		5.4			0.4	

Intersection Summary

HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

MST BRT
3: Seacrest Ave & Reservation Rd

Existing+Project
Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↵
Traffic Volume (veh/h)	529	54	123	594	75	57
Future Volume (veh/h)	529	54	123	594	75	57
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1841	1856	1900
Adj Flow Rate, veh/h	569	58	132	639	81	61
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3	4	3	0
Cap, veh/h	1404	639	294	2249	301	274
Arrive On Green	0.40	0.40	0.17	0.64	0.17	0.17
Sat Flow, veh/h	3618	1604	1767	3589	1767	1610
Grp Volume(v), veh/h	569	58	132	639	81	61
Grp Sat Flow(s),veh/h/ln	1763	1604	1767	1749	1767	1610
Q Serve(g_s), s	5.9	1.1	3.4	4.1	2.0	1.7
Cycle Q Clear(g_c), s	5.9	1.1	3.4	4.1	2.0	1.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1404	639	294	2249	301	274
V/C Ratio(X)	0.41	0.09	0.45	0.28	0.27	0.22
Avail Cap(c_a), veh/h	2080	946	1042	2249	1042	950
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.0	9.6	19.1	4.0	18.4	18.2
Incr Delay (d2), s/veh	0.2	0.1	0.4	0.1	0.6	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9	0.3	1.3	0.8	0.8	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	9.6	19.5	4.0	18.9	18.7
LnGrp LOS	B	A	B	A	B	B
Approach Vol, veh/h	627			771	142	
Approach Delay, s/veh	11.0			6.7	18.8	
Approach LOS	B			A	B	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	12.5	24.8		13.7		37.2
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+I), s	15.4	7.9		4.0		6.1
Green Ext Time (p_c), s	0.2	3.9		0.5		4.4
Intersection Summary						
HCM 6th Ctrl Delay			9.6			
HCM 6th LOS			A			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	496	10	11	638	52	5	1	3	58	1	57
Future Volume (veh/h)	44	496	10	11	638	52	5	1	3	58	1	57
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		1.00	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1841	1841	1530	1856	1841	1900	1900	1900	1900	1900	1841
Adj Flow Rate, veh/h	48	539	11	12	693	0	5	1	3	63	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	4	4	25	3	4	0	0	0	0	0	4
Cap, veh/h	85	1702	35	45	1643		432	73	364	483	6	
Arrive On Green	0.05	0.49	0.49	0.03	0.47	0.00	0.23	0.23	0.23	0.23	0.23	0.00
Sat Flow, veh/h	1668	3504	71	1457	3526	1560	1226	323	1603	1393	28	1560
Grp Volume(v), veh/h	48	269	281	12	693	0	6	0	3	64	0	0
Grp Sat Flow(s),veh/h/ln	1668	1749	1827	1457	1763	1560	1549	0	1603	1422	0	1560
Q Serve(g_s), s	1.2	4.0	4.0	0.3	5.6	0.0	0.0	0.0	0.1	1.5	0.0	0.0
Cycle Q Clear(g_c), s	1.2	4.0	4.0	0.3	5.6	0.0	0.1	0.0	0.1	1.6	0.0	0.0
Prop In Lane	1.00		0.04	1.00		1.00	0.83		1.00	0.98		1.00
Lane Grp Cap(c), veh/h	85	849	888	45	1643		505	0	364	489	0	
V/C Ratio(X)	0.57	0.32	0.32	0.27	0.42		0.01	0.00	0.01	0.13	0.00	
Avail Cap(c_a), veh/h	972	1019	1064	849	2875		1904	0	1868	1165	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	19.9	6.7	6.7	20.3	7.6	0.0	12.9	0.0	12.8	13.5	0.0	0.0
Incr Delay (d2), s/veh	5.8	0.2	0.2	3.1	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.0	1.1	0.1	1.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.7	6.9	6.9	23.4	7.8	0.0	12.9	0.0	12.9	13.6	0.0	0.0
LnGrp LOS	C	A	A	C	A		B	A	B	B	A	
Approach Vol, veh/h		598			705	A		9			64	A
Approach Delay, s/veh		8.4			8.1			12.9			13.6	
Approach LOS		A			A			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.8	24.8		13.2	5.7	24.0		13.2				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1), s	12.3	6.0		2.1	3.2	7.6		3.6				
Green Ext Time (p_c), s	0.0	3.0		0.0	0.1	5.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Existing+Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↑	↔	↔	↑	↔↔	↔↔	↔↔	
Traffic Volume (veh/h)	12	191	114	395	147	143	115	154	236	140	204	3
Future Volume (veh/h)	12	191	114	395	147	143	115	154	236	140	204	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1856	1856	1870	1900	1856	1826	1870	1870
Adj Flow Rate, veh/h	13	215	128	444	165	161	129	173	265	157	229	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	4	3	3	2	0	3	5	2	2
Cap, veh/h	20	337	207	690	376	315	171	446	1200	339	859	11
Arrive On Green	0.17	0.17	0.17	0.20	0.20	0.20	0.10	0.23	0.23	0.10	0.24	0.24
Sat Flow, veh/h	122	2029	1249	3401	1856	1554	1781	1900	2720	3374	3591	47
Grp Volume(v), veh/h	194	0	162	444	165	161	129	173	265	157	113	119
Grp Sat Flow(s),veh/h/ln	1820	0	1579	1700	1856	1554	1781	1900	1360	1687	1777	1861
Q Serve(g_s), s	5.4	0.0	5.1	6.5	4.2	5.0	3.8	4.1	3.3	2.4	2.8	2.8
Cycle Q Clear(g_c), s	5.4	0.0	5.1	6.5	4.2	5.0	3.8	4.1	3.3	2.4	2.8	2.8
Prop In Lane	0.07		0.79	1.00		1.00	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	302	0	262	690	376	315	171	446	1200	339	425	445
V/C Ratio(X)	0.64	0.00	0.62	0.64	0.44	0.51	0.75	0.39	0.22	0.46	0.27	0.27
Avail Cap(c_a), veh/h	673	0	585	1888	1030	863	659	703	1568	1248	658	689
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	20.9	19.7	18.8	19.2	23.8	17.4	9.5	22.9	16.7	16.7
Incr Delay (d2), s/veh	2.3	0.0	2.4	0.4	0.3	0.5	6.6	0.2	0.0	1.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	1.9	2.3	1.6	1.6	1.8	1.6	1.2	0.9	1.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.3	0.0	23.3	20.1	19.1	19.6	30.4	17.6	9.5	23.9	16.8	16.8
LnGrp LOS	C	A	C	C	B	B	C	B	A	C	B	B
Approach Vol, veh/h		356			770			567			389	
Approach Delay, s/veh		23.3			19.8			16.7			19.7	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	16.7		13.0	9.2	16.9		15.0				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	20.0	20.0		20.0	20.0	20.0		30.0				
Max Q Clear Time (g_c+1), s	14.4	6.1		7.4	5.8	4.8		8.5				
Green Ext Time (p_c), s	0.4	1.0		1.6	0.3	0.7		1.7				

Intersection Summary

HCM 6th Ctrl Delay	19.6
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Existing+Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↔		↖	↕↕	↗
Traffic Volume (veh/h)	88	21	211	68	21	20	51	288	11	19	790	38
Future Volume (veh/h)	88	21	211	68	21	20	51	288	11	19	790	38
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1870	1856	1856	1900	1870	1900
Adj Flow Rate, veh/h	91	22	218	70	22	21	53	297	11	20	814	39
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	5	2	3	3	0	2	0
Cap, veh/h	287	69	312	142	150	119	135	1447	53	23	1258	551
Arrive On Green	0.20	0.20	0.20	0.08	0.08	0.08	0.08	0.42	0.42	0.01	0.35	0.35
Sat Flow, veh/h	1471	356	1595	1795	1900	1512	1781	3466	128	1810	3554	1556
Grp Volume(v), veh/h	113	0	218	70	22	21	53	151	157	20	814	39
Grp Sat Flow(s),veh/h/ln	1826	0	1595	1795	1900	1512	1781	1763	1831	1810	1777	1556
Q Serve(g_s), s	2.8	0.0	6.7	2.0	0.6	0.7	1.5	2.9	2.9	0.6	10.1	0.9
Cycle Q Clear(g_c), s	2.8	0.0	6.7	2.0	0.6	0.7	1.5	2.9	2.9	0.6	10.1	0.9
Prop In Lane	0.81		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	357	0	312	142	150	119	135	736	764	23	1258	551
V/C Ratio(X)	0.32	0.00	0.70	0.49	0.15	0.18	0.39	0.20	0.21	0.88	0.65	0.07
Avail Cap(c_a), veh/h	1045	0	913	685	725	577	680	1513	1572	518	3051	1336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	0.0	19.7	23.1	22.5	22.5	23.1	9.7	9.7	25.8	14.2	11.2
Incr Delay (d2), s/veh	0.5	0.0	2.8	2.6	0.4	0.7	1.8	0.1	0.1	60.8	0.6	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	2.5	0.9	0.3	0.3	0.6	0.9	1.0	0.6	3.4	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.6	0.0	22.5	25.8	22.9	23.2	24.9	9.9	9.9	86.6	14.8	11.3
LnGrp LOS	B	A	C	C	C	C	C	A	A	F	B	B
Approach Vol, veh/h		331			113			361			873	
Approach Delay, s/veh		21.2			24.7			12.1			16.2	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.2	26.4		14.2	7.5	23.1		7.6				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	12.6	4.9		8.7	3.5	12.1		4.0				
Green Ext Time (p_c), s	0.0	1.8		1.4	0.1	6.5		0.3				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Intersection Delay, s/veh 7
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	3	0	0	10	0	0	12	0	0	12	0
Future Vol, veh/h	0	3	0	0	10	0	0	12	0	0	12	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	0	0	13	0	0	16	0	0	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7	7	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	3	10	12
LT Vol	0	0	0	0
Through Vol	12	3	10	12
RT Vol	0	0	0	0
Lane Flow Rate	16	4	13	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.018	0.004	0.015	0.018
Departure Headway (Hd)	3.943	3.965	3.958	3.943
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	904	906	911
Service Time	1.952	1.983	1.974	1.952
HCM Lane V/C Ratio	0.018	0.004	0.014	0.018
HCM Control Delay	7	7	7	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.1

Intersection

Intersection Delay, s/veh 9.3

Intersection LOS A

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	TTT			TT	T	T
Traffic Vol, veh/h	146	32	24	40	140	225
Future Vol, veh/h	146	32	24	40	140	225
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	3	4	11	4	1
Mvmt Flow	157	34	26	43	151	242
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	9.7	8.8	9.2
HCM LOS	A	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	64%	0%	100%	60%	0%	0%
Vol Thru, %	36%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	40%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	27	97	81	140	225
LT Vol	24	0	97	49	0	0
Through Vol	13	27	0	0	140	0
RT Vol	0	0	0	32	0	225
Lane Flow Rate	40	29	105	87	151	242
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.065	0.045	0.176	0.135	0.217	0.299
Departure Headway (Hd)	5.815	5.611	6.064	5.603	5.201	4.446
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	614	636	589	638	689	808
Service Time	3.568	3.364	3.821	3.36	2.934	2.179
HCM Lane V/C Ratio	0.065	0.046	0.178	0.136	0.219	0.3
HCM Control Delay	9	8.6	10.1	9.2	9.4	9.1
HCM Lane LOS	A	A	B	A	A	A
HCM 95th-tile Q	0.2	0.1	0.6	0.5	0.8	1.3

Intersection

Intersection Delay, s/veh 10
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	109	11	73	174	30	5	28	49	70	72	23
Future Vol, veh/h	7	109	11	73	174	30	5	28	49	70	72	23
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	29	11	0	0	7	11	20	4	4	2	4	9
Mvmt Flow	8	117	12	78	187	32	5	30	53	75	77	25
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	10	10.5	8.9	9.7
HCM LOS	A	B	A	A

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %		15%	0%	100%	0%	100%	0%	100%
Vol Thru, %		85%	0%	0%	91%	0%	85%	0%
Vol Right, %		0%	100%	0%	9%	0%	15%	0%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		33	49	7	120	73	204	70
LT Vol		5	0	7	0	73	0	70
Through Vol		28	0	0	109	0	174	0
RT Vol		0	49	0	11	0	30	0
Lane Flow Rate		35	53	8	129	78	219	75
Geometry Grp		7	7	7	7	7	7	7
Degree of Util (X)		0.063	0.078	0.014	0.204	0.128	0.329	0.131
Departure Headway (Hd)		6.393	5.333	6.562	5.684	5.879	5.392	6.274
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap		563	676	541	625	605	660	567
Service Time		4.093	3.033	4.36	3.481	3.662	3.175	4.067
HCM Lane V/C Ratio		0.062	0.078	0.015	0.206	0.129	0.332	0.132
HCM Control Delay		9.5	8.5	9.5	10	9.5	10.8	10
HCM Lane LOS		A	A	A	A	A	B	A
HCM 95th-tile Q		0.2	0.3	0	0.8	0.4	1.4	0.4

MST BRT
11: Del Monte Blvd & Playa Ave

Existing+Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	71	145	27	130	3	105	107	19	12	402	42
Future Volume (veh/h)	12	71	145	27	130	3	105	107	19	12	402	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1737	1811	1900	1811	1811	1856	1678	1678	1900	1856	1856
Adj Flow Rate, veh/h	13	80	163	30	146	3	118	120	21	13	452	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	8	11	6	0	6	6	3	15	15	0	3	3
Cap, veh/h	23	360	314	51	764	16	244	976	167	24	968	100
Arrive On Green	0.01	0.21	0.21	0.03	0.22	0.22	0.07	0.36	0.36	0.01	0.30	0.30
Sat Flow, veh/h	1697	1737	1515	1810	3446	71	3428	2721	466	1810	3219	333
Grp Volume(v), veh/h	13	80	163	30	73	76	118	69	72	13	247	252
Grp Sat Flow(s),veh/h/ln	1697	1737	1515	1810	1721	1796	1714	1594	1593	1810	1763	1790
Q Serve(g_s), s	0.3	1.6	4.0	0.7	1.4	1.5	1.4	1.2	1.3	0.3	4.8	4.8
Cycle Q Clear(g_c), s	0.3	1.6	4.0	0.7	1.4	1.5	1.4	1.2	1.3	0.3	4.8	4.8
Prop In Lane	1.00		1.00	1.00		0.04	1.00		0.29	1.00		0.19
Lane Grp Cap(c), veh/h	23	360	314	51	382	398	244	572	571	24	530	538
V/C Ratio(X)	0.57	0.22	0.52	0.59	0.19	0.19	0.48	0.12	0.13	0.54	0.46	0.47
Avail Cap(c_a), veh/h	808	1034	902	862	1024	1069	1632	1138	1138	862	1259	1278
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	13.8	14.8	20.2	13.3	13.3	18.8	9.0	9.0	20.6	11.9	12.0
Incr Delay (d2), s/veh	8.1	0.3	1.3	4.0	0.2	0.2	0.6	0.2	0.2	6.7	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.6	1.3	0.3	0.5	0.5	0.5	0.4	0.4	0.2	1.7	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.7	14.2	16.1	24.2	13.5	13.5	19.3	9.2	9.3	27.3	13.3	13.3
LnGrp LOS	C	B	B	C	B	B	B	A	A	C	B	B
Approach Vol, veh/h		256			179			259			512	
Approach Delay, s/veh		16.2			15.3			13.8			13.7	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.6	19.6	5.2	12.7	7.0	17.1	4.6	13.3				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.3	3.3	2.7	6.0	3.4	6.8	2.3	3.5				
Green Ext Time (p_c), s	0.0	1.4	0.0	0.9	0.2	5.7	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				14.5								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	2.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↕↔		↙	↕↕
Traffic Vol, veh/h	116	30	197	53	49	517
Future Vol, veh/h	116	30	197	53	49	517
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	3	9	0	6	4
Mvmt Flow	127	33	216	58	54	568

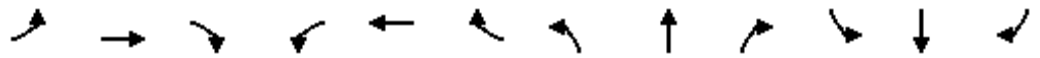
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	639	139	0	0	276
Stage 1	247	-	-	-	-
Stage 2	392	-	-	-	-
Critical Hdwy	6.82	6.96	-	-	4.22
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.33	-	-	2.26
Pot Cap-1 Maneuver	411	881	-	-	1255
Stage 1	774	-	-	-	-
Stage 2	655	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	393	879	-	-	1253
Mov Cap-2 Maneuver	393	-	-	-	-
Stage 1	772	-	-	-	-
Stage 2	627	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	0.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	393	879	1253	-
HCM Lane V/C Ratio	-	-	0.324	0.038	0.043	-
HCM Control Delay (s)	-	-	18.5	9.3	8	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1.4	0.1	0.1	-

MST BRT
13: Del Monte Blvd & Tioga Ave/The Mall

Existing+Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	20	31	11	30	13	24	210	22	33	517	82
Future Volume (veh/h)	28	20	31	11	30	13	24	210	22	33	517	82
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1322	1752	1752	1767	1900	1900	1707	1841	1841	1900	1856	1856
Adj Flow Rate, veh/h	32	23	36	13	34	15	28	241	25	38	594	94
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	39	10	10	9	0	0	13	4	4	0	3	3
Cap, veh/h	38	68	107	23	182	150	44	1265	130	64	1227	194
Arrive On Green	0.03	0.11	0.11	0.01	0.10	0.10	0.03	0.40	0.40	0.04	0.40	0.40
Sat Flow, veh/h	1259	607	949	1682	1900	1572	1626	3194	328	1810	3037	479
Grp Volume(v), veh/h	32	0	59	13	34	15	28	131	135	38	344	344
Grp Sat Flow(s),veh/h/ln	1259	0	1556	1682	1900	1572	1626	1749	1773	1810	1763	1754
Q Serve(g_s), s	0.9	0.0	1.2	0.3	0.6	0.3	0.6	1.7	1.8	0.7	5.1	5.1
Cycle Q Clear(g_c), s	0.9	0.0	1.2	0.3	0.6	0.3	0.6	1.7	1.8	0.7	5.1	5.1
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.18	1.00		0.27
Lane Grp Cap(c), veh/h	38	0	175	23	182	150	44	693	702	64	712	709
V/C Ratio(X)	0.83	0.00	0.34	0.57	0.19	0.10	0.63	0.19	0.19	0.60	0.48	0.49
Avail Cap(c_a), veh/h	1071	0	1324	1432	1617	1338	1384	1984	2012	1540	2000	1990
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.0	0.0	14.4	17.3	14.7	14.6	17.0	7.0	7.0	16.8	7.8	7.8
Incr Delay (d2), s/veh	15.5	0.0	0.4	8.0	0.2	0.1	14.0	0.2	0.2	8.6	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.4	0.1	0.2	0.1	0.4	0.5	0.5	0.4	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	14.8	25.3	14.9	14.7	30.9	7.1	7.1	25.3	8.5	8.5
LnGrp LOS	C	A	B	C	B	B	C	A	A	C	A	A
Approach Vol, veh/h		91			62			294			726	
Approach Delay, s/veh		21.1			17.0			9.4			9.4	
Approach LOS		C			B			A			A	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	18.6	4.0	7.5	5.0	18.8	4.6	6.9				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	2.7	3.8	2.3	3.2	2.6	7.1	2.9	2.6				
Green Ext Time (p_c), s	0.1	2.4	0.0	0.2	0.0	7.1	0.0	0.1				
Intersection Summary												
HCM 6th Ctrl Delay				10.7								
HCM 6th LOS				B								

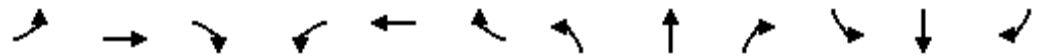
MST BRT
14: Del Monte Blvd & Clementina Ave

Existing+Project
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↶	↶	↕		↷	↷
Traffic Volume (veh/h)	201	29	290	121	42	531
Future Volume (veh/h)	201	29	290	121	42	531
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1856	1796	1841	1841	1767	1856
Adj Flow Rate, veh/h	207	30	299	125	43	547
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	7	4	4	9	3
Cap, veh/h	290	250	800	326	86	1880
Arrive On Green	0.16	0.16	0.33	0.33	0.05	0.53
Sat Flow, veh/h	1767	1522	2496	979	1682	3618
Grp Volume(v), veh/h	207	30	215	209	43	547
Grp Sat Flow(s),veh/h/ln	1767	1522	1749	1635	1682	1763
Q Serve(g_s), s	3.0	0.4	2.5	2.6	0.7	2.3
Cycle Q Clear(g_c), s	3.0	0.4	2.5	2.6	0.7	2.3
Prop In Lane	1.00	1.00		0.60	1.00	
Lane Grp Cap(c), veh/h	290	250	582	544	86	1880
V/C Ratio(X)	0.71	0.12	0.37	0.38	0.50	0.29
Avail Cap(c_a), veh/h	2640	2274	2612	2442	1571	5267
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	9.5	6.8	6.8	12.4	3.5
Incr Delay (d2), s/veh	1.2	0.1	0.6	0.6	1.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.1	0.5	0.5	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	9.6	7.4	7.5	14.0	3.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h	237		424			590
Approach Delay, s/veh	11.5		7.4			4.3
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.4	13.5			18.9	7.9
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+1), s	12.7	4.6			4.3	5.0
Green Ext Time (p_c), s	0.0	3.9			5.7	0.3
Intersection Summary						
HCM 6th Ctrl Delay			6.7			
HCM 6th LOS			A			

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔↔	↔	↔		↔		↔	↔		↔		
Traffic Volume (vph)	1	204	105	248	0	453	0	70	116	0	12	0	
Future Volume (vph)	1	204	105	248	0	453	0	70	116	0	12	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.98	1.00		1.00		1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00		1.00		
Frt		1.00	0.85	1.00		0.85		1.00	0.85		1.00		
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (prot)		3574	1587	1787		1599		1776	1615		1900		
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (perm)		3574	1587	1787		1599		1776	1615		1900		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	1	215	111	261	0	477	0	74	122	0	13	0	
RTOR Reduction (vph)	0	0	99	0	0	148	0	0	111	0	0	0	
Lane Group Flow (vph)	0	216	12	261	0	329	0	74	11	0	13	0	
Confl. Peds. (#/hr)			3	3									
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	7%	0%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm		NA		
Protected Phases		1		2				4				8	
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		13.9	13.9	86.3		86.3		11.1	11.1		11.1		
Effective Green, g (s)		13.9	13.9	86.3		86.3		11.1	11.1		11.1		
Actuated g/C Ratio		0.11	0.11	0.69		0.69		0.09	0.09		0.09		
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)		397	176	1233		1103		157	143		168		
v/s Ratio Prot				0.15				c0.04				0.01	
v/s Ratio Perm		0.06	0.01			c0.21			0.01				
v/c Ratio		0.54	0.07	0.21		0.30		0.47	0.08		0.08		
Uniform Delay, d1		52.6	49.8	7.0		7.5		54.2	52.2		52.3		
Progression Factor		1.00	1.00	0.89		6.09		1.00	1.00		1.00		
Incremental Delay, d2		1.5	0.2	0.0		0.1		2.2	0.2		0.2		
Delay (s)		54.1	49.9	6.3		46.0		56.4	52.5		52.4		
Level of Service		D	D	A		D		E	D		D		
Approach Delay (s)		52.7			31.9			53.9			52.4		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			40.9		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.35										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			53.8%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Existing+Project
Timing Plan: AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	43	183	165	378	616	82
Future Volume (vph)	43	183	165	378	616	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1495	1729	3505	3437	
Flt Permitted	0.95	1.00	0.37	1.00	1.00	
Satd. Flow (perm)	1770	1495	678	3505	3437	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	45	193	174	398	648	86
RTOR Reduction (vph)	0	151	0	0	7	0
Lane Group Flow (vph)	45	42	174	398	727	0
Confl. Peds. (#/hr)	8		6			6
Confl. Bikes (#/hr)						8
Heavy Vehicles (%)	2%	8%	4%	3%	3%	1%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	14.7	14.7	35.7	35.7	43.6	
Effective Green, g (s)	14.7	14.7	35.7	35.7	43.6	
Actuated g/C Ratio	0.22	0.22	0.53	0.53	0.65	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	385	325	358	1853	2220	
v/s Ratio Prot	0.03			0.11	c0.21	
v/s Ratio Perm		c0.03	c0.26			
v/c Ratio	0.12	0.13	0.49	0.21	0.33	
Uniform Delay, d1	21.2	21.2	10.1	8.5	5.4	
Progression Factor	1.00	1.00	0.51	0.47	1.00	
Incremental Delay, d2	0.3	0.4	4.6	0.3	0.4	
Delay (s)	21.5	21.6	9.8	4.2	5.8	
Level of Service	C	C	A	A	A	
Approach Delay (s)	21.6			5.9	5.8	
Approach LOS	C			A	A	

Intersection Summary

HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	45.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Existing+Project
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔↔	↔	↕↕	↔	↔	↕↕
Traffic Volume (vph)	493	82	461	212	39	760
Future Volume (vph)	493	82	461	212	39	760
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	3539	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	519	86	485	223	41	800
RTOR Reduction (vph)	0	40	0	41	0	0
Lane Group Flow (vph)	519	46	485	182	41	800
Confl. Peds. (#/hr)					7	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	16.2	16.2	35.7	35.7	4.4	43.6
Effective Green, g (s)	16.2	16.2	35.7	35.7	4.4	43.6
Actuated g/C Ratio	0.24	0.24	0.53	0.53	0.07	0.65
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	823	379	1871	837	115	2285
v/s Ratio Prot	c0.15		0.14		0.02	c0.23
v/s Ratio Perm		0.03		0.11		
v/c Ratio	0.63	0.12	0.26	0.22	0.36	0.35
Uniform Delay, d1	23.0	20.1	8.7	8.5	30.2	5.5
Progression Factor	1.00	1.00	1.00	1.00	1.34	0.53
Incremental Delay, d2	1.8	0.2	0.3	0.6	1.9	0.4
Delay (s)	24.8	20.3	9.0	9.1	42.3	3.3
Level of Service	C	C	A	A	D	A
Approach Delay (s)	24.1		9.0			5.2
Approach LOS	C		A			A

Intersection Summary

HCM 2000 Control Delay	11.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	12.7
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	1.0	0.0	0.1	1.3	0.1	0.1	0.0	0.0	0.3	0.0	0.1
Avg Speed (mph)	8	16	17	18	27	27	15	17	18	16	18	19

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	3.2
Avg Speed (mph)	22

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	1.0	0.0	1.3	0.1	0.0	0.0	0.2	0.0	0.1	2.9
Avg Speed (mph)	13	21	17	15	14	14	17	12	19	16	17

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Delay (hr)	1.6	0.1	0.8	0.9	0.4	0.1	3.9
Avg Speed (mph)	16	16	11	23	11	17	17

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	1.0	0.0	0.1	1.3	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Avg Speed (mph)	12	20	20	9	19	22	11	10	15	15	21	23

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.1
Avg Speed (mph)	19

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay (hr)	0.1	1.6	0.5	2.9	1.0	0.3	1.1	1.1	0.2	1.2	1.3	0.0
Avg Speed (mph)	15	16	20	11	13	19	8	11	21	15	18	22

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	11.3
Avg Speed (mph)	14

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.1	0.6	0.5	0.1	0.0	0.4	0.9	0.0	0.2	3.1	0.1
Avg Speed (mph)	13	13	17	11	12	19	19	28	30	13	21	24

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	6.8
Avg Speed (mph)	21

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Avg Speed (mph)	14	24	23	22	22

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.0	14.8	0.3	2.4	0.0	0.4	1.1	1.5	0.2	20.6
Avg Speed (mph)	31	3	22	2	10	7	3	3	3	4

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.0	0.0	0.1	0.2	0.2	0.7
Avg Speed (mph)	18	18	27	27	11	12	18

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.0	0.1	0.4	0.0	0.0	0.0	0.1	0.1	0.2	0.0
Avg Speed (mph)	21	20	20	12	11	11	17	16	17	27	26	27

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.2
Avg Speed (mph)	19

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.3	0.2	0.2	0.5	0.0	0.6	0.2	0.0	0.1	1.2	0.1
Avg Speed (mph)	5	7	11	10	15	19	10	19	19	14	20	22

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.5
Avg Speed (mph)	16

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.0	0.1	0.0	0.1	0.2	0.8
Avg Speed (mph)	13	18	28	23	19	26	24

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.4	0.0	0.2	0.6	0.1
Avg Speed (mph)	15	18	22	12	14	20	20	27	26	11	22	20

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.9
Avg Speed (mph)	23

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.7	0.0	0.5	0.1	0.2	0.9	2.5
Avg Speed (mph)	13	18	26	25	22	30	26

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.3	0.9	0.6	1.4	0.1	3.5
Avg Speed (mph)	14	20	6	15	22	21	19

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.2
Total Delay (hr)	2.7	0.1	1.1	0.2	0.4	0.9	5.5
Avg Speed (mph)	8	18	19	22	3	15	14

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	47.7	121.9	11.3	0.1	0.0	0.0	8.8	81.4	20.5
Total Delay (hr)	0.8	2.7	0.2	12.1	27.6	1.7	10.4	3.5	0.6	7.4	65.3	10.9
Avg Speed (mph)	2	2	6	0	0	0	5	18	19	2	2	3

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	291.8
Total Delay (hr)	143.2
Avg Speed (mph)	3

Total Network Performance

Denied Delay (hr)	294.0
Total Delay (hr)	219.8
Avg Speed (mph)	13

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R	
Maximum Queue (ft)	42	105	120	47	58	130	113	35	71	49	91	71	
Average Queue (ft)	14	41	46	7	16	52	45	9	16	10	37	23	
95th Queue (ft)	36	83	95	29	43	103	93	24	50	36	71	59	
Link Distance (ft)	225	225	225	225		1234	1234		616		786		
Upstream Blk Time (%)													
Queuing Penalty (veh)													
Storage Bay Dist (ft)					170			95			80		50
Storage Blk Time (%)					0			0			6		0
Queuing Penalty (veh)					0			0			4		0

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB	
Directions Served	L	T	TR	T	T	R	LTR	LT	R	
Maximum Queue (ft)	88	91	227	172	155	50	35	61	33	
Average Queue (ft)	37	7	67	74	63	31	3	24	16	
95th Queue (ft)	71	53	173	143	128	57	19	53	37	
Link Distance (ft)		508	508	225	225		428	478		
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150						25		100	
Storage Blk Time (%)				14			3		0	
Queuing Penalty (veh)				10			8		0	

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	177	246	71	133	154	135	93	56
Average Queue (ft)	55	108	22	61	47	46	40	24
95th Queue (ft)	134	202	66	106	113	111	77	46
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50	200		110		
Storage Blk Time (%)	19		0		0			
Queuing Penalty (veh)	10		1		0			

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	91	103	175	75	216	160	72	31	24	82	9
Average Queue (ft)	34	32	70	11	69	56	6	6	2	34	0
95th Queue (ft)	75	80	136	46	151	129	50	25	16	65	7
Link Distance (ft)		624	624		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)					1	1	0	0	0	1	
Queuing Penalty (veh)					0	1	0	0	0	0	

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	169	170	125	298	172	125	154	166	80	85	98	138
Average Queue (ft)	62	85	79	142	72	47	71	73	29	34	27	58
95th Queue (ft)	116	147	155	245	136	86	129	132	61	70	65	111
Link Distance (ft)	1285			624	624			584	584	584		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	0	1	1	17	0	0						
Queuing Penalty (veh)	0	1	2	34	0	0						

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	85	135
Average Queue (ft)	17	65
95th Queue (ft)	58	116
Link Distance (ft)	1314	1314
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	191	75	102	47	61	79	115	110	45	237	250	125
Average Queue (ft)	71	60	38	15	19	28	40	38	15	102	114	21
95th Queue (ft)	154	87	81	40	49	63	85	87	38	180	200	83
Link Distance (ft)	886		829				2351	2351		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	15	11					0			2	9	0
Queuing Penalty (veh)	32	12					0			0	3	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB	NB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	31	31	35	32
Average Queue (ft)	3	9	11	10
95th Queue (ft)	20	32	37	32
Link Distance (ft)	654	990	799	676
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	507	621	160	88	81	156	179	33
Average Queue (ft)	219	393	54	80	56	59	87	5
95th Queue (ft)	586	736	295	98	84	121	155	20
Link Distance (ft)		1168		72	72	198	198	252
Upstream Blk Time (%)		1		50	2	0	0	
Queuing Penalty (veh)		0		177	9	0	0	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)	0	8						
Queuing Penalty (veh)	0	17						

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	68	54	71	49	95	90
Average Queue (ft)	25	26	25	16	42	49
95th Queue (ft)	49	43	55	43	74	77
Link Distance (ft)	526			1460	198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	46	72	61	132	54	66	55	65
Average Queue (ft)	4	30	29	58	20	27	21	30
95th Queue (ft)	23	58	53	102	48	53	42	53
Link Distance (ft)		1035	173	173	466			1460
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)		0			0	0		
Queuing Penalty (veh)		0			0	0		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	56	96	75	56	66	126	66	115	69	84	33	165
Average Queue (ft)	10	35	35	21	18	48	21	49	22	26	9	75
95th Queue (ft)	38	78	60	51	51	98	55	92	57	65	30	132
Link Distance (ft)			173		641	641			438	438		1009
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)		0	0	3	1							0
Queuing Penalty (veh)		0	0	2	0							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	139
Average Queue (ft)	51
95th Queue (ft)	102
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	87	45	8	58
Average Queue (ft)	39	20	0	12
95th Queue (ft)	70	43	5	41
Link Distance (ft)	379		488	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		100
Storage Blk Time (%)	0			0
Queuing Penalty (veh)	0			0

Intersection: 13: Del Monte Blvd & Tioga Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	88	81	44	57	40	77	78	91	59	103	132
Average Queue (ft)	25	27	10	19	11	23	24	25	20	36	42
95th Queue (ft)	67	62	32	46	35	61	64	68	48	78	93
Link Distance (ft)		873		606			2183	2183		488	488
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	1	0									
Queuing Penalty (veh)	1	0									

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	138	66	96	117	82	101	106
Average Queue (ft)	64	20	42	47	30	30	46
95th Queue (ft)	111	50	83	100	65	74	92
Link Distance (ft)	522		945	945		2183	2183
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	0				1	1	
Queuing Penalty (veh)	0				3	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	69	92	108	131	92	138	161
Average Queue (ft)	23	52	64	34	30	71	83
95th Queue (ft)	57	86	106	98	70	122	139
Link Distance (ft)	776			172	172	945	945
Upstream Blk Time (%)				0	0		
Queuing Penalty (veh)				0	0		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)			11	1			
Queuing Penalty (veh)			21	2			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	171	185	100	160	128	55	70	95	116
Average Queue (ft)	98	93	30	80	49	44	31	36	60
95th Queue (ft)	145	151	100	140	100	57	63	76	101
Link Distance (ft)	300	300		709	709			172	172
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		27	0		14	3	2	2	
Queuing Penalty (veh)		23	0		30	7	6	1	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	87	92	76	936	325	645	598	120	1359	1365	350
Average Queue (ft)	32	86	34	901	251	300	277	76	1067	1058	269
95th Queue (ft)	74	96	69	1052	378	664	607	160	1666	1666	495
Link Distance (ft)	72	72	72	918		1588	1588		1326	1326	
Upstream Blk Time (%)	4	69	1	92					46	49	
Queuing Penalty (veh)	4	74	1	0					0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					38	1		9	83	82	1
Queuing Penalty (veh)					103	3		32	69	142	3

Network Summary

Network wide Queuing Penalty: 849

MST BRT
1: De Forest Rd & Reservation Rd

Existing + Project
timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Traffic Volume (veh/h)	61	844	69	38	632	65	63	9	54	81	16	51
Future Volume (veh/h)	61	844	69	38	632	65	63	9	54	81	16	51
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1841	1648	1885	1900	1737	1737	1767	1811	1811	1900
Adj Flow Rate, veh/h	64	888	73	40	665	68	66	9	57	85	17	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	1	4	17	1	0	11	11	9	6	6	0
Cap, veh/h	239	1341	558	82	1055	451	149	10	492	146	16	529
Arrive On Green	0.13	0.37	0.37	0.05	0.29	0.29	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1810	3582	1491	1570	3582	1530	0	32	1486	0	48	1598
Grp Volume(v), veh/h	64	888	73	40	665	68	75	0	57	102	0	54
Grp Sat Flow(s),veh/h/ln	1810	1791	1491	1570	1791	1530	32	0	1486	48	0	1598
Q Serve(g_s), s	1.4	9.4	1.5	1.1	7.3	1.5	0.0	0.0	1.2	0.0	0.0	1.1
Cycle Q Clear(g_c), s	1.4	9.4	1.5	1.1	7.3	1.5	15.0	0.0	1.2	15.0	0.0	1.1
Prop In Lane	1.00		1.00	1.00		1.00	0.88		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	239	1341	558	82	1055	451	160	0	492	161	0	529
V/C Ratio(X)	0.27	0.66	0.13	0.49	0.63	0.15	0.47	0.00	0.12	0.63	0.00	0.10
Avail Cap(c_a), veh/h	798	1579	657	519	1579	675	160	0	492	161	0	529
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.7	11.8	9.3	20.9	13.9	11.8	20.6	0.0	10.6	20.4	0.0	10.5
Incr Delay (d2), s/veh	0.6	0.8	0.1	4.4	0.6	0.2	2.1	0.0	0.1	7.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.0	0.4	0.5	2.4	0.4	0.8	0.0	0.4	1.4	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	12.6	9.4	25.3	14.5	12.0	22.7	0.0	10.7	28.1	0.0	10.6
LnGrp LOS	B	B	A	C	B	B	C	A	B	C	A	B
Approach Vol, veh/h		1025			773			132				156
Approach Delay, s/veh		12.7			14.8			17.5				22.0
Approach LOS		B			B			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.9	21.0		18.5	9.5	17.4		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	3.1	11.4		17.0	3.4	9.3		17.0				
Green Ext Time (p_c), s	0.0	4.0		0.0	0.1	3.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
2: Goodwill Dwy/Mc Donalds & Reservation Rd

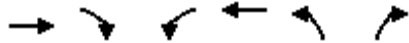
Existing + Project
timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	913	3	0	703	58	3	0	12	51	1	43
Future Volume (veh/h)	97	913	3	0	703	58	3	0	12	51	1	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1870	1900	1900	1900	1900	1900	1900	1870
Adj Flow Rate, veh/h	100	941	3	0	725	60	3	0	12	53	1	44
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	2	0	0	0	0	0	0	2
Cap, veh/h	191	2175	7	0	1379	611	145	39	246	469	7	299
Arrive On Green	0.11	0.59	0.59	0.00	0.39	0.39	0.19	0.00	0.19	0.19	0.19	0.19
Sat Flow, veh/h	1795	3662	12	0	3647	1575	117	201	1274	1378	37	1548
Grp Volume(v), veh/h	100	460	484	0	725	60	15	0	0	54	0	44
Grp Sat Flow(s),veh/h/ln	1795	1791	1883	0	1777	1575	1593	0	0	1414	0	1548
Q Serve(g_s), s	1.9	4.9	4.9	0.0	5.5	0.9	0.0	0.0	0.0	0.8	0.0	0.8
Cycle Q Clear(g_c), s	1.9	4.9	4.9	0.0	5.5	0.9	0.3	0.0	0.0	1.1	0.0	0.8
Prop In Lane	1.00		0.01	0.00		1.00	0.20		0.80	0.98		1.00
Lane Grp Cap(c), veh/h	191	1064	1118	0	1379	611	430	0	0	476	0	299
V/C Ratio(X)	0.52	0.43	0.43	0.00	0.53	0.10	0.03	0.00	0.00	0.11	0.00	0.15
Avail Cap(c_a), veh/h	1531	2036	2140	0	4040	1790	1438	0	0	1399	0	1320
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.9	3.9	3.9	0.0	8.3	6.8	11.6	0.0	0.0	11.9	0.0	11.8
Incr Delay (d2), s/veh	2.2	0.3	0.3	0.0	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.6	0.6	0.0	1.4	0.2	0.1	0.0	0.0	0.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.1	4.2	4.2	0.0	8.6	6.9	11.6	0.0	0.0	12.0	0.0	12.0
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1044			785			15			98	
Approach Delay, s/veh		5.4			8.5			11.6			12.0	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		24.9		10.3	7.2	17.7		10.3				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+I1), s		6.9		2.3	3.9	7.5		3.1				
Green Ext Time (p_c), s		6.8		0.0	0.2	5.7		0.4				
Intersection Summary												
HCM 6th Ctrl Delay					7.0							
HCM 6th LOS					A							

MST BRT
3: Seacrest Ave & Reservation Rd

Existing + Project
timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↗	↖
Traffic Volume (veh/h)	819	134	176	668	162	78
Future Volume (veh/h)	819	134	176	668	162	78
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	836	137	180	682	165	80
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	1382	599	315	2281	330	293
Arrive On Green	0.39	0.39	0.18	0.64	0.18	0.18
Sat Flow, veh/h	3676	1552	1795	3676	1795	1598
Grp Volume(v), veh/h	836	137	180	682	165	80
Grp Sat Flow(s),veh/h/ln	1791	1552	1795	1791	1795	1598
Q Serve(g_s), s	9.9	3.1	4.9	4.5	4.4	2.3
Cycle Q Clear(g_c), s	9.9	3.1	4.9	4.5	4.4	2.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1382	599	315	2281	330	293
V/C Ratio(X)	0.60	0.23	0.57	0.30	0.50	0.27
Avail Cap(c_a), veh/h	2029	880	1017	2281	1017	905
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	11.0	20.0	4.3	19.4	18.6
Incr Delay (d2), s/veh	0.4	0.2	0.6	0.1	1.4	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.3	0.9	1.9	1.0	1.8	0.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.5	11.1	20.6	4.4	20.8	19.2
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	973			862	245	
Approach Delay, s/veh	13.1			7.8	20.3	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.3	24.9		14.7		38.2
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+I), s	11.9	11.9		6.4		6.5
Green Ext Time (p_c), s	0.2	5.9		0.9		4.7
Intersection Summary						
HCM 6th Ctrl Delay			11.8			
HCM 6th LOS			B			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	185	766	44	51	689	147	35	12	14	158	14	68
Future Volume (veh/h)	185	766	44	51	689	147	35	12	14	158	14	68
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		1.00	0.99		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1885	1885	1900	1885	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	189	782	45	52	703	0	36	12	14	161	14	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	1	1	0	1	0	0	0	0	0	0	0
Cap, veh/h	248	1367	79	180	1292		465	140	483	497	38	
Arrive On Green	0.14	0.40	0.40	0.10	0.36	0.00	0.30	0.30	0.30	0.30	0.30	0.00
Sat Flow, veh/h	1810	3432	197	1810	3582	1610	1157	461	1588	1226	126	1610
Grp Volume(v), veh/h	189	408	419	52	703	0	48	0	14	175	0	0
Grp Sat Flow(s),veh/h/ln	1810	1791	1839	1810	1791	1610	1617	0	1588	1353	0	1610
Q Serve(g_s), s	5.6	9.8	9.9	1.5	8.7	0.0	0.0	0.0	0.3	5.3	0.0	0.0
Cycle Q Clear(g_c), s	5.6	9.8	9.9	1.5	8.7	0.0	1.0	0.0	0.3	6.3	0.0	0.0
Prop In Lane	1.00		0.11	1.00		1.00	0.75		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	248	713	732	180	1292		605	0	483	536	0	
V/C Ratio(X)	0.76	0.57	0.57	0.29	0.54		0.08	0.00	0.03	0.33	0.00	
Avail Cap(c_a), veh/h	816	807	829	816	2261		1504	0	1432	872	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.1	13.0	13.0	23.2	14.1	0.0	13.8	0.0	13.6	15.9	0.0	0.0
Incr Delay (d2), s/veh	4.8	0.8	0.7	0.9	0.4	0.0	0.1	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	3.4	3.5	0.6	3.0	0.0	0.4	0.0	0.1	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	13.8	13.7	24.0	14.5	0.0	13.8	0.0	13.6	16.3	0.0	0.0
LnGrp LOS	C	B	B	C	B		B	A	B	B	A	
Approach Vol, veh/h		1016			755	A		62			175	A
Approach Delay, s/veh		16.4			15.1			13.8			16.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	26.1		20.4	11.1	24.0		20.4				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1), s	13.5	11.9		3.0	7.6	10.7		8.3				
Green Ext Time (p_c), s	0.1	4.2		0.3	0.5	4.9		1.0				

Intersection Summary

HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Existing + Project
timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↑	↔	↔	↑	↔↔	↔↔	↔↔	
Traffic Volume (veh/h)	30	234	86	381	298	138	137	221	609	172	100	6
Future Volume (veh/h)	30	234	86	381	298	138	137	221	609	172	100	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	31	239	88	389	304	141	140	226	621	176	102	6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	1	1	2	1	2	1	2	2	2
Cap, veh/h	47	367	140	836	452	372	184	449	1327	328	790	46
Arrive On Green	0.16	0.16	0.16	0.24	0.24	0.24	0.10	0.24	0.24	0.09	0.23	0.23
Sat Flow, veh/h	295	2319	886	3483	1885	1549	1795	1870	2718	3456	3405	198
Grp Volume(v), veh/h	193	0	165	389	304	141	140	226	621	176	53	55
Grp Sat Flow(s),veh/h/ln	1841	0	1659	1742	1885	1549	1795	1870	1359	1728	1777	1826
Q Serve(g_s), s	5.9	0.0	5.6	5.7	8.8	4.6	4.5	6.3	9.2	2.9	1.4	1.4
Cycle Q Clear(g_c), s	5.9	0.0	5.6	5.7	8.8	4.6	4.5	6.3	9.2	2.9	1.4	1.4
Prop In Lane	0.16		0.53	1.00		1.00	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	291	0	262	836	452	372	184	449	1327	328	412	424
V/C Ratio(X)	0.66	0.00	0.63	0.47	0.67	0.38	0.76	0.50	0.47	0.54	0.13	0.13
Avail Cap(c_a), veh/h	615	0	554	1745	944	776	600	625	1582	1154	593	610
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.7	0.0	23.6	19.5	20.6	19.0	26.1	19.7	10.5	25.9	18.2	18.2
Incr Delay (d2), s/veh	2.6	0.0	2.5	0.2	0.7	0.2	6.3	0.3	0.1	1.4	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	2.2	2.1	3.5	1.5	2.1	2.5	3.9	1.2	0.5	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	26.0	19.6	21.3	19.3	32.4	20.0	10.6	27.2	18.2	18.3
LnGrp LOS	C	A	C	B	C	B	C	B	B	C	B	B
Approach Vol, veh/h		358		834		987		284				
Approach Delay, s/veh		26.2		20.2		15.8		23.8				
Approach LOS		C		C		B		C				
Timer - Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	9.7	18.4	13.5	10.2	17.9	18.4						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0						
Max Green Setting (Gmax), s	20.0	20.0	20.0	20.0	20.0	30.0						
Max Q Clear Time (g_c+14), s	14.5	11.2	7.9	6.5	3.4	10.8						
Green Ext Time (p_c), s	0.5	1.8	1.6	0.3	0.3	2.0						

Intersection Summary

HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Existing + Project
timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↗		↖	↕↗	↗
Traffic Volume (veh/h)	59	20	83	27	38	25	153	949	38	29	413	77
Future Volume (veh/h)	59	20	83	27	38	25	153	949	38	29	413	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1856	1841	1900	1885	1885	1767	1885	1900
Adj Flow Rate, veh/h	60	20	84	27	38	25	155	959	38	29	417	78
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	3	4	0	1	1	9	1	0
Cap, veh/h	179	60	206	151	155	126	240	1487	59	32	1110	493
Arrive On Green	0.13	0.13	0.13	0.08	0.08	0.08	0.13	0.42	0.42	0.02	0.31	0.31
Sat Flow, veh/h	1373	458	1574	1810	1856	1507	1810	3511	139	1682	3582	1592
Grp Volume(v), veh/h	80	0	84	27	38	25	155	489	508	29	417	78
Grp Sat Flow(s),veh/h/ln	1831	0	1574	1810	1856	1507	1810	1791	1859	1682	1791	1592
Q Serve(g_s), s	1.8	0.0	2.2	0.6	0.9	0.7	3.7	9.8	9.8	0.8	4.1	1.6
Cycle Q Clear(g_c), s	1.8	0.0	2.2	0.6	0.9	0.7	3.7	9.8	9.8	0.8	4.1	1.6
Prop In Lane	0.75		1.00	1.00		1.00	1.00		0.07	1.00		1.00
Lane Grp Cap(c), veh/h	239	0	206	151	155	126	240	759	787	32	1110	493
V/C Ratio(X)	0.33	0.00	0.41	0.18	0.24	0.20	0.65	0.64	0.64	0.91	0.38	0.16
Avail Cap(c_a), veh/h	1216	0	1045	801	822	667	801	1784	1852	559	3568	1586
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.8	0.0	18.0	19.3	19.4	19.3	18.6	10.3	10.3	22.1	12.2	11.3
Incr Delay (d2), s/veh	0.8	0.0	1.3	0.6	0.8	0.8	2.9	0.9	0.9	53.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.8	0.3	0.4	0.3	1.5	3.0	3.1	0.7	1.3	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.7	0.0	19.3	19.8	20.2	20.0	21.5	11.2	11.2	75.6	12.4	11.5
LnGrp LOS	B	A	B	B	C	C	C	B	B	E	B	B
Approach Vol, veh/h		164			90			1152			524	
Approach Delay, s/veh		19.0			20.0			12.6			15.7	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.4	23.6		9.9	9.5	18.5		7.3				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	12.8	11.8		4.2	5.7	6.1		2.9				
Green Ext Time (p_c), s	0.0	7.4		0.7	0.3	3.2		0.3				

Intersection Summary

HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Intersection Delay, s/veh 7.1

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	24	0	0	16	0	0	12	0	0	12	0
Future Vol, veh/h	0	24	0	0	16	0	0	12	0	0	12	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	29	0	0	19	0	0	14	0	0	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7.1	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	24	16	12
LT Vol	0	0	0	0
Through Vol	12	24	16	12
RT Vol	0	0	0	0
Lane Flow Rate	14	29	19	14
Geometry Grp	1	1	1	1
Degree of Util (X)	0.016	0.032	0.021	0.016
Departure Headway (Hd)	3.995	3.965	3.973	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	896	905	903	896
Service Time	2.017	1.98	1.99	2.017
HCM Lane V/C Ratio	0.016	0.032	0.021	0.016
HCM Control Delay	7.1	7.1	7.1	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0

Intersection

Intersection Delay, s/veh 12.1
Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	275	51	37	183	219	296
Future Vol, veh/h	275	51	37	183	219	296
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	286	53	39	191	228	308
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	12.7	10.8	12.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	38%	0%	100%	64%	0%	0%
Vol Thru, %	62%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	36%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	98	122	183	143	219	296
LT Vol	37	0	183	92	0	0
Through Vol	61	122	0	0	219	0
RT Vol	0	0	0	51	0	296
Lane Flow Rate	102	127	191	149	228	308
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.184	0.223	0.367	0.267	0.378	0.449
Departure Headway (Hd)	6.489	6.314	6.918	6.467	5.967	5.24
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	552	568	521	556	602	688
Service Time	4.233	4.058	4.655	4.204	3.704	2.977
HCM Lane V/C Ratio	0.185	0.224	0.367	0.268	0.379	0.448
HCM Control Delay	10.7	10.9	13.6	11.6	12.3	12.2
HCM Lane LOS	B	B	B	B	B	B
HCM 95th-tile Q	0.7	0.8	1.7	1.1	1.8	2.3

Intersection												
Intersection Delay, s/veh	21.2											
Intersection LOS	C											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗	↖	↗	
Traffic Vol, veh/h	38	275	16	145	294	45	20	133	167	78	135	39
Future Vol, veh/h	38	275	16	145	294	45	20	133	167	78	135	39
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	4	0	0	4	0	0	0	0	2	0	0
Mvmt Flow	41	296	17	156	316	48	22	143	180	84	145	42
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	24.3	25.9	15.1	15.8
HCM LOS	C	D	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	13%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	87%	0%	0%	95%	0%	87%	0%	78%
Vol Right, %	0%	100%	0%	5%	0%	13%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	153	167	38	291	145	339	78	174
LT Vol	20	0	38	0	145	0	78	0
Through Vol	133	0	0	275	0	294	0	135
RT Vol	0	167	0	16	0	45	0	39
Lane Flow Rate	165	180	41	313	156	365	84	187
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.374	0.368	0.094	0.681	0.348	0.76	0.205	0.419
Departure Headway (Hd)	8.175	7.384	8.316	7.831	8.043	7.503	8.786	8.071
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	438	485	429	460	446	481	407	443
Service Time	5.962	5.17	6.1	5.615	5.825	5.285	6.576	5.86
HCM Lane V/C Ratio	0.377	0.371	0.096	0.68	0.35	0.759	0.206	0.422
HCM Control Delay	15.8	14.5	12	25.9	15.1	30.5	13.9	16.6
HCM Lane LOS	C	B	B	D	C	D	B	C
HCM 95th-tile Q	1.7	1.7	0.3	5	1.5	6.5	0.8	2

MST BRT
11: Del Monte Blvd & Playa Ave

Existing + Project
timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	213	229	45	227	14	192	353	89	15	125	65
Future Volume (veh/h)	78	213	229	45	227	14	192	353	89	15	125	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	1900	1870	1870	1870	1885	1885	1900	1870	1870
Adj Flow Rate, veh/h	83	227	244	48	241	15	204	376	95	16	133	69
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	2	2	2	1	1	0	2	2
Cap, veh/h	107	562	459	72	962	59	343	790	197	29	449	219
Arrive On Green	0.06	0.30	0.30	0.04	0.28	0.28	0.10	0.28	0.28	0.02	0.20	0.20
Sat Flow, veh/h	1810	1856	1517	1810	3390	210	3456	2837	708	1810	2298	1122
Grp Volume(v), veh/h	83	227	244	48	125	131	204	236	235	16	101	101
Grp Sat Flow(s),veh/h/ln	1810	1856	1517	1810	1777	1823	1728	1791	1755	1810	1777	1644
Q Serve(g_s), s	2.1	4.4	6.1	1.2	2.5	2.5	2.6	5.0	5.1	0.4	2.2	2.4
Cycle Q Clear(g_c), s	2.1	4.4	6.1	1.2	2.5	2.5	2.6	5.0	5.1	0.4	2.2	2.4
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.40	1.00		0.68
Lane Grp Cap(c), veh/h	107	562	459	72	504	518	343	499	489	29	347	321
V/C Ratio(X)	0.78	0.40	0.53	0.66	0.25	0.25	0.59	0.47	0.48	0.55	0.29	0.31
Avail Cap(c_a), veh/h	795	1019	833	795	976	1001	1518	1180	1156	795	1171	1083
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.1	12.6	13.2	21.5	12.6	12.6	19.6	13.6	13.7	22.2	15.6	15.7
Incr Delay (d2), s/veh	4.5	0.5	1.0	3.8	0.3	0.3	0.6	1.5	1.6	5.9	1.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.6	1.8	0.5	0.9	0.9	1.0	1.9	1.9	0.2	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.6	13.1	14.1	25.4	12.8	12.8	20.2	15.1	15.3	28.1	16.6	16.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	B	B
Approach Vol, veh/h		554			304			675			218	
Approach Delay, s/veh		15.4			14.8			16.7			17.6	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	17.2	5.8	17.8	8.5	13.4	6.7	16.9				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.4	7.1	3.2	8.1	4.6	4.4	4.1	4.5				
Green Ext Time (p_c), s	0.0	5.4	0.0	2.0	0.3	2.2	0.1	1.4				
Intersection Summary												
HCM 6th Ctrl Delay				16.1								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↵	↶	↕↶		↵	↕↕
Traffic Vol, veh/h	62	55	588	130	78	327
Future Vol, veh/h	62	55	588	130	78	327
Conflicting Peds, #/hr	4	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	1	1	1	3
Mvmt Flow	63	56	600	133	80	334

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	999	368	0	0	734
Stage 1	668	-	-	-	-
Stage 2	331	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21
Pot Cap-1 Maneuver	244	629	-	-	874
Stage 1	477	-	-	-	-
Stage 2	706	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	220	628	-	-	873
Mov Cap-2 Maneuver	220	-	-	-	-
Stage 1	477	-	-	-	-
Stage 2	639	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20	0	1.8
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	220	628	873
HCM Lane V/C Ratio	-	-	0.288	0.089	0.091
HCM Control Delay (s)	-	-	27.8	11.3	9.5
HCM Lane LOS	-	-	D	B	A
HCM 95th %tile Q(veh)	-	-	1.1	0.3	0.3

