DEVELOPMENT OF REGIONAL IMPACT

TRAFFIC STUDY
FOR
BILL ARP ROAD RESIDENTIAL (DRI #4125)

DOUGLASVILLE, GEORGIA

Prepared for:

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A & R Project # 24-066

EXECUTIVE SUMMARY

Traffic impacts were evaluated for the proposed residential development that will be located to the northeast of the intersection of SR 5 (Bill Arp Road) and Rose Avenue / Bright Star Connector in the City of Douglasville, Georgia. The development will consist of:

- Townhomes: 457 units
- Low-Rise Multifamily Housing: 336 units

The development proposes one full access driveway on SR 5 (Bill Arp Road) and one full access driveway on Rose Avenue. The driveway on Rose Avenue will align with West Pines Golf Club Driveway.

Existing and future operations during the AM peak hour (7:00 AM – 9:00 AM) and PM peak hour (4:00 PM – 6:00 PM) before and after completion of the project were analyzed at the following intersections:

1. SR 5 (Bill Arp Road) @ Gurley Road
2. SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard
3. SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector
4. SR 5 (Bill Arp Road) @ Concourse Parkway
5. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
6. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
7. Rose Avenue @ Starla Street
8. Rose Avenue @ West Pines Golf Club Driveway / Proposed Site Driveway 2
9. Rose Avenue @ Roselake Circle / Fairways Drive
10. Rose Avenue @ Pinecrest Drive / Selman Drive
11. SR 8/US 78 (Veterans Memorial Highway) @ Rose Avenue
12. SR 5 (Bill Arp Road) @ Proposed Site Driveway 1

Traffic Operations Summary

Table E1 below provides a summary of traffic operations for the "No-Build" and "Build" conditions for the year 2034 for the intersections with failing level of service approaches. As per GRTA requirements, all approaches that do not meet the level-of-service (LOS) standard (considered failing) are highlighted in Table E1. Table E1 also includes the project's total added trip and the respective percentage of overall total "Build" condition approach traffic volume for all failing LOS approaches.

TABLE E1 – FUTURE INTERSECTION OPERATIONS AT FAILING APPROACHES

	Intersection	*No-Build Condition: LOS (Delay)*				*Build Condition: LOS (Delay)*							
		NO IMPROVEMENTS		SYSTEM IMPROVEMENTS		NO IMPROVEMENTS		SYSTEM IMPROVEMENTS		SITE VOLUMES AT FAILING APPROACH BUILD WITH IMPROVEMENTS		PRECENT SITE TRIPS OF TOTAL APPROACH TRIPS AT FAILING APPROACHES	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
2	**SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Blvd**												
	-Eastbound Approach	B (13.1)	F (168.8)	-	-	B (13.2)	F (182.4)	-	-	No Failing Approaches	0	No Failing Approaches	0%
	-Westbound Approach	D (28.0)	F (*)	-	-	D (29.1)	F (*)	-	-		0		0%
	-Northbound Left	A (8.2)	B (10.4)	-	-	A (8.3)	B (10.5)	-	-		-		-
	-Southbound Left	A (8.2)	A (9.2)	-	-	A (8.3)	A (9.2)	-	-		-		-

* Delay exceeds 300 seconds

The results of future traffic operations show that the following intersection will have LOS "E" or "F" for one or more approaches:

- Intersection 2: SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard

At the un-signalized intersection of SR 5 at Arbor Vista Road / Rocky Ridge Boulevard, the stop-controlled minor street approaches will operate at LOS "F" in PM peak hour in both "No-Build" and "Build" conditions. It is not uncommon for stop-controlled side-streets on arterial roadways to experience delays during peak hours as delays are caused by side-street wait times to turn left onto the mainline. Due to the low left-turn volumes, signal warrants will not likely be met at this intersection. No other improvements will aid improve the delays.

Recommendation for System Improvements

At the un-signalized intersection of SR 5 at Gurley Road, the stop-controlled westbound approach will operate at LOS "F" in PM peak hour in "No-Build" conditions. We recommend that a detailed signal warrant analysis be conducted at the intersection of SR 5 (Bill Arp Road) and Gurley Road and if signal warrants are met and if GDOT is willing to approve a traffic signal, we recommend the following improvements at the intersection of SR 5 (Bill Arp Road) and Gurley Road.

Intersection 1: SR 5 (Bill Arp Road @ Gurley Road

- Installation of a traffic signal

After installation of a signal, the intersection of SR 5 at Gurley Road will operate at an overall level-of-service "B" or better with all approaches having LOS "D" or better in both the AM and PM peak hours.

After installation of a signal, the intersection of SR 5 at Gurley Road will operate at an overall level-of-service "B" or better with all approaches having LOS "D" or better in both the AM and PM peak hours.

Recommendation for Site Access Configuration

The following access configuration is recommended for the site driveway intersections.

- Site Driveway 1: Full access driveway on SR 5 (Bill Arp Road) at the existing stub between Arbor Vista Drive and Rose Avenue
    - Two entering and two (a left turn and a right turn) exiting lanes.
    - Stop-sign controlled on the driveway approach with SR 5 remaining free flow.
    - Right Turn Lane on SR 5 for entering traffic.
    - Provide adequate sight distance per AASHTO standards.

- Site Driveway 2: Full access driveway on Rose Avenue, aligned with West Pines Golf Club Driveway
    - One entering and one exiting lane.
    - Intersection to continue to operate with a traffic signal.
    - Left and Right Turn Lanes on Rose Avenue for entering traffic.
    - Provide adequate sight distance per AASHTO standards.

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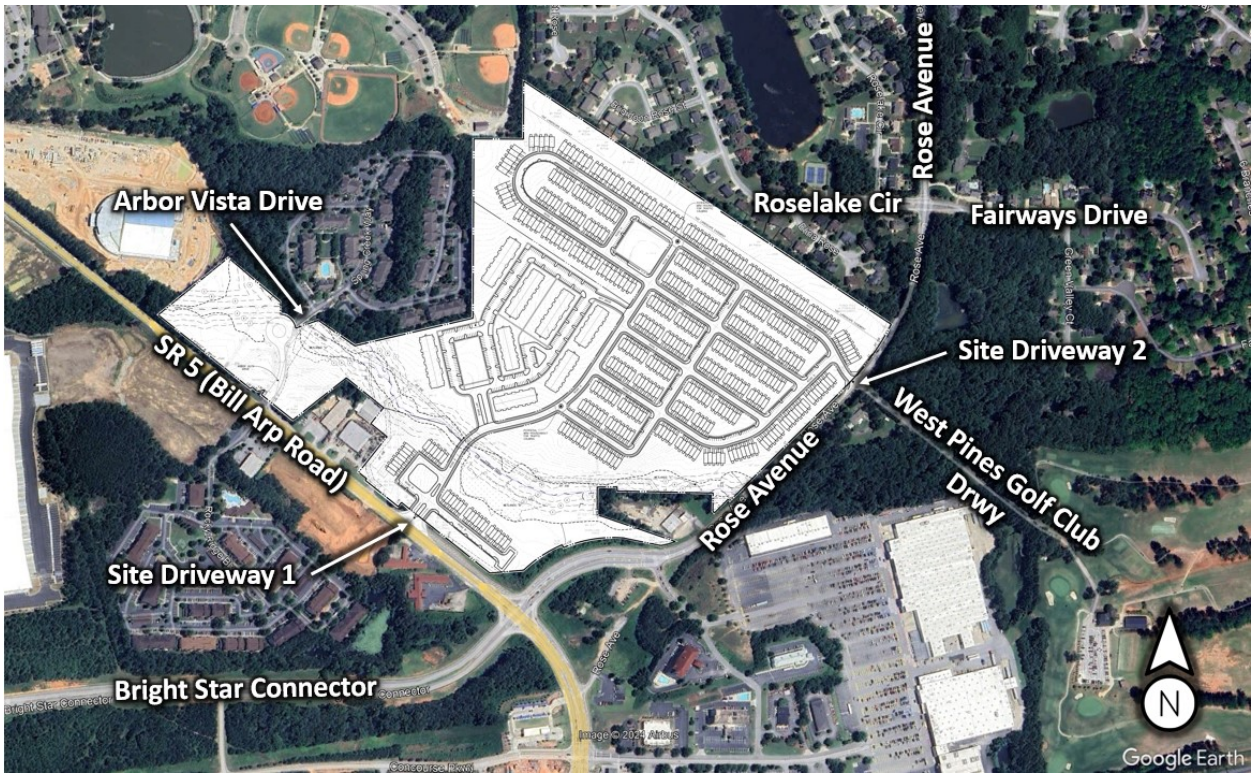
INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed residential development that will be located to the northeast of the intersection of SR 5 (Bill Arp Road) and Rose Avenue / Bright Star Connector in the City of Douglasville, Georgia. The traffic analysis evaluates the current operations and the future conditions with the traffic generated by the development. The development will consist of:

- Townhomes: 457 units
- Low-Rise Multifamily Housing: 336 units



The development proposes access at the following locations:

- Site Driveway 1: Full access driveway on SR 5 (Bill Arp Road) at the existing stub between Arbor Vista Drive and Rose Avenue
- Site Driveway 2: Full access driveway on Rose Avenue, aligned with West Pines Golf Club Driveway

The AM and PM peak hours have been analyzed in this study. This study includes the evaluation of traffic operations at the intersections of:

1. SR 5 (Bill Arp Road) @ Gurley Road
2. SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard
3. SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector
4. SR 5 (Bill Arp Road) @ Concourse Parkway
5. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
6. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
7. Rose Avenue @ Starla Street
8. Rose Avenue @ West Pines Golf Club Driveway / Proposed Site Driveway 2
9. Rose Avenue @ Roselake Circle / Fairways Drive
10. Rose Avenue @ Pinecrest Drive / Selman Drive
11. SR 8/US 78 (Veterans Memorial Highway) @ Rose Avenue
12. SR 5 (Bill Arp Road) @ Proposed Site Driveway 1

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report.

STUDY NETWORK DETERMINATION

The study network was determined in the Methodology Memo dated March 22, 2024, prepared by Acampora Traffic and approved by GRTA in the Letter of Understanding dated April 5, 2024.

The traffic generated by the proposed project was assigned to the following study intersections as approved in the Letter of Understanding.

1. SR 5 (Bill Arp Road) @ Gurley Road
2. SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard
3. SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector
4. SR 5 (Bill Arp Road) @ Concourse Parkway
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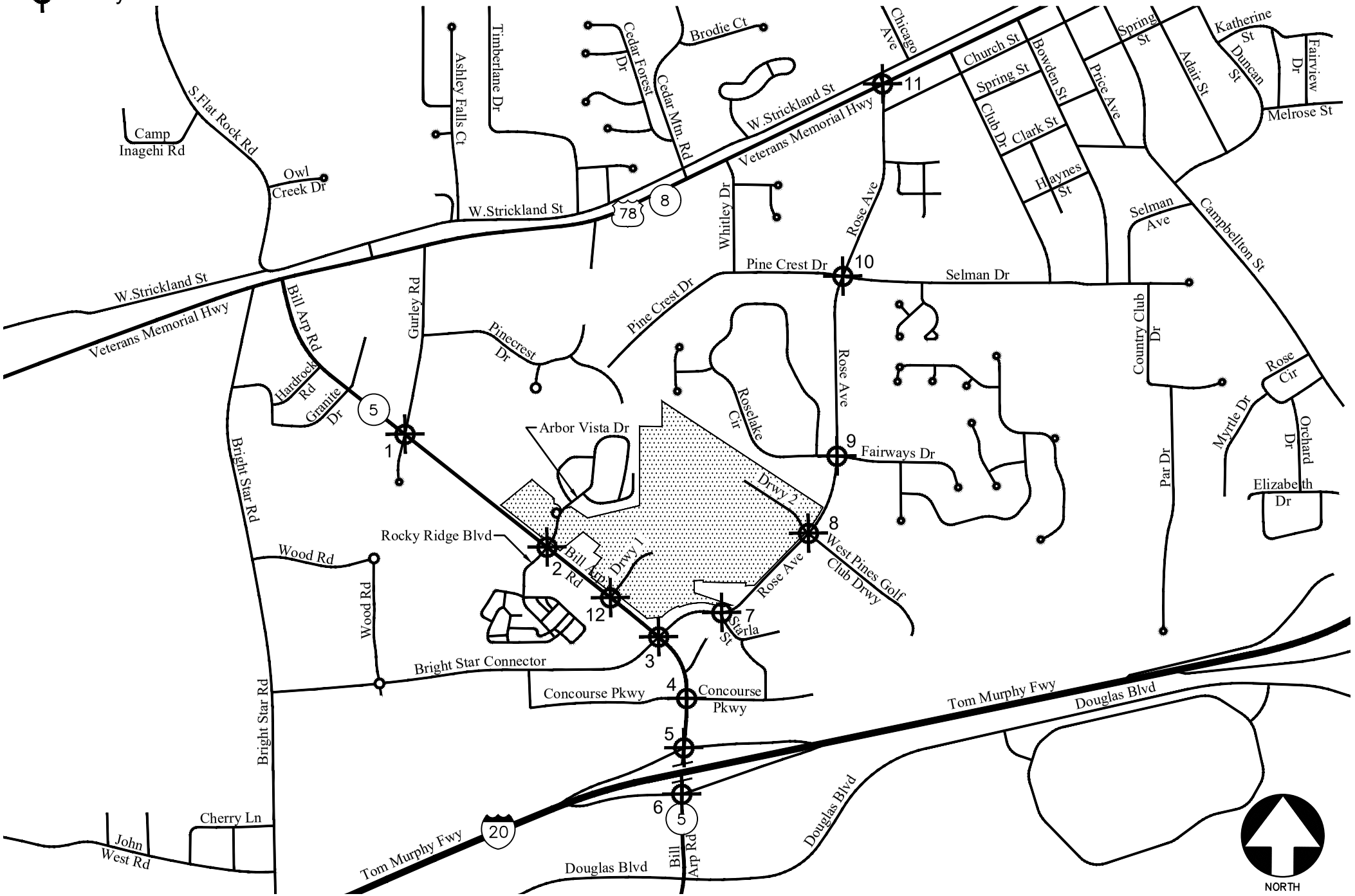
10. Rose Avenue @ Pinecrest Drive / Selman Drive
11. SR 8/US 78 (Veterans Memorial Highway) @ Rose Avenue
12. SR 5 (Bill Arp Road) @ Proposed Site Driveway 1

The location of the development and the surrounding study network is shown in Figure 1. Other intersections within this corridor, such as unsignalized side streets, right-in / right-out driveways or private driveways have not been included in the study network.



LOCATION MAP AND STUDY INTERSECTIONS

FIGURE 1

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EXISTING ROADWAY FACILITIES

The following is a brief description of each of the roadway facilities located in proximity to the site:

SR 5 (Bill Arp Road)

SR 5 (Bill Arp Road) is a north-south, two-lane, undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. South of Rose Avenue, SR 5 (Bill Arp Road) is a four-lane, median-divided roadway with a posted speed limit of 35 mph. GDOT traffic counts (Station ID's 097-0016 & 097-0012) indicate that the daily traffic volume on SR 5 (Bill Arp Road) in 2022 was 11,400 vehicles per day southeast of Gurley Road and 25,500 vehicles per day south of Plaza Parkway. GDOT classifies SR 5 (Bill Arp Road) as an Urban Minor Arterial roadway near Gurley Road and as an Urban Principal Arterial roadway near Plaza Parkway.

Gurley Road

Gurley Road is a north-south, two-lane, undivided roadway with a posted speed limit of 35 mph.

Arbor Vista Drive

Arbor Vista Drive is a two-lane, undivided roadway with a posted speed limit of 10 mph.

Rocky Ridge Boulevard

Rocky Ridge Boulevard is a two-lane, undivided roadway with an assumed speed limit of 25 mph.

Rose Avenue

Rose Avenue is a north-south, two-lane, undivided roadway with a posted speed limit of 35 mph. GDOT traffic counts (Station ID's 097-0227 & 097-0229) indicate that the daily traffic volume on Rose Avenue in 2022 was 11,200 vehicles per day south of Roselake Circle / Fairways Drive and 6,920 vehicles per day south of SR 8/US 78 (Veterans Memorial Highway). GDOT classifies Rose Avenue as an Urban Major Collector roadway.

Bright Star Connector

Bright Star Connector is an east-west, four-lane, median-divided roadway with a posted speed limit of 45 mph in the vicinity of the site.

Concourse Parkway

Concourse Parkway is an east-west, four-lane, undivided roadway with a posted speed limit of 25 mph to the east of SR 5 (Bill Arp Road) and a two-lane, undivided roadway to the west of SR 5 (Bill Arp Road).

Interstate 20 (I-20)

Interstate 20 (I-20) is an east-west, eight-lane, median-divided roadway with a posted speed limit of 70 mph in the vicinity of the site. GDOT traffic counts (Station ID's 097-0112 & 097-0116) indicate that the daily traffic volume on I-20 in 2022 was 66,800 vehicles per day west of SR 5 (Bill Arp Road) and 87,300 vehicles per day east of SR 5 (Bill Arp Road).

Starla Street

Starla Street is a north-south, two-lane, undivided roadway with an assumed speed limit of 25 mph.

Roselake Circle

Roselake Circle is an east-west, two-lane, undivided roadway with an assumed speed limit of 25 mph.

Fairways Drive

Fairways Drive is an east-west, two-lane, undivided roadway with a posted speed limit of 25 mph.

Pinecrest Drive

Pinecrest Drive is an east-west, two-lane, undivided roadway without any posted speed limit.

Selman Drive

Selman Drive is an east-west, two-lane, undivided roadway with a posted speed limit of 35 mph.

SR 8/US 78 (Veterans Memorial Highway)

SR 8/US 78 (Veterans Memorial Highway) is an east-west, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID's 097-0021 & 097-0023) indicate that the daily traffic volume on SR 8/US 78 (Veterans Memorial Highway) in 2022 was 9,970 vehicles per day west of Rose Avenue and 11,700 vehicles per day east of Rose Avenue. GDOT classifies SR 8/US 78 (Veterans Memorial Highway) as an Urban Minor Arterial roadway.

Existing Bicycle and Pedestrian Facilities

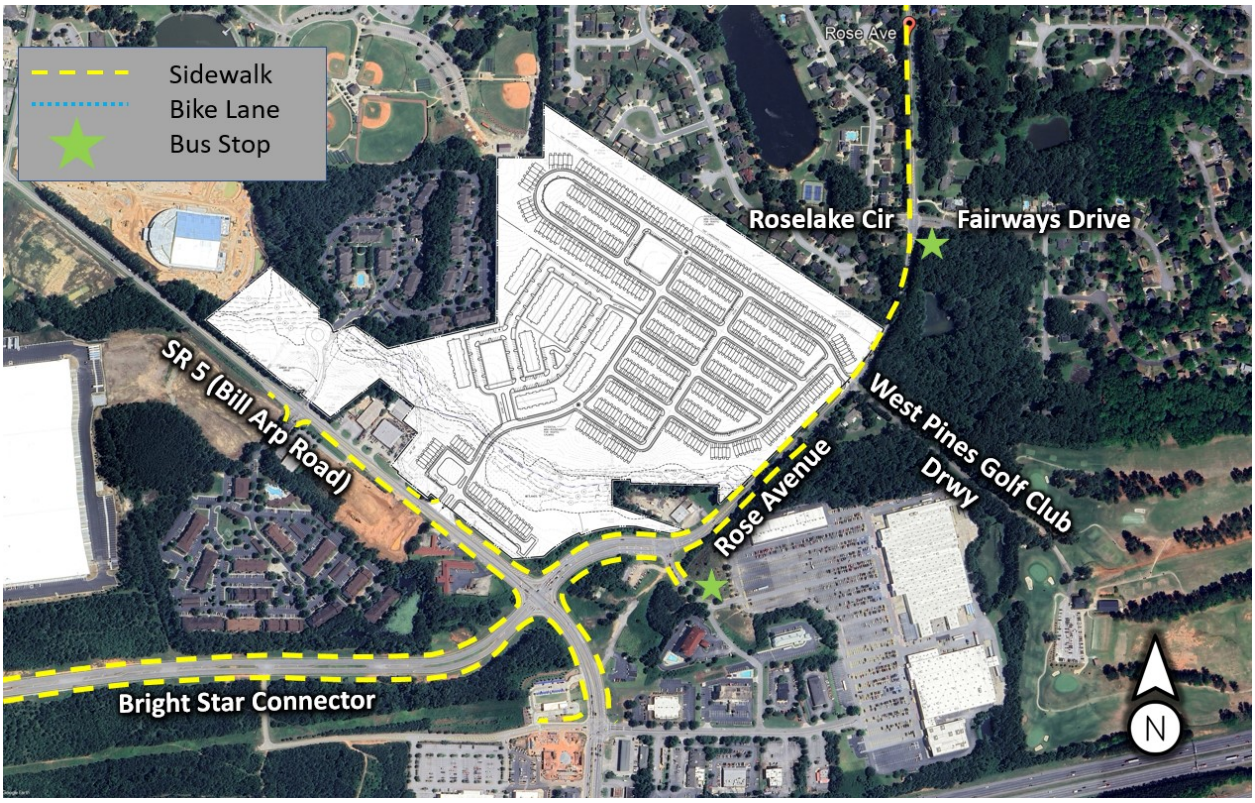
- Sidewalks are present along Bill Arp Road on both sides south of the site driveway and on the west side north of the site driveway.
- Sidewalks are present along Rose Avenue on both sides west of the site driveway and on the north side east of the site driveway.
- Sidewalks are present on both sides of Bright Star Connector.
- Crosswalks are present at all approaches at the intersection of SR 5 (Bill Arp Road) and Rose Avenue / Bright Star Connector.
- Crosswalks are present on the east side and south side at the intersection of Rose Avenue and West Pines Golf Club Driveway.
- Crosswalks are present on all approaches at the intersection of Rose Avenue and Starla Street (Walmart access).
- Bike paths are not present in the study network.

Alternative Modes of Access

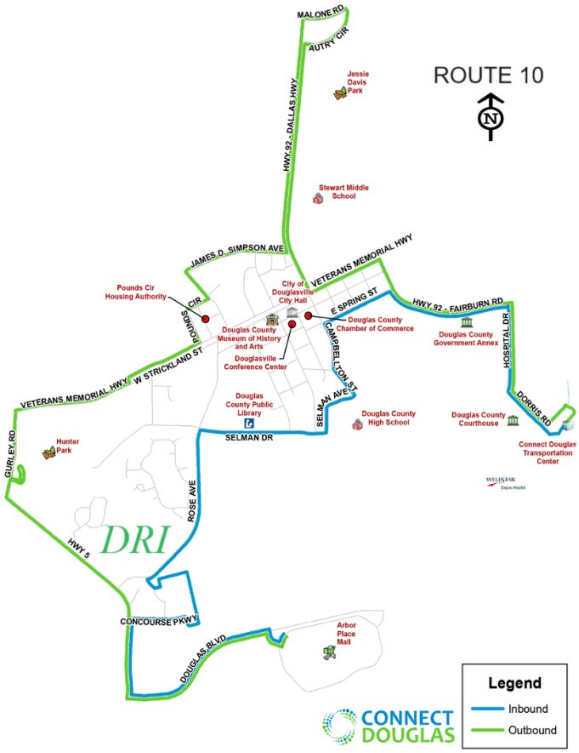
- No high-capacity transit stations were identified in the vicinity of the proposed development.
- Connect Douglas operates Bus Routes 10 and 20 along Rose Avenue. There are existing stops in the Walmart retail center and on Rose Avenue south of Fairways Drive, both of which are within a short walking distance of the DRI site. The possibility of adding a bus stop near the project will be explored.
- As explained in the methodology, no reduction in trips will be taken due to the distance of the bus stops and lack of amenities at the stops (no shelters, no seating).

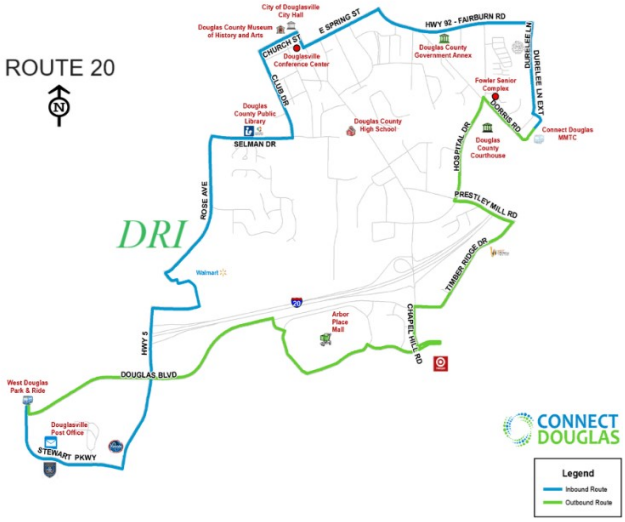
The graphics on the next pages include the location of existing sidewalks, and bus routes and bus stops in the study network.

Existing Alternative Transportation Map

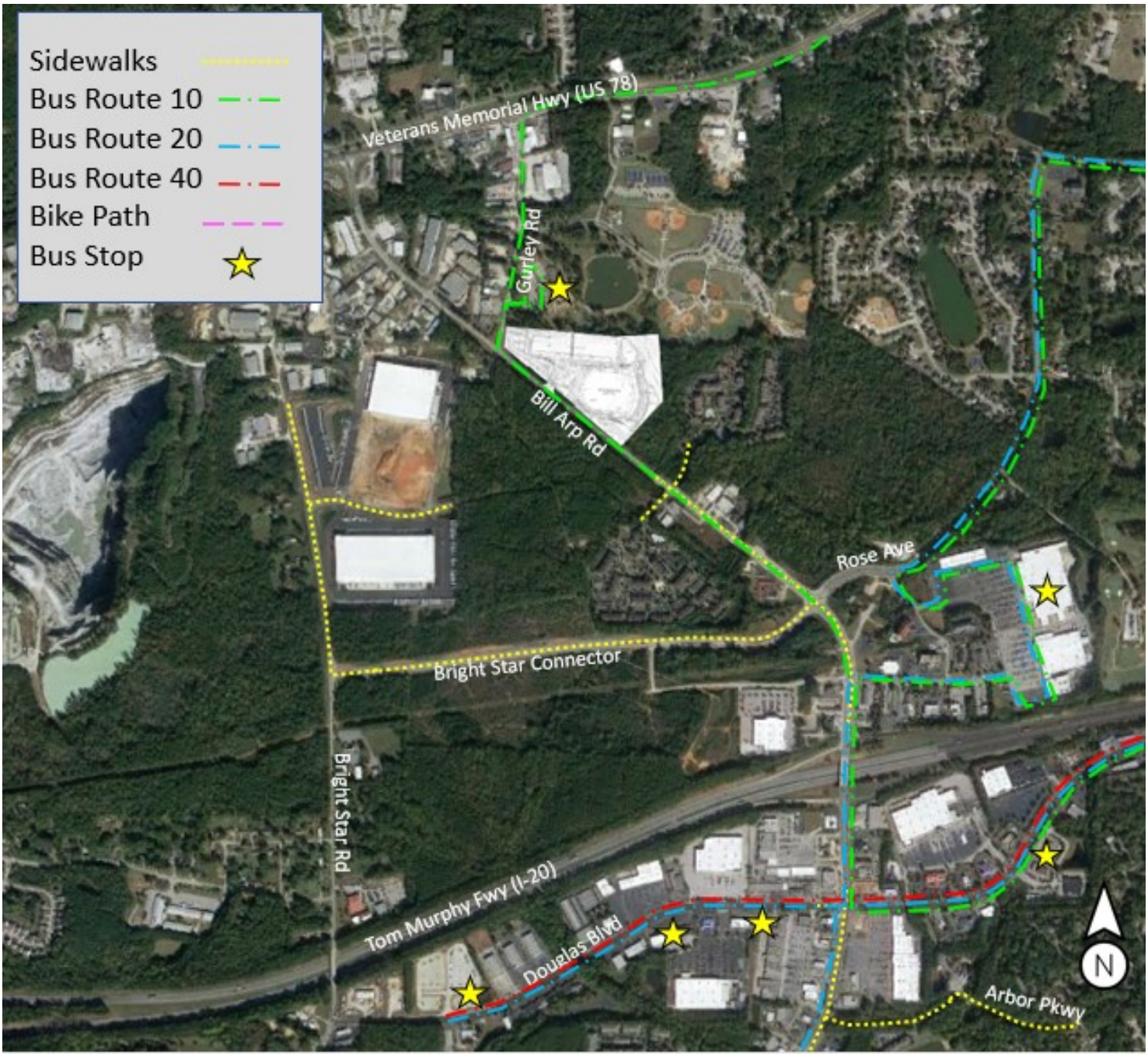


Bus Route 10 and Bus Route 20 maps





Existing pedestrian facilities, bike paths, and bus routes in study network:



STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board's Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level-of-service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designed as "F" regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from "A" through "F". Level-of-service "A" indicates excellent operations with little delay to motorists, while level-of-service "F" exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 – LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6th edition, Exhibit 20-2 *LOS Criteria: Motorized Vehicle Mode*

Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersections.

TABLE 2 – LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)*	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	**v/c > 1.0**
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6th edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

EXISTING 2024 TRAFFIC ANALYSIS

Existing Traffic Volumes

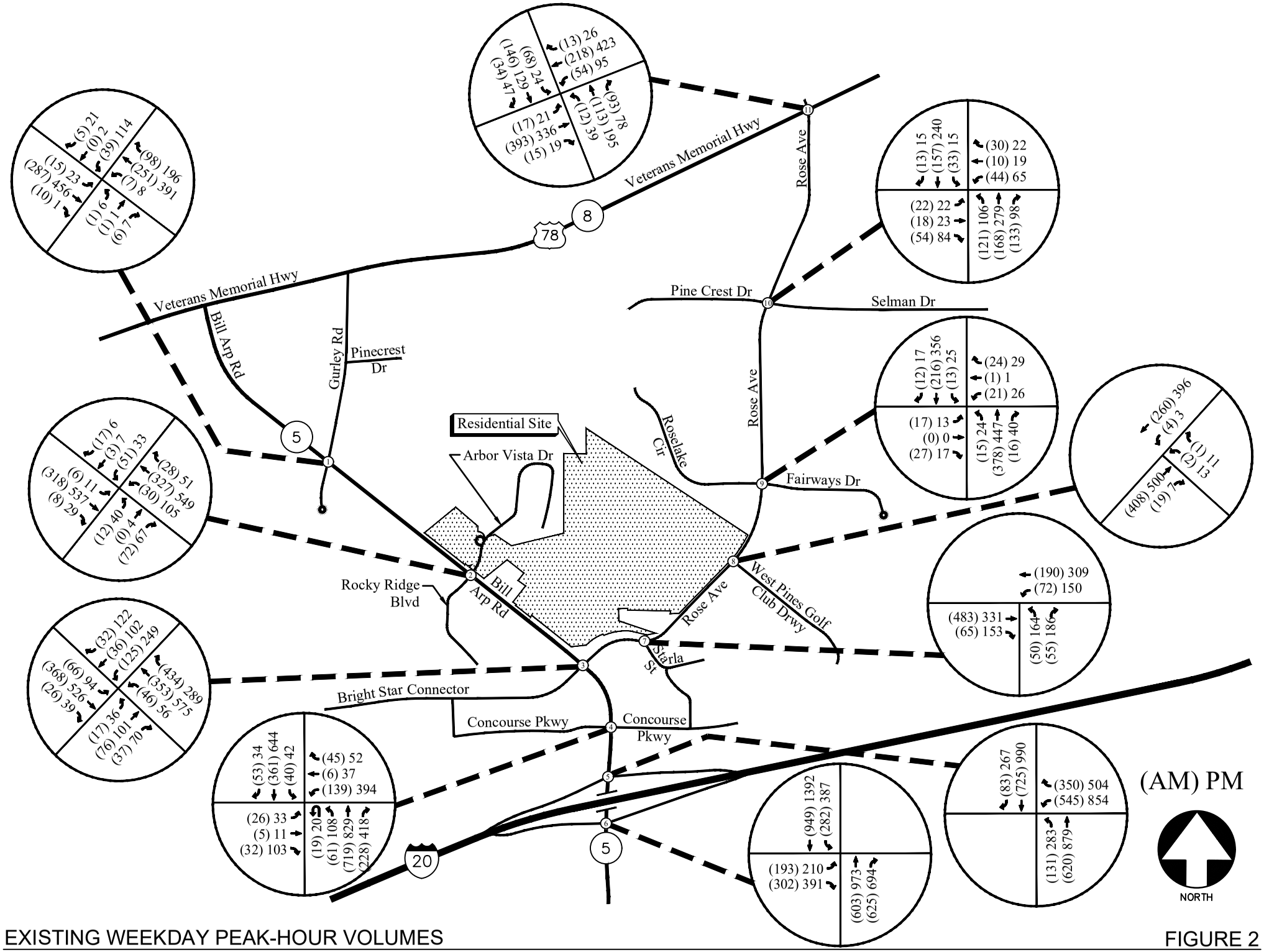
Existing traffic counts were obtained at the following study intersections:

1. SR 5 (Bill Arp Road) @ Gurley Road
2. SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard
3. SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector
4. SR 5 (Bill Arp Road) @ Concourse Parkway
5. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
6. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
7. Rose Avenue @ Starla Street
8. Rose Avenue @ West Pines Golf Club Driveway
9. Rose Avenue @ Roselake Circle / Fairways Drive
10. Rose Avenue @ Pinecrest Drive / Selman Drive
11. SR 8/US 78 (Veterans Memorial Highway) @ Rose Avenue

Turning movement counts for all the intersections were collected on Thursday, April 25, 2024, except at the intersection of Rose Avenue and Pinecrest Drive / Selman Drive whose counts were collected on Wednesday, May 01, 2024. All turning movement counts were recorded during the AM and PM peak hours between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that produced the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.