MST BRT
13: Del Monte Blvd & Tiago Ave/The Mall

Existing + Project
timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↖	↗	↖	↖↗		↖	↖↗	
Traffic Volume (veh/h)	87	71	116	10	45	53	151	607	21	20	283	64
Future Volume (veh/h)	87	71	116	10	45	53	151	607	21	20	283	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1885	1900	1870	1900	1900	1885	1885	1826	1870	1870
Adj Flow Rate, veh/h	93	76	123	11	48	56	161	646	22	21	301	68
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	1	0	2	0	0	1	1	5	2	2
Cap, veh/h	118	115	186	21	230	198	221	1356	46	36	813	180
Arrive On Green	0.07	0.18	0.18	0.01	0.12	0.12	0.12	0.38	0.38	0.02	0.28	0.28
Sat Flow, veh/h	1739	642	1039	1810	1870	1610	1810	3531	120	1739	2873	638
Grp Volume(v), veh/h	93	0	199	11	48	56	161	327	341	21	184	185
Grp Sat Flow(s),veh/h/ln	1739	0	1682	1810	1870	1610	1810	1791	1860	1739	1777	1734
Q Serve(g_s), s	2.0	0.0	4.3	0.2	0.9	1.2	3.3	5.3	5.3	0.5	3.2	3.3
Cycle Q Clear(g_c), s	2.0	0.0	4.3	0.2	0.9	1.2	3.3	5.3	5.3	0.5	3.2	3.3
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.06	1.00		0.37
Lane Grp Cap(c), veh/h	118	0	302	21	230	198	221	688	714	36	503	490
V/C Ratio(X)	0.79	0.00	0.66	0.53	0.21	0.28	0.73	0.48	0.48	0.58	0.37	0.38
Avail Cap(c_a), veh/h	1351	0	1307	1406	1453	1251	1406	1856	1927	1351	1841	1796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.7	0.0	14.7	19.0	15.2	15.4	16.3	9.0	9.0	18.7	11.1	11.1
Incr Delay (d2), s/veh	4.4	0.0	0.9	7.5	0.2	0.3	4.6	0.7	0.7	13.7	0.6	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	1.4	0.1	0.3	0.4	1.4	1.6	1.7	0.3	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	15.7	26.4	15.4	15.7	20.9	9.7	9.7	32.4	11.7	11.8
LnGrp LOS	C	A	B	C	B	B	C	A	A	C	B	B
Approach Vol, veh/h		292			115			829			390	
Approach Delay, s/veh		17.7			16.6			11.9			12.9	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	19.4	3.9	10.4	8.7	15.5	6.1	8.3				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	2.5	7.3	2.2	6.3	5.3	5.3	4.0	3.2				
Green Ext Time (p_c), s	0.0	6.7	0.0	0.8	0.4	3.4	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									

MST BRT
14: Del Monte Blvd & Clementina Ave

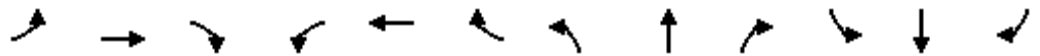
Existing + Project
timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	116	23	713	188	25	439
Future Volume (veh/h)	116	23	713	188	25	439
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1885	1885	1900	1885
Adj Flow Rate, veh/h	120	24	735	194	26	453
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	1	1	0	1
Cap, veh/h	194	173	1441	380	58	2373
Arrive On Green	0.11	0.11	0.52	0.52	0.03	0.66
Sat Flow, veh/h	1810	1610	2880	735	1810	3676
Grp Volume(v), veh/h	120	24	472	457	26	453
Grp Sat Flow(s),veh/h/ln	1810	1610	1791	1730	1810	1791
Q Serve(g_s), s	2.2	0.5	6.1	6.1	0.5	1.7
Cycle Q Clear(g_c), s	2.2	0.5	6.1	6.1	0.5	1.7
Prop In Lane	1.00	1.00		0.42	1.00	
Lane Grp Cap(c), veh/h	194	173	926	895	58	2373
V/C Ratio(X)	0.62	0.14	0.51	0.51	0.45	0.19
Avail Cap(c_a), veh/h	2056	1830	2035	1966	1285	4070
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.0	14.2	5.6	5.6	16.7	2.3
Incr Delay (d2), s/veh	1.2	0.1	0.6	0.6	2.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.1	1.2	1.1	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	16.2	14.4	6.2	6.2	18.8	2.3
LnGrp LOS	B	B	A	A	B	A
Approach Vol, veh/h	144		929			479
Approach Delay, s/veh	15.9		6.2			3.2
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.1	22.8			27.9	7.3
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+1), s	12.5	8.1			3.7	4.2
Green Ext Time (p_c), s	0.0	10.0			4.6	0.2
Intersection Summary						
HCM 6th Ctrl Delay			6.2			
HCM 6th LOS			A			

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕	↗	↖		↗		↕	↗		↕↕		
Traffic Volume (vph)	5	243	256	246	0	279	0	164	294	0	13	0	
Future Volume (vph)	5	243	256	246	0	279	0	164	294	0	13	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.96	1.00		1.00		1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00		1.00		
Frt		1.00	0.85	1.00		0.85		1.00	0.85		1.00		
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (prot)		3524	1517	1787		1599		1881	1583		1900		
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (perm)		3524	1517	1787		1599		1881	1583		1900		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	5	256	269	259	0	294	0	173	309	0	14	0	
RTOR Reduction (vph)	0	0	234	0	0	127	0	0	249	0	0	0	
Lane Group Flow (vph)	0	261	35	259	0	167	0	173	60	0	14	0	
Confl. Peds. (#/hr)			17	17									
Heavy Vehicles (%)	20%	2%	2%	1%	0%	1%	0%	1%	2%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm		NA		
Protected Phases		1		2				4				8	
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		16.3	16.3	70.8		70.8		24.2	24.2		24.2		
Effective Green, g (s)		16.3	16.3	70.8		70.8		24.2	24.2		24.2		
Actuated g/C Ratio		0.13	0.13	0.57		0.57		0.19	0.19		0.19		
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)		459	197	1012		905		364	306		367		
v/s Ratio Prot				c0.14				c0.09				0.01	
v/s Ratio Perm		0.07	0.02			0.10			0.04				
v/c Ratio		0.57	0.18	0.26		0.18		0.48	0.20		0.04		
Uniform Delay, d1		51.0	48.4	13.7		13.1		44.8	42.2		40.9		
Progression Factor		1.00	1.00	0.80		2.31		1.00	1.00		1.00		
Incremental Delay, d2		1.6	0.4	0.1		0.0		1.0	0.3		0.0		
Delay (s)		52.7	48.8	11.0		30.4		45.7	42.6		41.0		
Level of Service		D	D	B		C		D	D		D		
Approach Delay (s)		50.7			21.3			43.7			41.0		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			38.2		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.35										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			49.9%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Existing + Project
timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	215	158	801	499	52
Future Volume (vph)	88	215	158	801	499	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1615	1693	3574	3502	
Flt Permitted	0.95	1.00	0.43	1.00	1.00	
Satd. Flow (perm)	1787	1615	772	3574	3502	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	93	226	166	843	525	55
RTOR Reduction (vph)	0	176	0	0	6	0
Lane Group Flow (vph)	93	50	166	843	574	0
Confl. Peds. (#/hr)	4		7			7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	1%	0%	6%	1%	1%	4%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	15.2	15.2	35.8	35.8	43.8	
Effective Green, g (s)	15.2	15.2	35.8	35.8	43.8	
Actuated g/C Ratio	0.22	0.22	0.52	0.52	0.64	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	398	359	405	1876	2249	
v/s Ratio Prot	c0.05			c0.24	c0.16	
v/s Ratio Perm		0.03	0.21			
v/c Ratio	0.23	0.14	0.41	0.45	0.26	
Uniform Delay, d1	21.7	21.3	9.8	10.1	5.2	
Progression Factor	1.00	1.00	0.31	0.33	1.00	
Incremental Delay, d2	0.6	0.4	2.8	0.7	0.2	
Delay (s)	22.4	21.6	5.8	4.1	5.4	
Level of Service	C	C	A	A	A	
Approach Delay (s)	21.8			4.4	5.4	
Approach LOS	C			A	A	

Intersection Summary

HCM 2000 Control Delay	7.6	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	68.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Existing + Project
timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	506	84	875	218	41	673
Future Volume (vph)	506	84	875	218	41	673
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frbp, ped/bikes	1.00	0.98	1.00	0.97	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1557	3539	1528	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1557	3539	1528	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	533	88	921	229	43	708
RTOR Reduction (vph)	0	39	0	22	0	0
Lane Group Flow (vph)	533	49	921	207	43	708
Confl. Peds. (#/hr)		4		8	8	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	16.7	16.7	35.8	35.8	4.5	43.8
Effective Green, g (s)	16.7	16.7	35.8	35.8	4.5	43.8
Actuated g/C Ratio	0.24	0.24	0.52	0.52	0.07	0.64
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	840	381	1857	802	116	2272
v/s Ratio Prot	c0.16		c0.26		0.02	c0.20
v/s Ratio Perm		0.03		0.14		
v/c Ratio	0.63	0.13	0.50	0.26	0.37	0.31
Uniform Delay, d1	23.0	20.1	10.4	8.9	30.5	5.5
Progression Factor	1.00	1.00	1.00	1.00	1.25	0.59
Incremental Delay, d2	1.8	0.2	0.9	0.8	2.0	0.3
Delay (s)	24.8	20.3	11.4	9.7	40.2	3.5
Level of Service	C	C	B	A	D	A
Approach Delay (s)	24.2		11.0			5.6
Approach LOS	C		B			A

Intersection Summary

HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	68.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	52.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Delay (hr)	0.4	2.3	0.1	0.3	1.7	0.1	0.2	0.0	0.1	0.3	0.1	0.1
Avg Speed (mph)	7	13	16	17	25	27	13	13	17	15	15	18

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	5.5
Avg Speed (mph)	19

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.6	3.5	0.0	2.0	0.1	0.0	0.0	0.2	0.0	0.1	6.6
Avg Speed (mph)	10	15	12	12	12	8	16	11	11	16	14

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	4.8	0.7	1.3	1.4	1.0	0.2	9.5
Avg Speed (mph)	11	11	9	20	11	15	13

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.6	3.4	0.2	0.5	3.5	0.2	0.2	0.1	0.0	1.1	0.1	0.0
Avg Speed (mph)	10	15	14	7	12	17	9	9	13	13	14	22

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	10.9
Avg Speed (mph)	13

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.2	2.1	0.5	3.3	2.6	0.5	1.3	1.9	1.2	1.8	0.7	0.0
Avg Speed (mph)	15	15	18	10	10	15	8	11	19	14	17	23

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	16.2
Avg Speed (mph)	13

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.1	0.2	0.2	0.3	0.0	1.4	3.6	0.1	0.3	1.6	0.1
Avg Speed (mph)	12	12	18	11	11	18	17	25	24	14	23	25

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	8.4
Avg Speed (mph)	22

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Avg Speed (mph)	14	24	22	22	19

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.7	40.5	46.3	0.0	0.0	0.0	0.0	0.1	0.0	87.6
Total Delay (hr)	1.1	53.2	8.1	2.4	0.0	0.3	1.4	7.1	0.2	73.9
Avg Speed (mph)	0	0	3	2	8	7	4	2	4	1

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	25.5	5.4	0.0	0.0	0.0	0.0	30.9
Total Delay (hr)	15.4	3.4	0.4	6.3	0.3	0.3	26.0
Avg Speed (mph)	1	1	14	7	11	11	3

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay (hr)	0.1	1.3	0.1	0.4	1.2	0.1	0.1	0.5	0.4	0.2	0.4	0.1
Avg Speed (mph)	18	16	16	9	8	8	13	14	15	24	24	25

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	4.7
Avg Speed (mph)	15

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.9	0.3	0.4	1.1	0.0	1.3	1.1	0.2	0.1	0.6	0.1
Avg Speed (mph)	5	7	12	9	14	15	9	15	15	12	17	21

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	6.8
Avg Speed (mph)	12

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	0.1	0.4	0.1	0.1	0.1	1.0
Avg Speed (mph)	10	17	27	22	15	25	23

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.4	0.3	0.1	0.3	0.1	1.0	1.4	0.0	0.1	0.8	0.1
Avg Speed (mph)	13	15	19	10	11	18	20	25	25	9	17	18

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	5.1
Avg Speed (mph)	21

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.0	1.1	0.2	0.2	0.5	2.7
Avg Speed (mph)	11	17	26	24	21	31	26

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.5	0.3	0.7	1.2	1.1	0.1	3.9
Avg Speed (mph)	12	19	8	15	22	21	18

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.0	0.3
Total Delay (hr)	2.8	0.1	3.1	0.4	0.4	0.9	7.7
Avg Speed (mph)	9	18	18	20	4	14	15

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.1	0.0	23.0	70.2	18.2	0.1	0.1	0.0	0.1	0.1	0.2
Total Delay (hr)	3.1	2.9	0.1	8.8	25.9	6.6	15.0	8.9	1.8	3.1	20.2	5.5
Avg Speed (mph)	1	1	7	0	0	0	2	16	16	4	6	7

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	112.3
Total Delay (hr)	101.9
Avg Speed (mph)	5

Total Network Performance

Denied Delay (hr)	233.4
Total Delay (hr)	297.6
Avg Speed (mph)	13

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB	
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R	
Maximum Queue (ft)	81	178	196	36	77	144	128	49	74	71	94	70	
Average Queue (ft)	29	79	86	9	27	63	55	8	30	22	38	21	
95th Queue (ft)	63	149	165	26	63	121	113	35	64	53	77	52	
Link Distance (ft)	225	225	225	225		1234	1234		616		786		
Upstream Blk Time (%)	0												
Queuing Penalty (veh)	0												
Storage Bay Dist (ft)					170			95			80		50
Storage Blk Time (%)					0			1	0		0	6	0
Queuing Penalty (veh)					0			1	0		0	3	0

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB	
Directions Served	L	T	TR	T	T	R	LTR	LT	R	
Maximum Queue (ft)	142	246	409	200	202	50	30	76	73	
Average Queue (ft)	50	30	182	91	91	28	8	26	20	
95th Queue (ft)	99	139	379	179	180	58	28	59	49	
Link Distance (ft)		508	508	225	225		428	478		
Upstream Blk Time (%)	0									
Queuing Penalty (veh)	0									
Storage Bay Dist (ft)	150						25		100	
Storage Blk Time (%)	0						22		3	
Queuing Penalty (veh)	0						13		10	

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	336	427	75	181	202	216	128	122
Average Queue (ft)	137	214	49	88	58	69	74	33
95th Queue (ft)	284	366	97	148	143	161	122	81
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)	0							
Queuing Penalty (veh)	0							
Storage Bay Dist (ft)			50	200		110		
Storage Blk Time (%)			38	1	0	0	2	0
Queuing Penalty (veh)			51	5	0	0	2	0

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	172	255	302	134	247	278	125	84	47	184	128
Average Queue (ft)	98	103	157	36	109	134	42	27	11	87	11
95th Queue (ft)	153	202	260	90	192	236	137	65	37	145	67
Link Distance (ft)		627	627		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	0	0		0	2	12	0	4	0	11	
Queuing Penalty (veh)	1	0		0	1	18	0	1	0	8	

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	175	171	125	297	332	175	154	236	161	181	106	126
Average Queue (ft)	83	90	83	149	152	75	81	115	69	81	45	62
95th Queue (ft)	146	150	159	250	273	170	138	203	133	146	86	111
Link Distance (ft)	1288			627	627			584	584	584		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	0	1	2	23	9	0						
Queuing Penalty (veh)	1	1	4	43	12	0						

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	53	104
Average Queue (ft)	9	42
95th Queue (ft)	35	85
Link Distance (ft)	1311	1311
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	116	75	63	71	54	167	243	260	66	131	152	100
Average Queue (ft)	44	35	18	27	17	82	115	125	21	54	67	24
95th Queue (ft)	89	72	49	63	46	146	208	220	52	114	129	74
Link Distance (ft)	886		829				1720	1720		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	13	1				1	3			0	3	0
Queuing Penalty (veh)	11	1				4	5			0	2	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB	NB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	37	34	35	30
Average Queue (ft)	17	14	11	8
95th Queue (ft)	41	38	35	29
Link Distance (ft)	665	989	799	674
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	750	1195	705	89	88	203	209	37
Average Queue (ft)	636	953	145	80	45	75	199	6
95th Queue (ft)	919	1561	578	94	86	171	223	23
Link Distance (ft)		1167		70	70	200	200	252
Upstream Blk Time (%)		66		51	2	3	64	
Queuing Penalty (veh)		0		135	7	7	146	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)	68	43	0					
Queuing Penalty (veh)	256	167	1					

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	568	160	174	513	97	112
Average Queue (ft)	449	145	75	197	46	57
95th Queue (ft)	744	203	188	460	78	92
Link Distance (ft)	529			1467	200	200
Upstream Blk Time (%)	70					
Queuing Penalty (veh)	0					
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	3	86	1	41		
Queuing Penalty (veh)	6	118	1	53		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	131	238	100	176	158	74	55	79
Average Queue (ft)	20	76	40	86	55	50	20	38
95th Queue (ft)	67	172	78	151	112	77	45	66
Link Distance (ft)		1036	174	174	551			1467
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				1				
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)		5			8	6		
Queuing Penalty (veh)		2			13	10		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	112	139	111	65	106	143	123	156	118	140	43	93
Average Queue (ft)	46	66	38	32	33	71	40	73	54	77	11	42
95th Queue (ft)	91	116	72	61	78	126	85	127	102	125	34	78
Link Distance (ft)			174		641	641			438	438		1009
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)	0	1	0	6	4							0
Queuing Penalty (veh)	0	2	0	7	2							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	98
Average Queue (ft)	39
95th Queue (ft)	75
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	71	57	45	60	59	8	5
Average Queue (ft)	31	26	1	6	26	0	0
95th Queue (ft)	57	48	17	30	53	7	5
Link Distance (ft)	383		491	491		438	438
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	0						
Queuing Penalty (veh)	0						

Intersection: 13: Del Monte Blvd & Tiago Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	96	189	33	73	59	146	149	527	45	96	109
Average Queue (ft)	47	68	7	28	24	73	56	82	15	37	49
95th Queue (ft)	87	143	28	59	50	124	122	368	41	74	90
Link Distance (ft)		855		612			2188	2188		491	491
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	3	5									
Queuing Penalty (veh)	6	4									

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	126	41	150	177	52	71	92
Average Queue (ft)	53	15	46	51	19	19	33
95th Queue (ft)	94	40	111	120	47	53	72
Link Distance (ft)	508		944	944		2188	2188
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	0				0	0	
Queuing Penalty (veh)	0				0	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	91	109	103	133	124	114	144
Average Queue (ft)	45	48	53	42	45	58	68
95th Queue (ft)	84	83	94	96	94	96	121
Link Distance (ft)	660			179	179	944	944
Upstream Blk Time (%)				0	0		
Queuing Penalty (veh)				2	0		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)	0	0	6	2			
Queuing Penalty (veh)	0	0	24	3			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	176	204	100	273	244	58	87	122	124
Average Queue (ft)	103	102	34	153	125	42	34	40	63
95th Queue (ft)	158	172	107	233	220	55	69	90	109
Link Distance (ft)	306	306		860	860			179	179
Upstream Blk Time (%)									0
Queuing Penalty (veh)									0
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		28	0		27	5	2	2	
Queuing Penalty (veh)		24	1		59	20	6	1	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	92	91	68	937	325	863	837	120	1197	1194	350
Average Queue (ft)	83	80	14	903	260	466	453	68	434	424	198
95th Queue (ft)	95	96	44	1021	405	928	899	148	1002	1004	413
Link Distance (ft)	70	70	70	922		1591	1591		1318	1318	
Upstream Blk Time (%)	77	68	0	91					1	1	
Queuing Penalty (veh)	138	122	0	0					0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					53	4		18	53	29	3
Queuing Penalty (veh)					262	6		53	34	62	9

Network Summary

Network wide Queuing Penalty: 1967

E. CUMULATIVE CONDITIONS SYNCHRO OUTPUT SHEETS

MST BRT
1: De Forest Rd & Reservation Rd

Cumulative
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	38	794	25	28	674	105	16	3	16	146	1	73
Future Volume (veh/h)	38	794	25	28	674	105	16	3	16	146	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1648	1633	1856	1870	1900	1900	1589	1900	1900	1900
Adj Flow Rate, veh/h	42	873	27	31	741	115	18	3	18	160	1	80
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	3	17	18	3	2	0	0	21	0	0	0
Cap, veh/h	234	1402	547	66	1097	483	144	14	432	154	1	517
Arrive On Green	0.13	0.40	0.40	0.04	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1810	3526	1374	1555	3526	1552	0	42	1339	0	2	1601
Grp Volume(v), veh/h	42	873	27	31	741	115	21	0	18	161	0	80
Grp Sat Flow(s),veh/h/ln	1810	1763	1374	1555	1763	1552	42	0	1339	2	0	1601
Q Serve(g_s), s	1.0	9.2	0.6	0.9	8.5	2.6	0.0	0.0	0.4	0.0	0.0	1.7
Cycle Q Clear(g_c), s	1.0	9.2	0.6	0.9	8.5	2.6	15.0	0.0	0.4	15.0	0.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	0.86		1.00	0.99		1.00
Lane Grp Cap(c), veh/h	234	1402	547	66	1097	483	158	0	432	155	0	517
V/C Ratio(X)	0.18	0.62	0.05	0.47	0.68	0.24	0.13	0.00	0.04	1.04	0.00	0.15
Avail Cap(c_a), veh/h	779	1518	591	502	1518	668	158	0	432	155	0	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	11.2	8.6	21.7	14.0	11.9	13.6	0.0	10.8	23.2	0.0	11.2
Incr Delay (d2), s/veh	0.4	0.7	0.0	5.1	0.7	0.3	0.4	0.0	0.0	82.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.8	0.1	0.4	2.8	0.7	0.1	0.0	0.1	5.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	11.9	8.6	26.8	14.7	12.2	14.0	0.0	10.8	106.1	0.0	11.3
LnGrp LOS	B	B	A	C	B	B	B	A	B	F	A	B
Approach Vol, veh/h		942			887			39				241
Approach Delay, s/veh		12.1			14.8			12.5				74.6
Approach LOS		B			B			B				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	22.5		18.5	9.5	18.5		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	2.9	11.2		17.0	3.0	10.5		17.0				
Green Ext Time (p_c), s	0.0	3.9		0.0	0.1	3.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT

2: Goodwill Dwy/Mc Donalds & Reservation Rd

Cumulative

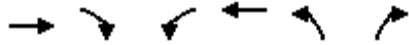
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	763	5	0	644	119	3	0	8	86	1	154
Future Volume (veh/h)	111	763	5	0	644	119	3	0	8	86	1	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	0	1841	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	812	5	0	685	127	3	0	9	91	1	164
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	4	0	0	0	0	0	0	0
Cap, veh/h	209	2096	13	0	1296	594	162	46	246	492	4	332
Arrive On Green	0.12	0.58	0.58	0.00	0.37	0.37	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	3592	22	0	3589	1604	175	221	1187	1412	21	1599
Grp Volume(v), veh/h	118	398	419	0	685	127	12	0	0	92	0	164
Grp Sat Flow(s),veh/h/ln	1810	1763	1851	0	1749	1604	1582	0	0	1433	0	1599
Q Serve(g_s), s	2.2	4.4	4.4	0.0	5.5	1.9	0.0	0.0	0.0	1.7	0.0	3.3
Cycle Q Clear(g_c), s	2.2	4.4	4.4	0.0	5.5	1.9	0.2	0.0	0.0	1.9	0.0	3.3
Prop In Lane	1.00		0.01	0.00		1.00	0.25		0.75	0.99		1.00
Lane Grp Cap(c), veh/h	209	1029	1080	0	1296	594	454	0	0	497	0	332
V/C Ratio(X)	0.56	0.39	0.39	0.00	0.53	0.21	0.03	0.00	0.00	0.19	0.00	0.49
Avail Cap(c_a), veh/h	1512	1964	2063	0	3898	1787	1389	0	0	1390	0	1336
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.0	4.0	4.0	0.0	8.8	7.7	11.4	0.0	0.0	12.0	0.0	12.6
Incr Delay (d2), s/veh	2.4	0.2	0.2	0.0	0.3	0.2	0.0	0.0	0.0	0.2	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.6	0.6	0.0	1.4	0.5	0.1	0.0	0.0	0.5	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.4	4.3	4.2	0.0	9.2	7.9	11.4	0.0	0.0	12.2	0.0	13.7
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		935			812			12			256	
Approach Delay, s/veh		5.9			9.0			11.4			13.2	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		24.9		10.9	7.6	17.3		10.9				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+I1), s		6.4		2.2	4.2	7.5		5.3				
Green Ext Time (p_c), s		5.6		0.0	0.3	5.6		1.1				
Intersection Summary												
HCM 6th Ctrl Delay											8.1	
HCM 6th LOS											A	

MST BRT
3: Seacrest Ave & Reservation Rd

Cumulative
Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	716	172	177	609	182	93
Future Volume (veh/h)	716	172	177	609	182	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1841	1856	1900
Adj Flow Rate, veh/h	770	185	190	655	196	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3	4	3	0
Cap, veh/h	1347	613	313	2220	329	300
Arrive On Green	0.38	0.38	0.18	0.63	0.19	0.19
Sat Flow, veh/h	3618	1604	1767	3589	1767	1610
Grp Volume(v), veh/h	770	185	190	655	196	100
Grp Sat Flow(s),veh/h/ln	1763	1604	1767	1749	1767	1610
Q Serve(g_s), s	9.2	4.3	5.3	4.5	5.4	2.9
Cycle Q Clear(g_c), s	9.2	4.3	5.3	4.5	5.4	2.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1347	613	313	2220	329	300
V/C Ratio(X)	0.57	0.30	0.61	0.30	0.60	0.33
Avail Cap(c_a), veh/h	1995	907	1000	2220	1000	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.9	11.4	20.1	4.4	19.8	18.7
Incr Delay (d2), s/veh	0.4	0.3	0.7	0.1	2.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.0	1.3	2.0	0.9	2.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.3	11.7	20.8	4.4	21.8	19.5
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	955			845	296	
Approach Delay, s/veh	13.0			8.1	21.0	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.4	24.8		14.9		38.2
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+1), s	17.3	11.2		7.4		6.5
Green Ext Time (p_c), s	0.2	5.7		1.2		4.5
Intersection Summary						
HCM 6th Ctrl Delay			12.2			
HCM 6th LOS			B			

MST BRT

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Cumulative

Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	693	84	99	628	56	61	33	41	112	10	96
Future Volume (veh/h)	172	693	84	99	628	56	61	33	41	112	10	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1841	1841	1530	1856	1841	1900	1900	1900	1900	1900	1841
Adj Flow Rate, veh/h	187	753	91	108	683	0	66	36	45	122	11	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	4	4	25	3	4	0	0	0	0	0	4
Cap, veh/h	240	1148	139	215	1302		393	193	458	432	34	
Arrive On Green	0.14	0.37	0.37	0.15	0.37	0.00	0.29	0.29	0.29	0.29	0.29	0.00
Sat Flow, veh/h	1668	3138	379	1457	3526	1560	996	676	1602	1071	119	1560
Grp Volume(v), veh/h	187	420	424	108	683	0	102	0	45	133	0	0
Grp Sat Flow(s),veh/h/ln	1668	1749	1768	1457	1763	1560	1672	0	1602	1190	0	1560
Q Serve(g_s), s	5.9	10.9	11.0	3.7	8.3	0.0	0.0	0.0	1.1	4.2	0.0	0.0
Cycle Q Clear(g_c), s	5.9	10.9	11.0	3.7	8.3	0.0	2.3	0.0	1.1	6.4	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.65		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	240	640	647	215	1302		586	0	458	466	0	
V/C Ratio(X)	0.78	0.66	0.66	0.50	0.52		0.17	0.00	0.10	0.29	0.00	
Avail Cap(c_a), veh/h	763	799	808	666	2256		1566	0	1465	825	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.6	14.5	14.5	21.5	13.5	0.0	14.8	0.0	14.4	17.0	0.0	0.0
Incr Delay (d2), s/veh	5.4	1.4	1.3	1.8	0.3	0.0	0.1	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.8	3.9	1.3	2.8	0.0	0.9	0.0	0.4	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	15.8	15.8	23.3	13.8	0.0	14.9	0.0	14.4	17.3	0.0	0.0
LnGrp LOS	C	B	B	C	B		B	A	B	B	A	
Approach Vol, veh/h		1031			791	A		147			133	A
Approach Delay, s/veh		18.0			15.1			14.8			17.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	24.0		19.1	11.4	24.2		19.1				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1), s	11.7	13.0		4.3	7.9	10.3		8.4				
Green Ext Time (p_c), s	0.2	4.1		0.8	0.5	4.8		0.7				

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Cumulative
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↕↕	↑	↕	↕	↑	↕↕	↕↕	↕↕	
Traffic Volume (veh/h)	17	257	147	405	185	208	245	198	385	271	252	7
Future Volume (veh/h)	17	257	147	405	185	208	245	198	385	271	252	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1856	1856	1870	1900	1856	1826	1870	1870
Adj Flow Rate, veh/h	19	289	165	455	208	234	275	222	433	304	283	8
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	4	3	3	2	0	3	5	2	2
Cap, veh/h	25	388	233	709	387	324	327	467	1246	427	666	19
Arrive On Green	0.19	0.19	0.19	0.21	0.21	0.21	0.18	0.25	0.25	0.13	0.19	0.19
Sat Flow, veh/h	133	2045	1227	3401	1856	1554	1781	1900	2723	3374	3527	99
Grp Volume(v), veh/h	260	0	213	455	208	234	275	222	433	304	142	149
Grp Sat Flow(s),veh/h/ln	1819	0	1586	1700	1856	1554	1781	1900	1361	1687	1777	1850
Q Serve(g_s), s	9.4	0.0	8.8	8.5	7.0	9.8	10.4	7.0	7.2	6.0	4.9	4.9
Cycle Q Clear(g_c), s	9.4	0.0	8.8	8.5	7.0	9.8	10.4	7.0	7.2	6.0	4.9	4.9
Prop In Lane	0.07		0.77	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	345	0	301	709	387	324	327	467	1246	427	336	349
V/C Ratio(X)	0.75	0.00	0.71	0.64	0.54	0.72	0.84	0.47	0.35	0.71	0.42	0.43
Avail Cap(c_a), veh/h	522	0	455	1463	798	669	511	545	1357	967	510	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	26.5	25.2	24.6	25.7	27.5	22.4	12.3	29.2	24.9	25.0
Incr Delay (d2), s/veh	3.3	0.0	3.1	0.4	0.4	1.2	7.3	0.3	0.1	2.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.4	3.3	2.9	3.5	4.8	2.9	3.0	2.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	29.5	25.6	25.0	26.9	34.7	22.7	12.4	31.5	25.3	25.3
LnGrp LOS	C	A	C	C	C	C	C	C	B	C	C	C
Approach Vol, veh/h		473		897		930		595				
Approach Delay, s/veh		29.8		25.8		21.5		28.4				
Approach LOS		C		C		C		C				
Timer - Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	12.8	21.2	17.2	16.8	17.2	18.5						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0						
Max Green Setting (Gmax), s	20.0	20.0	20.0	20.0	20.0	30.0						
Max Q Clear Time (g_c+1), s	19.0	9.2	11.4	12.4	6.9	11.8						
Green Ext Time (p_c), s	0.8	1.5	1.8	0.5	0.8	2.0						

Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Cumulative
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↔		↖	↕↕	↗
Traffic Volume (veh/h)	107	26	293	102	27	43	83	498	23	26	818	36
Future Volume (veh/h)	107	26	293	102	27	43	83	498	23	26	818	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1870	1856	1856	1900	1870	1900
Adj Flow Rate, veh/h	110	27	302	105	28	44	86	513	24	27	843	37
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	5	2	3	3	0	2	0
Cap, veh/h	347	85	378	183	194	155	143	1378	64	32	1208	529
Arrive On Green	0.24	0.24	0.24	0.10	0.10	0.10	0.08	0.40	0.40	0.02	0.34	0.34
Sat Flow, veh/h	1467	360	1598	1795	1900	1520	1781	3427	160	1810	3554	1555
Grp Volume(v), veh/h	137	0	302	105	28	44	86	263	274	27	843	37
Grp Sat Flow(s),veh/h/ln	1827	0	1598	1795	1900	1520	1781	1763	1825	1810	1777	1555
Q Serve(g_s), s	4.0	0.0	11.4	3.6	0.9	1.7	3.0	6.7	6.8	1.0	13.2	1.0
Cycle Q Clear(g_c), s	4.0	0.0	11.4	3.6	0.9	1.7	3.0	6.7	6.8	1.0	13.2	1.0
Prop In Lane	0.80		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	433	0	378	183	194	155	143	709	734	32	1208	529
V/C Ratio(X)	0.32	0.00	0.80	0.57	0.14	0.28	0.60	0.37	0.37	0.84	0.70	0.07
Avail Cap(c_a), veh/h	853	0	746	559	592	473	555	1235	1278	423	2490	1090
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.2	0.0	23.1	27.5	26.3	26.7	28.6	13.5	13.5	31.5	18.3	14.3
Incr Delay (d2), s/veh	0.4	0.0	3.9	2.8	0.3	1.0	4.0	0.3	0.3	41.0	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.0	4.5	1.6	0.4	0.6	1.4	2.4	2.5	0.8	4.9	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	0.0	27.0	30.3	26.6	27.7	32.6	13.8	13.8	72.5	19.1	14.4
LnGrp LOS	C	A	C	C	C	C	C	B	B	E	B	B
Approach Vol, veh/h		439			177			623			907	
Approach Delay, s/veh		25.0			29.1			16.4			20.5	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	30.3		19.2	8.6	26.3		10.0				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	13.0	8.8		13.4	5.0	15.2		5.6				
Green Ext Time (p_c), s	0.0	3.4		1.8	0.1	6.6		0.5				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	3	0	0	10	0	0	0	0	0	0	0
Future Vol, veh/h	0	3	0	0	10	0	0	0	0	0	0	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	0	0	13	0	0	0	0	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7	0	0
HCM LOS	A	A	-	-

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	3	10	0
LT Vol	0	0	0	0
Through Vol	0	3	10	0
RT Vol	0	0	0	0
Lane Flow Rate	0	4	13	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.004	0.014	0
Departure Headway (Hd)	3.931	3.91	3.903	3.931
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	920	923	0
Service Time	1.935	1.912	1.903	1.935
HCM Lane V/C Ratio	0	0.004	0.014	0
HCM Control Delay	6.9	6.9	7	6.9
HCM Lane LOS	N	A	A	N
HCM 95th-tile Q	0	0	0	0

Intersection

Intersection Delay, s/veh 10.2

Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑↑↑			↑↑	↑	↑
Traffic Vol, veh/h	147	57	25	46	236	257
Future Vol, veh/h	147	57	25	46	236	257
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	3	4	11	4	1
Mvmt Flow	158	61	27	49	254	276
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.2	9.2	10.4
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	62%	0%	100%	46%	0%	0%
Vol Thru, %	38%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	54%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	40	31	98	106	236	257
LT Vol	25	0	98	49	0	0
Through Vol	15	31	0	0	236	0
RT Vol	0	0	0	57	0	257
Lane Flow Rate	43	33	105	114	254	276
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.073	0.054	0.187	0.182	0.374	0.349
Departure Headway (Hd)	6.051	5.858	6.372	5.74	5.299	4.543
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	587	606	560	620	678	788
Service Time	3.838	3.645	4.155	3.523	3.053	2.296
HCM Lane V/C Ratio	0.073	0.054	0.188	0.184	0.375	0.35
HCM Control Delay	9.3	9	10.6	9.8	11.2	9.7
HCM Lane LOS	A	A	B	A	B	A
HCM 95th-tile Q	0.2	0.2	0.7	0.7	1.7	1.6

Intersection

Intersection Delay, s/veh 11.9

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	129	11	76	177	30	5	28	67	210	75	23
Future Vol, veh/h	7	129	11	76	177	30	5	28	67	210	75	23
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	29	11	0	0	7	11	20	4	4	2	4	9
Mvmt Flow	8	139	12	82	190	32	5	30	72	226	81	25
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.5	12	9.6	12.7
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %		15%	0%	100%	0%	100%	0%	100%
Vol Thru, %		85%	0%	0%	92%	0%	86%	0%
Vol Right, %		0%	100%	0%	8%	0%	14%	0%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		33	67	7	140	76	207	210
LT Vol		5	0	7	0	76	0	210
Through Vol		28	0	0	129	0	177	0
RT Vol		0	67	0	11	0	30	0
Lane Flow Rate		35	72	8	151	82	223	226
Geometry Grp		7	7	7	7	7	7	7
Degree of Util (X)		0.068	0.116	0.015	0.269	0.15	0.377	0.414
Departure Headway (Hd)		6.88	5.814	7.312	6.438	6.587	6.099	6.598
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap		520	615	489	557	544	590	546
Service Time		4.632	3.566	5.061	4.186	4.328	3.84	4.339
HCM Lane V/C Ratio		0.067	0.117	0.016	0.271	0.151	0.378	0.414
HCM Control Delay		10.1	9.3	10.2	11.6	10.5	12.5	13.9
HCM Lane LOS		B	A	B	B	B	B	A
HCM 95th-tile Q		0.2	0.4	0	1.1	0.5	1.7	2

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	76	303	30	130	4	111	212	19	12	578	42
Future Volume (veh/h)	27	76	303	30	130	4	111	212	19	12	578	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1737	1811	1900	1811	1811	1856	1678	1678	1900	1856	1856
Adj Flow Rate, veh/h	30	85	340	34	146	4	125	238	21	13	649	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	8	11	6	0	6	6	3	15	15	0	3	3
Cap, veh/h	45	500	437	53	993	27	217	1126	99	24	1096	79
Arrive On Green	0.03	0.29	0.29	0.03	0.29	0.29	0.06	0.38	0.38	0.01	0.33	0.33
Sat Flow, veh/h	1697	1737	1520	1810	3419	93	3428	2965	259	1810	3330	241
Grp Volume(v), veh/h	30	85	340	34	73	77	125	127	132	13	343	353
Grp Sat Flow(s),veh/h/ln	1697	1737	1520	1810	1721	1792	1714	1594	1631	1810	1763	1808
Q Serve(g_s), s	1.0	2.1	11.7	1.1	1.8	1.8	2.0	3.1	3.1	0.4	9.2	9.2
Cycle Q Clear(g_c), s	1.0	2.1	11.7	1.1	1.8	1.8	2.0	3.1	3.1	0.4	9.2	9.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.16	1.00		0.13
Lane Grp Cap(c), veh/h	45	500	437	53	500	520	217	605	619	24	580	595
V/C Ratio(X)	0.67	0.17	0.78	0.64	0.15	0.15	0.57	0.21	0.21	0.55	0.59	0.59
Avail Cap(c_a), veh/h	597	764	669	637	757	788	1207	842	861	637	931	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	15.2	18.6	27.3	14.9	14.9	25.9	11.9	11.9	27.9	15.9	15.9
Incr Delay (d2), s/veh	6.1	0.2	3.2	4.8	0.1	0.1	0.9	0.4	0.4	7.2	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	4.0	0.5	0.7	0.7	0.8	1.0	1.1	0.2	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	15.3	21.8	32.1	15.1	15.1	26.8	12.2	12.3	35.1	17.9	17.9
LnGrp LOS	C	B	C	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		455			184			384			709	
Approach Delay, s/veh		21.3			18.2			17.0			18.2	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	26.1	5.7	20.3	7.6	23.2	5.5	20.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.4	5.1	3.1	13.7	4.0	11.2	3.0	3.8				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.3	0.2	7.4	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay											18.8	
HCM 6th LOS											B	

Intersection						
Int Delay, s/veh	6.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↘	↗	↕		↘	↕
Traffic Vol, veh/h	161	30	310	85	53	861
Future Vol, veh/h	161	30	310	85	53	861
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	3	9	0	6	4
Mvmt Flow	177	33	341	93	58	946

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	979	219	0	0	436
Stage 1	390	-	-	-	-
Stage 2	589	-	-	-	-
Critical Hdwy	6.82	6.96	-	-	4.22
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.33	-	-	2.26
Pot Cap-1 Maneuver	249	782	-	-	1092
Stage 1	656	-	-	-	-
Stage 2	520	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	235	781	-	-	1090
Mov Cap-2 Maneuver	235	-	-	-	-
Stage 1	655	-	-	-	-
Stage 2	492	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	48.5	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	235	781	1090
HCM Lane V/C Ratio	-	-	0.753	0.042	0.053
HCM Control Delay (s)	-	-	55.7	9.8	8.5
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	5.3	0.1	0.2

MST BRT
13: Del Monte Blvd & Tioga Ave/The Mall

Cumulative
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	20	31	11	30	39	24	280	22	48	788	181
Future Volume (veh/h)	79	20	31	11	30	39	24	280	22	48	788	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1322	1752	1752	1767	1900	1900	1707	1841	1841	1900	1856	1856
Adj Flow Rate, veh/h	91	23	36	13	34	45	28	322	25	55	906	208
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	39	10	10	9	0	0	13	4	4	0	3	3
Cap, veh/h	103	93	146	22	161	133	42	1603	124	77	1430	328
Arrive On Green	0.08	0.15	0.15	0.01	0.08	0.08	0.03	0.49	0.49	0.04	0.50	0.50
Sat Flow, veh/h	1259	608	951	1682	1900	1566	1626	3284	253	1810	2832	650
Grp Volume(v), veh/h	91	0	59	13	34	45	28	171	176	55	564	550
Grp Sat Flow(s),veh/h/ln	1259	0	1559	1682	1900	1566	1626	1749	1788	1810	1763	1719
Q Serve(g_s), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	2.9	2.9	1.5	12.0	12.0
Cycle Q Clear(g_c), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	2.9	2.9	1.5	12.0	12.0
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.14	1.00		0.38
Lane Grp Cap(c), veh/h	103	0	240	22	161	133	42	854	873	77	890	868
V/C Ratio(X)	0.88	0.00	0.25	0.59	0.21	0.34	0.67	0.20	0.20	0.72	0.63	0.63
Avail Cap(c_a), veh/h	733	0	907	979	1106	911	946	1357	1388	1053	1368	1333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	19.2	25.3	22.0	22.2	24.9	7.5	7.5	24.4	9.3	9.3
Incr Delay (d2), s/veh	8.9	0.0	0.2	8.8	0.2	0.6	17.1	0.2	0.2	11.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.6	0.2	0.4	0.5	0.5	0.9	0.9	0.9	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	19.4	34.1	22.2	22.8	42.0	7.6	7.6	36.3	10.4	10.4
LnGrp LOS	C	A	B	C	C	C	D	A	A	D	B	B
Approach Vol, veh/h		150			92			375			1169	
Approach Delay, s/veh		27.2			24.2			10.2			11.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	29.8	4.2	11.4	5.3	30.6	7.7	7.9				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.5	4.9	2.4	3.7	2.9	14.0	5.7	3.4				
Green Ext Time (p_c), s	0.1	3.2	0.0	0.2	0.0	12.0	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative
Timing Plan: AM



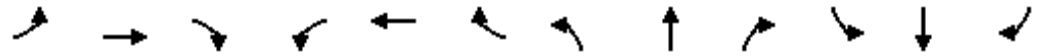
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	265	29	318	141	51	764
Future Volume (veh/h)	265	29	318	141	51	764
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1856	1796	1841	1841	1767	1856
Adj Flow Rate, veh/h	273	30	328	145	53	788
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	7	4	4	9	3
Cap, veh/h	367	316	790	341	100	1855
Arrive On Green	0.21	0.21	0.34	0.34	0.06	0.53
Sat Flow, veh/h	1767	1522	2449	1018	1682	3618
Grp Volume(v), veh/h	273	30	241	232	53	788
Grp Sat Flow(s),veh/h/ln	1767	1522	1749	1626	1682	1763
Q Serve(g_s), s	4.4	0.5	3.2	3.4	0.9	4.2
Cycle Q Clear(g_c), s	4.4	0.5	3.2	3.4	0.9	4.2
Prop In Lane	1.00	1.00		0.63	1.00	
Lane Grp Cap(c), veh/h	367	316	586	545	100	1855
V/C Ratio(X)	0.74	0.09	0.41	0.42	0.53	0.42
Avail Cap(c_a), veh/h	2323	2001	2299	2138	1383	4635
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	9.7	7.8	7.8	13.9	4.4
Incr Delay (d2), s/veh	1.1	0.0	0.7	0.7	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4	0.1	0.8	0.8	0.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.4	9.8	8.5	8.6	15.5	4.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h	303		473			841
Approach Delay, s/veh	12.2		8.5			5.3
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.8	14.8			20.6	9.8
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+I), s	12.9	5.4			6.2	6.4
Green Ext Time (p_c), s	0.0	4.5			8.8	0.4
Intersection Summary						
HCM 6th Ctrl Delay			7.5			
HCM 6th LOS			A			

MST BRT

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Cumulative

Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔↔	↔	↔		↔		↔	↔		↔		
Traffic Volume (vph)	1	206	151	342	0	453	0	67	126	0	0	0	
Future Volume (vph)	1	206	151	342	0	453	0	67	126	0	0	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2				
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00				
Frbp, ped/bikes		1.00	0.98	1.00		1.00		1.00	1.00				
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00				
Frt		1.00	0.85	1.00		0.85		1.00	0.85				
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00				
Satd. Flow (prot)		3574	1587	1787		1599		1776	1615				
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00				
Satd. Flow (perm)		3574	1587	1787		1599		1776	1615				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	1	217	159	360	0	477	0	71	133	0	0	0	
RTOR Reduction (vph)	0	0	141	0	0	147	0	0	121	0	0	0	
Lane Group Flow (vph)	0	218	18	360	0	330	0	71	12	0	0	0	
Confl. Peds. (#/hr)			3	3									
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	7%	0%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm				
Protected Phases		1		2				4			8		
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		14.0	14.0	86.4		86.4		10.9	10.9				
Effective Green, g (s)		14.0	14.0	86.4		86.4		10.9	10.9				
Actuated g/C Ratio		0.11	0.11	0.69		0.69		0.09	0.09				
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2				
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0				
Lane Grp Cap (vph)		400	177	1235		1105		154	140				
v/s Ratio Prot				0.20				c0.04					
v/s Ratio Perm		0.06	0.01			c0.21			0.01				
v/c Ratio		0.55	0.10	0.29		0.30		0.46	0.08				
Uniform Delay, d1		52.5	49.8	7.5		7.5		54.3	52.5				
Progression Factor		1.00	1.00	1.04		5.99		1.00	1.00				
Incremental Delay, d2		1.5	0.3	0.1		0.1		2.2	0.3				
Delay (s)		54.0	50.1	7.8		45.0		56.4	52.7				
Level of Service		D	D	A		D		E	D				
Approach Delay (s)		52.4			29.0			54.0			0.0		
Approach LOS		D			C			D			A		
Intersection Summary													
HCM 2000 Control Delay			38.8		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.34										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			53.8%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative
Timing Plan: AM















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	292	225	429	802	100
Future Volume (vph)	54	292	225	429	802	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1495	1730	3505	3440	
Flt Permitted	0.95	1.00	0.30	1.00	1.00	
Satd. Flow (perm)	1770	1495	549	3505	3440	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	307	237	452	844	105
RTOR Reduction (vph)	0	103	0	0	7	0
Lane Group Flow (vph)	57	204	237	452	942	0
Confl. Peds. (#/hr)	8		6			6
Confl. Bikes (#/hr)						8
Heavy Vehicles (%)	2%	8%	4%	3%	3%	1%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.8	35.8	43.8	
Effective Green, g (s)	17.2	17.2	35.8	35.8	43.8	
Actuated g/C Ratio	0.25	0.25	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	433	366	279	1787	2146	
v/s Ratio Prot	0.03			0.13	c0.27	
v/s Ratio Perm		c0.14	c0.43			
v/c Ratio	0.13	0.56	0.85	0.25	0.44	
Uniform Delay, d1	20.7	23.2	14.9	9.7	6.8	
Progression Factor	1.00	1.00	0.49	0.42	1.00	
Incremental Delay, d2	0.3	3.1	25.6	0.3	0.7	
Delay (s)	21.0	26.3	32.9	4.4	7.5	
Level of Service	C	C	C	A	A	
Approach Delay (s)	25.4			14.2	7.5	
Approach LOS	C			B	A	

Intersection Summary

HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	70.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative
Timing Plan: AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	585	82	572	244	42	1052
Future Volume (vph)	585	82	572	244	42	1052
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	3539	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	616	86	602	257	44	1107
RTOR Reduction (vph)	0	32	0	39	0	0
Lane Group Flow (vph)	616	54	602	218	44	1107
Confl. Peds. (#/hr)					7	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.8	35.8	4.5	43.8
Effective Green, g (s)	18.7	18.7	35.8	35.8	4.5	43.8
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.06	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	914	421	1804	807	113	2208
v/s Ratio Prot	c0.18		0.17		0.02	c0.31
v/s Ratio Perm		0.03		0.14		
v/c Ratio	0.67	0.13	0.33	0.27	0.39	0.50
Uniform Delay, d1	23.0	19.6	10.2	9.8	31.5	7.2
Progression Factor	1.00	1.00	1.00	1.00	1.29	0.61
Incremental Delay, d2	2.2	0.2	0.5	0.8	2.1	0.8
Delay (s)	25.2	19.7	10.7	10.6	42.8	5.2
Level of Service	C	B	B	B	D	A
Approach Delay (s)	24.5		10.6			6.6
Approach LOS	C		B			A
Intersection Summary						
HCM 2000 Control Delay			12.5		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.60			
Actuated Cycle Length (s)			70.2		Sum of lost time (s)	12.7
Intersection Capacity Utilization			52.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	1.8	0.0	0.2	1.6	0.1	0.0	0.0	0.0	0.5	0.0	0.1
Avg Speed (mph)	7	14	18	18	26	27	15	15	17	15	14	18

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	4.6
Avg Speed (mph)	21

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Total Delay (hr)	0.8	2.6	0.0	2.0	0.2	0.0	0.0	0.4	0.0	0.3	6.3
Avg Speed (mph)	10	16	13	11	12	10	16	10	15	15	14

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	3.9	0.8	1.4	1.2	1.1	0.3	8.6
Avg Speed (mph)	11	11	9	20	11	15	13

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.5	3.6	0.4	0.9	2.5	0.1	0.3	0.2	0.1	0.6	0.1	0.1
Avg Speed (mph)	10	14	13	8	14	20	9	9	13	13	13	22

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	10.2
Avg Speed (mph)	13

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.1	3.1	1.3	3.9	1.4	0.5	3.1	1.9	0.6	2.8	2.5	0.0
Avg Speed (mph)	13	13	15	9	11	17	7	9	19	14	15	16

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	21.4
Avg Speed (mph)	12

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	0.2	1.1	1.0	0.3	0.1	1.0	2.4	0.1	0.4	4.9	0.1
Avg Speed (mph)	11	11	15	9	10	19	18	25	27	12	18	22

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	12.3
Avg Speed (mph)	19

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Avg Speed (mph)	13	24	20

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.0	10.2	0.2	1.9	0.0	0.3	1.0	1.2	14.6
Avg Speed (mph)	16	4	26	2	10	9	3	4	5

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.1	0.0	0.1	0.3	0.2	0.9
Avg Speed (mph)	18	18	27	27	11	12	17

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.3	0.0	0.1	0.4	0.0	0.0	0.1	0.1	0.4	0.2	0.0
Avg Speed (mph)	20	19	20	11	11	11	15	16	16	25	26	27

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.7
Avg Speed (mph)	20

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.3	0.6	0.2	0.7	0.0	0.7	0.5	0.0	0.1	2.2	0.1
Avg Speed (mph)	4	7	10	9	13	15	9	18	19	13	19	20

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	5.7
Avg Speed (mph)	15

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.0	0.1	0.0	0.1	0.4	1.6
Avg Speed (mph)	9	17	27	22	18	26	22

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.1	0.1	0.2	0.1	0.2	0.7	0.0	0.3	1.4	0.3
Avg Speed (mph)	13	14	20	10	11	19	18	26	26	9	19	18

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.8
Avg Speed (mph)	20

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.2	0.0	0.6	0.2	0.3	1.6	4.1
Avg Speed (mph)	12	18	25	24	21	29	26

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.3	0.9	3.6	1.0	2.4	0.3	8.5
Avg Speed (mph)	14	17	3	11	20	19	15

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.0	0.3
Total Delay (hr)	3.1	0.1	4.1	0.5	0.5	1.9	10.0
Avg Speed (mph)	8	17	12	19	3	13	12

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	53.5	120.4	11.8	0.2	0.2	0.0	18.8	194.2	44.2
Total Delay (hr)	0.9	2.5	0.3	10.7	27.3	3.3	19.6	6.0	0.8	7.9	84.9	12.0
Avg Speed (mph)	2	2	6	0	0	0	4	16	17	2	1	2

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	443.6
Total Delay (hr)	176.2
Avg Speed (mph)	3

Total Network Performance

Denied Delay (hr)	447.0
Total Delay (hr)	297.7
Avg Speed (mph)	13

MST BRT
Queuing and Blocking Report

Cumulative
AM

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	56	166	168	38	74	172	142	59	61	46	110	73
Average Queue (ft)	17	67	71	4	20	61	50	11	10	10	47	27
95th Queue (ft)	42	133	137	19	54	126	107	39	39	33	87	63
Link Distance (ft)	225	225	225	225		1234	1234		616		786	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)					170			95		80		50
Storage Blk Time (%)						0	1		0		10	1
Queuing Penalty (veh)						0	1		0		8	1

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	T	T	R	LTR	LT	R
Maximum Queue (ft)	137	230	413	216	195	50	54	92	80
Average Queue (ft)	59	24	173	103	88	40	10	38	39
95th Queue (ft)	112	128	353	186	166	61	37	72	67
Link Distance (ft)		508	508	225	225		428	478	
Upstream Blk Time (%)			0	0	0				
Queuing Penalty (veh)			0	0	0				
Storage Bay Dist (ft)	150					25			100
Storage Blk Time (%)	0	0			22	6		0	0
Queuing Penalty (veh)	1	0			27	19		0	0

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	314	382	75	192	181	170	132	174
Average Queue (ft)	115	194	46	89	57	57	81	46
95th Queue (ft)	243	340	93	153	129	127	132	107
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (ft)			50	200			110	
Storage Blk Time (%)		35	2	0	0		4	
Queuing Penalty (veh)		61	6	1	0		4	

MST BRT
Queuing and Blocking Report

Cumulative
AM

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	200	261	324	170	233	216	102	116	70	142	74
Average Queue (ft)	102	106	177	74	97	90	7	48	27	60	7
95th Queue (ft)	175	206	288	145	184	168	54	93	64	110	45
Link Distance (ft)		624	624		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	0	0		1	1	4	0	9	1	5	0
Queuing Penalty (veh)	2	0		4	1	3	0	4	1	5	0

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	360	200	125	377	193	172	273	212	106	127	175	188
Average Queue (ft)	134	140	96	171	89	65	156	108	45	55	71	98
95th Queue (ft)	294	213	159	304	152	121	252	189	88	102	146	161
Link Distance (ft)	1285			624	624			584	584	584		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	3	10	2	28	1	0					0	0
Queuing Penalty (veh)	8	15	4	56	2	0					0	0

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	148	184
Average Queue (ft)	43	102
95th Queue (ft)	122	166
Link Distance (ft)	1314	1314
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)	0	
Queuing Penalty (veh)	0	

MST BRT
Queuing and Blocking Report

Cumulative
AM

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	310	75	150	62	68	148	185	184	146	268	281	125
Average Queue (ft)	117	68	61	21	23	56	84	85	25	141	156	25
95th Queue (ft)	239	86	120	54	53	117	152	155	78	231	246	94
Link Distance (ft)	886		829				2351	2351		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	24	19				0	1			7	20	0
Queuing Penalty (veh)	70	26				1	1			2	7	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	31	31
Average Queue (ft)	3	8
95th Queue (ft)	20	30
Link Distance (ft)	654	990
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB
Directions Served	LT	T	R	L	R	T	R
Maximum Queue (ft)	473	542	171	88	78	155	167
Average Queue (ft)	137	292	36	77	48	54	74
95th Queue (ft)	458	604	160	102	80	113	141
Link Distance (ft)		1168		72	72	198	198
Upstream Blk Time (%)				40	1	0	0
Queuing Penalty (veh)				159	5	0	0
Storage Bay Dist (ft)	660		645				
Storage Blk Time (%)	0	3					
Queuing Penalty (veh)	0	8					

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	55	64	57	49	102	85
Average Queue (ft)	22	30	24	21	51	46
95th Queue (ft)	45	53	50	47	84	73
Link Distance (ft)	526		1460		198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	90		130			
Storage Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	45	95	70	112	57	69	86	65
Average Queue (ft)	4	37	32	57	19	32	36	31
95th Queue (ft)	23	70	58	95	47	59	65	53
Link Distance (ft)	1035		173	173	466			1460
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	120						50	150
Storage Blk Time (%)	0				0	1		
Queuing Penalty (veh)	0				0	0		

MST BRT
Queuing and Blocking Report

Cumulative
AM

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	63	97	141	63	81	114	65	110	101	117	43	199
Average Queue (ft)	20	34	59	23	22	51	22	45	32	44	11	108
95th Queue (ft)	51	77	106	54	57	99	54	88	79	90	34	175
Link Distance (ft)			173		641	641			438	438		1009
Upstream Blk Time (%)			0									
Queuing Penalty (veh)			0									
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)		0	1	3	2							2
Queuing Penalty (veh)		0	1	2	1							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	200
Average Queue (ft)	91
95th Queue (ft)	165
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	144	76	4	64
Average Queue (ft)	60	20	0	14
95th Queue (ft)	118	53	4	46
Link Distance (ft)	379		488	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		100
Storage Blk Time (%)	2			0
Queuing Penalty (veh)	1			0

Intersection: 13: Del Monte Blvd & Tioga Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	97	121	42	55	48	64	115	113	89	188	208
Average Queue (ft)	52	32	8	19	22	20	34	41	29	69	83
95th Queue (ft)	96	81	28	47	45	55	82	96	66	142	160
Link Distance (ft)		873		606			2183	2183		488	488
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	5	1								0	
Queuing Penalty (veh)	3	1								0	

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	185	78	110	134	94	138	170
Average Queue (ft)	92	18	41	53	35	55	71
95th Queue (ft)	161	53	88	108	74	113	136
Link Distance (ft)	522		945	945		2183	2183
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	1				2	3	
Queuing Penalty (veh)	0				8	1	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	205	149	110	208	191	233	253
Average Queue (ft)	44	84	101	136	96	99	115
95th Queue (ft)	134	141	127	255	204	172	198
Link Distance (ft)	776			172	172	945	945
Upstream Blk Time (%)				12	1		
Queuing Penalty (veh)				41	5		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)	0	4	60	5			
Queuing Penalty (veh)	0	2	129	12			

MST BRT
Queuing and Blocking Report

Cumulative
AM

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	183	196	100	350	330	60	82	174	190
Average Queue (ft)	107	105	38	158	117	46	34	76	96
95th Queue (ft)	161	175	113	310	265	58	70	143	160
Link Distance (ft)	300	300		709	709			172	172
Upstream Blk Time (%)								0	1
Queuing Penalty (veh)								1	3
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		31	0		24	4	3	8	
Queuing Penalty (veh)		25	0		60	11	15	3	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	86	92	77	943	325	1108	1081	119	1364	1363	350
Average Queue (ft)	31	85	40	917	263	578	548	67	1289	1285	253
95th Queue (ft)	75	97	77	995	402	1327	1270	156	1569	1579	500
Link Distance (ft)	72	72	72	918		1588	1588		1326	1326	
Upstream Blk Time (%)	4	64	1	95		2	1		76	78	
Queuing Penalty (veh)	5	71	1	0		0	0		0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					52	1		7	84	88	0
Queuing Penalty (veh)					173	2		33	81	187	1

Network Summary

Network wide Queuing Penalty: 1392

MST BRT
1: De Forest Rd & Reservation Rd

Cumulative
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	910	118	60	836	72	72	11	76	95	26	58
Future Volume (veh/h)	68	910	118	60	836	72	72	11	76	95	26	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1841	1648	1885	1900	1737	1737	1767	1811	1811	1900
Adj Flow Rate, veh/h	72	958	124	63	880	76	76	12	80	100	27	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	1	4	17	1	0	11	11	9	6	6	0
Cap, veh/h	226	1388	578	111	1195	512	140	11	464	134	20	499
Arrive On Green	0.12	0.39	0.39	0.07	0.33	0.33	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	3582	1492	1570	3582	1536	0	37	1486	0	65	1598
Grp Volume(v), veh/h	72	958	124	63	880	76	88	0	80	127	0	61
Grp Sat Flow(s),veh/h/ln	1810	1791	1492	1570	1791	1536	37	0	1486	65	0	1598
Q Serve(g_s), s	1.7	10.7	2.7	1.9	10.4	1.7	0.0	0.0	1.9	0.0	0.0	1.3
Cycle Q Clear(g_c), s	1.7	10.7	2.7	1.9	10.4	1.7	15.0	0.0	1.9	15.0	0.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	0.86		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	226	1388	578	111	1195	512	151	0	464	154	0	499
V/C Ratio(X)	0.32	0.69	0.21	0.57	0.74	0.15	0.58	0.00	0.17	0.82	0.00	0.12
Avail Cap(c_a), veh/h	754	1492	622	490	1492	640	151	0	464	154	0	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	12.3	9.8	21.6	14.1	11.2	22.1	0.0	12.0	21.6	0.0	11.8
Incr Delay (d2), s/veh	0.8	1.3	0.2	4.4	1.5	0.1	5.6	0.0	0.2	28.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.6	0.7	0.7	3.6	0.5	1.2	0.0	0.6	2.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	13.6	10.0	26.0	15.6	11.3	27.6	0.0	12.2	50.4	0.0	11.9
LnGrp LOS	B	B	B	C	B	B	C	A	B	D	A	B
Approach Vol, veh/h		1154			1019			168			188	
Approach Delay, s/veh		13.6			15.9			20.3			37.9	
Approach LOS		B			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	22.6		18.5	9.5	20.0		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+1), s	13.9	12.7		17.0	3.7	12.4		17.0				
Green Ext Time (p_c), s	0.1	3.9		0.0	0.1	3.6		0.0				

Intersection Summary

HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT

2: Goodwill Dwy/Mc Donalds & Reservation Rd

Cumulative

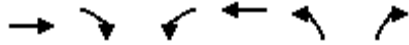
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	983	3	0	891	96	4	0	13	90	1	47
Future Volume (veh/h)	111	983	3	0	891	96	4	0	13	90	1	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1870	1900	1900	1900	1900	1900	1900	1870
Adj Flow Rate, veh/h	114	1013	3	0	919	99	4	0	13	93	1	48
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	2	0	0	0	0	0	0	2
Cap, veh/h	190	2281	7	0	1535	682	140	40	237	446	4	303
Arrive On Green	0.11	0.62	0.62	0.00	0.43	0.43	0.20	0.00	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1795	3663	11	0	3647	1578	167	205	1209	1392	20	1549
Grp Volume(v), veh/h	114	495	521	0	919	99	17	0	0	94	0	48
Grp Sat Flow(s),veh/h/ln	1795	1791	1883	0	1777	1578	1581	0	0	1412	0	1549
Q Serve(g_s), s	2.5	6.0	6.0	0.0	8.2	1.6	0.0	0.0	0.0	1.9	0.0	1.1
Cycle Q Clear(g_c), s	2.5	6.0	6.0	0.0	8.2	1.6	0.3	0.0	0.0	2.3	0.0	1.1
Prop In Lane	1.00		0.01	0.00		1.00	0.24		0.76	0.99		1.00
Lane Grp Cap(c), veh/h	190	1115	1172	0	1535	682	417	0	0	450	0	303
V/C Ratio(X)	0.60	0.44	0.44	0.00	0.60	0.15	0.04	0.00	0.00	0.21	0.00	0.16
Avail Cap(c_a), veh/h	1304	1734	1823	0	3440	1528	1221	0	0	1190	0	1124
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	4.1	4.1	0.0	9.0	7.1	13.5	0.0	0.0	14.3	0.0	13.8
Incr Delay (d2), s/veh	3.0	0.3	0.3	0.0	0.4	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	0.9	1.0	0.0	2.2	0.4	0.1	0.0	0.0	0.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.6	4.3	4.3	0.0	9.4	7.2	13.5	0.0	0.0	14.5	0.0	14.0
LnGrp LOS	C	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1130			1018			17			142	
Approach Delay, s/veh		6.0			9.2			13.5			14.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		29.7		11.6	7.9	21.9		11.6				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+11), s		8.0		2.3	4.5	10.2		4.3				
Green Ext Time (p_c), s		7.5		0.0	0.3	7.7		0.7				
Intersection Summary												
HCM 6th Ctrl Delay											8.0	
HCM 6th LOS											A	

MST BRT
3: Seacrest Ave & Reservation Rd

Cumulative
Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↑
Traffic Volume (veh/h)	857	195	247	751	274	109
Future Volume (veh/h)	857	195	247	751	274	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	874	199	252	766	280	111
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	1324	574	318	2216	376	335
Arrive On Green	0.37	0.37	0.18	0.62	0.21	0.21
Sat Flow, veh/h	3676	1552	1795	3676	1795	1598
Grp Volume(v), veh/h	874	199	252	766	280	111
Grp Sat Flow(s),veh/h/ln	1791	1552	1795	1791	1795	1598
Q Serve(g_s), s	11.3	5.1	7.4	5.7	8.1	3.3
Cycle Q Clear(g_c), s	11.3	5.1	7.4	5.7	8.1	3.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1324	574	318	2216	376	335
V/C Ratio(X)	0.66	0.35	0.79	0.35	0.74	0.33
Avail Cap(c_a), veh/h	1942	841	973	2216	973	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.5	12.6	21.8	5.1	20.5	18.6
Incr Delay (d2), s/veh	0.6	0.4	1.7	0.1	3.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.9	1.6	3.0	1.4	3.5	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.1	13.0	23.5	5.2	24.0	19.3
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	1073			1018	391	
Approach Delay, s/veh	14.7			9.7	22.7	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.8	25.0		16.6		38.7
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+I), s	19.4	13.3		10.1		7.7
Green Ext Time (p_c), s	0.3	6.2		1.5		5.3
Intersection Summary						
HCM 6th Ctrl Delay			13.9			
HCM 6th LOS			B			

MST BRT

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Cumulative

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	787	99	93	843	151	144	41	37	211	42	112
Future Volume (veh/h)	239	787	99	93	843	151	144	41	37	211	42	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	0.99		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1885	1885	1900	1885	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	244	803	101	95	860	0	147	42	38	215	43	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	1	1	0	1	0	0	0	0	0	0	0
Cap, veh/h	304	1187	149	230	1191		496	130	521	384	59	
Arrive On Green	0.17	0.37	0.37	0.13	0.33	0.00	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1810	3181	400	1810	3582	1610	1208	397	1590	858	180	1610
Grp Volume(v), veh/h	244	452	452	95	860	0	189	0	38	258	0	0
Grp Sat Flow(s),veh/h/ln	1810	1791	1790	1810	1791	1610	1605	0	1590	1038	0	1610
Q Serve(g_s), s	8.3	13.6	13.6	3.1	13.5	0.0	0.0	0.0	1.1	10.9	0.0	0.0
Cycle Q Clear(g_c), s	8.3	13.6	13.6	3.1	13.5	0.0	5.5	0.0	1.1	16.4	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.78		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	304	668	668	230	1191		626	0	521	443	0	
V/C Ratio(X)	0.80	0.68	0.68	0.41	0.72		0.30	0.00	0.07	0.58	0.00	
Avail Cap(c_a), veh/h	706	698	698	706	1956		1288	0	1240	639	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.7	16.8	16.9	25.8	18.8	0.0	16.3	0.0	14.8	22.4	0.0	0.0
Incr Delay (d2), s/veh	5.0	2.5	2.5	1.2	0.8	0.0	0.3	0.0	0.1	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.3	5.3	1.3	5.1	0.0	2.0	0.0	0.4	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	19.3	19.3	26.9	19.6	0.0	16.6	0.0	14.9	23.6	0.0	0.0
LnGrp LOS	C	B	B	C	B		B	A	B	C	A	
Approach Vol, veh/h		1148			955	A		227			258	A
Approach Delay, s/veh		21.7			20.4			16.3			23.6	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	1.7	27.9		24.5	14.3	25.3		24.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1.5), s	15.6	15.6		7.5	10.3	15.5		18.4				
Green Ext Time (p_c), s	0.2	3.8		1.4	0.6	5.8		1.2				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Cumulative
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↑	↔	↔	↑	↔↔	↔↔	↔↔	
Traffic Volume (veh/h)	107	320	131	461	455	208	169	271	624	188	104	10
Future Volume (veh/h)	107	320	131	461	455	208	169	271	624	188	104	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	109	327	134	470	464	212	172	277	637	192	106	10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	1	1	2	1	2	1	2	2	2
Cap, veh/h	133	412	177	1012	548	452	215	406	1406	290	594	55
Arrive On Green	0.21	0.21	0.21	0.29	0.29	0.29	0.12	0.22	0.22	0.08	0.18	0.18
Sat Flow, veh/h	644	1995	858	3483	1885	1556	1795	1870	2708	3456	3272	304
Grp Volume(v), veh/h	309	0	261	470	464	212	172	277	637	192	57	59
Grp Sat Flow(s),veh/h/ln	1823	0	1674	1742	1885	1556	1795	1870	1354	1728	1777	1799
Q Serve(g_s), s	12.8	0.0	11.7	8.8	18.4	8.9	7.4	10.8	12.0	4.3	2.1	2.2
Cycle Q Clear(g_c), s	12.8	0.0	11.7	8.8	18.4	8.9	7.4	10.8	12.0	4.3	2.1	2.2
Prop In Lane	0.35		0.51	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	377	0	346	1012	548	452	215	406	1406	290	323	327
V/C Ratio(X)	0.82	0.00	0.76	0.46	0.85	0.47	0.80	0.68	0.45	0.66	0.18	0.18
Avail Cap(c_a), veh/h	459	0	422	1316	713	588	452	471	1500	871	448	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	29.6	23.1	26.5	23.1	34.0	28.5	12.6	35.3	27.5	27.5
Incr Delay (d2), s/veh	9.4	0.0	6.2	0.1	6.0	0.3	6.8	2.3	0.1	2.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	5.0	3.4	8.6	3.1	3.5	4.9	5.9	1.8	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	0.0	35.8	23.2	32.5	23.4	40.8	30.8	12.7	37.8	27.6	27.6
LnGrp LOS	D	A	D	C	C	C	D	C	B	D	C	C
Approach Vol, veh/h		570			1146			1086			308	
Approach Delay, s/veh		37.8			27.0			21.7			34.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	21.2		20.4	13.5	18.4		27.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	20.0	20.0		20.0	20.0	20.0		30.0				
Max Q Clear Time (g_c+1), s	10.3	14.0		14.8	9.4	4.2		20.4				
Green Ext Time (p_c), s	0.5	1.6		1.6	0.3	0.3		2.5				

Intersection Summary

HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Cumulative
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↔		↖	↕↕	↗
Traffic Volume (veh/h)	64	26	114	37	52	35	265	1021	59	56	531	72
Future Volume (veh/h)	64	26	114	37	52	35	265	1021	59	56	531	72
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1856	1841	1900	1885	1885	1767	1885	1900
Adj Flow Rate, veh/h	65	26	115	37	53	35	268	1031	60	57	536	73
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	3	4	0	1	1	9	1	0
Cap, veh/h	172	69	207	158	162	132	345	1509	88	69	1037	461
Arrive On Green	0.13	0.13	0.13	0.09	0.09	0.09	0.19	0.44	0.44	0.04	0.29	0.29
Sat Flow, veh/h	1310	524	1573	1810	1856	1506	1810	3438	200	1682	3582	1591
Grp Volume(v), veh/h	91	0	115	37	53	35	268	537	554	57	536	73
Grp Sat Flow(s),veh/h/ln	1834	0	1573	1810	1856	1506	1810	1791	1847	1682	1791	1591
Q Serve(g_s), s	2.3	0.0	3.5	1.0	1.4	1.1	7.2	12.4	12.4	1.7	6.4	1.8
Cycle Q Clear(g_c), s	2.3	0.0	3.5	1.0	1.4	1.1	7.2	12.4	12.4	1.7	6.4	1.8
Prop In Lane	0.71		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	241	0	207	158	162	132	345	786	811	69	1037	461
V/C Ratio(X)	0.38	0.00	0.56	0.23	0.33	0.27	0.78	0.68	0.68	0.82	0.52	0.16
Avail Cap(c_a), veh/h	1068	0	916	703	720	585	703	1565	1614	490	3129	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	21.0	21.9	22.1	22.0	19.8	11.6	11.6	24.5	15.3	13.6
Incr Delay (d2), s/veh	1.0	0.0	2.3	0.7	1.2	1.1	3.8	1.1	1.0	20.8	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	1.3	0.4	0.6	0.4	3.0	4.0	4.1	1.0	2.3	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	0.0	23.3	22.6	23.2	23.0	23.6	12.6	12.6	45.3	15.7	13.8
LnGrp LOS	C	A	C	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		206			125			1359			666	
Approach Delay, s/veh		22.5			23.0			14.8			18.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	27.1		10.8	13.3	19.4		8.0				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	13.7	14.4		5.5	9.2	8.4		3.4				
Green Ext Time (p_c), s	0.1	8.2		0.9	0.6	4.1		0.4				

Intersection Summary

HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
7: Beach Range Rd & Stilwel Hall/8th St

Cumulative
Timing Plan: PM

Intersection

Intersection Delay, s/veh 7
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	24	0	0	16	0	0	0	0	0	0	0
Future Vol, veh/h	0	24	0	0	16	0	0	0	0	0	0	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	29	0	0	19	0	0	0	0	0	0	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7	0	0
HCM LOS	A	A	-	-

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	0	24	16	0
LT Vol	0	0	0	0
Through Vol	0	24	16	0
RT Vol	0	0	0	0
Lane Flow Rate	0	29	19	0
Geometry Grp	1	1	1	1
Degree of Util (X)	0	0.031	0.021	0
Departure Headway (Hd)	3.984	3.914	3.922	3.984
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	0	920	917	0
Service Time	2.001	1.917	1.926	2.001
HCM Lane V/C Ratio	0	0.032	0.021	0
HCM Control Delay	7	7	7	7
HCM Lane LOS	N	A	A	N
HCM 95th-tile Q	0	0.1	0.1	0

Intersection

Intersection Delay, s/veh 13.9

Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	307	62	69	267	240	312
Future Vol, veh/h	307	62	69	267	240	312
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	320	65	72	278	250	325
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	14.4	12.8	14.2
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	44%	0%	100%	62%	0%	0%
Vol Thru, %	56%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	38%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	158	178	205	164	240	312
LT Vol	69	0	205	102	0	0
Through Vol	89	178	0	0	240	0
RT Vol	0	0	0	62	0	312
Lane Flow Rate	165	185	213	171	250	325
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.312	0.34	0.434	0.326	0.442	0.509
Departure Headway (Hd)	6.815	6.609	7.33	6.853	6.366	5.636
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	525	541	490	524	565	637
Service Time	4.583	4.377	5.089	4.612	4.126	3.396
HCM Lane V/C Ratio	0.314	0.342	0.435	0.326	0.442	0.51
HCM Control Delay	12.7	12.8	15.6	12.9	14.1	14.2
HCM Lane LOS	B	B	C	B	B	B
HCM 95th-tile Q	1.3	1.5	2.2	1.4	2.2	2.9

Intersection

Intersection Delay, s/veh45.6

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗	↖	↗	
Traffic Vol, veh/h	51	279	16	199	339	135	20	163	169	111	135	39
Future Vol, veh/h	51	279	16	199	339	135	20	163	169	111	135	39
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	4	0	0	4	0	0	0	0	2	0	0
Mvmt Flow	55	300	17	214	365	145	22	175	182	119	145	42
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	29.8	79.9	18	17.8
HCM LOS	D	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %		11%	0%	100%	0%	100%	0%	100%
Vol Thru, %		89%	0%	0%	95%	0%	72%	0%
Vol Right, %		0%	100%	0%	5%	0%	28%	0%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		183	169	51	295	199	474	111
LT Vol		20	0	51	0	199	0	111
Through Vol		163	0	0	279	0	339	0
RT Vol		0	169	0	16	0	135	0
Lane Flow Rate		197	182	55	317	214	510	119
Geometry Grp		7	7	7	7	7	7	7
Degree of Util (X)		0.473	0.399	0.135	0.741	0.507	1.116	0.307
Departure Headway (Hd)		9.019	8.232	9.212	8.724	8.538	7.886	9.662
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap		401	440	392	419	422	459	375
Service Time		6.719	5.932	6.912	6.424	6.294	5.641	7.362
HCM Lane V/C Ratio		0.491	0.414	0.14	0.757	0.507	1.111	0.317
HCM Control Delay		19.6	16.3	13.3	32.6	19.8	105.1	16.6
HCM Lane LOS		C	C	B	D	C	F	C
HCM 95th-tile Q		2.5	1.9	0.5	5.9	2.8	17.4	1.3

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	213	268	48	227	14	331	443	119	19	239	115
Future Volume (veh/h)	78	213	268	48	227	14	331	443	119	19	239	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	1900	1870	1870	1870	1885	1885	1900	1870	1870
Adj Flow Rate, veh/h	83	227	285	51	241	15	352	471	127	20	254	122
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	2	2	2	1	1	0	2	2
Cap, veh/h	108	556	454	71	947	59	495	953	255	35	509	236
Arrive On Green	0.06	0.30	0.30	0.04	0.28	0.28	0.14	0.34	0.34	0.02	0.22	0.22
Sat Flow, veh/h	1810	1856	1516	1810	3390	209	3456	2791	747	1810	2341	1087
Grp Volume(v), veh/h	83	227	285	51	125	131	352	301	297	20	191	185
Grp Sat Flow(s),veh/h/ln	1810	1856	1516	1810	1777	1823	1728	1791	1748	1810	1777	1652
Q Serve(g_s), s	2.5	5.4	8.9	1.5	3.0	3.1	5.3	7.3	7.4	0.6	5.2	5.4
Cycle Q Clear(g_c), s	2.5	5.4	8.9	1.5	3.0	3.1	5.3	7.3	7.4	0.6	5.2	5.4
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.43	1.00		0.66
Lane Grp Cap(c), veh/h	108	556	454	71	496	509	495	611	597	35	386	359
V/C Ratio(X)	0.77	0.41	0.63	0.72	0.25	0.26	0.71	0.49	0.50	0.58	0.49	0.52
Avail Cap(c_a), veh/h	659	845	690	659	809	830	1259	979	955	659	971	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.4	15.3	16.6	26.1	15.3	15.4	22.4	14.3	14.3	26.7	18.8	18.9
Incr Delay (d2), s/veh	4.3	0.5	1.4	4.9	0.3	0.3	0.7	1.3	1.4	5.5	2.1	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.1	2.9	0.7	1.1	1.2	2.0	2.8	2.8	0.3	2.2	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	15.8	18.0	31.0	15.6	15.6	23.2	15.6	15.7	32.2	20.9	21.4
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		595			307			950			396	
Approach Delay, s/veh		18.8			18.2			18.4			21.7	
Approach LOS		B			B			B			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	23.2	6.2	20.4	11.9	16.4	7.3	19.3				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.6	9.4	3.5	10.9	7.3	7.4	4.5	5.1				
Green Ext Time (p_c), s	0.0	6.7	0.0	2.1	0.6	4.2	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay											19.1	
HCM 6th LOS											B	

Intersection						
Int Delay, s/veh	11.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↕↔		↙	↕↕
Traffic Vol, veh/h	126	70	834	171	78	493
Future Vol, veh/h	126	70	834	171	78	493
Conflicting Peds, #/hr	4	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	1	1	1	3
Mvmt Flow	129	71	851	174	80	503

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1355	514	0	0	1026
Stage 1	939	-	-	-	-
Stage 2	416	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21
Pot Cap-1 Maneuver	143	505	-	-	679
Stage 1	346	-	-	-	-
Stage 2	640	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 126	505	-	-	678
Mov Cap-2 Maneuver	~ 126	-	-	-	-
Stage 1	346	-	-	-	-
Stage 2	563	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	103	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	126	505	678	-
HCM Lane V/C Ratio	-	-	1.02	0.141	0.117	-
HCM Control Delay (s)	-	-	152.8	13.3	11	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	7.1	0.5	0.4	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

MST BRT
13: Del Monte Blvd & Tiago Ave/The Mall

Cumulative
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	71	116	10	45	65	151	787	21	34	384	178
Future Volume (veh/h)	182	71	116	10	45	65	151	787	21	34	384	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1826	1885	1885	1900	1870	1900	1900	1885	1885	1826	1870	1870
Adj Flow Rate, veh/h	194	76	123	11	48	69	161	837	22	36	409	189
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	1	0	2	0	0	1	1	5	2	2
Cap, veh/h	248	140	226	21	161	139	218	1489	39	55	774	353
Arrive On Green	0.14	0.22	0.22	0.01	0.09	0.09	0.12	0.42	0.42	0.03	0.33	0.33
Sat Flow, veh/h	1739	642	1040	1810	1870	1610	1810	3563	94	1739	2349	1071
Grp Volume(v), veh/h	194	0	199	11	48	69	161	421	438	36	308	290
Grp Sat Flow(s),veh/h/ln	1739	0	1682	1810	1870	1610	1810	1791	1865	1739	1777	1643
Q Serve(g_s), s	5.2	0.0	5.1	0.3	1.2	2.0	4.2	8.7	8.7	1.0	6.8	7.0
Cycle Q Clear(g_c), s	5.2	0.0	5.1	0.3	1.2	2.0	4.2	8.7	8.7	1.0	6.8	7.0
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.05	1.00		0.65
Lane Grp Cap(c), veh/h	248	0	366	21	161	139	218	749	780	55	585	541
V/C Ratio(X)	0.78	0.00	0.54	0.54	0.30	0.50	0.74	0.56	0.56	0.65	0.53	0.54
Avail Cap(c_a), veh/h	1075	0	1039	1118	1156	995	1118	1476	1537	1075	1464	1353
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.1	0.0	16.9	23.9	20.8	21.2	20.6	10.7	10.7	23.2	13.2	13.3
Incr Delay (d2), s/veh	2.0	0.0	0.5	7.8	0.4	1.0	4.9	0.9	0.9	12.3	1.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	1.8	0.2	0.5	0.7	1.9	2.9	3.0	0.6	2.5	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.1	0.0	17.3	31.7	21.2	22.2	25.5	11.7	11.7	35.6	14.3	14.4
LnGrp LOS	C	A	B	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		393			128			1020			634	
Approach Delay, s/veh		19.7			22.6			13.9			15.5	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	24.9	4.1	14.1	9.8	20.6	10.4	7.7				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+1), s	13.0	10.7	2.3	7.1	6.2	9.0	7.2	4.0				
Green Ext Time (p_c), s	0.1	8.9	0.0	0.8	0.4	6.0	0.3	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				15.9								
HCM 6th LOS				B								

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	151	26	833	226	25	487
Future Volume (veh/h)	151	26	833	226	25	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1885	1885	1900	1885
Adj Flow Rate, veh/h	156	27	859	233	26	502
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	1	1	0	1
Cap, veh/h	219	195	1524	413	57	2436
Arrive On Green	0.12	0.12	0.55	0.55	0.03	0.68
Sat Flow, veh/h	1810	1610	2862	750	1810	3676
Grp Volume(v), veh/h	156	27	555	537	26	502
Grp Sat Flow(s),veh/h/ln	1810	1610	1791	1728	1810	1791
Q Serve(g_s), s	3.4	0.6	8.2	8.2	0.6	2.1
Cycle Q Clear(g_c), s	3.4	0.6	8.2	8.2	0.6	2.1
Prop In Lane	1.00	1.00		0.43	1.00	
Lane Grp Cap(c), veh/h	219	195	986	951	57	2436
V/C Ratio(X)	0.71	0.14	0.56	0.56	0.46	0.21
Avail Cap(c_a), veh/h	1778	1582	1760	1698	1111	3520
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.2	16.0	6.0	6.0	19.4	2.4
Incr Delay (d2), s/veh	1.6	0.1	0.7	0.8	2.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	1.8	1.7	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	18.8	16.1	6.7	6.7	21.5	2.5
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	183		1092			528
Approach Delay, s/veh	18.4		6.7			3.4
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	27.0			32.3	8.4
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+1), s	12.6	10.2			4.1	5.4
Green Ext Time (p_c), s	0.0	12.1			5.1	0.3
Intersection Summary						
HCM 6th Ctrl Delay			6.9			
HCM 6th LOS			A			

MST BRT

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Cumulative

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕	↗	↖		↗		↕	↗		↕		
Traffic Volume (vph)	5	243	282	269	0	285	0	206	368	0	1	0	
Future Volume (vph)	5	243	282	269	0	285	0	206	368	0	1	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.96	1.00		1.00		1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00		1.00		
Frt		1.00	0.85	1.00		0.85		1.00	0.85		1.00		
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (prot)		3524	1517	1787		1599		1881	1583		1900		
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (perm)		3524	1517	1787		1599		1881	1583		1900		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	5	256	297	283	0	300	0	217	387	0	1	0	
RTOR Reduction (vph)	0	0	258	0	0	147	0	0	290	0	0	0	
Lane Group Flow (vph)	0	261	39	283	0	153	0	217	97	0	1	0	
Confl. Peds. (#/hr)			17	17									
Heavy Vehicles (%)	20%	2%	2%	1%	0%	1%	0%	1%	2%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm		NA		
Protected Phases		1		2				4				8	
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		16.3	16.3	63.8		63.8		31.2	31.2		31.2		
Effective Green, g (s)		16.3	16.3	63.8		63.8		31.2	31.2		31.2		
Actuated g/C Ratio		0.13	0.13	0.51		0.51		0.25	0.25		0.25		
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)		459	197	912		816		469	395		474		
v/s Ratio Prot				c0.16				c0.12				0.00	
v/s Ratio Perm		0.07	0.03			0.10			0.06				
v/c Ratio		0.57	0.20	0.31		0.19		0.46	0.24			0.00	
Uniform Delay, d1		51.0	48.5	17.8		16.6		39.8	37.5			35.2	
Progression Factor		1.00	1.00	0.72		1.65		1.00	1.00			1.00	
Incremental Delay, d2		1.6	0.5	0.1		0.0		0.7	0.3			0.0	
Delay (s)		52.7	49.0	13.0		27.4		40.5	37.8			35.2	
Level of Service		D	D	B		C		D	D			D	
Approach Delay (s)		50.7			20.4			38.8				35.2	
Approach LOS		D			C			D				D	
Intersection Summary													
HCM 2000 Control Delay			36.4		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.39										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			53.2%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	319	278	932	554	72
Future Volume (vph)	108	319	278	932	554	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1615	1693	3574	3486	
Flt Permitted	0.95	1.00	0.40	1.00	1.00	
Satd. Flow (perm)	1787	1615	715	3574	3486	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	114	336	293	981	583	76
RTOR Reduction (vph)	0	196	0	0	8	0
Lane Group Flow (vph)	114	140	293	981	651	0
Confl. Peds. (#/hr)	4		7			7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	1%	0%	6%	1%	1%	4%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.8	35.8	44.0	
Effective Green, g (s)	17.2	17.2	35.8	35.8	44.0	
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	436	394	363	1817	2178	
v/s Ratio Prot	0.06			0.27	c0.19	
v/s Ratio Perm		c0.09	c0.41			
v/c Ratio	0.26	0.35	0.81	0.54	0.30	
Uniform Delay, d1	21.5	22.0	14.4	11.7	6.1	
Progression Factor	1.00	1.00	0.37	0.35	1.00	
Incremental Delay, d2	0.7	1.1	14.0	0.9	0.3	
Delay (s)	22.1	23.2	19.4	5.0	6.4	
Level of Service	C	C	B	A	A	
Approach Delay (s)	22.9			8.3	6.4	
Approach LOS	C			A	A	

Intersection Summary

HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↖	↕↕	↖	↖	↕↕
Traffic Volume (vph)	568	84	1126	321	49	824
Future Volume (vph)	568	84	1126	321	49	824
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frbp, ped/bikes	1.00	0.98	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1557	3539	1527	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1557	3539	1527	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	598	88	1185	338	52	867
RTOR Reduction (vph)	0	35	0	27	0	0
Lane Group Flow (vph)	598	53	1185	311	52	867
Confl. Peds. (#/hr)		4		8	8	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.8	35.8	4.7	44.0
Effective Green, g (s)	18.7	18.7	35.8	35.8	4.7	44.0
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.07	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	911	413	1799	776	118	2211
v/s Ratio Prot	c0.17		c0.33		0.03	c0.24
v/s Ratio Perm		0.03		0.20		
v/c Ratio	0.66	0.13	0.66	0.40	0.44	0.39
Uniform Delay, d1	23.0	19.7	12.8	10.7	31.6	6.6
Progression Factor	1.00	1.00	1.00	1.00	1.19	0.68
Incremental Delay, d2	1.9	0.2	1.9	1.5	2.6	0.4
Delay (s)	24.9	19.9	14.7	12.2	40.2	4.9
Level of Service	C	B	B	B	D	A
Approach Delay (s)	24.2		14.1			6.9
Approach LOS	C		B			A

Intersection Summary

HCM 2000 Control Delay	14.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	60.8%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Delay (hr)	0.4	2.8	0.1	0.4	2.8	0.1	0.3	0.0	0.1	0.4	0.1	0.1
Avg Speed (mph)	7	12	15	16	23	26	12	13	16	14	14	17

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	7.8
Avg Speed (mph)	18

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Delay (hr)	0.9	4.6	0.0	3.3	0.3	0.0	0.0	0.4	0.0	0.1	9.6
Avg Speed (mph)	9	13	12	10	10	9	15	10	8	15	12

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.4
Total Delay (hr)	7.4	1.6	2.2	2.2	2.0	0.3	15.9
Avg Speed (mph)	8	8	8	18	10	14	10

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	2.6	6.0	0.7	1.1	6.4	0.5	1.1	0.3	0.2	1.7	0.4	0.2
Avg Speed (mph)	8	11	10	6	9	13	7	7	10	11	11	20

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	21.1
Avg Speed (mph)	10

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	1.3	4.7	1.4	5.2	7.4	1.8	2.1	3.0	1.5	2.2	0.9	0.1
Avg Speed (mph)	12	11	13	8	6	9	7	9	18	13	15	17

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	31.6
Avg Speed (mph)	10

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.2	0.3	0.3	0.5	0.1	3.6	5.4	0.2	0.6	2.9	0.2
Avg Speed (mph)	11	11	17	11	10	17	14	22	22	12	20	23

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	14.7
Avg Speed (mph)	19

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	All
Denied Delay (hr)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0
Avg Speed (mph)	14	24	17

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	1.0	50.7	60.4	0.0	0.0	0.0	0.1	0.4	0.0	112.6
Total Delay (hr)	0.4	49.9	8.0	2.4	0.0	0.3	1.5	7.3	0.0	69.9
Avg Speed (mph)	0	0	3	2	5	7	4	1	2	1

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	44.8	10.0	0.0	0.6	0.0	0.0	55.5
Total Delay (hr)	16.8	4.1	6.7	30.5	0.3	0.3	58.6
Avg Speed (mph)	1	1	2	2	10	11	2

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.5	0.0	0.0	0.0
Total Delay (hr)	0.4	2.2	0.1	0.9	3.3	1.3	0.3	2.7	2.1	0.3	0.4	0.1
Avg Speed (mph)	12	13	14	6	4	4	5	5	6	21	22	23

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.9
Total Delay (hr)	14.1
Avg Speed (mph)	9

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	1.3	0.4	0.9	5.0	0.4	10.2	1.5	0.3	0.2	1.9	1.2
Avg Speed (mph)	3	5	11	5	5	4	2	14	14	10	13	11

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	24.2
Avg Speed (mph)	6

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	2.9	1.3	0.0	0.0	0.0	0.0	4.2
Total Delay (hr)	3.2	2.2	6.1	0.1	0.2	0.2	12.0
Avg Speed (mph)	2	2	9	21	13	25	9

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.6	0.2	0.3	0.0	0.0	0.1	0.2	1.0	0.0	0.0	0.0	0.0
Total Delay (hr)	4.0	1.3	1.9	0.1	0.4	0.6	4.6	18.5	0.5	0.3	1.4	0.4
Avg Speed (mph)	5	7	7	8	9	9	9	10	11	8	14	15

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	2.4
Total Delay (hr)	34.0
Avg Speed (mph)	10

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.0	2.2	0.5	0.2	0.6	4.4
Avg Speed (mph)	10	16	23	21	21	30	24

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.6	0.7	2.4	2.5	1.4	0.1	7.7
Avg Speed (mph)	12	18	5	11	21	20	14

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	1.1	0.5	0.0	0.0	1.6
Total Delay (hr)	3.3	0.1	11.6	2.3	0.5	1.4	19.2
Avg Speed (mph)	8	16	10	12	3	12	10

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.1	0.0	24.7	67.4	22.7	0.1	0.1	0.0	0.8	6.1	2.3
Total Delay (hr)	3.1	2.8	0.1	9.4	25.0	7.1	17.9	22.0	4.1	5.4	31.6	8.0
Avg Speed (mph)	1	1	6	0	0	0	2	10	11	3	5	6

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	124.3
Total Delay (hr)	136.5
Avg Speed (mph)	5

Total Network Performance

Denied Delay (hr)	304.2
Total Delay (hr)	490.2
Avg Speed (mph)	11

MST BRT
Queuing and Blocking Report

Cumulative
PM

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	85	200	208	68	107	188	182	117	104	90	116	74
Average Queue (ft)	35	93	98	18	31	90	85	15	40	28	49	26
95th Queue (ft)	72	169	174	47	74	164	153	67	81	63	96	65
Link Distance (ft)	225	225	225	225		1234	1234		616		786	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)					170			95		80		50
Storage Blk Time (%)						0	5		1	0	10	0
Queuing Penalty (veh)						0	4		0	0	6	0

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	T	T	R	LTR	LT	R
Maximum Queue (ft)	131	361	497	239	239	50	34	101	55
Average Queue (ft)	63	55	244	133	136	38	12	43	21
95th Queue (ft)	111	218	459	227	232	61	34	81	47
Link Distance (ft)		508	508	225	225		428	478	
Upstream Blk Time (%)		0	0	1	1				
Queuing Penalty (veh)		0	0	4	4				
Storage Bay Dist (ft)	150					25			100
Storage Blk Time (%)	0	0			28	5		0	
Queuing Penalty (veh)	0	0			26	24		0	

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	450	452	75	224	307	236	134	307
Average Queue (ft)	211	304	58	125	89	102	107	88
95th Queue (ft)	389	450	102	204	202	212	149	226
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)	0	1						
Queuing Penalty (veh)	1	3						
Storage Bay Dist (ft)			50	200			110	
Storage Blk Time (%)		51	3	2	0		14	0
Queuing Penalty (veh)		100	12	8	1		16	1

MST BRT
Queuing and Blocking Report

Cumulative
PM

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	222	390	440	174	331	388	125	199	75	320	130
Average Queue (ft)	138	169	251	77	170	220	70	98	33	129	46
95th Queue (ft)	220	321	387	161	303	356	169	167	81	241	141
Link Distance (ft)		627	627		443	443		403		933	
Upstream Blk Time (%)					0	0					
Queuing Penalty (veh)					0	2					
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	2	1		0	9	30	0	36	1	28	0
Queuing Penalty (veh)	10	4		0	9	45	0	13	2	31	0

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	456	200	125	569	642	175	214	308	178	194	132	162
Average Queue (ft)	212	163	98	258	375	140	115	157	79	92	50	81
95th Queue (ft)	387	229	162	510	646	232	189	260	148	160	100	138
Link Distance (ft)	1288			627	627			584	584	584		
Upstream Blk Time (%)				0	3							
Queuing Penalty (veh)				0	14							
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	17	17	5	34	39	0						
Queuing Penalty (veh)	48	46	12	78	81	1						

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	92	131
Average Queue (ft)	10	51
95th Queue (ft)	43	101
Link Distance (ft)	1311	1311
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

MST BRT
Queuing and Blocking Report

Cumulative
PM

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	158	75	79	105	65	175	452	450	154	208	229	125
Average Queue (ft)	57	44	25	39	24	144	195	186	40	89	104	35
95th Queue (ft)	124	81	60	81	55	202	364	343	99	170	194	106
Link Distance (ft)	886		829				1720	1720		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	16	3				15	6		0	2	11	0
Queuing Penalty (veh)	18	2				75	15		0	1	8	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB
Directions Served	T	T
Maximum Queue (ft)	46	31
Average Queue (ft)	17	11
95th Queue (ft)	44	35
Link Distance (ft)	665	989
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	745	1188	632	88	91	192	208	8
Average Queue (ft)	638	948	88	80	45	72	201	0
95th Queue (ft)	912	1558	418	94	89	177	214	4
Link Distance (ft)		1167		70	70	200	200	252
Upstream Blk Time (%)		65		50	3	3	69	
Queuing Penalty (veh)		0		139	7	7	199	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)	75	27	0					
Queuing Penalty (veh)	302	112	0					

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	560	160	175	1476	98	105
Average Queue (ft)	492	152	109	898	51	54
95th Queue (ft)	696	191	235	1802	86	88
Link Distance (ft)	529			1467	200	200
Upstream Blk Time (%)	79			18		
Queuing Penalty (veh)	0			61		
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	4	94	1	80		
Queuing Penalty (veh)	9	144	2	162		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	144	324	172	190	453	75	73	92
Average Queue (ft)	36	107	73	162	166	61	25	41
95th Queue (ft)	102	255	157	213	442	92	55	75
Link Distance (ft)		1036	174	174	551			1467
Upstream Blk Time (%)			0	20	5			
Queuing Penalty (veh)			0	68	0			
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)	0	10			39	13		
Queuing Penalty (veh)	0	5			66	25		

MST BRT
Queuing and Blocking Report

Cumulative
PM

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	135	151	171	74	371	385	265	301	367	313	79	196
Average Queue (ft)	56	84	56	37	105	159	127	216	208	112	16	83
95th Queue (ft)	113	144	115	71	330	386	306	368	505	253	51	172
Link Distance (ft)			174		641	641			438	438		1009
Upstream Blk Time (%)		0	0			0			25	0		
Queuing Penalty (veh)		0	1			0			114	0		
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)	0	3	0	13	8		5	39	0			1
Queuing Penalty (veh)	1	8	0	15	4		12	87	1			0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	261
Average Queue (ft)	107
95th Queue (ft)	220
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	361	150	340	348	70	12	31
Average Queue (ft)	150	61	132	45	29	1	1
95th Queue (ft)	347	138	477	254	62	11	14
Link Distance (ft)	383		491	491		438	438
Upstream Blk Time (%)	14		17	1			
Queuing Penalty (veh)	0		85	7			
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	14	20					
Queuing Penalty (veh)	10	26					

Intersection: 13: Del Monte Blvd & Tiago Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	100	554	34	134	109	192	1206	1195	70	148	193
Average Queue (ft)	82	210	9	38	40	85	340	345	25	62	87
95th Queue (ft)	115	633	30	102	87	181	1289	1289	58	122	155
Link Distance (ft)		855		612			2188	2188		491	491
Upstream Blk Time (%)		6					2	2			
Queuing Penalty (veh)		0					10	10			
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	32	7		2	2	0	18				
Queuing Penalty (veh)	60	13		1	1	1	27				

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	124	44	336	360	51	84	99
Average Queue (ft)	64	15	62	74	17	18	34
95th Queue (ft)	106	40	192	206	43	55	79
Link Distance (ft)	508		944	944		2188	2188
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	0				0	0	
Queuing Penalty (veh)	0				0	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	121	129	109	217	206	142	158
Average Queue (ft)	47	65	91	116	94	71	82
95th Queue (ft)	87	105	129	215	179	123	138
Link Distance (ft)	660			179	179	944	944
Upstream Blk Time (%)				4	1		
Queuing Penalty (veh)				22	8		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)	0	1	41	11			
Queuing Penalty (veh)	0	1	190	29			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	207	222	100	594	570	70	82	158	172
Average Queue (ft)	114	111	43	319	304	47	36	62	87
95th Queue (ft)	179	183	117	633	626	59	69	126	142
Link Distance (ft)	306	306		860	860			179	179
Upstream Blk Time (%)	0	0		3	3			0	0
Queuing Penalty (veh)	0	0		0	0			0	1
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		30	1		40	7	3	5	
Queuing Penalty (veh)		26	2		128	40	13	3	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	94	90	53	940	325	1314	1291	119	1348	1337	350
Average Queue (ft)	83	77	12	900	270	729	713	82	656	645	242
95th Queue (ft)	96	103	36	1053	406	1449	1424	156	1400	1400	465
Link Distance (ft)	70	70	70	922		1591	1591		1318	1318	
Upstream Blk Time (%)	78	64	0	90		1	1		12	12	
Queuing Penalty (veh)	158	131	0	0		0	0		0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					57	11		32	51	43	6
Queuing Penalty (veh)					342	15		124	42	104	24























Network Summary

Network wide Queuing Penalty: 3934

F. CUMULATIVE MITIGATED CONDITIONS
SYNCHRO OUTPUT SHEETS

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative (Road Diet)
Timing Plan: AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	76	303	30	130	4	111	212	19	12	578	42
Future Volume (veh/h)	27	76	303	30	130	4	111	212	19	12	578	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1737	1811	1900	1811	1811	1856	1678	1678	1900	1856	1856
Adj Flow Rate, veh/h	30	85	340	34	146	4	125	238	21	13	649	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	8	11	6	0	6	6	3	15	15	0	3	3
Cap, veh/h	45	500	437	53	992	27	217	577	51	24	1096	79
Arrive On Green	0.03	0.29	0.29	0.03	0.29	0.29	0.06	0.38	0.38	0.01	0.33	0.33
Sat Flow, veh/h	1697	1737	1520	1810	3417	93	3428	1519	134	1810	3330	241
Grp Volume(v), veh/h	30	85	340	34	73	77	125	0	259	13	343	353
Grp Sat Flow(s),veh/h/ln	1697	1737	1520	1810	1721	1790	1714	0	1653	1810	1763	1808
Q Serve(g_s), s	1.0	2.1	11.7	1.1	1.8	1.8	2.0	0.0	6.5	0.4	9.2	9.2
Cycle Q Clear(g_c), s	1.0	2.1	11.7	1.1	1.8	1.8	2.0	0.0	6.5	0.4	9.2	9.2
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.08	1.00		0.13
Lane Grp Cap(c), veh/h	45	500	437	53	500	520	217	0	628	24	580	595
V/C Ratio(X)	0.67	0.17	0.78	0.64	0.15	0.15	0.57	0.00	0.41	0.55	0.59	0.59
Avail Cap(c_a), veh/h	597	764	669	637	757	788	1207	0	873	637	931	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.4	15.2	18.6	27.3	14.9	14.9	25.9	0.0	13.0	27.9	15.9	15.9
Incr Delay (d2), s/veh	6.1	0.2	3.2	4.8	0.1	0.1	0.9	0.0	0.9	7.2	2.1	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	4.0	0.5	0.7	0.7	0.8	0.0	2.3	0.2	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	15.3	21.8	32.1	15.1	15.1	26.8	0.0	13.9	35.1	17.9	17.9
LnGrp LOS	C	B	C	C	B	B	C	A	B	D	B	B
Approach Vol, veh/h		455			184			384			709	
Approach Delay, s/veh		21.3			18.2			18.1			18.2	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.7	26.1	5.7	20.3	7.6	23.2	5.5	20.5				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s	2.4	8.5	3.1	13.7	4.0	11.2	3.0	3.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.3	0.2	7.4	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay			19.0									
HCM 6th LOS			B									

Intersection						
Int Delay, s/veh	5.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↖		↙	↗
Traffic Vol, veh/h	161	30	310	85	53	861
Future Vol, veh/h	161	30	310	85	53	861
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	3	9	0	6	4
Mvmt Flow	177	33	341	93	58	946

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	979	390	0	0	436
Stage 1	390	-	-	-	-
Stage 2	589	-	-	-	-
Critical Hdwy	6.615	6.245	-	-	4.19
Critical Hdwy Stg 1	5.415	-	-	-	-
Critical Hdwy Stg 2	5.815	-	-	-	-
Follow-up Hdwy	3.5095	3.3285	-	-	2.257
Pot Cap-1 Maneuver	263	655	-	-	1097
Stage 1	686	-	-	-	-
Stage 2	521	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	249	654	-	-	1095
Mov Cap-2 Maneuver	249	-	-	-	-
Stage 1	685	-	-	-	-
Stage 2	493	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	42.6	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	249	654	1095	-
HCM Lane V/C Ratio	-	-	0.711	0.05	0.053	-
HCM Control Delay (s)	-	-	48.5	10.8	8.5	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	4.8	0.2	0.2	-

MST BRT
13: Del Monte Blvd & Tioga Ave/The Mall

Cumulative (Road Diet)
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↗		↖	↗	
Traffic Volume (veh/h)	79	20	31	11	30	39	24	280	22	48	788	181
Future Volume (veh/h)	79	20	31	11	30	39	24	280	22	48	788	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1322	1752	1752	1767	1900	1900	1707	1841	1841	1900	1856	1856
Adj Flow Rate, veh/h	91	23	36	13	34	45	28	322	25	55	906	208
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	39	10	10	9	0	0	13	4	4	0	3	3
Cap, veh/h	103	93	146	22	161	130	42	822	64	77	1430	328
Arrive On Green	0.08	0.15	0.15	0.01	0.08	0.08	0.03	0.49	0.49	0.04	0.50	0.50
Sat Flow, veh/h	1259	608	951	1682	1900	1536	1626	1683	131	1810	2832	650
Grp Volume(v), veh/h	91	0	59	13	34	45	28	0	347	55	564	550
Grp Sat Flow(s),veh/h/ln	1259	0	1559	1682	1900	1536	1626	0	1814	1810	1763	1719
Q Serve(g_s), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	0.0	6.2	1.5	12.0	12.0
Cycle Q Clear(g_c), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	0.0	6.2	1.5	12.0	12.0
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.07	1.00		0.38
Lane Grp Cap(c), veh/h	103	0	240	22	161	130	42	0	886	77	890	868
V/C Ratio(X)	0.88	0.00	0.25	0.59	0.21	0.35	0.67	0.00	0.39	0.72	0.63	0.63
Avail Cap(c_a), veh/h	733	0	907	979	1106	894	946	0	1407	1053	1368	1333
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	19.2	25.3	22.0	22.2	24.9	0.0	8.3	24.4	9.3	9.3
Incr Delay (d2), s/veh	8.9	0.0	0.2	8.8	0.2	0.6	17.1	0.0	0.4	11.9	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.6	0.2	0.4	0.5	0.5	0.0	2.0	0.9	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.3	0.0	19.4	34.1	22.2	22.8	42.0	0.0	8.7	36.3	10.4	10.4
LnGrp LOS	C	A	B	C	C	C	D	A	A	D	B	B
Approach Vol, veh/h		150			92			375			1169	
Approach Delay, s/veh		27.2			24.2			11.2			11.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	29.8	4.2	11.4	5.3	30.6	7.7	7.9				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.5	8.2	2.4	3.7	2.9	14.0	5.7	3.4				
Green Ext Time (p_c), s	0.1	3.3	0.0	0.2	0.0	12.0	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative (Road Diet)
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	265	29	318	141	51	764
Future Volume (veh/h)	265	29	318	141	51	764
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1856	1796	1841	1841	1767	1856
Adj Flow Rate, veh/h	273	30	328	145	53	788
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	7	4	4	9	3
Cap, veh/h	358	308	495	219	96	2038
Arrive On Green	0.20	0.20	0.41	0.41	0.06	0.58
Sat Flow, veh/h	1767	1522	1200	530	1682	3618
Grp Volume(v), veh/h	273	30	0	473	53	788
Grp Sat Flow(s),veh/h/ln	1767	1522	0	1730	1682	1763
Q Serve(g_s), s	5.4	0.6	0.0	8.2	1.1	4.5
Cycle Q Clear(g_c), s	5.4	0.6	0.0	8.2	1.1	4.5
Prop In Lane	1.00	1.00		0.31	1.00	
Lane Grp Cap(c), veh/h	358	308	0	714	96	2038
V/C Ratio(X)	0.76	0.10	0.00	0.66	0.55	0.39
Avail Cap(c_a), veh/h	1916	1650	0	1875	1140	3822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.9	12.0	0.0	8.8	16.9	4.2
Incr Delay (d2), s/veh	1.3	0.1	0.0	1.5	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.2	0.0	2.2	0.4	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.2	12.0	0.0	10.3	18.8	4.4
LnGrp LOS	B	B	A	B	B	A
Approach Vol, veh/h	303		473			841
Approach Delay, s/veh	14.9		10.3			5.3
Approach LOS	B		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	19.8			25.9	11.0
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+1), s	13.1	10.2			6.5	7.4
Green Ext Time (p_c), s	0.0	4.7			8.7	0.4
Intersection Summary						
HCM 6th Ctrl Delay			8.5			
HCM 6th LOS			A			

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative (Road Diet)
Timing Plan: AM

















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	292	225	429	802	100
Future Volume (vph)	54	292	225	429	802	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1495	1730	1845	3440	
Flt Permitted	0.95	1.00	0.30	1.00	1.00	
Satd. Flow (perm)	1770	1495	549	1845	3440	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	307	237	452	844	105
RTOR Reduction (vph)	0	103	0	0	7	0
Lane Group Flow (vph)	57	204	237	452	942	0
Confl. Peds. (#/hr)	8		6			6
Confl. Bikes (#/hr)						8
Heavy Vehicles (%)	2%	8%	4%	3%	3%	1%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.8	35.8	43.8	
Effective Green, g (s)	17.2	17.2	35.8	35.8	43.8	
Actuated g/C Ratio	0.25	0.25	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	433	366	279	940	2146	
v/s Ratio Prot	0.03			0.25	c0.27	
v/s Ratio Perm		c0.14	c0.43			
v/c Ratio	0.13	0.56	0.85	0.48	0.44	
Uniform Delay, d1	20.7	23.2	14.9	11.2	6.8	
Progression Factor	1.00	1.00	0.42	0.45	1.00	
Incremental Delay, d2	0.3	3.1	22.7	1.5	0.7	
Delay (s)	21.0	26.3	28.9	6.5	7.5	
Level of Service	C	C	C	A	A	
Approach Delay (s)	25.4			14.2	7.5	
Approach LOS	C			B	A	

Intersection Summary

HCM 2000 Control Delay	13.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	70.2	Sum of lost time (s)	12.7
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative (Road Diet)
Timing Plan: AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 					 
Traffic Volume (vph)	585	82	572	244	42	1052
Future Volume (vph)	585	82	572	244	42	1052
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	616	86	602	257	44	1107
RTOR Reduction (vph)	0	32	0	21	0	0
Lane Group Flow (vph)	616	54	602	236	44	1107
Confl. Peds. (#/hr)					7	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.8	35.8	4.5	43.8
Effective Green, g (s)	18.7	18.7	35.8	35.8	4.5	43.8
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.06	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	914	421	950	807	113	2208
v/s Ratio Prot	c0.18		c0.32		0.02	c0.31
v/s Ratio Perm		0.03		0.15		
v/c Ratio	0.67	0.13	0.63	0.29	0.39	0.50
Uniform Delay, d1	23.0	19.6	12.5	9.9	31.5	7.2
Progression Factor	1.00	1.00	1.00	1.00	1.29	0.61
Incremental Delay, d2	2.2	0.2	3.2	0.9	2.1	0.8
Delay (s)	25.2	19.7	15.7	10.8	42.8	5.2
Level of Service	C	B	B	B	D	A
Approach Delay (s)	24.5		14.2			6.6
Approach LOS	C		B			A
Intersection Summary						
HCM 2000 Control Delay			13.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.66			
Actuated Cycle Length (s)			70.2		Sum of lost time (s)	12.7
Intersection Capacity Utilization			58.4%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.4	0.5	0.2	0.6	0.0	0.8	0.5	0.0	0.1	2.1	0.1

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	5.6

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	0.0	0.3	0.0	0.1	0.4	1.8

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.1	0.1	0.3	0.1	0.2	0.9	0.0	0.4	1.4	0.3

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	4.2

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.3	0.0	0.9	0.3	0.4	1.6	4.5

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.3	0.7	2.5	1.6	2.5	0.2	7.9

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	8.3	3.5	0.0	0.0	11.8
Total Delay (hr)	3.3	0.1	11.2	4.1	0.4	1.8	20.9

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	57.1	140.6	14.1	0.1	0.0	0.0	22.0	246.4	60.3
Total Delay (hr)	0.8	2.7	0.2	11.1	28.3	2.4	18.5	5.7	0.8	8.1	85.1	13.6

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	540.8
Total Delay (hr)	177.2

Total Network Performance

Denied Delay (hr)	555.9
Total Delay (hr)	314.7

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	55	87	61	56	118	85
Average Queue (ft)	22	31	24	21	50	46
95th Queue (ft)	44	59	52	48	87	72
Link Distance (ft)	526		1460		198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	90		130			
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	34	90	60	118	66	63	95	68
Average Queue (ft)	4	40	31	57	21	31	38	31
95th Queue (ft)	21	76	55	96	49	53	72	54
Link Distance (ft)	1035		173	173	466		1460	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	120				50		150	
Storage Blk Time (%)	0				0		1	
Queuing Penalty (veh)	0				0		0	

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	TR	L	T	TR
Maximum Queue (ft)	70	97	136	67	71	111	66	114	172	66	202	197
Average Queue (ft)	19	35	60	22	23	48	23	48	72	10	107	88
95th Queue (ft)	50	77	104	54	58	92	56	91	136	42	174	152
Link Distance (ft)				173	653		653		438	1009		1009
Upstream Blk Time (%)	0											
Queuing Penalty (veh)	0											
Storage Bay Dist (ft)	120	120		50		240		240		150		
Storage Blk Time (%)	0		0	3	3							2
Queuing Penalty (veh)	0		0	2	1							0

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	149	85	16	55
Average Queue (ft)	61	21	1	17
95th Queue (ft)	116	57	8	47
Link Distance (ft)	391		486	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		100
Storage Blk Time (%)	3			
Queuing Penalty (veh)	1			

Intersection: 13: Del Monte Blvd & Tioga Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	TR	L	T	TR
Maximum Queue (ft)	98	151	49	62	48	76	195	108	175	198
Average Queue (ft)	55	37	8	22	21	20	73	32	68	83
95th Queue (ft)	94	97	33	51	44	55	159	73	137	166
Link Distance (ft)		873		618			2184		486	486
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	75		270		130	200		220		
Storage Blk Time (%)	5	2					0		0	
Queuing Penalty (veh)	3	1					0		0	

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	SB	SB	SB
Directions Served	L	R	TR	L	T	T
Maximum Queue (ft)	195	60	240	85	154	169
Average Queue (ft)	91	16	88	37	53	72
95th Queue (ft)	154	45	179	74	117	138
Link Distance (ft)	534		943		2184	2184
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		160		70		
Storage Blk Time (%)	1			3	3	
Queuing Penalty (veh)	0			11	1	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	125	143	109	217	200	225
Average Queue (ft)	32	80	93	142	106	120
95th Queue (ft)	81	128	126	232	178	196
Link Distance (ft)	776			181	943	943
Upstream Blk Time (%)				10		
Queuing Penalty (veh)				65		
Storage Bay Dist (ft)		120	65			
Storage Blk Time (%)	0	2	44	17		
Queuing Penalty (veh)	0	1	187	39		