As mentioned in the methodology meeting report, the following heavy vehicle percentages will be used in the traffic analysis:

- 7% on Bill Arp Road (Georgia DOT Count Station 097-0016)
- 3% on Rose Avenue (Georgia DOT 097-0227)
- 3% on I-20 ramps (no truck percentages provided with the Georgia DOT AADT counts on the ramps at Bill Arp Road)



EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2

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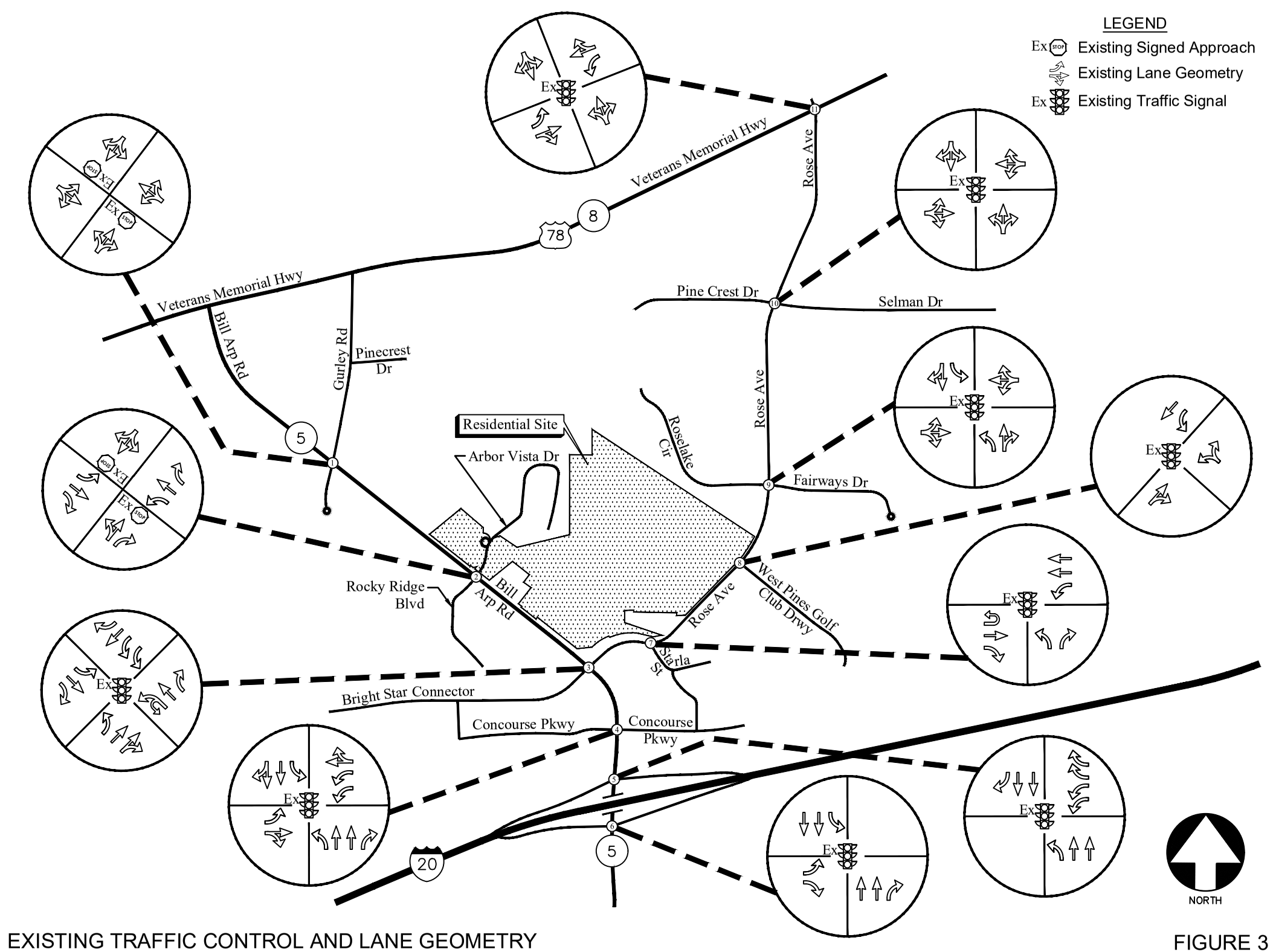

EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

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Existing Traffic Operations

Existing 2024 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

TABLE 3 – EXISTING INTERSECTION OPERATIONS

	Intersection	Traffic Control	AM Peak	PM Peak	LOS Standard
1	**SR 5 (Bill Arp Road) @ Gurley Road** -Eastbound Approach -Westbound Approach -Northbound Left -Southbound Left	Stop Controlled on EB and WB Approaches	 B (11.4) C (16.1) A (7.9) A (8.1)	 C (18.2) E (47.2) A (8.3) A (8.8)	 D/D D/D D/D D/D
2	**SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard** -Eastbound Approach -Westbound Approach -Northbound Left -Southbound Left	Stop Controlled on EB and WB Approaches	 B (11.7) C (19.2) A (8.0) A (8.0)	 E (36.5) F (70.9) A (9.1) A (8.7)	 D/D D/E D/D D/D
3	**SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (18.2)** D (45.8) D (48.4) A (9.4) A (9.1)	**C (24.6)** D (46.0) D (52.9) B (15.0) B (13.5)	**D/D** D/D D/D D/D D/D
4	**SR 5 (Bill Arp Road) @ Concourse Parkway** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (14.4)** D (47.4) D (46.1) A (9.0) A (8.7)	**C (24.2)** D (50.0) D (44.0) B (17.6) B (18.2)	**D/D** D/D D/D D/D D/D
5	**SR 5 (Bill Arp Road) @ I-20 Westbound Ramps** -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (17.8)** D (43.0) A (6.2) B (11.0)	**C (25.8)** D (45.8) B (13.1) C (23.4)	**D/D** D/D D/D D/D
6	**SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps** -Eastbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (10.4)** D (50.1) A (9.2) A (4.8)	**B (13.2)** D (49.4) B (14.1) A (8.5)	**D/D** D/D D/D D/D
7	**Rose Avenue @ Starla Street** -Eastbound Approach -Westbound Approach -Northbound Approach	Signalized	**A (10.0)** A (5.8) A (2.1) D (52.0)	**B (15.9)** A (8.5) A (4.3) D (41.2)	**D/D** D/D D/D D/D
8	**Rose Avenue @ West Pines Golf Club Driveway** -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**A (3.6)** D (54.8) A (4.3) A (1.7)	**A (4.2)** D (54.5) A (3.7) A (1.7)	**D/D** D/D D/D D/D
9	**Rose Avenue @ Roselake Circle / Fairways Drive** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**A (9.2)** D (47.2) D (47.3) A (4.1) A (3.5)	**A (8.2)** D (41.2) D (42.7) A (5.2) A (4.6)	**D/D** D/D D/D D/D D/D

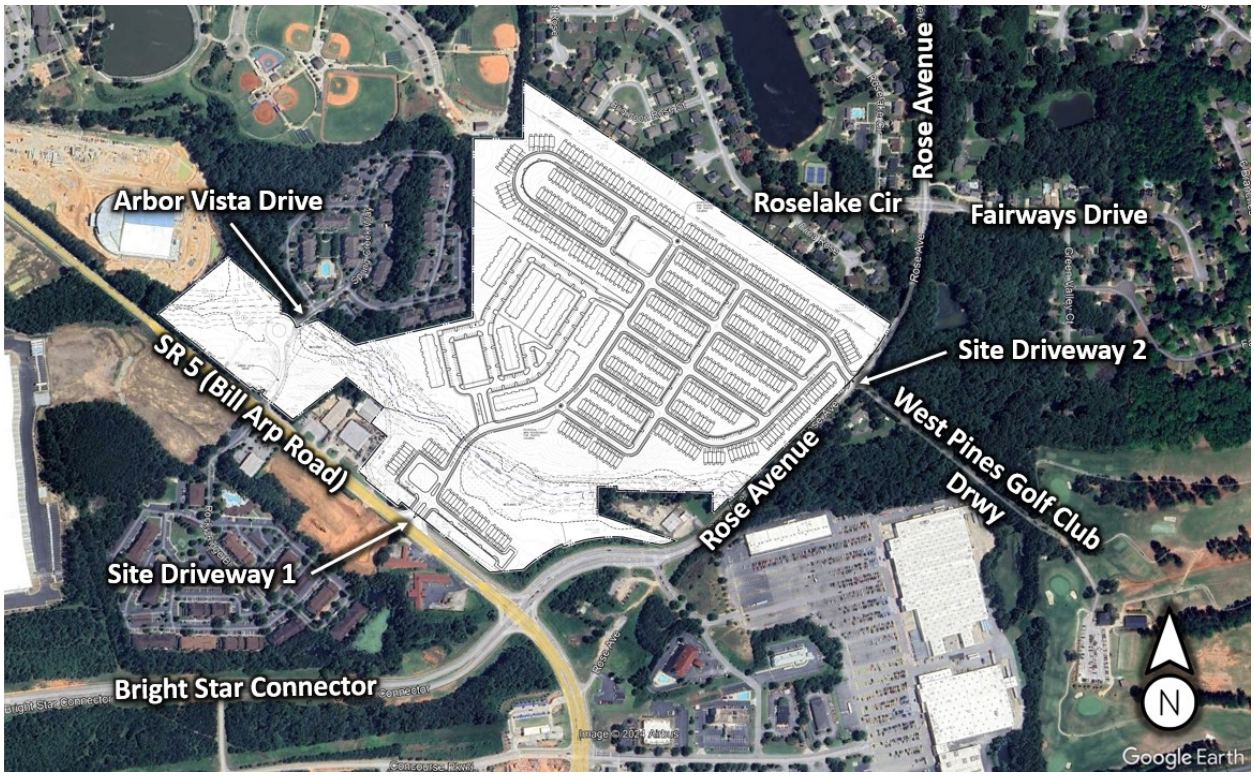
10	**Rose Avenue @ Pinecrest Drive / Selman Drive** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (12.8)** D (47.5) D (46.7) A (3.3) A (2.3)	**B (12.7)** D (41.8) D (41.0) A (4.1) A (3.0)	**D/D** D/D D/D D/D D/D
11	**SR 8/US 78 (Veterans Memorial Highway) @ Rose Avenue** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**C (21.5)** B (11.4) A (6.1) D (38.5) D (41.9)	**C (23.1)** B (12.3) A (8.3) D (49.3) D (43.0)	**D/D** D/D D/D D/D D/D

The results of existing traffic operations analysis indicate that all the signalized study intersections are operating at an overall level of service "D" or better in both the AM and PM peak hours. The stop-controlled approaches at the un-signalized intersections have LOS "E" or "F" in the PM peak hour. These areas are addressed in the future traffic operations sections.

PROJECT DESCRIPTION

The proposed residential development that will be located to the northeast of the intersection of SR 5 (Bill Arp Road) and Rose Avenue / Bright Star Connector in the City of Douglasville, Georgia. In general, the development will be located to the north of I-20. The development will consist of:

- Townhomes: 457 units
- Low-Rise Multifamily Housing: 336 units

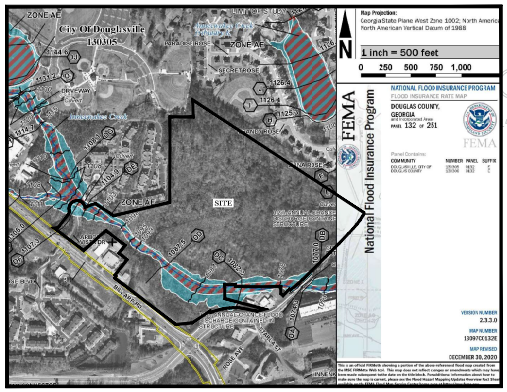


The development proposes access at the following locations:

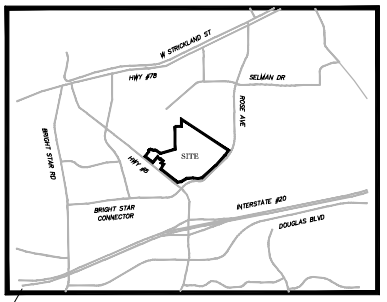
- Site Driveway 1: Full access driveway on SR 5 (Bill Arp Road) at the existing stub between Arbor Vista Drive and Rose Avenue
- Site Driveway 2: Full access driveway on Rose Avenue, aligned with West Pines Golf Club Driveway

Site Plan

A site plan is shown in Figure 4. A digital copy of the site plan is also provided with this report.



FEMA MAP
SCALE 1"=500'



VICINITY MAP
NOT TO SCALE

BOUNDARY LINE TABLE		
LINE	DISTANCE	DIRECTION
L1	765.78'	S45°27'58"W
L2	10.97'	N44°39'53"W
L3	91.90'	S45°20'29"W
L4	11.02'	N43°36'24"W
L5	86.84'	N00°55'16"E
L6	459.51'	N88°46'44"W
L7	20.00'	N00°52'12"E
L8	95.07'	S89°05'09"W
L9	131.98'	S00°19'20"W
L10	396.06'	S71°07'35"E
L11	182.63'	N78°25'50"W
L12	15.00'	N23°07'18"W
L13	162.38'	S86°06'02"W
L14	540.38'	N51°23'51"W
L15	25.20'	S38°36'09"W
L16	201.74'	N51°23'51"W
L17	10.00'	N38°20'08"E
L18	48.34'	N51°41'37"W
L19	217.85'	N38°38'45"E
L20	99.99'	N51°20'12"W
L21	97.58'	N38°39'48"E
L22	113.05'	N61°16'27"W
L23	114.62'	S51°50'48"W
L24	325.11'	S51°50'48"W
L25	192.49'	N51°22'43"W
L26	52.03'	N37°49'06"E
L28	114.13'	N70°34'18"E
L29	213.80'	S55°06'22"E
L30	36.39'	S81°12'22"W
L31	31.88'	N61°21'01"W
L32	10.29'	S36°47'06"W

BOUNDARY CURVE TABLE				
CURVE	RADIUS	LENGTH	CHORD	BEARING
C1	1233.57'	382.80'	381.27'	S36°28'54"W
C2	390.00'	73.83'	73.72'	S74°50'14"W
C3	606.00'	292.84'	289.99'	S80°44'42"W
C4	620.00'	221.54'	220.36'	S56°38'30"W
C5	171.00'	123.03'	120.39'	N71°23'27"E
C7	80.00'	320.71'	146.19'	N56°03'32"E

(A) 25' STATE UNDISTURBED STREAM BUFFER (AS MEASURED FROM POINT OF WRESTED VEGETATION ON ALL STREAMS)
(B) 50' CITY UNDISTURBED STREAM BUFFER (AS MEASURED FROM POINT OF WRESTED VEGETATION ON PERENNIAL STREAMS)
(C) 75' CITY IMPERVIOUS SETBACK (AS MEASURED FROM POINT OF WRESTED VEGETATION ON PERENNIAL STREAMS)

PLAN NOTES:

1. SURVEY INFORMATION TAKEN FROM BOUNDARY/RETRACEMENT & TOPOGRAPHIC SURVEYS FOR DRB GROUP BY CENTERLINE SURVEYING AND LAND PLANNING DATED 08.10.2022.
2. EXISTING ZONING: PUD & GC
   PROPOSED ZONING: PUD
3. SUBJECT PROPERTY IS LOCATED IN LAND LOT 161 & 162, 1ST DISTRICT, CITY OF DOUGLASVILLE, DOUGLAS COUNTY, GEORGIA.
4. DEVELOPER: DRB GROUP
   55 IVAN ALLEN JR. BLVD, NW, SUITE 400
   ATLANTA, GEORGIA 30308
   CONTACT: MR. CAM SMITH 229.219.7789 x8595
5. ENGINEER: CHRISTOPHER PLANNING & ENGINEERING, INC.
   12460 CRABAPPLE ROAD, SUITE 202-612
   ALPHARETTA, GEORGIA 30004
   CONTACT: MR. SOTIR J. CHRISTOPHER 770.331.7303
6. TRAFFIC: ACAMPORA TRAFFIC
   858 MYRTLE STREET, NE
   ATLANTA, GEORGIA 30308
   CONTACT: MR. MARC ACAMPORA 678.637.1763
7. UPON EXAMINATION OF FEMA FLOOD INSURANCE RATE MAPS OF GWINNETT COUNTY, GEORGIA, FIRM PANEL MAP #13097C0132G, DATED DECEMBER 30, 2020, IT HAS BEEN DETERMINED THAT A PORTION OF THE SUBJECT PROPERTY LIES WITHIN A FLOOD HAZARD AREA (ZONE AE).
8. JURISDICTIONAL BUFFERED STATE WATERS AND WETLANDS HAVE BEEN FIELD DELINEATED BY CORNELL ECOLOGY GROUP AND FIELD SURVEYED AS SHOWN ON PLANS.
9. WATER & SEWER TO BE PROVIDED BY DOUGLASVILLE-DOUGLAS COUNTY WATER AND SEWER AUTHORITY.
10. PROPOSED ROADWAYS WITHIN THE TOWNHOUSE POD TO BE PUBLIC (50' RIGHT-OF-WAY & 28' BACK OF CURB) WITH SIDEWALKS ON BOTH SIDES OF THE ROAD (5' WIDE). GUEST PARKING PROVIDED ON PROPOSED ROADWAYS AS SHOWN. DRIVES WITHIN THE APARTMENT POD TO BE PRIVATE.
11. PROPOSED TOWNHOMES TO BE FEE-SIMPLE FOOTPRINT AND HAVE 3 BEDROOMS. TOWNHOMES TO BE STAGGERED BY THREE FEET, TOWNHOMES ARE 2 STORIES.
12. APARTMENT POD LAYOUT IS CONCEPTUAL AND SUBJECT TO CHANGE. NOTE THAT CODE REQUIRES A SHADE TREE FOR EVERY 15 SPACES. APARTMENT BUILDINGS ARE ASSUMED TO BE 3 STORIES.
13. NO STREET PARKING SIGNAGE MAY BE REQUIRED TO PROHIBIT PARKING IN NON-DESIGNATED SPACES (TO BE REVIEWED WITH DEVELOPMENT PLANS).
14. PARKING REQUIRED:
    DWELLING UNIT = 2 SP/UNIT + 1 SP/4 UNITS = 1,586 + 199 = 1,785 SP
    PARKING PROVIDED:
    APARTMENT POD: 570 SPs
    RESIDENTIAL POD: 180 SURFACE SP + 526 GARAGE SP + 526 DRIVEWAY SP
    TOTAL PARKING PROVIDED = 1,802 SPs

SITE ANALYSIS

SITE AREA	82.20 ACRES±
PROPOSED YIELD	
APARTMENT POD	336 UNITS
TOWNHOUSE POD (A) 20' X 50' FRONT ENTRY TOWNHOMES	388 UNITS
(B) 24' X 50' FRONT ENTRY TOWNHOMES	69 UNITS
TOTALS	793 UNITS
PROPOSED DENSITY	9.65 UNITS/AC
PROPOSED PUD ZONING CRITERIA	
MINIMUM LAND AREA	10 ACRES±
MINIMUM LOT WIDTH N/A (ALL TOWNHOMES TO BE FEE-SIMPLE FOOTPRINT)	
PROPOSED EXTERNAL BUILDING SETBACK	25 FEET
FRONT BUILDING SETBACK (INTERNAL R/W)	15 FEET
MINIMUM DRIVEWAY LENGTH (AS MEASURED FROM BC OR SIDEWALK)	20 FEET
MINIMUM BUILDING SEPARATION	10 FEET
PROPOSED LANDSCAPE EASEMENT ADJACENT TO DETACHED RESIDENTIAL	100 FEET
MINIMUM FLOOR AREA TOWNHOUSE	1,500 S.F.
ONE-BEDROOM UNIT	750 S.F.
TWO-BEDROOM UNIT	1,050 S.F.
THREE OR MORE-BEDROOM UNIT	1,500 S.F.
MAXIMUM IMPERVIOUS COVERAGE	40%
OPEN SPACE REQUIRED	20% (16.44 AC±)
OPEN SPACE PROVIDED*	36.5% (30 AC±)
BASE MAXIMUM DENSITY PERMITTED	8 UNITS/AC
+ DENSITY BONUS: >30% COMMON SPACE PROPOSED	+ 1.0 UNITS/AC
+ DENSITY BONUS: ALL UNITS WITHIN 1,000 FT OF COMMON AREA	+ 0.5 UNITS/AC
+ DENSITY BONUS: >50% OF COMMON AREA IS PASSIVE REC	+ 0.5 UNITS/AC
MAXIMUM DENSITY PERMITTED	10 UNITS/AC

* THIS INCLUDES APPROX. 25 AC± OF USABLE OPEN SPACE (30%) THAT WILL BE USED AS PASSIVE & ACTIVE RECREATION AREAS AS DENOTED ON THE PLAN WITH HATCHING (FINAL AREA SUBJECT TO DESIGN).

SCALE: 1"=100'

CP&E
CHRISTOPHER PLANNING & ENGINEERING
GSWCC LEVEL II CERTIFIED
DESIGN PROFESSIONAL #005744
(EXP. 02.17.2024)
2/26/2024
12460 CRABAPPLE ROAD, SUITE 202-612
ALPHARETTA, GA 30004
PHONE 770.331.7303

DRI SITE PLANS
FOR:

BILL ARP RD SUBDIVISION DRI# 4125

LAND LOTS 161 & 162
1ST DISTRICT
CITY OF DOUGLASVILLE
DOUGLAS COUNTY, GA

FOR:

DRB GROUP
55 IVAN ALLEN JR. BLVD
SUITE 400
ATLANTA, GA 30313
PHONE 770.471.4751

REVISIONS

03.21.2024	GRTA/CLIENT COMMENTS

DATE: FEBRUARY 26, 2024
CP&E DRAWING NO: 20231202r1.dwg

CONCEPT SITE PLAN

SHEET NO. 1 OF 1

Planned Bicycle and Pedestrian Facilities

Sidewalks will be provided along the DRI frontage which will connect to the existing sidewalk, providing walkability to area destinations and walkable connections to nearby bus stops. There are no nearby bicycle facilities with which to connect.

Potential Pedestrian and Bicycle Destinations

Potential pedestrian and bicycle destinations within a quarter mile of the proposed development includes Wal-Mart, shops and restaurants as shown in the aerial below.

Planned Transit Facilities

There are existing adjacent sidewalks and nearby bus stops, however, due to distance of existing bus stops and lack of amenities at the stops (no shelters, no seating), no trip reduction will be taken for peak hour transit or other alternative modes, recognizing that there will likely be some low volume alternative mode usage.

Connect Douglas operates Bus Routes 10 and 20 along Rose Avenue. There are existing stops in the Walmart retail center and on Rose Avenue south of Fairways Drive, both of which are within a short walking distance of the DRI site. Connect Douglas will be contacted to investigate the possibility of adding a bus stop at the project access on Rose Avenue across from the West Pines Golf Club access.

Consistency with Adopted Comprehensive Plan

The proposed development will include 457 townhome units and 336 low-rise multi-family housing units. The property includes approximately 82 acres of land in the City of Douglasville. The site is currently zoned as Planned Unit Development (PUD), General Commercial (GC) and Public-Semi-Public (PSP) and is requesting a rezoning to Planned Unit Development (PUD).

Land Use and Zoning

Future Land Use Map Zoning	Mixed Use Development (MUD)
Relation to Existing Land Use Plans	Unified Growth Policy Map Land Use Area Designation: The subject property is currently zoned PUD and GC on the Douglasville Official Zoning Map. The Future Land Use Map (FLUM) in the Douglasville Comprehensive Plan designates the subject property as MUD and the adjacent parcels are zoned MUD and RAC. The future land use map designates this property as wholly within the Mixed-Use Design character area. The proposed Planned Unit Development (PUD) zoning designation will accommodate a mixed-use residential development on the property consistent with the future land use designation. The development will contain two different residential densities for multifamily and single-family attached units and the property exceeds the minimum ten acres required by the PUD and the Comprehensive Plan. To the extent the Regional Activity Center is considered although the property is not located within that designation, the additional rooftops provided by this development help bolster the economic development goals of that character area by bringing additional spending dollars to the immediate area. Further, the proposed development completely adheres to and respects all natural resources on the property including the existing streams and their required buffers. The proposed amendment is compatible with the purpose and intent of the Comprehensive Plan.

Project Phasing

This project has been evaluated for the complete build-out of the development in 2034 in one phase.

Trip Generation

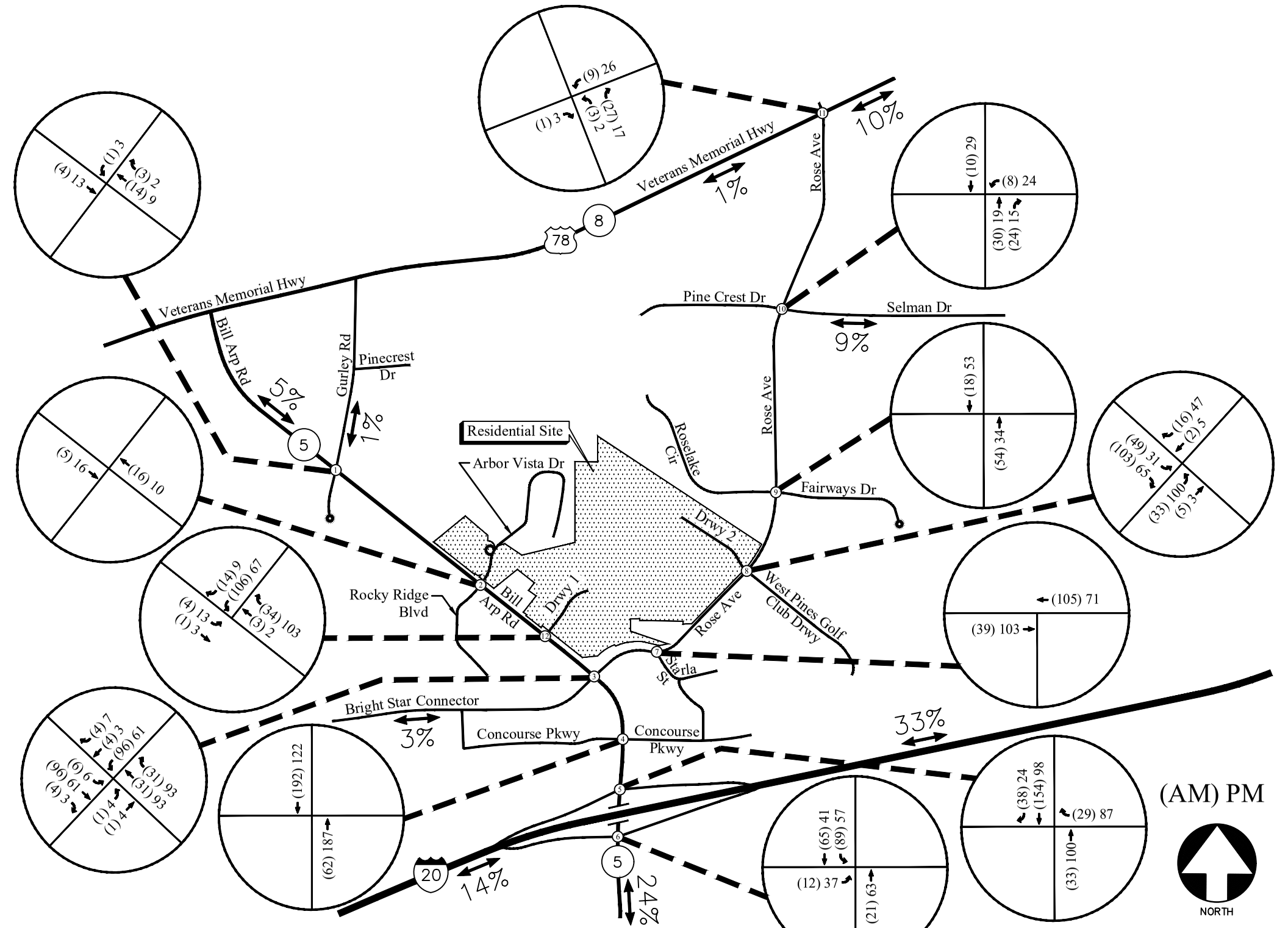
Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Uses: *215 – Single-Family Attached Housing* and *220 – Multifamily Housing (Low-Rise) - Not Close to Rail Transit*. The calculated total trip generation for the proposed development is shown in Table 4.

TABLE 4 – TRIP GENERATION (PROPOSED RESIDENTIAL DEVELOPMENT)

Land Use	Size	AM Peak Hour			PM Peak Hour			24-Hour
		Enter	Exit	Total	Enter	Exit	Total	2-way
ITE 215 – Single-Family Attached Housing	457 units	58	174	232	159	111	270	3,432
ITE 220 – Multifamily Housing (Low-Rise)	336 units	30	97	127	104	61	165	2,229
Total Site Trips		**88**	**271**	**359**	**263**	**172**	**435**	**5,662**

Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on the locations of employment centers, retail shopping and schools, and the major routes of travel, especially I-20. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM and PM peak hour new traffic generated by the site are shown in Figure 5.