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	R	L	T	T
Maximum Queue (ft)	185	180	100	743	60	81	167	192
Average Queue (ft)	112	109	43	542	48	31	71	92
95th Queue (ft)	163	170	113	893	60	66	134	152
Link Distance (ft)	315	315		699			181	181
Upstream Blk Time (%)				35			0	0
Queuing Penalty (veh)				0			0	2
Storage Bay Dist (ft)			50		25	60		
Storage Blk Time (%)		32	1	52	4	2	7	
Queuing Penalty (veh)		27	4	126	21	10	3	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	83	92	72	933	325	972	925	119	1376	1368	350
Average Queue (ft)	32	85	34	912	293	558	518	62	1277	1275	296
95th Queue (ft)	72	99	70	1010	396	1088	1041	156	1648	1649	495
Link Distance (ft)	72	72	72	918		1588	1588		1326	1326	
Upstream Blk Time (%)	5	66	1	96					79	83	
Queuing Penalty (veh)	6	73	1	0					0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					64	1		5	89	91	0
Queuing Penalty (veh)					214	2		25	85	194	0

Network Summary

Network wide Queuing Penalty: 1677

MST BRT
9: California Ave & Edgewater Mall

Cumulative - Mitigation
Timing Plan: AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	147	57	25	46	236	257
Future Volume (veh/h)	147	57	25	46	236	257
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1900	1737	1737	1841	1885
Adj Flow Rate, veh/h	110	113	27	49	254	276
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	0	11	11	4	1
Cap, veh/h	324	293	459	715	635	551
Arrive On Green	0.18	0.18	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1781	1610	440	2152	1841	1598
Grp Volume(v), veh/h	110	113	43	33	254	276
Grp Sat Flow(s),veh/h/ln	1781	1610	1012	1502	1841	1598
Q Serve(g_s), s	1.0	1.2	0.0	0.3	2.0	2.6
Cycle Q Clear(g_c), s	1.0	1.2	2.0	0.3	2.0	2.6
Prop In Lane	1.00	1.00	0.62			1.00
Lane Grp Cap(c), veh/h	324	293	656	518	635	551
V/C Ratio(X)	0.34	0.39	0.07	0.06	0.40	0.50
Avail Cap(c_a), veh/h	1686	1524	1267	1421	1742	1512
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.8	6.8	4.2	4.2	4.7	4.9
Incr Delay (d2), s/veh	0.6	0.8	0.0	0.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.3	0.0	0.0	0.1	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	7.7	4.2	4.2	5.1	5.6
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	223			76	530	
Approach Delay, s/veh	7.5			4.2	5.4	
Approach LOS	A			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		11.1		8.0		11.1
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.0		3.2		4.6
Green Ext Time (p_c), s		0.3		0.6		2.0
Intersection Summary						
HCM 6th Ctrl Delay			5.9			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

MST BRT
10: California Ave & Playa Ave














Cumulative - Mitigation
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	129	11	76	177	30	5	28	67	210	75	23
Future Volume (veh/h)	7	129	11	76	177	30	5	28	67	210	75	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1470	1737	1737	1900	1796	1796	1841	1841	1841	1870	1841	1841
Adj Flow Rate, veh/h	8	139	12	82	190	32	5	30	72	226	81	25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	29	11	11	0	7	7	4	4	4	2	4	4
Cap, veh/h	15	312	27	148	402	68	156	483	432	575	377	116
Arrive On Green	0.01	0.20	0.20	0.08	0.27	0.27	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1400	1569	135	1810	1488	251	80	1724	1540	1279	1345	415
Grp Volume(v), veh/h	8	0	151	82	0	222	35	0	72	226	0	106
Grp Sat Flow(s),veh/h/ln	1400	0	1704	1810	0	1738	1803	0	1540	1279	0	1760
Q Serve(g_s), s	0.2	0.0	2.4	1.3	0.0	3.3	0.0	0.0	1.1	4.8	0.0	1.4
Cycle Q Clear(g_c), s	0.2	0.0	2.4	1.3	0.0	3.3	0.4	0.0	1.1	5.3	0.0	1.4
Prop In Lane	1.00		0.08	1.00		0.14	0.14		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	15	0	339	148	0	469	639	0	432	575	0	493
V/C Ratio(X)	0.53	0.00	0.45	0.55	0.00	0.47	0.05	0.00	0.17	0.39	0.00	0.21
Avail Cap(c_a), veh/h	228	0	998	324	0	1046	1166	0	902	965	0	1030
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	0.0	10.8	13.6	0.0	9.4	8.1	0.0	8.4	10.1	0.0	8.5
Incr Delay (d2), s/veh	26.1	0.0	0.9	3.2	0.0	0.7	0.0	0.0	0.2	0.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	0.6	0.0	1.0	0.1	0.0	0.2	0.9	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.0	11.7	16.8	0.0	10.1	8.2	0.0	8.5	10.5	0.0	8.7
LnGrp LOS	D	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		159			304			107				332
Approach Delay, s/veh		13.2			11.9			8.4				9.9
Approach LOS		B			B			A				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	10.6		13.1	4.8	12.8		13.1				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	18.0		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	3.3	4.4		3.1	2.2	5.3		7.3				
Green Ext Time (p_c), s	0.0	0.6		0.3	0.0	1.0		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				11.0								
HCM 6th LOS				B								

MST BRT
12: Del Monte Blvd & La Salle Ave

Cumulative - Mitigation
Timing Plan: AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	161	30	310	85	53	861
Future Volume (veh/h)	161	30	310	85	53	861
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1885	1856	1767	1767	1811	1841
Adj Flow Rate, veh/h	177	33	341	93	58	946
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	3	9	9	6	4
Cap, veh/h	277	243	1259	339	663	1685
Arrive On Green	0.15	0.15	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1795	1572	2702	703	923	3589
Grp Volume(v), veh/h	177	33	217	217	58	946
Grp Sat Flow(s),veh/h/ln	1795	1572	1678	1638	923	1749
Q Serve(g_s), s	2.3	0.4	1.9	2.0	1.0	4.8
Cycle Q Clear(g_c), s	2.3	0.4	1.9	2.0	2.9	4.8
Prop In Lane	1.00	1.00		0.43	1.00	
Lane Grp Cap(c), veh/h	277	243	808	789	663	1685
V/C Ratio(X)	0.64	0.14	0.27	0.27	0.09	0.56
Avail Cap(c_a), veh/h	1307	1144	1221	1192	890	2545
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.8	9.0	3.8	3.8	4.7	4.6
Incr Delay (d2), s/veh	2.4	0.3	0.2	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.2	0.2	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.3	9.3	4.0	4.0	4.8	4.8
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	210		434			1004
Approach Delay, s/veh	11.8		4.0			4.8
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		16.4			16.4	8.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		18.0			18.0	18.0
Max Q Clear Time (g_c+I1), s		4.0			6.8	4.3
Green Ext Time (p_c), s		2.1			5.1	0.5
Intersection Summary						
HCM 6th Ctrl Delay			5.5			
HCM 6th LOS			A			

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.3	0.1	0.1	0.1	0.2	0.1	0.7

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.3	0.0	0.3	0.4	0.0	0.0	0.1	0.1	0.6	0.2	0.0

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	2.1

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.0	0.5	0.1	0.2	1.3	2.6

Total Zone Performance

Denied Delay (hr)	0.3
Total Delay (hr)	5.4

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	60	82	59	34	122	97
Average Queue (ft)	21	34	17	5	39	38
95th Queue (ft)	45	62	47	24	90	77
Link Distance (ft)	526			1460	198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	45	110	91	135	57	68	106	68
Average Queue (ft)	8	38	37	54	18	30	52	25
95th Queue (ft)	32	83	72	108	47	58	92	60
Link Distance (ft)		1035	173	173	466	466		1460
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	120						150	
Storage Blk Time (%)		0						
Queuing Penalty (veh)		0						

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	104	42	116	89	64	135	145
Average Queue (ft)	48	16	40	39	26	52	73
95th Queue (ft)	83	40	91	80	58	106	128
Link Distance (ft)	379		488	488		438	438
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	0					0	
Queuing Penalty (veh)	0					0	

Zone Summary

Zone wide Queuing Penalty: 0

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative (Road Diet)
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	213	268	48	227	14	331	443	119	19	239	115
Future Volume (veh/h)	78	213	268	48	227	14	331	443	119	19	239	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.93	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	1900	1870	1870	1870	1885	1885	1900	1870	1870
Adj Flow Rate, veh/h	83	227	285	51	241	15	352	471	127	20	254	122
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	2	2	2	1	1	0	2	2
Cap, veh/h	108	526	429	68	884	55	477	569	153	34	652	303
Arrive On Green	0.06	0.28	0.28	0.04	0.26	0.26	0.14	0.40	0.40	0.02	0.28	0.28
Sat Flow, veh/h	1810	1856	1514	1810	3384	209	3456	1429	385	1810	2342	1088
Grp Volume(v), veh/h	83	227	285	51	126	130	352	0	598	20	191	185
Grp Sat Flow(s),veh/h/ln	1810	1856	1514	1810	1777	1816	1728	0	1815	1810	1777	1653
Q Serve(g_s), s	2.8	6.3	10.4	1.8	3.5	3.6	6.1	0.0	18.6	0.7	5.5	5.7
Cycle Q Clear(g_c), s	2.8	6.3	10.4	1.8	3.5	3.6	6.1	0.0	18.6	0.7	5.5	5.7
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.21	1.00		0.66
Lane Grp Cap(c), veh/h	108	526	429	68	464	474	477	0	722	34	495	460
V/C Ratio(X)	0.77	0.43	0.66	0.75	0.27	0.27	0.74	0.00	0.83	0.59	0.39	0.40
Avail Cap(c_a), veh/h	575	738	602	575	706	722	1099	0	866	575	848	788
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.1	18.4	19.9	30.0	18.5	18.5	26.0	0.0	17.0	30.6	18.3	18.4
Incr Delay (d2), s/veh	4.2	0.6	1.8	6.1	0.3	0.3	0.8	0.0	7.3	5.9	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	3.6	0.8	1.4	1.4	2.4	0.0	8.3	0.3	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.3	18.9	21.6	36.1	18.8	18.8	26.9	0.0	24.4	36.5	19.4	19.7
LnGrp LOS	C	B	C	D	B	B	C	A	C	D	B	B
Approach Vol, veh/h		595			307			950			396	
Approach Delay, s/veh		22.2			21.7			25.3			20.4	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	29.5	6.4	21.8	12.7	22.0	7.8	20.4				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s	2.7	20.6	3.8	12.4	8.1	7.7	4.8	5.6				
Green Ext Time (p_c), s	0.0	4.4	0.0	2.0	0.6	4.2	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Intersection						
Int Delay, s/veh	10.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	126	70	834	171	78	493
Future Vol, veh/h	126	70	834	171	78	493
Conflicting Peds, #/hr	4	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	1	1	1	3
Mvmt Flow	129	71	851	174	80	503

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1355	939	0	0	1026
Stage 1	939	-	-	-	-
Stage 2	416	-	-	-	-
Critical Hdwy	6.6	6.23	-	-	4.115
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.319	-	-	2.2095
Pot Cap-1 Maneuver	154	319	-	-	680
Stage 1	384	-	-	-	-
Stage 2	640	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	135	319	-	-	679
Mov Cap-2 Maneuver	135	-	-	-	-
Stage 1	384	-	-	-	-
Stage 2	563	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	89.5	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	135	319	679	-
HCM Lane V/C Ratio	-	-	0.952	0.224	0.117	-
HCM Control Delay (s)	-	-	128.4	19.5	11	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	6.6	0.8	0.4	-

MST BRT
13: Del Monte Blvd & Tiago Ave/The Mall

Cumulative (Road Diet)
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	71	116	10	45	65	151	787	21	34	384	178
Future Volume (veh/h)	182	71	116	10	45	65	151	787	21	34	384	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1885	1900	1870	1900	1900	1885	1885	1826	1870	1870
Adj Flow Rate, veh/h	194	76	123	11	48	69	161	837	22	36	409	189
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	1	0	2	0	0	1	1	5	2	2
Cap, veh/h	240	130	210	20	140	121	210	957	25	51	1027	468
Arrive On Green	0.14	0.20	0.20	0.01	0.07	0.07	0.12	0.52	0.52	0.03	0.44	0.44
Sat Flow, veh/h	1739	642	1039	1810	1870	1610	1810	1827	48	1739	2350	1071
Grp Volume(v), veh/h	194	0	199	11	48	69	161	0	859	36	308	290
Grp Sat Flow(s),veh/h/ln	1739	0	1682	1810	1870	1610	1810	0	1875	1739	1777	1645
Q Serve(g_s), s	7.2	0.0	7.1	0.4	1.6	2.8	5.8	0.0	26.8	1.4	7.9	8.0
Cycle Q Clear(g_c), s	7.2	0.0	7.1	0.4	1.6	2.8	5.8	0.0	26.8	1.4	7.9	8.0
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.03	1.00		0.65
Lane Grp Cap(c), veh/h	240	0	340	20	140	121	210	0	983	51	776	719
V/C Ratio(X)	0.81	0.00	0.59	0.55	0.34	0.57	0.77	0.00	0.87	0.71	0.40	0.40
Avail Cap(c_a), veh/h	782	0	756	814	841	724	814	0	1124	782	1065	986
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	24.1	32.8	29.3	29.8	28.6	0.0	13.9	32.1	12.8	12.8
Incr Delay (d2), s/veh	2.5	0.0	0.6	8.5	0.5	1.6	5.7	0.0	7.6	16.6	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	2.7	0.2	0.7	1.1	2.7	0.0	11.5	0.8	2.9	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.4	0.0	24.7	41.3	29.8	31.4	34.3	0.0	21.5	48.7	13.3	13.4
LnGrp LOS	C	A	C	D	C	C	C	A	C	D	B	B
Approach Vol, veh/h		393			128			1020			634	
Approach Delay, s/veh		27.5			31.7			23.5			15.3	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.9	39.6	4.2	17.0	11.8	33.8	12.7	8.5				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.4	28.8	2.4	9.1	7.8	10.0	9.2	4.8				
Green Ext Time (p_c), s	0.1	6.1	0.0	0.7	0.4	5.9	0.3	0.2				
Intersection Summary												
HCM 6th Ctrl Delay				22.3								
HCM 6th LOS				C								

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative (Road Diet)
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	151	26	833	226	25	487
Future Volume (veh/h)	151	26	833	226	25	487
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1885	1885	1900	1885
Adj Flow Rate, veh/h	156	27	859	233	26	502
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	1	1	0	1
Cap, veh/h	209	186	924	251	53	2678
Arrive On Green	0.12	0.12	0.65	0.65	0.03	0.75
Sat Flow, veh/h	1810	1610	1420	385	1810	3676
Grp Volume(v), veh/h	156	27	0	1092	26	502
Grp Sat Flow(s),veh/h/ln	1810	1610	0	1805	1810	1791
Q Serve(g_s), s	4.9	0.9	0.0	31.7	0.8	2.4
Cycle Q Clear(g_c), s	4.9	0.9	0.0	31.7	0.8	2.4
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	209	186	0	1174	53	2678
V/C Ratio(X)	0.75	0.15	0.00	0.93	0.49	0.19
Avail Cap(c_a), veh/h	1223	1088	0	1220	764	2678
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.3	23.5	0.0	9.1	28.3	2.2
Incr Delay (d2), s/veh	2.0	0.1	0.0	12.5	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.3	0.0	11.4	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.3	23.7	0.0	21.6	30.9	2.2
LnGrp LOS	C	C	A	C	C	A
Approach Vol, veh/h	183		1092		528	
Approach Delay, s/veh	26.8		21.6		3.6	
Approach LOS	C		C		A	
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.7	43.1			48.9	10.3
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+I), s	12.8	33.7			4.4	6.9
Green Ext Time (p_c), s	0.0	4.8			5.1	0.3
Intersection Summary						
HCM 6th Ctrl Delay			16.9			
HCM 6th LOS			B			

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative (Road Diet)
Timing Plan: PM

















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	319	278	932	554	72
Future Volume (vph)	108	319	278	932	554	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1615	1693	1881	3486	
Flt Permitted	0.95	1.00	0.40	1.00	1.00	
Satd. Flow (perm)	1787	1615	715	1881	3486	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	114	336	293	981	583	76
RTOR Reduction (vph)	0	196	0	0	8	0
Lane Group Flow (vph)	114	140	293	981	651	0
Confl. Peds. (#/hr)	4		7			7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	1%	0%	6%	1%	1%	4%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.8	35.8	44.0	
Effective Green, g (s)	17.2	17.2	35.8	35.8	44.0	
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	436	394	363	956	2178	
v/s Ratio Prot	0.06			c0.52	c0.19	
v/s Ratio Perm		c0.09	0.41			
v/c Ratio	0.26	0.35	0.81	1.03	0.30	
Uniform Delay, d1	21.5	22.0	14.4	17.3	6.1	
Progression Factor	1.00	1.00	0.44	0.42	1.00	
Incremental Delay, d2	0.7	1.1	1.8	16.5	0.3	
Delay (s)	22.1	23.2	8.2	23.8	6.4	
Level of Service	C	C	A	C	A	
Approach Delay (s)	22.9			20.2	6.4	
Approach LOS	C			C	A	

Intersection Summary

HCM 2000 Control Delay	16.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative (Road Diet)
Timing Plan: PM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 					 
Traffic Volume (vph)	568	84	1126	321	49	824
Future Volume (vph)	568	84	1126	321	49	824
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes	1.00	0.97	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1540	1863	1527	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1540	1863	1527	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	598	88	1185	338	52	867
RTOR Reduction (vph)	0	35	0	14	0	0
Lane Group Flow (vph)	598	53	1185	324	52	867
Confl. Peds. (#/hr)		4		8	8	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.8	35.8	4.7	44.0
Effective Green, g (s)	18.7	18.7	35.8	35.8	4.7	44.0
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.07	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	911	409	947	776	118	2211
v/s Ratio Prot	c0.17		c0.64		0.03	c0.24
v/s Ratio Perm		0.03		0.21		
v/c Ratio	0.66	0.13	1.25	0.42	0.44	0.39
Uniform Delay, d1	23.0	19.7	17.3	10.8	31.6	6.6
Progression Factor	1.00	1.00	1.00	1.00	1.19	0.68
Incremental Delay, d2	1.9	0.2	121.9	1.7	2.6	0.4
Delay (s)	24.9	19.9	139.2	12.5	40.2	4.9
Level of Service	C	B	F	B	D	A
Approach Delay (s)	24.2		111.1			6.9
Approach LOS	C		F			A
Intersection Summary						
HCM 2000 Control Delay			61.4		HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			1.03			
Actuated Cycle Length (s)			70.4		Sum of lost time (s)	12.7
Intersection Capacity Utilization			82.3%		ICU Level of Service	E
Analysis Period (min)			15			
c Critical Lane Group						

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.6	2.3	0.1	0.0	0.0	0.0	0.1	0.6	0.3
Total Delay (hr)	0.7	1.2	0.4	0.9	4.7	0.1	4.6	1.7	0.4	0.3	3.0	3.1

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	4.0
Total Delay (hr)	21.3

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	1.8	0.9	0.0	0.0	0.0	0.0	2.7
Total Delay (hr)	2.7	1.1	2.3	0.5	0.3	0.2	7.1

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	2.6	1.0	2.1	0.0	0.0	0.1	0.4	1.3	0.0	0.0	0.0	0.0
Total Delay (hr)	3.3	0.9	1.3	0.2	0.7	1.1	2.2	8.4	0.1	0.3	1.1	0.4

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	7.6
Total Delay (hr)	19.9

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Delay (hr)	0.8	0.2	3.5	0.6	0.2	0.6	5.9

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.5	0.0	0.0	0.0	0.0	0.6
Total Delay (hr)	1.0	1.2	1.1	2.4	1.4	0.1	7.2

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	238.2	69.8	0.0	0.0	308.0
Total Delay (hr)	3.1	0.4	21.6	5.9	0.6	1.5	33.1

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.1	0.0	25.0	72.1	21.8	0.1	0.1	0.0	1.5	15.0	4.7
Total Delay (hr)	3.1	2.9	0.1	7.2	26.9	7.7	16.5	19.6	3.4	6.1	36.5	9.7

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	140.7
Total Delay (hr)	139.6

Total Network Performance

Denied Delay (hr)	619.2
Total Delay (hr)	480.4

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	551	160	175	1397	96	111
Average Queue (ft)	491	154	118	822	49	58
95th Queue (ft)	694	188	242	1609	83	95
Link Distance (ft)	529			1467	200	200
Upstream Blk Time (%)	80			9		
Queuing Penalty (veh)	0			33		
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	2	95	2	83		
Queuing Penalty (veh)	3	145	2	168		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	131	380	173	193	261	75	81	84
Average Queue (ft)	34	155	59	137	121	55	32	39
95th Queue (ft)	100	532	129	212	365	91	66	69
Link Distance (ft)		1036	174	174	551			1467
Upstream Blk Time (%)		3	0	11	9			
Queuing Penalty (veh)		0	0	38	0			
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)	2	15			27	11		
Queuing Penalty (veh)	6	7			45	21		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	TR	L	T	TR
Maximum Queue (ft)	129	149	173	74	236	246	227	293	369	68	282	323
Average Queue (ft)	52	80	52	36	94	129	82	140	180	16	128	147
95th Queue (ft)	103	142	108	72	371	393	207	273	362	47	508	547
Link Distance (ft)			174		653	653			438		1009	1009
Upstream Blk Time (%)		0	0		7	7			9		4	5
Queuing Penalty (veh)		0	1		0	0			78		0	0
Storage Bay Dist (ft)	120	120		50			240	240		150		
Storage Blk Time (%)	0	3	0	12	7		1	11	1		1	
Queuing Penalty (veh)	0	7	0	14	3		5	63	3		0	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB	SB	SB
Directions Served	L	R	TR	L	T	T
Maximum Queue (ft)	295	148	224	88	24	14
Average Queue (ft)	120	54	59	33	1	0
95th Queue (ft)	288	131	303	72	10	7
Link Distance (ft)	395		489		438	438
Upstream Blk Time (%)	7		8			
Queuing Penalty (veh)	0		79			
Storage Bay Dist (ft)		100		100		
Storage Blk Time (%)	17	7		1		
Queuing Penalty (veh)	12	9		1		

Intersection: 13: Del Monte Blvd & Tiago Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	TR	L	T	TR
Maximum Queue (ft)	100	359	78	175	86	224	619	95	132	173
Average Queue (ft)	81	161	13	58	42	74	306	29	52	79
95th Queue (ft)	114	517	76	244	104	162	1174	72	103	147
Link Distance (ft)		855		624			2190		489	489
Upstream Blk Time (%)		7		2			5			
Queuing Penalty (veh)		0		0			44			
Storage Bay Dist (ft)	75		270		130	200		220		
Storage Blk Time (%)	26	8		1	7	0	11			
Queuing Penalty (veh)	48	14		1	4	0	17			

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	SB	SB	SB
Directions Served	L	R	TR	L	T	T
Maximum Queue (ft)	128	72	361	60	81	93
Average Queue (ft)	64	22	144	20	21	37
95th Queue (ft)	110	56	478	52	61	80
Link Distance (ft)	520		943		2190	2190
Upstream Blk Time (%)			5			
Queuing Penalty (veh)			47			
Storage Bay Dist (ft)		160		70		
Storage Blk Time (%)	0			0	0	
Queuing Penalty (veh)	0			1	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	TR
Maximum Queue (ft)	211	139	109	220	141	164
Average Queue (ft)	73	70	69	123	71	79
95th Queue (ft)	261	121	122	201	120	139
Link Distance (ft)	660			187	943	943
Upstream Blk Time (%)	2			7		
Queuing Penalty (veh)	0			88		
Storage Bay Dist (ft)		120	65			
Storage Blk Time (%)	4	2	12	30		
Queuing Penalty (veh)	12	2	117	83		

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	R	L	T	T
Maximum Queue (ft)	205	220	100	908	56	96	151	175
Average Queue (ft)	113	113	48	875	44	39	65	91
95th Queue (ft)	180	201	117	896	61	73	132	153
Link Distance (ft)	321	321		853			187	187
Upstream Blk Time (%)		0		77			0	0
Queuing Penalty (veh)		0		0			0	1
Storage Bay Dist (ft)			50		25	60		
Storage Blk Time (%)		31	6	52	4	4	5	
Queuing Penalty (veh)		26	17	166	44	16	3	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	94	94	58	937	325	1150	1134	120	1342	1347	350
Average Queue (ft)	84	80	14	907	265	672	663	85	723	710	240
95th Queue (ft)	96	96	41	1025	408	1364	1337	157	1529	1536	452
Link Distance (ft)	70	70	70	922		1591	1591		1318	1318	
Upstream Blk Time (%)	76	65	0	92		1	0		19	22	
Queuing Penalty (veh)	155	133	0	0		0	0		0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					52	11		27	54	47	2
Queuing Penalty (veh)					312	15		105	45	114	6

Network Summary

Network wide Queuing Penalty: 3817

MST BRT
9: California Ave & Edgewater Mall

Cumulative - Mitigation
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	307	62	69	267	240	312
Future Volume (veh/h)	307	62	69	267	240	312
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1885	1885	1885	1900
Adj Flow Rate, veh/h	381	0	72	278	250	325
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	0	1	1	1	0
Cap, veh/h	780	350	349	1007	677	577
Arrive On Green	0.22	0.00	0.36	0.36	0.36	0.36
Sat Flow, veh/h	3591	1610	318	2890	1885	1606
Grp Volume(v), veh/h	381	0	187	163	250	325
Grp Sat Flow(s),veh/h/ln	1795	1610	1492	1630	1885	1606
Q Serve(g_s), s	2.0	0.0	0.0	1.5	2.1	3.5
Cycle Q Clear(g_c), s	2.0	0.0	1.5	1.5	2.1	3.5
Prop In Lane	1.00	1.00	0.39			1.00
Lane Grp Cap(c), veh/h	780	350	771	585	677	577
V/C Ratio(X)	0.49	0.00	0.24	0.28	0.37	0.56
Avail Cap(c_a), veh/h	3042	1364	1394	1381	1597	1360
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	0.0	4.8	4.8	5.0	5.5
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.3	0.3	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.1	0.1	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	0.0	5.0	5.1	5.4	6.3
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	381			350	575	
Approach Delay, s/veh	7.8			5.1	5.9	
Approach LOS	A			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.1		9.1		12.1
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		3.5		4.0		5.5
Green Ext Time (p_c), s		1.8		1.2		2.0
Intersection Summary						
HCM 6th Ctrl Delay			6.2			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

MST BRT
10: California Ave & Playa Ave














Cumulative - Mitigation
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	279	16	199	339	135	20	163	169	111	135	39
Future Volume (veh/h)	51	279	16	199	339	135	20	163	169	111	135	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.94	0.99		0.97	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1900	1841	1841	1900	1900	1900	1870	1900	1900
Adj Flow Rate, veh/h	55	300	17	214	365	145	22	175	182	119	145	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	0	4	4	0	0	0	2	0	0
Cap, veh/h	100	479	27	274	461	183	114	470	417	347	378	109
Arrive On Green	0.06	0.28	0.28	0.15	0.38	0.38	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1810	1717	97	1810	1230	488	92	1755	1558	1018	1412	409
Grp Volume(v), veh/h	55	0	317	214	0	510	197	0	182	119	0	187
Grp Sat Flow(s),veh/h/ln	1810	0	1815	1810	0	1718	1847	0	1558	1018	0	1821
Q Serve(g_s), s	1.3	0.0	6.8	5.1	0.0	11.8	0.0	0.0	4.3	4.8	0.0	3.7
Cycle Q Clear(g_c), s	1.3	0.0	6.8	5.1	0.0	11.8	3.8	0.0	4.3	8.6	0.0	3.7
Prop In Lane	1.00		0.05	1.00		0.28	0.11		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	100	0	506	274	0	644	584	0	417	347	0	487
V/C Ratio(X)	0.55	0.00	0.63	0.78	0.00	0.79	0.34	0.00	0.44	0.34	0.00	0.38
Avail Cap(c_a), veh/h	206	0	731	425	0	899	825	0	627	485	0	733
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	14.1	18.2	0.0	12.4	13.4	0.0	13.6	16.9	0.0	13.4
Incr Delay (d2), s/veh	4.6	0.0	1.3	4.9	0.0	3.3	0.3	0.0	0.7	0.6	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.0	2.6	2.3	0.0	4.3	1.5	0.0	1.3	1.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	0.0	15.4	23.2	0.0	15.7	13.7	0.0	14.3	17.5	0.0	13.9
LnGrp LOS	C	A	B	C	A	B	B	A	B	B	A	B
Approach Vol, veh/h		372			724			379			306	
Approach Delay, s/veh		16.8			17.9			14.0			15.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	17.0		16.5	7.0	21.3		16.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	7.1	8.8		6.3	3.3	13.8		10.6				
Green Ext Time (p_c), s	0.2	1.3		1.4	0.0	2.5		0.9				
Intersection Summary												
HCM 6th Ctrl Delay				16.4								
HCM 6th LOS				B								

MST BRT
12: Del Monte Blvd & La Salle Ave

Cumulative - Mitigation
Timing Plan: PM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	126	70	834	171	78	493
Future Volume (veh/h)	126	70	834	171	78	493
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1870	1885	1885	1885	1856
Adj Flow Rate, veh/h	129	71	851	174	80	503
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	1	1	3
Cap, veh/h	263	231	1516	310	448	1813
Arrive On Green	0.15	0.15	0.51	0.51	0.51	0.51
Sat Flow, veh/h	1810	1585	3042	603	554	3618
Grp Volume(v), veh/h	129	71	517	508	80	503
Grp Sat Flow(s),veh/h/ln	1810	1585	1791	1760	554	1763
Q Serve(g_s), s	1.7	1.1	5.2	5.2	3.0	2.1
Cycle Q Clear(g_c), s	1.7	1.1	5.2	5.2	8.3	2.1
Prop In Lane	1.00	1.00		0.34	1.00	
Lane Grp Cap(c), veh/h	263	231	921	905	448	1813
V/C Ratio(X)	0.49	0.31	0.56	0.56	0.18	0.28
Avail Cap(c_a), veh/h	1231	1078	1557	1530	645	3064
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	10.1	4.4	4.4	7.2	3.6
Incr Delay (d2), s/veh	1.4	0.7	0.5	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.3	0.5	0.5	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.8	10.9	4.9	4.9	7.4	3.7
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	200		1025			583
Approach Delay, s/veh	11.5		4.9			4.2
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		18.1			18.1	8.4
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		23.0			23.0	18.0
Max Q Clear Time (g_c+I1), s		7.2			10.3	3.7
Green Ext Time (p_c), s		6.0			3.3	0.5
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	45.2	9.4	0.0	0.6	0.0	0.0	55.2
Total Delay (hr)	16.3	3.7	6.0	29.1	0.3	0.2	55.6

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.4	1.7	0.1	1.2	1.9	0.7	0.4	2.9	0.3	0.5	0.4	0.1

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	11.6

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.7	0.7	4.2	0.3	0.7	0.7	7.3

Total Zone Performance

Denied Delay (hr)	55.4
Total Delay (hr)	74.5

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	566	160	175	1480	132	96
Average Queue (ft)	475	147	116	867	46	44
95th Queue (ft)	726	193	237	1746	105	84
Link Distance (ft)	529			1455	200	200
Upstream Blk Time (%)	75			18	0	
Queuing Penalty (veh)	0			63	0	
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	5	82	3	76		
Queuing Penalty (veh)	11	126	4	153		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	138	317	173	192	338	262	108	116
Average Queue (ft)	45	114	71	135	127	54	37	41
95th Queue (ft)	113	304	138	220	329	129	88	89
Link Distance (ft)		1036	174	174	551	551		1455
Upstream Blk Time (%)			0	13	1	0		
Queuing Penalty (veh)			1	43	0	0		
Storage Bay Dist (ft)	120						150	
Storage Blk Time (%)	8	4					0	0
Queuing Penalty (veh)	23	2					0	0

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	194	95	276	296	106	116	134
Average Queue (ft)	62	38	123	97	45	38	54
95th Queue (ft)	189	83	358	257	101	106	109
Link Distance (ft)	383		491	491		438	438
Upstream Blk Time (%)	1		8	0			
Queuing Penalty (veh)	0		39	0			
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	1	7			4	0	
Queuing Penalty (veh)	1	8			9	0	

Zone Summary

Zone wide Queuing Penalty: 485

G. CUMULATIVE MITIGATED CONDITIONS
SIDRA OUTPUT SHEETS

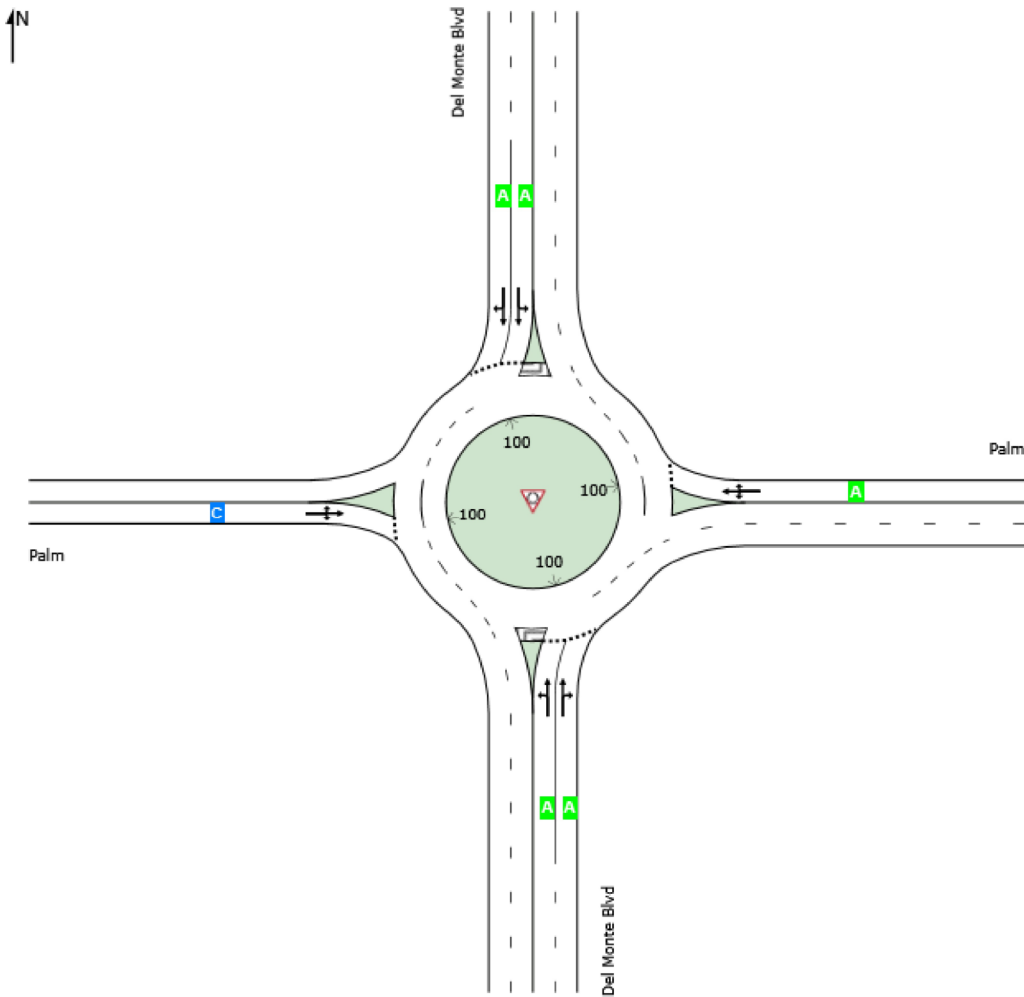
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 6 CU - Del Monte Blvd & Palm_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	C	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 6 CU - Del Monte Blvd & Palm_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	86	2.0	0.260	5.4	LOS A	1.2	31.4	0.34	0.21	0.34	34.4
8	T1	513	2.0	0.260	5.4	LOS A	1.2	31.4	0.34	0.21	0.34	34.7
18	R2	24	2.0	0.260	5.4	LOS A	1.2	31.4	0.34	0.21	0.34	34.0
Approach		623	2.0	0.260	5.4	LOS A	1.2	31.4	0.34	0.21	0.34	34.7
East: Palm												
1	L2	105	2.0	0.236	7.4	LOS A	0.9	22.6	0.59	0.59	0.59	32.6
6	T1	28	2.0	0.236	7.4	LOS A	0.9	22.6	0.59	0.59	0.59	32.5
16	R2	44	2.0	0.236	7.4	LOS A	0.9	22.6	0.59	0.59	0.59	31.6
Approach		177	2.0	0.236	7.4	LOS A	0.9	22.6	0.59	0.59	0.59	32.3
North: Del Monte Blvd												
7	L2	27	2.0	0.399	7.3	LOS A	2.2	54.9	0.45	0.33	0.45	34.1
4	T1	843	2.0	0.399	7.3	LOS A	2.2	54.9	0.45	0.33	0.45	34.0
14	R2	37	2.0	0.399	7.3	LOS A	2.2	54.9	0.45	0.33	0.45	33.0
Approach		907	2.0	0.399	7.3	LOS A	2.2	54.9	0.45	0.33	0.45	34.0
West: Palm												
5	L2	110	2.0	0.735	24.5	LOS C	6.0	153.2	0.84	1.14	1.85	26.7
2	T1	27	2.0	0.735	24.5	LOS C	6.0	153.2	0.84	1.14	1.85	26.6
12	R2	302	2.0	0.735	24.5	LOS C	6.0	153.2	0.84	1.14	1.85	26.0
Approach		439	2.0	0.735	24.5	LOS C	6.0	153.2	0.84	1.14	1.85	26.2
All Vehicles		2146	2.0	0.735	10.3	LOS B	6.0	153.2	0.51	0.48	0.72	32.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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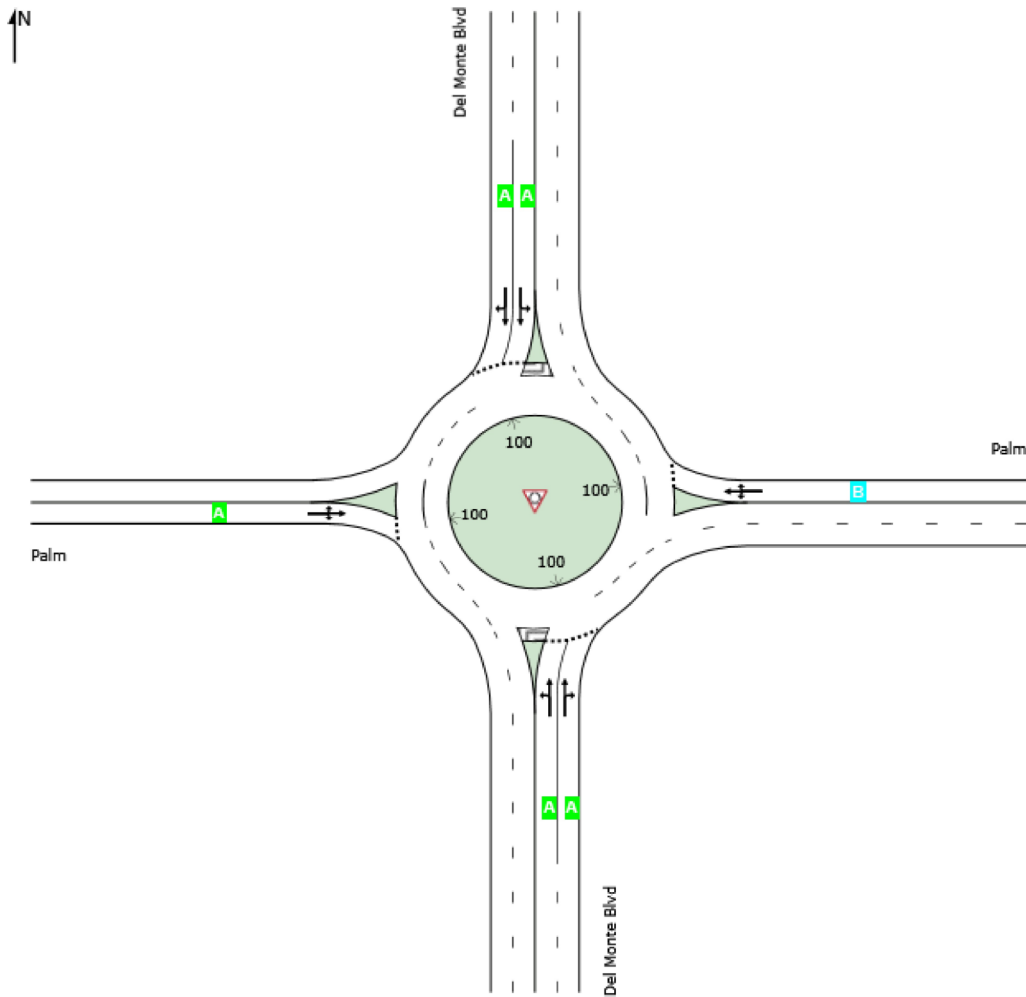
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 6 CU - Del Monte Blvd & Palm_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	B	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 6 CU - Del Monte Blvd & Palm_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	268	2.0	0.560	9.5	LOS A	4.0	101.3	0.48	0.31	0.48	32.1
8	T1	1031	2.0	0.560	9.5	LOS A	4.0	101.3	0.48	0.31	0.48	32.6
18	R2	60	2.0	0.560	9.5	LOS A	4.0	101.3	0.48	0.31	0.48	32.0
Approach		1359	2.0	0.560	9.5	LOS A	4.0	101.3	0.48	0.31	0.48	32.5
East: Palm												
1	L2	37	2.0	0.293	13.4	LOS B	1.1	26.7	0.76	0.80	0.89	30.7
6	T1	53	2.0	0.293	13.4	LOS B	1.1	26.7	0.76	0.80	0.89	30.6
16	R2	35	2.0	0.293	13.4	LOS B	1.1	26.7	0.76	0.80	0.89	29.8
Approach		125	2.0	0.293	13.4	LOS B	1.1	26.7	0.76	0.80	0.89	30.4
North: Del Monte Blvd												
7	L2	57	2.0	0.333	7.1	LOS A	1.6	40.1	0.52	0.44	0.52	33.9
4	T1	536	2.0	0.333	7.1	LOS A	1.6	40.1	0.52	0.44	0.52	34.0
14	R2	73	2.0	0.333	7.1	LOS A	1.6	40.1	0.52	0.44	0.52	33.1
Approach		666	2.0	0.333	7.1	LOS A	1.6	40.1	0.52	0.44	0.52	33.9
West: Palm												
5	L2	65	2.0	0.256	7.3	LOS A	1.0	25.3	0.57	0.57	0.57	33.3
2	T1	26	2.0	0.256	7.3	LOS A	1.0	25.3	0.57	0.57	0.57	33.2
12	R2	115	2.0	0.256	7.3	LOS A	1.0	25.3	0.57	0.57	0.57	32.3
Approach		206	2.0	0.256	7.3	LOS A	1.0	25.3	0.57	0.57	0.57	32.7
All Vehicles		2356	2.0	0.560	8.8	LOS A	4.0	101.3	0.51	0.40	0.52	32.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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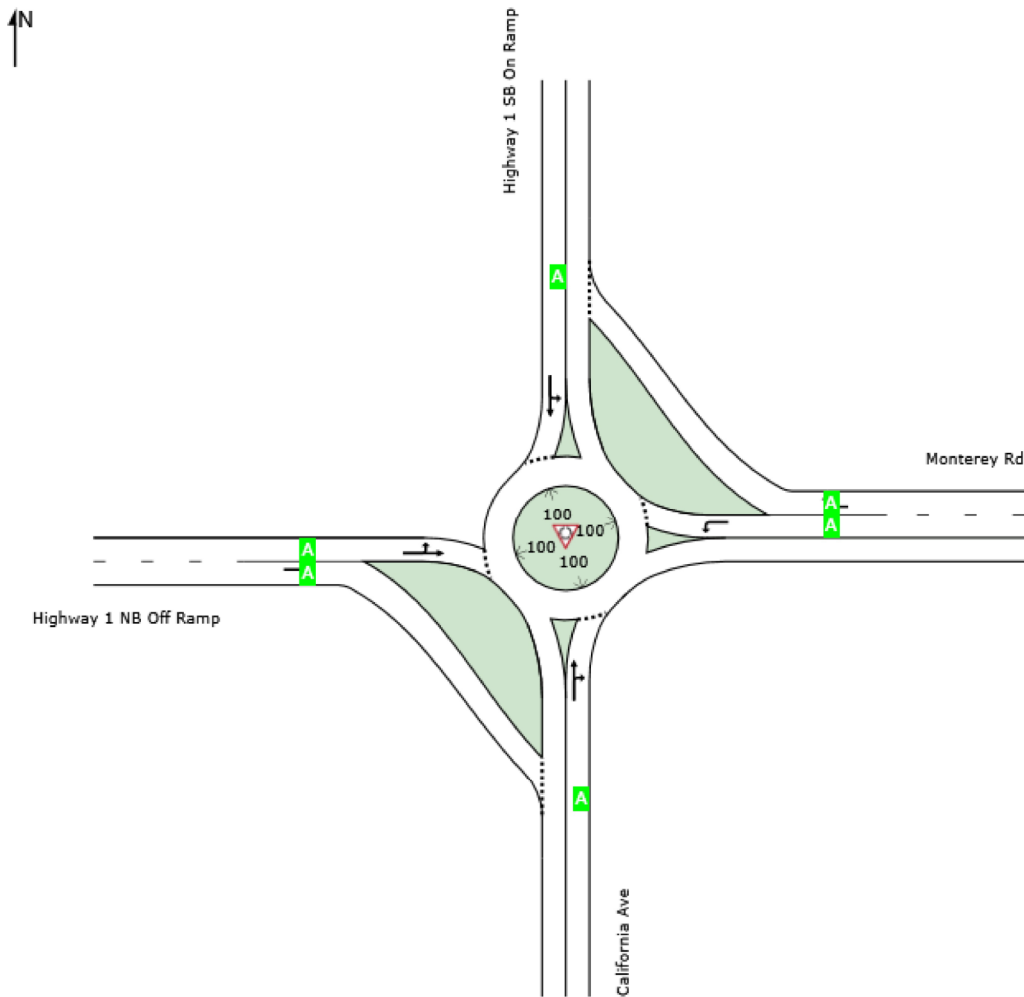
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 8 CU - California Ave & Highway 1/Monterey_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 8 CU - California Ave & Highway 1/Monterey_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: California Ave												
8	T1	71	2.0	0.189	5.1	LOS A	0.9	22.3	0.40	0.27	0.40	35.3
18	R2	133	2.0	0.189	5.1	LOS A	0.9	22.3	0.40	0.27	0.40	34.2
Approach		203	2.0	0.189	5.1	LOS A	0.9	22.3	0.40	0.27	0.40	34.6
East: Monterey Rd												
1	L2	360	2.0	0.276	5.2	LOS A	1.4	35.3	0.22	0.10	0.22	32.6
16	R2	477	2.0	0.366	6.2	LOS A	2.1	52.5	0.25	0.12	0.25	33.6
Approach		837	2.0	0.366	5.8	LOS A	2.1	52.5	0.24	0.11	0.24	33.2
North: Highway 1 SB On Ramp												
7	L2	1	2.0	0.002	3.9	LOS A	0.0	0.2	0.44	0.23	0.44	34.5
4	T1	1	2.0	0.002	3.9	LOS A	0.0	0.2	0.44	0.23	0.44	34.4
Approach		2	2.0	0.002	3.9	LOS A	0.0	0.2	0.44	0.23	0.44	34.5
West: Highway 1 NB Off Ramp												
5	L2	1	2.0	0.219	5.7	LOS A	0.9	23.8	0.47	0.39	0.47	35.0
2	T1	217	2.0	0.219	5.7	LOS A	0.9	23.8	0.47	0.39	0.47	34.9
12	R2	159	2.0	0.160	5.1	LOS A	0.7	16.6	0.45	0.36	0.45	34.2
Approach		377	2.0	0.219	5.5	LOS A	0.9	23.8	0.46	0.38	0.46	34.6
All Vehicles		1419	2.0	0.366	5.6	LOS A	2.1	52.5	0.32	0.20	0.32	33.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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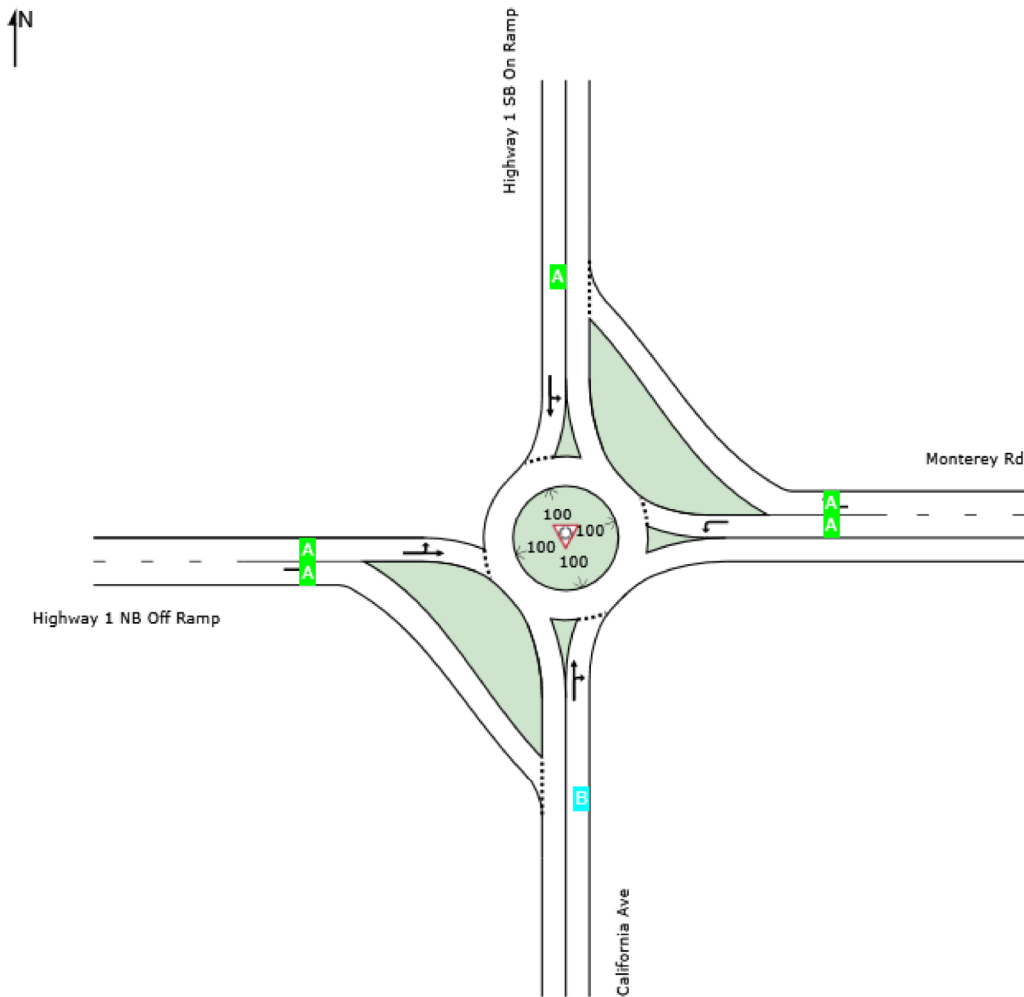
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 8 CU - California Ave & Highway 1/Monterey_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 8 CU - California Ave & Highway 1/Monterey_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: California Ave												
8	T1	217	2.0	0.587	11.3	LOS B	5.6	142.7	0.66	0.62	0.83	32.1
18	R2	387	2.0	0.587	11.3	LOS B	5.6	142.7	0.66	0.62	0.83	31.2
Approach		604	2.0	0.587	11.3	LOS B	5.6	142.7	0.66	0.62	0.83	31.6
East: Monterey Rd												
1	L2	283	2.0	0.250	5.5	LOS A	1.2	29.2	0.39	0.27	0.39	32.5
16	R2	300	2.0	0.265	5.6	LOS A	1.2	31.4	0.40	0.28	0.40	33.9
Approach		583	2.0	0.265	5.6	LOS A	1.2	31.4	0.39	0.27	0.39	33.2
North: Highway 1 SB On Ramp												
7	L2	1	2.0	0.002	3.6	LOS A	0.0	0.2	0.39	0.18	0.39	34.7
4	T1	1	2.0	0.002	3.6	LOS A	0.0	0.2	0.39	0.18	0.39	34.6
Approach		2	2.0	0.002	3.6	LOS A	0.0	0.2	0.39	0.18	0.39	34.6
West: Highway 1 NB Off Ramp												
5	L2	5	2.0	0.244	5.7	LOS A	1.1	27.8	0.44	0.33	0.44	35.0
2	T1	256	2.0	0.244	5.7	LOS A	1.1	27.8	0.44	0.33	0.44	34.9
12	R2	297	2.0	0.278	6.0	LOS A	1.3	32.6	0.45	0.35	0.45	33.7
Approach		558	2.0	0.278	5.9	LOS A	1.3	32.6	0.44	0.34	0.44	34.3
All Vehicles		1747	2.0	0.587	7.6	LOS A	5.6	142.7	0.50	0.41	0.56	32.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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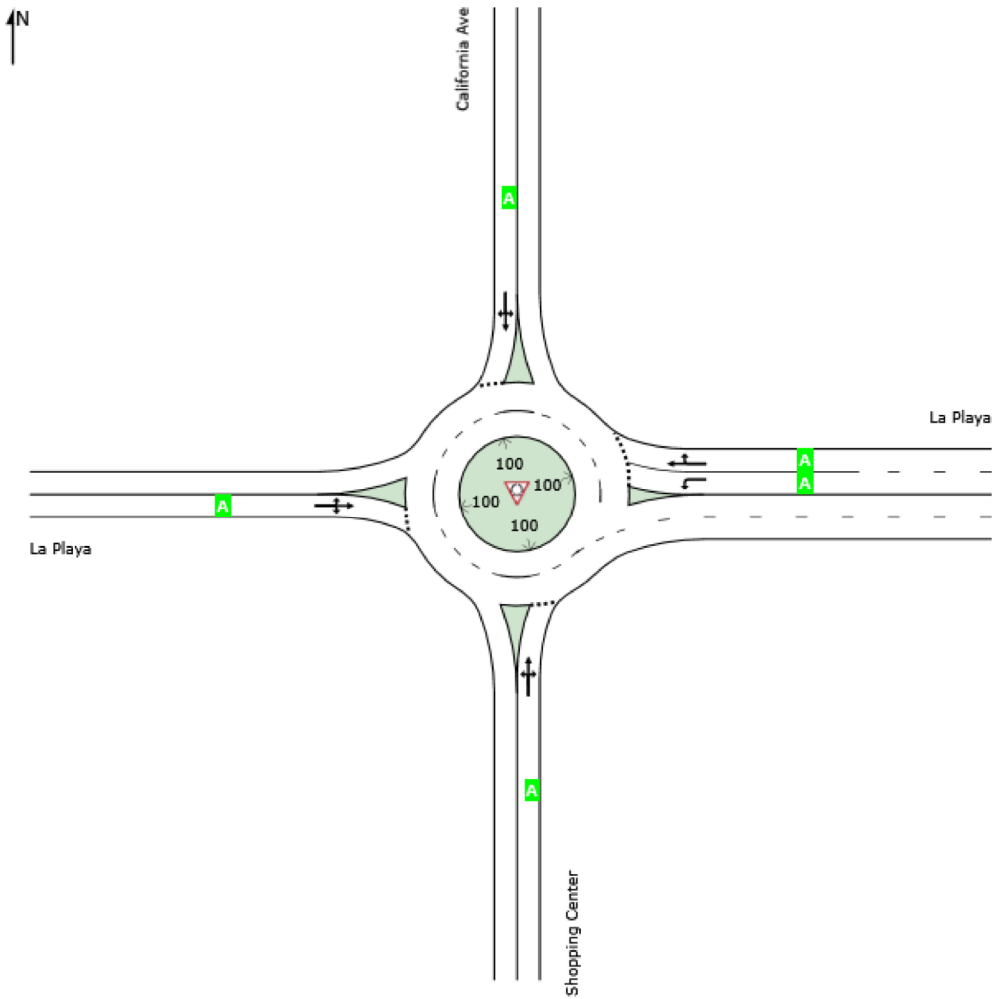
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 10 CU - California Ave & La Playa_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 10 CU - California Ave & La Playa_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Shopping Center												
3	L2	5	2.0	0.107	4.5	LOS A	0.4	10.0	0.41	0.32	0.41	35.5
8	T1	30	2.0	0.107	4.5	LOS A	0.4	10.0	0.41	0.32	0.41	35.4
18	R2	72	2.0	0.107	4.5	LOS A	0.4	10.0	0.41	0.32	0.41	34.3
Approach		108	2.0	0.107	4.5	LOS A	0.4	10.0	0.41	0.32	0.41	34.7
East: La Playa												
1	L2	82	2.0	0.064	3.3	LOS A	0.2	6.3	0.13	0.04	0.13	33.4
6	T1	190	2.0	0.166	4.0	LOS A	0.7	17.6	0.14	0.05	0.14	35.8
16	R2	32	2.0	0.166	4.0	LOS A	0.7	17.6	0.14	0.05	0.14	34.6
Approach		304	2.0	0.166	3.9	LOS A	0.7	17.6	0.14	0.05	0.14	35.0
North: California Ave												
7	L2	226	2.0	0.303	6.2	LOS A	1.4	34.6	0.43	0.33	0.43	32.9
4	T1	81	2.0	0.303	6.2	LOS A	1.4	34.6	0.43	0.33	0.43	32.8
14	R2	25	2.0	0.303	6.2	LOS A	1.4	34.6	0.43	0.33	0.43	31.9
Approach		331	2.0	0.303	6.2	LOS A	1.4	34.6	0.43	0.33	0.43	32.8
West: La Playa												
5	L2	8	2.0	0.159	5.1	LOS A	0.6	15.5	0.44	0.36	0.44	35.2
2	T1	139	2.0	0.159	5.1	LOS A	0.6	15.5	0.44	0.36	0.44	35.1
12	R2	12	2.0	0.159	5.1	LOS A	0.6	15.5	0.44	0.36	0.44	34.0
Approach		158	2.0	0.159	5.1	LOS A	0.6	15.5	0.44	0.36	0.44	35.0
All Vehicles		901	2.0	0.303	5.0	LOS A	1.4	34.6	0.33	0.24	0.33	34.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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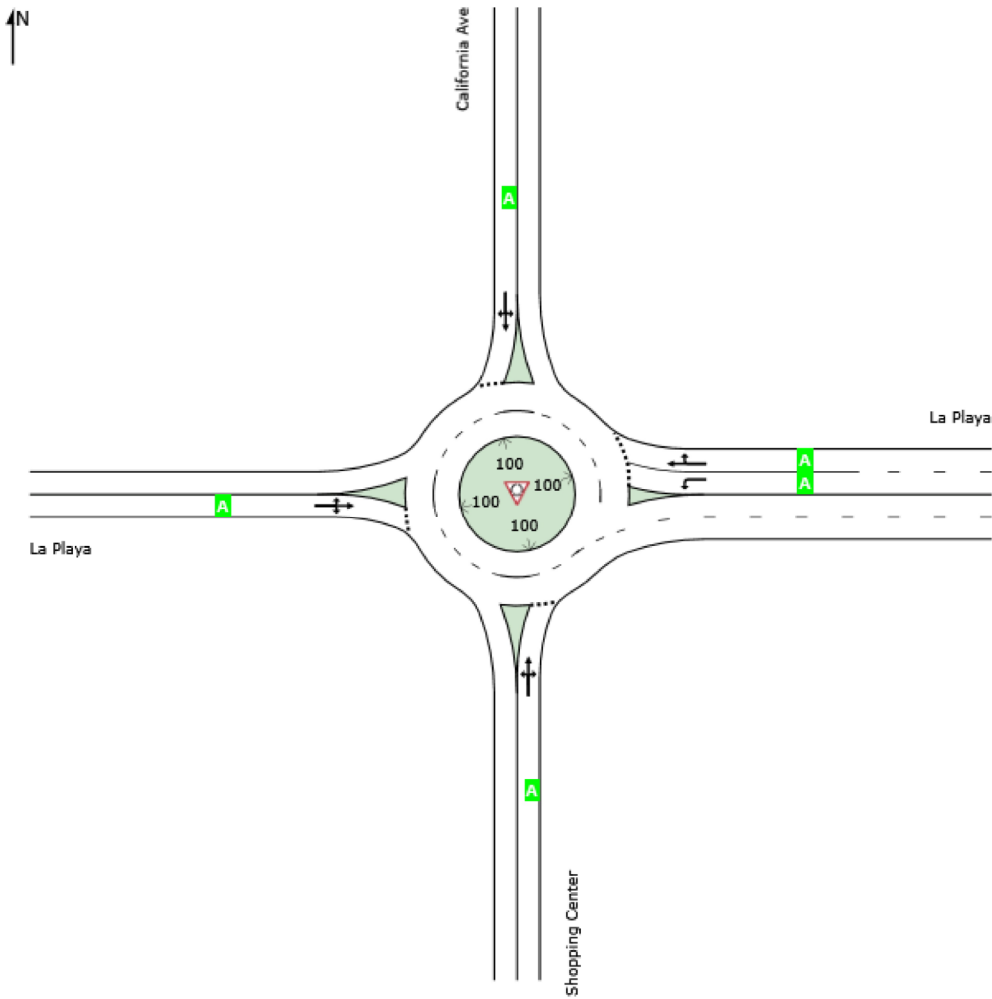
LANE LEVEL OF SERVICE

Lane Level of Service

 Site: 101 [Intersection 10 CU - California Ave & La Playa_PM]

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 10 CU - California Ave & La Playa_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Shopping Center												
3	L2	22	2.0	0.410	8.6	LOS A	2.1	52.7	0.59	0.59	0.65	33.4
8	T1	175	2.0	0.410	8.6	LOS A	2.1	52.7	0.59	0.59	0.65	33.2
18	R2	182	2.0	0.410	8.6	LOS A	2.1	52.7	0.59	0.59	0.65	32.3
Approach		378	2.0	0.410	8.6	LOS A	2.1	52.7	0.59	0.59	0.65	32.8
East: La Playa												
1	L2	214	2.0	0.205	5.4	LOS A	0.9	21.9	0.39	0.29	0.39	32.5
6	T1	365	2.0	0.455	8.2	LOS A	2.5	62.4	0.49	0.38	0.49	33.6
16	R2	145	2.0	0.455	8.2	LOS A	2.5	62.4	0.49	0.38	0.49	32.6
Approach		724	2.0	0.455	7.3	LOS A	2.5	62.4	0.46	0.35	0.46	33.1
North: California Ave												
7	L2	119	2.0	0.370	8.7	LOS A	1.7	43.4	0.61	0.64	0.68	32.5
4	T1	145	2.0	0.370	8.7	LOS A	1.7	43.4	0.61	0.64	0.68	32.4
14	R2	42	2.0	0.370	8.7	LOS A	1.7	43.4	0.61	0.64	0.68	31.5
Approach		306	2.0	0.370	8.7	LOS A	1.7	43.4	0.61	0.64	0.68	32.3
West: La Playa												
5	L2	55	2.0	0.405	8.6	LOS A	2.0	51.1	0.59	0.59	0.64	33.2
2	T1	300	2.0	0.405	8.6	LOS A	2.0	51.1	0.59	0.59	0.64	33.1
12	R2	17	2.0	0.405	8.6	LOS A	2.0	51.1	0.59	0.59	0.64	32.1
Approach		372	2.0	0.405	8.6	LOS A	2.0	51.1	0.59	0.59	0.64	33.0
All Vehicles		1781	2.0	0.455	8.1	LOS A	2.5	62.4	0.54	0.50	0.58	32.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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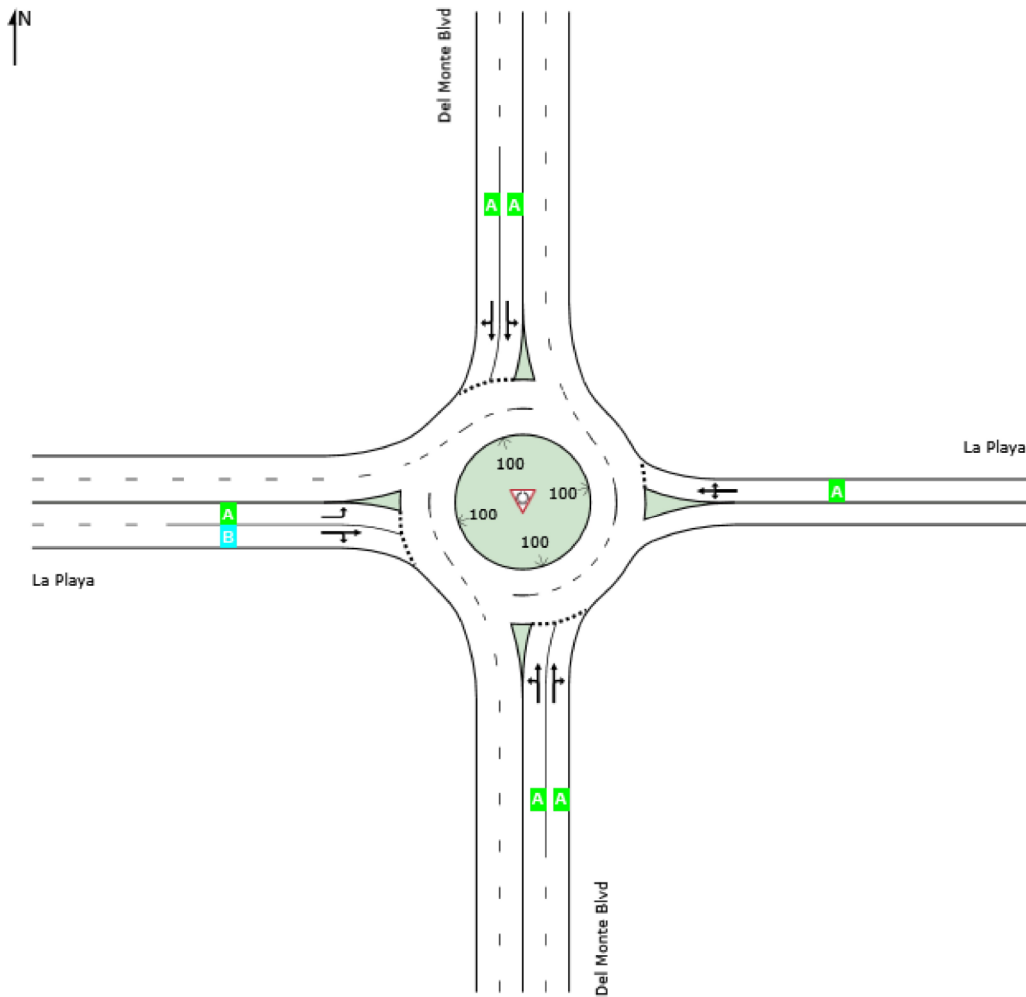
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 11 CU - Del Monte Blvd & La Playa_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	B	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 11 CU - Del Monte Blvd & La Playa_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	125	2.0	0.159	4.4	LOS A	0.7	16.8	0.27	0.15	0.27	33.8
8	T1	238	2.0	0.159	4.3	LOS A	0.7	16.8	0.26	0.14	0.26	35.2
18	R2	21	2.0	0.159	4.2	LOS A	0.6	16.4	0.25	0.14	0.25	34.6
Approach		384	2.0	0.159	4.3	LOS A	0.7	16.8	0.26	0.14	0.26	34.7
East: La Playa												
1	L2	34	2.0	0.186	5.4	LOS A	0.7	18.5	0.45	0.38	0.45	34.7
6	T1	146	2.0	0.186	5.4	LOS A	0.7	18.5	0.45	0.38	0.45	34.5
16	R2	4	2.0	0.186	5.4	LOS A	0.7	18.5	0.45	0.38	0.45	33.5
Approach		184	2.0	0.186	5.4	LOS A	0.7	18.5	0.45	0.38	0.45	34.5
North: Del Monte Blvd												
7	L2	13	2.0	0.344	7.2	LOS A	1.6	41.2	0.49	0.40	0.49	34.1
4	T1	649	2.0	0.344	7.0	LOS A	1.6	41.2	0.48	0.39	0.48	34.2
14	R2	47	2.0	0.344	6.8	LOS A	1.6	40.6	0.47	0.38	0.47	33.2
Approach		710	2.0	0.344	7.0	LOS A	1.6	41.2	0.48	0.39	0.48	34.1
West: La Playa												
5	L2	30	2.0	0.044	5.7	LOS A	0.2	3.9	0.54	0.48	0.54	32.4
2	T1	85	2.0	0.560	13.4	LOS B	3.9	98.5	0.73	0.88	1.19	31.1
12	R2	340	2.0	0.560	13.4	LOS B	3.9	98.5	0.73	0.88	1.19	30.2
Approach		456	2.0	0.560	12.9	LOS B	3.9	98.5	0.72	0.86	1.15	30.5
All Vehicles		1735	2.0	0.560	7.8	LOS A	3.9	98.5	0.49	0.46	0.60	33.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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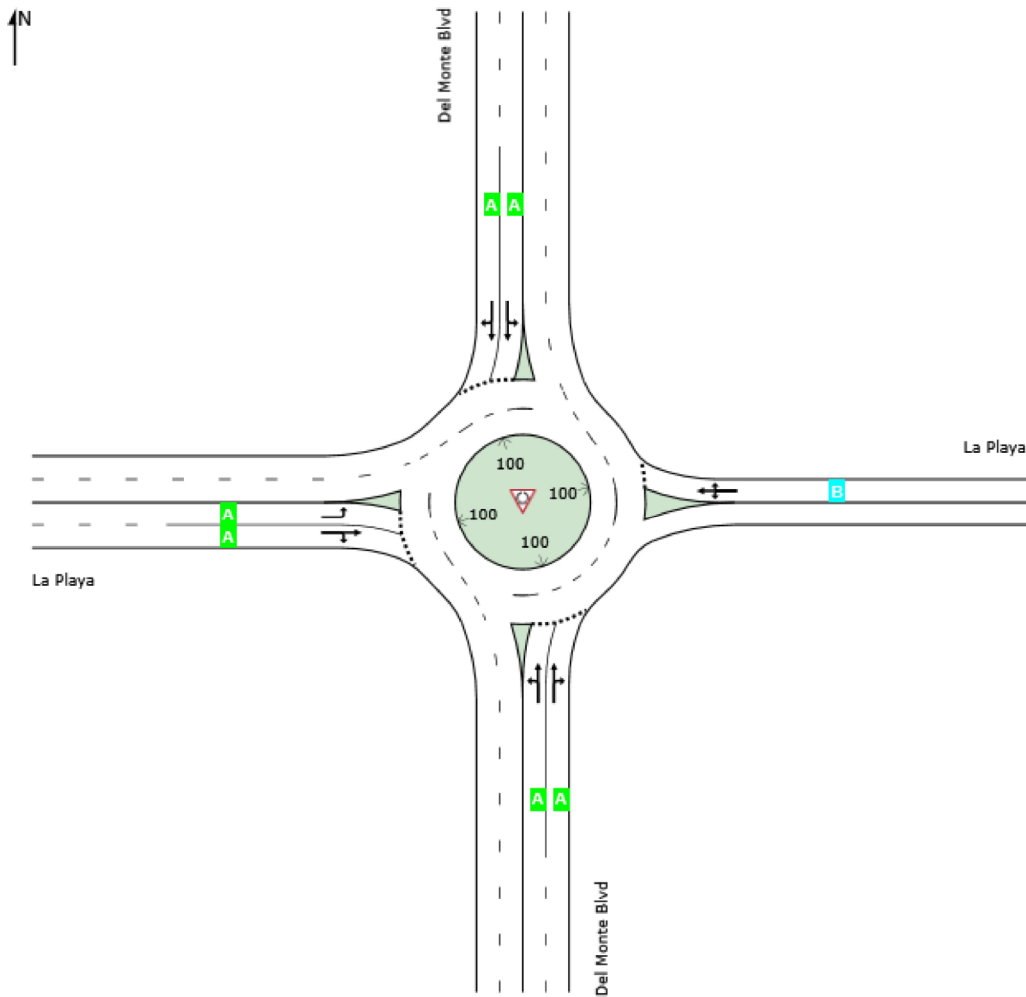
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 11 CU - Del Monte Blvd & La Playa_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	B	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 11 CU - Del Monte Blvd & La Playa_PM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	352	2.0	0.471	9.3	LOS A	2.8	70.3	0.57	0.52	0.63	31.3
8	T1	471	2.0	0.471	8.9	LOS A	2.8	70.3	0.56	0.49	0.59	32.8
18	R2	127	2.0	0.471	8.8	LOS A	2.6	66.8	0.55	0.49	0.58	32.3
Approach		950	2.0	0.471	9.1	LOS A	2.8	70.3	0.56	0.50	0.60	32.2
East: La Playa												
1	L2	51	2.0	0.485	13.3	LOS B	2.6	65.8	0.72	0.84	1.10	31.0
6	T1	241	2.0	0.485	13.3	LOS B	2.6	65.8	0.72	0.84	1.10	30.9
16	R2	15	2.0	0.485	13.3	LOS B	2.6	65.8	0.72	0.84	1.10	30.1
Approach		307	2.0	0.485	13.3	LOS B	2.6	65.8	0.72	0.84	1.10	30.9
North: Del Monte Blvd												
7	L2	20	2.0	0.261	8.0	LOS A	1.0	26.1	0.60	0.60	0.60	33.5
4	T1	254	2.0	0.261	7.8	LOS A	1.0	26.1	0.59	0.59	0.59	33.6
14	R2	122	2.0	0.261	7.4	LOS A	1.0	25.9	0.58	0.58	0.58	32.9
Approach		397	2.0	0.261	7.7	LOS A	1.0	26.1	0.59	0.59	0.59	33.4
West: La Playa												
5	L2	83	2.0	0.085	4.5	LOS A	0.3	8.1	0.40	0.29	0.40	32.9
2	T1	227	2.0	0.487	9.1	LOS A	2.9	74.5	0.56	0.50	0.62	33.1
12	R2	285	2.0	0.487	9.1	LOS A	2.9	74.5	0.56	0.50	0.62	32.1
Approach		595	2.0	0.487	8.4	LOS A	2.9	74.5	0.54	0.48	0.59	32.6
All Vehicles		2249	2.0	0.487	9.2	LOS A	2.9	74.5	0.58	0.56	0.66	32.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

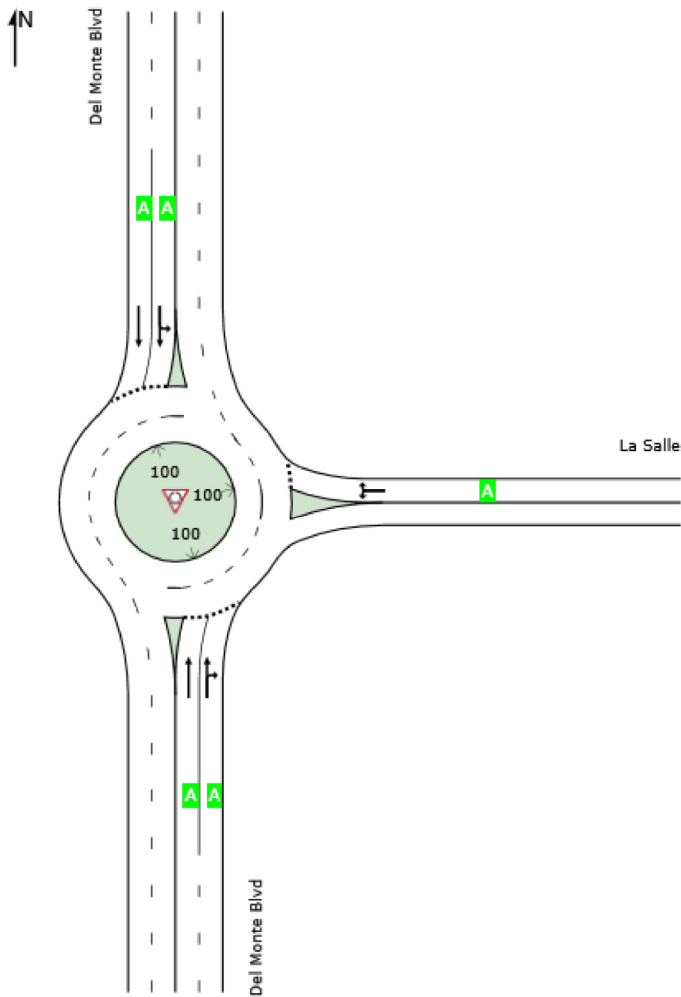
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 12 CU - Del Monte Blvd & La Salle_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 12 CU - Del Monte Blvd & La Salle_AM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
8	T1	341	2.0	0.168	4.2	LOS A	0.7	18.3	0.17	0.07	0.17	35.7
18	R2	93	2.0	0.168	4.1	LOS A	0.7	17.8	0.16	0.07	0.16	34.6
Approach		434	2.0	0.168	4.2	LOS A	0.7	18.3	0.17	0.07	0.17	35.5
East: La Salle												
1	L2	177	2.0	0.203	5.4	LOS A	0.8	20.7	0.43	0.34	0.43	32.9
16	R2	33	2.0	0.203	5.4	LOS A	0.8	20.7	0.43	0.34	0.43	31.9
Approach		210	2.0	0.203	5.4	LOS A	0.8	20.7	0.43	0.34	0.43	32.7
North: Del Monte Blvd												
7	L2	58	2.0	0.434	7.8	LOS A	2.4	61.5	0.43	0.30	0.43	33.6
4	T1	946	2.0	0.434	7.6	LOS A	2.4	61.5	0.42	0.28	0.42	33.8
Approach		1004	2.0	0.434	7.6	LOS A	2.4	61.5	0.42	0.29	0.42	33.8
All Vehicles		1648	2.0	0.434	6.4	LOS A	2.4	61.5	0.35	0.24	0.35	34.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\SJC_TPTO\County of Monterey\097541001 - SURF BRT\05 Design & Analysis\Sidra\CU_RAB Mitigation.sip8

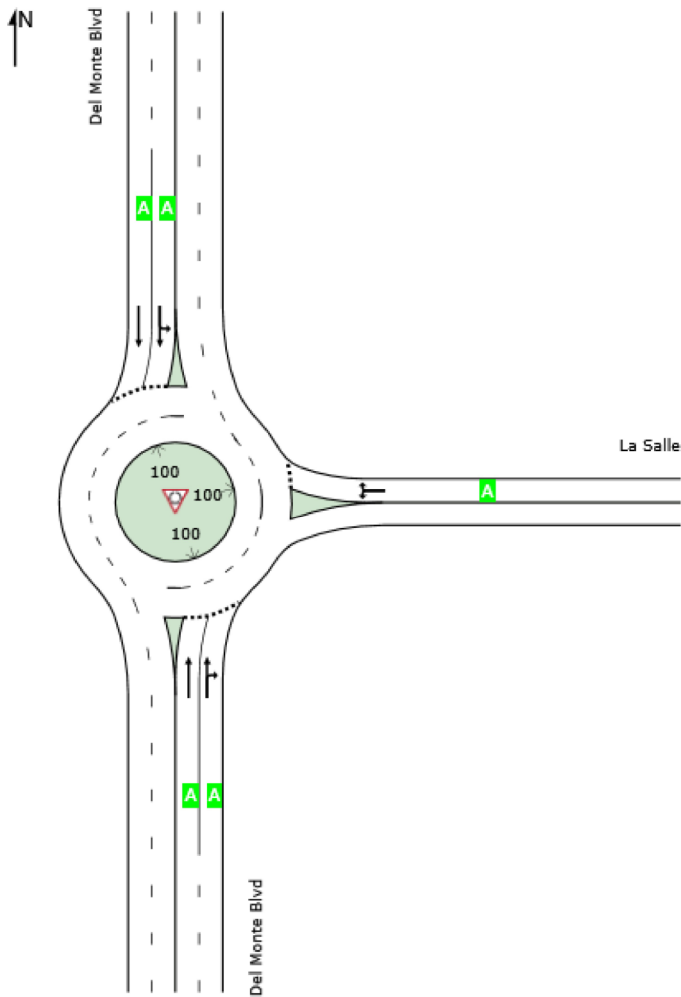
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 12 CU - Del Monte Blvd & La Salle_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 12 CU - Del Monte Blvd & La Salle_PM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
8	T1	851	2.0	0.406	6.8	LOS A	2.3	58.9	0.27	0.14	0.27	34.3
18	R2	174	2.0	0.406	6.7	LOS A	2.3	57.5	0.26	0.13	0.26	33.3
Approach		1026	2.0	0.406	6.8	LOS A	2.3	58.9	0.27	0.13	0.27	34.1
East: La Salle												
1	L2	129	2.0	0.300	9.2	LOS A	1.2	29.7	0.64	0.65	0.68	31.6
16	R2	71	2.0	0.300	9.2	LOS A	1.2	29.7	0.64	0.65	0.68	30.7
Approach		200	2.0	0.300	9.2	LOS A	1.2	29.7	0.64	0.65	0.68	31.3
North: Del Monte Blvd												
7	L2	80	2.0	0.241	5.2	LOS A	1.1	27.8	0.29	0.17	0.29	34.5
4	T1	503	2.0	0.241	5.1	LOS A	1.1	27.8	0.28	0.16	0.28	34.9
Approach		583	2.0	0.241	5.1	LOS A	1.1	27.8	0.28	0.16	0.28	34.8
All Vehicles		1808	2.0	0.406	6.5	LOS A	2.3	58.9	0.32	0.20	0.32	34.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\SJC_TPTO\County of Monterey\097541001 - SURF BRT\05 Design & Analysis\Sidra\CU_RAB Mitigation.sip8

H. CUMULATIVE PLUS PROJECT CONDITIONS SYNCHRO OUTPUT SHEETS

MST BRT
1: De Forest Rd & Reservation Rd

Cumulative+ Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗		↘	↗		↘	↗
Traffic Volume (veh/h)	38	794	37	28	674	105	28	3	16	146	1	73
Future Volume (veh/h)	38	794	37	28	674	105	28	3	16	146	1	73
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1648	1633	1856	1870	1900	1900	1589	1900	1900	1900
Adj Flow Rate, veh/h	42	873	41	31	741	115	31	3	18	160	1	80
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	0	3	17	18	3	2	0	0	21	0	0	0
Cap, veh/h	234	1402	547	66	1097	483	148	8	432	154	1	517
Arrive On Green	0.13	0.40	0.40	0.04	0.31	0.31	0.32	0.32	0.32	0.32	0.32	0.32
Sat Flow, veh/h	1810	3526	1374	1555	3526	1552	0	25	1339	0	2	1601
Grp Volume(v), veh/h	42	873	41	31	741	115	34	0	18	161	0	80
Grp Sat Flow(s),veh/h/ln	1810	1763	1374	1555	1763	1552	25	0	1339	2	0	1601
Q Serve(g_s), s	1.0	9.2	0.9	0.9	8.5	2.6	0.0	0.0	0.4	0.0	0.0	1.7
Cycle Q Clear(g_c), s	1.0	9.2	0.9	0.9	8.5	2.6	15.0	0.0	0.4	15.0	0.0	1.7
Prop In Lane	1.00		1.00	1.00		1.00	0.91		1.00	0.99		1.00
Lane Grp Cap(c), veh/h	234	1402	547	66	1097	483	156	0	432	155	0	517
V/C Ratio(X)	0.18	0.62	0.08	0.47	0.68	0.24	0.22	0.00	0.04	1.04	0.00	0.15
Avail Cap(c_a), veh/h	779	1518	591	502	1518	668	156	0	432	155	0	517
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.0	11.2	8.7	21.7	14.0	11.9	19.8	0.0	10.8	23.2	0.0	11.2
Incr Delay (d2), s/veh	0.4	0.7	0.1	5.1	0.7	0.3	0.7	0.0	0.0	82.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	2.8	0.2	0.4	2.8	0.7	0.4	0.0	0.1	5.2	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	11.9	8.7	26.8	14.7	12.2	20.5	0.0	10.8	106.1	0.0	11.3
LnGrp LOS	B	B	A	C	B	B	C	A	B	F	A	B
Approach Vol, veh/h		956			887			52				241
Approach Delay, s/veh		12.1			14.8			17.1				74.6
Approach LOS		B			B			B				E
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	22.5		18.5	9.5	18.5		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	2.9	11.2		17.0	3.0	10.5		17.0				
Green Ext Time (p_c), s	0.0	3.9		0.0	0.1	3.7		0.0				

Intersection Summary

HCM 6th Ctrl Delay	20.4
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
2: Goodwill Dwy/Mc Donalds & Reservation Rd

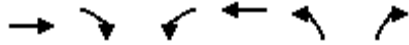
Cumulative+ Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	775	5	0	656	119	3	0	8	86	1	154
Future Volume (veh/h)	111	775	5	0	656	119	3	0	8	86	1	154
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	0	1841	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	118	824	5	0	698	127	3	0	9	91	1	164
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	4	0	0	0	0	0	0	0
Cap, veh/h	208	2106	13	0	1309	600	161	45	245	489	4	330
Arrive On Green	0.12	0.59	0.59	0.00	0.37	0.37	0.21	0.00	0.21	0.21	0.21	0.21
Sat Flow, veh/h	1810	3592	22	0	3589	1604	175	220	1187	1412	21	1598
Grp Volume(v), veh/h	118	404	425	0	698	127	12	0	0	92	0	164
Grp Sat Flow(s),veh/h/ln	1810	1763	1851	0	1749	1604	1582	0	0	1433	0	1598
Q Serve(g_s), s	2.2	4.5	4.5	0.0	5.6	1.9	0.0	0.0	0.0	1.7	0.0	3.3
Cycle Q Clear(g_c), s	2.2	4.5	4.5	0.0	5.6	1.9	0.2	0.0	0.0	1.9	0.0	3.3
Prop In Lane	1.00		0.01	0.00		1.00	0.25		0.75	0.99		1.00
Lane Grp Cap(c), veh/h	208	1034	1086	0	1309	600	451	0	0	494	0	330
V/C Ratio(X)	0.57	0.39	0.39	0.00	0.53	0.21	0.03	0.00	0.00	0.19	0.00	0.50
Avail Cap(c_a), veh/h	1501	1950	2048	0	3869	1774	1379	0	0	1380	0	1326
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.1	4.0	4.0	0.0	8.8	7.7	11.5	0.0	0.0	12.1	0.0	12.7
Incr Delay (d2), s/veh	2.4	0.2	0.2	0.0	0.3	0.2	0.0	0.0	0.0	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.6	0.6	0.0	1.4	0.5	0.1	0.0	0.0	0.5	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	4.3	4.2	0.0	9.2	7.9	11.5	0.0	0.0	12.3	0.0	13.9
LnGrp LOS	B	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		947			825			12			256	
Approach Delay, s/veh		5.9			9.0			11.5			13.3	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		25.2		11.0	7.7	17.5		11.0				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+I1), s		6.5		2.2	4.2	7.6		5.3				
Green Ext Time (p_c), s		5.7		0.0	0.3	5.7		1.1				
Intersection Summary												
HCM 6th Ctrl Delay											8.1	
HCM 6th LOS											A	

MST BRT
3: Seacrest Ave & Reservation Rd

Cumulative+ Project
Timing Plan: AM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Traffic Volume (veh/h)	728	172	177	621	182	93
Future Volume (veh/h)	728	172	177	621	182	93
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1856	1900	1856	1841	1856	1900
Adj Flow Rate, veh/h	783	185	190	668	196	100
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	0	3	4	3	0
Cap, veh/h	1347	613	313	2220	329	300
Arrive On Green	0.38	0.38	0.18	0.63	0.19	0.19
Sat Flow, veh/h	3618	1604	1767	3589	1767	1610
Grp Volume(v), veh/h	783	185	190	668	196	100
Grp Sat Flow(s),veh/h/ln	1763	1604	1767	1749	1767	1610
Q Serve(g_s), s	9.4	4.3	5.3	4.6	5.4	2.9
Cycle Q Clear(g_c), s	9.4	4.3	5.3	4.6	5.4	2.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1347	613	313	2220	329	300
V/C Ratio(X)	0.58	0.30	0.61	0.30	0.60	0.33
Avail Cap(c_a), veh/h	1995	907	1000	2220	1000	911
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	13.0	11.4	20.1	4.4	19.8	18.7
Incr Delay (d2), s/veh	0.4	0.3	0.7	0.1	2.1	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	1.3	2.0	1.0	2.2	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	13.4	11.7	20.8	4.4	21.8	19.5
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	968			858	296	
Approach Delay, s/veh	13.1			8.1	21.0	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.4	24.8		14.9		38.2
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+1), s	11.4			7.4		6.6
Green Ext Time (p_c), s	0.2	5.8		1.2		4.6
Intersection Summary						
HCM 6th Ctrl Delay			12.2			
HCM 6th LOS			B			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	172	705	84	99	640	56	61	33	41	112	10	96
Future Volume (veh/h)	172	705	84	99	640	56	61	33	41	112	10	96
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1841	1841	1530	1856	1841	1900	1900	1900	1900	1900	1841
Adj Flow Rate, veh/h	187	766	91	108	696	0	66	36	45	122	11	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	10	4	4	25	3	4	0	0	0	0	0	4
Cap, veh/h	240	1150	137	215	1302		393	193	458	432	34	
Arrive On Green	0.14	0.37	0.37	0.15	0.37	0.00	0.29	0.29	0.29	0.29	0.29	0.00
Sat Flow, veh/h	1668	3144	373	1457	3526	1560	996	676	1602	1071	119	1560
Grp Volume(v), veh/h	187	426	431	108	696	0	102	0	45	133	0	0
Grp Sat Flow(s),veh/h/ln	1668	1749	1769	1457	1763	1560	1672	0	1602	1190	0	1560
Q Serve(g_s), s	5.9	11.2	11.2	3.7	8.5	0.0	0.0	0.0	1.1	4.2	0.0	0.0
Cycle Q Clear(g_c), s	5.9	11.2	11.2	3.7	8.5	0.0	2.3	0.0	1.1	6.4	0.0	0.0
Prop In Lane	1.00		0.21	1.00		1.00	0.65		1.00	0.92		1.00
Lane Grp Cap(c), veh/h	240	640	647	215	1302		586	0	458	466	0	
V/C Ratio(X)	0.78	0.67	0.67	0.50	0.53		0.17	0.00	0.10	0.29	0.00	
Avail Cap(c_a), veh/h	763	799	809	666	2256		1566	0	1465	825	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	22.6	14.5	14.5	21.5	13.6	0.0	14.8	0.0	14.4	17.0	0.0	0.0
Incr Delay (d2), s/veh	5.4	1.5	1.5	1.8	0.3	0.0	0.1	0.0	0.1	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	3.9	4.0	1.3	2.9	0.0	0.9	0.0	0.4	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	16.0	16.0	23.3	13.9	0.0	14.9	0.0	14.4	17.3	0.0	0.0
LnGrp LOS	C	B	B	C	B		B	A	B	B	A	
Approach Vol, veh/h		1044			804	A		147			133	A
Approach Delay, s/veh		18.2			15.2			14.8			17.3	
Approach LOS		B			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.6	24.0		19.1	11.4	24.2		19.1				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1), s	11.7	13.2		4.3	7.9	10.5		8.4				
Green Ext Time (p_c), s	0.2	4.2		0.8	0.5	4.9		0.7				

Intersection Summary

HCM 6th Ctrl Delay	16.7
HCM 6th LOS	B

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Cumulative+ Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕		↗↘	↑	↗	↗	↑	↗↗	↗↘	↕↕	
Traffic Volume (veh/h)	17	257	147	417	185	208	245	198	397	271	252	7
Future Volume (veh/h)	17	257	147	417	185	208	245	198	397	271	252	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1826	1826	1826	1841	1856	1856	1870	1900	1856	1826	1870	1870
Adj Flow Rate, veh/h	19	289	165	469	208	234	275	222	446	304	283	8
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	5	5	5	4	3	3	2	0	3	5	2	2
Cap, veh/h	25	388	233	710	387	324	327	467	1247	427	666	19
Arrive On Green	0.19	0.19	0.19	0.21	0.21	0.21	0.18	0.25	0.25	0.13	0.19	0.19
Sat Flow, veh/h	133	2045	1227	3401	1856	1554	1781	1900	2723	3374	3527	99
Grp Volume(v), veh/h	260	0	213	469	208	234	275	222	446	304	142	149
Grp Sat Flow(s),veh/h/ln	1819	0	1586	1700	1856	1554	1781	1900	1361	1687	1777	1850
Q Serve(g_s), s	9.4	0.0	8.8	8.8	7.0	9.8	10.4	7.0	7.5	6.0	4.9	5.0
Cycle Q Clear(g_c), s	9.4	0.0	8.8	8.8	7.0	9.8	10.4	7.0	7.5	6.0	4.9	5.0
Prop In Lane	0.07		0.77	1.00		1.00	1.00		1.00	1.00		0.05
Lane Grp Cap(c), veh/h	345	0	301	710	387	324	327	467	1247	427	335	349
V/C Ratio(X)	0.75	0.00	0.71	0.66	0.54	0.72	0.84	0.48	0.36	0.71	0.42	0.43
Avail Cap(c_a), veh/h	521	0	455	1462	798	668	510	544	1358	967	509	530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.7	0.0	26.5	25.3	24.6	25.7	27.5	22.5	12.4	29.3	25.0	25.0
Incr Delay (d2), s/veh	3.3	0.0	3.1	0.4	0.4	1.1	7.3	0.3	0.1	2.2	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	3.4	3.4	2.9	3.5	4.8	2.9	3.1	2.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.1	0.0	29.6	25.7	25.0	26.9	34.8	22.7	12.5	31.5	25.3	25.3
LnGrp LOS	C	A	C	C	C	C	C	C	B	C	C	C
Approach Vol, veh/h		473		911		943		595				
Approach Delay, s/veh		29.8		25.9		21.4		28.4				
Approach LOS		C		C		C		C				
Timer - Assigned Phs	1	2	4	5	6	8						
Phs Duration (G+Y+Rc), s	12.8	21.2	17.2	16.8	17.2	18.6						
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0						
Max Green Setting (Gmax), s	20.0	20.0	20.0	20.0	20.0	30.0						
Max Q Clear Time (g_c+1), s	19.0	9.5	11.4	12.4	7.0	11.8						
Green Ext Time (p_c), s	0.8	1.5	1.8	0.5	0.8	2.0						

Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Cumulative+ Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↔		↖	↕↕	↗
Traffic Volume (veh/h)	119	26	293	102	27	43	83	498	23	26	818	48
Future Volume (veh/h)	119	26	293	102	27	43	83	498	23	26	818	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.99	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1885	1900	1826	1870	1856	1856	1900	1870	1900
Adj Flow Rate, veh/h	123	27	302	105	28	44	86	513	24	27	843	49
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	1	0	5	2	3	3	0	2	0
Cap, veh/h	356	78	380	183	193	155	143	1379	64	32	1208	529
Arrive On Green	0.24	0.24	0.24	0.10	0.10	0.10	0.08	0.40	0.40	0.02	0.34	0.34
Sat Flow, veh/h	1497	329	1598	1795	1900	1520	1781	3427	160	1810	3554	1555
Grp Volume(v), veh/h	150	0	302	105	28	44	86	263	274	27	843	49
Grp Sat Flow(s),veh/h/ln	1825	0	1598	1795	1900	1520	1781	1763	1825	1810	1777	1555
Q Serve(g_s), s	4.4	0.0	11.4	3.6	0.9	1.7	3.0	6.8	6.8	1.0	13.2	1.4
Cycle Q Clear(g_c), s	4.4	0.0	11.4	3.6	0.9	1.7	3.0	6.8	6.8	1.0	13.2	1.4
Prop In Lane	0.82		1.00	1.00		1.00	1.00		0.09	1.00		1.00
Lane Grp Cap(c), veh/h	434	0	380	183	193	155	143	709	734	32	1208	529
V/C Ratio(X)	0.35	0.00	0.80	0.57	0.14	0.28	0.60	0.37	0.37	0.84	0.70	0.09
Avail Cap(c_a), veh/h	850	0	744	557	590	472	553	1231	1274	421	2482	1086
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.4	0.0	23.1	27.6	26.4	26.8	28.7	13.5	13.5	31.6	18.4	14.5
Incr Delay (d2), s/veh	0.5	0.0	3.8	2.8	0.3	1.0	4.1	0.3	0.3	40.9	0.7	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	4.5	1.6	0.4	0.7	1.4	2.4	2.5	0.8	4.9	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	0.0	26.9	30.4	26.7	27.8	32.7	13.9	13.9	72.5	19.1	14.6
LnGrp LOS	C	A	C	C	C	C	C	B	B	E	B	B
Approach Vol, veh/h		452			177			623			919	
Approach Delay, s/veh		24.9			29.2			16.5			20.5	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	4.6	30.4		19.3	8.7	26.4		10.1				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	13.0	8.8		13.4	5.0	15.2		5.6				
Green Ext Time (p_c), s	0.0	3.4		1.8	0.1	6.7		0.5				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Intersection Delay, s/veh 7
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	3	0	0	10	0	0	12	0	0	12	0
Future Vol, veh/h	0	3	0	0	10	0	0	12	0	0	12	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	0	0	13	0	0	16	0	0	16	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7	7	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	3	10	12
LT Vol	0	0	0	0
Through Vol	12	3	10	12
RT Vol	0	0	0	0
Lane Flow Rate	16	4	13	16
Geometry Grp	1	1	1	1
Degree of Util (X)	0.018	0.004	0.015	0.018
Departure Headway (Hd)	3.943	3.965	3.958	3.943
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	904	906	911
Service Time	1.952	1.983	1.974	1.952
HCM Lane V/C Ratio	0.018	0.004	0.014	0.018
HCM Control Delay	7	7	7	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0	0	0.1

Intersection

Intersection Delay, s/veh 10.4
 Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	147	57	25	58	248	257
Future Vol, veh/h	147	57	25	58	248	257
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	2	3	4	11	4	1
Mvmt Flow	158	61	27	62	267	276
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	10.3	9.3	10.6
HCM LOS	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	56%	0%	100%	46%	0%	0%
Vol Thru, %	44%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	54%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	44	39	98	106	248	257
LT Vol	25	0	98	49	0	0
Through Vol	19	39	0	0	248	0
RT Vol	0	0	0	57	0	257
Lane Flow Rate	48	42	105	114	267	276
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.08	0.068	0.188	0.184	0.394	0.35
Departure Headway (Hd)	6.043	5.878	6.428	5.796	5.32	4.563
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	588	604	554	613	675	785
Service Time	3.833	3.668	4.215	3.583	3.075	2.318
HCM Lane V/C Ratio	0.082	0.07	0.19	0.186	0.396	0.352
HCM Control Delay	9.4	9.1	10.7	9.9	11.5	9.8
HCM Lane LOS	A	A	B	A	B	A
HCM 95th-tile Q	0.3	0.2	0.7	0.7	1.9	1.6

Intersection

Intersection Delay, s/veh 12.2

Intersection LOS B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	129	11	76	177	42	5	28	67	222	75	23
Future Vol, veh/h	7	129	11	76	177	42	5	28	67	222	75	23
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	29	11	0	0	7	11	20	4	4	2	4	9
Mvmt Flow	8	139	12	82	190	45	5	30	72	239	81	25
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	11.6	12.3	9.7	13.1
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %		15%	0%	100%	0%	100%	0%	100%
Vol Thru, %		85%	0%	0%	92%	0%	81%	0%
Vol Right, %		0%	100%	0%	8%	0%	19%	0%
Sign Control		Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane		33	67	7	140	76	219	222
LT Vol		5	0	7	0	76	0	222
Through Vol		28	0	0	129	0	177	0
RT Vol		0	67	0	11	0	42	0
Lane Flow Rate		35	72	8	151	82	235	239
Geometry Grp		7	7	7	7	7	7	7
Degree of Util (X)		0.069	0.118	0.015	0.272	0.151	0.4	0.44
Departure Headway (Hd)		6.953	5.886	7.386	6.512	6.639	6.117	6.643
Convergence, Y/N		Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap		514	607	484	551	539	589	542
Service Time		4.711	3.644	5.141	4.266	4.386	3.864	4.388
HCM Lane V/C Ratio		0.068	0.119	0.017	0.274	0.152	0.399	0.441
HCM Control Delay		10.2	9.4	10.3	11.7	10.6	12.9	14.5
HCM Lane LOS		B	A	B	B	B	B	B
HCM 95th-tile Q		0.2	0.4	0	1.1	0.5	1.9	2.2

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative+ Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	76	315	30	130	4	123	212	19	12	578	42
Future Volume (veh/h)	27	76	315	30	130	4	123	212	19	12	578	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1737	1811	1900	1811	1811	1856	1678	1678	1900	1856	1856
Adj Flow Rate, veh/h	30	85	354	34	146	4	138	238	21	13	649	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	8	11	6	0	6	6	3	15	15	0	3	3
Cap, veh/h	45	510	446	53	1013	28	235	1129	99	24	1083	78
Arrive On Green	0.03	0.29	0.29	0.03	0.30	0.30	0.07	0.38	0.38	0.01	0.33	0.33
Sat Flow, veh/h	1697	1737	1521	1810	3419	93	3428	2965	259	1810	3330	241
Grp Volume(v), veh/h	30	85	354	34	73	77	138	127	132	13	343	353
Grp Sat Flow(s),veh/h/ln	1697	1737	1521	1810	1721	1792	1714	1594	1631	1810	1763	1808
Q Serve(g_s), s	1.0	2.1	12.5	1.1	1.8	1.8	2.3	3.1	3.2	0.4	9.5	9.5
Cycle Q Clear(g_c), s	1.0	2.1	12.5	1.1	1.8	1.8	2.3	3.1	3.2	0.4	9.5	9.5
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.16	1.00		0.13
Lane Grp Cap(c), veh/h	45	510	446	53	510	531	235	607	621	24	573	588
V/C Ratio(X)	0.67	0.17	0.79	0.65	0.14	0.14	0.59	0.21	0.21	0.55	0.60	0.60
Avail Cap(c_a), veh/h	583	746	654	622	739	770	1179	822	841	622	909	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	15.3	18.9	27.9	15.0	15.1	26.3	12.1	12.1	28.5	16.4	16.5
Incr Delay (d2), s/veh	6.3	0.2	4.2	4.9	0.1	0.1	0.9	0.4	0.4	7.3	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	4.5	0.5	0.7	0.7	0.9	1.0	1.1	0.2	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	15.4	23.1	32.8	15.2	15.2	27.2	12.5	12.5	35.8	18.6	18.6
LnGrp LOS	C	B	C	C	B	B	C	B	B	D	B	B
Approach Vol, veh/h		469			184			397			709	
Approach Delay, s/veh		22.4			18.4			17.6			18.9	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	26.6	5.7	21.1	8.0	23.4	5.5	21.2				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.4	5.2	3.1	14.5	4.3	11.5	3.0	3.8				
Green Ext Time (p_c), s	0.0	2.8	0.0	1.3	0.2	7.4	0.0	0.7				

Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Intersection						
Int Delay, s/veh	6.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↕		↙	↕
Traffic Vol, veh/h	161	30	322	85	53	873
Future Vol, veh/h	161	30	322	85	53	873
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	3	9	0	6	4
Mvmt Flow	177	33	354	93	58	959

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	999	226	0	0	449
Stage 1	403	-	-	-	-
Stage 2	596	-	-	-	-
Critical Hdwy	6.82	6.96	-	-	4.22
Critical Hdwy Stg 1	5.82	-	-	-	-
Critical Hdwy Stg 2	5.82	-	-	-	-
Follow-up Hdwy	3.51	3.33	-	-	2.26
Pot Cap-1 Maneuver	242	774	-	-	1080
Stage 1	647	-	-	-	-
Stage 2	516	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	228	773	-	-	1078
Mov Cap-2 Maneuver	228	-	-	-	-
Stage 1	646	-	-	-	-
Stage 2	488	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	52.2	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	228	773	1078	-
HCM Lane V/C Ratio	-	-	0.776	0.043	0.054	-
HCM Control Delay (s)	-	-	60.1	9.9	8.5	-
HCM Lane LOS	-	-	F	A	A	-
HCM 95th %tile Q(veh)	-	-	5.6	0.1	0.2	-

MST BRT
13: Del Monte Blvd & Tioga Ave/The Mall

Cumulative+ Project
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↗	↖	↕		↖	↗	
Traffic Volume (veh/h)	79	20	31	11	30	39	24	292	22	48	800	181
Future Volume (veh/h)	79	20	31	11	30	39	24	292	22	48	800	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1322	1752	1752	1767	1900	1900	1707	1841	1841	1900	1856	1856
Adj Flow Rate, veh/h	91	23	36	13	34	45	28	336	25	55	920	208
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	39	10	10	9	0	0	13	4	4	0	3	3
Cap, veh/h	103	93	146	22	160	132	42	1619	120	76	1443	326
Arrive On Green	0.08	0.15	0.15	0.01	0.08	0.08	0.03	0.49	0.49	0.04	0.51	0.51
Sat Flow, veh/h	1259	608	951	1682	1900	1566	1626	3295	244	1810	2841	642
Grp Volume(v), veh/h	91	0	59	13	34	45	28	177	184	55	570	558
Grp Sat Flow(s),veh/h/ln	1259	0	1559	1682	1900	1566	1626	1749	1790	1810	1763	1720
Q Serve(g_s), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	3.0	3.0	1.6	12.2	12.3
Cycle Q Clear(g_c), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	3.0	3.0	1.6	12.2	12.3
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.14	1.00		0.37
Lane Grp Cap(c), veh/h	103	0	239	22	160	132	42	859	880	76	895	874
V/C Ratio(X)	0.88	0.00	0.25	0.59	0.21	0.34	0.67	0.21	0.21	0.72	0.64	0.64
Avail Cap(c_a), veh/h	726	0	899	971	1096	903	938	1345	1377	1044	1356	1324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	19.4	25.5	22.2	22.4	25.1	7.5	7.5	24.6	9.3	9.3
Incr Delay (d2), s/veh	8.8	0.0	0.2	8.8	0.2	0.6	17.2	0.2	0.2	12.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.6	0.2	0.4	0.5	0.5	0.9	1.0	0.9	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	19.6	34.3	22.4	23.0	42.3	7.7	7.7	36.6	10.4	10.4
LnGrp LOS	C	A	B	C	C	C	D	A	A	D	B	B
Approach Vol, veh/h		150			92			389			1183	
Approach Delay, s/veh		27.4			24.4			10.2			11.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	30.1	4.2	11.5	5.3	31.0	7.8	7.9				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.6	5.0	2.4	3.7	2.9	14.3	5.7	3.4				
Green Ext Time (p_c), s	0.1	3.3	0.0	0.2	0.0	12.1	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative+ Project
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	265	29	330	141	51	776
Future Volume (veh/h)	265	29	330	141	51	776
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1856	1796	1841	1841	1767	1856
Adj Flow Rate, veh/h	273	30	340	145	53	800
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	7	4	4	9	3
Cap, veh/h	367	316	809	338	100	1864
Arrive On Green	0.21	0.21	0.34	0.34	0.06	0.53
Sat Flow, veh/h	1767	1522	2476	996	1682	3618
Grp Volume(v), veh/h	273	30	247	238	53	800
Grp Sat Flow(s),veh/h/ln	1767	1522	1749	1631	1682	1763
Q Serve(g_s), s	4.4	0.5	3.3	3.5	0.9	4.2
Cycle Q Clear(g_c), s	4.4	0.5	3.3	3.5	0.9	4.2
Prop In Lane	1.00	1.00		0.61	1.00	
Lane Grp Cap(c), veh/h	367	316	593	554	100	1864
V/C Ratio(X)	0.74	0.09	0.42	0.43	0.53	0.43
Avail Cap(c_a), veh/h	2301	1982	2277	2124	1369	4591
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.4	9.8	7.8	7.8	14.0	4.4
Incr Delay (d2), s/veh	1.1	0.0	0.7	0.8	1.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.1	0.8	0.8	0.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.5	9.9	8.5	8.6	15.7	4.6
LnGrp LOS	B	A	A	A	B	A
Approach Vol, veh/h	303		485			853
Approach Delay, s/veh	12.3		8.5			5.3
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.8	15.0			20.8	9.9
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+I), s	12.9	5.5			6.2	6.4
Green Ext Time (p_c), s	0.0	4.6			8.9	0.4
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕	↗	↖		↗		↕	↗		↕↕		
Traffic Volume (vph)	1	206	151	342	0	453	0	79	126	0	12	0	
Future Volume (vph)	1	206	151	342	0	453	0	79	126	0	12	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.98	1.00		1.00		1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00		1.00		
Frt		1.00	0.85	1.00		0.85		1.00	0.85		1.00		
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (prot)		3574	1587	1787		1599		1776	1615		1900		
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (perm)		3574	1587	1787		1599		1776	1615		1900		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	1	217	159	360	0	477	0	83	133	0	13	0	
RTOR Reduction (vph)	0	0	141	0	0	150	0	0	121	0	0	0	
Lane Group Flow (vph)	0	218	18	360	0	327	0	83	12	0	13	0	
Confl. Peds. (#/hr)			3	3									
Heavy Vehicles (%)	0%	1%	0%	1%	0%	1%	0%	7%	0%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm		NA		
Protected Phases		1		2				4				8	
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		14.0	14.0	85.7		85.7		11.6	11.6		11.6		
Effective Green, g (s)		14.0	14.0	85.7		85.7		11.6	11.6		11.6		
Actuated g/C Ratio		0.11	0.11	0.69		0.69		0.09	0.09		0.09		
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)		400	177	1225		1096		164	149		176		
v/s Ratio Prot				0.20				c0.05				0.01	
v/s Ratio Perm		0.06	0.01			c0.20			0.01				
v/c Ratio		0.55	0.10	0.29		0.30		0.51	0.08		0.07		
Uniform Delay, d1		52.5	49.8	7.7		7.8		54.0	51.8		51.8		
Progression Factor		1.00	1.00	1.05		5.85		1.00	1.00		1.00		
Incremental Delay, d2		1.5	0.3	0.1		0.1		2.4	0.2		0.2		
Delay (s)		54.0	50.1	8.2		45.5		56.4	52.1		52.0		
Level of Service		D	D	A		D		E	D		D		
Approach Delay (s)		52.4			29.4			53.7			52.0		
Approach LOS		D			C			D			D		
Intersection Summary													
HCM 2000 Control Delay			39.3		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.35										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			53.8%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative+ Project
Timing Plan: AM















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	292	225	441	814	100
Future Volume (vph)	54	292	225	441	814	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1495	1730	3505	3441	
Flt Permitted	0.95	1.00	0.30	1.00	1.00	
Satd. Flow (perm)	1770	1495	542	3505	3441	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	307	237	464	857	105
RTOR Reduction (vph)	0	100	0	0	7	0
Lane Group Flow (vph)	57	207	237	464	955	0
Confl. Peds. (#/hr)	8		6			6
Confl. Bikes (#/hr)						8
Heavy Vehicles (%)	2%	8%	4%	3%	3%	1%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.9	35.9	43.9	
Effective Green, g (s)	17.2	17.2	35.9	35.9	43.9	
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	433	365	276	1789	2148	
v/s Ratio Prot	0.03			0.13	c0.28	
v/s Ratio Perm		c0.14	c0.44			
v/c Ratio	0.13	0.57	0.86	0.26	0.44	
Uniform Delay, d1	20.7	23.3	15.0	9.7	6.9	
Progression Factor	1.00	1.00	0.49	0.41	1.00	
Incremental Delay, d2	0.3	3.3	26.9	0.3	0.7	
Delay (s)	21.0	26.6	34.2	4.3	7.5	
Level of Service	C	C	C	A	A	
Approach Delay (s)	25.7			14.4	7.5	
Approach LOS	C			B	A	

Intersection Summary

HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	12.7
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative+ Project
Timing Plan: AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	585	82	584	244	42	1064
Future Volume (vph)	585	82	584	244	42	1064
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frbp, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	3539	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	616	86	615	257	44	1120
RTOR Reduction (vph)	0	32	0	39	0	0
Lane Group Flow (vph)	616	54	615	218	44	1120
Confl. Peds. (#/hr)					7	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.9	35.9	4.5	43.9
Effective Green, g (s)	18.7	18.7	35.9	35.9	4.5	43.9
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.06	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	913	421	1807	808	113	2209
v/s Ratio Prot	c0.18		0.17		0.02	c0.32
v/s Ratio Perm		0.03		0.14		
v/c Ratio	0.67	0.13	0.34	0.27	0.39	0.51
Uniform Delay, d1	23.1	19.6	10.2	9.8	31.6	7.3
Progression Factor	1.00	1.00	1.00	1.00	1.30	0.61
Incremental Delay, d2	2.2	0.2	0.5	0.8	2.1	0.8
Delay (s)	25.2	19.8	10.7	10.6	43.1	5.2
Level of Service	C	B	B	B	D	A
Approach Delay (s)	24.6		10.7			6.7
Approach LOS	C		B			A
Intersection Summary						
HCM 2000 Control Delay			12.5		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.61			
Actuated Cycle Length (s)			70.3		Sum of lost time (s)	12.7
Intersection Capacity Utilization			52.9%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Summary of All Intervals

Run Number	1	2	3	4	5		Avg
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	10697	10671	10492	10412	10275	10539	10511
Vehs Exited	10695	10610	10333	10315	10143	10414	10417
Starting Vehs	456	418	431	428	413	406	417
Ending Vehs	458	479	590	525	545	531	509
Travel Distance (mi)	6931	6894	6757	6705	6634	6774	6782
Travel Time (hr)	1029.9	1107.2	1176.7	1075.8	1128.0	984.3	1083.7
Total Delay (hr)	791.4	869.3	944.3	844.9	899.8	751.1	850.1
Total Stops	16469	16707	16266	15997	15533	16394	16229
Fuel Used (gal)	420.4	437.9	450.8	426.7	436.0	406.3	429.7

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5
Volumes adjusted by Growth Factors, Anti PHF.	
No data recorded this interval.	