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES (PROPOSED RESIDENTIAL DEVELOPMENT)

FIGURE 5

A&R Engineering Inc.

FUTURE 2034 TRAFFIC ANALYSIS

The future 2034 traffic operations are analyzed for the "Build" and "No-Build" conditions. This provides a basis of reference for determining both the contribution of the site to overall traffic conditions and the additional improvements needed to provide sufficient site access and capacity for passing traffic.

Improvements that are identified as "System Improvements" address deficiencies that are found within the existing road network prior to any impacts from the proposed development's added traffic. Improvements that are identified as "Site Mitigation Improvements" address further impacts that are a result of the proposed development's added traffic. Note that survey and construction drawings would be needed to verify the feasibility and extent of additional right-of-way required for any recommended improvements.

Future "No-Build" Conditions

The "No-Build" (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future "No-Build" volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of traffic and traffic from the adjacent planned multi-purpose arena development.

Annual Traffic Growth

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. A 2% annual growth rate was determined in the Methodology Memo dated March 22, 2024, prepared by Acampora Traffic and approved by GRTA in the Letter of Understanding dated April 5, 2024. This growth factor was applied to the existing traffic volumes to estimate the future year traffic volumes prior to the addition of site-generated traffic.

Planned and Programmed Improvements in Study Area

No improvements have been identified in the Regional Transportation Plan (Plan 2040), GDOT GeoPi, and/or the local comprehensive transportation plan within the vicinity of the proposed development.

Adjacent Planned DCSS Multi-Purpose Arena (DRI # 3523)

The planned Douglas County School System Multi-Purpose Arena will be located to the northeast of the intersection of SR 5 (Bill Arp Road) and Gurley Road. The arena proposes one full access and one exit only driveway on SR 5 (Bill Arp Road) as well as one full access driveway on Gurley Road. The site will also have a cart path to the Hunter Memorial Park whose parking will be used during larger events. The arena is currently under construction.

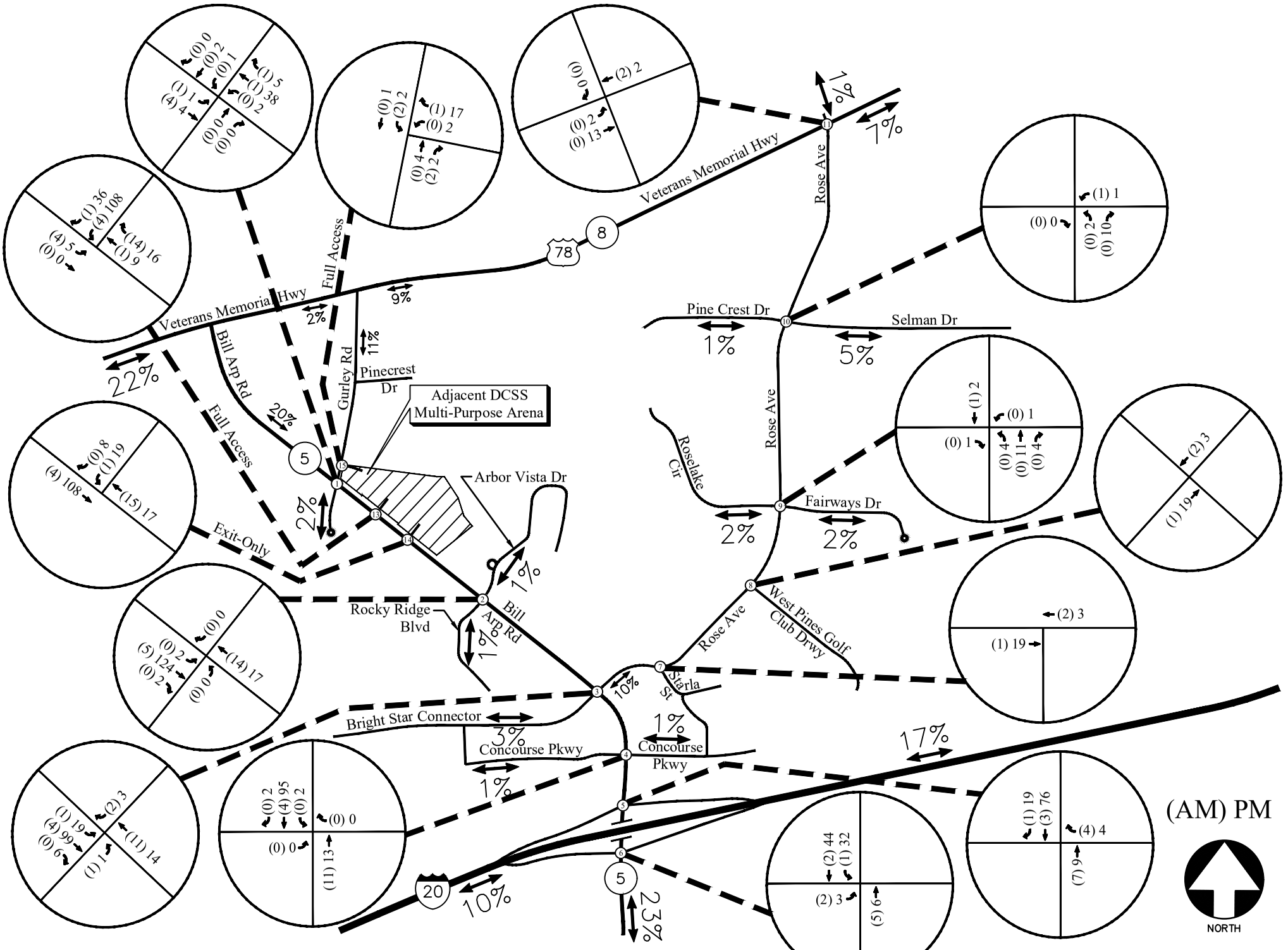
The arena will consist of 7,362 seats and will host high school graduations and other events. The facility will host additional school system events and will be available for rent from outside organizations. The graduations will be held approximately 4 times a year. The arena will generate maximum traffic based on its seating capacity only a few times a year. At other times when it is rented, it is rented mostly on weekends with few small-scale activities on weekdays. We have assumed 20% of its full capacity traffic in our weekday peak hour analysis. The arena-generated peak hour trips that would be on the roadway on a typical weekday (20%) are shown in Figure 6. These volumes were added to the future year traffic volumes prior to the addition of the proposed residential site-generated traffic. The resulting Future "No-Build" volumes for the study network are shown in Figure 7.

As part of the Arena project, following improvements were proposed to the SR 5 (Bill Arp Road) at Gurley Road intersection and have been incorporated in this study's future "no-build" and "build" conditions:

- Intersection 1: SR 5 (Bill Arp Road) @ Gurley Road
    - Gurley Road (westbound) approach to include a yield controlled, channelized right turn lane, and a shared through/left turn lane.

Future "Build" Conditions

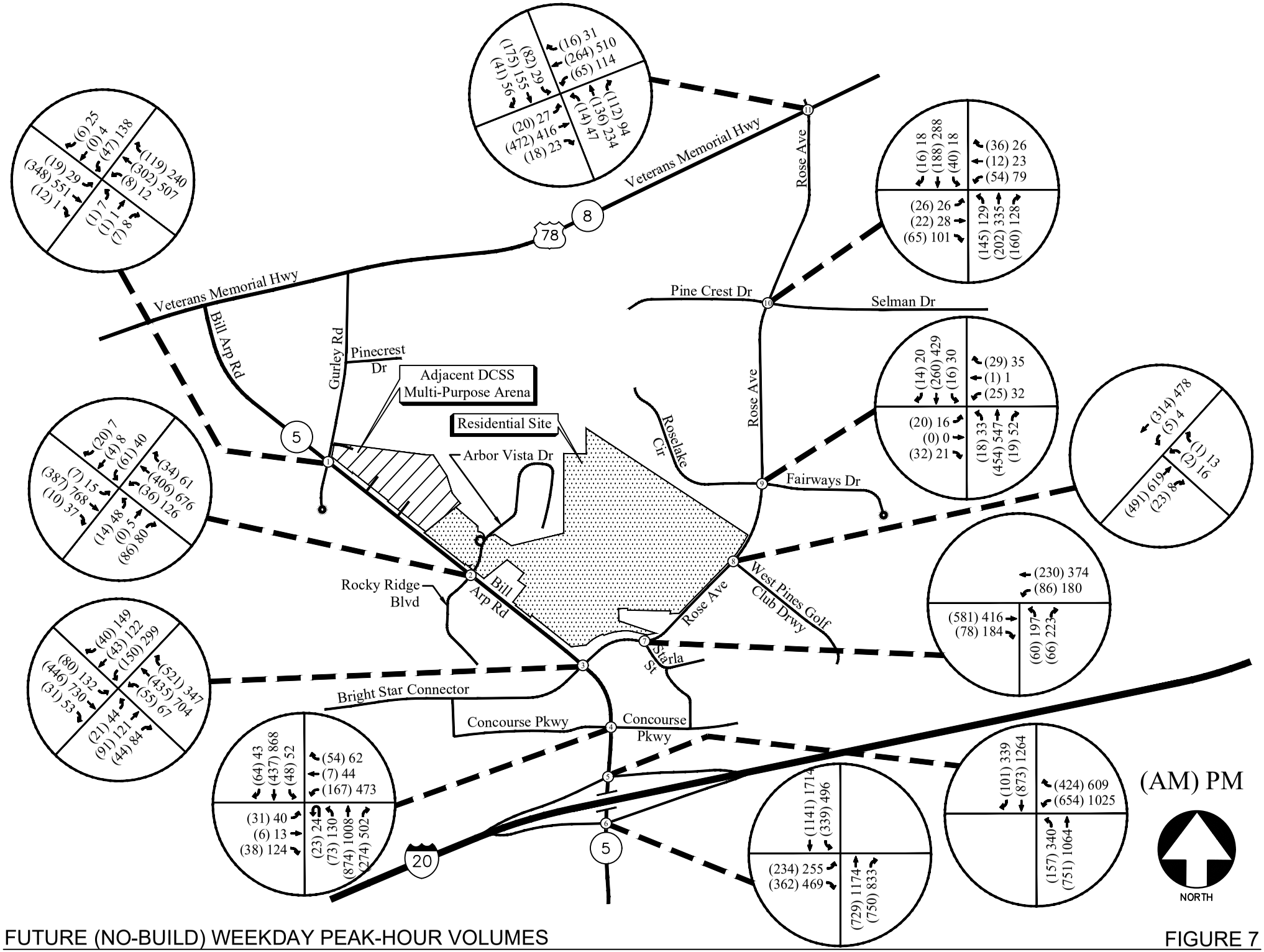
The "Build" or development conditions include the estimated background traffic from the "No-Build" conditions plus the traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 7) to calculate the future traffic volumes after the construction of the residential development. These total future "Build" traffic volumes are shown in Figure 8.



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES (DCSS MULTI-PURPOSE ARENA - DRI 3523)

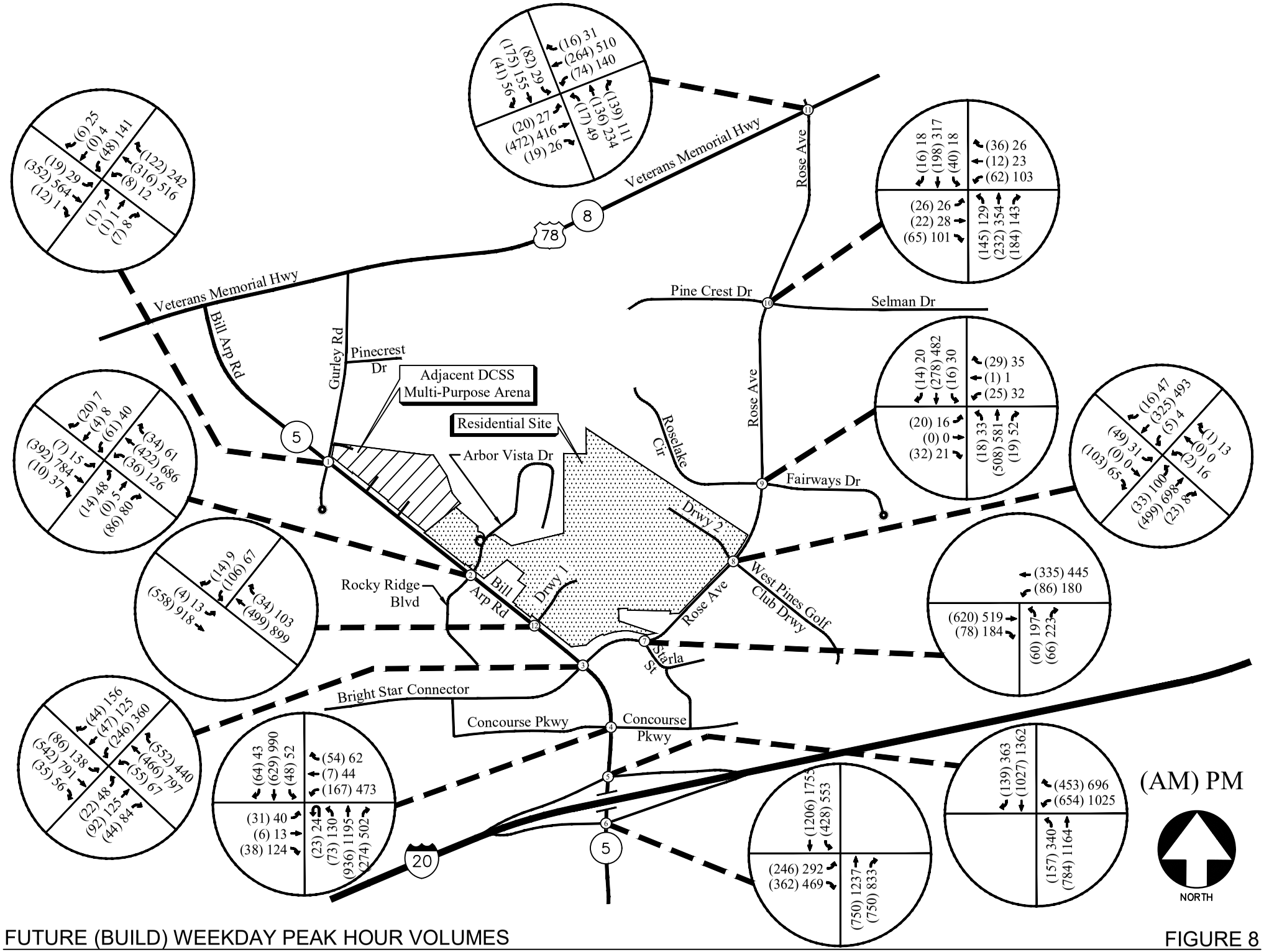
FIGURE 6

A&R Engineering Inc.



FUTURE (NO-BUILD) WEEKDAY PEAK-HOUR VOLUMES

FIGURE 7



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 8

A&R Engineering Inc.

Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for both the site driveways per GDOT standards. The analyses below are based off the trip distribution included in the "Trip Distribution" section. According to the trip distribution, the total 24-hour two-way volume entering and exiting the site is 5,662 vehicles.

Left Turn Lane Analysis

For two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 45 mph and 35 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 175 and 200 vehicles a day, respectively. The projected left-turn volumes per day for each driveway is included in Table 5.

TABLE 5 – GDOT REQUIREMENTS FOR LEFT TURN LANES

Intersection	Left turn traffic (% total entering)	Left-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants met?
SR 5 (Bill Arp Road) @ Site Driveway 1	5%	142 (Total Trips) ÷ 2 × 0.05 = (5,662) ÷ 2 x 0.05 = 142	45 mph / 2-Lane / > 6,000	175	No
Rose Avenue @ West Pines Golf Club Driveway / Site Driveway 2	38%	1,076 (Total Trips) ÷ 2 × 0.38 = (5,662) ÷ 2 x 0.38 = 1,076	35 mph / 2-Lane / > 6,000	200	Yes

Per GDOT standards, a left turn lane on SR 5 (Bill Arp Road) is not warranted at Site Driveway 1 but is warranted at Site Driveway 2 on Rose Avenue.

Deceleration Turn Lane Analysis

For two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 45 mph and 35 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 75 and 100 vehicles a day, respectively. The projected right-turn volumes per day for each driveway is included in Table 6.

TABLE 6 – GDOT REQUIREMENTS FOR DECELERATION LANES

Intersection	Right-turn traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/day)	Warrants met?
SR 5 (Bill Arp Road) @ Site Driveway 1	39%	1,104 (Total Trips) ÷ 2 × 0.39 = (5,662) ÷ 2 x 0.39 = 1,104	45 mph / 2-Lane / > 6,000	75	Yes
Rose Avenue @ West Pines Golf Club Driveway / Site Driveway 2	18%	510 (Total Trips) ÷ 2 × 0.18 = (5,662) ÷ 2 x 0.18 = 510	35 mph / 2-Lane / > 6,000	100	Yes

A right turn lane is warranted at both the proposed site driveways per GDOT standards.

Future Traffic Operations

The future "No-Build" and "Build" traffic operations were analyzed using the volumes in Figure 7 and Figure 8, respectively. The results of the future traffic operations analysis are shown below in Table 7. Recommendations for future traffic control and lane geometry are shown in Figure 9.

TABLE 7 – FUTURE INTERSECTION OPERATIONS

	Intersection	LOS (Delay)			
		NO-BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	**SR 5 (Bill Arp Road) @ Gurley Road**				
	-Eastbound Approach	B (12.2)	C (24.9)	B (12.4)	D (25.7)
	-Westbound Approach	C (19.7)	F (163.5)	C (20.4)	F (188.1)
	-Northbound Left	A (8.1)	A (8.6)	A (8.1)	A (8.7)
	-Southbound Left	A (8.3)	A (9.4)	A (8.4)	A (9.5)
2	**SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard**				
	-Eastbound Approach	B (13.1)	F (168.8)	B (13.2)	F (182.4)
	-Westbound Approach	D (28.0)	F (*)	D (29.1)	F (*)
	-Northbound Left	A (8.2)	B (10.4)	A (8.3)	B (10.5)
	-Southbound Left	A (8.2)	A (9.2)	A (8.3)	A (9.2)
3	**SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector**	**B (19.1)**	**C (28.2)**	**C (23.4)**	**C (33.2)**
	-Eastbound Approach	D (46.2)	D (46.8)	D (46.2)	D (46.8)
	-Westbound Approach	D (48.0)	D (51.8)	D (54.3)	D (53.4)
	-Northbound Approach	B (10.8)	C (20.5)	B (13.0)	C (27.8)
	-Southbound Approach	B (10.5)	C (20.1)	B (13.6)	C (25.1)
4	**SR 5 (Bill Arp Road) @ Concourse Parkway**	**B (15.4)**	**C (29.5)**	**B (15.5)**	**C (30.9)**
	-Eastbound Approach	D (48.0)	D (52.7)	D (53.8)	D (52.7)
	-Westbound Approach	D (46.4)	D (45.6)	D (52.7)	D (45.6)
	-Northbound Approach	B (10.3)	C (23.4)	A (10.0)	C (25.3)
	-Southbound Approach	A (9.7)	C (26.0)	A (10.0)	C (29.1)
5	**SR 5 (Bill Arp Road) @ I-20 Westbound Ramps**	**B (19.9)**	**D (41.3)**	**B (20.0)**	**D (46.3)**
	-Westbound Approach	D (43.7)	D (51.8)	D (43.7)	D (51.8)
	-Northbound Approach	A (8.0)	C (25.6)	A (8.3)	D (42.8)
	-Southbound Approach	B (14.4)	D (50.3)	B (15.5)	D (45.9)
6	**SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps**	**B (12.2)**	**C (23.7)**	**B (14.0)**	**D (39.4)**
	-Eastbound Approach	D (48.8)	D (49.6)	D (53.1)	D (52.1)
	-Northbound Approach	B (12.1)	C (27.4)	B (14.4)	C (33.5)
	-Southbound Approach	A (6.5)	B (18.8)	A (8.0)	D (40.9)
7	**Rose Avenue @ Starla Street**	**B (10.8)**	**B (17.2)**	**A (7.0)**	**B (16.8)**
	-Eastbound Approach	A (7.0)	B (10.6)	A (1.9)	B (11.6)
	-Westbound Approach	A (2.5)	A (5.3)	A (2.1)	A (5.6)
	-Northbound Approach	D (51.2)	D (42.3)	D (51.2)	D (42.3)
8	**Rose Avenue @ West Pines Golf Club Driveway / Site Driveway 2**	**A (4.0)**	**A (4.7)**	**B (11.9)**	**A (8.5)**
	-Eastbound Approach	-	-	D (45.3)	D (42.3)
	-Westbound Approach	D (54.8)	D (54.5)	D (38.0)	D (38.4)
	-Northbound Approach	A (4.9)	A (4.5)	A (7.4)	A (6.6)
	-Southbound Approach	A (1.8)	A (2.0)	A (3.9)	A (3.3)

	Rose Avenue @ Roselake Circle / Fairways Drive	**A (9.6)**	**A (9.0)**	**A (9.4)**	**A (9.1)**
	-Eastbound Approach	D (47.5)	D (41.2)	D (47.5)	D (41.2)
9	-Westbound Approach	D (47.7)	D (43.1)	D (47.7)	D (43.1)
	-Northbound Approach	A (4.6)	A (6.3)	A (5.0)	A (6.5)
	-Southbound Approach	A (3.8)	A (5.3)	A (3.9)	A (5.6)
	Rose Avenue @ Pinecrest Drive / Selman Drive	**B (13.3)**	**B (13.4)**	**B (13.2)**	**B (14.0)**
	-Eastbound Approach	D (46.6)	D (40.1)	D (45.5)	D (37.4)
10	-Westbound Approach	D (46.4)	D (40.2)	D (46.1)	D (39.4)
	-Northbound Approach	A (4.3)	A (5.9)	A (4.9)	A (7.3)
	-Southbound Approach	A (2.8)	A (3.9)	A (3.0)	A (4.7)
	SR 8/US 78 (Veterans Memorial Hwy) @ Rose Avenue	**C (22.9)**	**C (25.2)**	**C (23.4)**	**C (25.8)**
	-Eastbound Approach	B (15.5)	B (16.6)	B (16.4)	B (18.3)
11	-Westbound Approach	A (8.3)	B (11.7)	A (8.8)	B (12.6)
	-Northbound Approach	D (35.3)	D (50.3)	D (35.5)	D (50.0)
	-Southbound Approach	D (41.6)	D (39.7)	D (41.2)	D (38.3)
	SR 5 (Bill Arp Road) @ Site Driveway 1				
12	-Westbound Approach	-	-	C (19.1)	D (33.8)
	-Southbound Left			A (8.5)	B (10.2)

* Delay exceeds 300 seconds

At the un-signalized intersection of SR 5 at Arbor Vista Road / Rocky Ridge Boulevard, the stop-controlled minor street approaches will operate at LOS "F" in PM peak hour in both "No-Build" and "Build" conditions. It is not uncommon for stop-controlled side-streets on arterial roadways to experience delays during peak hours as delays are caused by side-street wait times to turn left onto the mainline. Due to the low left-turn volumes, signal warrants will not likely be met at this intersection. No other improvements will aid improve the delays.

Recommendation for System Improvements

At the un-signalized intersection of SR 5 at Gurley Road, the stop-controlled westbound approach will operate at LOS "F" in PM peak hour in "No-Build" conditions. We recommend that a detailed signal warrant analysis be conducted at the intersection of SR 5 (Bill Arp Road) and Gurley Road and if signal warrants are met and if GDOT is willing to approve a traffic signal, we recommend the following improvements at the intersection of SR 5 (Bill Arp Road) and Gurley Road.

Intersection 1: SR 5 (Bill Arp Road @ Gurley Road

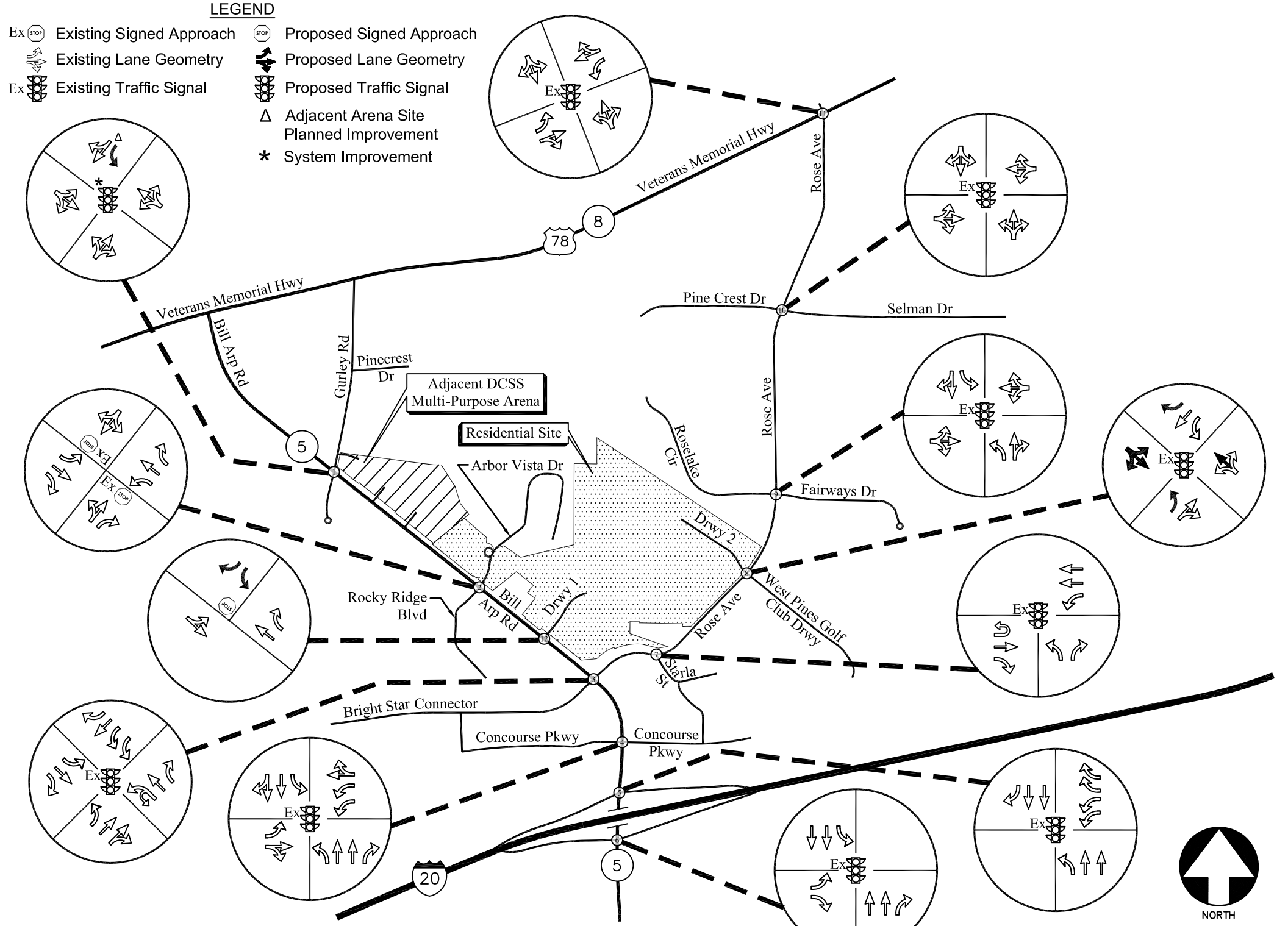
- Installation of a traffic signal

After installation of a signal, the intersection of SR 5 at Gurley Road will operate at an overall level-of-service "B" or better with all approaches having LOS "D" or better in both the AM and PM peak hours.

Table 8 below shows the results of the analysis with a traffic signal at the intersection of SR 5 and Gurley Road.

TABLE 8 – FUTURE INTERSECTION OPERATIONS WITH SYSTEM IMPROVEMENTS

	Intersection	LOS (Delay)			
		NO-BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	**SR 5 (Bill Arp Road) @ Gurley Road**	**A (5.2)**	**B (10.0)**	**A (5.2)**	**B (10.2)**
	-Eastbound Approach	D (45.8)	D (39.4)	D (45.8)	D (39.2)
	-Westbound Approach	D (48.3)	D (45.1)	D (48.3)	D (45.0)
	-Northbound Left	A (2.3)	A (6.7)	A (2.4)	A (6.9)
	-Southbound Left	A (2.1)	A (4.9)	A (2.1)	A (5.1)



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 9

CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed residential development that will be located to the northeast of the intersection of SR 5 (Bill Arp Road) and Rose Avenue / Bright Star Connector in the City of Douglasville, Georgia. The development will consist of:

- Townhomes: 457 units
- Low-Rise Multifamily Housing: 336 units

The development proposes access at the following locations:

- Site Driveway 1: Full access driveway on SR 5 (Bill Arp Road) at the existing stub between Arbor Vista Drive and Rose Avenue
- Site Driveway 2: Full access driveway on Rose Avenue, aligned with West Pines Golf Club Driveway

The AM and PM peak hours have been analyzed in this study. This study included the evaluation of traffic operations at the intersections of:

1. SR 5 (Bill Arp Road) @ Gurley Road
2. SR 5 (Bill Arp Road) @ Arbor Vista Drive / Rocky Ridge Boulevard
3. SR 5 (Bill Arp Road) @ Rose Avenue / Bright Star Connector
4. SR 5 (Bill Arp Road) @ Concourse Parkway
5. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
6. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
7. Rose Avenue @ Starla Street
8. Rose Avenue @ West Pines Golf Club Driveway / Proposed Site Driveway 2
9. Rose Avenue @ Roselake Circle / Fairways Drive
10. Rose Avenue @ Pinecrest Drive / Selman Drive
11. SR 8/US 78 (Veterans Memorial Highway) @ Rose Avenue
12. SR 5 (Bill Arp Road) @ Proposed Site Driveway 1

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, both of which account for increases in annual growth of through traffic and added traffic from the adjacent planned multi-purpose arena development as explained above on page 24.

The results of both the future “No-Build” and “Build” traffic operations analysis indicate that all the signalized study intersections and all approaches will continue to operate at level of service “D” or better in both the AM and PM peak hours.

At the un-signalized intersection of SR 5 at Arbor Vista Road / Rocky Ridge Boulevard, the stop-controlled minor street approaches will operate at LOS "F" in PM peak hour in both "No-Build" and "Build" conditions. It is not uncommon for stop-controlled side-streets on arterial roadways to experience delays during peak hours as delays are caused by side-street wait times to turn left onto the mainline. Due to the low left-turn volumes, signal warrants will not likely be met at this intersection. No other improvements will aid improve the delays.

Recommendation for System Improvements

At the un-signalized intersection of SR 5 at Gurley Road, the stop-controlled westbound approach will operate at LOS "F" in PM peak hour in "No-Build" conditions. We recommend that a detailed signal warrant analysis be conducted at the intersection of SR 5 (Bill Arp Road) and Gurley Road and if signal warrants are met and if GDOT is willing to approve a traffic signal, we recommend the following improvements at the intersection of SR 5 (Bill Arp Road) and Gurley Road.

Intersection 1: SR 5 (Bill Arp Road @ Gurley Road

- Installation of a traffic signal

After installation of a signal, the intersection of SR 5 at Gurley Road will operate at an overall level-of-service "B" or better with all approaches having LOS "D" or better in both the AM and PM peak hours.

Recommendation for Site Access Configuration

The following access configuration is recommended for the site driveway intersections.