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	2	3	4	5		Avg
Vehs Entered	2505	2643	2642	2765	2592	2648	2630
Vehs Exited	2486	2537	2529	2642	2517	2543	2542
Starting Vehs	456	418	431	428	413	406	417
Ending Vehs	475	524	544	551	488	511	505
Travel Distance (mi)	1605	1677	1668	1725	1677	1653	1667
Travel Time (hr)	156.6	144.2	142.6	133.9	137.0	134.7	141.5
Total Delay (hr)	101.3	86.6	85.2	74.4	79.5	78.0	84.2
Total Stops	3738	4049	3948	4038	3736	4068	3929
Fuel Used (gal)	78.5	78.2	76.9	76.8	75.7	75.2	76.9

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg	
Vehs Entered	2862	2887	2791	2712	2741	2870	2807
Vehs Exited	2762	2795	2683	2653	2661	2790	2723
Starting Vehs	475	524	544	551	488	511	505
Ending Vehs	575	616	652	610	568	591	594
Travel Distance (mi)	1821	1837	1791	1730	1751	1821	1792
Travel Time (hr)	246.3	244.2	253.4	231.6	241.4	209.8	237.8
Total Delay (hr)	183.6	180.5	191.8	172.1	180.9	147.1	176.0
Total Stops	4539	4551	4464	4295	4258	4368	4413
Fuel Used (gal)	105.6	105.2	105.9	99.7	102.3	96.3	102.5

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg	
Vehs Entered	2698	2557	2552	2426	2468	2492	2528
Vehs Exited	2762	2617	2618	2474	2482	2547	2586
Starting Vehs	575	616	652	610	568	591	594
Ending Vehs	511	556	586	562	554	536	537
Travel Distance (mi)	1778	1694	1667	1615	1601	1657	1669
Travel Time (hr)	293.8	329.8	343.4	311.8	328.4	279.7	314.5
Total Delay (hr)	232.6	271.3	286.0	256.2	273.3	222.6	257.0
Total Stops	4184	3995	3958	3870	3833	4036	3979
Fuel Used (gal)	114.4	120.4	124.1	115.0	118.4	108.9	116.9

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg	
Vehs Entered	2632	2584	2507	2509	2474	2529	2534
Vehs Exited	2685	2661	2503	2546	2483	2534	2568
Starting Vehs	511	556	586	562	554	536	537
Ending Vehs	458	479	590	525	545	531	509
Travel Distance (mi)	1727	1686	1631	1635	1605	1643	1654
Travel Time (hr)	333.2	389.0	437.4	398.6	421.3	360.0	389.9
Total Delay (hr)	274.0	330.9	381.2	342.2	366.1	303.4	333.0
Total Stops	4008	4112	3896	3794	3706	3922	3906
Fuel Used (gal)	121.9	134.1	143.9	135.3	139.6	126.0	133.5

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	2.0	0.0	0.2	1.7	0.1	0.0	0.0	0.0	0.5	0.0	0.1
Avg Speed (mph)	7	14	17	18	25	27	16	15	17	15	14	18

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	4.9
Avg Speed (mph)	20

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Total Delay (hr)	0.8	2.4	0.0	1.9	0.2	0.0	0.0	0.4	0.0	0.3	6.0
Avg Speed (mph)	9	17	14	12	12	13	17	11	10	15	14

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	3.7	0.7	1.4	1.3	1.1	0.2	8.5
Avg Speed (mph)	12	12	9	20	11	16	13

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.5	3.6	0.4	0.9	2.6	0.1	0.4	0.2	0.1	0.7	0.1	0.1
Avg Speed (mph)	10	14	13	7	14	20	9	9	13	13	13	22

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	10.5
Avg Speed (mph)	13

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.1	2.8	1.0	4.0	1.6	0.6	3.1	1.8	0.7	2.8	2.2	0.0
Avg Speed (mph)	13	14	16	9	10	17	7	9	18	14	15	18

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	20.8
Avg Speed (mph)	12

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	0.2	1.2	0.9	0.3	0.1	0.9	2.3	0.1	0.3	5.0	0.1
Avg Speed (mph)	12	12	15	10	10	19	18	26	26	12	18	22

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	12.1
Avg Speed (mph)	19

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0
Avg Speed (mph)	13	24	23	22	21

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Delay (hr)	0.0	13.5	0.6	2.3	0.0	0.3	1.1	1.5	0.1	19.4
Avg Speed (mph)	30	3	20	2	13	8	3	3	3	4

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.1	0.0	0.1	0.3	0.2	0.9
Avg Speed (mph)	18	18	27	26	11	12	17

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.3	0.0	0.1	0.4	0.1	0.0	0.1	0.1	0.4	0.2	0.0
Avg Speed (mph)	20	20	19	11	10	10	16	16	16	25	26	27

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.8
Avg Speed (mph)	20

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.3	0.6	0.2	0.6	0.0	0.8	0.4	0.0	0.1	2.0	0.1
Avg Speed (mph)	4	7	10	10	13	17	9	18	17	12	19	21

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	5.4
Avg Speed (mph)	15

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	0.0	0.2	0.0	0.1	0.4	1.7
Avg Speed (mph)	8	16	27	22	18	26	21

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.1	0.1	0.2	0.1	0.2	0.7	0.0	0.4	1.4	0.3
Avg Speed (mph)	13	15	20	9	10	19	18	26	26	9	19	18

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	4.1
Avg Speed (mph)	20

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.3	0.0	0.7	0.2	0.3	1.7	4.2
Avg Speed (mph)	12	18	25	24	20	29	25

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.3	0.8	3.4	1.0	2.5	0.2	8.2
Avg Speed (mph)	14	18	3	12	20	19	15

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.0	0.4
Total Delay (hr)	3.1	0.1	4.9	0.7	0.5	1.9	11.1
Avg Speed (mph)	8	17	10	16	3	13	11

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	60.1	132.2	15.3	0.1	0.0	0.0	24.0	253.1	55.1
Total Delay (hr)	0.9	2.7	0.2	11.0	28.3	2.5	22.7	5.5	0.6	8.3	84.2	13.1
Avg Speed (mph)	2	2	7	0	0	0	3	17	19	1	1	2

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	539.9
Total Delay (hr)	180.0
Avg Speed (mph)	2

Total Network Performance

Denied Delay (hr)	543.7
Total Delay (hr)	306.4
Avg Speed (mph)	13

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	60	193	199	37	66	154	147	131	74	62	110	73
Average Queue (ft)	22	73	75	5	17	65	54	14	15	9	50	28
95th Queue (ft)	51	144	147	19	48	123	113	52	49	37	94	63
Link Distance (ft)	225	225	225	225		1234	1234		616		786	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)					170			95		80		50
Storage Blk Time (%)						0	1		0	0	10	0
Queuing Penalty (veh)						0	1		0	0	7	1

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	T	T	R	LTR	LT	R
Maximum Queue (ft)	127	193	396	218	201	50	37	85	98
Average Queue (ft)	57	20	139	98	90	41	6	39	41
95th Queue (ft)	105	106	308	180	174	60	25	71	72
Link Distance (ft)		508	508	225	225		428	478	
Upstream Blk Time (%)			0	0	0				
Queuing Penalty (veh)			0	1	0				
Storage Bay Dist (ft)	150					25			100
Storage Blk Time (%)	0				20	6		0	0
Queuing Penalty (veh)	0				24	20		0	0

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	286	359	75	189	212	164	132	169
Average Queue (ft)	107	184	53	95	67	60	78	38
95th Queue (ft)	233	316	98	158	147	132	126	102
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50	200			110	
Storage Blk Time (%)		34	2	0	0		3	
Queuing Penalty (veh)		60	6	1	0		3	

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	205	265	334	168	239	216	125	117	74	141	116
Average Queue (ft)	105	110	178	77	98	95	13	49	25	62	8
95th Queue (ft)	178	209	287	150	182	174	73	96	61	112	54
Link Distance (ft)		624	624		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	1	0		1	1	6	0	11	1	6	0
Queuing Penalty (veh)	3	0		4	1	3	0	5	1	6	0

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	315	200	125	383	261	175	271	213	124	141	164	180
Average Queue (ft)	117	125	99	175	104	72	157	104	50	60	70	94
95th Queue (ft)	245	205	163	302	198	146	256	181	98	114	134	156
Link Distance (ft)	1285			624	624			584	584	584		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	3	8	3	27	3	0					0	0
Queuing Penalty (veh)	8	12	6	56	6	0					0	0

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	152	183
Average Queue (ft)	41	93
95th Queue (ft)	119	159
Link Distance (ft)	1314	1314
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	258	75	117	63	62	132	184	187	71	266	275	125
Average Queue (ft)	113	69	59	22	23	51	84	85	16	143	160	26
95th Queue (ft)	228	86	106	55	54	101	151	156	50	227	250	98
Link Distance (ft)	886		829				2351	2351		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	23	19				0	1			7	21	0
Queuing Penalty (veh)	67	27				1	1			2	9	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB	NB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	31	39	31	28
Average Queue (ft)	4	8	5	5
95th Queue (ft)	21	31	24	22
Link Distance (ft)	654	990	799	676
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	511	633	175	89	81	130	174	23
Average Queue (ft)	187	371	65	79	51	60	88	3
95th Queue (ft)	544	762	318	100	83	115	157	14
Link Distance (ft)		1168		72	72	198	198	252
Upstream Blk Time (%)		4		51	2		0	
Queuing Penalty (veh)		0		203	7		0	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)	0	6						
Queuing Penalty (veh)	0	16						

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	53	58	66	60	98	78
Average Queue (ft)	24	29	25	23	50	44
95th Queue (ft)	46	49	54	51	79	69
Link Distance (ft)	526			1460	198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	0					
Queuing Penalty (veh)	0					

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	58	84	76	132	67	69	90	67
Average Queue (ft)	7	37	31	62	21	33	36	32
95th Queue (ft)	31	71	61	103	50	62	65	57
Link Distance (ft)		1035	173	173	466			1460
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)					0	1		
Queuing Penalty (veh)					0	0		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	64	111	137	61	80	116	66	122	109	131	43	182
Average Queue (ft)	15	33	61	23	23	50	22	53	34	47	11	103
95th Queue (ft)	43	82	113	53	60	97	55	99	81	99	33	162
Link Distance (ft)			173		641	641			438	438		1009
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)		0	1	2	2							1
Queuing Penalty (veh)		1	1	2	1							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	164
Average Queue (ft)	80
95th Queue (ft)	146
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	128	56	26	57
Average Queue (ft)	63	22	1	16
95th Queue (ft)	108	50	11	47
Link Distance (ft)	379		488	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		100
Storage Blk Time (%)	2			
Queuing Penalty (veh)	1			

Intersection: 13: Del Monte Blvd & Tioga Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	99	117	42	69	55	57	122	128	104	183	214
Average Queue (ft)	57	34	9	21	21	21	36	48	30	66	85
95th Queue (ft)	101	83	32	53	46	51	87	105	72	142	169
Link Distance (ft)		873		606			2183	2183		488	488
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	6	1								0	
Queuing Penalty (veh)	3	1								0	

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	200	86	111	141	92	156	172
Average Queue (ft)	98	19	42	57	34	59	75
95th Queue (ft)	164	56	90	113	76	125	139
Link Distance (ft)	522		945	945		2183	2183
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	1	0			2	3	
Queuing Penalty (veh)	0	0			10	2	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	148	146	110	207	183	237	252
Average Queue (ft)	32	78	95	125	84	107	121
95th Queue (ft)	93	130	131	241	195	191	207
Link Distance (ft)	776			172	172	945	945
Upstream Blk Time (%)				12	2		
Queuing Penalty (veh)				39	6		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)	0	2	56	5			
Queuing Penalty (veh)	0	1	121	10			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	192	189	100	381	360	68	87	158	186
Average Queue (ft)	108	107	38	170	144	47	33	74	99
95th Queue (ft)	168	176	113	397	366	61	72	137	164
Link Distance (ft)	300	300		709	709			172	172
Upstream Blk Time (%)				1	0			0	0
Queuing Penalty (veh)				0	0			0	2
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		31	0		25	4	3	7	
Queuing Penalty (veh)		26	1		61	11	16	3	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	86	92	78	933	325	1100	1031	120	1378	1368	350
Average Queue (ft)	35	86	38	912	288	643	599	65	1272	1270	265
95th Queue (ft)	77	94	75	988	393	1356	1294	156	1643	1655	499
Link Distance (ft)	72	72	72	918		1588	1588		1326	1326	
Upstream Blk Time (%)	5	69	2	95		0			77	84	
Queuing Penalty (veh)	6	76	2	0		0			0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					62	0		4	89	91	0
Queuing Penalty (veh)					209	1		21	85	194	0

Network Summary

Network wide Queuing Penalty: 1485

Summary of All Intervals

Run Number	1	2	3	4	5		Avg
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	10534	10715	10544	10511	10209	11116	10607
Vehs Exited	10454	10594	10385	10384	10076	10996	10481
Starting Vehs	445	402	415	434	408	391	410
Ending Vehs	525	523	574	561	541	511	534
Travel Distance (mi)	6879	6983	6862	6859	6607	7228	6903
Travel Time (hr)	1062.9	974.0	1153.6	1183.2	1140.7	989.4	1084.0
Total Delay (hr)	826.9	733.7	917.7	947.6	913.8	741.5	846.8
Total Stops	16399	16640	16866	16240	15230	17300	16448
Fuel Used (gal)	427.3	410.5	448.4	454.3	437.6	419.5	432.9

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5
Volumes adjusted by Growth Factors, Anti PHF.	
No data recorded this interval.	

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	2	3	4	5		Avg
Vehs Entered	2594	2772	2736	2595	2617	2791	2679
Vehs Exited	2502	2653	2623	2485	2498	2638	2565
Starting Vehs	445	402	415	434	408	391	410
Ending Vehs	537	521	528	544	527	544	527
Travel Distance (mi)	1656	1776	1736	1657	1632	1741	1700
Travel Time (hr)	152.5	136.6	139.1	150.0	139.7	135.4	142.2
Total Delay (hr)	95.7	75.7	79.2	93.1	83.4	75.8	83.8
Total Stops	3820	4163	4315	4053	3860	4152	4062
Fuel Used (gal)	78.8	79.0	77.5	78.6	75.4	77.5	77.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	4	5	Avg	
Vehs Entered	2839	2844	2798	2749	2682	2767	2776
Vehs Exited	2784	2808	2671	2684	2674	2754	2731
Starting Vehs	537	521	528	544	527	544	527
Ending Vehs	592	557	655	609	535	557	576
Travel Distance (mi)	1833	1826	1772	1784	1746	1814	1796
Travel Time (hr)	234.0	194.7	241.0	261.4	239.3	232.8	233.9
Total Delay (hr)	171.2	131.9	180.1	200.0	179.7	170.5	172.2
Total Stops	4610	4489	4512	4153	3990	4249	4333
Fuel Used (gal)	102.8	93.5	103.0	107.5	102.0	102.1	101.8

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg	
Vehs Entered	2567	2434	2536	2573	2420	2652	2530
Vehs Exited	2637	2464	2626	2659	2436	2707	2587
Starting Vehs	592	557	655	609	535	557	576
Ending Vehs	522	527	565	523	519	502	514
Travel Distance (mi)	1713	1638	1720	1705	1611	1766	1692
Travel Time (hr)	301.2	280.2	340.6	346.1	331.7	288.5	314.7
Total Delay (hr)	242.4	223.8	281.6	287.4	276.5	228.0	256.6
Total Stops	4087	3772	4163	4054	3610	4164	3970
Fuel Used (gal)	115.0	108.3	124.7	124.9	118.9	113.1	117.5

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	2	3	4	5	Avg	
Vehs Entered	2534	2665	2474	2594	2490	2906	2603
Vehs Exited	2531	2669	2465	2556	2468	2897	2599
Starting Vehs	522	527	565	523	519	502	514
Ending Vehs	525	523	574	561	541	511	534
Travel Distance (mi)	1678	1743	1634	1712	1619	1907	1715
Travel Time (hr)	375.2	362.4	432.9	425.8	429.9	332.7	393.2
Total Delay (hr)	317.6	302.2	376.7	367.1	374.2	267.2	334.2
Total Stops	3882	4216	3876	3980	3770	4735	4075
Fuel Used (gal)	130.7	129.7	143.1	143.2	141.3	126.9	135.8

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	2.0	0.0	0.2	1.7	0.1	0.1	0.0	0.0	0.5	0.0	0.1
Avg Speed (mph)	7	14	16	17	25	27	15	16	17	15	15	18

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	4.9
Avg Speed (mph)	20

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2
Total Delay (hr)	0.7	2.6	0.0	2.0	0.2	0.0	0.0	0.4	0.0	0.3	6.3
Avg Speed (mph)	10	16	15	12	12	9	15	10	10	15	14

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	4.2	0.7	1.4	1.3	1.1	0.2	8.8
Avg Speed (mph)	11	11	9	20	11	16	13

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.4	3.6	0.4	0.8	2.6	0.1	0.3	0.2	0.1	0.7	0.1	0.0
Avg Speed (mph)	10	14	14	8	14	20	9	9	12	13	13	22

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	10.1
Avg Speed (mph)	13

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	0.2	3.0	1.1	4.5	1.6	0.5	3.1	1.9	0.7	3.0	2.5	0.0
Avg Speed (mph)	13	13	16	9	10	17	7	9	18	13	15	18

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	22.1
Avg Speed (mph)	12

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.2	1.3	1.1	0.2	0.1	0.9	2.5	0.1	0.4	5.0	0.1
Avg Speed (mph)	11	12	14	10	11	19	18	25	27	11	18	22

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	12.9
Avg Speed (mph)	19

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Avg Speed (mph)	14	24	23	22	22

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.0	12.1	0.3	2.1	0.0	0.3	1.1	1.3	0.2	17.6
Avg Speed (mph)	28	3	24	2	10	8	3	4	3	5

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.2	0.1	0.0	0.1	0.3	0.2	0.9
Avg Speed (mph)	18	18	27	26	11	12	18

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.3	0.0	0.1	0.4	0.1	0.0	0.1	0.1	0.4	0.2	0.0
Avg Speed (mph)	19	20	20	11	11	11	15	16	16	25	26	27

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	1.7
Avg Speed (mph)	20

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.4	0.5	0.2	0.7	0.0	0.8	0.4	0.0	0.1	2.2	0.1
Avg Speed (mph)	4	7	10	9	13	14	9	18	18	12	19	21

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	5.7
Avg Speed (mph)	15

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.0	0.0	0.1	0.0	0.1	0.4	1.8
Avg Speed (mph)	8	16	27	22	18	26	21

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.6	0.1	0.1	0.1	0.2	0.1	0.2	0.6	0.0	0.3	1.5	0.2
Avg Speed (mph)	13	15	19	9	10	19	18	26	26	9	19	18

13: Del Monte Blvd & Tioga Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	0.2
Total Delay (hr)	4.0
Avg Speed (mph)	20

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.3	0.0	0.7	0.2	0.4	1.8	4.4
Avg Speed (mph)	12	18	25	24	20	29	25

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.3	0.7	3.6	1.0	2.7	0.3	8.6
Avg Speed (mph)	14	18	3	12	20	19	15

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.2	0.0	0.0	0.3
Total Delay (hr)	3.2	0.1	4.9	0.5	0.4	1.9	11.1
Avg Speed (mph)	8	17	10	18	3	13	11

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	64.4	138.1	16.3	0.3	0.6	0.2	22.5	246.1	54.5
Total Delay (hr)	0.8	2.6	0.2	11.6	26.2	3.6	16.1	5.2	0.9	8.3	85.3	11.7
Avg Speed (mph)	2	2	7	0	0	0	4	17	17	1	1	2

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	543.0
Total Delay (hr)	172.5
Avg Speed (mph)	2

Total Network Performance

Denied Delay (hr)	546.4
Total Delay (hr)	300.5
Avg Speed (mph)	13

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	63	177	183	45	62	179	171	75	84	60	118	73
Average Queue (ft)	18	70	78	8	18	69	53	13	20	10	48	24
95th Queue (ft)	45	136	143	29	47	139	122	45	60	37	91	59
Link Distance (ft)	225	225	225	225		1234	1234		616		786	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)					170			95		80		50
Storage Blk Time (%)						0	1		0	0	10	1
Queuing Penalty (veh)						0	1		0	0	7	1

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	T	T	R	LTR	LT	R
Maximum Queue (ft)	125	166	383	216	203	50	48	84	87
Average Queue (ft)	56	18	152	101	88	40	8	41	40
95th Queue (ft)	103	96	346	184	172	60	32	76	69
Link Distance (ft)		508	508	225	225		428	478	
Upstream Blk Time (%)				0	0				
Queuing Penalty (veh)				1	1				
Storage Bay Dist (ft)	150					25			100
Storage Blk Time (%)					22	5		0	0
Queuing Penalty (veh)					26	17		0	0

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	307	361	75	200	170	171	132	156
Average Queue (ft)	128	201	49	96	61	60	80	36
95th Queue (ft)	257	332	97	166	137	130	130	86
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			50	200			110	
Storage Blk Time (%)		37	2	0	0		3	
Queuing Penalty (veh)		63	6	1	0		3	

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	205	269	305	164	235	205	122	118	73	136	96
Average Queue (ft)	96	104	173	68	98	86	11	46	26	62	5
95th Queue (ft)	166	202	271	134	183	160	67	95	67	109	43
Link Distance (ft)		624	624		443	443		403		933	
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	0	0		1	1	5	0	10	1	5	
Queuing Penalty (veh)	1	0		2	1	3	0	4	1	5	

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	300	198	125	414	328	166	294	206	116	134	172	194
Average Queue (ft)	121	128	101	196	101	66	163	108	51	62	69	103
95th Queue (ft)	238	205	161	353	212	131	267	181	97	112	146	173
Link Distance (ft)	1285			624	624			584	584	584		
Upstream Blk Time (%)				0								
Queuing Penalty (veh)				0								
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	3	8	3	30	2	0					0	0
Queuing Penalty (veh)	9	12	6	64	4	0					0	1

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	150	182
Average Queue (ft)	39	105
95th Queue (ft)	112	168
Link Distance (ft)	1314	1314
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	309	75	158	68	58	137	193	198	137	263	273	125
Average Queue (ft)	135	70	66	20	25	52	92	89	24	146	159	32
95th Queue (ft)	254	84	125	50	53	104	159	163	75	237	256	110
Link Distance (ft)	886		829				2351	2351		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	27	21				1	1		0	7	20	0
Queuing Penalty (veh)	79	31				1	1		0	2	10	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB	NB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	31	31	35	32
Average Queue (ft)	3	7	11	10
95th Queue (ft)	18	29	36	32
Link Distance (ft)	654	990	799	676
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	527	660	179	89	80	173	186	37
Average Queue (ft)	156	341	59	79	51	65	81	6
95th Queue (ft)	491	670	299	103	84	130	152	24
Link Distance (ft)		1168		72	72	198	198	252
Upstream Blk Time (%)		0		47	2	0	1	
Queuing Penalty (veh)		0		188	7	0	1	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)		5						
Queuing Penalty (veh)		12						

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	58	61	60	76	99	82
Average Queue (ft)	26	27	27	25	50	47
95th Queue (ft)	50	48	53	56	82	72
Link Distance (ft)	526			1460	198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	42	106	64	119	54	66	79	75
Average Queue (ft)	5	36	30	63	20	32	35	30
95th Queue (ft)	25	75	55	102	46	58	59	57
Link Distance (ft)		1035	173	173	466			1460
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)		0			0	1		
Queuing Penalty (veh)		0			0	0		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	72	98	151	57	80	132	72	109	93	111	37	202
Average Queue (ft)	18	35	62	23	21	55	24	53	36	44	9	104
95th Queue (ft)	49	78	115	53	58	104	59	94	79	88	31	172
Link Distance (ft)			173		641	641			438	438		1009
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	1									
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)		0	1	3	2							2
Queuing Penalty (veh)		0	1	2	1							0

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	176
Average Queue (ft)	85
95th Queue (ft)	150
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	138	70	17	55
Average Queue (ft)	67	20	1	15
95th Queue (ft)	113	45	9	43
Link Distance (ft)	379		488	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		100		100
Storage Blk Time (%)	3			
Queuing Penalty (veh)	1			

Intersection: 13: Del Monte Blvd & Tioga Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	98	149	39	56	40	60	97	118	74	192	215
Average Queue (ft)	57	37	6	20	19	20	32	47	26	70	86
95th Queue (ft)	101	96	25	49	43	51	76	98	57	144	168
Link Distance (ft)		873		606			2183	2183		488	488
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	6	1								0	
Queuing Penalty (veh)	3	1								0	

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	202	83	106	127	93	144	172
Average Queue (ft)	96	18	43	57	35	56	71
95th Queue (ft)	160	54	95	109	77	121	142
Link Distance (ft)	522		945	945		2183	2183
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	1				3	3	
Queuing Penalty (veh)	0				10	2	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	124	147	110	207	209	245	258
Average Queue (ft)	28	76	95	121	76	106	128
95th Queue (ft)	73	127	130	249	186	186	215
Link Distance (ft)	776			172	172	945	945
Upstream Blk Time (%)				14	2		
Queuing Penalty (veh)				47	6		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)		2	58	5			
Queuing Penalty (veh)		1	127	12			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	208	196	100	361	326	58	88	162	185
Average Queue (ft)	113	108	40	178	140	46	33	74	97
95th Queue (ft)	171	170	115	355	301	56	70	141	166
Link Distance (ft)	300	300		709	709			172	172
Upstream Blk Time (%)								0	1
Queuing Penalty (veh)								0	4
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		32	0		28	4	3	8	
Queuing Penalty (veh)		27	1		68	11	13	3	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	LT	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	79	92	74	944	325	999	956	120	1377	1366	350
Average Queue (ft)	31	85	35	912	265	453	430	60	1279	1276	249
95th Queue (ft)	70	97	72	987	388	1118	1068	150	1636	1634	502
Link Distance (ft)	72	72	72	918		1588	1588		1326	1326	
Upstream Blk Time (%)	3	66	1	95		3	1		80	83	
Queuing Penalty (veh)	4	73	1	0		0	0		0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					44	0		5	89	91	0
Queuing Penalty (veh)					149	1		26	85	192	0

Network Summary

Network wide Queuing Penalty: 1443

MST BRT
1: De Forest Rd & Reservation Rd

Cumulative+Project
Timing Plan: PM

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	910	130	60	836	72	84	11	76	95	26	58
Future Volume (veh/h)	68	910	130	60	836	72	84	11	76	95	26	58
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1885	1841	1648	1885	1900	1737	1737	1767	1811	1811	1900
Adj Flow Rate, veh/h	72	958	137	63	880	76	88	12	80	100	27	61
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	1	4	17	1	0	11	11	9	6	6	0
Cap, veh/h	226	1388	578	111	1195	512	141	10	464	134	20	499
Arrive On Green	0.12	0.39	0.39	0.07	0.33	0.33	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1810	3582	1492	1570	3582	1536	0	32	1486	0	65	1598
Grp Volume(v), veh/h	72	958	137	63	880	76	100	0	80	127	0	61
Grp Sat Flow(s),veh/h/ln	1810	1791	1492	1570	1791	1536	32	0	1486	65	0	1598
Q Serve(g_s), s	1.7	10.7	3.0	1.9	10.4	1.7	0.0	0.0	1.9	0.0	0.0	1.3
Cycle Q Clear(g_c), s	1.7	10.7	3.0	1.9	10.4	1.7	15.0	0.0	1.9	15.0	0.0	1.3
Prop In Lane	1.00		1.00	1.00		1.00	0.88		1.00	0.79		1.00
Lane Grp Cap(c), veh/h	226	1388	578	111	1195	512	151	0	464	154	0	499
V/C Ratio(X)	0.32	0.69	0.24	0.57	0.74	0.15	0.66	0.00	0.17	0.82	0.00	0.12
Avail Cap(c_a), veh/h	754	1492	622	490	1492	640	151	0	464	154	0	499
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.1	12.3	9.9	21.6	14.1	11.2	22.5	0.0	12.0	21.6	0.0	11.8
Incr Delay (d2), s/veh	0.8	1.3	0.2	4.4	1.5	0.1	10.4	0.0	0.2	28.7	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.6	0.8	0.7	3.6	0.5	1.5	0.0	0.6	2.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.9	13.6	10.1	26.0	15.6	11.3	32.9	0.0	12.2	50.4	0.0	11.9
LnGrp LOS	B	B	B	C	B	B	C	A	B	D	A	B
Approach Vol, veh/h		1167			1019			180			188	
Approach Delay, s/veh		13.5			15.9			23.7			37.9	
Approach LOS		B			B			C			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.9	22.6		18.5	9.5	20.0		18.5				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	15.0	20.0		15.0	20.0	20.0		15.0				
Max Q Clear Time (g_c+I1), s	3.9	12.7		17.0	3.7	12.4		17.0				
Green Ext Time (p_c), s	0.1	3.9		0.0	0.1	3.6		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.0								
HCM 6th LOS				B								
Notes												
User approved pedestrian interval to be less than phase max green.												

MST BRT
2: Goodwill Dwy/Mc Donalds & Reservation Rd

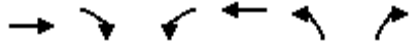
Cumulative+Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	111	995	3	0	903	96	4	0	13	90	1	47
Future Volume (veh/h)	111	995	3	0	903	96	4	0	13	90	1	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.98	0.98		0.98	0.98		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	0	1870	1900	1900	1900	1900	1900	1900	1870
Adj Flow Rate, veh/h	114	1026	3	0	931	99	4	0	13	93	1	48
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	1	1	1	0	2	0	0	0	0	0	0	2
Cap, veh/h	189	2289	7	0	1547	687	139	40	236	443	4	302
Arrive On Green	0.11	0.62	0.62	0.00	0.44	0.44	0.20	0.00	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1795	3663	11	0	3647	1579	167	205	1209	1392	20	1548
Grp Volume(v), veh/h	114	502	527	0	931	99	17	0	0	94	0	48
Grp Sat Flow(s),veh/h/ln	1795	1791	1883	0	1777	1579	1581	0	0	1412	0	1548
Q Serve(g_s), s	2.5	6.1	6.1	0.0	8.3	1.6	0.0	0.0	0.0	2.0	0.0	1.1
Cycle Q Clear(g_c), s	2.5	6.1	6.1	0.0	8.3	1.6	0.4	0.0	0.0	2.3	0.0	1.1
Prop In Lane	1.00		0.01	0.00		1.00	0.24		0.76	0.99		1.00
Lane Grp Cap(c), veh/h	189	1119	1177	0	1547	687	415	0	0	447	0	302
V/C Ratio(X)	0.60	0.45	0.45	0.00	0.60	0.14	0.04	0.00	0.00	0.21	0.00	0.16
Avail Cap(c_a), veh/h	1293	1720	1808	0	3413	1516	1211	0	0	1181	0	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.8	4.1	4.1	0.0	9.0	7.1	13.6	0.0	0.0	14.4	0.0	13.9
Incr Delay (d2), s/veh	3.0	0.3	0.3	0.0	0.4	0.1	0.0	0.0	0.0	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0	1.0	1.0	0.0	2.3	0.4	0.1	0.0	0.0	0.7	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.8	4.4	4.3	0.0	9.4	7.2	13.7	0.0	0.0	14.6	0.0	14.2
LnGrp LOS	C	A	A	A	A	A	B	A	A	B	A	B
Approach Vol, veh/h		1143			1030			17			142	
Approach Delay, s/veh		6.0			9.2			13.7			14.5	
Approach LOS		A			A			B			B	
Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		30.0		11.6	7.9	22.1		11.6				
Change Period (Y+Rc), s		4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s		40.0		30.0	30.0	40.0		30.0				
Max Q Clear Time (g_c+I1), s		8.1		2.4	4.5	10.3		4.3				
Green Ext Time (p_c), s		7.6		0.0	0.3	7.8		0.7				
Intersection Summary												
HCM 6th Ctrl Delay											8.0	
HCM 6th LOS											A	

MST BRT
3: Seacrest Ave & Reservation Rd

Cumulative+Project
Timing Plan: PM



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↵
Traffic Volume (veh/h)	869	195	247	763	274	109
Future Volume (veh/h)	869	195	247	763	274	109
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.97	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1885	1885
Adj Flow Rate, veh/h	887	199	252	779	280	111
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	1	1	1	1	1	1
Cap, veh/h	1324	574	318	2216	376	335
Arrive On Green	0.37	0.37	0.18	0.62	0.21	0.21
Sat Flow, veh/h	3676	1552	1795	3676	1795	1598
Grp Volume(v), veh/h	887	199	252	779	280	111
Grp Sat Flow(s),veh/h/ln	1791	1552	1795	1791	1795	1598
Q Serve(g_s), s	11.5	5.1	7.4	5.9	8.1	3.3
Cycle Q Clear(g_c), s	11.5	5.1	7.4	5.9	8.1	3.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1324	574	318	2216	376	335
V/C Ratio(X)	0.67	0.35	0.79	0.35	0.74	0.33
Avail Cap(c_a), veh/h	1942	841	973	2216	973	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	12.6	21.8	5.1	20.5	18.6
Incr Delay (d2), s/veh	0.6	0.4	1.7	0.1	3.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	1.6	3.0	1.4	3.5	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.2	13.0	23.5	5.2	24.0	19.3
LnGrp LOS	B	B	C	A	C	B
Approach Vol, veh/h	1086			1031	391	
Approach Delay, s/veh	14.8			9.7	22.7	
Approach LOS	B			A	C	
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.8	25.0		16.6		38.7
Change Period (Y+Rc), s	4.0	4.5		5.0		4.5
Max Green Setting (Gmax), s	30.0	30.0		30.0		30.0
Max Q Clear Time (g_c+I), s	19.4	13.5		10.1		7.9
Green Ext Time (p_c), s	0.3	6.3		1.5		5.4
Intersection Summary						
HCM 6th Ctrl Delay			13.9			
HCM 6th LOS			B			

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	239	799	99	93	855	151	144	41	37	211	42	112
Future Volume (veh/h)	239	799	99	93	855	151	144	41	37	211	42	112
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		1.00	0.99		0.99	0.99		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1885	1885	1900	1885	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	244	815	101	95	872	0	147	42	38	215	43	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	1	1	0	1	0	0	0	0	0	0	0
Cap, veh/h	303	1199	149	229	1201		495	130	520	382	58	
Arrive On Green	0.17	0.38	0.38	0.13	0.34	0.00	0.33	0.33	0.33	0.33	0.33	0.00
Sat Flow, veh/h	1810	3188	395	1810	3582	1610	1209	397	1590	857	178	1610
Grp Volume(v), veh/h	244	458	458	95	872	0	189	0	38	258	0	0
Grp Sat Flow(s),veh/h/ln	1810	1791	1792	1810	1791	1610	1605	0	1590	1035	0	1610
Q Serve(g_s), s	8.4	13.9	13.9	3.1	13.9	0.0	0.0	0.0	1.1	11.0	0.0	0.0
Cycle Q Clear(g_c), s	8.4	13.9	13.9	3.1	13.9	0.0	5.6	0.0	1.1	16.6	0.0	0.0
Prop In Lane	1.00		0.22	1.00		1.00	0.78		1.00	0.83		1.00
Lane Grp Cap(c), veh/h	303	674	674	229	1201		624	0	520	441	0	
V/C Ratio(X)	0.81	0.68	0.68	0.42	0.73		0.30	0.00	0.07	0.59	0.00	
Avail Cap(c_a), veh/h	699	691	692	699	1936		1276	0	1227	631	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	25.9	16.9	16.9	26.1	18.9	0.0	16.5	0.0	15.0	22.7	0.0	0.0
Incr Delay (d2), s/veh	5.0	2.6	2.6	1.2	0.9	0.0	0.3	0.0	0.1	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	5.5	5.5	1.3	5.2	0.0	2.1	0.0	0.4	3.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.9	19.5	19.5	27.3	19.8	0.0	16.8	0.0	15.1	24.0	0.0	0.0
LnGrp LOS	C	B	B	C	B		B	A	B	C	A	
Approach Vol, veh/h		1160			967	A		227			258	A
Approach Delay, s/veh		21.9			20.5			16.5			24.0	
Approach LOS		C			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.7	28.4		24.7	14.3	25.7		24.7				
Change Period (Y+Rc), s	3.5	4.0		3.5	3.5	4.0		3.5				
Max Green Setting (Gmax), s	25.0	25.0		50.0	25.0	35.0		30.0				
Max Q Clear Time (g_c+1.5), s	15.9	15.9		7.6	10.4	15.9		18.6				
Green Ext Time (p_c), s	0.2	3.8		1.4	0.6	5.9		1.2				

Intersection Summary

HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

MST BRT
5: Del Monte Blvd & Reservation Rd

Cumulative+Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔		↔↔	↑	↔	↔	↑	↔↔	↔↔	↔↔	
Traffic Volume (veh/h)	107	320	131	473	455	208	169	271	636	188	104	10
Future Volume (veh/h)	107	320	131	473	455	208	169	271	636	188	104	10
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1856	1856	1856	1885	1885	1870	1885	1870	1885	1870	1870	1870
Adj Flow Rate, veh/h	109	327	134	483	464	212	172	277	649	192	106	10
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	3	3	1	1	2	1	2	1	2	2	2
Cap, veh/h	133	412	177	1013	548	452	215	406	1406	290	594	55
Arrive On Green	0.21	0.21	0.21	0.29	0.29	0.29	0.12	0.22	0.22	0.08	0.18	0.18
Sat Flow, veh/h	644	1995	858	3483	1885	1556	1795	1870	2708	3456	3272	304
Grp Volume(v), veh/h	309	0	261	483	464	212	172	277	649	192	57	59
Grp Sat Flow(s),veh/h/ln	1823	0	1674	1742	1885	1556	1795	1870	1354	1728	1777	1799
Q Serve(g_s), s	12.8	0.0	11.7	9.1	18.4	8.9	7.4	10.8	12.3	4.3	2.1	2.2
Cycle Q Clear(g_c), s	12.8	0.0	11.7	9.1	18.4	8.9	7.4	10.8	12.3	4.3	2.1	2.2
Prop In Lane	0.35		0.51	1.00		1.00	1.00		1.00	1.00		0.17
Lane Grp Cap(c), veh/h	376	0	346	1013	548	452	215	406	1406	290	323	327
V/C Ratio(X)	0.82	0.00	0.76	0.48	0.85	0.47	0.80	0.68	0.46	0.66	0.18	0.18
Avail Cap(c_a), veh/h	459	0	422	1316	712	588	452	471	1500	870	448	453
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.1	0.0	29.6	23.2	26.5	23.1	34.0	28.6	12.6	35.3	27.5	27.5
Incr Delay (d2), s/veh	9.4	0.0	6.2	0.1	6.0	0.3	6.8	2.3	0.1	2.6	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	0.0	5.1	3.5	8.6	3.1	3.5	4.9	6.1	1.8	0.9	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.5	0.0	35.8	23.3	32.5	23.4	40.8	30.8	12.7	37.8	27.6	27.6
LnGrp LOS	D	A	D	C	C	C	D	C	B	D	C	C
Approach Vol, veh/h		570			1159			1098			308	
Approach Delay, s/veh		37.8			27.0			21.7			34.0	
Approach LOS		D			C			C			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	10.7	21.2		20.4	13.5	18.4		27.1				
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0				
Max Green Setting (Gmax), s	20.0	20.0		20.0	20.0	20.0		30.0				
Max Q Clear Time (g_c+1/3), s	10.3	14.3		14.8	9.4	4.2		20.4				
Green Ext Time (p_c), s	0.5	1.6		1.6	0.3	0.3		2.5				

Intersection Summary

HCM 6th Ctrl Delay	27.8
HCM 6th LOS	C

Notes

User approved pedestrian interval to be less than phase max green.

MST BRT
6: Del Monte Blvd & Palm Ave

Cumulative+Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗	↖	↕	↗	↖	↕↔		↖	↕↕	↗
Traffic Volume (veh/h)	76	26	114	37	52	35	265	1021	59	56	531	84
Future Volume (veh/h)	76	26	114	37	52	35	265	1021	59	56	531	84
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1856	1841	1900	1885	1885	1767	1885	1900
Adj Flow Rate, veh/h	77	26	115	37	53	35	268	1031	60	57	536	85
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	3	4	0	1	1	9	1	0
Cap, veh/h	183	62	210	158	162	131	345	1507	88	69	1035	460
Arrive On Green	0.13	0.13	0.13	0.09	0.09	0.09	0.19	0.44	0.44	0.04	0.29	0.29
Sat Flow, veh/h	1369	462	1574	1810	1856	1506	1810	3438	200	1682	3582	1591
Grp Volume(v), veh/h	103	0	115	37	53	35	268	537	554	57	536	85
Grp Sat Flow(s),veh/h/ln	1832	0	1574	1810	1856	1506	1810	1791	1847	1682	1791	1591
Q Serve(g_s), s	2.7	0.0	3.5	1.0	1.4	1.1	7.3	12.4	12.4	1.7	6.5	2.1
Cycle Q Clear(g_c), s	2.7	0.0	3.5	1.0	1.4	1.1	7.3	12.4	12.4	1.7	6.5	2.1
Prop In Lane	0.75		1.00	1.00		1.00	1.00		0.11	1.00		1.00
Lane Grp Cap(c), veh/h	245	0	210	158	162	131	345	785	810	69	1035	460
V/C Ratio(X)	0.42	0.00	0.55	0.23	0.33	0.27	0.78	0.68	0.68	0.82	0.52	0.18
Avail Cap(c_a), veh/h	1062	0	913	700	718	583	700	1558	1607	488	3117	1384
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.6	0.0	20.9	22.0	22.2	22.1	19.9	11.7	11.7	24.6	15.4	13.8
Incr Delay (d2), s/veh	1.2	0.0	2.2	0.8	1.2	1.1	3.8	1.1	1.0	20.7	0.4	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	1.3	0.4	0.6	0.4	3.0	4.0	4.2	1.0	2.3	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.7	0.0	23.2	22.7	23.3	23.1	23.7	12.7	12.7	45.4	15.8	14.0
LnGrp LOS	C	A	C	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		218			125			1359			678	
Approach Delay, s/veh		22.5			23.1			14.9			18.0	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	27.2		10.9	13.3	19.4		8.0				
Change Period (Y+Rc), s	3.5	4.5		4.0	3.5	4.5		3.5				
Max Green Setting (Gmax), s	15.0	45.0		30.0	20.0	45.0		20.0				
Max Q Clear Time (g_c+1), s	13.7	14.4		5.5	9.3	8.5		3.4				
Green Ext Time (p_c), s	0.1	8.2		1.0	0.6	4.2		0.4				

Intersection Summary

HCM 6th Ctrl Delay	16.9
HCM 6th LOS	B

Notes

User approved pedestrian interval to be less than phase max green.

Intersection

Intersection Delay, s/veh 7.1

Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↑			↑	
Traffic Vol, veh/h	0	24	0	0	16	0	0	12	0	0	12	0
Future Vol, veh/h	0	24	0	0	16	0	0	12	0	0	12	0
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	29	0	0	19	0	0	14	0	0	14	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7.1	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	100%	100%	100%	100%
Vol Right, %	0%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	24	16	12
LT Vol	0	0	0	0
Through Vol	12	24	16	12
RT Vol	0	0	0	0
Lane Flow Rate	14	29	19	14
Geometry Grp	1	1	1	1
Degree of Util (X)	0.016	0.032	0.021	0.016
Departure Headway (Hd)	3.995	3.965	3.973	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	896	905	903	896
Service Time	2.017	1.98	1.99	2.017
HCM Lane V/C Ratio	0.016	0.032	0.021	0.016
HCM Control Delay	7.1	7.1	7.1	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0.1	0

Intersection

Intersection Delay, s/veh 14.1

Intersection LOS B

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑↑↑			↑↑	↑	↑
Traffic Vol, veh/h	307	62	69	279	252	312
Future Vol, veh/h	307	62	69	279	252	312
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	1	0	0	1	1	0
Mvmt Flow	320	65	72	291	263	325
Number of Lanes	2	0	0	2	1	1

Approach	EB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	2	2
Conflicting Approach Left SB		EB	
Conflicting Lanes Left	2	2	0
Conflicting Approach Right NB			EB
Conflicting Lanes Right	2	0	2
HCM Control Delay	14.6	13	14.5
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	SBLn1	SBLn2
Vol Left, %	43%	0%	100%	62%	0%	0%
Vol Thru, %	57%	100%	0%	0%	100%	0%
Vol Right, %	0%	0%	0%	38%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	162	186	205	164	252	312
LT Vol	69	0	205	102	0	0
Through Vol	93	186	0	0	252	0
RT Vol	0	0	0	62	0	312
Lane Flow Rate	169	194	213	171	262	325
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.321	0.357	0.437	0.328	0.466	0.511
Departure Headway (Hd)	6.838	6.638	7.383	6.906	6.394	5.664
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	541	486	519	562	634
Service Time	4.607	4.407	5.145	4.667	4.156	3.426
HCM Lane V/C Ratio	0.323	0.359	0.438	0.329	0.466	0.513
HCM Control Delay	12.8	13.1	15.8	13	14.7	14.3
HCM Lane LOS	B	B	C	B	B	B
HCM 95th-tile Q	1.4	1.6	2.2	1.4	2.5	2.9

Intersection

Intersection Delay, s/veh49.6

Intersection LOS E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↖	↗	↖	↗	
Traffic Vol, veh/h	51	279	16	199	339	147	20	163	169	123	135	39
Future Vol, veh/h	51	279	16	199	339	147	20	163	169	123	135	39
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	4	0	0	4	0	0	0	0	2	0	0
Mvmt Flow	55	300	17	214	365	158	22	175	182	132	145	42
Number of Lanes	1	1	0	1	1	0	0	1	1	1	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	2	2
Conflicting Approach Left SB		NB	EB	WB
Conflicting Lanes Left	2	2	2	2
Conflicting Approach Right NB		SB	WB	EB
Conflicting Lanes Right	2	2	2	2
HCM Control Delay	30.3	89.1	18.2	18.2
HCM LOS	D	F	C	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	11%	0%	100%	0%	100%	0%	100%	0%
Vol Thru, %	89%	0%	0%	95%	0%	70%	0%	78%
Vol Right, %	0%	100%	0%	5%	0%	30%	0%	22%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	183	169	51	295	199	486	123	174
LT Vol	20	0	51	0	199	0	123	0
Through Vol	163	0	0	279	0	339	0	135
RT Vol	0	169	0	16	0	147	0	39
Lane Flow Rate	197	182	55	317	214	523	132	187
Geometry Grp	7	7	7	7	7	7	7	7
Degree of Util (X)	0.476	0.401	0.136	0.745	0.511	1.151	0.341	0.446
Departure Headway (Hd)	9.104	8.316	9.3	8.811	8.597	7.932	9.714	8.992
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	397	436	388	412	419	460	373	402
Service Time	6.804	6.016	7	6.511	6.35	5.684	7.414	6.692
HCM Lane V/C Ratio	0.496	0.417	0.142	0.769	0.511	1.137	0.354	0.465
HCM Control Delay	19.8	16.5	13.5	33.2	20	117.4	17.4	18.7
HCM Lane LOS	C	C	B	D	C	F	C	C
HCM 95th-tile Q	2.5	1.9	0.5	6	2.8	18.8	1.5	2.2

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative+Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	213	280	48	227	14	343	443	119	19	239	115
Future Volume (veh/h)	78	213	280	48	227	14	343	443	119	19	239	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No		No		No		No		No		No
Adj Sat Flow, veh/h/ln	1900	1856	1856	1900	1870	1870	1870	1885	1885	1900	1870	1870
Adj Flow Rate, veh/h	83	227	298	51	241	15	365	471	127	20	254	122
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	2	2	2	1	1	0	2	2
Cap, veh/h	108	563	460	71	959	59	507	957	256	35	505	234
Arrive On Green	0.06	0.30	0.30	0.04	0.28	0.28	0.15	0.34	0.34	0.02	0.22	0.22
Sat Flow, veh/h	1810	1856	1517	1810	3390	210	3456	2791	747	1810	2341	1087
Grp Volume(v), veh/h	83	227	298	51	125	131	365	301	297	20	191	185
Grp Sat Flow(s),veh/h/ln	1810	1856	1517	1810	1777	1823	1728	1791	1748	1810	1777	1651
Q Serve(g_s), s	2.5	5.4	9.5	1.6	3.0	3.1	5.6	7.4	7.5	0.6	5.3	5.5
Cycle Q Clear(g_c), s	2.5	5.4	9.5	1.6	3.0	3.1	5.6	7.4	7.5	0.6	5.3	5.5
Prop In Lane	1.00		1.00	1.00		0.11	1.00		0.43	1.00		0.66
Lane Grp Cap(c), veh/h	108	563	460	71	502	516	507	614	600	35	383	356
V/C Ratio(X)	0.77	0.40	0.65	0.72	0.25	0.25	0.72	0.49	0.50	0.58	0.50	0.52
Avail Cap(c_a), veh/h	648	831	679	648	795	816	1238	962	939	648	955	887
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.9	15.4	16.9	26.5	15.5	15.5	22.7	14.5	14.5	27.2	19.2	19.4
Incr Delay (d2), s/veh	4.3	0.5	1.5	5.0	0.3	0.3	0.7	1.3	1.4	5.6	2.1	2.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.1	3.1	0.7	1.1	1.2	2.2	2.9	2.8	0.3	2.2	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.2	15.9	18.4	31.6	15.7	15.7	23.5	15.8	15.9	32.7	21.4	21.9
LnGrp LOS	C	B	B	C	B	B	C	B	B	C	C	C
Approach Vol, veh/h		608		307		963		396				
Approach Delay, s/veh		19.1		18.3		18.7		22.2				
Approach LOS		B		B		B		C				
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.1	23.7	6.2	20.9	12.2	16.5	7.3	19.8				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+1), s	12.6	9.5	3.6	11.5	7.6	7.5	4.5	5.1				
Green Ext Time (p_c), s	0.0	6.6	0.0	2.1	0.6	4.2	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay				19.4								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	12.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↕		↙	↕
Traffic Vol, veh/h	126	70	846	171	78	505
Future Vol, veh/h	126	70	846	171	78	505
Conflicting Peds, #/hr	4	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	1	1	1	3
Mvmt Flow	129	71	863	174	80	515

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1373	520	0	0	1038
Stage 1	951	-	-	-	-
Stage 2	422	-	-	-	-
Critical Hdwy	6.8	6.94	-	-	4.12
Critical Hdwy Stg 1	5.8	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.32	-	-	2.21
Pot Cap-1 Maneuver	139	501	-	-	671
Stage 1	341	-	-	-	-
Stage 2	635	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	~ 122	501	-	-	670
Mov Cap-2 Maneuver	~ 122	-	-	-	-
Stage 1	341	-	-	-	-
Stage 2	558	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	111.2	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	122	501	670	-
HCM Lane V/C Ratio	-	-	1.054	0.143	0.119	-
HCM Control Delay (s)	-	-	165.5	13.4	11.1	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	7.4	0.5	0.4	-

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

MST BRT
13: Del Monte Blvd & Tiago Ave/The Mall

Cumulative+Project
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	71	116	10	45	65	151	799	21	34	396	178
Future Volume (veh/h)	182	71	116	10	45	65	151	799	21	34	396	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1885	1900	1870	1900	1900	1885	1885	1826	1870	1870
Adj Flow Rate, veh/h	194	76	123	11	48	69	161	850	22	36	421	189
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	1	0	2	0	0	1	1	5	2	2
Cap, veh/h	248	140	226	21	160	138	218	1502	39	55	789	350
Arrive On Green	0.14	0.22	0.22	0.01	0.09	0.09	0.12	0.42	0.42	0.03	0.33	0.33
Sat Flow, veh/h	1739	642	1040	1810	1870	1610	1810	3564	92	1739	2372	1052
Grp Volume(v), veh/h	194	0	199	11	48	69	161	427	445	36	314	296
Grp Sat Flow(s),veh/h/ln	1739	0	1682	1810	1870	1610	1810	1791	1866	1739	1777	1647
Q Serve(g_s), s	5.3	0.0	5.1	0.3	1.2	2.0	4.2	8.9	8.9	1.0	7.0	7.2
Cycle Q Clear(g_c), s	5.3	0.0	5.1	0.3	1.2	2.0	4.2	8.9	8.9	1.0	7.0	7.2
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.05	1.00		0.64
Lane Grp Cap(c), veh/h	248	0	365	21	160	138	218	754	786	55	591	548
V/C Ratio(X)	0.78	0.00	0.54	0.54	0.30	0.50	0.74	0.57	0.57	0.65	0.53	0.54
Avail Cap(c_a), veh/h	1065	0	1030	1109	1146	986	1109	1463	1524	1065	1451	1345
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	20.3	0.0	17.0	24.1	21.0	21.4	20.8	10.8	10.8	23.4	13.2	13.3
Incr Delay (d2), s/veh	2.0	0.0	0.5	7.8	0.4	1.0	4.9	1.0	0.9	12.4	1.1	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	1.8	0.2	0.5	0.7	1.9	3.0	3.1	0.6	2.5	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	22.3	0.0	17.5	31.9	21.4	22.4	25.7	11.7	11.7	35.9	14.3	14.5
LnGrp LOS	C	A	B	C	C	C	C	B	B	D	B	B
Approach Vol, veh/h		393			128			1033			646	
Approach Delay, s/veh		19.9			22.8			13.9			15.6	
Approach LOS		B			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.5	25.2	4.1	14.1	9.9	20.9	10.5	7.7				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.0	10.9	2.3	7.1	6.2	9.2	7.3	4.0				
Green Ext Time (p_c), s	0.1	9.0	0.0	0.8	0.4	6.1	0.3	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			16.0									
HCM 6th LOS			B									

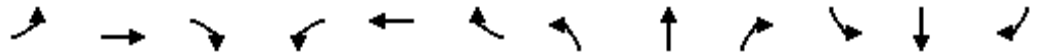
MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative+Project
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	151	26	845	226	25	499
Future Volume (veh/h)	151	26	845	226	25	499
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1885	1885	1900	1885
Adj Flow Rate, veh/h	156	27	871	233	26	514
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	1	1	0	1
Cap, veh/h	219	195	1536	411	57	2442
Arrive On Green	0.12	0.12	0.55	0.55	0.03	0.68
Sat Flow, veh/h	1810	1610	2872	742	1810	3676
Grp Volume(v), veh/h	156	27	561	543	26	514
Grp Sat Flow(s),veh/h/ln	1810	1610	1791	1729	1810	1791
Q Serve(g_s), s	3.4	0.6	8.4	8.4	0.6	2.2
Cycle Q Clear(g_c), s	3.4	0.6	8.4	8.4	0.6	2.2
Prop In Lane	1.00	1.00		0.43	1.00	
Lane Grp Cap(c), veh/h	219	195	991	956	57	2442
V/C Ratio(X)	0.71	0.14	0.57	0.57	0.46	0.21
Avail Cap(c_a), veh/h	1764	1569	1746	1685	1102	3491
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	16.1	6.0	6.0	19.5	2.4
Incr Delay (d2), s/veh	1.6	0.1	0.7	0.8	2.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.2	1.8	1.8	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	19.0	16.3	6.7	6.7	21.7	2.5
LnGrp LOS	B	B	A	A	C	A
Approach Vol, veh/h	183		1104			540
Approach Delay, s/veh	18.6		6.7			3.4
Approach LOS	B		A			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.3	27.3			32.6	8.5
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+I), s	12.6	10.4			4.2	5.4
Green Ext Time (p_c), s	0.0	12.2			5.3	0.3
Intersection Summary						
HCM 6th Ctrl Delay			6.9			
HCM 6th LOS			A			

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↕↕	↗	↖		↗		↕	↗		↕		
Traffic Volume (vph)	5	243	282	269	0	285	0	218	368	0	13	0	
Future Volume (vph)	5	243	282	269	0	285	0	218	368	0	13	0	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Lane Util. Factor		0.95	1.00	1.00		1.00		1.00	1.00		1.00		
Frbp, ped/bikes		1.00	0.96	1.00		1.00		1.00	1.00		1.00		
Flpb, ped/bikes		1.00	1.00	1.00		1.00		1.00	1.00		1.00		
Frt		1.00	0.85	1.00		0.85		1.00	0.85		1.00		
Flt Protected		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (prot)		3524	1517	1787		1599		1881	1583		1900		
Flt Permitted		1.00	1.00	0.95		1.00		1.00	1.00		1.00		
Satd. Flow (perm)		3524	1517	1787		1599		1881	1583		1900		
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	5	256	297	283	0	300	0	229	387	0	14	0	
RTOR Reduction (vph)	0	0	258	0	0	151	0	0	285	0	0	0	
Lane Group Flow (vph)	0	261	39	283	0	149	0	229	102	0	14	0	
Confl. Peds. (#/hr)			17	17									
Heavy Vehicles (%)	20%	2%	2%	1%	0%	1%	0%	1%	2%	0%	0%	0%	
Turn Type	Perm	NA	Perm	Prot		Perm		NA	Perm		NA		
Protected Phases		1		2				4				8	
Permitted Phases	1		1			2			4	8			
Actuated Green, G (s)		16.3	16.3	62.0		62.0		33.0	33.0		33.0		
Effective Green, g (s)		16.3	16.3	62.0		62.0		33.0	33.0		33.0		
Actuated g/C Ratio		0.13	0.13	0.50		0.50		0.26	0.26		0.26		
Clearance Time (s)		5.3	5.3	4.2		4.2		4.2	4.2		4.2		
Vehicle Extension (s)		3.0	3.0	3.0		3.0		3.0	3.0		3.0		
Lane Grp Cap (vph)		459	197	886		793		496	417		501		
v/s Ratio Prot				c0.16				c0.12				0.01	
v/s Ratio Perm		0.07	0.03			0.09			0.06				
v/c Ratio		0.57	0.20	0.32		0.19		0.46	0.25		0.03		
Uniform Delay, d1		51.0	48.5	18.9		17.5		38.6	36.2		34.1		
Progression Factor		1.00	1.00	0.73		1.70		1.00	1.00		1.00		
Incremental Delay, d2		1.6	0.5	0.1		0.0		0.7	0.3		0.0		
Delay (s)		52.7	49.0	13.9		29.8		39.2	36.5		34.1		
Level of Service		D	D	B		C		D	D		C		
Approach Delay (s)		50.7			22.1			37.5			34.1		
Approach LOS		D			C			D			C		
Intersection Summary													
HCM 2000 Control Delay			36.6		HCM 2000 Level of Service					D			
HCM 2000 Volume to Capacity ratio			0.40										
Actuated Cycle Length (s)			125.0		Sum of lost time (s)					13.7			
Intersection Capacity Utilization			53.2%		ICU Level of Service					A			
Analysis Period (min)			15										

c Critical Lane Group

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative+Project
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	319	278	944	566	72
Future Volume (vph)	108	319	278	944	566	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1615	1694	3574	3488	
Flt Permitted	0.95	1.00	0.40	1.00	1.00	
Satd. Flow (perm)	1787	1615	706	3574	3488	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	114	336	293	994	596	76
RTOR Reduction (vph)	0	190	0	0	8	0
Lane Group Flow (vph)	114	146	293	994	665	0
Confl. Peds. (#/hr)	4		7			7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	1%	0%	6%	1%	1%	4%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.8	35.8	44.0	
Effective Green, g (s)	17.2	17.2	35.8	35.8	44.0	
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	436	394	359	1817	2180	
v/s Ratio Prot	0.06			0.28	c0.19	
v/s Ratio Perm		c0.09	c0.41			
v/c Ratio	0.26	0.37	0.82	0.55	0.30	
Uniform Delay, d1	21.5	22.1	14.5	11.8	6.1	
Progression Factor	1.00	1.00	0.38	0.35	1.00	
Incremental Delay, d2	0.7	1.2	14.7	0.9	0.3	
Delay (s)	22.1	23.3	20.2	5.1	6.4	
Level of Service	C	C	C	A	A	
Approach Delay (s)	23.0			8.5	6.4	
Approach LOS	C			A	A	

Intersection Summary

HCM 2000 Control Delay	10.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative+Project
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙↙	↙	↕↕	↘	↘	↕↕
Traffic Volume (vph)	568	84	1138	321	49	836
Future Volume (vph)	568	84	1138	321	49	836
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Frpb, ped/bikes	1.00	0.98	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1557	3539	1527	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1557	3539	1527	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	598	88	1198	338	52	880
RTOR Reduction (vph)	0	35	0	26	0	0
Lane Group Flow (vph)	598	53	1198	312	52	880
Confl. Peds. (#/hr)		4		8	8	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.8	35.8	4.7	44.0
Effective Green, g (s)	18.7	18.7	35.8	35.8	4.7	44.0
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.07	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	911	413	1799	776	118	2211
v/s Ratio Prot	c0.17		c0.34		0.03	c0.25
v/s Ratio Perm		0.03		0.20		
v/c Ratio	0.66	0.13	0.67	0.40	0.44	0.40
Uniform Delay, d1	23.0	19.7	12.9	10.7	31.6	6.6
Progression Factor	1.00	1.00	1.00	1.00	1.20	0.68
Incremental Delay, d2	1.9	0.2	2.0	1.6	2.6	0.4
Delay (s)	24.9	19.9	14.8	12.2	40.4	4.9
Level of Service	C	B	B	B	D	A
Approach Delay (s)	24.2		14.3			6.9
Approach LOS	C		B			A

Intersection Summary

HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	61.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Summary of All Intervals

Run Number	1	2	3	4	5		Avg
Start Time	6:55	6:55	6:55	6:55	6:55	6:55	6:55
End Time	8:00	8:00	8:00	8:00	8:00	8:00	8:00
Total Time (min)	65	65	65	65	65	65	65
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	13424	13484	13166	13424	13345	13332	13361
Vehs Exited	12818	13169	12418	12773	12999	12852	12840
Starting Vehs	498	522	478	511	533	517	493
Ending Vehs	1104	837	1226	1162	879	997	1029
Travel Distance (mi)	8256	8509	8061	8298	8389	8279	8299
Travel Time (hr)	1106.0	1043.2	1249.0	976.2	1039.4	1062.9	1079.5
Total Delay (hr)	821.8	750.4	971.8	691.0	750.7	778.0	794.0
Total Stops	22614	23558	23247	22669	22926	22387	22903
Fuel Used (gal)	473.7	466.0	501.2	444.0	462.1	463.5	468.4

Interval #0 Information Seeding

Start Time	6:55
End Time	7:00
Total Time (min)	5
Volumes adjusted by Growth Factors, Anti PHF.	
No data recorded this interval.	