- Site Driveway 1: Full access driveway on SR 5 (Bill Arp Road) at the existing stub between Arbor Vista Drive and Rose Avenue
    - Two entering and two (a left turn and a right turn) exiting lanes.
    - Stop-sign controlled on the driveway approach with SR 5 remaining free flow.
    - Right Turn Lane on SR 5 for entering traffic.
    - Provide adequate sight distance per AASHTO standards.

- Site Driveway 2: Full access driveway on Rose Avenue, aligned with West Pines Golf Club Driveway
    - One entering and one exiting lane.
    - Intersection to continue to operate with a traffic signal.
    - Left and Right Turn Lanes on Rose Avenue for entering traffic.
    - Provide adequate sight distance per AASHTO standards.

Appendix

Existing Intersection Traffic Counts

A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Gurley Road
7-9 am | 4-6 pm

File Name : 20240150
Site Code : 20240150
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bill Arp Road Northbound				Bill Arp Road Southbound				Gurley Road Eastbound				Gurley Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	48	10	58	2	56	3	61	0	0	1	1	9	0	1	10	130
07:15 AM	2	62	27	91	6	64	3	73	0	1	0	1	12	0	2	14	179
07:30 AM	0	55	28	83	3	74	3	80	0	0	2	2	9	0	1	10	175
07:45 AM	1	65	22	88	6	88	2	96	1	0	3	4	6	0	0	6	194
Total	3	230	87	320	17	282	11	310	1	1	6	8	36	0	4	40	678
08:00 AM	4	69	21	94	0	61	2	63	0	0	1	1	12	0	2	14	172
08:15 AM	2	38	12	52	3	78	4	85	0	0	1	1	13	1	1	15	153
08:30 AM	1	45	20	66	2	73	0	75	0	0	0	0	13	0	2	15	156
08:45 AM	1	70	32	103	7	65	1	73	0	1	1	2	4	1	1	6	184
Total	8	222	85	315	12	277	7	296	0	1	3	4	42	2	6	50	665
*** BREAK ***																	
04:00 PM	1	85	35	121	4	68	0	72	0	0	1	1	21	1	7	29	223
04:15 PM	3	99	25	127	4	75	1	80	2	1	4	7	23	0	5	28	242
04:30 PM	4	112	38	154	5	86	0	91	2	0	1	3	32	0	6	38	286
04:45 PM	2	86	47	135	7	134	0	141	0	0	3	3	21	1	9	31	310
Total	10	382	145	537	20	363	1	384	4	1	9	14	97	2	27	126	1061
05:00 PM	1	104	43	148	9	125	1	135	2	1	0	3	28	0	3	31	317
05:15 PM	1	89	68	158	2	111	0	113	2	0	3	5	33	1	3	37	313
05:30 PM	1	88	59	148	20	65	0	85	2	0	4	6	20	0	1	21	260
05:45 PM	0	85	49	134	9	76	1	86	0	0	0	0	31	0	6	37	257
Total	3	366	219	588	40	377	2	419	6	1	7	14	112	1	13	126	1147
Grand Total	24	1200	536	1760	89	1299	21	1409	11	4	25	40	287	5	50	342	3551
Apprch %	1.4	68.2	30.5		6.3	92.2	1.5		27.5	10	62.5		83.9	1.5	14.6		
Total %	0.7	33.8	15.1	49.6	2.5	36.6	0.6	39.7	0.3	0.1	0.7	1.1	8.1	0.1	1.4	9.6	

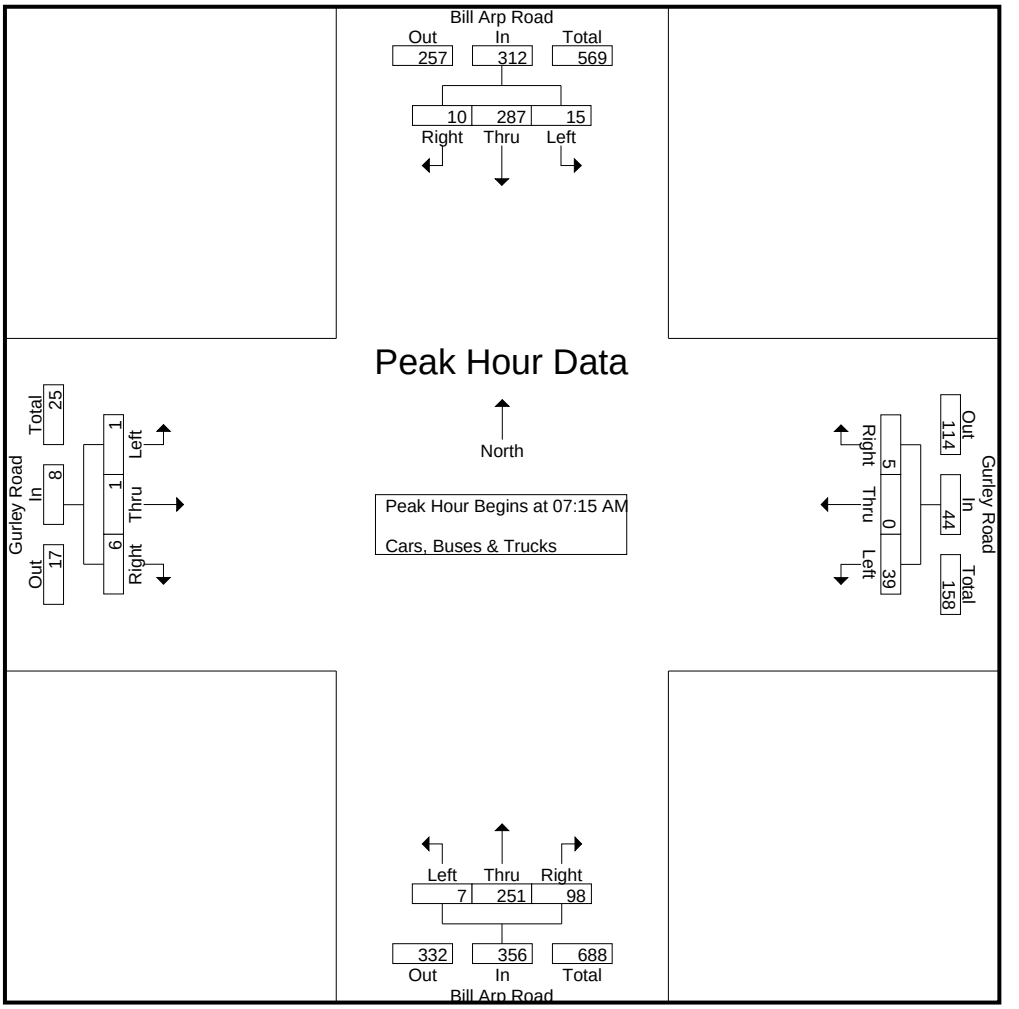
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Gurley Road
7-9 am | 4-6 pm

File Name : 20240150
Site Code : 20240150
Start Date : 04-25-2024
Page No : 2

	Bill Arp Road Northbound				Bill Arp Road Southbound				Gurley Road Eastbound				Gurley Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	62	27	91	**6**	64	**3**	73	0	**1**	0	1	**12**	0	**2**	**14**	179
07:30 AM	0	55	**28**	83	3	74	3	80	0	0	2	2	9	0	1	10	175
07:45 AM	1	65	22	88	6	**88**	2	**96**	**1**	0	**3**	**4**	6	0	0	6	**194**
08:00 AM	**4**	**69**	21	**94**	0	61	2	63	0	0	1	1	12	0	2	14	172
Total Volume	7	251	98	356	15	287	10	312	1	1	6	8	39	0	5	44	720
% App. Total	2	70.5	27.5		4.8	92	3.2		12.5	12.5	75		88.6	0	11.4		
PHF	.438	.909	.875	.947	.625	.815	.833	.813	.250	.250	.500	.500	.813	.000	.625	.786	.928



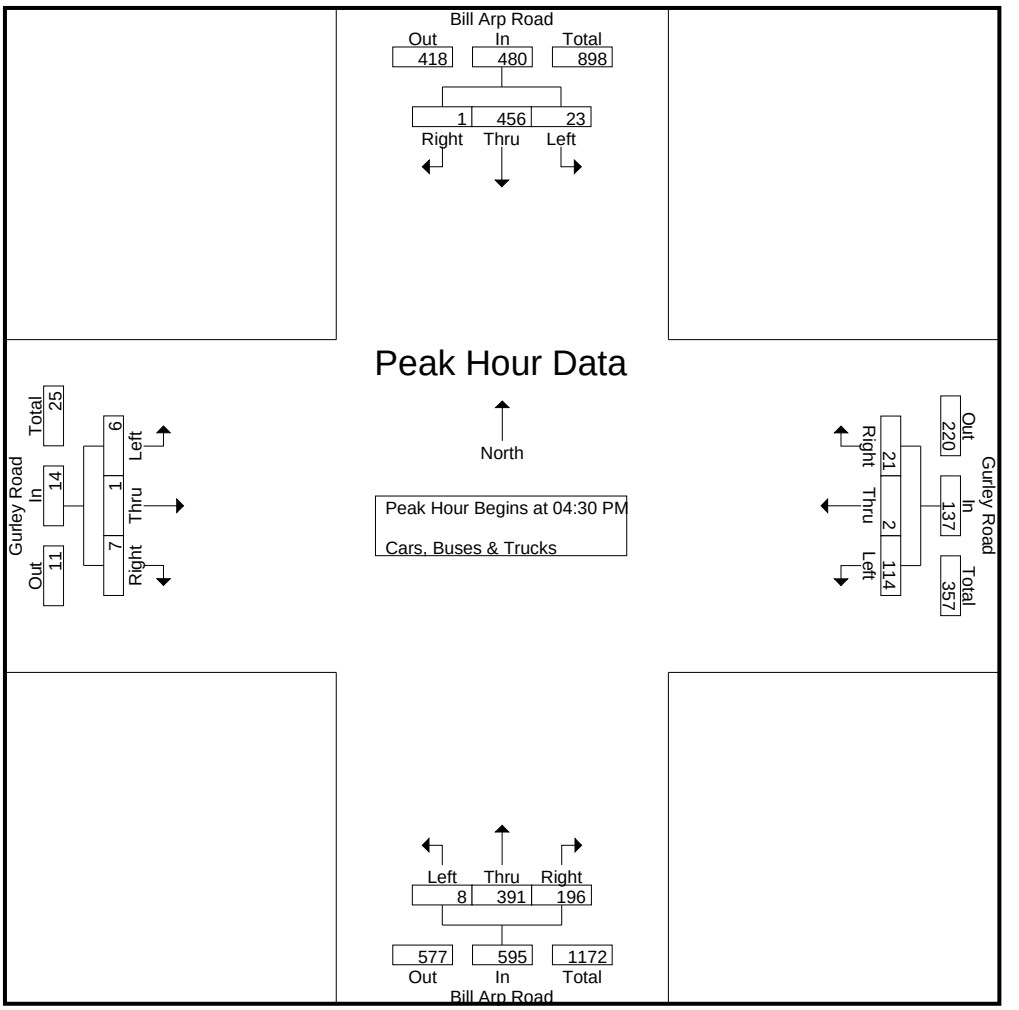
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Gurley Road
7-9 am | 4-6 pm

File Name : 20240150
Site Code : 20240150
Start Date : 04-25-2024
Page No : 3

	Bill Arp Road Northbound				Bill Arp Road Southbound				Gurley Road Eastbound				Gurley Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	**112**	38	154	5	86	0	91	**2**	0	1	3	32	0	6	**38**	286
04:45 PM	2	86	47	135	7	**134**	0	**141**	0	0	**3**	3	21	**1**	**9**	31	310
05:00 PM	1	104	43	148	**9**	125	**1**	135	2	**1**	0	3	28	0	3	31	**317**
05:15 PM	1	89	**68**	**158**	2	111	0	113	2	0	3	**5**	**33**	1	3	37	313
Total Volume	8	391	196	595	23	456	1	480	6	1	7	14	114	2	21	137	1226
% App. Total	1.3	65.7	32.9		4.8	95	0.2		42.9	7.1	50		83.2	1.5	15.3		
PHF	.500	.873	.721	.941	.639	.851	.250	.851	.750	.250	.583	.700	.864	.500	.583	.901	.967



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Arbor Vista Drive - Rocky Ridge Blvd
7-9 am | 4-6 pm

File Name : 20240151
Site Code : 20240151
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bill Arp Road Northbound				Bill Arp Road Southbound				Rocky Ridge Blvd Eastbound				Arbor Vista Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	52	4	60	1	63	2	66	3	0	16	19	11	0	3	14	159
07:15 AM	2	87	5	94	3	70	3	76	3	0	17	20	16	3	1	20	210
07:30 AM	9	74	8	91	0	82	3	85	4	0	22	26	18	0	5	23	225
07:45 AM	15	78	9	102	3	92	2	97	4	0	18	22	6	0	6	12	233
Total	30	291	26	347	7	307	10	324	14	0	73	87	51	3	15	69	827
08:00 AM	4	88	6	98	0	74	0	74	1	0	15	16	11	0	5	16	204
08:15 AM	8	49	6	63	0	91	1	92	3	0	17	20	9	0	0	9	184
08:30 AM	11	63	3	77	3	83	0	86	2	1	14	17	7	1	1	9	189
08:45 AM	9	101	7	117	2	67	1	70	1	0	15	16	8	0	1	9	212
Total	32	301	22	355	5	315	2	322	7	1	61	69	35	1	7	43	789
*** BREAK ***																	
04:00 PM	29	105	11	145	4	81	5	90	11	1	29	41	8	1	5	14	290
04:15 PM	20	120	7	147	2	96	4	102	5	0	14	19	7	0	2	9	277
04:30 PM	29	148	11	188	4	106	9	119	5	1	10	16	5	2	1	8	331
04:45 PM	25	122	12	159	1	148	9	158	12	1	14	27	6	1	1	8	352
Total	103	495	41	639	11	431	27	469	33	3	67	103	26	4	9	39	1250
05:00 PM	22	135	12	169	1	144	8	153	11	2	17	30	9	4	2	15	367
05:15 PM	29	144	16	189	5	139	3	147	12	0	26	38	13	0	2	15	389
05:30 PM	27	140	7	174	4	75	10	89	5	1	19	25	5	1	3	9	297
05:45 PM	27	128	17	172	2	103	2	107	4	0	22	26	15	0	2	17	322
Total	105	547	52	704	12	461	23	496	32	3	84	119	42	5	9	56	1375
Grand Total	270	1634	141	2045	35	1514	62	1611	86	7	285	378	154	13	40	207	4241
Apprch %	13.2	79.9	6.9		2.2	94	3.8		22.8	1.9	75.4		74.4	6.3	19.3		
Total %	6.4	38.5	3.3	48.2	0.8	35.7	1.5	38	2	0.2	6.7	8.9	3.6	0.3	0.9	4.9	

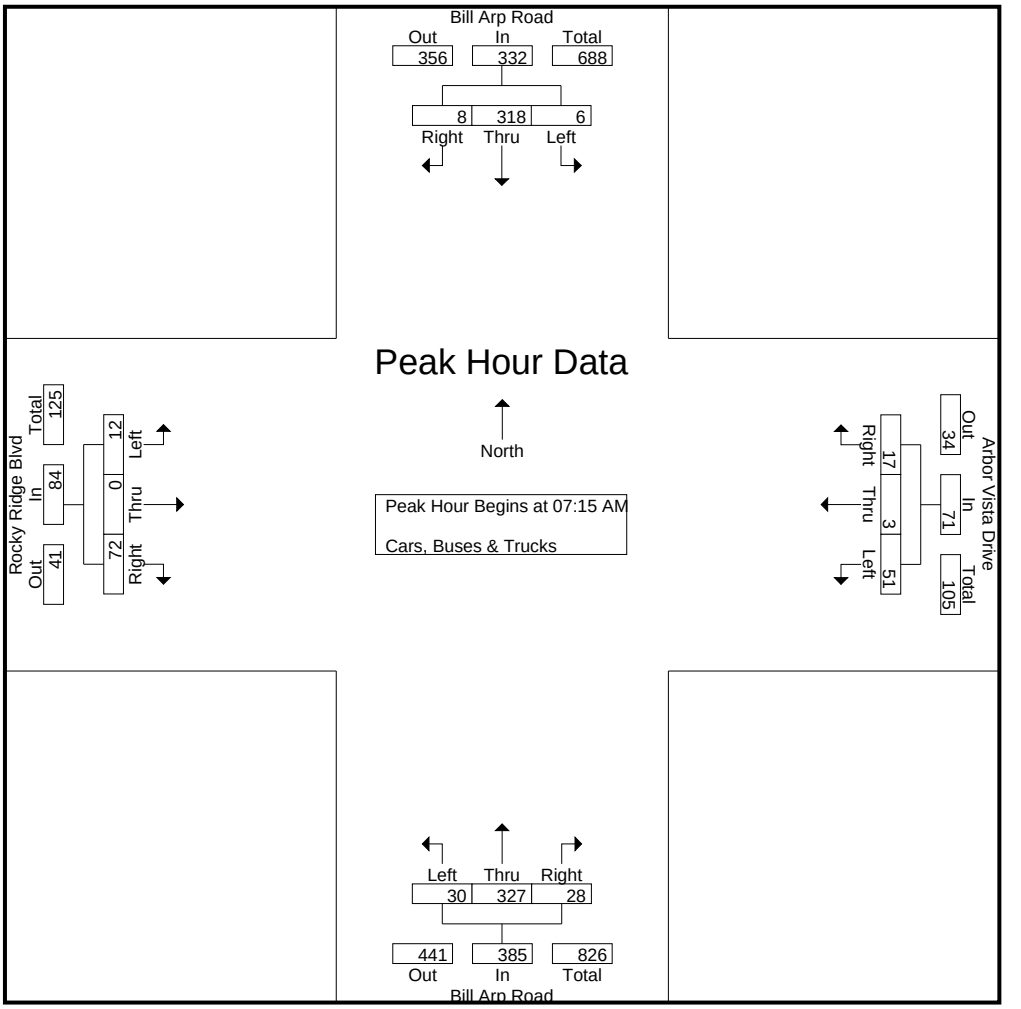
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Arbor Vista Drive -
Rocky Ridge Blvd
7-9 am | 4-6 pm

File Name : 20240151
Site Code : 20240151
Start Date : 04-25-2024
Page No : 2

	Bill Arp Road Northbound				Bill Arp Road Southbound				Rocky Ridge Blvd Eastbound				Arbor Vista Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	2	87	5	94	**3**	70	**3**	76	3	0	17	20	16	**3**	1	20	210
07:30 AM	9	74	8	91	0	82	3	85	**4**	0	**22**	**26**	**18**	0	5	**23**	225
07:45 AM	**15**	78	**9**	**102**	3	**92**	2	**97**	4	0	18	22	6	0	**6**	12	**233**
08:00 AM	4	**88**	6	98	0	74	0	74	1	0	15	16	11	0	5	16	204
Total Volume	30	327	28	385	6	318	8	332	12	0	72	84	51	3	17	71	872
% App. Total	7.8	84.9	7.3		1.8	95.8	2.4		14.3	0	85.7		71.8	4.2	23.9		
PHF	.500	.929	.778	.944	.500	.864	.667	.856	.750	.000	.818	.808	.708	.250	.708	.772	.936



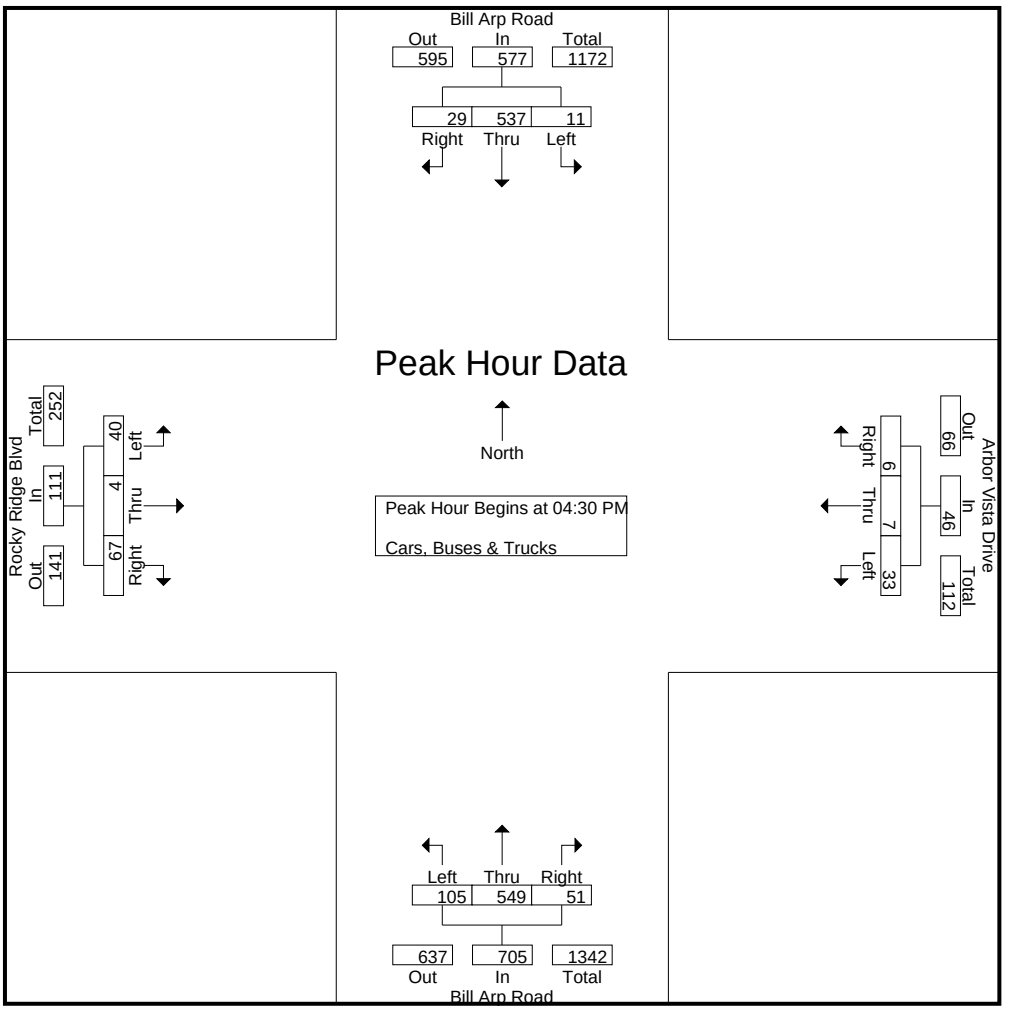
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Arbor Vista Drive - Rocky Ridge Blvd
7-9 am | 4-6 pm

File Name : 20240151
Site Code : 20240151
Start Date : 04-25-2024
Page No : 3

	Bill Arp Road Northbound				Bill Arp Road Southbound				Rocky Ridge Blvd Eastbound				Arbor Vista Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**29**	**148**	11	188	4	106	**9**	119	5	1	10	16	5	2	1	8	331
04:45 PM	25	122	12	159	1	**148**	9	**158**	**12**	1	14	27	6	1	1	8	352
05:00 PM	22	135	12	169	1	144	8	153	11	**2**	17	30	9	**4**	**2**	**15**	367
05:15 PM	29	144	**16**	**189**	**5**	139	3	147	12	0	**26**	**38**	**13**	0	2	15	**389**
Total Volume	105	549	51	705	11	537	29	577	40	4	67	111	33	7	6	46	1439
% App. Total	14.9	77.9	7.2		1.9	93.1	5		36	3.6	60.4		71.7	15.2	13		
PHF	.905	.927	.797	.933	.550	.907	.806	.913	.833	.500	.644	.730	.635	.438	.750	.767	.925



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Rose Avenue -
Bright Star Connector
7-9 am | 4-6 pm

File Name : 20240152
Site Code : 20240152
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bill Arp Road Northbound				Bill Arp Road Southbound				Bright Star Connector Eastbound				Rose Avenue Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	59	88	152	6	72	4	82	2	4	11	17	22	10	10	42	293
07:15 AM	13	83	102	198	12	84	13	109	3	17	9	29	23	14	5	42	378
07:30 AM	12	86	113	211	14	95	7	116	9	24	11	44	27	7	7	41	412
07:45 AM	16	85	128	229	17	79	5	101	5	18	6	29	41	9	10	60	419
Total	46	313	431	790	49	330	29	408	19	63	37	119	113	40	32	185	1502
08:00 AM	5	99	91	195	23	110	1	134	0	17	11	28	34	6	10	50	407
08:15 AM	10	73	82	165	9	85	2	96	1	13	10	24	61	10	18	89	374
08:30 AM	11	62	55	128	15	105	1	121	2	11	8	21	42	13	11	66	336
08:45 AM	9	76	53	138	13	85	2	100	1	7	8	16	37	4	13	54	308
Total	35	310	281	626	60	385	6	451	4	48	37	89	174	33	52	259	1425
*** BREAK ***																	
04:00 PM	12	112	62	186	13	85	10	108	4	12	12	28	51	19	29	99	421
04:15 PM	15	119	64	198	28	73	5	106	9	12	11	32	69	20	19	108	444
04:30 PM	14	141	83	238	18	93	9	120	4	23	12	39	43	15	39	97	494
04:45 PM	6	125	64	195	21	106	6	133	3	16	18	37	58	21	33	112	477
Total	47	497	273	817	80	357	30	467	20	63	53	136	221	75	120	416	1836
05:00 PM	7	140	55	202	23	160	9	192	7	27	27	61	63	34	26	123	578
05:15 PM	17	141	77	235	28	137	13	178	13	26	17	56	66	24	32	122	591
05:30 PM	16	154	75	245	18	139	11	168	8	27	10	45	53	27	27	107	565
05:45 PM	16	140	82	238	25	90	6	121	8	21	16	45	67	17	37	121	525
Total	56	575	289	920	94	526	39	659	36	101	70	207	249	102	122	473	2259
Grand Total	184	1695	1274	3153	283	1598	104	1985	79	275	197	551	757	250	326	1333	7022
Apprch %	5.8	53.8	40.4		14.3	80.5	5.2		14.3	49.9	35.8		56.8	18.8	24.5		
Total %	2.6	24.1	18.1	44.9	4	22.8	1.5	28.3	1.1	3.9	2.8	7.8	10.8	3.6	4.6	19	

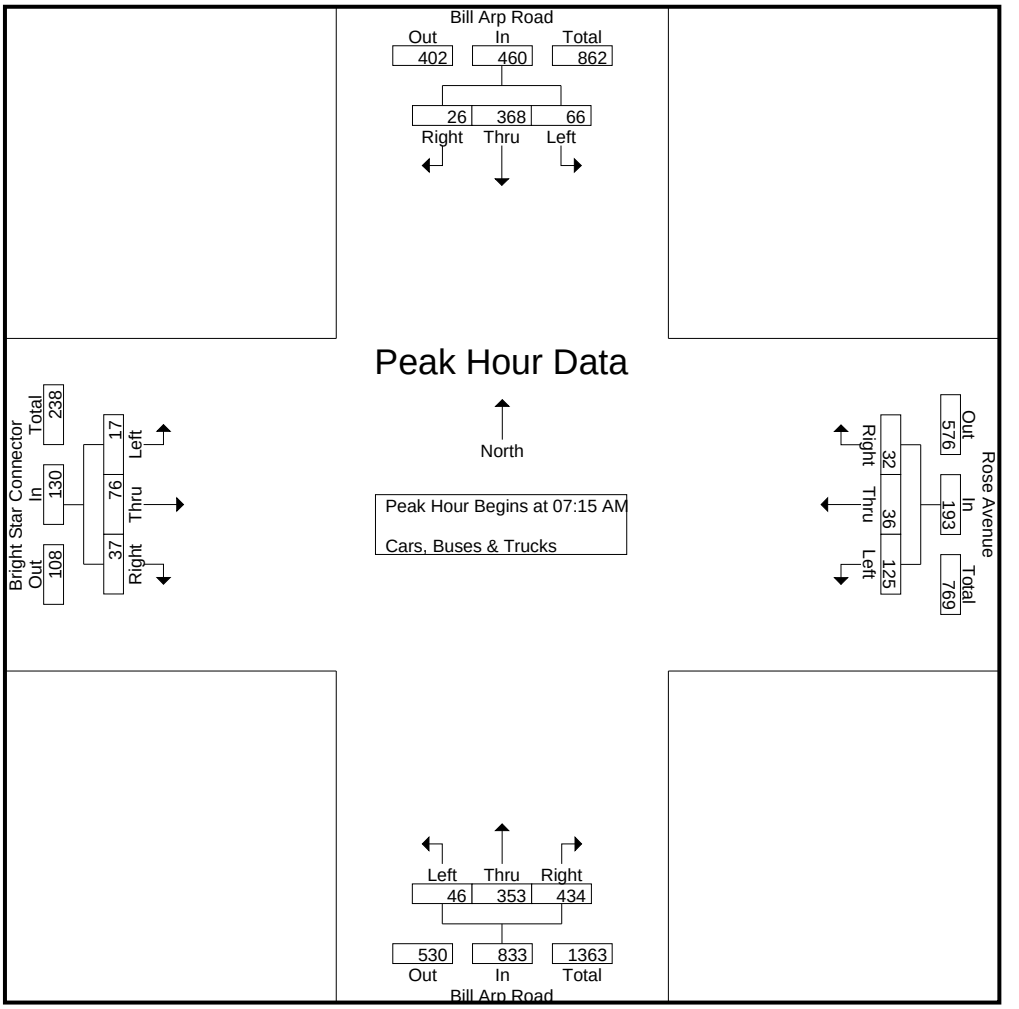
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Rose Avenue -
Bright Star Connector
7-9 am | 4-6 pm

File Name : 20240152
Site Code : 20240152
Start Date : 04-25-2024
Page No : 2

	Bill Arp Road Northbound				Bill Arp Road Southbound				Bright Star Connector Eastbound				Rose Avenue Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	13	83	102	198	12	84	**13**	109	3	17	9	29	23	**14**	5	42	378
07:30 AM	12	86	113	211	14	95	7	116	**9**	**24**	**11**	**44**	27	7	7	41	412
07:45 AM	**16**	85	**128**	**229**	17	79	5	101	5	18	6	29	**41**	9	**10**	**60**	**419**
08:00 AM	5	**99**	91	195	**23**	**110**	1	**134**	0	17	11	28	34	6	10	50	407
Total Volume	46	353	434	833	66	368	26	460	17	76	37	130	125	36	32	193	1616
% App. Total	5.5	42.4	52.1		14.3	80	5.7		13.1	58.5	28.5		64.8	18.7	16.6		
PHF	.719	.891	.848	.909	.717	.836	.500	.858	.472	.792	.841	.739	.762	.643	.800	.804	.964



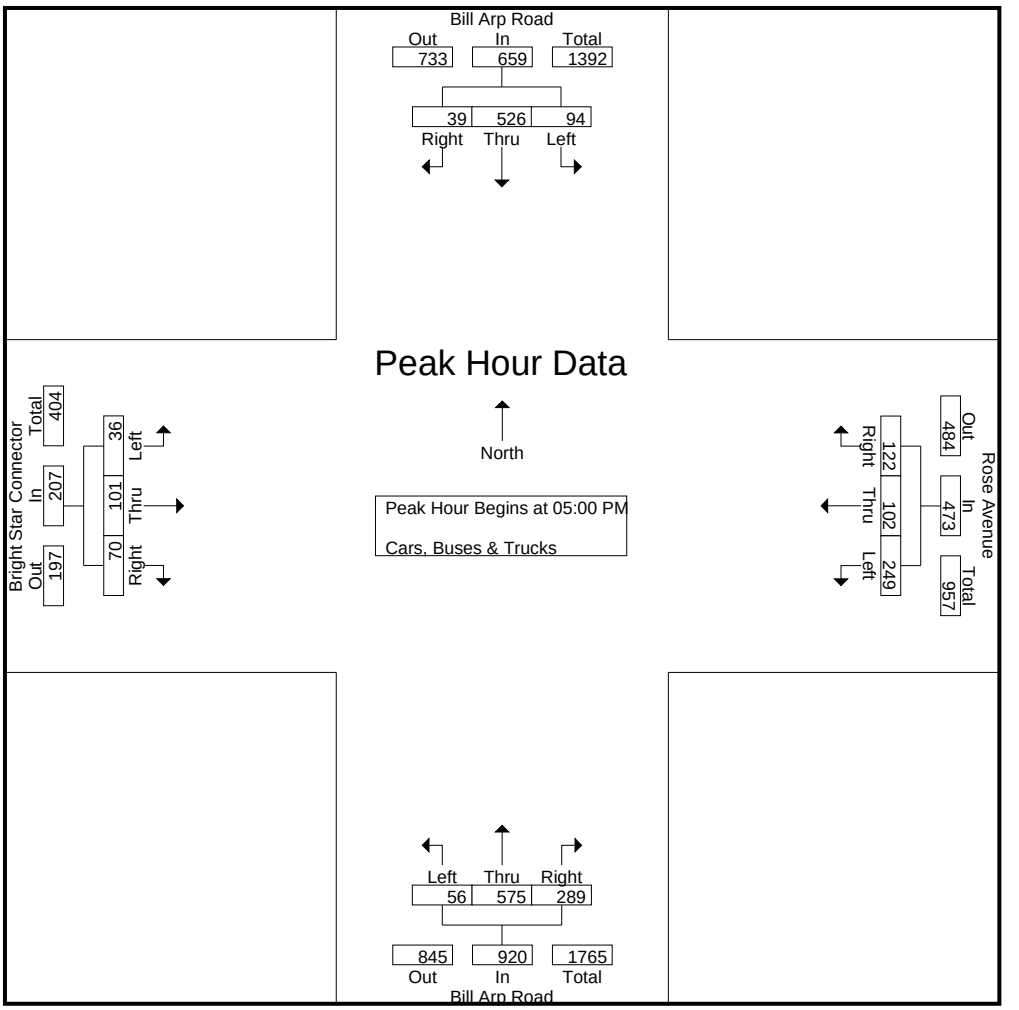
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Rose Avenue -
Bright Star Connector
7-9 am | 4-6 pm

File Name : 20240152
Site Code : 20240152
Start Date : 04-25-2024
Page No : 3

	Bill Arp Road Northbound				Bill Arp Road Southbound				Bright Star Connector Eastbound				Rose Avenue Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	7	140	55	202	23	**160**	9	**192**	7	**27**	**27**	**61**	63	**34**	26	**123**	578
05:15 PM	**17**	141	77	235	**28**	137	**13**	178	**13**	26	17	56	66	24	32	122	**591**
05:30 PM	16	**154**	75	**245**	18	139	11	168	8	27	10	45	53	27	27	107	565
05:45 PM	16	140	**82**	238	25	90	6	121	8	21	16	45	**67**	17	**37**	121	525
Total Volume	56	575	289	920	94	526	39	659	36	101	70	207	249	102	122	473	2259
% App. Total	6.1	62.5	31.4		14.3	79.8	5.9		17.4	48.8	33.8		52.6	21.6	25.8		
PHF	.824	.933	.881	.939	.839	.822	.750	.858	.692	.935	.648	.848	.929	.750	.824	.961	.956



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Concourse Parkway
7-9 am | 4-6 pm

File Name : 20240153
Site Code : 20240153
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bill Arp Road Northbound					Bill Arp Road Southbound				Concourse Parkway Eastbound				Concourse Parkway Westbound				
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	14	135	32	2	183	9	77	7	93	2	0	5	7	24	0	15	39	322
07:15 AM	16	183	25	3	227	4	85	9	98	5	4	6	15	25	4	10	39	379
07:30 AM	16	193	41	2	252	7	94	12	113	5	1	5	11	30	1	12	43	419
07:45 AM	17	205	56	6	284	9	75	11	95	6	1	6	13	30	0	13	43	435
Total	63	716	154	13	946	29	331	39	399	18	6	22	46	109	5	50	164	1555
08:00 AM	17	174	64	8	263	12	106	13	131	9	1	9	19	34	1	10	45	458
08:15 AM	11	147	67	3	228	12	86	17	115	6	2	12	20	45	4	10	59	422
08:30 AM	16	115	61	10	202	7	106	11	124	7	6	12	25	58	4	6	68	419
08:45 AM	19	122	66	6	213	5	99	4	108	4	4	12	20	55	4	12	71	412
Total	63	558	258	27	906	36	397	45	478	26	13	45	84	192	13	38	243	1711
*** BREAK ***																		
04:00 PM	27	166	125	4	322	9	111	6	126	6	5	16	27	102	5	12	119	594
04:15 PM	24	167	115	2	308	12	81	11	104	5	2	25	32	106	4	21	131	575
04:30 PM	36	213	119	12	380	15	126	5	146	9	10	18	37	106	7	12	125	688
04:45 PM	21	157	119	9	306	5	150	3	158	11	4	19	34	87	11	23	121	619
Total	108	703	478	27	1316	41	468	25	534	31	21	78	130	401	27	68	496	2476
05:00 PM	35	184	107	5	331	4	201	9	214	10	1	37	48	104	12	6	122	715
05:15 PM	23	211	103	5	342	8	171	7	186	10	6	21	37	105	9	11	125	690
05:30 PM	27	220	98	4	349	15	151	10	176	5	4	23	32	97	9	20	126	683
05:45 PM	23	214	110	6	353	15	121	8	144	8	0	22	30	88	7	15	110	637
Total	108	829	418	20	1375	42	644	34	720	33	11	103	147	394	37	52	483	2725
Grand Total	342	2806	1308	87	4543	148	1840	143	2131	108	51	248	407	1096	82	208	1386	8467
Apprch %	7.5	61.8	28.8	1.9		6.9	86.3	6.7		26.5	12.5	60.9		79.1	5.9	15		
Total %	4	33.1	15.4	1	53.7	1.7	21.7	1.7	25.2	1.3	0.6	2.9	4.8	12.9	1	2.5	16.4	

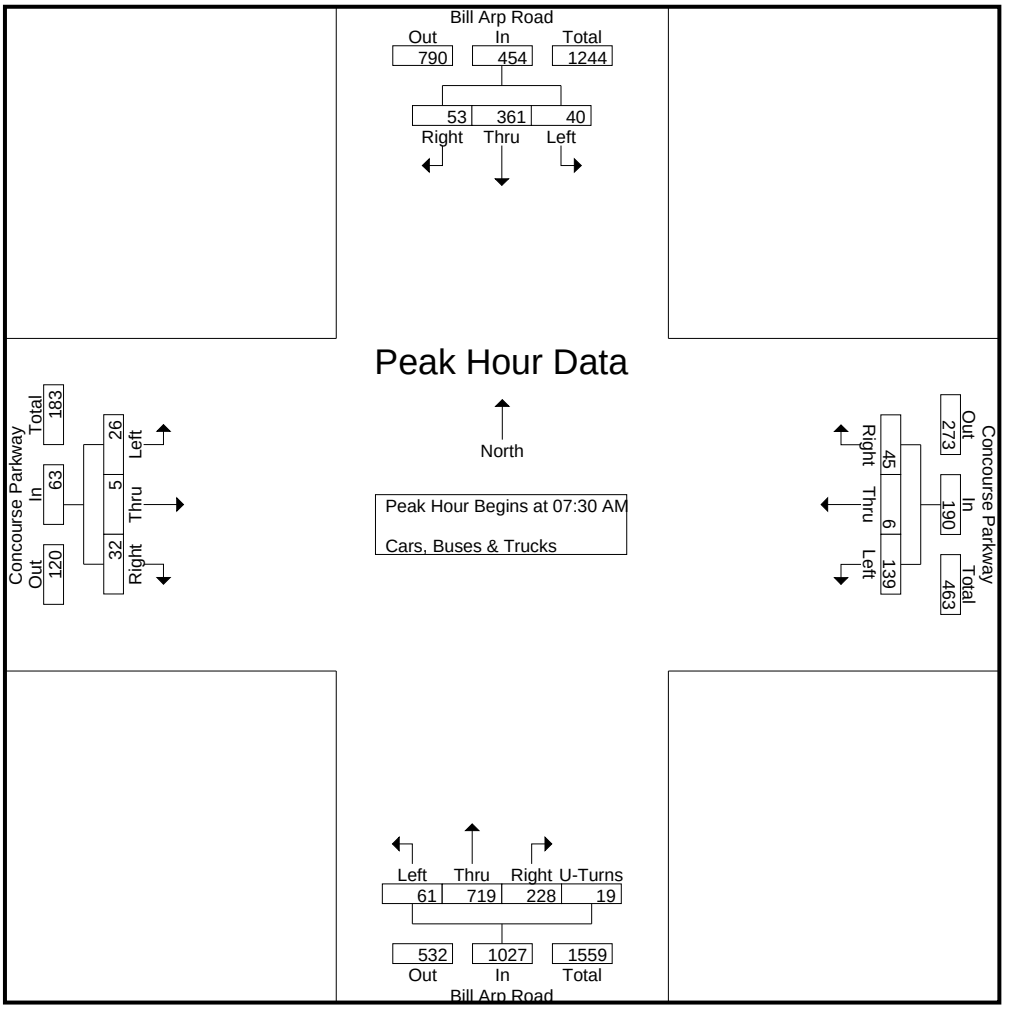
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Concourse Parkway
7-9 am | 4-6 pm

File Name : 20240153
Site Code : 20240153
Start Date : 04-25-2024
Page No : 2

	Bill Arp Road Northbound					Bill Arp Road Southbound				Concourse Parkway Eastbound				Concourse Parkway Westbound				
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	16	193	41	2	252	7	94	12	113	5	1	5	11	30	1	12	43	419
07:45 AM	**17**	**205**	56	6	**284**	9	75	11	95	6	1	6	13	30	0	**13**	43	435
08:00 AM	17	174	64	**8**	263	**12**	**106**	13	**131**	**9**	1	9	19	34	1	10	45	**458**
08:15 AM	11	147	**67**	3	228	12	86	**17**	115	6	**2**	**12**	**20**	**45**	**4**	10	**59**	422
Total Volume	61	719	228	19	1027	40	361	53	454	26	5	32	63	139	6	45	190	1734
% App. Total	5.9	70	22.2	1.9		8.8	79.5	11.7		41.3	7.9	50.8		73.2	3.2	23.7		
PHF	.897	.877	.851	.594	.904	.833	.851	.779	.866	.722	.625	.667	.788	.772	.375	.865	.805	.947



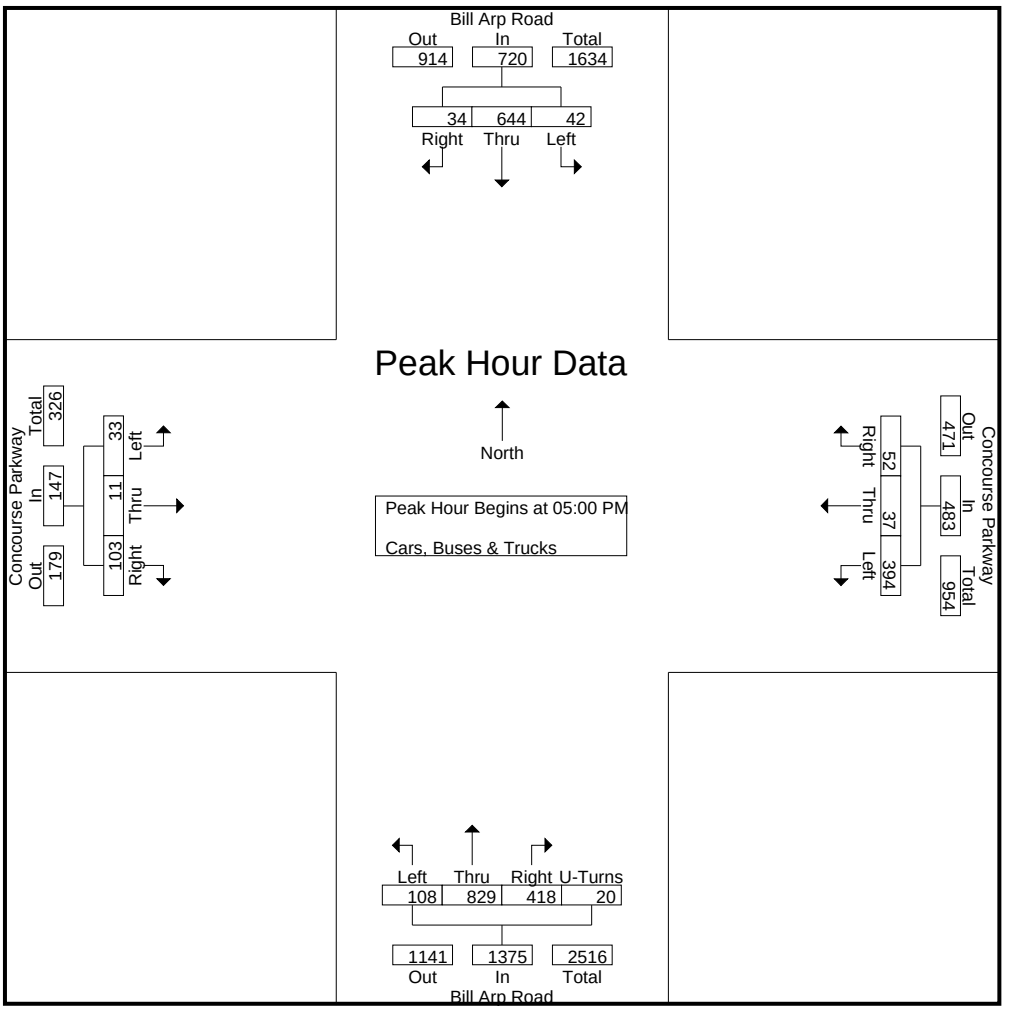
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ Concourse Parkway
7-9 am | 4-6 pm

File Name : 20240153
Site Code : 20240153
Start Date : 04-25-2024
Page No : 3

	Bill Arp Road Northbound					Bill Arp Road Southbound				Concourse Parkway Eastbound				Concourse Parkway Westbound				
Start Time	Left	Thru	Right	U-Turns	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 05:00 PM																		
05:00 PM	**35**	184	107	5	331	4	**201**	9	**214**	**10**	1	**37**	**48**	104	**12**	6	122	**715**
05:15 PM	23	211	103	5	342	8	171	7	186	10	**6**	21	37	**105**	9	11	125	690
05:30 PM	27	**220**	98	4	349	**15**	151	**10**	176	5	4	23	32	97	9	**20**	**126**	683
05:45 PM	23	214	**110**	**6**	**353**	15	121	8	144	8	0	22	30	88	7	15	110	637
Total Volume	108	829	418	20	1375	42	644	34	720	33	11	103	147	394	37	52	483	2725
% App. Total	7.9	60.3	30.4	1.5		5.8	89.4	4.7		22.4	7.5	70.1		81.6	7.7	10.8		
PHF	.771	.942	.950	.833	.974	.700	.801	.850	.841	.825	.458	.696	.766	.938	.771	.650	.958	.953



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ I-20 WB Ramps
7-9 am | 4-6 pm

File Name : 20240154
Site Code : 20240154
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bill Arp Road Northbound				Bill Arp Road Southbound				I-20 WB Ramps Eastbound				I-20 WB Ramps Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	28	104	0	132	0	133	11	144	0	0	0	0	85	0	56	141	417
07:15 AM	26	132	0	158	0	147	11	158	0	0	0	0	84	0	67	151	467
07:30 AM	41	161	0	202	0	126	18	144	0	0	0	0	125	0	73	198	544
07:45 AM	36	185	0	221	0	162	17	179	0	0	0	0	113	0	63	176	576
Total	131	582	0	713	0	568	57	625	0	0	0	0	407	0	259	666	2004
08:00 AM	25	163	0	188	0	178	18	196	0	0	0	0	153	0	91	244	628
08:15 AM	35	133	0	168	0	177	22	199	0	0	0	0	141	0	88	229	596
08:30 AM	36	183	0	219	0	197	21	218	0	0	0	0	110	0	64	174	611
08:45 AM	35	141	0	176	0	173	22	195	0	0	0	0	141	0	107	248	619
Total	131	620	0	751	0	725	83	808	0	0	0	0	545	0	350	895	2454
*** BREAK ***																	
04:00 PM	68	199	0	267	0	257	88	345	0	0	0	0	222	0	131	353	965
04:15 PM	78	212	0	290	0	254	67	321	0	0	0	0	202	0	135	337	948
04:30 PM	74	235	0	309	0	235	62	297	0	0	0	0	212	0	122	334	940
04:45 PM	63	233	0	296	0	244	50	294	0	0	0	0	218	0	116	334	924
Total	283	879	0	1162	0	990	267	1257	0	0	0	0	854	0	504	1358	3777
05:00 PM	81	214	0	295	0	221	69	290	0	0	0	0	220	0	117	337	922
05:15 PM	73	219	0	292	0	246	59	305	0	0	0	0	185	0	129	314	911
05:30 PM	64	236	0	300	0	252	58	310	0	0	0	0	193	0	145	338	948
05:45 PM	61	205	0	266	0	228	72	300	0	0	0	0	189	0	122	311	877
Total	279	874	0	1153	0	947	258	1205	0	0	0	0	787	0	513	1300	3658
Grand Total	824	2955	0	3779	0	3230	665	3895	0	0	0	0	2593	0	1626	4219	11893
Apprch %	21.8	78.2	0		0	82.9	17.1		0	0	0		61.5	0	38.5		
Total %	6.9	24.8	0	31.8	0	27.2	5.6	32.8	0	0	0	0	21.8	0	13.7	35.5	

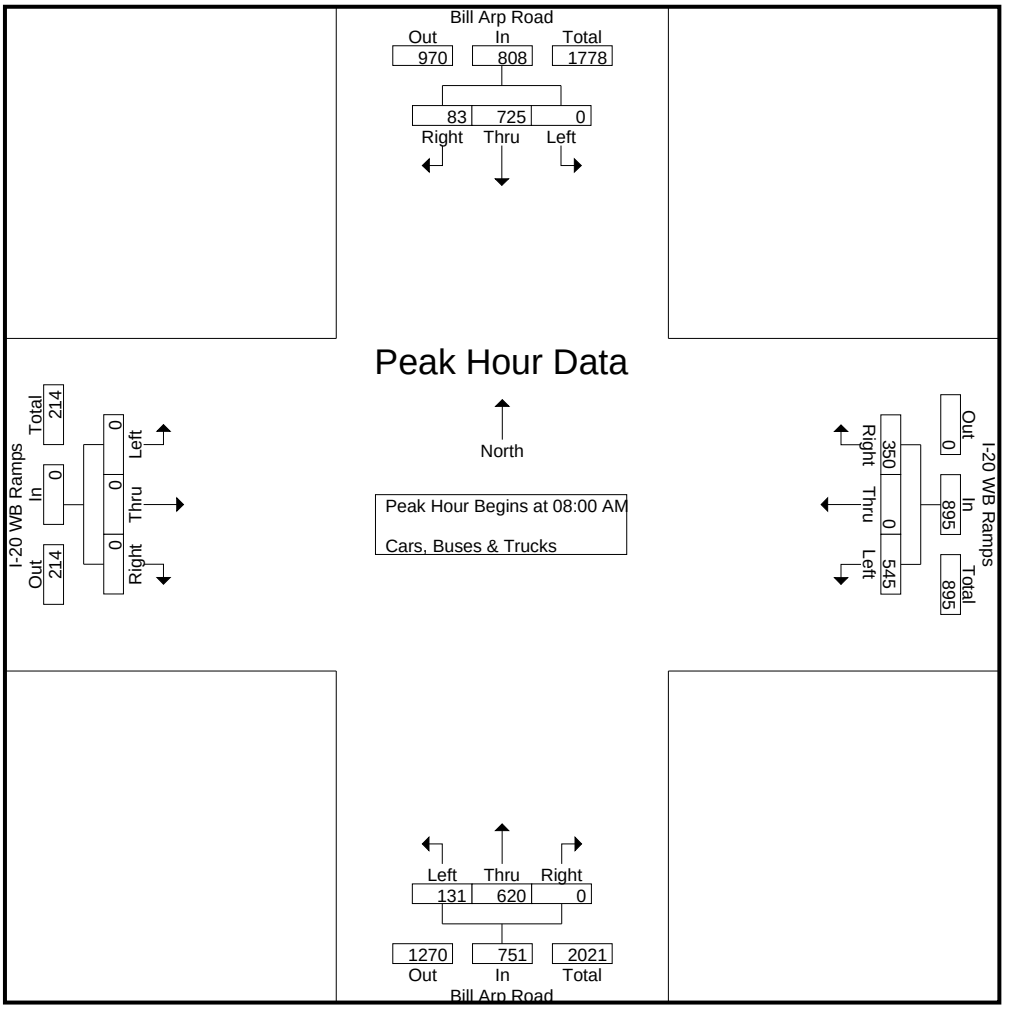
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ I-20 WB Ramps
7-9 am | 4-6 pm

File Name : 20240154
Site Code : 20240154
Start Date : 04-25-2024
Page No : 2

	Bill Arp Road Northbound				Bill Arp Road Southbound				I-20 WB Ramps Eastbound				I-20 WB Ramps Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	25	163	0	188	0	178	18	196	0	0	0	0	**153**	0	91	244	**628**
08:15 AM	35	133	0	168	0	177	**22**	199	0	0	0	0	141	0	88	229	596
08:30 AM	**36**	**183**	0	**219**	0	**197**	21	**218**	0	0	0	0	110	0	64	174	611
08:45 AM	35	141	0	176	0	173	22	195	0	0	0	0	141	0	**107**	**248**	619
Total Volume	131	620	0	751	0	725	83	808	0	0	0	0	545	0	350	895	2454
% App. Total	17.4	82.6	0		0	89.7	10.3		0	0	0		60.9	0	39.1		
PHF	.910	.847	.000	.857	.000	.920	.943	.927	.000	.000	.000	.000	.891	.000	.818	.902	.977



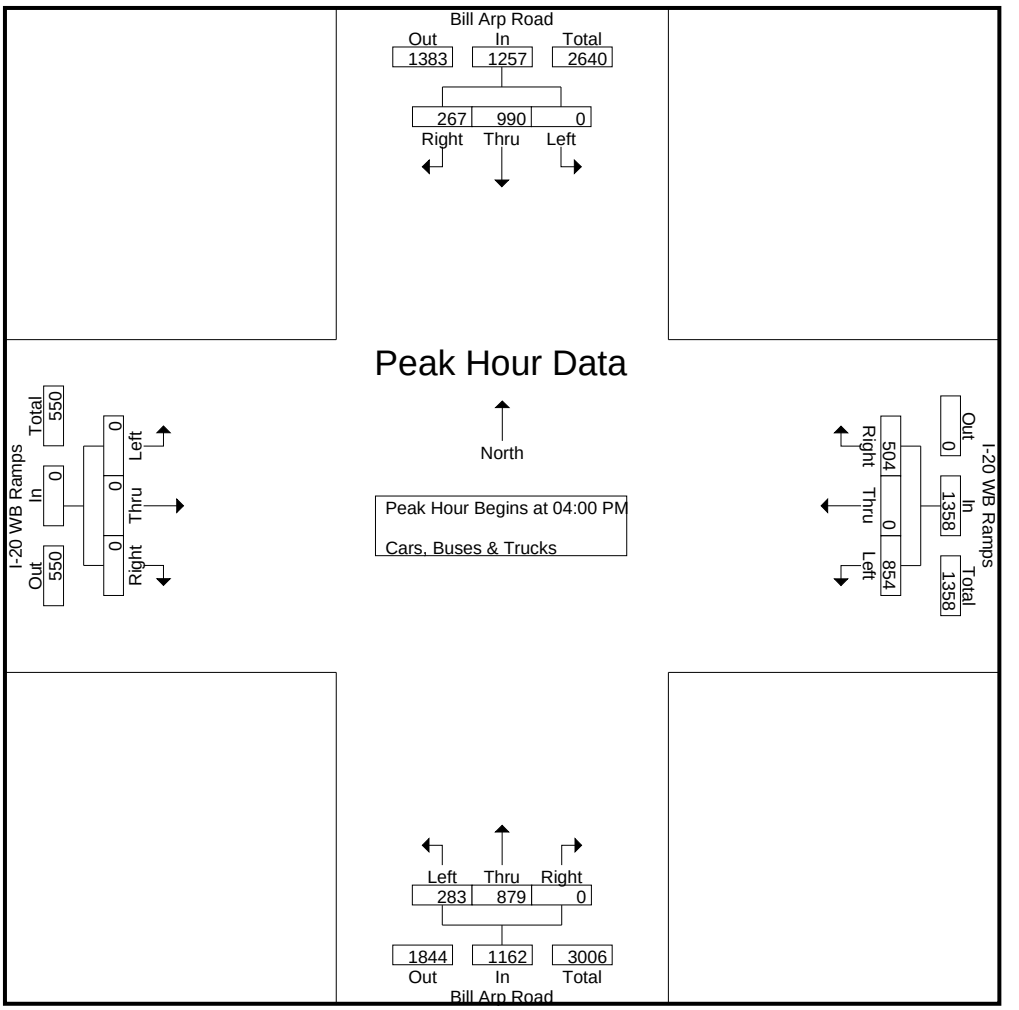
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ I-20 WB Ramps
7-9 am | 4-6 pm

File Name : 20240154
Site Code : 20240154
Start Date : 04-25-2024
Page No : 3

	Bill Arp Road Northbound				Bill Arp Road Southbound				I-20 WB Ramps Eastbound				I-20 WB Ramps Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	68	199	0	267	0	**257**	**88**	**345**	0	0	0	0	**222**	0	131	**353**	**965**
04:15 PM	**78**	212	0	290	0	254	67	321	0	0	0	0	202	0	**135**	337	948
04:30 PM	74	**235**	0	**309**	0	235	62	297	0	0	0	0	212	0	122	334	940
04:45 PM	63	233	0	296	0	244	50	294	0	0	0	0	218	0	116	334	924
Total Volume	283	879	0	1162	0	990	267	1257	0	0	0	0	854	0	504	1358	3777
% App. Total	24.4	75.6	0		0	78.8	21.2		0	0	0		62.9	0	37.1		
PHF	.907	.935	.000	.940	.000	.963	.759	.911	.000	.000	.000	.000	.962	.000	.933	.962	.978



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ I-20 EB Ramps
7-9 am | 4-6 pm

File Name : 20240155
Site Code : 20240155
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Bill Arp Road Northbound				Bill Arp Road Southbound				I-20 EB Ramps Eastbound				I-20 EB Ramps Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	65	120	185	43	175	0	218	67	0	79	146	0	0	0	0	549
07:15 AM	0	80	128	208	32	199	0	231	78	0	131	209	0	0	0	0	648
07:30 AM	0	136	148	284	53	198	0	251	66	0	115	181	0	0	0	0	716
07:45 AM	0	136	159	295	53	222	0	275	85	0	94	179	0	0	0	0	749
Total	0	417	555	972	181	794	0	975	296	0	419	715	0	0	0	0	2662
08:00 AM	0	136	160	296	72	259	0	331	52	0	73	125	0	0	0	0	752
08:15 AM	0	149	139	288	77	241	0	318	19	0	67	86	0	0	0	0	692
08:30 AM	0	182	167	349	80	227	0	307	37	0	68	105	0	0	0	0	761
08:45 AM	0	147	144	291	68	246	0	314	29	0	56	85	0	0	0	0	690
Total	0	614	610	1224	297	973	0	1270	137	0	264	401	0	0	0	0	2895
*** BREAK ***																	
04:00 PM	0	237	131	368	79	400	0	479	30	0	61	91	0	0	0	0	938
04:15 PM	0	248	130	378	95	361	0	456	42	0	73	115	0	0	0	0	949
04:30 PM	0	279	124	403	78	369	0	447	30	9	76	115	0	0	0	0	965
04:45 PM	0	259	136	395	78	384	0	462	37	0	69	106	0	0	0	0	963
Total	0	1023	521	1544	330	1514	0	1844	139	9	279	427	0	0	0	0	3815
05:00 PM	0	246	155	401	91	350	0	441	49	0	99	148	0	0	0	0	990
05:15 PM	0	236	196	432	106	325	0	431	56	0	116	172	0	0	0	0	1035
05:30 PM	0	232	207	439	112	333	0	445	68	0	107	175	0	0	0	0	1059
05:45 PM	0	205	188	393	95	322	0	417	61	0	92	153	0	0	0	0	963
Total	0	919	746	1665	404	1330	0	1734	234	0	414	648	0	0	0	0	4047
Grand Total	0	2973	2432	5405	1212	4611	0	5823	806	9	1376	2191	0	0	0	0	13419
Apprch %	0	55	45		20.8	79.2	0		36.8	0.4	62.8		0	0	0		
Total %	0	22.2	18.1	40.3	9	34.4	0	43.4	6	0.1	10.3	16.3	0	0	0	0	

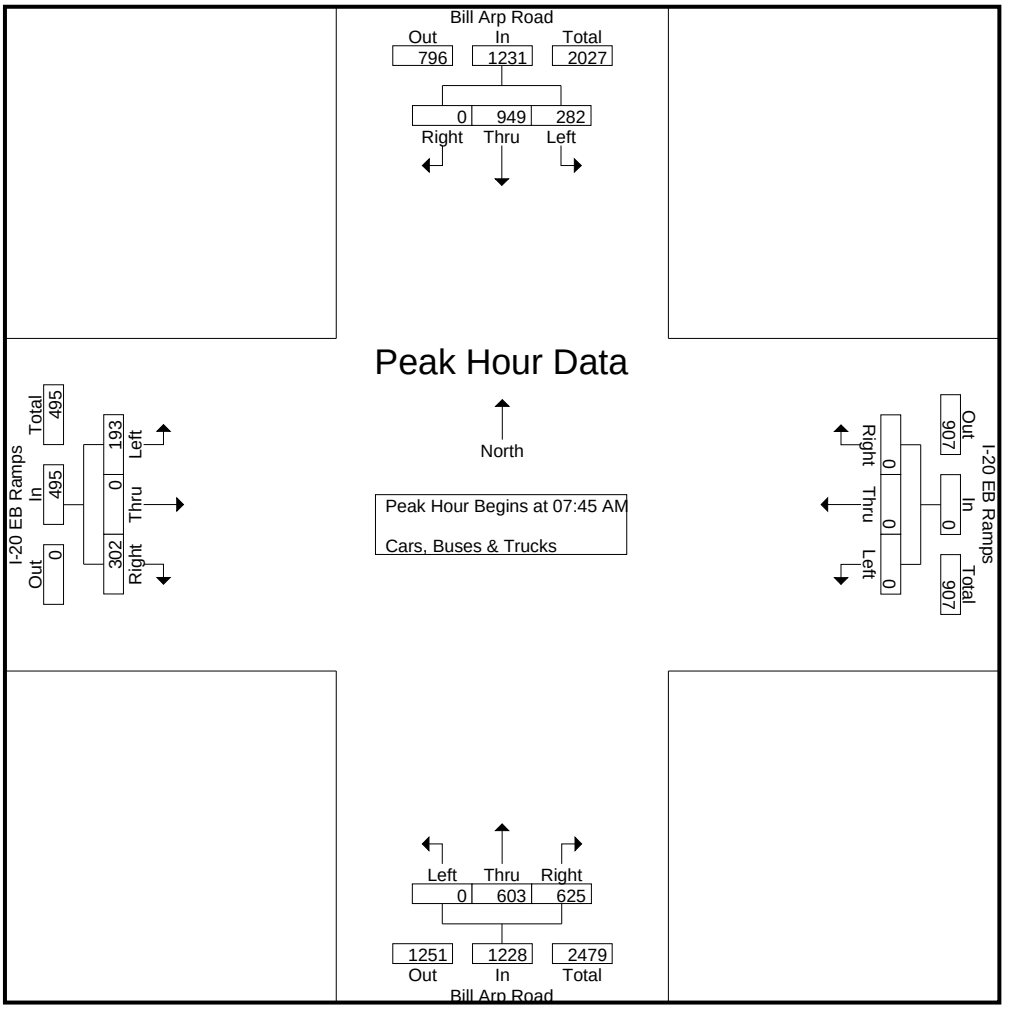
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ I-20 EB Ramps
7-9 am | 4-6 pm