Interval #1 Information

Start Time	7:00
End Time	7:15
Total Time (min)	15
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	2	3	4	5		Avg
Vehs Entered	3459	3533	3541	3458	3351	3450	3458
Vehs Exited	3223	3330	3208	3324	3275	3217	3267
Starting Vehs	498	522	478	511	533	517	493
Ending Vehs	734	725	811	645	609	750	705
Travel Distance (mi)	2096	2176	2131	2154	2123	2088	2128
Travel Time (hr)	152.2	169.6	166.6	146.4	167.0	163.3	160.8
Total Delay (hr)	79.9	94.6	93.1	72.0	93.8	91.5	87.5
Total Stops	5418	5907	5789	5581	5907	5440	5670
Fuel Used (gal)	91.0	96.9	95.1	91.3	95.5	93.0	93.8

Interval #2 Information

Start Time	7:15
End Time	7:30
Total Time (min)	15
Volumes adjusted by PHF, Growth Factors.	

Run Number	1	2	3	4	5	Avg	
Vehs Entered	3574	3422	3459	3531	3495	3405	3477
Vehs Exited	3494	3400	3405	3412	3387	3291	3395
Starting Vehs	734	725	811	645	609	750	705
Ending Vehs	814	747	865	764	717	864	791
Travel Distance (mi)	2241	2158	2207	2207	2196	2114	2187
Travel Time (hr)	225.7	216.9	242.7	199.5	216.4	237.3	223.1
Total Delay (hr)	148.5	142.7	166.8	123.5	140.8	164.5	147.8
Total Stops	6140	5601	6238	6178	5941	6092	6036
Fuel Used (gal)	111.6	107.5	114.7	105.1	107.8	110.8	109.6

Interval #3 Information

Start Time	7:30
End Time	7:45
Total Time (min)	15
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	2	3	4	5	Avg	
Vehs Entered	3178	3312	3198	3280	3235	3325	3253
Vehs Exited	3144	3233	3028	3280	3232	3341	3209
Starting Vehs	814	747	865	764	717	864	791
Ending Vehs	848	826	1035	764	720	848	829
Travel Distance (mi)	2033	2085	1968	2095	2056	2148	2064
Travel Time (hr)	300.5	290.0	337.6	259.3	284.2	305.4	296.2
Total Delay (hr)	230.8	218.4	270.2	187.1	213.4	231.3	225.2
Total Stops	5465	5823	5750	5814	5407	5998	5711
Fuel Used (gal)	122.9	122.1	129.9	114.4	120.1	127.1	122.7

Interval #4 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15
Volumes adjusted by Growth Factors, Anti PHF.	

Run Number	1	2	3	4	5	Avg	
Vehs Entered	3213	3217	2968	3155	3264	3152	3158
Vehs Exited	2957	3206	2777	2757	3105	3003	2971
Starting Vehs	848	826	1035	764	720	848	829
Ending Vehs	1104	837	1226	1162	879	997	1029
Travel Distance (mi)	1887	2090	1756	1842	2015	1928	1920
Travel Time (hr)	427.6	366.8	502.1	371.1	371.8	356.9	399.4
Total Delay (hr)	362.7	294.7	441.7	308.4	302.7	290.7	333.5
Total Stops	5591	6227	5470	5096	5671	4857	5487
Fuel Used (gal)	148.2	139.5	161.6	133.2	138.7	132.6	142.3

1: De Forest Rd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Delay (hr)	0.4	3.1	0.1	0.4	3.1	0.1	0.4	0.0	0.1	0.4	0.1	0.1
Avg Speed (mph)	6	11	15	17	22	26	12	13	16	14	14	17

1: De Forest Rd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	8.6
Avg Speed (mph)	17

2: Goodwill Dwy/Mc Donalds & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBL	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Delay (hr)	0.9	4.7	0.0	3.4	0.2	0.0	0.0	0.5	0.0	0.1	9.8
Avg Speed (mph)	9	13	12	10	11	10	14	9	12	15	12

3: Seacrest Ave & Reservation Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.3	0.0	0.4
Total Delay (hr)	8.6	1.8	2.2	2.4	2.0	0.3	17.3
Avg Speed (mph)	7	7	8	17	10	14	10

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	2.9	6.9	0.8	1.2	7.8	0.7	1.1	0.3	0.2	2.0	0.4	0.2
Avg Speed (mph)	8	10	9	6	8	11	7	7	10	10	10	18

4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.3
Total Delay (hr)	24.6
Avg Speed (mph)	9

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Total Delay (hr)	1.5	4.5	1.3	5.1	7.7	1.9	2.0	3.1	1.6	2.0	0.9	0.0
Avg Speed (mph)	11	12	13	8	6	9	8	9	18	13	16	19

5: Del Monte Blvd & Reservation Rd Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	31.7
Avg Speed (mph)	10

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.7	0.3	0.3	0.3	0.5	0.1	3.5	5.5	0.2	0.7	2.7	0.2
Avg Speed (mph)	11	10	17	10	10	17	14	22	22	12	20	24

6: Del Monte Blvd & Palm Ave Performance by movement

Movement	All
Denied Delay (hr)	0.5
Total Delay (hr)	15.0
Avg Speed (mph)	19

7: Beach Range Rd & Stilwel Hall/8th St Performance by movement

Movement	EBT	WBT	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1
Avg Speed (mph)	14	24	23	22	19

8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBT	All
Denied Delay (hr)	0.6	50.2	54.8	0.0	0.0	0.0	0.0	0.3	0.0	105.9
Total Delay (hr)	1.1	45.9	8.1	2.4	0.0	0.4	1.5	7.5	0.2	67.1
Avg Speed (mph)	0	0	3	2	6	6	4	1	3	1

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	48.2	9.6	0.0	0.7	0.0	0.0	58.6
Total Delay (hr)	17.1	3.7	7.4	36.5	0.3	0.2	65.2
Avg Speed (mph)	1	1	2	2	10	11	2

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.7	1.7	0.0	0.0	0.0
Total Delay (hr)	1.2	3.3	0.1	1.0	3.4	1.8	0.5	3.6	2.6	0.4	0.4	0.1
Avg Speed (mph)	6	10	13	6	3	3	3	4	5	20	22	24

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	3.6
Total Delay (hr)	18.3
Avg Speed (mph)	7

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.8	1.3	0.4	1.3	8.1	0.7	12.4	1.4	0.3	0.3	3.0	3.2
Avg Speed (mph)	3	5	11	4	3	2	2	14	13	9	10	5

11: Del Monte Blvd & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	1.4
Total Delay (hr)	33.1
Avg Speed (mph)	5

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	4.2	2.3	0.0	0.0	0.0	0.0	6.5
Total Delay (hr)	3.9	2.8	8.0	0.1	0.2	0.2	15.3
Avg Speed (mph)	2	1	7	20	12	25	7

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	1.5	0.6	0.9	0.0	0.0	0.1	0.1	0.6	0.0	0.0	0.0	0.0
Total Delay (hr)	5.1	1.4	2.0	0.1	0.6	0.8	4.4	22.2	0.6	0.3	1.4	0.4
Avg Speed (mph)	4	6	6	8	8	7	9	9	9	7	14	15

13: Del Monte Blvd & Tiago Ave/The Mall Performance by movement

Movement	All
Denied Delay (hr)	3.8
Total Delay (hr)	39.3
Avg Speed (mph)	9

14: Del Monte Blvd & Clementina Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Total Delay (hr)	0.9	0.1	3.6	0.8	0.1	0.7	6.2
Avg Speed (mph)	11	14	19	18	20	30	22

15: Del Monte Blvd & Contra Costa St Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.7	0.7	2.2	2.8	1.5	0.1	8.1
Avg Speed (mph)	11	17	5	10	20	20	14

16: Del Monte Blvd & Broadway Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.7	0.3	0.0	0.0	1.0
Total Delay (hr)	3.2	0.1	10.2	2.0	0.5	1.4	17.4
Avg Speed (mph)	8	15	11	13	3	12	11

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	23.4	61.2	19.7	0.1	0.1	0.0	0.4	3.6	1.3
Total Delay (hr)	3.2	2.7	0.1	9.4	24.3	6.8	12.1	12.6	2.2	5.2	27.7	8.1
Avg Speed (mph)	1	1	6	0	0	0	3	15	15	3	6	6

38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd Performance by movement

Movement	All
Denied Delay (hr)	109.9
Total Delay (hr)	114.4
Avg Speed (mph)	5

Total Network Performance

Denied Delay (hr)	293.6
Total Delay (hr)	500.3
Avg Speed (mph)	11

Intersection: 1: De Forest Rd & Reservation Rd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	81	198	196	73	125	202	220	131	120	105	131	73
Average Queue (ft)	32	100	105	20	35	97	94	14	45	28	50	27
95th Queue (ft)	68	173	179	51	84	168	179	64	92	67	103	67
Link Distance (ft)	225	225	225	225		1234	1234		616		786	
Upstream Blk Time (%)		0	0									
Queuing Penalty (veh)		0	0									
Storage Bay Dist (ft)					170			95		80		50
Storage Blk Time (%)						0	7		1	0	10	1
Queuing Penalty (veh)						0	5		1	0	6	1

Intersection: 2: Goodwill Dwy/Mc Donalds & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	T	TR	T	T	R	LTR	LT	R
Maximum Queue (ft)	140	385	485	244	237	50	37	112	67
Average Queue (ft)	62	63	252	142	141	36	9	45	21
95th Queue (ft)	115	257	476	245	244	62	31	87	51
Link Distance (ft)		508	508	225	225		428	478	
Upstream Blk Time (%)		0	0	1	1				
Queuing Penalty (veh)		0	0	6	4				
Storage Bay Dist (ft)	150					25			100
Storage Blk Time (%)	0	0			27	4		1	0
Queuing Penalty (veh)	1	0			26	18		0	0

Intersection: 3: Seacrest Ave & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	R	L	T	T	L	R
Maximum Queue (ft)	474	468	75	219	269	280	134	281
Average Queue (ft)	238	329	56	129	89	103	109	79
95th Queue (ft)	459	501	100	206	207	226	149	208
Link Distance (ft)	443	443			508	508		643
Upstream Blk Time (%)	1	3						
Queuing Penalty (veh)	3	15						
Storage Bay Dist (ft)			50	200			110	
Storage Blk Time (%)		52	2	1	0		14	0
Queuing Penalty (veh)		102	9	5	1		15	0

Intersection: 4: Walgreens Dwy/Vista Del Camino Cir & Reservation Rd

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	TR	L	T	T	R	LT	R	LT	R
Maximum Queue (ft)	223	468	482	174	405	445	125	219	75	356	130
Average Queue (ft)	146	185	258	77	207	261	70	102	28	148	53
95th Queue (ft)	225	362	419	162	376	435	168	179	76	269	152
Link Distance (ft)		627	627		443	443		403		933	
Upstream Blk Time (%)		0	0		0	1					
Queuing Penalty (veh)		0	1		2	6					
Storage Bay Dist (ft)	200			150			100		50		80
Storage Blk Time (%)	3	3		0	14	35	0	36	1	32	0
Queuing Penalty (veh)	13	6		0	13	54	0	13	2	36	1

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	LT	TR	L	L	T	R	L	T	R	R	L	L
Maximum Queue (ft)	450	200	125	529	656	175	217	287	169	185	119	137
Average Queue (ft)	212	162	100	284	384	133	109	156	85	97	51	71
95th Queue (ft)	384	229	164	564	702	229	184	268	149	159	100	123
Link Distance (ft)	1288			627	627			584	584	584		
Upstream Blk Time (%)				0	5							
Queuing Penalty (veh)				3	25							
Storage Bay Dist (ft)		150	100			150	490				200	200
Storage Blk Time (%)	17	19	3	34	38	0						
Queuing Penalty (veh)	50	50	8	81	79	1						

Intersection: 5: Del Monte Blvd & Reservation Rd

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	98	122
Average Queue (ft)	10	51
95th Queue (ft)	43	99
Link Distance (ft)	1311	1311
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Del Monte Blvd & Palm Ave

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LT	R	L	T	R	L	T	TR	L	T	T	R
Maximum Queue (ft)	182	75	80	92	56	175	439	400	123	194	218	111
Average Queue (ft)	71	48	26	36	24	139	191	182	45	83	100	33
95th Queue (ft)	140	88	58	76	51	204	359	323	97	165	185	101
Link Distance (ft)	886		829				1720	1720		1196	1196	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)		50		225	225	150			150			100
Storage Blk Time (%)	25	2				14	7			1	9	0
Queuing Penalty (veh)	28	2				70	18			1	8	0

Intersection: 7: Beach Range Rd & Stilwel Hall/8th St

Movement	EB	WB	NB	SB
Directions Served	T	T	T	T
Maximum Queue (ft)	38	31	31	30
Average Queue (ft)	17	13	8	10
95th Queue (ft)	42	38	30	33
Link Distance (ft)	665	989	799	674
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: California Ave/Hwy 1 SB On-Ramp & Hwy 1 NB Off-Ramp

Movement	EB	EB	EB	WB	WB	NB	NB	SB
Directions Served	LT	T	R	L	R	T	R	LT
Maximum Queue (ft)	748	1195	705	88	88	202	209	41
Average Queue (ft)	624	942	115	80	50	78	200	6
95th Queue (ft)	908	1575	514	93	89	190	218	24
Link Distance (ft)		1167		70	70	200	200	252
Upstream Blk Time (%)		67		51	3	2	71	
Queuing Penalty (veh)		0		140	8	7	209	
Storage Bay Dist (ft)	660		645					
Storage Blk Time (%)	64	54						
Queuing Penalty (veh)	260	221						

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	556	160	175	1490	103	92
Average Queue (ft)	486	153	121	1045	51	53
95th Queue (ft)	707	184	246	1853	88	82
Link Distance (ft)	529			1467	200	200
Upstream Blk Time (%)	81			26		
Queuing Penalty (veh)	0			92		
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	1	94	2	90		
Queuing Penalty (veh)	2	144	3	187		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	144	552	178	191	508	75	91	75
Average Queue (ft)	50	153	69	167	196	60	29	37
95th Queue (ft)	135	403	156	213	511	93	62	64
Link Distance (ft)		1036	174	174	551			1467
Upstream Blk Time (%)		0	0	29	15			
Queuing Penalty (veh)		0	1	98	0			
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)	5	18			46	14		
Queuing Penalty (veh)	15	9			77	26		

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	L	T	TR	L	T
Maximum Queue (ft)	139	166	191	74	532	550	280	320	448	358	54	428
Average Queue (ft)	54	83	56	34	154	209	163	240	239	103	17	130
95th Queue (ft)	115	155	130	75	490	529	331	376	535	228	42	343
Link Distance (ft)			174		641	641			438	438		1009
Upstream Blk Time (%)		0	0		9	10			34	0		
Queuing Penalty (veh)		0	3		0	0			153	0		
Storage Bay Dist (ft)	120	120		50			240	240			150	
Storage Blk Time (%)	0	4	0	12	9		8	46	1			4
Queuing Penalty (veh)	1	10	0	13	4		17	101	4			1

Intersection: 11: Del Monte Blvd & Playa Ave

Movement	SB
Directions Served	TR
Maximum Queue (ft)	480
Average Queue (ft)	161
95th Queue (ft)	423
Link Distance (ft)	1009
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	396	150	514	501	85	25	44
Average Queue (ft)	176	65	180	69	29	1	3
95th Queue (ft)	401	142	565	338	66	11	22
Link Distance (ft)	383		491	491		438	438
Upstream Blk Time (%)	24		24	3			
Queuing Penalty (veh)	0		121	14			
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	19	31			0		
Queuing Penalty (veh)	13	39			0		

Intersection: 13: Del Monte Blvd & Tiago Ave/The Mall

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	100	816	44	178	99	224	1732	1722	70	156	206
Average Queue (ft)	83	247	8	52	41	91	381	381	22	60	90
95th Queue (ft)	114	707	29	153	95	200	1312	1308	56	123	172
Link Distance (ft)		855		612			2188	2188		491	491
Upstream Blk Time (%)		12					3	3			
Queuing Penalty (veh)		0					14	15			
Storage Bay Dist (ft)	75		270		130	200			220		
Storage Blk Time (%)	40	5		2	4	0	24				
Queuing Penalty (veh)	73	9		2	2	1	36				

Intersection: 14: Del Monte Blvd & Clementina Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	142	55	324	345	52	110	122
Average Queue (ft)	65	16	86	94	17	19	39
95th Queue (ft)	115	44	350	360	46	61	88
Link Distance (ft)	508		944	944		2188	2188
Upstream Blk Time (%)			2	2			
Queuing Penalty (veh)			12	11			
Storage Bay Dist (ft)		160			70		
Storage Blk Time (%)	0				0	0	
Queuing Penalty (veh)	0				0	0	

Intersection: 15: Del Monte Blvd & Contra Costa St

Movement	EB	EB	NB	NB	NB	SB	SB
Directions Served	L	R	L	T	T	T	TR
Maximum Queue (ft)	195	132	110	205	212	191	189
Average Queue (ft)	56	67	92	111	100	74	82
95th Queue (ft)	130	116	127	207	196	143	149
Link Distance (ft)	660			179	179	944	944
Upstream Blk Time (%)				4	3		
Queuing Penalty (veh)				22	21		
Storage Bay Dist (ft)		120	65				
Storage Blk Time (%)	2	1	38	13			
Queuing Penalty (veh)	5	1	178	36			

Intersection: 16: Del Monte Blvd & Broadway Ave

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	T	T	R	L	T	T
Maximum Queue (ft)	198	204	100	582	580	64	77	146	172
Average Queue (ft)	113	110	45	292	275	47	34	58	85
95th Queue (ft)	169	174	118	539	525	59	68	118	142
Link Distance (ft)	306	306		860	860			179	179
Upstream Blk Time (%)				2	2			0	0
Queuing Penalty (veh)				0	0			0	1
Storage Bay Dist (ft)			50			25	60		
Storage Blk Time (%)		33	2		40	7	3	5	
Queuing Penalty (veh)		28	6		129	42	11	2	

Intersection: 38: Fremont Blvd/Hwy 1 SB Off & NB On Ramps & Monterey Rd

Movement	EB	EB	EB	WB	NB	NB	NB	SB	SB	SB	SB
Directions Served	L	T	R	LTR	UL	T	TR	L	T	T	R
Maximum Queue (ft)	94	91	57	940	325	1123	1103	120	1212	1219	350
Average Queue (ft)	82	74	13	883	248	478	475	79	616	608	234
95th Queue (ft)	95	101	40	1100	407	989	984	152	1328	1323	459
Link Distance (ft)	70	70	70	922		1591	1591		1318	1318	
Upstream Blk Time (%)	80	60	0	87		1	1		11	12	
Queuing Penalty (veh)	163	122	0	0		0	0		0	0	
Storage Bay Dist (ft)					275			70			300
Storage Blk Time (%)					39	9		29	46	36	9
Queuing Penalty (veh)					232	13		114	38	86	36

Network Summary

Network wide Queuing Penalty: 4245

I. CUMULATIVE PLUS PROJECT MITIGATED CONDITIONS SYNCHRO OUTPUT SHEETS

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative+ Project (Road Diet)
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	76	315	30	130	4	123	212	19	12	578	42
Future Volume (veh/h)	27	76	315	30	130	4	123	212	19	12	578	42
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1737	1811	1900	1811	1811	1856	1678	1678	1900	1856	1856
Adj Flow Rate, veh/h	30	85	354	34	146	4	138	238	21	13	649	47
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	8	11	6	0	6	6	3	15	15	0	3	3
Cap, veh/h	45	510	446	53	1012	28	235	578	51	24	1083	78
Arrive On Green	0.03	0.29	0.29	0.03	0.30	0.30	0.07	0.38	0.38	0.01	0.33	0.33
Sat Flow, veh/h	1697	1737	1521	1810	3417	93	3428	1519	134	1810	3330	241
Grp Volume(v), veh/h	30	85	354	34	73	77	138	0	259	13	343	353
Grp Sat Flow(s),veh/h/ln	1697	1737	1521	1810	1721	1790	1714	0	1653	1810	1763	1808
Q Serve(g_s), s	1.0	2.1	12.5	1.1	1.8	1.8	2.3	0.0	6.7	0.4	9.5	9.5
Cycle Q Clear(g_c), s	1.0	2.1	12.5	1.1	1.8	1.8	2.3	0.0	6.7	0.4	9.5	9.5
Prop In Lane	1.00		1.00	1.00		0.05	1.00		0.08	1.00		0.13
Lane Grp Cap(c), veh/h	45	510	446	53	510	530	235	0	629	24	573	588
V/C Ratio(X)	0.67	0.17	0.79	0.65	0.14	0.14	0.59	0.00	0.41	0.55	0.60	0.60
Avail Cap(c_a), veh/h	583	746	654	622	739	769	1179	0	853	622	909	932
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.1	15.3	18.9	27.9	15.0	15.1	26.3	0.0	13.2	28.5	16.4	16.5
Incr Delay (d2), s/veh	6.3	0.2	4.2	4.9	0.1	0.1	0.9	0.0	0.9	7.3	2.1	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.8	4.5	0.5	0.7	0.7	0.9	0.0	2.3	0.2	3.8	3.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.3	15.4	23.1	32.8	15.2	15.2	27.2	0.0	14.1	35.8	18.6	18.6
LnGrp LOS	C	B	C	C	B	B	C	A	B	D	B	B
Approach Vol, veh/h		469			184			397			709	
Approach Delay, s/veh		22.4			18.4			18.7			18.9	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	4.8	26.6	5.7	21.1	8.0	23.4	5.5	21.2				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s	2.4	8.7	3.1	14.5	4.3	11.5	3.0	3.8				
Green Ext Time (p_c), s	0.0	2.7	0.0	1.3	0.2	7.4	0.0	0.7				
Intersection Summary												
HCM 6th Ctrl Delay				19.7								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	161	30	322	85	53	873
Future Vol, veh/h	161	30	322	85	53	873
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	3	9	0	6	4
Mvmt Flow	177	33	354	93	58	959

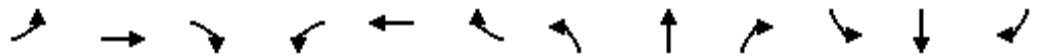
Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	999	403	0	0	449
Stage 1	403	-	-	-	-
Stage 2	596	-	-	-	-
Critical Hdwy	6.615	6.245	-	-	4.19
Critical Hdwy Stg 1	5.415	-	-	-	-
Critical Hdwy Stg 2	5.815	-	-	-	-
Follow-up Hdwy	3.5095	3.3285	-	-	2.257
Pot Cap-1 Maneuver	256	644	-	-	1085
Stage 1	677	-	-	-	-
Stage 2	516	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	242	643	-	-	1083
Mov Cap-2 Maneuver	242	-	-	-	-
Stage 1	676	-	-	-	-
Stage 2	488	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	45.5	0	0.5
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	242	643	1083	-
HCM Lane V/C Ratio	-	-	0.731	0.051	0.054	-
HCM Control Delay (s)	-	-	51.9	10.9	8.5	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	5	0.2	0.2	-

MST BRT
13: Del Monte Blvd & Tioga Ave/The Mall

Cumulative+ Project (Road Diet)
Timing Plan: AM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	79	20	31	11	30	39	24	292	22	48	800	181
Future Volume (veh/h)	79	20	31	11	30	39	24	292	22	48	800	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.95	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1322	1752	1752	1767	1900	1900	1707	1841	1841	1900	1856	1856
Adj Flow Rate, veh/h	91	23	36	13	34	45	28	336	25	55	920	208
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	39	10	10	9	0	0	13	4	4	0	3	3
Cap, veh/h	103	93	146	22	160	130	42	830	62	76	1443	326
Arrive On Green	0.08	0.15	0.15	0.01	0.08	0.08	0.03	0.49	0.49	0.04	0.51	0.51
Sat Flow, veh/h	1259	608	951	1682	1900	1536	1626	1689	126	1810	2841	642
Grp Volume(v), veh/h	91	0	59	13	34	45	28	0	361	55	570	558
Grp Sat Flow(s),veh/h/ln	1259	0	1559	1682	1900	1536	1626	0	1815	1810	1763	1720
Q Serve(g_s), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	0.0	6.6	1.6	12.2	12.3
Cycle Q Clear(g_c), s	3.7	0.0	1.7	0.4	0.9	1.4	0.9	0.0	6.6	1.6	12.2	12.3
Prop In Lane	1.00		0.61	1.00		1.00	1.00		0.07	1.00		0.37
Lane Grp Cap(c), veh/h	103	0	239	22	160	130	42	0	892	76	895	874
V/C Ratio(X)	0.88	0.00	0.25	0.59	0.21	0.35	0.67	0.00	0.40	0.72	0.64	0.64
Avail Cap(c_a), veh/h	726	0	899	971	1096	886	938	0	1396	1044	1356	1324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.6	0.0	19.4	25.5	22.2	22.4	25.1	0.0	8.4	24.6	9.3	9.3
Incr Delay (d2), s/veh	8.8	0.0	0.2	8.8	0.2	0.6	17.2	0.0	0.4	12.0	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	0.6	0.2	0.4	0.5	0.5	0.0	2.1	0.9	3.8	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.5	0.0	19.6	34.3	22.4	23.0	42.3	0.0	8.8	36.6	10.4	10.4
LnGrp LOS	C	A	B	C	C	C	D	A	A	D	B	B
Approach Vol, veh/h		150			92			389			1183	
Approach Delay, s/veh		27.4			24.4			11.2			11.6	
Approach LOS		C			C			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.2	30.1	4.2	11.5	5.3	31.0	7.8	7.9				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.6	8.6	2.4	3.7	2.9	14.3	5.7	3.4				
Green Ext Time (p_c), s	0.1	3.5	0.0	0.2	0.0	12.1	0.1	0.2				
Intersection Summary												
HCM 6th Ctrl Delay			13.5									
HCM 6th LOS			B									

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative+ Project (Road Diet)
Timing Plan: AM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	265	29	330	141	51	776
Future Volume (veh/h)	265	29	330	141	51	776
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1856	1796	1841	1841	1767	1856
Adj Flow Rate, veh/h	273	30	340	145	53	800
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	7	4	4	9	3
Cap, veh/h	357	308	508	217	95	2051
Arrive On Green	0.20	0.20	0.42	0.42	0.06	0.58
Sat Flow, veh/h	1767	1522	1214	518	1682	3618
Grp Volume(v), veh/h	273	30	0	485	53	800
Grp Sat Flow(s),veh/h/ln	1767	1522	0	1732	1682	1763
Q Serve(g_s), s	5.5	0.6	0.0	8.5	1.1	4.6
Cycle Q Clear(g_c), s	5.5	0.6	0.0	8.5	1.1	4.6
Prop In Lane	1.00	1.00		0.30	1.00	
Lane Grp Cap(c), veh/h	357	308	0	725	95	2051
V/C Ratio(X)	0.76	0.10	0.00	0.67	0.56	0.39
Avail Cap(c_a), veh/h	1886	1625	0	1849	1122	3763
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.1	12.2	0.0	8.8	17.2	4.2
Incr Delay (d2), s/veh	1.3	0.1	0.0	1.5	1.9	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9	0.2	0.0	2.3	0.4	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	15.4	12.2	0.0	10.3	19.1	4.4
LnGrp LOS	B	B	A	B	B	A
Approach Vol, veh/h	303		485			853
Approach Delay, s/veh	15.1		10.3			5.3
Approach LOS	B		B			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	6.1	20.3			26.4	11.1
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+1), s	13.1	10.5			6.6	7.5
Green Ext Time (p_c), s	0.0	4.9			8.9	0.4
Intersection Summary						
HCM 6th Ctrl Delay			8.6			
HCM 6th LOS			A			

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative+ Project (Road Diet)
Timing Plan: AM

















Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	54	292	225	441	814	100
Future Volume (vph)	54	292	225	441	814	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1770	1495	1730	1845	3441	
Flt Permitted	0.95	1.00	0.30	1.00	1.00	
Satd. Flow (perm)	1770	1495	542	1845	3441	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	57	307	237	464	857	105
RTOR Reduction (vph)	0	100	0	0	7	0
Lane Group Flow (vph)	57	207	237	464	955	0
Confl. Peds. (#/hr)	8		6			6
Confl. Bikes (#/hr)						8
Heavy Vehicles (%)	2%	8%	4%	3%	3%	1%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.9	35.9	43.9	
Effective Green, g (s)	17.2	17.2	35.9	35.9	43.9	
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	433	365	276	942	2148	
v/s Ratio Prot	0.03			0.25	c0.28	
v/s Ratio Perm		c0.14	c0.44			
v/c Ratio	0.13	0.57	0.86	0.49	0.44	
Uniform Delay, d1	20.7	23.3	15.0	11.2	6.9	
Progression Factor	1.00	1.00	0.41	0.44	1.00	
Incremental Delay, d2	0.3	3.3	23.7	1.5	0.7	
Delay (s)	21.0	26.6	29.9	6.5	7.5	
Level of Service	C	C	C	A	A	
Approach Delay (s)	25.7			14.4	7.5	
Approach LOS	C			B	A	

Intersection Summary

HCM 2000 Control Delay	13.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	70.3	Sum of lost time (s)	12.7
Intersection Capacity Utilization	55.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative+ Project (Road Diet)
Timing Plan: AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	 					 
Traffic Volume (vph)	585	82	584	244	42	1064
Future Volume (vph)	585	82	584	244	42	1064
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1583	1863	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1583	1863	1583	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	616	86	615	257	44	1120
RTOR Reduction (vph)	0	32	0	20	0	0
Lane Group Flow (vph)	616	54	615	237	44	1120
Confl. Peds. (#/hr)					7	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.9	35.9	4.5	43.9
Effective Green, g (s)	18.7	18.7	35.9	35.9	4.5	43.9
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.06	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	913	421	951	808	113	2209
v/s Ratio Prot	c0.18		c0.33		0.02	c0.32
v/s Ratio Perm		0.03		0.15		
v/c Ratio	0.67	0.13	0.65	0.29	0.39	0.51
Uniform Delay, d1	23.1	19.6	12.6	9.9	31.6	7.3
Progression Factor	1.00	1.00	1.00	1.00	1.30	0.61
Incremental Delay, d2	2.2	0.2	3.4	0.9	2.1	0.8
Delay (s)	25.2	19.8	16.0	10.8	43.1	5.2
Level of Service	C	B	B	B	D	A
Approach Delay (s)	24.6		14.4			6.7
Approach LOS	C		B			A
Intersection Summary						
HCM 2000 Control Delay			13.7		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.67			
Actuated Cycle Length (s)			70.3		Sum of lost time (s)	12.7
Intersection Capacity Utilization			58.4%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

MST BRT
9: California Ave & Edgewater Mall

Cumulative+ Project (Signal Mitigation)
timing Plan: AM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	YY			↑↑	↑	↑
Traffic Volume (veh/h)	147	57	25	58	248	257
Future Volume (veh/h)	147	57	25	58	248	257
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1870	1900	1737	1737	1841	1885
Adj Flow Rate, veh/h	110	113	27	62	267	276
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	0	11	11	4	1
Cap, veh/h	324	292	425	783	639	554
Arrive On Green	0.18	0.18	0.35	0.35	0.35	0.35
Sat Flow, veh/h	1781	1610	390	2335	1841	1598
Grp Volume(v), veh/h	110	113	50	39	267	276
Grp Sat Flow(s),veh/h/ln	1781	1610	1144	1502	1841	1598
Q Serve(g_s), s	1.0	1.2	0.0	0.3	2.1	2.6
Cycle Q Clear(g_c), s	1.0	1.2	2.1	0.3	2.1	2.6
Prop In Lane	1.00	1.00	0.54			1.00
Lane Grp Cap(c), veh/h	324	292	687	521	639	554
V/C Ratio(X)	0.34	0.39	0.07	0.07	0.42	0.50
Avail Cap(c_a), veh/h	1679	1518	1323	1416	1735	1506
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.8	6.9	4.2	4.2	4.8	4.9
Incr Delay (d2), s/veh	0.6	0.8	0.0	0.1	0.4	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.3	0.0	0.0	0.1	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	7.7	4.2	4.2	5.2	5.6
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	223			89	543	
Approach Delay, s/veh	7.6			4.2	5.4	
Approach LOS	A			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		11.1		8.0		11.1
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		4.1		3.2		4.6
Green Ext Time (p_c), s		0.3		0.6		2.0

Intersection Summary

HCM 6th Ctrl Delay	5.9
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

MST BRT
10: California Ave & Playa Ave

Cumulative+ Project (Signal Mitigation)
timing Plan: AM
















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	129	11	76	177	42	5	28	67	222	75	23
Future Volume (veh/h)	7	129	11	76	177	42	5	28	67	222	75	23
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.96	0.99		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1470	1737	1737	1900	1796	1796	1841	1841	1841	1870	1841	1841
Adj Flow Rate, veh/h	8	139	12	82	190	45	5	30	72	239	81	25
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	29	11	11	0	7	7	4	4	4	2	4	4
Cap, veh/h	15	310	27	147	373	88	155	496	445	582	388	120
Arrive On Green	0.01	0.20	0.20	0.08	0.27	0.27	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	1400	1569	135	1810	1390	329	82	1720	1541	1279	1345	415
Grp Volume(v), veh/h	8	0	151	82	0	235	35	0	72	239	0	106
Grp Sat Flow(s),veh/h/ln	1400	0	1704	1810	0	1720	1802	0	1541	1279	0	1760
Q Serve(g_s), s	0.2	0.0	2.4	1.4	0.0	3.6	0.0	0.0	1.1	5.2	0.0	1.4
Cycle Q Clear(g_c), s	0.2	0.0	2.4	1.4	0.0	3.6	0.4	0.0	1.1	5.6	0.0	1.4
Prop In Lane	1.00		0.08	1.00		0.19	0.14		1.00	1.00		0.24
Lane Grp Cap(c), veh/h	15	0	337	147	0	462	652	0	445	582	0	508
V/C Ratio(X)	0.53	0.00	0.45	0.56	0.00	0.51	0.05	0.00	0.16	0.41	0.00	0.21
Avail Cap(c_a), veh/h	224	0	1004	295	0	1019	1148	0	888	950	0	1014
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	15.4	0.0	11.0	13.8	0.0	9.7	8.1	0.0	8.3	10.1	0.0	8.4
Incr Delay (d2), s/veh	26.2	0.0	0.9	3.3	0.0	0.9	0.0	0.0	0.2	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.8	0.6	0.0	1.1	0.1	0.0	0.2	0.9	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.6	0.0	12.0	17.0	0.0	10.5	8.1	0.0	8.5	10.6	0.0	8.6
LnGrp LOS	D	A	B	B	A	B	A	A	A	B	A	A
Approach Vol, veh/h		159			317			107				345
Approach Delay, s/veh		13.4			12.2			8.3				10.0
Approach LOS		B			B			A				A
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	10.7		13.5	4.8	12.9		13.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.1	18.4		18.0	5.0	18.5		18.0				
Max Q Clear Time (g_c+I1), s	3.4	4.4		3.1	2.2	5.6		7.6				
Green Ext Time (p_c), s	0.0	0.6		0.3	0.0	1.1		1.0				

Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

MST BRT
12: Del Monte Blvd & La Salle Ave

Cumulative+ Project (Signal Mitigation)
timing Plan: AM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	161	30	322	85	53	873
Future Volume (veh/h)	161	30	322	85	53	873
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1885	1856	1767	1767	1811	1841
Adj Flow Rate, veh/h	177	33	354	93	58	959
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	1	3	9	9	6	4
Cap, veh/h	276	242	1277	331	657	1694
Arrive On Green	0.15	0.15	0.48	0.48	0.48	0.48
Sat Flow, veh/h	1795	1572	2725	684	912	3589
Grp Volume(v), veh/h	177	33	224	223	58	959
Grp Sat Flow(s),veh/h/ln	1795	1572	1678	1642	912	1749
Q Serve(g_s), s	2.3	0.5	2.0	2.0	1.0	4.8
Cycle Q Clear(g_c), s	2.3	0.5	2.0	2.0	3.0	4.8
Prop In Lane	1.00	1.00		0.42	1.00	
Lane Grp Cap(c), veh/h	276	242	813	795	657	1694
V/C Ratio(X)	0.64	0.14	0.28	0.28	0.09	0.57
Avail Cap(c_a), veh/h	1299	1138	1214	1188	875	2530
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.9	9.1	3.8	3.8	4.7	4.6
Incr Delay (d2), s/veh	2.5	0.3	0.2	0.2	0.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.1	0.2	0.2	0.1	0.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.4	9.3	4.0	4.0	4.8	4.9
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h	210		447			1017
Approach Delay, s/veh	11.9		4.0			4.9
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		16.5			16.5	8.3
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		18.0			18.0	18.0
Max Q Clear Time (g_c+I1), s		4.0			6.8	4.3
Green Ext Time (p_c), s		2.2			5.1	0.5
Intersection Summary						
HCM 6th Ctrl Delay			5.5			
HCM 6th LOS			A			

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	0.3	0.1	0.0	0.1	0.2	0.1	0.7

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.3	0.0	0.4	0.4	0.1	0.0	0.1	0.1	0.7	0.2	0.0

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	2.2

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.5	0.0	0.5	0.1	0.2	1.4	2.7

Total Zone Performance

Denied Delay (hr)	0.3
Total Delay (hr)	5.6

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	65	69	49	47	104	79
Average Queue (ft)	24	34	14	9	37	35
95th Queue (ft)	51	63	41	34	80	66
Link Distance (ft)	526			1460	198	198
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	53	125	94	132	70	83	135	74
Average Queue (ft)	6	39	37	58	16	33	62	28
95th Queue (ft)	29	93	74	121	49	66	116	61
Link Distance (ft)		1035	173	173	466	466		1460
Upstream Blk Time (%)				0				
Queuing Penalty (veh)				0				
Storage Bay Dist (ft)	120						150	
Storage Blk Time (%)		0					0	
Queuing Penalty (veh)		0					0	

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	103	60	95	93	70	159	181
Average Queue (ft)	48	19	34	38	27	60	73
95th Queue (ft)	85	45	76	75	61	130	136
Link Distance (ft)	379		488	488		438	438
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	0					1	
Queuing Penalty (veh)	0					0	

Zone Summary

Zone wide Queuing Penalty: 1

MST BRT
11: Del Monte Blvd & Playa Ave

Cumulative+Project (Road Diet)
Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	213	280	48	227	14	343	443	119	19	239	115
Future Volume (veh/h)	78	213	280	48	227	14	343	443	119	19	239	115
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	1.00		1.00	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1856	1856	1900	1870	1870	1870	1885	1885	1900	1870	1870
Adj Flow Rate, veh/h	83	227	298	51	241	15	365	471	127	20	254	122
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	3	3	0	2	2	2	1	1	0	2	2
Cap, veh/h	108	534	436	68	898	55	490	566	153	34	640	297
Arrive On Green	0.06	0.29	0.29	0.04	0.27	0.27	0.14	0.40	0.40	0.02	0.27	0.27
Sat Flow, veh/h	1810	1856	1515	1810	3384	209	3456	1429	385	1810	2342	1088
Grp Volume(v), veh/h	83	227	298	51	126	130	365	0	598	20	191	185
Grp Sat Flow(s),veh/h/ln	1810	1856	1515	1810	1777	1816	1728	0	1815	1810	1777	1653
Q Serve(g_s), s	2.9	6.3	11.1	1.8	3.5	3.6	6.4	0.0	18.9	0.7	5.5	5.8
Cycle Q Clear(g_c), s	2.9	6.3	11.1	1.8	3.5	3.6	6.4	0.0	18.9	0.7	5.5	5.8
Prop In Lane	1.00		1.00	1.00		0.12	1.00		0.21	1.00		0.66
Lane Grp Cap(c), veh/h	108	534	436	68	472	482	490	0	719	34	486	452
V/C Ratio(X)	0.77	0.42	0.68	0.75	0.27	0.27	0.75	0.00	0.83	0.59	0.39	0.41
Avail Cap(c_a), veh/h	570	730	596	570	699	715	1088	0	857	570	839	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	18.3	20.0	30.3	18.4	18.5	26.2	0.0	17.3	30.9	18.8	18.9
Incr Delay (d2), s/veh	4.2	0.5	1.9	6.2	0.3	0.3	0.9	0.0	7.6	5.9	1.1	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.6	3.8	0.9	1.4	1.5	2.6	0.0	8.4	0.3	2.3	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.6	18.9	21.9	36.5	18.7	18.8	27.0	0.0	24.9	36.9	19.9	20.2
LnGrp LOS	C	B	C	D	B	B	C	A	C	D	B	C
Approach Vol, veh/h		608			307			963			396	
Approach Delay, s/veh		22.4			21.7			25.7			20.9	
Approach LOS		C			C			C			C	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	5.2	29.7	6.4	22.3	13.0	21.9	7.8	20.9				
Change Period (Y+Rc), s	4.0	4.5	4.0	4.0	4.0	4.5	4.0	4.0				
Max Green Setting (Gmax), s	20.0	30.0	20.0	25.0	20.0	30.0	20.0	25.0				
Max Q Clear Time (g_c+I1), s	2.7	20.9	3.8	13.1	8.4	7.8	4.9	5.6				
Green Ext Time (p_c), s	0.0	4.3	0.0	2.0	0.6	4.1	0.1	1.3				

Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Intersection						
Int Delay, s/veh	10.8					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↗	↖		↙	↗
Traffic Vol, veh/h	126	70	846	171	78	505
Future Vol, veh/h	126	70	846	171	78	505
Conflicting Peds, #/hr	4	0	0	1	1	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	100	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	2	1	1	1	3
Mvmt Flow	129	71	863	174	80	515

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1373	951	0	0	1038
Stage 1	951	-	-	-	-
Stage 2	422	-	-	-	-
Critical Hdwy	6.6	6.23	-	-	4.115
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.8	-	-	-	-
Follow-up Hdwy	3.5	3.319	-	-	2.2095
Pot Cap-1 Maneuver	150	314	-	-	673
Stage 1	379	-	-	-	-
Stage 2	635	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	132	314	-	-	672
Mov Cap-2 Maneuver	132	-	-	-	-
Stage 1	379	-	-	-	-
Stage 2	558	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	94.4	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	132	314	672	-
HCM Lane V/C Ratio	-	-	0.974	0.227	0.118	-
HCM Control Delay (s)	-	-	135.9	19.8	11.1	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	6.7	0.9	0.4	-

MST BRT

13: Del Monte Blvd & Tiago Ave/The Mall

Cumulative+Project (Road Diet)

Timing Plan: PM



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	182	71	116	10	45	65	151	799	21	34	396	178
Future Volume (veh/h)	182	71	116	10	45	65	151	799	21	34	396	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.98	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1885	1885	1900	1870	1900	1900	1885	1885	1826	1870	1870
Adj Flow Rate, veh/h	194	76	123	11	48	69	161	850	22	36	421	189
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	5	1	1	0	2	0	0	1	1	5	2	2
Cap, veh/h	240	129	209	20	139	120	210	964	25	51	1045	463
Arrive On Green	0.14	0.20	0.20	0.01	0.07	0.07	0.12	0.53	0.53	0.03	0.44	0.44
Sat Flow, veh/h	1739	642	1039	1810	1870	1610	1810	1828	47	1739	2373	1052
Grp Volume(v), veh/h	194	0	199	11	48	69	161	0	872	36	314	296
Grp Sat Flow(s),veh/h/ln	1739	0	1682	1810	1870	1610	1810	0	1875	1739	1777	1649
Q Serve(g_s), s	7.3	0.0	7.2	0.4	1.6	2.8	5.8	0.0	27.7	1.4	8.1	8.3
Cycle Q Clear(g_c), s	7.3	0.0	7.2	0.4	1.6	2.8	5.8	0.0	27.7	1.4	8.1	8.3
Prop In Lane	1.00		0.62	1.00		1.00	1.00		0.03	1.00		0.64
Lane Grp Cap(c), veh/h	240	0	339	20	139	120	210	0	989	51	782	726
V/C Ratio(X)	0.81	0.00	0.59	0.55	0.34	0.57	0.77	0.00	0.88	0.71	0.40	0.41
Avail Cap(c_a), veh/h	773	0	748	805	832	716	805	0	1112	773	1053	977
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	24.4	33.2	29.7	30.2	28.9	0.0	14.1	32.5	12.8	12.9
Incr Delay (d2), s/veh	2.5	0.0	0.6	8.5	0.5	1.6	5.8	0.0	8.3	16.8	0.5	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	2.8	0.2	0.7	1.1	2.8	0.0	12.0	0.8	3.0	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.7	0.0	25.0	41.7	30.2	31.8	34.7	0.0	22.3	49.3	13.3	13.4
LnGrp LOS	C	A	C	D	C	C	C	A	C	D	B	B
Approach Vol, veh/h		393			128			1033			646	
Approach Delay, s/veh		27.8			32.1			24.3			15.4	
Approach LOS		C			C			C			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	6.0	40.2	4.2	17.1	11.8	34.3	12.8	8.5				
Change Period (Y+Rc), s	4.0	4.6	3.5	3.5	4.0	4.6	3.5	3.5				
Max Green Setting (Gmax), s	30.0	40.0	30.0	30.0	30.0	40.0	30.0	30.0				
Max Q Clear Time (g_c+I1), s	3.4	29.7	2.4	9.2	7.8	10.3	9.3	4.8				
Green Ext Time (p_c), s	0.1	5.9	0.0	0.7	0.4	6.1	0.3	0.2				

Intersection Summary

HCM 6th Ctrl Delay			22.7									
HCM 6th LOS			C									

MST BRT
14: Del Monte Blvd & Clementina Ave

Cumulative+Project (Road Diet)
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	151	26	845	226	25	499
Future Volume (veh/h)	151	26	845	226	25	499
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1900	1900	1885	1885	1900	1885
Adj Flow Rate, veh/h	156	27	871	233	26	514
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	1	1	0	1
Cap, veh/h	209	186	929	248	53	2681
Arrive On Green	0.12	0.12	0.65	0.65	0.03	0.75
Sat Flow, veh/h	1810	1610	1424	381	1810	3676
Grp Volume(v), veh/h	156	27	0	1104	26	514
Grp Sat Flow(s),veh/h/ln	1810	1610	0	1805	1810	1791
Q Serve(g_s), s	5.0	0.9	0.0	32.6	0.8	2.5
Cycle Q Clear(g_c), s	5.0	0.9	0.0	32.6	0.8	2.5
Prop In Lane	1.00	1.00		0.21	1.00	
Lane Grp Cap(c), veh/h	209	186	0	1177	53	2681
V/C Ratio(X)	0.75	0.15	0.00	0.94	0.49	0.19
Avail Cap(c_a), veh/h	1215	1082	0	1213	760	2681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	25.5	23.7	0.0	9.3	28.5	2.2
Incr Delay (d2), s/veh	2.0	0.1	0.0	13.6	2.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.3	0.0	12.0	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	27.5	23.8	0.0	22.9	31.0	2.2
LnGrp LOS	C	C	A	C	C	A
Approach Vol, veh/h	183		1104			540
Approach Delay, s/veh	27.0		22.9			3.6
Approach LOS	C		C			A
Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	5.7	43.4			49.2	10.4
Change Period (Y+Rc), s	4.0	4.6			4.6	3.5
Max Green Setting (Gmax), s	25.0	40.0			40.0	40.0
Max Q Clear Time (g_c+I), s	12.8	34.6			4.5	7.0
Green Ext Time (p_c), s	0.0	4.2			5.3	0.3
Intersection Summary						
HCM 6th Ctrl Delay			17.6			
HCM 6th LOS			B			

MST BRT
15: Del Monte Blvd & Contra Costa St

Cumulative+Project (Road Diet)
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	319	278	944	566	72
Future Volume (vph)	108	319	278	944	566	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0	4.2	4.2	4.2	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	0.99	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	0.95	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1787	1615	1694	1881	3488	
Flt Permitted	0.95	1.00	0.40	1.00	1.00	
Satd. Flow (perm)	1787	1615	706	1881	3488	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	114	336	293	994	596	76
RTOR Reduction (vph)	0	190	0	0	8	0
Lane Group Flow (vph)	114	146	293	994	665	0
Confl. Peds. (#/hr)	4		7			7
Confl. Bikes (#/hr)						2
Heavy Vehicles (%)	1%	0%	6%	1%	1%	4%
Turn Type	Prot	Perm	Perm	NA	NA	
Protected Phases	8			2	6	
Permitted Phases		8	2			
Actuated Green, G (s)	17.2	17.2	35.8	35.8	44.0	
Effective Green, g (s)	17.2	17.2	35.8	35.8	44.0	
Actuated g/C Ratio	0.24	0.24	0.51	0.51	0.62	
Clearance Time (s)	5.0	5.0	4.2	4.2	4.2	
Vehicle Extension (s)	5.0	5.0	7.0	7.0	7.0	
Lane Grp Cap (vph)	436	394	359	956	2180	
v/s Ratio Prot	0.06			c0.53	c0.19	
v/s Ratio Perm		c0.09	0.41			
v/c Ratio	0.26	0.37	0.82	1.04	0.30	
Uniform Delay, d1	21.5	22.1	14.5	17.3	6.1	
Progression Factor	1.00	1.00	0.44	0.42	1.00	
Incremental Delay, d2	0.7	1.2	2.0	21.6	0.3	
Delay (s)	22.1	23.3	8.4	28.9	6.4	
Level of Service	C	C	A	C	A	
Approach Delay (s)	23.0			24.2	6.4	
Approach LOS	C			C	A	

Intersection Summary

HCM 2000 Control Delay	19.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
16: Del Monte Blvd & Broadway Ave

Cumulative+Project (Road Diet)
Timing Plan: PM



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↖	↑	↖	↖	↖↗
Traffic Volume (vph)	568	84	1138	321	49	836
Future Volume (vph)	568	84	1138	321	49	836
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Frpb, ped/bikes	1.00	0.97	1.00	0.96	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3433	1540	1863	1527	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3433	1540	1863	1527	1770	3539
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	598	88	1198	338	52	880
RTOR Reduction (vph)	0	35	0	14	0	0
Lane Group Flow (vph)	598	53	1198	324	52	880
Confl. Peds. (#/hr)		4		8	8	
Turn Type	Prot	Perm	NA	Perm	Prot	NA
Protected Phases	4		2		1	6
Permitted Phases		4		2		
Actuated Green, G (s)	18.7	18.7	35.8	35.8	4.7	44.0
Effective Green, g (s)	18.7	18.7	35.8	35.8	4.7	44.0
Actuated g/C Ratio	0.27	0.27	0.51	0.51	0.07	0.62
Clearance Time (s)	3.5	3.5	4.2	4.2	3.5	4.2
Vehicle Extension (s)	4.0	4.0	7.0	7.0	3.0	7.0
Lane Grp Cap (vph)	911	409	947	776	118	2211
v/s Ratio Prot	c0.17		c0.64		0.03	c0.25
v/s Ratio Perm		0.03		0.21		
v/c Ratio	0.66	0.13	1.27	0.42	0.44	0.40
Uniform Delay, d1	23.0	19.7	17.3	10.8	31.6	6.6
Progression Factor	1.00	1.00	1.00	1.00	1.20	0.68
Incremental Delay, d2	1.9	0.2	127.7	1.7	2.6	0.4
Delay (s)	24.9	19.9	145.0	12.5	40.4	4.9
Level of Service	C	B	F	B	D	A
Approach Delay (s)	24.2		115.9			6.9
Approach LOS	C		F			A

Intersection Summary

HCM 2000 Control Delay	63.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	70.4	Sum of lost time (s)	12.7
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

MST BRT
9: California Ave & Edgewater Mall

Cumulative+Project (Signal Mitigation)
Timing Plan: PM



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	307	62	69	279	252	312
Future Volume (veh/h)	307	62	69	279	252	312
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1885	1900	1885	1885	1885	1900
Adj Flow Rate, veh/h	381	0	72	291	262	325
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	0	1	1	1	0
Cap, veh/h	780	350	342	1019	680	579
Arrive On Green	0.22	0.00	0.36	0.36	0.36	0.36
Sat Flow, veh/h	3591	1610	306	2909	1885	1606
Grp Volume(v), veh/h	381	0	193	170	262	325
Grp Sat Flow(s),veh/h/ln	1795	1610	1500	1630	1885	1606
Q Serve(g_s), s	2.0	0.0	0.0	1.6	2.2	3.5
Cycle Q Clear(g_c), s	2.0	0.0	1.6	1.6	2.2	3.5
Prop In Lane	1.00	1.00	0.37			1.00
Lane Grp Cap(c), veh/h	780	350	773	588	680	579
V/C Ratio(X)	0.49	0.00	0.25	0.29	0.39	0.56
Avail Cap(c_a), veh/h	3032	1359	1393	1376	1592	1356
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.3	0.0	4.9	4.9	5.1	5.5
Incr Delay (d2), s/veh	0.5	0.0	0.2	0.3	0.4	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	0.1	0.1	0.2	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.8	0.0	5.0	5.1	5.4	6.3
LnGrp LOS	A	A	A	A	A	A
Approach Vol, veh/h	381			363	587	
Approach Delay, s/veh	7.8			5.1	5.9	
Approach LOS	A			A	A	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		12.2		9.1		12.2
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		18.0		18.0		18.0
Max Q Clear Time (g_c+I1), s		3.6		4.0		5.5
Green Ext Time (p_c), s		1.8		1.2		2.1

Intersection Summary

HCM 6th Ctrl Delay	6.2
HCM 6th LOS	A

Notes

User approved volume balancing among the lanes for turning movement.