File Name : 20240155
Site Code : 20240155
Start Date : 04-25-2024
Page No : 2

	Bill Arp Road Northbound				Bill Arp Road Southbound				I-20 EB Ramps Eastbound				I-20 EB Ramps Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	136	159	295	53	222	0	275	**85**	0	**94**	**179**	0	0	0	0	749
08:00 AM	0	136	160	296	72	**259**	0	**331**	52	0	73	125	0	0	0	0	752
08:15 AM	0	149	139	288	77	241	0	318	19	0	67	86	0	0	0	0	692
08:30 AM	0	**182**	**167**	**349**	**80**	227	0	307	37	0	68	105	0	0	0	0	**761**
Total Volume	0	603	625	1228	282	949	0	1231	193	0	302	495	0	0	0	0	2954
% App. Total	0	49.1	50.9		22.9	77.1	0		39	0	61		0	0	0		
PHF	.000	.828	.936	.880	.881	.916	.000	.930	.568	.000	.803	.691	.000	.000	.000	.000	.970



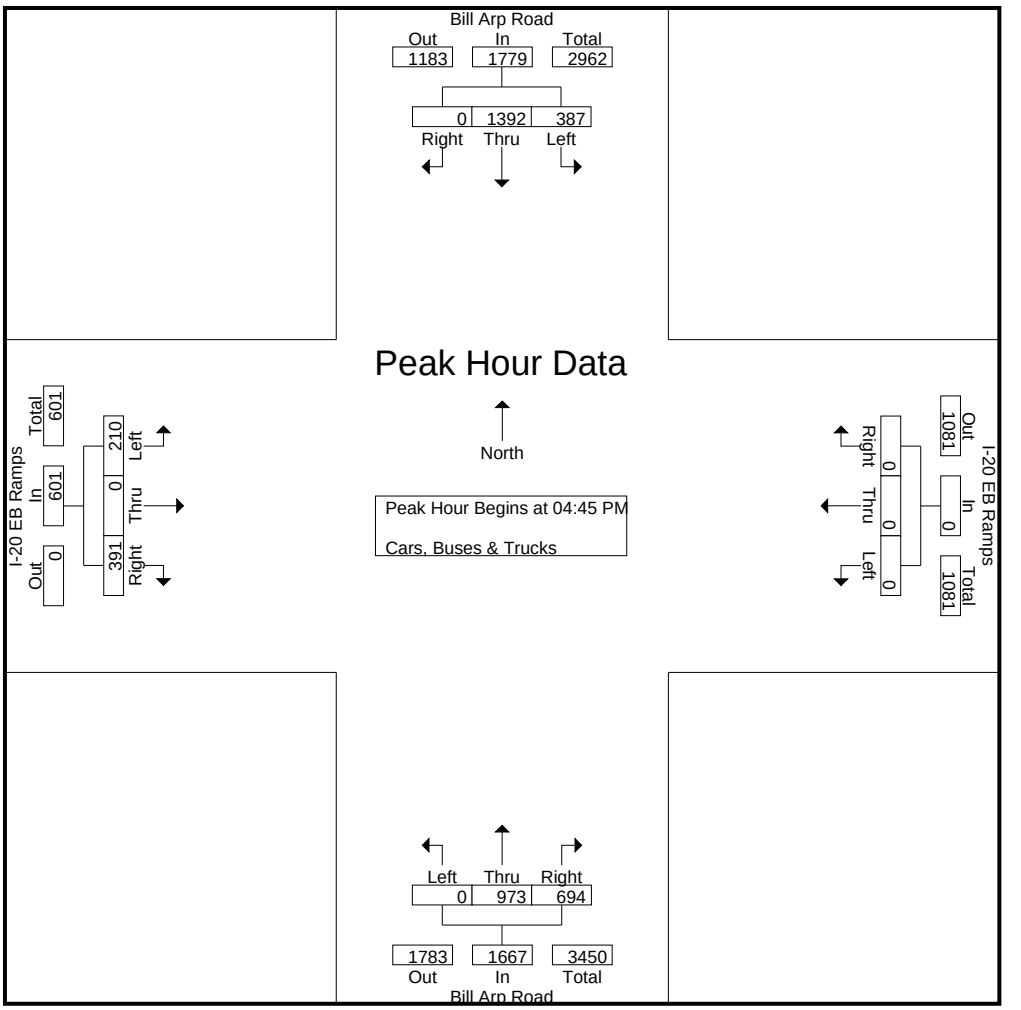
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Bill Arp Road @ I-20 EB Ramps
7-9 am | 4-6 pm

File Name : 20240155
Site Code : 20240155
Start Date : 04-25-2024
Page No : 3

	Bill Arp Road Northbound				Bill Arp Road Southbound				I-20 EB Ramps Eastbound				I-20 EB Ramps Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	**259**	136	395	78	**384**	0	**462**	37	0	69	106	0	0	0	0	963
05:00 PM	0	246	155	401	91	350	0	441	49	0	99	148	0	0	0	0	990
05:15 PM	0	236	196	432	106	325	0	431	56	0	**116**	172	0	0	0	0	1035
05:30 PM	0	232	**207**	**439**	**112**	333	0	445	**68**	0	107	**175**	0	0	0	0	**1059**
Total Volume	0	973	694	1667	387	1392	0	1779	210	0	391	601	0	0	0	0	4047
% App. Total	0	58.4	41.6		21.8	78.2	0		34.9	0	65.1		0	0	0		
PHF	.000	.939	.838	.949	.864	.906	.000	.963	.772	.000	.843	.859	.000	.000	.000	.000	.955



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Avenue @ Starla St (Walmart Drwy)
7-9 am | 4-6 pm

File Name : 20240156
Site Code : 20240156
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Starla Street (Walmart Drwy) Northbound				Southbound				Rose Avenue Eastbound				Rose Avenue Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	8	0	12	20	0	0	0	0	0	92	6	98	11	34	0	45	163
07:15 AM	10	0	11	21	0	0	0	0	0	118	13	131	8	32	0	40	192
07:30 AM	15	0	16	31	0	0	0	0	0	137	14	151	9	26	0	35	217
07:45 AM	11	0	17	28	0	0	0	0	0	141	21	162	25	49	0	74	264
Total	44	0	56	100	0	0	0	0	0	488	54	542	53	141	0	194	836
08:00 AM	11	0	11	22	0	0	0	0	0	114	17	131	17	39	0	56	209
08:15 AM	13	0	11	24	0	0	0	0	0	91	13	104	21	76	0	97	225
08:30 AM	17	0	13	30	0	0	0	0	0	66	15	81	17	49	0	66	177
08:45 AM	16	0	24	40	0	0	0	0	0	56	15	71	20	38	0	58	169
Total	57	0	59	116	0	0	0	0	0	327	60	387	75	202	0	277	780
*** BREAK ***																	
04:00 PM	58	0	53	111	0	0	0	0	0	51	35	86	32	41	0	73	270
04:15 PM	33	0	37	70	0	0	0	0	0	72	31	103	29	75	0	104	277
04:30 PM	47	0	46	93	0	0	0	0	0	93	30	123	27	50	0	77	293
04:45 PM	47	0	36	83	0	0	0	0	0	55	47	102	36	65	0	101	286
Total	185	0	172	357	0	0	0	0	0	271	143	414	124	231	0	355	1126
05:00 PM	41	0	57	98	0	0	0	0	0	67	38	105	38	82	0	120	323
05:15 PM	47	0	37	84	0	0	0	0	0	87	44	131	36	75	0	111	326
05:30 PM	33	0	60	93	0	0	0	0	0	82	38	120	42	74	0	116	329
05:45 PM	43	0	32	75	0	0	0	0	0	95	33	128	34	78	0	112	315
Total	164	0	186	350	0	0	0	0	0	331	153	484	150	309	0	459	1293
Grand Total	450	0	473	923	0	0	0	0	0	1417	410	1827	402	883	0	1285	4035
Apprch %	48.8	0	51.2		0	0	0		0	77.6	22.4		31.3	68.7	0		
Total %	11.2	0	11.7	22.9	0	0	0	0	0	35.1	10.2	45.3	10	21.9	0	31.8	

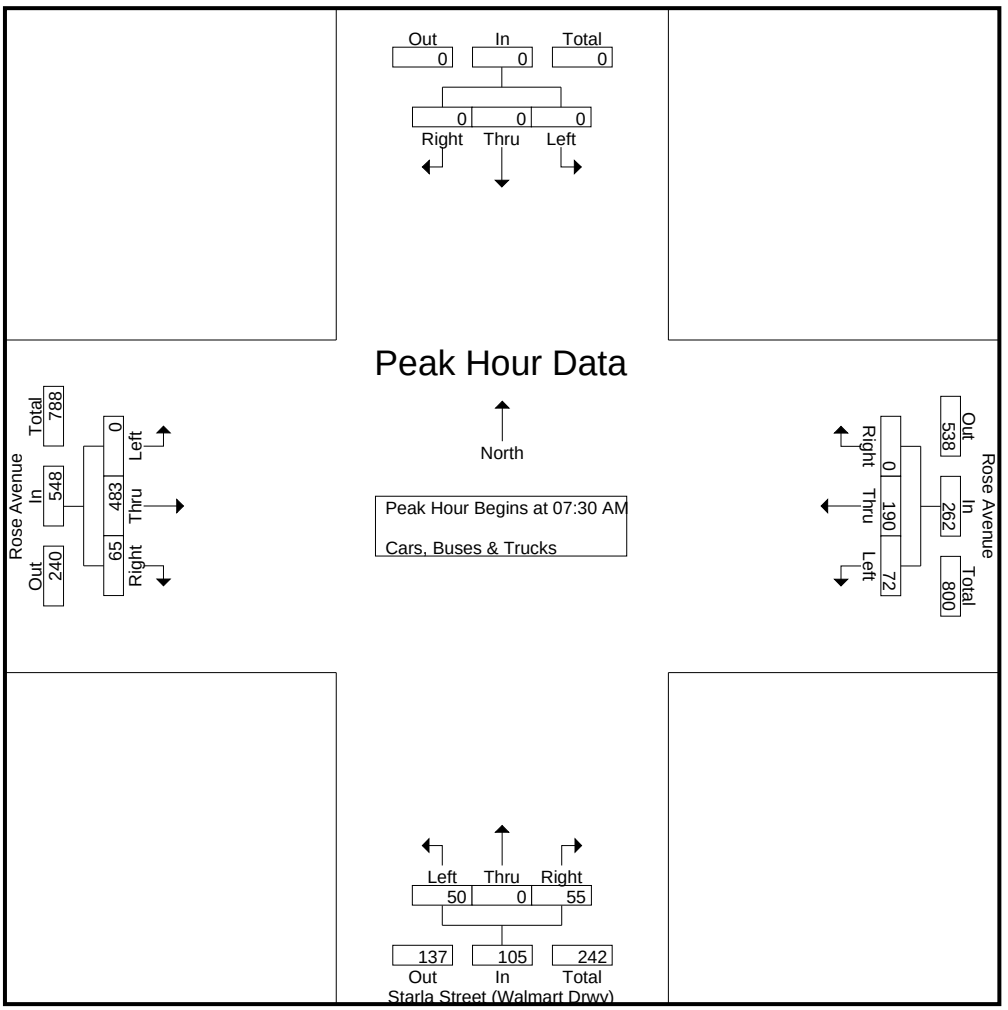
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Avenue @ Starla St (Walmart Drwy)
7-9 am | 4-6 pm

File Name : 20240156
Site Code : 20240156
Start Date : 04-25-2024
Page No : 2

	Starla Street (Walmart Drwy) Northbound				Southbound				Rose Avenue Eastbound				Rose Avenue Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**15**	0	16	**31**	0	0	0	0	0	137	14	151	9	26	0	35	217
07:45 AM	11	0	**17**	28	0	0	0	0	0	**141**	**21**	**162**	**25**	49	0	74	**264**
08:00 AM	11	0	11	22	0	0	0	0	0	114	17	131	17	39	0	56	209
08:15 AM	13	0	11	24	0	0	0	0	0	91	13	104	21	**76**	0	**97**	225
Total Volume	50	0	55	105	0	0	0	0	0	483	65	548	72	190	0	262	915
% App. Total	47.6	0	52.4		0	0	0		0	88.1	11.9		27.5	72.5	0		
PHF	.833	.000	.809	.847	.000	.000	.000	.000	.000	.856	.774	.846	.720	.625	.000	.675	.866



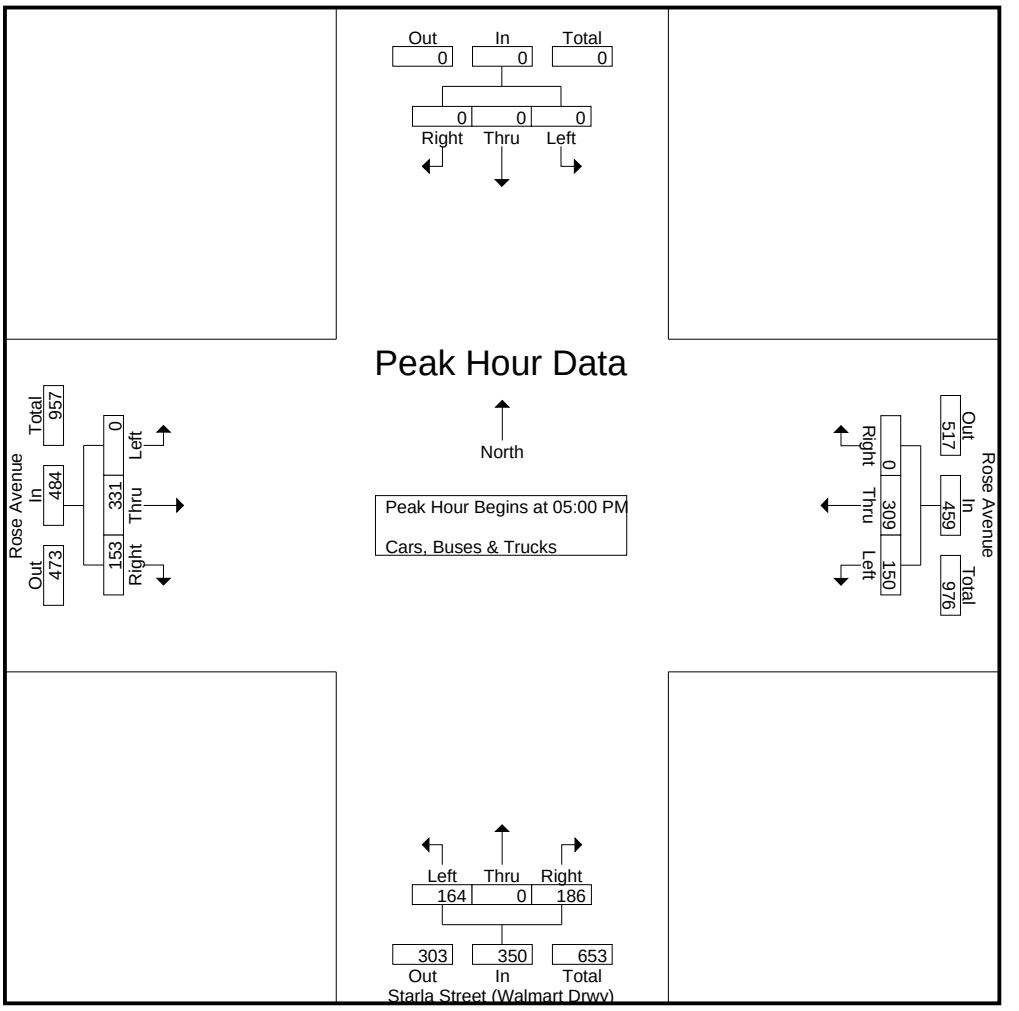
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Avenue @ Starla St (Walmart Drwy)
7-9 am | 4-6 pm

File Name : 20240156
Site Code : 20240156
Start Date : 04-25-2024
Page No : 3

	Starla Street (Walmart Drwy) Northbound				Southbound				Rose Avenue Eastbound				Rose Avenue Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	41	0	57	**98**	0	0	0	0	0	67	38	105	38	**82**	0	**120**	323
05:15 PM	**47**	0	37	84	0	0	0	0	0	87	**44**	**131**	36	75	0	111	326
05:30 PM	33	0	**60**	93	0	0	0	0	0	82	38	120	**42**	74	0	116	**329**
05:45 PM	43	0	32	75	0	0	0	0	0	**95**	33	128	34	78	0	112	315
Total Volume	164	0	186	350	0	0	0	0	0	331	153	484	150	309	0	459	1293
% App. Total	46.9	0	53.1		0	0	0		0	68.4	31.6		32.7	67.3	0		
PHF	.872	.000	.775	.893	.000	.000	.000	.000	.000	.871	.869	.924	.893	.942	.000	.956	.983



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ West Pine Golf Club Drwy
7-9 am | 4-6 pm

File Name : 20240158
Site Code : 20240158
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rose Ave Northbound				Rose Ave Southbound				Eastbound				West Pine Golf Club Drwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	51	1	52	0	53	0	53	0	0	0	0	0	0	0	0	105
07:15 AM	0	75	0	75	2	39	0	41	0	0	0	0	0	0	0	0	116
07:30 AM	0	93	0	93	1	32	0	33	0	0	0	0	0	0	0	0	126
07:45 AM	0	124	3	127	2	54	0	56	0	0	0	0	0	0	0	0	183
Total	0	343	4	347	5	178	0	183	0	0	0	0	0	0	0	0	530
08:00 AM	0	106	6	112	0	73	0	73	0	0	0	0	1	0	1	2	187
08:15 AM	0	89	7	96	1	74	0	75	0	0	0	0	0	0	0	0	171
08:30 AM	0	89	3	92	1	59	0	60	0	0	0	0	1	0	0	1	153
08:45 AM	0	87	4	91	1	69	0	70	0	0	0	0	0	0	1	1	162
Total	0	371	20	391	3	275	0	278	0	0	0	0	2	0	2	4	673
*** BREAK ***																	
04:00 PM	0	120	2	122	2	84	0	86	0	0	0	0	6	0	0	6	214
04:15 PM	0	114	4	118	1	72	0	73	0	0	0	0	4	0	5	9	200
04:30 PM	0	129	2	131	1	92	0	93	0	0	0	0	4	0	2	6	230
04:45 PM	0	101	1	102	0	93	0	93	0	0	0	0	2	0	1	3	198
Total	0	464	9	473	4	341	0	345	0	0	0	0	16	0	8	24	842
05:00 PM	0	138	3	141	1	96	0	97	0	0	0	0	7	0	5	12	250
05:15 PM	0	122	0	122	1	97	0	98	0	0	0	0	3	0	2	5	225
05:30 PM	0	101	2	103	1	109	0	110	0	0	0	0	1	0	1	2	215
05:45 PM	0	139	2	141	0	94	0	94	0	0	0	0	2	0	3	5	240
Total	0	500	7	507	3	396	0	399	0	0	0	0	13	0	11	24	930
Grand Total	0	1678	40	1718	15	1190	0	1205	0	0	0	0	31	0	21	52	2975
Apprch %	0	97.7	2.3		1.2	98.8	0		0	0	0		59.6	0	40.4		
Total %	0	56.4	1.3	57.7	0.5	40	0	40.5	0	0	0	0	1	0	0.7	1.7	

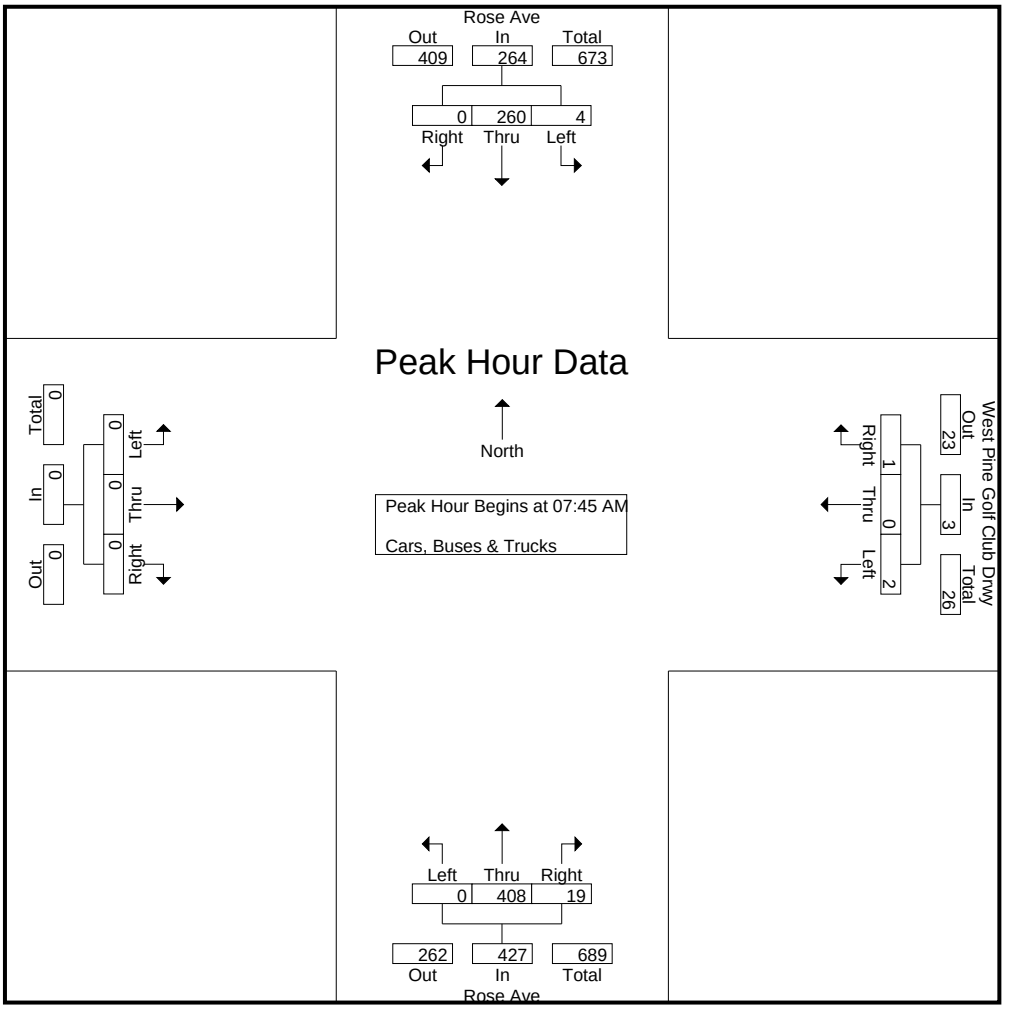
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ West Pine Golf Club Drwy
7-9 am | 4-6 pm

File Name : 20240158
Site Code : 20240158
Start Date : 04-25-2024
Page No : 2

	Rose Ave Northbound				Rose Ave Southbound				Eastbound				West Pine Golf Club Drwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**124**	3	**127**	**2**	54	0	56	0	0	0	0	0	0	0	0	183
08:00 AM	0	106	6	112	0	73	0	73	0	0	0	0	**1**	0	**1**	**2**	**187**
08:15 AM	0	89	**7**	96	1	**74**	0	**75**	0	0	0	0	0	0	0	0	171
08:30 AM	0	89	3	92	1	59	0	60	0	0	0	0	1	0	0	1	153
Total Volume	0	408	19	427	4	260	0	264	0	0	0	0	2	0	1	3	694
% App. Total	0	95.6	4.4		1.5	98.5	0		0	0	0		66.7	0	33.3		
PHF	.000	.823	.679	.841	.500	.878	.000	.880	.000	.000	.000	.000	.500	.000	.250	.375	.928



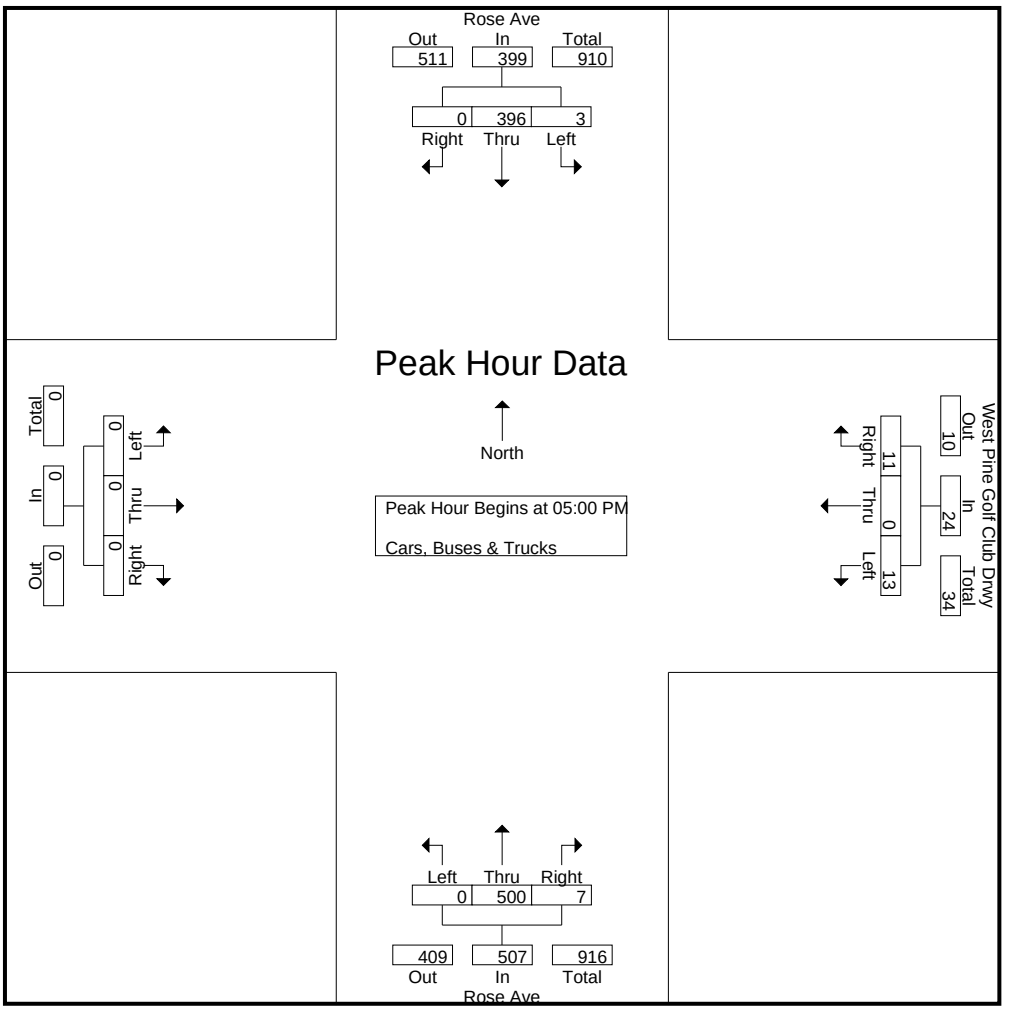
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ West Pine Golf Club Drwy
7-9 am | 4-6 pm

File Name : 20240158
Site Code : 20240158
Start Date : 04-25-2024
Page No : 3

	Rose Ave Northbound				Rose Ave Southbound				Eastbound				West Pine Golf Club Drwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	138	**3**	**141**	**1**	96	0	97	0	0	0	0	**7**	0	**5**	**12**	**250**
05:15 PM	0	122	0	122	1	97	0	98	0	0	0	0	3	0	2	5	225
05:30 PM	0	101	2	103	1	**109**	0	**110**	0	0	0	0	1	0	1	2	215
05:45 PM	0	**139**	2	141	0	94	0	94	0	0	0	0	2	0	3	5	240
Total Volume	0	500	7	507	3	396	0	399	0	0	0	0	13	0	11	24	930
% App. Total	0	98.6	1.4		0.8	99.2	0		0	0	0		54.2	0	45.8		
PHF	.000	.899	.583	.899	.750	.908	.000	.907	.000	.000	.000	.000	.464	.000	.550	.500	.930



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ Roselake Circle-Fairway Drive
7-9 am | 4-6 pm

File Name : 20240157
Site Code : 20240157
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rose Ave Northbound				Rose Ave Southbound				Roselake Circle Eastbound				Fairway Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	48	3	51	0	37	2	39	2	1	3	6	13	0	7	20	116
07:15 AM	2	66	7	75	3	22	0	25	6	0	11	17	8	1	6	15	132
07:30 AM	8	79	6	93	2	23	1	26	6	0	4	10	6	0	8	14	143
07:45 AM	4	117	3	124	4	38	2	44	6	0	7	13	11	0	2	13	194
Total	14	310	19	343	9	120	5	134	20	1	25	46	38	1	23	62	585
08:00 AM	1	102	4	107	4	65	3	72	4	0	7	11	1	0	6	7	197
08:15 AM	4	83	2	89	3	63	4	70	4	0	7	11	5	1	11	17	187
08:30 AM	6	76	7	89	2	50	3	55	3	0	6	9	4	0	5	9	162
08:45 AM	3	81	4	88	6	58	1	65	4	0	4	8	8	0	5	13	174
Total	14	342	17	373	15	236	11	262	15	0	24	39	18	1	27	46	720
*** BREAK ***																	
04:00 PM	10	96	14	120	3	73	7	83	2	0	6	8	7	1	4	12	223
04:15 PM	5	101	13	119	5	60	6	71	2	0	8	10	5	0	9	14	214
04:30 PM	9	113	9	131	2	85	1	88	1	0	5	6	3	0	10	13	238
04:45 PM	5	90	7	102	5	77	0	82	1	1	3	5	13	0	4	17	206
Total	29	400	43	472	15	295	14	324	6	1	22	29	28	1	27	56	881
05:00 PM	6	124	13	143	5	89	1	95	3	0	4	7	4	0	9	13	258
05:15 PM	8	106	10	124	6	87	3	96	3	0	4	7	7	0	10	17	244
05:30 PM	3	95	4	102	9	102	6	117	1	0	3	4	5	1	4	10	233
05:45 PM	7	122	13	142	5	78	7	90	6	0	6	12	10	0	6	16	260
Total	24	447	40	511	25	356	17	398	13	0	17	30	26	1	29	56	995
Grand Total	81	1499	119	1699	64	1007	47	1118	54	2	88	144	110	4	106	220	3181
Apprch %	4.8	88.2	7		5.7	90.1	4.2		37.5	1.4	61.1		50	1.8	48.2		
Total %	2.5	47.1	3.7	53.4	2	31.7	1.5	35.1	1.7	0.1	2.8	4.5	3.5	0.1	3.3	6.9	

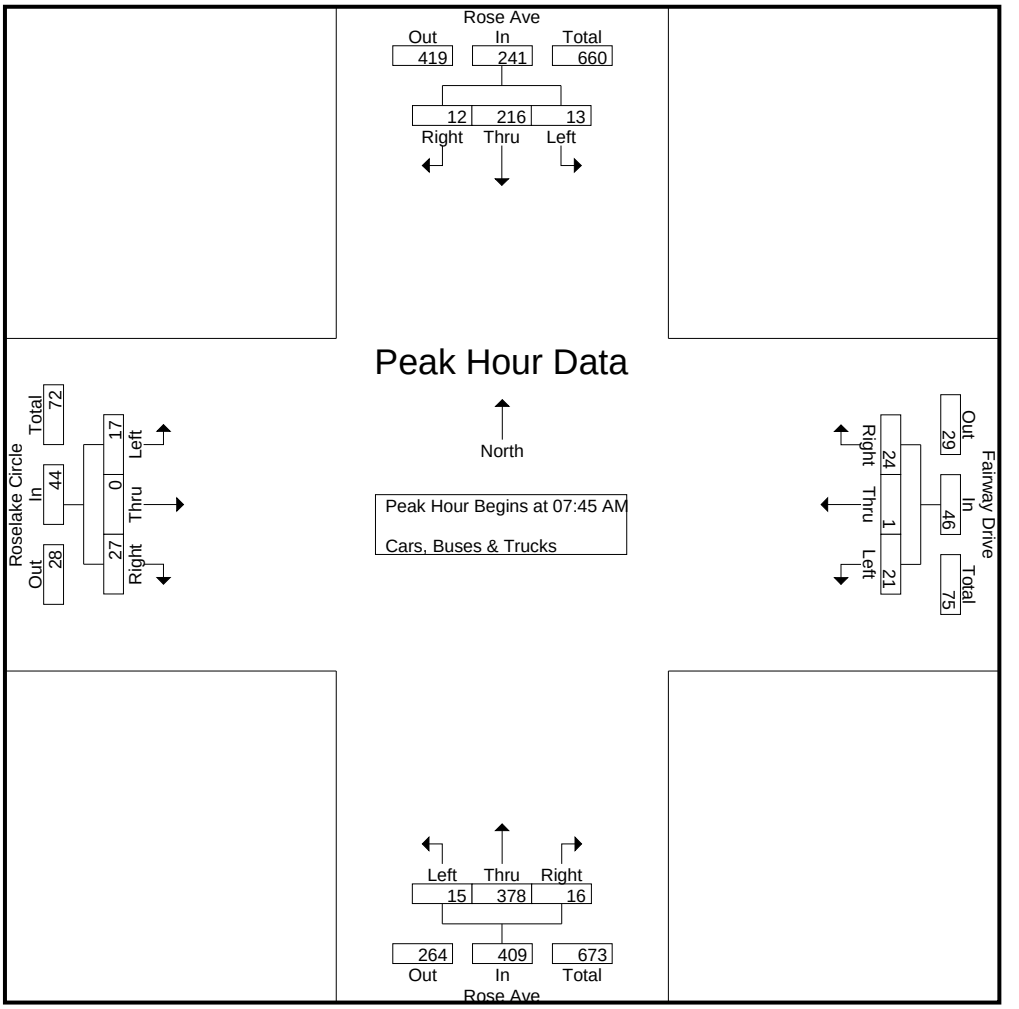
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ Roselake Circle-Fairway Drive
7-9 am | 4-6 pm

File Name : 20240157
Site Code : 20240157
Start Date : 04-25-2024
Page No : 2

	Rose Ave Northbound				Rose Ave Southbound				Roselake Circle Eastbound				Fairway Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	4	**117**	3	**124**	**4**	38	2	44	**6**	0	**7**	**13**	**11**	0	2	13	194
08:00 AM	1	102	4	107	4	**65**	3	**72**	4	0	7	11	1	0	6	7	**197**
08:15 AM	4	83	2	89	3	63	**4**	70	4	0	7	11	5	**1**	**11**	**17**	187
08:30 AM	**6**	76	**7**	89	2	50	3	55	3	0	6	9	4	0	5	9	162
Total Volume	15	378	16	409	13	216	12	241	17	0	27	44	21	1	24	46	740
% App. Total	3.7	92.4	3.9		5.4	89.6	5		38.6	0	61.4		45.7	2.2	52.2		
PHF	.625	.808	.571	.825	.813	.831	.750	.837	.708	.000	.964	.846	.477	.250	.545	.676	.939



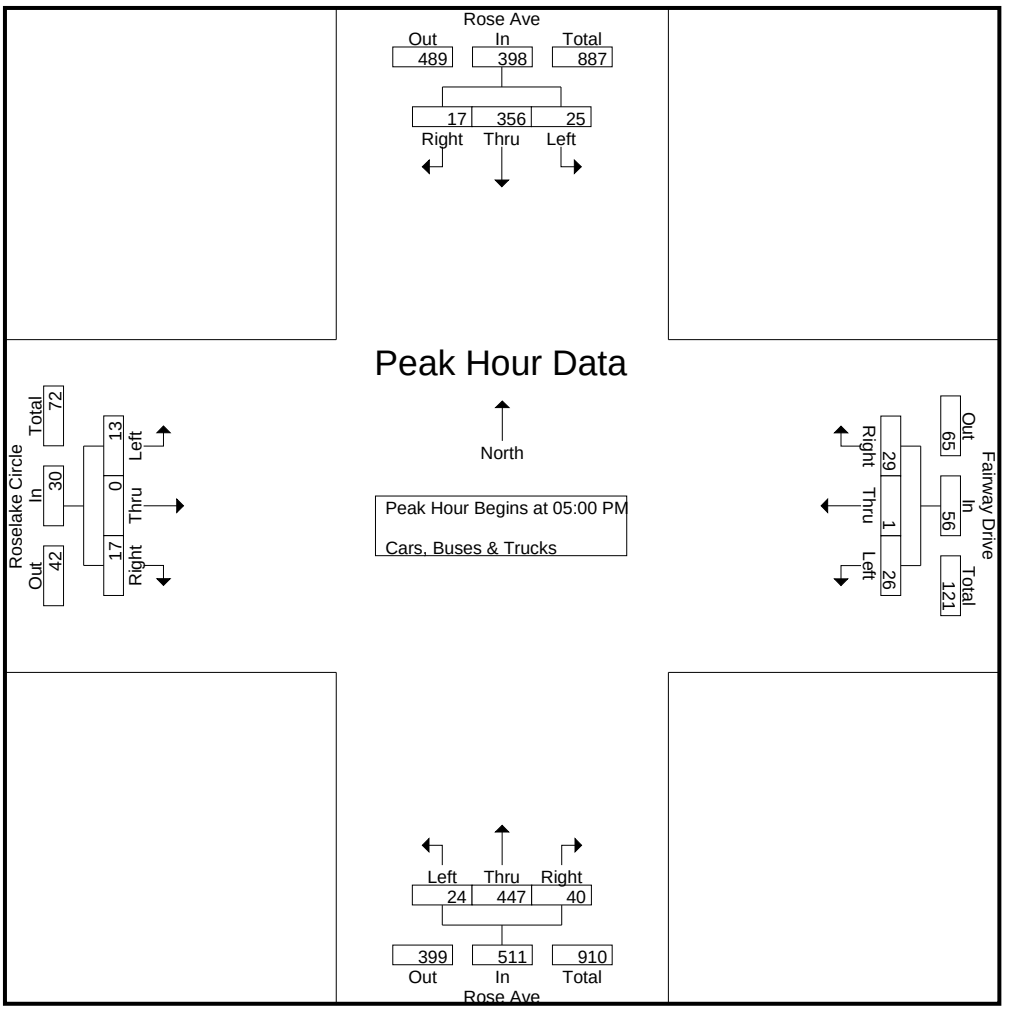
A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ Roselake Circle-Fairway Drive
7-9 am | 4-6 pm

File Name : 20240157
Site Code : 20240157
Start Date : 04-25-2024
Page No : 3

	Rose Ave Northbound				Rose Ave Southbound				Roselake Circle Eastbound				Fairway Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	6	**124**	**13**	**143**	5	89	1	95	3	0	4	7	4	0	9	13	258
05:15 PM	**8**	106	10	124	6	87	3	96	3	0	4	7	7	0	**10**	**17**	244
05:30 PM	3	95	4	102	**9**	**102**	6	**117**	1	0	3	4	5	**1**	4	10	233
05:45 PM	7	122	13	142	5	78	**7**	90	**6**	0	**6**	**12**	**10**	0	6	16	**260**
Total Volume	24	447	40	511	25	356	17	398	13	0	17	30	26	1	29	56	995
% App. Total	4.7	87.5	7.8		6.3	89.4	4.3		43.3	0	56.7		46.4	1.8	51.8		
PHF	.750	.901	.769	.893	.694	.873	.607	.850	.542	.000	.708	.625	.650	.250	.725	.824	.957



A & R Engineering, Inc.

2160 Kingston Court Suite '0'
Marietta, GA 30067

TMC Data
Rose Ave @ Pinecrest Drive-Selman Drive
7-9 am | 4-6 pm

File Name : 20240175
Site Code : 20240175
Start Date : 05-01-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rose Ave Northbound				Rose Ave Southbound				Pinecrest Drive Eastbound				Selman Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	13	32	13	58	4	29	3	36	3	3	4	10	5	2	6	13	117
07:15 AM	21	30	28	79	5	17	3	25	4	4	6	14	4	3	9	16	134
07:30 AM	22	45	26	93	3	18	5	26	2	2	4	8	11	4	7	22	149
07:45 AM	36	47	43	126	6	36	4	46	7	3	6	16	13	2	8	23	211
Total	92	154	110	356	18	100	15	133	16	12	20	48	33	11	30	74	611
08:00 AM	36	38	38	112	8	45	2	55	5	5	17	27	12	3	9	24	218
08:15 AM	30	42	28	100	9	41	3	53	4	6	18	28	11	2	7	20	201
08:30 AM	19	41	24	84	10	35	4	49	6	4	13	23	8	3	6	17	173
08:45 AM	24	33	35	92	7	37	3	47	5	3	15	23	12	1	7	20	182
Total	109	154	125	388	34	158	12	204	20	18	63	101	43	9	29	81	774
*** BREAK ***																	
04:00 PM	23	46	34	103	4	43	3	50	8	6	20	34	16	6	9	31	218
04:15 PM	24	51	39	114	5	41	2	48	8	8	15	31	15	8	7	30	223
04:30 PM	32	60	33	125	4	52	5	61	9	9	16	34	19	7	8	34	254
04:45 PM	19	51	25	95	6	48	4	58	7	5	19	31	12	8	6	26	210
Total	98	208	131	437	19	184	14	217	32	28	70	130	62	29	30	121	905
05:00 PM	26	77	31	134	3	43	6	52	6	6	28	40	21	6	7	34	260
05:15 PM	21	70	28	119	4	65	2	71	5	7	18	30	14	5	6	25	245
05:30 PM	24	62	16	102	5	68	3	76	8	6	24	38	21	4	4	29	245
05:45 PM	35	70	23	128	3	64	4	71	3	4	14	21	9	4	5	18	238
Total	106	279	98	483	15	240	15	270	22	23	84	129	65	19	22	106	988
Grand Total	405	795	464	1664	86	682	56	824	90	81	237	408	203	68	111	382	3278
Apprch %	24.3	47.8	27.9		10.4	82.8	6.8		22.1	19.9	58.1		53.1	17.8	29.1		
Total %	12.4	24.3	14.2	50.8	2.6	20.8	1.7	25.1	2.7	2.5	7.2	12.4	6.2	2.1	3.4	11.7	

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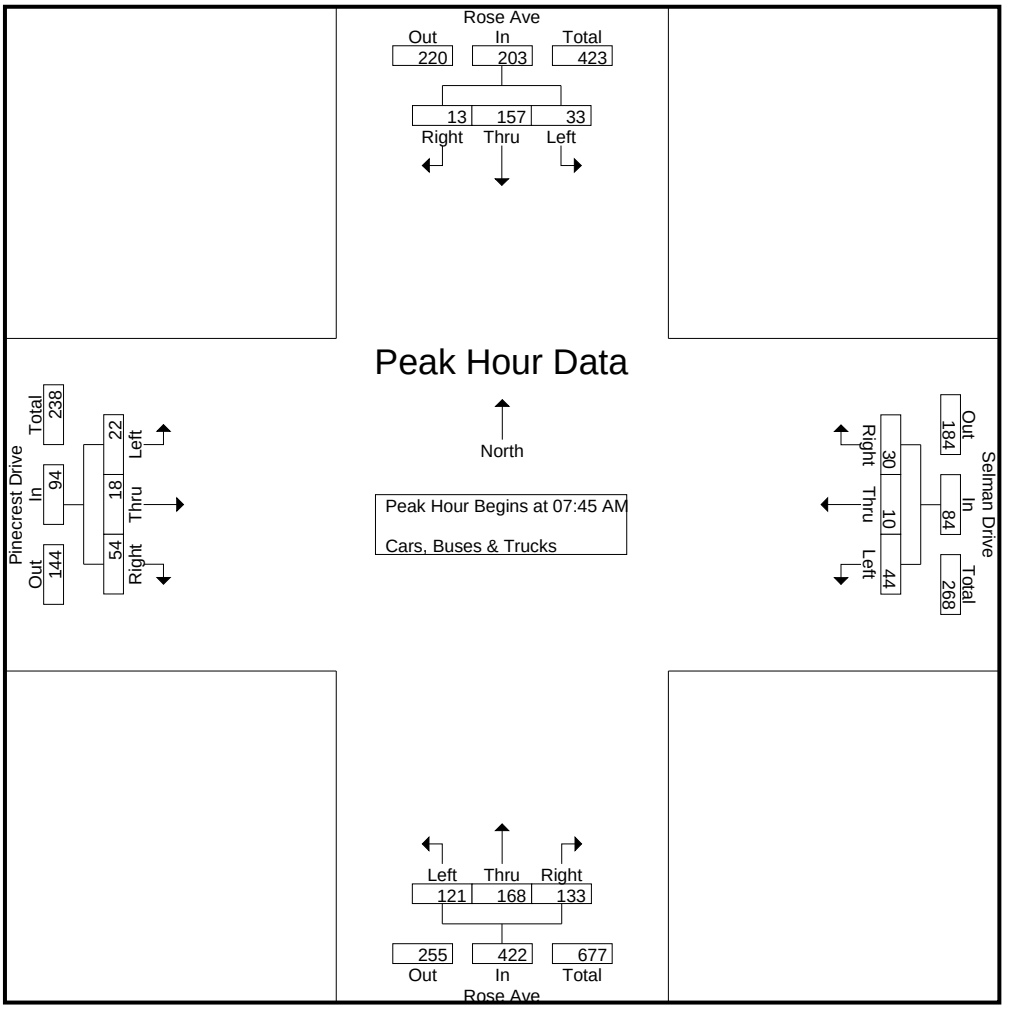
TMC Data
Rose Ave @ Pinecrest Drive-Selman Drive
7-9 am | 4-6 pm

File Name : 20240175
Site Code : 20240175
Start Date : 05-01-2024
Page No : 2

	Rose Ave Northbound				Rose Ave Southbound				Pinecrest Drive Eastbound				Selman Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	**36**	**47**	**43**	**126**	6	36	**4**	46	**7**	3	6	16	**13**	2	8	23	211
08:00 AM	36	38	38	112	8	**45**	2	**55**	5	5	17	27	12	**3**	**9**	**24**	**218**
08:15 AM	30	42	28	100	9	41	3	53	4	**6**	**18**	**28**	11	2	7	20	201
08:30 AM	19	41	24	84	**10**	35	4	49	6	4	13	23	8	3	6	17	173
Total Volume	121	168	133	422	33	157	13	203	22	18	54	94	44	10	30	84	803
% App. Total	28.7	39.8	31.5		16.3	77.3	6.4		23.4	19.1	57.4		52.4	11.9	35.7		
PHF	.840	.894	.773	.837	.825	.872	.813	.923	.786	.750	.750	.839	.846	.833	.833	.875	.921



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TMC Data
Rose Ave @ Pinecrest Drive-Selman Drive
7-9 am | 4-6 pm

File Name : 20240175
Site Code : 20240175
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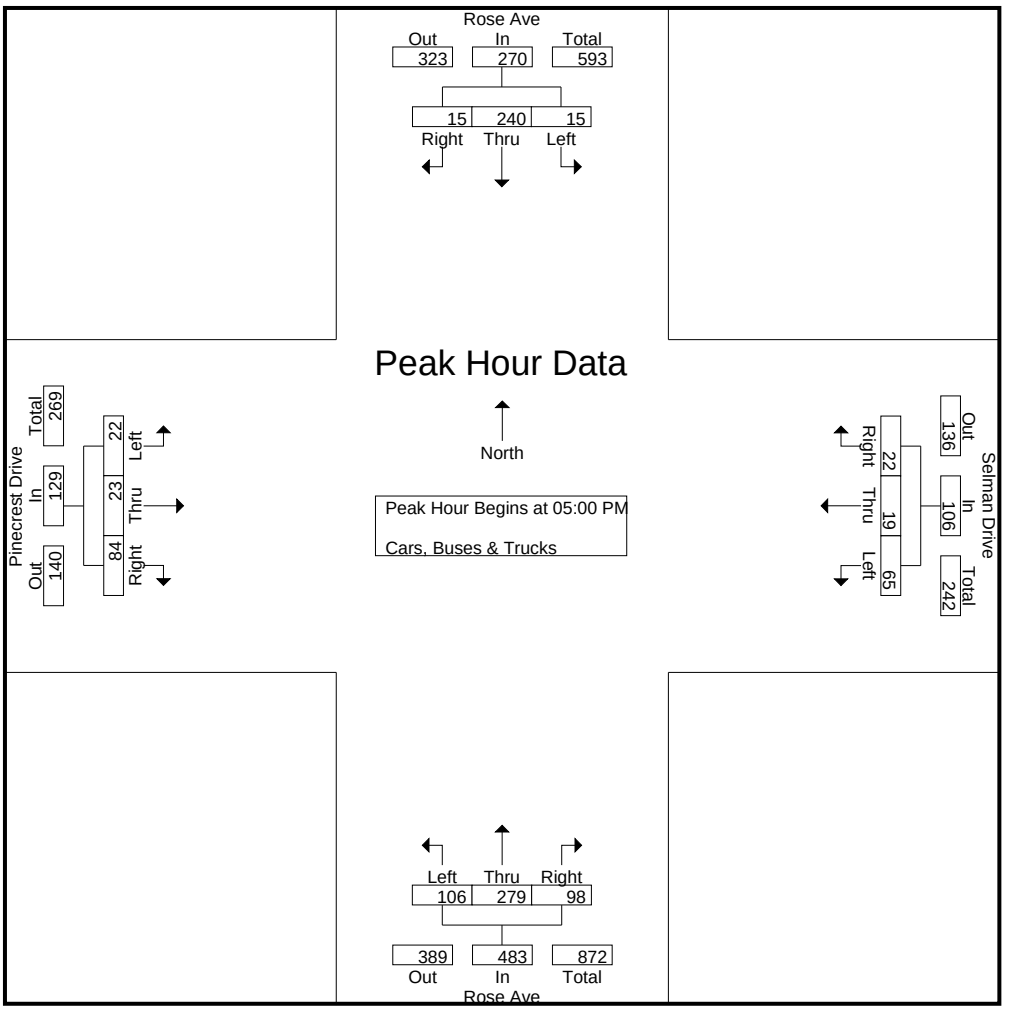
Page No : 3

	Rose Ave Northbound				Rose Ave Southbound				Pinecrest Drive Eastbound				Selman Drive Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	26	**77**	**31**	**134**	3	43	**6**	52	6	6	**28**	**40**	**21**	**6**	**7**	**34**	**260**
05:15 PM	21	70	28	119	4	65	2	71	5	**7**	18	30	14	5	6	25	245
05:30 PM	24	62	16	102	**5**	**68**	3	**76**	**8**	6	24	38	21	4	4	29	245
05:45 PM	**35**	70	23	128	3	64	4	71	3	4	14	21	9	4	5	18	238
Total Volume	106	279	98	483	15	240	15	270	22	23	84	129	65	19	22	106	988
% App. Total	21.9	57.8	20.3		5.6	88.9	5.6		17.1	17.8	65.1		61.3	17.9	20.8		
PHF	.757	.906	.790	.901	.750	.882	.625	.888	.688	.821	.750	.806	.774	.792	.786	.779	.950



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2160 Kingston Court Suite '0'
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TMC Data
Rose Ave @ US 78 (Veterans Memorial Hwy)
7-9 am | 4-6 pm

File Name : 20240159
Site Code : 20240159
Start Date : 04-25-2024
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Rose Ave Northbound				Rose Ave Southbound				US 78 (Veterans Memorial Hwy) Eastbound				US 78 (Veterans Memorial Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	16	24	40	11	25	9	45	4	92	3	99	12	41	0	53	237
07:15 AM	1	19	22	42	6	11	7	24	5	99	1	105	10	45	5	60	231
07:30 AM	2	34	18	54	21	28	7	56	3	110	2	115	7	49	3	59	284
07:45 AM	3	30	28	61	18	36	10	64	4	110	6	120	10	51	1	62	307
Total	6	99	92	197	56	100	33	189	16	411	12	439	39	186	9	234	1059
08:00 AM	1	23	28	52	16	50	6	72	5	95	2	102	17	51	5	73	299
08:15 AM	6	26	19	51	13	32	11	56	5	78	5	88	20	67	4	91	286
08:30 AM	3	27	23	53	11	23	8	42	4	89	8	101	12	57	1	70	266
08:45 AM	4	23	16	43	13	25	8	46	0	95	2	97	20	55	3	78	264
Total	14	99	86	199	53	130	33	216	14	357	17	388	69	230	13	312	1115
*** BREAK ***																	
04:00 PM	2	37	23	62	4	26	20	50	11	79	6	96	17	96	9	122	330
04:15 PM	4	45	15	64	9	27	16	52	6	94	1	101	18	101	11	130	347
04:30 PM	6	44	26	76	4	25	8	37	9	85	5	99	29	94	6	129	341
04:45 PM	15	42	7	64	5	41	11	57	12	76	2	90	15	100	1	116	327
Total	27	168	71	266	22	119	55	196	38	334	14	386	79	391	27	497	1345
05:00 PM	14	55	23	92	3	24	11	38	5	86	4	95	22	115	10	147	372
05:15 PM	6	52	23	81	6	36	10	52	6	80	8	94	21	108	4	133	360
05:30 PM	11	44	17	72	9	37	13	59	7	84	2	93	26	103	9	138	362
05:45 PM	8	44	15	67	6	32	13	51	3	86	5	94	26	97	3	126	338
Total	39	195	78	312	24	129	47	200	21	336	19	376	95	423	26	544	1432
Grand Total	86	561	327	974	155	478	168	801	89	1438	62	1589	282	1230	75	1587	4951
Apprch %	8.8	57.6	33.6		19.4	59.7	21		5.6	90.5	3.9		17.8	77.5	4.7		
Total %	1.7	11.3	6.6	19.7	3.1	9.7	3.4	16.2	1.8	29	1.3	32.1	5.7	24.8	1.5	32.1	

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TMC Data
Rose Ave @ US 78 (Veterans Memorial Hwy)
7-9 am | 4-6 pm

File Name : 20240159
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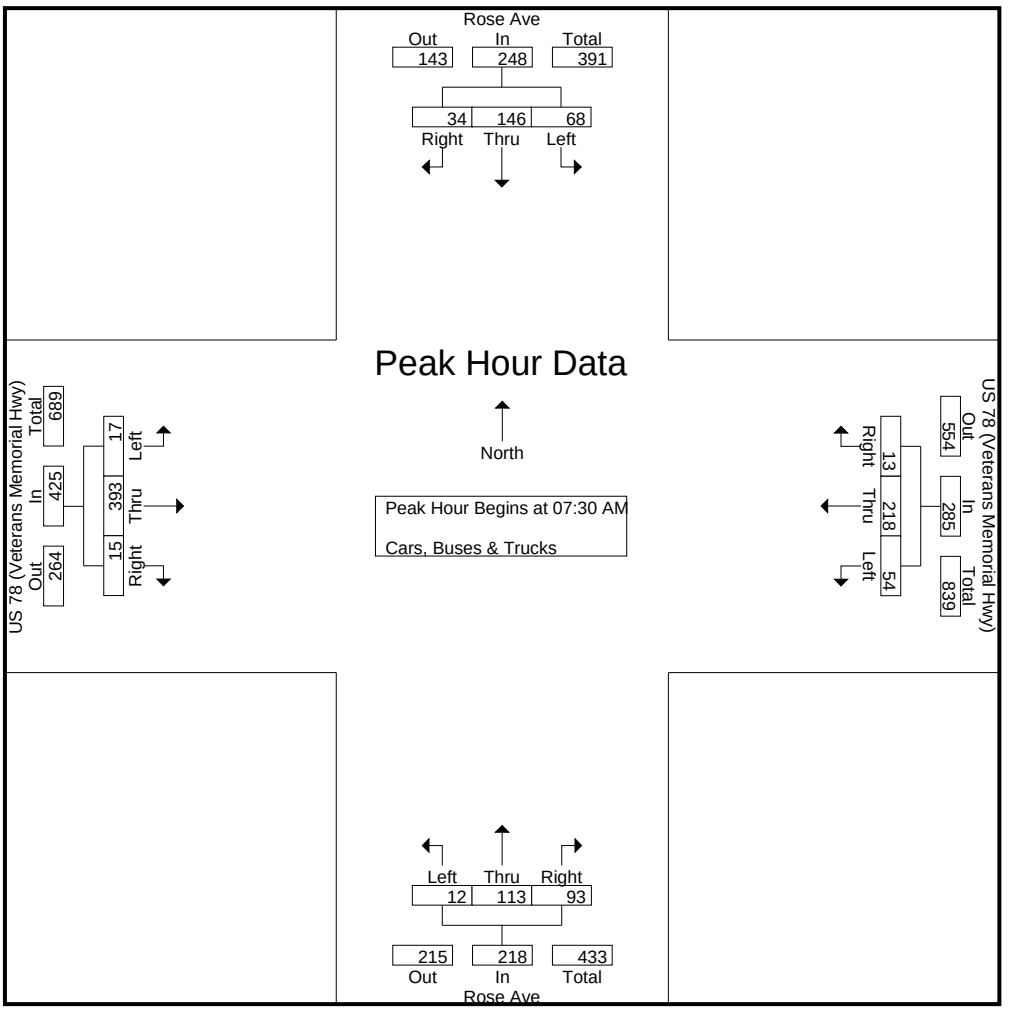
	Rose Ave Northbound				Rose Ave Southbound				US 78 (Veterans Memorial Hwy) Eastbound				US 78 (Veterans Memorial Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	**34**	18	54	**21**	28	7	56	3	**110**	2	115	7	49	3	59	284
07:45 AM	3	30	**28**	**61**	18	36	10	64	4	110	**6**	**120**	10	51	1	62	**307**
08:00 AM	1	23	28	52	16	**50**	6	**72**	**5**	95	2	102	17	51	**5**	73	299
08:15 AM	**6**	26	19	51	13	32	**11**	56	5	78	5	88	**20**	**67**	4	**91**	286
Total Volume	12	113	93	218	68	146	34	248	17	393	15	425	54	218	13	285	1176
% App. Total	5.5	51.8	42.7		27.4	58.9	13.7		4	92.5	3.5		18.9	76.5	4.6		
PHF	.500	.831	.830	.893	.810	.730	.773	.861	.850	.893	.625	.885	.675	.813	.650	.783	.958



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Rose Ave @ US 78 (Veterans Memorial Hwy)
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File Name : 20240159
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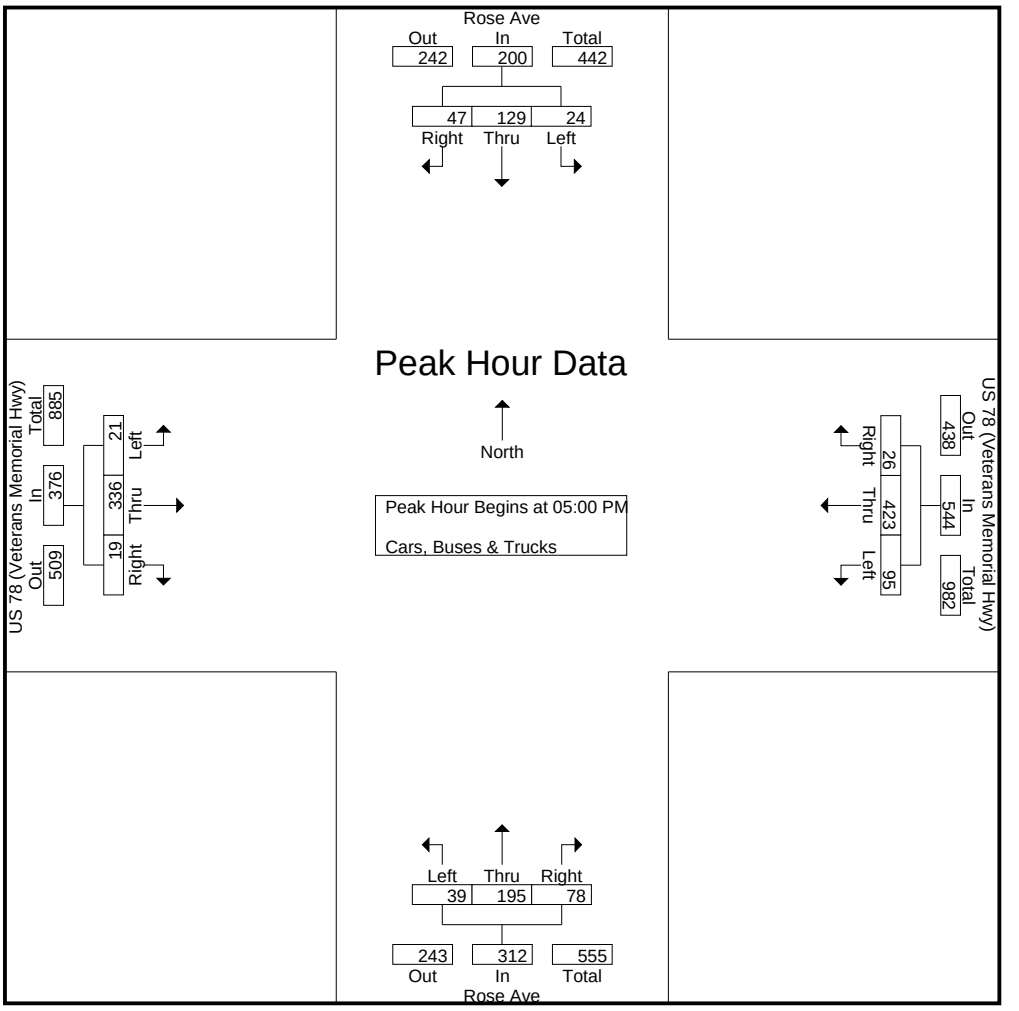
	Rose Ave Northbound				Rose Ave Southbound				US 78 (Veterans Memorial Hwy) Eastbound				US 78 (Veterans Memorial Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	**14**	**55**	**23**	**92**	3	24	11	38	5	**86**	4	**95**	22	**115**	**10**	**147**	**372**
05:15 PM	6	52	23	81	6	36	10	52	6	80	**8**	94	21	108	4	133	360
05:30 PM	11	44	17	72	**9**	**37**	**13**	**59**	**7**	84	2	93	**26**	103	9	138	362
05:45 PM	8	44	15	67	6	32	13	51	3	86	5	94	26	97	3	126	338
Total Volume	39	195	78	312	24	129	47	200	21	336	19	376	95	423	26	544	1432
% App. Total	12.5	62.5	25		12	64.5	23.5		5.6	89.4	5.1		17.5	77.8	4.8		
PHF	.696	.886	.848	.848	.667	.872	.904	.847	.750	.977	.594	.989	.913	.920	.650	.925	.962



GRTA Letter of Understanding

LETTER OF UNDERSTANDING

April 5th, 2024

Cari Smith
DRB Group
55 Ivan Allen Jr. Blvd. NW
Suite 400, Atlanta, Georgia, 30308

RE: **Bill ARP Residential** (**DRI#: 4125)**

Dear Cari Smith:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on March 11th, 2024 regarding **Bill ARP Residential DRI 4125** Development of Regional Impact (DRI). The *GRTA DRI Review Procedures*, as well as the inputs and parameters documented in this Letter of Understanding and the revised Methodology Meeting Packet, shall be adhered to in preparing the GRTA required Transportation Study.