MST BRT
10: California Ave & Playa Ave

Cumulative+Project (Signal Mitigation)

Timing Plan: PM
















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	279	16	199	339	147	20	163	169	123	135	39
Future Volume (veh/h)	51	279	16	199	339	147	20	163	169	123	135	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93	1.00		0.94	0.99		0.97	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1841	1841	1900	1841	1841	1900	1900	1900	1870	1900	1900
Adj Flow Rate, veh/h	55	300	17	214	365	158	22	175	182	132	145	42
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	4	4	0	4	4	0	0	0	2	0	0
Cap, veh/h	99	481	27	273	450	195	112	484	429	352	389	113
Arrive On Green	0.05	0.28	0.28	0.15	0.38	0.38	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1810	1717	97	1810	1194	517	91	1757	1559	1019	1412	409
Grp Volume(v), veh/h	55	0	317	214	0	523	197	0	182	132	0	187
Grp Sat Flow(s),veh/h/ln	1810	0	1815	1810	0	1711	1848	0	1559	1019	0	1821
Q Serve(g_s), s	1.4	0.0	7.0	5.2	0.0	12.6	0.0	0.0	4.4	5.5	0.0	3.8
Cycle Q Clear(g_c), s	1.4	0.0	7.0	5.2	0.0	12.6	3.9	0.0	4.4	9.4	0.0	3.8
Prop In Lane	1.00		0.05	1.00		0.30	0.11		1.00	1.00		0.22
Lane Grp Cap(c), veh/h	99	0	509	273	0	644	596	0	429	352	0	501
V/C Ratio(X)	0.55	0.00	0.62	0.78	0.00	0.81	0.33	0.00	0.42	0.38	0.00	0.37
Avail Cap(c_a), veh/h	201	0	710	413	0	870	802	0	610	469	0	712
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.2	0.0	14.4	18.8	0.0	12.9	13.5	0.0	13.7	17.3	0.0	13.5
Incr Delay (d2), s/veh	4.8	0.0	1.3	5.5	0.0	4.3	0.3	0.0	0.7	0.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	2.7	2.4	0.0	4.8	1.5	0.0	1.3	1.1	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.0	0.0	15.7	24.3	0.0	17.2	13.8	0.0	14.3	17.9	0.0	13.9
LnGrp LOS	C	A	B	C	A	B	B	A	B	B	A	B
Approach Vol, veh/h		372			737			379				319
Approach Delay, s/veh		17.2			19.3			14.1				15.6
Approach LOS		B			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	17.4		17.2	7.0	21.8		17.2				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	10.5	18.0		18.0	5.1	23.4		18.0				
Max Q Clear Time (g_c+I1), s	7.2	9.0		6.4	3.4	14.6		11.4				
Green Ext Time (p_c), s	0.2	1.3		1.4	0.0	2.4		0.8				

Intersection Summary

HCM 6th Ctrl Delay	17.1
HCM 6th LOS	B

MST BRT
12: Del Monte Blvd & La Salle Ave

Cumulative+Project (Signal Mitigation)
Timing Plan: PM

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	126	70	846	171	78	505
Future Volume (veh/h)	126	70	846	171	78	505
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		0.98	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1900	1870	1885	1885	1885	1856
Adj Flow Rate, veh/h	129	71	863	174	80	515
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	1	1	1	3
Cap, veh/h	262	230	1531	309	445	1826
Arrive On Green	0.14	0.14	0.52	0.52	0.52	0.52
Sat Flow, veh/h	1810	1585	3051	596	548	3618
Grp Volume(v), veh/h	129	71	523	514	80	515
Grp Sat Flow(s),veh/h/ln	1810	1585	1791	1761	548	1763
Q Serve(g_s), s	1.8	1.1	5.3	5.3	3.1	2.2
Cycle Q Clear(g_c), s	1.8	1.1	5.3	5.3	8.4	2.2
Prop In Lane	1.00	1.00		0.34	1.00	
Lane Grp Cap(c), veh/h	262	230	927	912	445	1826
V/C Ratio(X)	0.49	0.31	0.56	0.56	0.18	0.28
Avail Cap(c_a), veh/h	1221	1069	1544	1518	633	3039
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	10.2	4.4	4.4	7.2	3.6
Incr Delay (d2), s/veh	1.4	0.8	0.5	0.5	0.2	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.3	0.5	0.5	0.2	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.9	11.0	4.9	4.9	7.4	3.7
LnGrp LOS	B	B	A	A	A	A
Approach Vol, veh/h	200		1037			595
Approach Delay, s/veh	11.6		4.9			4.2
Approach LOS	B		A			A
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+Rc), s		18.3			18.3	8.4
Change Period (Y+Rc), s		4.5			4.5	4.5
Max Green Setting (Gmax), s		23.0			23.0	18.0
Max Q Clear Time (g_c+I1), s		7.3			10.4	3.8
Green Ext Time (p_c), s		6.1			3.4	0.5
Intersection Summary						
HCM 6th Ctrl Delay			5.4			
HCM 6th LOS			A			

9: California Ave & Edgewater Mall Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	44.9	9.3	0.0	0.4	0.0	0.0	54.6
Total Delay (hr)	16.9	3.9	6.2	32.4	0.4	0.2	59.9

10: California Ave & Playa Ave Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6	0.7	0.0	0.0	0.0
Total Delay (hr)	1.3	1.4	0.1	1.3	2.0	0.8	0.3	2.3	1.6	0.6	0.4	0.1

10: California Ave & Playa Ave Performance by movement

Movement	All
Denied Delay (hr)	1.5
Total Delay (hr)	12.1

12: Del Monte Blvd & La Salle Ave Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.6	0.5	3.8	0.3	0.5	0.7	6.4

Total Zone Performance

Denied Delay (hr)	56.2
Total Delay (hr)	78.4

Intersection: 9: California Ave & Edgewater Mall

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	LR	LT	T	T	R
Maximum Queue (ft)	558	160	175	1485	118	97
Average Queue (ft)	488	150	123	946	50	45
95th Queue (ft)	721	196	238	1757	104	85
Link Distance (ft)	529			1467	200	200
Upstream Blk Time (%)	79			18		
Queuing Penalty (veh)	0			63		
Storage Bay Dist (ft)		90	130			
Storage Blk Time (%)	4	85	5	81		
Queuing Penalty (veh)	8	131	8	169		

Intersection: 10: California Ave & Playa Ave

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	L	TR
Maximum Queue (ft)	124	315	178	190	493	75	103	110
Average Queue (ft)	43	102	80	141	153	57	37	40
95th Queue (ft)	108	247	149	218	409	94	84	90
Link Distance (ft)		1036	174	174	551			1467
Upstream Blk Time (%)			1	15	6			
Queuing Penalty (veh)			2	51	0			
Storage Bay Dist (ft)	120					50	150	
Storage Blk Time (%)	6	3			35	5	0	0
Queuing Penalty (veh)	17	2			59	10	0	0

Intersection: 12: Del Monte Blvd & La Salle Ave

Movement	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	192	96	400	354	105	122	127
Average Queue (ft)	56	35	117	102	42	34	54
95th Queue (ft)	152	77	316	239	80	78	103
Link Distance (ft)	383		491	491		438	438
Upstream Blk Time (%)	1		5	0			
Queuing Penalty (veh)	0		24	0			
Storage Bay Dist (ft)		100			100		
Storage Blk Time (%)	0	4			1	0	
Queuing Penalty (veh)	0	5			3	0	

Zone Summary

Zone wide Queuing Penalty: 552

J. CUMULATIVE PLUS PROJECT MITIGATED
CONDITIONS SIDRA OUTPUT SHEETS

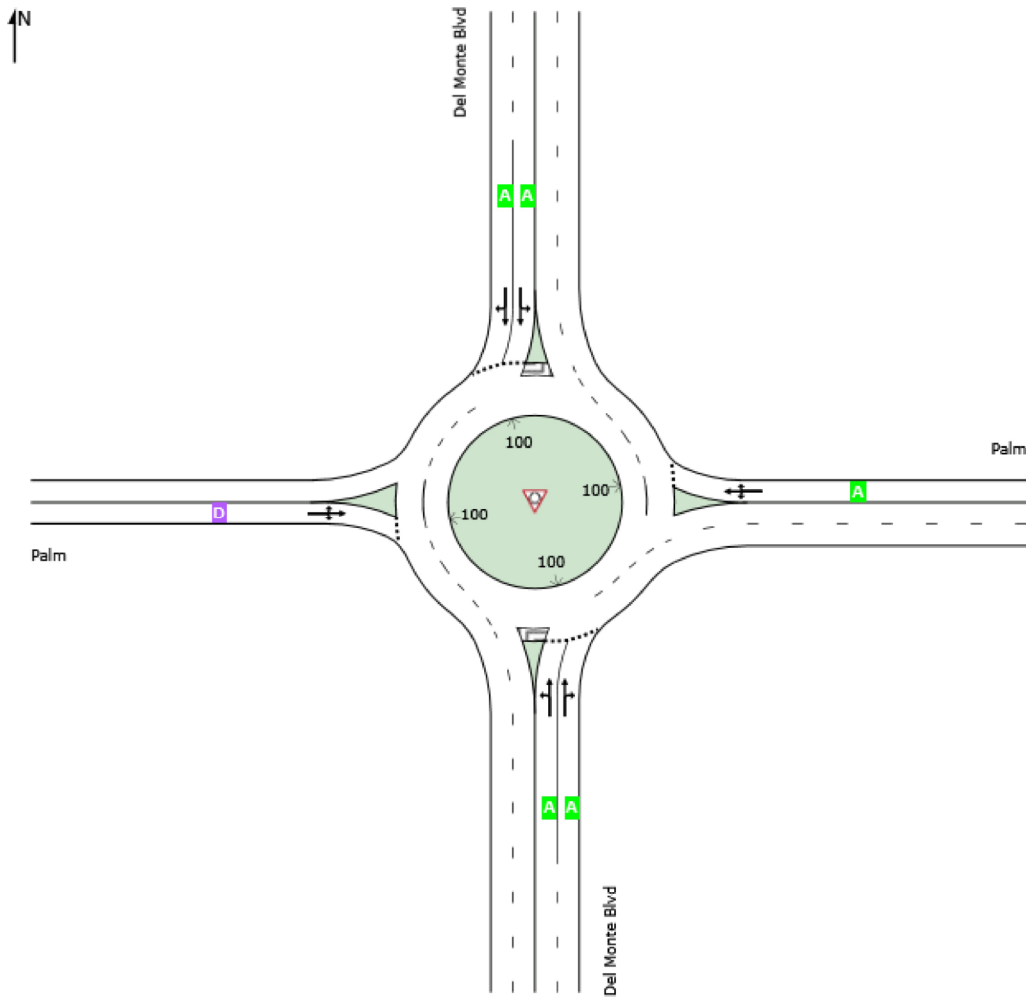
LANE LEVEL OF SERVICE

Lane Level of Service

 Site: 101 [Intersection 6 CU+P - Del Monte Blvd & Palm_AM]

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	D	B



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 6 CU+P - Del Monte Blvd & Palm_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	86	2.0	0.263	5.4	LOS A	1.3	31.8	0.35	0.23	0.35	34.4
8	T1	513	2.0	0.263	5.4	LOS A	1.3	31.8	0.35	0.23	0.35	34.7
18	R2	24	2.0	0.263	5.4	LOS A	1.3	31.8	0.35	0.23	0.35	33.9
Approach		623	2.0	0.263	5.4	LOS A	1.3	31.8	0.35	0.23	0.35	34.6
East: Palm												
1	L2	105	2.0	0.238	7.5	LOS A	0.9	22.8	0.59	0.59	0.59	32.5
6	T1	28	2.0	0.238	7.5	LOS A	0.9	22.8	0.59	0.59	0.59	32.4
16	R2	44	2.0	0.238	7.5	LOS A	0.9	22.8	0.59	0.59	0.59	31.5
Approach		177	2.0	0.238	7.5	LOS A	0.9	22.8	0.59	0.59	0.59	32.2
North: Del Monte Blvd												
7	L2	27	2.0	0.405	7.3	LOS A	2.2	56.0	0.46	0.33	0.46	34.0
4	T1	843	2.0	0.405	7.3	LOS A	2.2	56.0	0.46	0.33	0.46	34.0
14	R2	49	2.0	0.405	7.3	LOS A	2.2	56.0	0.46	0.33	0.46	33.0
Approach		920	2.0	0.405	7.3	LOS A	2.2	56.0	0.46	0.33	0.46	33.9
West: Palm												
5	L2	123	2.0	0.755	26.0	LOS D	6.5	165.6	0.85	1.18	1.95	26.2
2	T1	27	2.0	0.755	26.0	LOS D	6.5	165.6	0.85	1.18	1.95	26.1
12	R2	302	2.0	0.755	26.0	LOS D	6.5	165.6	0.85	1.18	1.95	25.5
Approach		452	2.0	0.755	26.0	LOS D	6.5	165.6	0.85	1.18	1.95	25.7
All Vehicles		2171	2.0	0.755	10.7	LOS B	6.5	165.6	0.52	0.50	0.75	31.9

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\SJC_TPTO\County of Monterey\097541001 - SURF BRT\05 Design & Analysis\Sidra\CU+P_RAB Mitigation.sip8

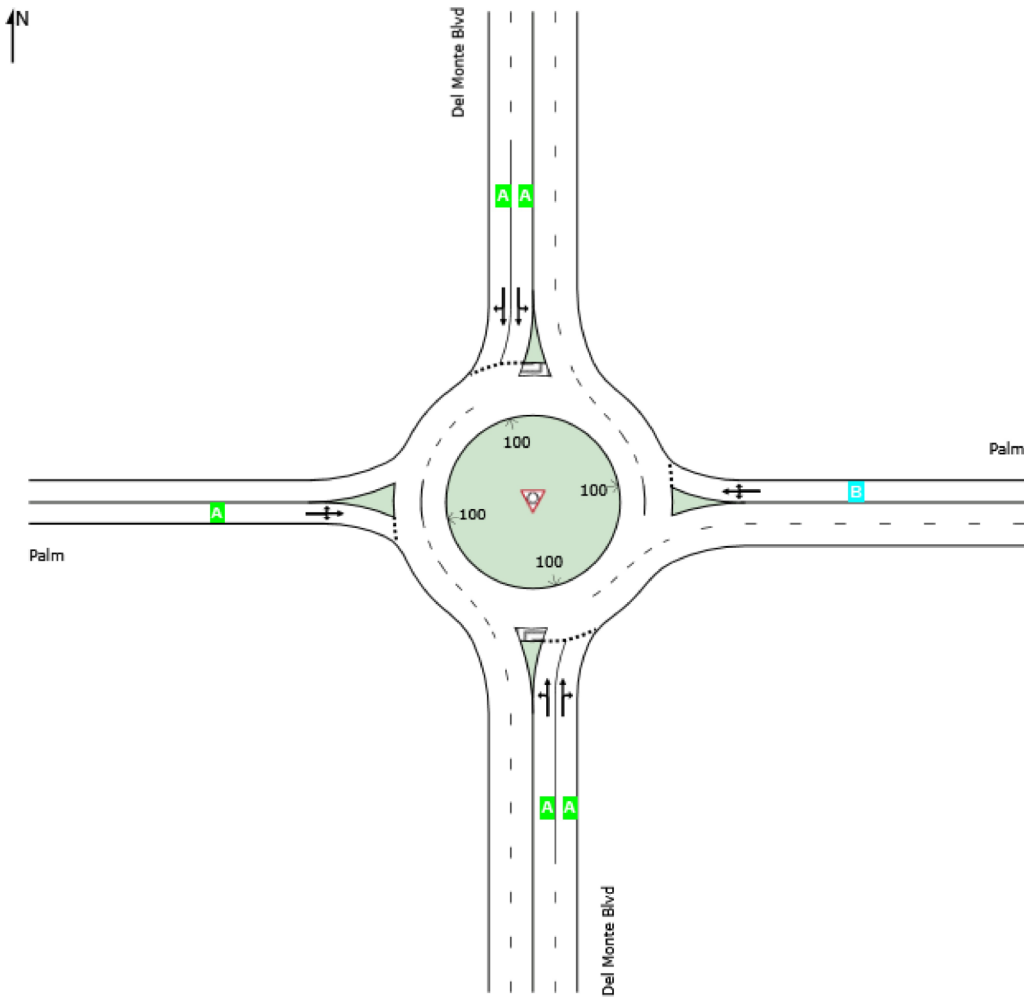
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 6 CU+P - Del Monte Blvd & Palm_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	B	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 6 CU+P - Del Monte Blvd & Palm_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	268	2.0	0.566	9.7	LOS A	4.0	102.3	0.50	0.33	0.50	32.1
8	T1	1031	2.0	0.566	9.7	LOS A	4.0	102.3	0.50	0.33	0.50	32.5
18	R2	60	2.0	0.566	9.7	LOS A	4.0	102.3	0.50	0.33	0.50	31.9
Approach		1359	2.0	0.566	9.7	LOS A	4.0	102.3	0.50	0.33	0.50	32.4
East: Palm												
1	L2	37	2.0	0.297	13.6	LOS B	1.1	27.0	0.76	0.80	0.90	30.6
6	T1	53	2.0	0.297	13.6	LOS B	1.1	27.0	0.76	0.80	0.90	30.5
16	R2	35	2.0	0.297	13.6	LOS B	1.1	27.0	0.76	0.80	0.90	29.7
Approach		125	2.0	0.297	13.6	LOS B	1.1	27.0	0.76	0.80	0.90	30.3
North: Del Monte Blvd												
7	L2	57	2.0	0.339	7.1	LOS A	1.6	41.1	0.52	0.45	0.52	33.8
4	T1	536	2.0	0.339	7.1	LOS A	1.6	41.1	0.52	0.45	0.52	33.9
14	R2	85	2.0	0.339	7.1	LOS A	1.6	41.1	0.52	0.45	0.52	33.1
Approach		678	2.0	0.339	7.1	LOS A	1.6	41.1	0.52	0.45	0.52	33.8
West: Palm												
5	L2	77	2.0	0.271	7.5	LOS A	1.1	27.1	0.58	0.58	0.58	33.1
2	T1	26	2.0	0.271	7.5	LOS A	1.1	27.1	0.58	0.58	0.58	33.0
12	R2	115	2.0	0.271	7.5	LOS A	1.1	27.1	0.58	0.58	0.58	32.1
Approach		218	2.0	0.271	7.5	LOS A	1.1	27.1	0.58	0.58	0.58	32.6
All Vehicles		2380	2.0	0.566	8.9	LOS A	4.0	102.3	0.53	0.41	0.54	32.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\SJC_TPTO\County of Monterey\097541001 - SURF BRT\05 Design & Analysis\Sidra\CU+P_RAB Mitigation.sip8

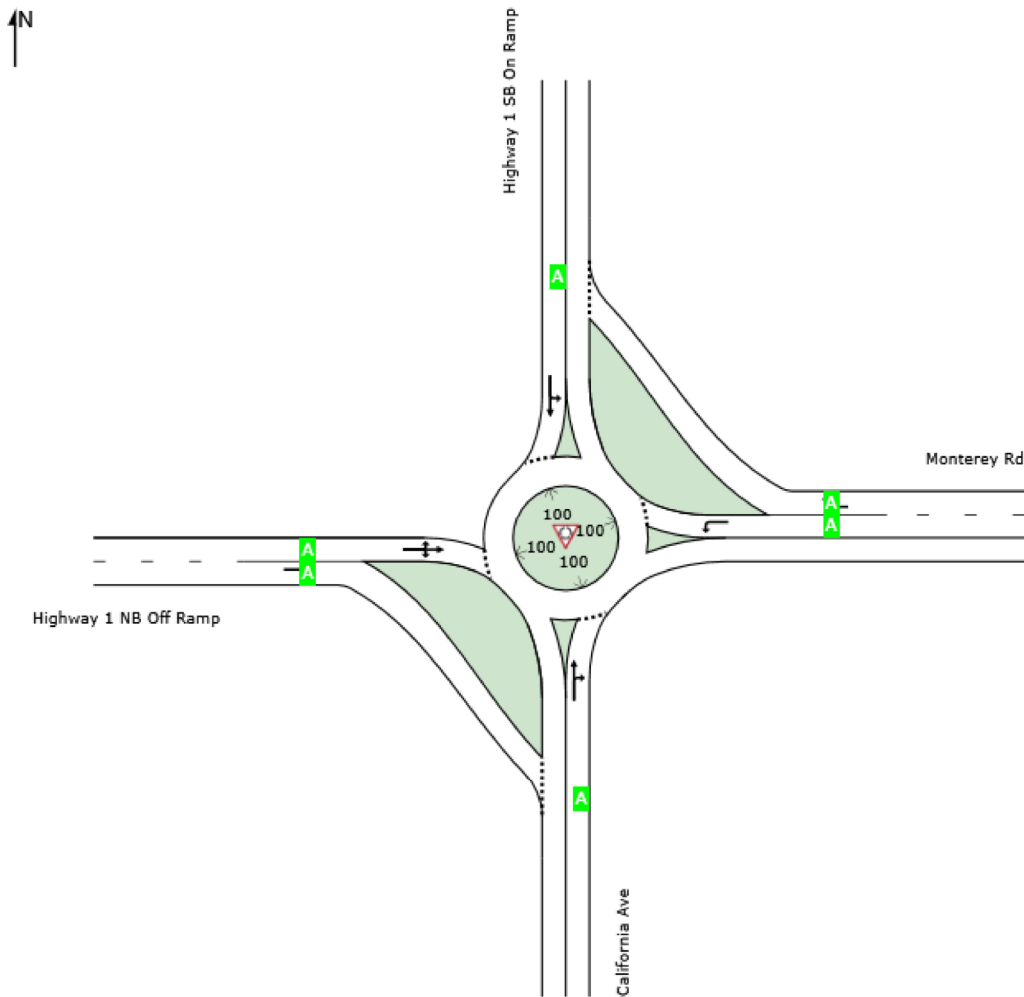
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 8 CU+P - California Ave & Highway 1-Monterey_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 8 CU+P - California Ave & Highway 1-Monterey_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: California Ave												
8	T1	83	2.0	0.200	5.2	LOS A	0.9	24.0	0.40	0.28	0.40	35.2
18	R2	133	2.0	0.200	5.2	LOS A	0.9	24.0	0.40	0.28	0.40	34.1
Approach		216	2.0	0.200	5.2	LOS A	0.9	24.0	0.40	0.28	0.40	34.5
East: Monterey Rd												
1	L2	360	2.0	0.280	5.3	LOS A	1.4	35.6	0.24	0.12	0.24	32.5
16	R2	477	2.0	0.370	6.3	LOS A	2.1	53.0	0.27	0.14	0.27	33.6
Approach		837	2.0	0.370	5.8	LOS A	2.1	53.0	0.26	0.13	0.26	33.1
North: Highway 1 SB On Ramp												
7	L2	1	2.0	0.015	4.0	LOS A	0.1	1.5	0.44	0.28	0.44	35.7
4	T1	13	2.0	0.015	4.0	LOS A	0.1	1.5	0.44	0.28	0.44	35.6
Approach		14	2.0	0.015	4.0	LOS A	0.1	1.5	0.44	0.28	0.44	35.6
West: Highway 1 NB Off Ramp												
5	L2	1	2.0	0.324	7.0	LOS A	1.5	38.4	0.52	0.45	0.52	34.3
2	T1	217	2.0	0.324	7.0	LOS A	1.5	38.4	0.52	0.45	0.52	34.2
12	R2	159	2.0	0.324	6.1	LOS A	1.5	38.4	0.51	0.43	0.51	33.7
Approach		377	2.0	0.324	6.6	LOS A	1.5	38.4	0.52	0.44	0.52	34.0
All Vehicles		1443	2.0	0.370	5.9	LOS A	2.1	53.0	0.35	0.23	0.35	33.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: K:\SJC_TPTO\County of Monterey\097541001 - SURF BRT\05 Design & Analysis\Sidra\CU+P_RAB Mitigation.sip8

MOVEMENT SUMMARY

 Site: 101 [Intersection 8 CU+P - California Ave & Highway 1-Monterey_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: California Ave												
8	T1	229	2.0	0.599	11.6	LOS B	6.1	154.3	0.67	0.64	0.87	32.0
18	R2	387	2.0	0.599	11.6	LOS B	6.1	154.3	0.67	0.64	0.87	31.1
Approach		617	2.0	0.599	11.6	LOS B	6.1	154.3	0.67	0.64	0.87	31.4
East: Monterey Rd												
1	L2	283	2.0	0.253	5.6	LOS A	1.2	29.5	0.40	0.29	0.40	32.4
16	R2	300	2.0	0.268	5.7	LOS A	1.3	31.8	0.41	0.29	0.41	33.9
Approach		583	2.0	0.268	5.6	LOS A	1.3	31.8	0.40	0.29	0.40	33.1
North: Highway 1 SB On Ramp												
7	L2	1	2.0	0.015	3.7	LOS A	0.1	1.5	0.39	0.23	0.39	35.9
4	T1	14	2.0	0.015	3.7	LOS A	0.1	1.5	0.39	0.23	0.39	35.8
Approach		15	2.0	0.015	3.7	LOS A	0.1	1.5	0.39	0.23	0.39	35.8
West: Highway 1 NB Off Ramp												
5	L2	5	2.0	0.454	8.5	LOS A	2.5	63.5	0.55	0.45	0.55	33.6
2	T1	256	2.0	0.454	8.5	LOS A	2.5	63.5	0.55	0.45	0.55	33.5
12	R2	297	2.0	0.454	7.5	LOS A	2.5	63.5	0.54	0.44	0.54	32.9
Approach		558	2.0	0.454	8.0	LOS A	2.5	63.5	0.54	0.45	0.54	33.2
All Vehicles		1773	2.0	0.599	8.4	LOS A	6.1	154.3	0.54	0.46	0.61	32.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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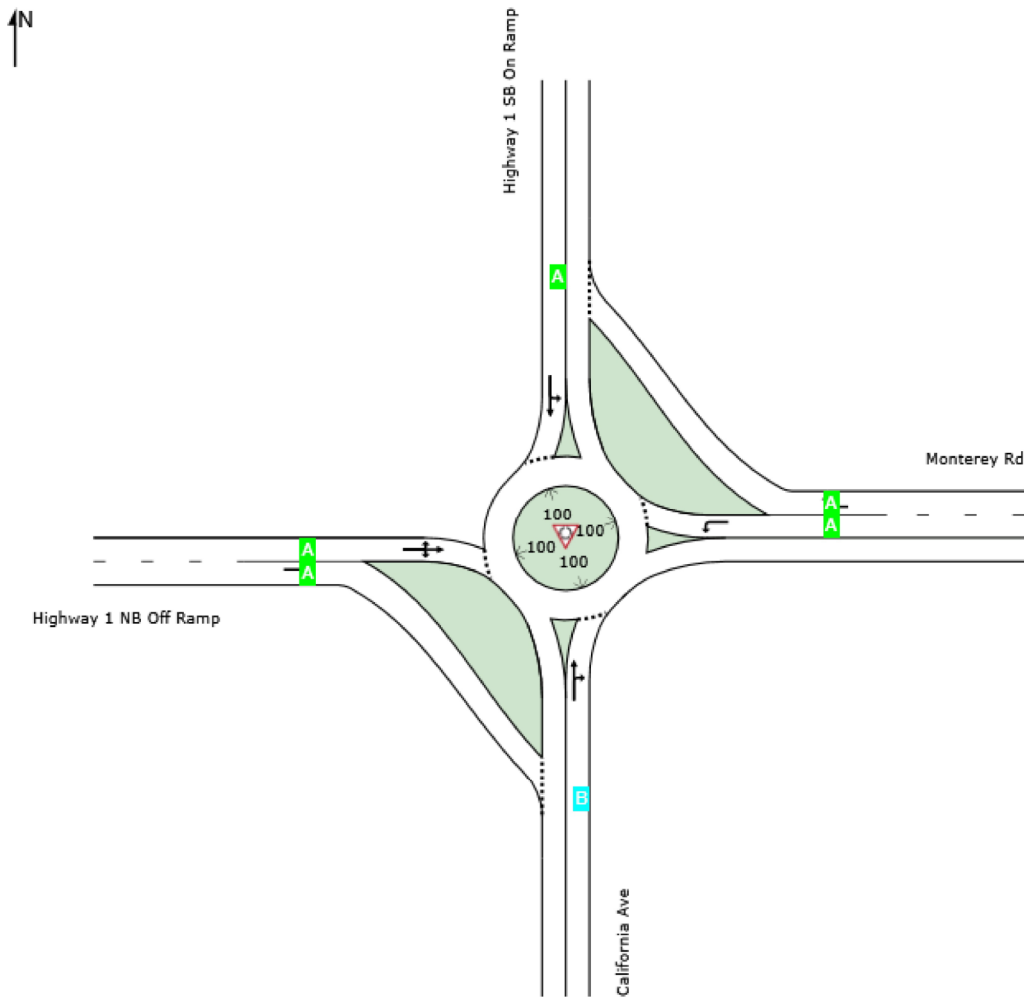
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 8 CU+P - California Ave & Highway 1-Monterey_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	B	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if v/c > 1 irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

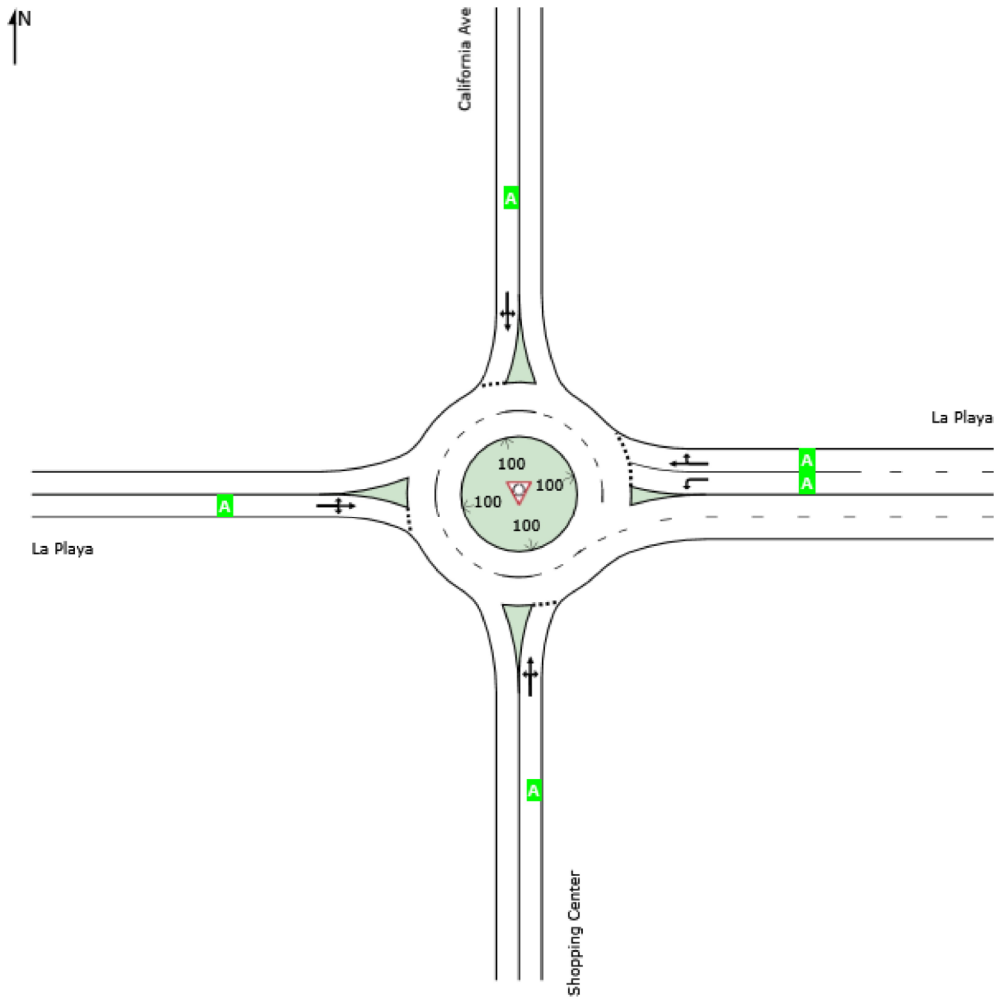
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 10 CU+P - California Ave & La Playa_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 10 CU+P - California Ave & La Playa_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Shopping Center												
3	L2	5	2.0	0.108	4.6	LOS A	0.4	10.1	0.42	0.33	0.42	35.5
8	T1	30	2.0	0.108	4.6	LOS A	0.4	10.1	0.42	0.33	0.42	35.4
18	R2	72	2.0	0.108	4.6	LOS A	0.4	10.1	0.42	0.33	0.42	34.3
Approach		108	2.0	0.108	4.6	LOS A	0.4	10.1	0.42	0.33	0.42	34.6
East: La Playa												
1	L2	82	2.0	0.064	3.3	LOS A	0.2	6.3	0.13	0.04	0.13	33.4
6	T1	190	2.0	0.176	4.1	LOS A	0.7	18.8	0.14	0.05	0.14	35.8
16	R2	45	2.0	0.176	4.1	LOS A	0.7	18.8	0.14	0.05	0.14	34.6
Approach		317	2.0	0.176	3.9	LOS A	0.7	18.8	0.14	0.05	0.14	35.0
North: California Ave												
7	L2	239	2.0	0.314	6.4	LOS A	1.4	36.4	0.44	0.34	0.44	32.8
4	T1	81	2.0	0.314	6.4	LOS A	1.4	36.4	0.44	0.34	0.44	32.7
14	R2	25	2.0	0.314	6.4	LOS A	1.4	36.4	0.44	0.34	0.44	31.8
Approach		344	2.0	0.314	6.4	LOS A	1.4	36.4	0.44	0.34	0.44	32.7
West: La Playa												
5	L2	8	2.0	0.161	5.2	LOS A	0.6	15.7	0.45	0.37	0.45	35.2
2	T1	139	2.0	0.161	5.2	LOS A	0.6	15.7	0.45	0.37	0.45	35.1
12	R2	12	2.0	0.161	5.2	LOS A	0.6	15.7	0.45	0.37	0.45	34.0
Approach		158	2.0	0.161	5.2	LOS A	0.6	15.7	0.45	0.37	0.45	35.0
All Vehicles		927	2.0	0.314	5.1	LOS A	1.4	36.4	0.33	0.24	0.33	34.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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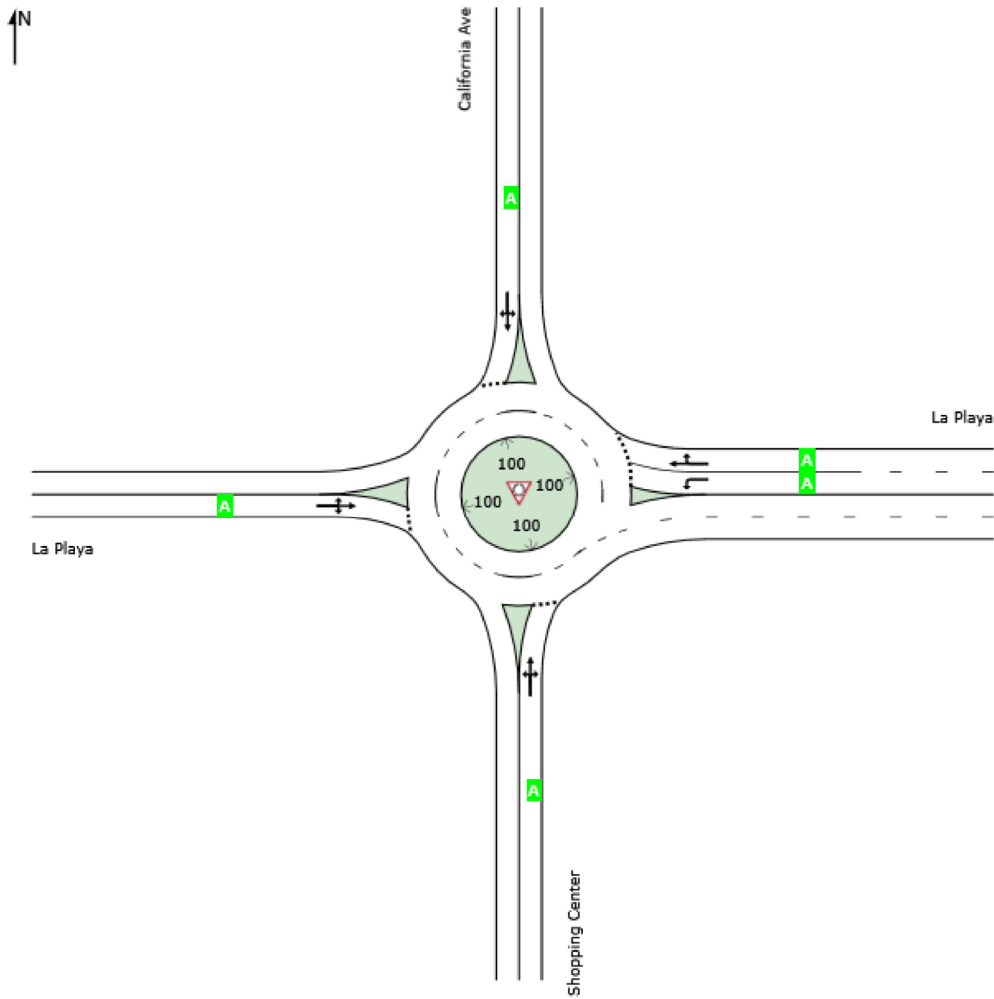
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 10 CU+P - California Ave & La Playa_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 10 CU+P - California Ave & La Playa_PM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Shopping Center												
3	L2	22	2.0	0.415	8.8	LOS A	2.1	54.4	0.59	0.61	0.68	33.3
8	T1	175	2.0	0.415	8.8	LOS A	2.1	54.4	0.59	0.61	0.68	33.2
18	R2	182	2.0	0.415	8.8	LOS A	2.1	54.4	0.59	0.61	0.68	32.2
Approach		378	2.0	0.415	8.8	LOS A	2.1	54.4	0.59	0.61	0.68	32.7
East: La Playa												
1	L2	214	2.0	0.205	5.4	LOS A	0.9	21.9	0.39	0.29	0.39	32.5
6	T1	365	2.0	0.467	8.3	LOS A	2.6	64.9	0.50	0.39	0.50	33.5
16	R2	158	2.0	0.467	8.3	LOS A	2.6	64.9	0.50	0.39	0.50	32.5
Approach		737	2.0	0.467	7.5	LOS A	2.6	64.9	0.47	0.36	0.47	33.0
North: California Ave												
7	L2	132	2.0	0.386	9.0	LOS A	1.9	47.2	0.62	0.65	0.72	32.3
4	T1	145	2.0	0.386	9.0	LOS A	1.9	47.2	0.62	0.65	0.72	32.2
14	R2	42	2.0	0.386	9.0	LOS A	1.9	47.2	0.62	0.65	0.72	31.3
Approach		319	2.0	0.386	9.0	LOS A	1.9	47.2	0.62	0.65	0.72	32.1
West: La Playa												
5	L2	55	2.0	0.409	8.7	LOS A	2.1	52.8	0.59	0.61	0.67	33.1
2	T1	300	2.0	0.409	8.7	LOS A	2.1	52.8	0.59	0.61	0.67	33.0
12	R2	17	2.0	0.409	8.7	LOS A	2.1	52.8	0.59	0.61	0.67	32.1
Approach		372	2.0	0.409	8.7	LOS A	2.1	52.8	0.59	0.61	0.67	33.0
All Vehicles		1806	2.0	0.467	8.3	LOS A	2.6	64.9	0.55	0.51	0.60	32.8

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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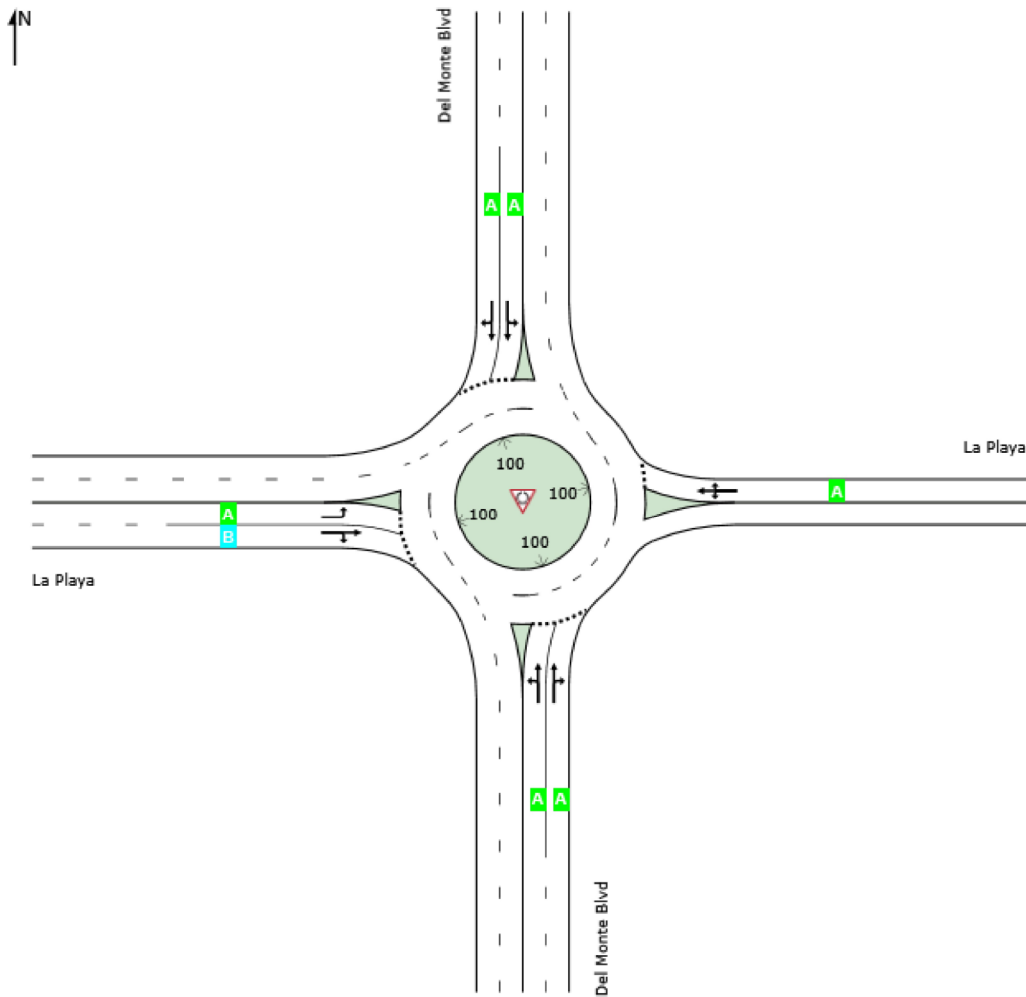
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 11 CU+P - Del Monte Blvd & La Playa_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	A	A	B	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 11 CU+P - Del Monte Blvd & La Playa_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	138	2.0	0.165	4.5	LOS A	0.7	17.5	0.27	0.15	0.27	33.6
8	T1	238	2.0	0.165	4.3	LOS A	0.7	17.5	0.26	0.14	0.26	35.2
18	R2	21	2.0	0.165	4.3	LOS A	0.7	17.1	0.25	0.14	0.25	34.5
Approach		398	2.0	0.165	4.4	LOS A	0.7	17.5	0.26	0.14	0.26	34.6
East: La Playa												
1	L2	34	2.0	0.188	5.5	LOS A	0.7	18.7	0.46	0.39	0.46	34.6
6	T1	146	2.0	0.188	5.5	LOS A	0.7	18.7	0.46	0.39	0.46	34.5
16	R2	4	2.0	0.188	5.5	LOS A	0.7	18.7	0.46	0.39	0.46	33.5
Approach		184	2.0	0.188	5.5	LOS A	0.7	18.7	0.46	0.39	0.46	34.5
North: Del Monte Blvd												
7	L2	13	2.0	0.348	7.4	LOS A	1.6	41.7	0.50	0.42	0.50	34.1
4	T1	649	2.0	0.348	7.2	LOS A	1.6	41.7	0.49	0.41	0.49	34.1
14	R2	47	2.0	0.348	7.0	LOS A	1.6	41.0	0.48	0.39	0.48	33.2
Approach		710	2.0	0.348	7.1	LOS A	1.6	41.7	0.49	0.40	0.49	34.0
West: La Playa												
5	L2	30	2.0	0.044	5.7	LOS A	0.2	3.9	0.54	0.48	0.54	32.4
2	T1	85	2.0	0.577	13.9	LOS B	4.2	105.6	0.74	0.91	1.24	30.9
12	R2	354	2.0	0.577	13.9	LOS B	4.2	105.6	0.74	0.91	1.24	30.0
Approach		470	2.0	0.577	13.3	LOS B	4.2	105.6	0.73	0.88	1.19	30.3
All Vehicles		1762	2.0	0.577	8.0	LOS A	4.2	105.6	0.50	0.47	0.62	33.1

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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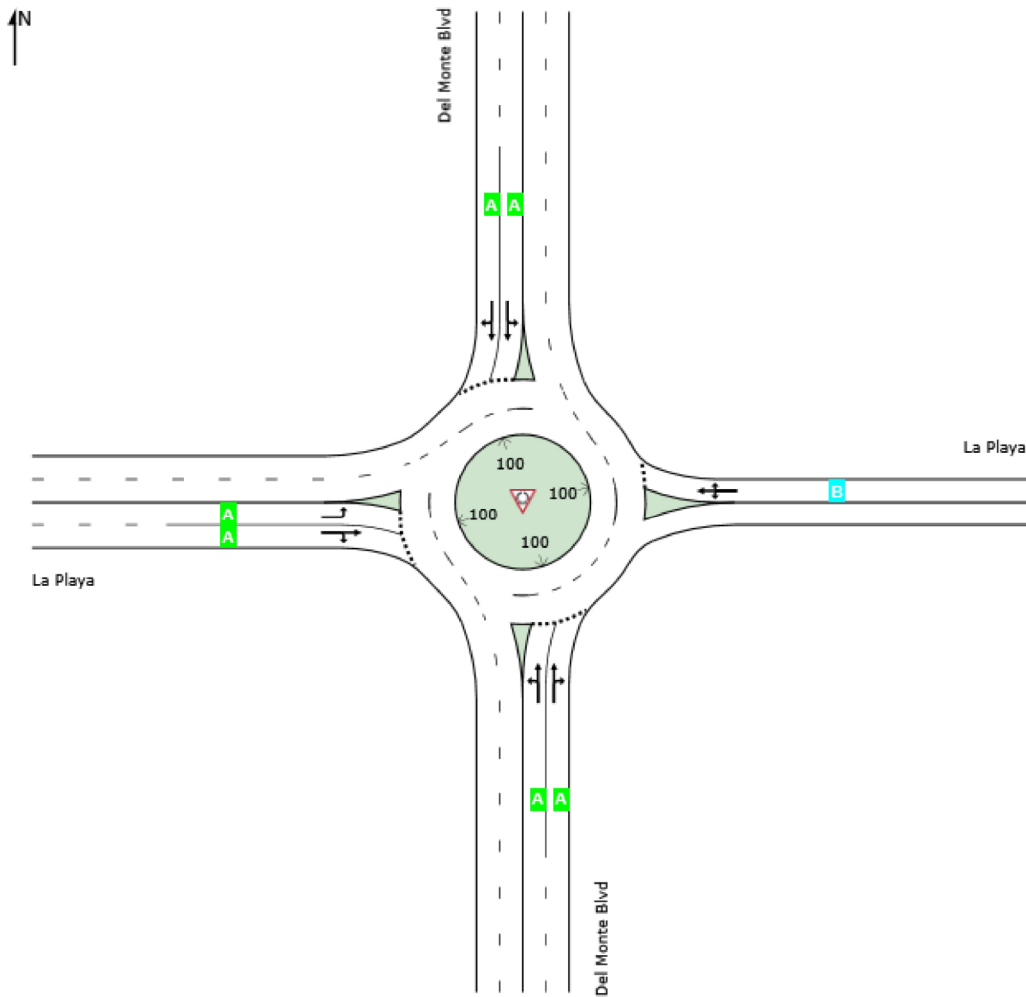
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 11 CU+P - Del Monte Blvd & La Playa_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches				Intersection
	South	East	North	West	
LOS	A	B	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 11 CU+P - Del Monte Blvd & La Playa_PM]

New Site
 Site Category: (None)
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
3	L2	365	2.0	0.477	9.4	LOS A	2.9	73.3	0.58	0.53	0.64	31.2
8	T1	471	2.0	0.477	9.0	LOS A	2.9	73.3	0.56	0.50	0.61	32.8
18	R2	127	2.0	0.477	8.9	LOS A	2.8	69.9	0.56	0.50	0.60	32.2
Approach		963	2.0	0.477	9.2	LOS A	2.9	73.3	0.57	0.51	0.62	32.1
East: La Playa												
1	L2	51	2.0	0.490	13.6	LOS B	2.6	66.8	0.72	0.84	1.11	30.9
6	T1	241	2.0	0.490	13.6	LOS B	2.6	66.8	0.72	0.84	1.11	30.8
16	R2	15	2.0	0.490	13.6	LOS B	2.6	66.8	0.72	0.84	1.11	30.0
Approach		307	2.0	0.490	13.6	LOS B	2.6	66.8	0.72	0.84	1.11	30.8
North: Del Monte Blvd												
7	L2	20	2.0	0.264	8.2	LOS A	1.0	26.4	0.60	0.60	0.60	33.5
4	T1	254	2.0	0.264	7.9	LOS A	1.0	26.4	0.60	0.60	0.60	33.5
14	R2	122	2.0	0.264	7.5	LOS A	1.0	26.2	0.58	0.58	0.58	32.8
Approach		397	2.0	0.264	7.8	LOS A	1.0	26.4	0.59	0.59	0.59	33.3
West: La Playa												
5	L2	83	2.0	0.085	4.5	LOS A	0.3	8.1	0.40	0.29	0.40	32.9
2	T1	227	2.0	0.487	9.1	LOS A	2.9	74.5	0.56	0.50	0.62	33.1
12	R2	285	2.0	0.487	9.1	LOS A	2.9	74.5	0.56	0.50	0.62	32.1
Approach		595	2.0	0.487	8.4	LOS A	2.9	74.5	0.54	0.48	0.59	32.6
All Vehicles		2262	2.0	0.490	9.3	LOS A	2.9	74.5	0.59	0.56	0.67	32.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

 Site: 101 [Intersection 12 CU+P - Del Monte Blvd & La Salle_AM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
8	T1	354	2.0	0.174	4.3	LOS A	0.7	19.0	0.17	0.07	0.17	35.7
18	R2	93	2.0	0.174	4.2	LOS A	0.7	18.5	0.16	0.07	0.16	34.6
Approach		447	2.0	0.174	4.2	LOS A	0.7	19.0	0.17	0.07	0.17	35.4
East: La Salle												
1	L2	177	2.0	0.205	5.4	LOS A	0.8	20.9	0.44	0.35	0.44	32.9
16	R2	33	2.0	0.205	5.4	LOS A	0.8	20.9	0.44	0.35	0.44	31.8
Approach		210	2.0	0.205	5.4	LOS A	0.8	20.9	0.44	0.35	0.44	32.7
North: Del Monte Blvd												
7	L2	58	2.0	0.440	7.9	LOS A	2.5	62.8	0.43	0.30	0.43	33.6
4	T1	959	2.0	0.440	7.7	LOS A	2.5	62.8	0.42	0.29	0.42	33.7
Approach		1018	2.0	0.440	7.7	LOS A	2.5	62.8	0.42	0.29	0.42	33.7
All Vehicles		1675	2.0	0.440	6.5	LOS A	2.5	62.8	0.36	0.24	0.36	34.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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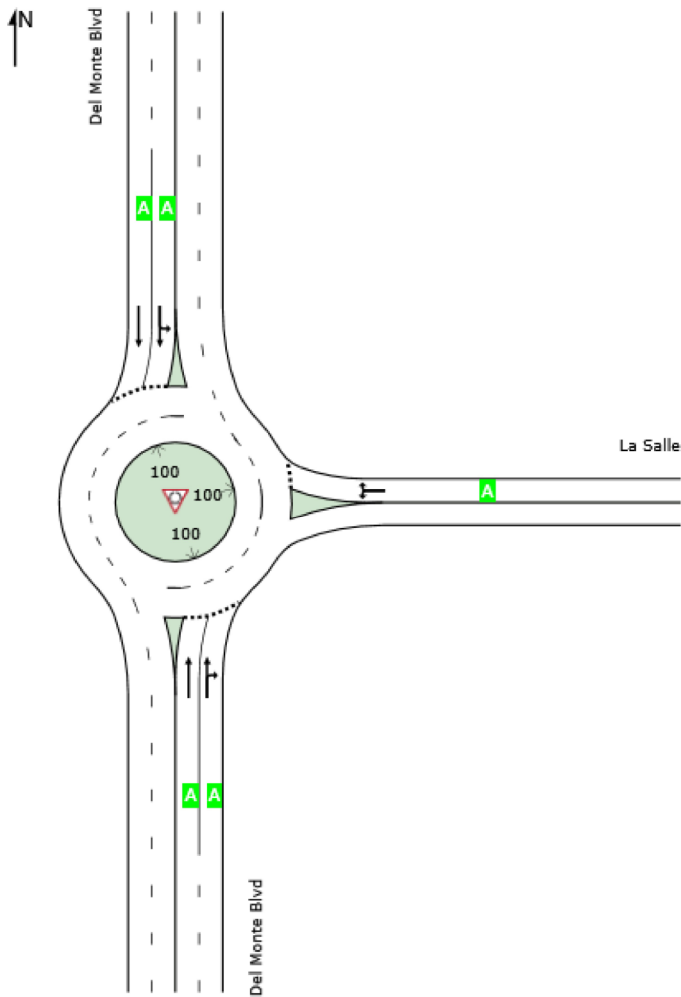
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 12 CU+P - Del Monte Blvd & La Salle_AM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

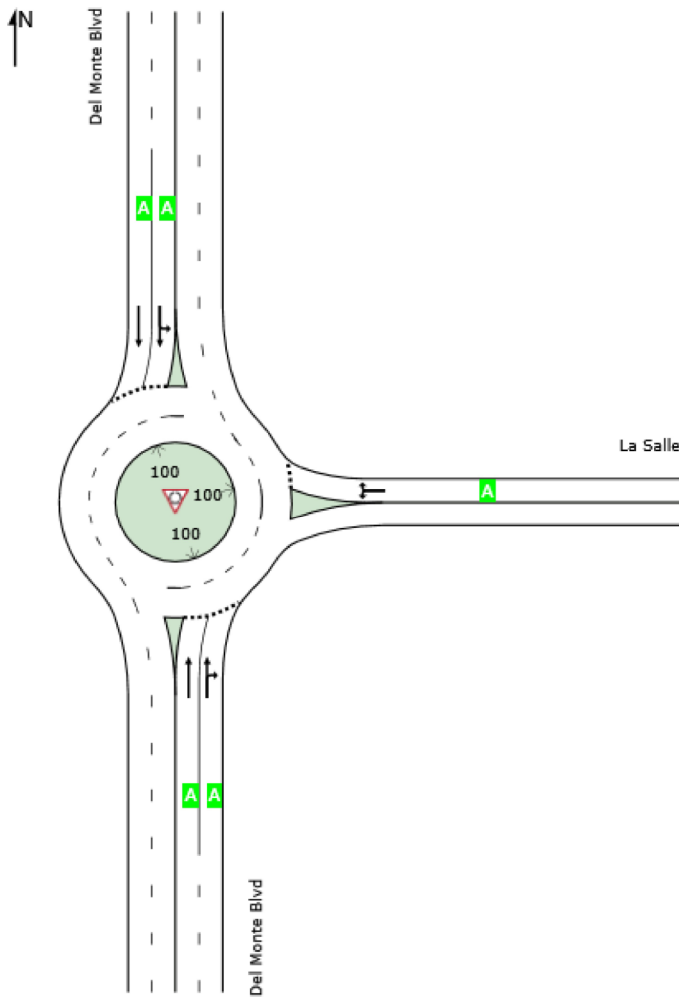
LANE LEVEL OF SERVICE

Lane Level of Service

 **Site: 101 [Intersection 12 CU+P - Del Monte Blvd & La Salle_PM]**

New Site
 Site Category: (None)
 Roundabout

	Approaches			Intersection
	South	East	North	
LOS	A	A	A	A



Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
 Roundabout LOS Method: Same as Sign Control.
 Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
 LOS F will result if $v/c > 1$ irrespective of lane delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 6).
 HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

MOVEMENT SUMMARY

 Site: 101 [Intersection 12 CU+P - Del Monte Blvd & La Salle_PM]

New Site
Site Category: (None)
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: Del Monte Blvd												
8	T1	863	2.0	0.411	6.9	LOS A	2.4	60.0	0.27	0.14	0.27	34.3
18	R2	174	2.0	0.411	6.7	LOS A	2.3	58.6	0.26	0.13	0.26	33.3
Approach		1038	2.0	0.411	6.9	LOS A	2.4	60.0	0.27	0.14	0.27	34.1
East: La Salle												
1	L2	129	2.0	0.304	9.3	LOS A	1.2	30.2	0.65	0.66	0.69	31.6
16	R2	71	2.0	0.304	9.3	LOS A	1.2	30.2	0.65	0.66	0.69	30.6
Approach		200	2.0	0.304	9.3	LOS A	1.2	30.2	0.65	0.66	0.69	31.2
North: Del Monte Blvd												
7	L2	80	2.0	0.246	5.3	LOS A	1.1	28.5	0.29	0.17	0.29	34.5
4	T1	515	2.0	0.246	5.2	LOS A	1.1	28.5	0.28	0.16	0.28	34.9
Approach		595	2.0	0.246	5.2	LOS A	1.1	28.5	0.28	0.16	0.28	34.8
All Vehicles		1833	2.0	0.411	6.6	LOS A	2.4	60.0	0.32	0.20	0.32	34.0

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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