PROJECT OVERVIEW

- The proposed site is located at 3373'57.86"N,8476'18.13"W; located along the northeast side of Bill Arp Road (Georgia State Route 5) and the northwest side of Rose Avenue, with approximately 82.2 acres in the City of Douglasville.
- The proposed development includes 457 units of Townhomes, 336 units of Apartments, totaling 793 Residential Units.
- The projected build-out is one phase to be completed by 2034.
- The proposed development includes (2) site accesses, one along the northeast side of Bill Arp Road (SR 5) and one on the northwest side of Rose Avenue at the signalized entrance to the West Pines Golf Club.
- The DRI trigger for this development is a Rezoning.
- The vehicular trip generation is estimated to be 5,662 net daily trips based on the *ITE Trip Generation Manual 11th edition.*
- The applicant is applying for approval under GRTA's non-expedited Traffic Impact Study review process.

STUDY NETWORK

1. Bill Arp Road (SR 5) at Gurley Road (out of network, requested to be added) (side street stop)
2. Bill Arp Road (SR 5) at Arbor Vista Drive / Rock Ridge Boulevard (next intersection to west of site) (side street stop)
3. Bill Arp Road (SR 5) at Rose Avenue / Bright Star Connector (signal)
4. Bill Arp Road (SR 5) at Concourse Parkway (signal)
5. Bill Arp Road (SR 5) at Interstate 20 Westbound Ramps(signal)
6. Bill Arp Road (SR 5) at Interstate 20 Eastbound Ramps(signal)
7. Rose Avenue at Starla Street (Walmart Center access) (signal)
8. Rose Avenue at West Pines Golf Club / project access location (existing signal)
9. Rose Avenue at Roselake Circle / Fairways Drive (signal)
10. Rose Avenue at Pinecrest Drive / Selman Drive(signal)
11. US 78 at Rose Avenue (out of network, requested to be added) (signal)
12. Project Access on Bill Arp Road (SR 5) (anticipated side street stop)

METHODOLOGY MEETING PACKET INPUTS & PARAMETERS

- The Site Plan shall meet all the applicable requirements in Section 7.1 of the *GRTA DRI Review Procedures*.
- All Study Network intersections shall be analyzed during the AM and PM peak hours for (1) existing conditions, (2) future "no-build" conditions, and (3) future "build" conditions as specified in the *GRTA DRI Review Procedures*.
- This DRI shall be modeled and reviewed in one phase to be completed by 2034.
- The Level of Service (LOS) standard for all analysis shall be LOS D unless specified otherwise in Section 3.2.2.1. For example, a LOS E standard is allowed if the existing LOS for the intersection or approach is a LOS F.
- Default values should not be assumed in the traffic modeling. Existing conditions shall be taken into account as required in Section 3.2.2.
- The trip generation calculations in the revised Methodology Meeting Packet shall be used in the Transportation Study. Mixed-use and pass-by reductions are not allowed for this site. Pass-by reductions shall not exceed 15% of a roadway's traffic volume standard established in Appendix 7.2.
- The trip assignment approach in the revised Methodology Meeting Packet shall be utilized for all Study Network intersection movements.
- The applicant shall research TIP, STIP, RTP and GDOT's construction work program, as well as any local government and transit operator plans (SPLOST, CIP, etc.), to determine the open date, sponsor, cost of the project, funding source(s), for future roadway projects in the project vicinity. Programmed transportation projects anticipated to open on or before the Build Out year of the DRI Project shall be modeled as completed in the No-Build and Build conditions unless approved otherwise.
- A 2.0% annual traffic Background Growth Rate shall be used for all roadways.
- Capacity analysis shall be based on turning movement counts collected not more than 12-months prior to the date of the actual DRI submittal to GRTA, unless specified otherwise. As specified in Section 2.3, turning movement counts shall be collected while local schools are in session, on a Tuesday, Wednesday or Thursday (unless approved otherwise) and not during holiday periods (weeks of July 4th, Thanksgiving and +/- 5 days of Christmas).
- COVID-19: The transportation analysis shall utilize existing turning movement count data when available during COVID. All counts older than a year shall be grown by the Background Growth Rate unless approved otherwise. If new counts are required, a control count location where existing count data is available shall be used for developing traffic growth extrapolation rates. The traffic engineer shall submit the proposed growth rates to GRTA, GDOT and local government stakeholders for input and GRTA approval before submitting the Transportation Study.
- If the *GRTA DRI Review Procedures* requires an Enhanced Focus Area for Heavy Vehicles or an Enhanced Focus Area for Dense Urban Environments, the Transportation Study shall incorporate the inputs and parameters agreed to at the Methodology Meeting and documented in the revised Methodology Meeting Packet. These inputs may include a Heavy Vehicle modeling percentages, a Heavy Vehicle route map, a pedestrian crosswalk delay adjustment and a bus blockage adjustment factor.

ADDITIONAL REQUIREMENTS

All applicable requirements of the *GRTA DRI Review Procedures* must be met for the Transportation Study to be considered complete. The *GRTA DRI Review Procedures* are located on GRTA's DRI website:

https://www.srta.ga.gov/programs-projects/dev-of-regional-impact/ Contact GRTA staff if you have any questions on these requirements.

The Transportation Study shall also include as attachments the native LOS modeling file (i.e., Synchro modeling files) as well as the modeling reports (PDFs) for all Study Network intersections for the Existing, No-Build and Build conditions for all phases. The PDF reports shall be numbered (in page headers) and organized in order according to the Study Network numbering sequence in this Letter of Understanding. The reports shall also be organized in the following sequence: *Existing condition AM, Existing condition PM, No-build condition AM, No-Build condition PM, Build condition AM, Build condition PM*. If improvements are modeled, those PDFs shall be labeled as such and follow the appropriate condition's applicable peak period.

The Transportation Study appendices shall also include all turning movement count data, regardless of if using historic data or newly collected turning movement counts.

When documenting any Queue Length impacts required in Section 3.2.3.6, the TIS Executive Summary shall also note any individual *movements* not meeting the LOS standard where the DRI Project adds trips in the Build condition and exceeds available storage capacity for that movement.

When identifying mitigations in the existing, no-build and build conditions, the mitigations identified in preceding conditions shall not be modeled as complete when conducting the LOS analysis. The same mitigation may still be proposed as mitigation in the subsequent condition, but it shall not be included as completed in the default analysis. For example, a turn lane may be identified as a needed improvement in the no-build condition. The turn lane should not be modeled as completed in the build condition. The turn lane should only be modeled as complete in the no-build with improvements condition and the build with improvements condition.

DRI REVIEW PACKAGE SUBMITTAL

GRTA will begin reviewing the DRI once the DRI Review Package is submitted and deemed complete. The DRI Review Package includes: the permitting Local Government inputting both Department of Community Affairs (DCA) forms into the DCA DRI website; and the **Traffic Engineer submittal of the GRTA Transportation Study (including LOS appendices, traffic count data and any other required attachments) and Site Plan to GRTA staff and ALL stakeholders included in the CC list of this Letter of Understanding**.

All DRI Review Packages shall be submitted electronically via email to all stakeholders in the CC list of the Letter of Understanding. If the DRI Review Package total file size is greater than 10 MB, the DRI Review Package shall be submitted via email with a FTP link provided for downloading the files.

Please contact me if you have any questions about the Letter of Understanding or the *GRTA DRI Review Procedures*.

Sincerely,

Brittany Williams
Program Manager

Cc:

Brittany Williams, GRTA/SRTA
Chirag Date, Modern Mobility Partners
Matt Reeves, Modern Mobility Partners
Donald Shockey, ARC
Reinald James, ARC
Ranata Mattison, ARC Housing
Karla Poshedly, City of Douglasville
Marcus Thompson, City of Douglasville
Marissa Jackson, City of Douglasville
James Gordon, City of Douglasville
Philip Shafer, Douglas County
Megan Wilson, GDOT
Perry Landon, GDOT
Henry Bailey, Applicant
Mark Acampora, Acampora Traffic
Christopher Sotir, Christopher Planning & Engineering, Inc.
Megan Wilson, GDOT
Cameron Heath, DRB Group
Kirk Nicholson, Douglas County School System

Bruce Mercer, Douglas County
Kirk Nicholson, Douglas County School System

Existing Intersection Analysis

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	1	6	39	0	5	7	251	98	15	287	10
Future Vol, veh/h	1	1	6	39	0	5	7	251	98	15	287	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	1	1	6	42	0	5	8	270	105	16	309	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	688	738	315	689	691	323	320	0	0	375	0	0
Stage 1	347	347	-	339	339	-	-	-	-	-	-	-
Stage 2	341	391	-	350	352	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	360	346	725	360	368	718	1240	-	-	1183	-	-
Stage 1	669	635	-	676	640	-	-	-	-	-	-	-
Stage 2	674	607	-	666	632	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	351	338	725	350	359	718	1240	-	-	1183	-	-
Mov Cap-2 Maneuver	351	338	-	350	359	-	-	-	-	-	-	-
Stage 1	664	625	-	671	635	-	-	-	-	-	-	-
Stage 2	664	602	-	648	622	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	16.1	0.2	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1240	-	-	568	372	1183	-	-
HCM Lane V/C Ratio	0.006	-	-	0.015	0.127	0.014	-	-
HCM Control Delay (s)	7.9	0	-	11.4	16.1	8.1	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.4	0	-	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	0	72	51	3	17	30	327	28	6	318	8
Future Vol, veh/h	12	0	72	51	3	17	30	327	28	6	318	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	90	-	-	-	150	-	120	150	-	165
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	13	0	77	54	3	18	32	348	30	6	338	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	773	762	338	762	762	348	338	0	0	348	0	0
Stage 1	350	350	-	412	412	-	-	-	-	-	-	-
Stage 2	423	412	-	350	350	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	316	335	704	322	335	695	1221	-	-	1211	-	-
Stage 1	666	633	-	617	594	-	-	-	-	-	-	-
Stage 2	609	594	-	666	633	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	298	325	704	280	325	695	1221	-	-	1211	-	-
Mov Cap-2 Maneuver	298	325	-	280	325	-	-	-	-	-	-	-
Stage 1	649	630	-	601	579	-	-	-	-	-	-	-
Stage 2	574	579	-	591	630	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	19.2	0.6	0.1
HCM LOS	B	C		

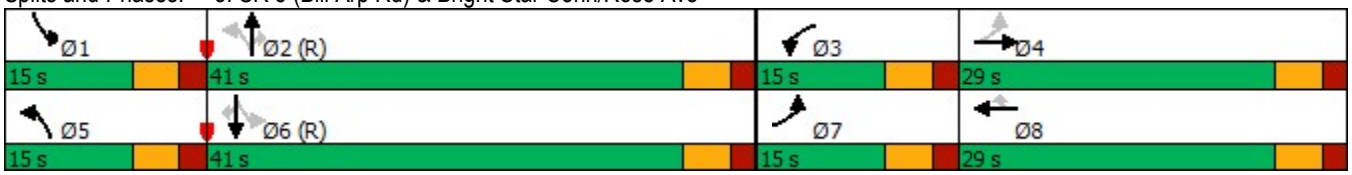
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1221	-	-	298	704	329	1211	-	-
HCM Lane V/C Ratio	0.026	-	-	0.043	0.109	0.23	0.005	-	-
HCM Control Delay (s)	8	-	-	17.6	10.7	19.2	8	-	-
HCM Lane LOS	A	-	-	C	B	C	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.4	0.9	0	-	-

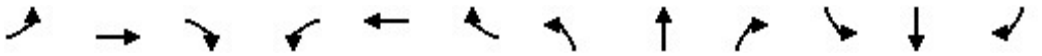
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	17	76	125	36	32	46	353	434	66	368	26
Future Volume (vph)	17	76	125	36	32	46	353	434	66	368	26
Lane Group Flow (vph)	18	118	130	38	33	48	368	452	69	383	27
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4				8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	5.0	6.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	28.5	15.0	28.5	28.5	15.0	32.5	32.5	15.0	31.5	31.5
Total Split (s)	15.0	29.0	15.0	29.0	29.0	15.0	41.0	41.0	15.0	41.0	41.0
Total Split (%)	15.0%	29.0%	15.0%	29.0%	29.0%	15.0%	41.0%	41.0%	15.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.08	0.39	0.44	0.12	0.08	0.08	0.37	0.41	0.11	0.36	0.03
Control Delay	30.5	32.9	51.1	44.9	1.4	1.8	4.6	1.9	6.8	13.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.5	32.9	51.1	44.9	1.4	1.8	4.6	1.9	6.8	13.5	0.0
Queue Length 50th (ft)	9	25	42	21	0	2	20	13	14	133	0
Queue Length 95th (ft)	27	52	72	55	0	6	36	10	31	220	0
Internal Link Dist (ft)		1365		665			381			477	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	276	819	326	437	484	659	1006	1092	641	1057	1002
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.14	0.40	0.09	0.07	0.07	0.37	0.41	0.11	0.36	0.03

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 13 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 3: SR 5 (Bill Arp Rd) & Bright Star Conn/Rose Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	76	37	125	36	32	46	353	434	66	368	26
Future Volume (veh/h)	17	76	37	125	36	32	46	353	434	66	368	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	18	79	0	130	38	0	48	368	0	69	383	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	187	208		195	178		665	1118		680	1128	
Arrive On Green	0.02	0.06	0.00	0.06	0.10	0.00	0.04	0.62	0.00	0.04	0.63	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	1796	1585	1781	1796	1585
Grp Volume(v), veh/h	18	79	0	130	38	0	48	368	0	69	383	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1796	1585	1781	1796	1585
Q Serve(g_s), s	0.9	2.1	0.0	3.7	1.9	0.0	0.9	9.7	0.0	1.4	10.1	0.0
Cycle Q Clear(g_c), s	0.9	2.1	0.0	3.7	1.9	0.0	0.9	9.7	0.0	1.4	10.1	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	208		195	178		665	1118		680	1128	
V/C Ratio(X)	0.10	0.38		0.67	0.21		0.07	0.33		0.10	0.34	
Avail Cap(c_a), veh/h	321	835		328	440		769	1118		774	1128	
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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.9	45.3	0.0	46.3	41.8	0.0	6.4	9.0	0.0	6.3	8.8	0.0
Incr Delay (d2), s/veh	0.2	1.1	0.0	3.9	0.6	0.0	0.0	0.8	0.0	0.1	0.8	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(95%),veh/ln	0.7	1.7	0.0	3.0	1.6	0.0	0.5	6.2	0.0	0.8	6.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.1	46.5	0.0	50.1	42.4	0.0	6.5	9.8	0.0	6.4	9.6	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h		97			168			416			452	
Approach Delay, s/veh		45.8			48.4			9.4			9.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.8	67.7	11.1	11.4	9.2	68.3	7.5	15.0
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	9.5	23.5	9.5	35.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	3.4	11.7	5.7	4.1	2.9	12.1	2.9	3.9
Green Ext Time (p_c), s	0.1	3.9	0.1	0.3	0.0	4.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Notes

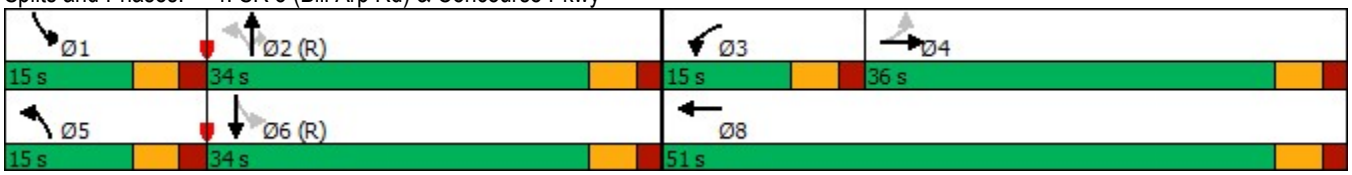
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

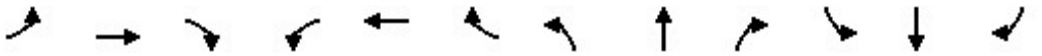
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	26	5	139	6	80	719	228	40	361
Future Volume (vph)	26	5	139	6	80	719	228	40	361
Lane Group Flow (vph)	27	39	146	53	84	757	240	42	436
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		1	6
Permitted Phases	4				2		2	6	
Detector Phase	4	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	36.0	36.0	15.0	51.0	15.0	34.0	34.0	15.0	34.0
Total Split (%)	36.0%	36.0%	15.0%	51.0%	15.0%	34.0%	34.0%	15.0%	34.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.26	0.25	0.49	0.15	0.13	0.36	0.22	0.09	0.22
Control Delay	49.1	20.9	48.9	11.5	1.8	4.4	1.4	5.2	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	20.9	48.9	11.5	1.8	4.4	1.4	5.2	9.9
Queue Length 50th (ft)	17	3	45	3	4	143	13	5	64
Queue Length 95th (ft)	43	34	77	33	5	61	6	14	97
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	410	517	326	760	682	2089	1071	525	1966
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.08	0.45	0.07	0.12	0.36	0.22	0.08	0.22

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR 5 (Bill Arp Rd) & Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	5	32	139	6	45	80	719	228	40	361	53
Future Volume (veh/h)	26	5	32	139	6	45	80	719	228	40	361	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	27	5	34	146	6	47	84	757	240	42	380	56
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	150	12	81	213	32	249	685	2137	993	427	1839	269
Arrive On Green	0.06	0.06	0.06	0.06	0.17	0.17	0.05	0.63	0.63	0.03	0.62	0.62
Sat Flow, veh/h	1351	207	1409	3456	183	1430	1781	3413	1585	1781	2987	437
Grp Volume(v), veh/h	27	0	39	146	0	53	84	757	240	42	216	220
Grp Sat Flow(s),veh/h/ln	1351	0	1617	1728	0	1613	1781	1706	1585	1781	1706	1718
Q Serve(g_s), s	1.9	0.0	2.3	4.1	0.0	2.8	1.7	10.7	6.7	0.8	5.6	5.7
Cycle Q Clear(g_c), s	1.9	0.0	2.3	4.1	0.0	2.8	1.7	10.7	6.7	0.8	5.6	5.7
Prop In Lane	1.00		0.87	1.00		0.89	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	150	0	93	213	0	281	685	2137	993	427	1050	1057
V/C Ratio(X)	0.18	0.00	0.42	0.69	0.00	0.19	0.12	0.35	0.24	0.10	0.21	0.21
Avail Cap(c_a), veh/h	484	0	493	328	0	734	774	2137	993	535	1050	1057
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	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.3	0.0	45.5	46.0	0.0	35.2	6.2	9.0	8.2	6.8	8.5	8.5
Incr Delay (d2), s/veh	0.6	0.0	2.9	3.9	0.0	0.3	0.1	0.4	0.5	0.1	0.4	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(95%),veh/ln	1.2	0.0	1.8	3.4	0.0	2.0	1.0	6.6	4.2	0.5	3.6	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.9	0.0	48.4	49.9	0.0	35.6	6.3	9.4	8.8	6.9	8.9	8.9
LnGrp LOS	D	A	D	D	A	D	A	A	A	A	A	A
Approach Vol, veh/h		66			199			1081			478	
Approach Delay, s/veh		47.4			46.1			9.0			8.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	8.9	68.1	11.7	11.3	10.0	67.0		22.9				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	28.5	9.5	30.5	9.5	28.5		45.5				
Max Q Clear Time (g_c+I1), s	2.8	12.7	6.1	4.3	3.7	7.7		4.8				
Green Ext Time (p_c), s	0.0	8.9	0.1	0.2	0.1	4.6		0.3				

Intersection Summary	
HCM 6th Ctrl Delay	14.4
HCM 6th LOS	B

Notes

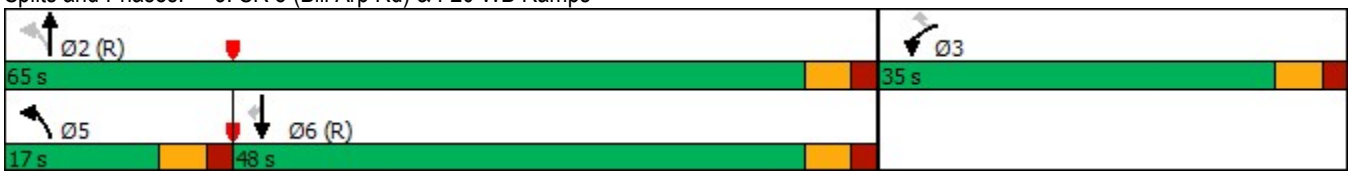
User approved pedestrian interval to be less than phase max green.

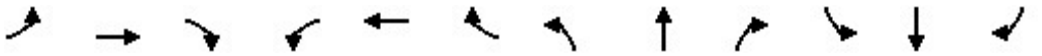
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	545	350	131	620	725	83
Future Volume (vph)	545	350	131	620	725	83
Lane Group Flow (vph)	556	357	134	633	740	85
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		3	2			6
Detector Phase	3	3	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	15.0	15.0	21.5	21.5	21.5
Total Split (s)	35.0	35.0	17.0	65.0	48.0	48.0
Total Split (%)	35.0%	35.0%	17.0%	65.0%	48.0%	48.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	C-Min
v/c Ratio	0.73	0.58	0.29	0.28	0.42	0.10
Control Delay	41.7	38.0	14.0	12.5	11.6	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.7	38.0	14.0	12.5	11.6	2.7
Queue Length 50th (ft)	170	115	24	61	107	0
Queue Length 95th (ft)	211	154	116	231	169	8
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		320				375
Base Capacity (vph)	1003	814	493	2248	1777	867
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.55	0.44	0.27	0.28	0.42	0.10

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 20 (20%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 5 (Bill Arp Rd) & I-20 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	545	0	350	131	620	0	0	725	83
Future Volume (veh/h)	0	0	0	545	0	350	131	620	0	0	725	83
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1796	0	0	1796	1856
Adj Flow Rate, veh/h				556	0	0	134	633	0	0	740	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				3	0	3	3	7	0	0	7	3
Cap, veh/h				660	0		501	2381	0	0	2026	
Arrive On Green				0.19	0.00	0.00	0.05	0.70	0.00	0.00	0.59	0.00
Sat Flow, veh/h				3428	0	2768	1767	3503	0	0	3503	1572
Grp Volume(v), veh/h				556	0	0	134	633	0	0	740	0
Grp Sat Flow(s),veh/h/ln				1714	0	1384	1767	1706	0	0	1706	1572
Q Serve(g_s), s				15.6	0.0	0.0	2.8	6.9	0.0	0.0	11.2	0.0
Cycle Q Clear(g_c), s				15.6	0.0	0.0	2.8	6.9	0.0	0.0	11.2	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				660	0		501	2381	0	0	2026	
V/C Ratio(X)				0.84	0.00		0.27	0.27	0.00	0.00	0.37	
Avail Cap(c_a), veh/h				1011	0		618	2381	0	0	2026	
HCM Platoon Ratio				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	0.00	0.91	0.91	0.00	0.00	0.97	0.00
Uniform Delay (d), s/veh				38.9	0.0	0.0	7.2	5.6	0.0	0.0	10.5	0.0
Incr Delay (d2), s/veh				4.1	0.0	0.0	0.3	0.2	0.0	0.0	0.5	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
%ile BackOfQ(95%),veh/ln				10.9	0.0	0.0	1.7	3.9	0.0	0.0	7.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.0	0.0	0.0	7.5	5.9	0.0	0.0	11.0	0.0
LnGrp LOS				D	A		A	A	A	A	B	
Approach Vol, veh/h					556			767			740	
Approach Delay, s/veh					43.0			6.2			11.0	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	75.3		10.4	64.9		24.7						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	59.5		11.5	42.5		29.5						
Max Q Clear Time (g_c+I1), s	8.9		4.8	13.2		17.6						
Green Ext Time (p_c), s	9.9		0.2	10.2		1.6						

Intersection Summary		
HCM 6th Ctrl Delay	17.8	
HCM 6th LOS	B	

Notes

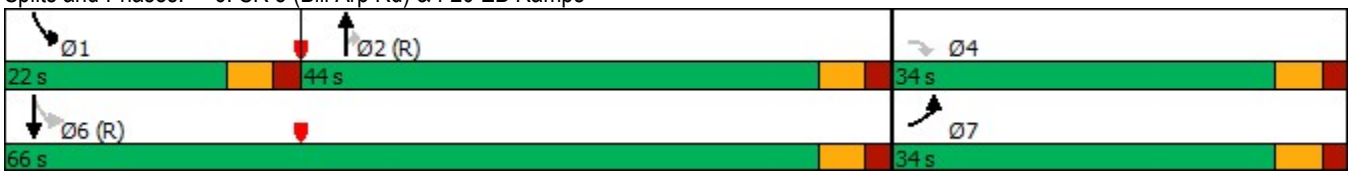
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

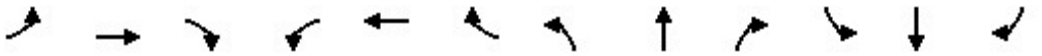
Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	193	302	603	625	282	949
Future Volume (vph)	193	302	603	625	282	949
Lane Group Flow (vph)	199	311	622	644	291	978
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	7		2		1	6
Permitted Phases		4		2	6	
Detector Phase	7	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	15.0	21.5
Total Split (s)	34.0	34.0	44.0	44.0	22.0	66.0
Total Split (%)	34.0%	34.0%	44.0%	44.0%	22.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.62	0.79	0.35	0.57	0.50	0.41
Control Delay	45.2	36.8	16.3	3.9	7.2	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.1
Total Delay	45.2	36.8	16.3	3.9	7.2	3.2
Queue Length 50th (ft)	119	113	113	0	10	32
Queue Length 95th (ft)	171	191	204	72	84	91
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	499	539	1768	1128	631	2385
Starvation Cap Reductn	0	0	0	0	0	464
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.58	0.35	0.57	0.46	0.51

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 58 (58%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 5 (Bill Arp Rd) & I-20 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	0	302	0	0	0	0	603	625	282	949	0
Future Volume (veh/h)	193	0	302	0	0	0	0	603	625	282	949	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1796	1856	1856	1796	0
Adj Flow Rate, veh/h	199	0	0				0	622	0	291	978	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	0	3				0	7	3	3	7	0
Cap, veh/h	237	0					0	2117		641	2581	0
Arrive On Green	0.13	0.00	0.00				0.00	0.62	0.00	0.08	0.76	0.00
Sat Flow, veh/h	1767	0	1572				0	3503	1572	1767	3503	0
Grp Volume(v), veh/h	199	0	0				0	622	0	291	978	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1706	1572	1767	1706	0
Q Serve(g_s), s	11.0	0.0	0.0				0.0	8.5	0.0	5.5	9.8	0.0
Cycle Q Clear(g_c), s	11.0	0.0	0.0				0.0	8.5	0.0	5.5	9.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	237	0					0	2117		641	2581	0
V/C Ratio(X)	0.84	0.00					0.00	0.29		0.45	0.38	0.00
Avail Cap(c_a), veh/h	504	0					0	2117		790	2581	0
HCM Platoon Ratio	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	0.00				0.00	1.00	0.00	0.82	0.82	0.00
Uniform Delay (d), s/veh	42.3	0.0	0.0				0.0	8.8	0.0	5.5	4.2	0.0
Incr Delay (d2), s/veh	7.9	0.0	0.0				0.0	0.4	0.0	0.4	0.3	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
%ile BackOfQ(95%),veh/ln	8.8	0.0	0.0				0.0	5.3	0.0	3.0	4.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.1	0.0	0.0				0.0	9.2	0.0	5.9	4.5	0.0
LnGrp LOS	D	A					A	A		A	A	A
Approach Vol, veh/h		199						622			1269	
Approach Delay, s/veh		50.1						9.2			4.8	
Approach LOS		D						A			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.6	67.5		18.9		81.1
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	16.5	38.5		28.5		60.5
Max Q Clear Time (g_c+I1), s	7.5	10.5		13.0		11.8
Green Ext Time (p_c), s	0.6	8.2		0.4		17.6

Intersection Summary		
HCM 6th Ctrl Delay		10.4
HCM 6th LOS		B

Notes

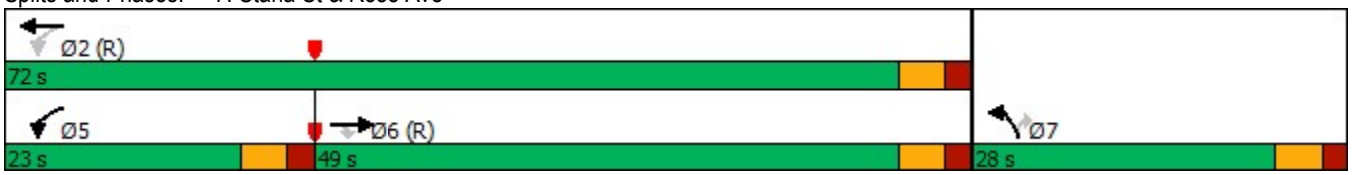
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	483	65	72	190	50	55
Future Volume (vph)	483	65	72	190	50	55
Lane Group Flow (vph)	555	75	83	218	57	63
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	7	
Permitted Phases		6	2			7
Detector Phase	6	6	5	2	7	7
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	23.5	28.5	27.5	27.5
Total Split (s)	49.0	49.0	23.0	72.0	28.0	28.0
Total Split (%)	49.0%	49.0%	23.0%	72.0%	28.0%	28.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.41	0.06	0.13	0.07	0.38	0.33
Control Delay	4.0	1.0	2.7	2.2	49.3	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	1.0	2.7	2.2	49.3	15.5
Queue Length 50th (ft)	76	0	8	11	35	0
Queue Length 95th (ft)	114	0	19	21	70	36
Internal Link Dist (ft)	665			422	309	
Turn Bay Length (ft)			145		140	
Base Capacity (vph)	1363	1189	767	2933	398	405
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.41	0.06	0.11	0.07	0.14	0.16

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 23 (23%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: Starla St & Rose Ave



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	483	65	72	190	50	55
Future Volume (veh/h)	483	65	72	190	50	55
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	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	555	75	83	218	57	63
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	2	2	3	2	2
Cap, veh/h	1355	1158	642	2928	106	94
Arrive On Green	0.73	0.73	0.05	0.83	0.06	0.06
Sat Flow, veh/h	1856	1585	1781	3618	1781	1585
Grp Volume(v), veh/h	555	75	83	218	57	63
Grp Sat Flow(s),veh/h/ln	1856	1585	1781	1763	1781	1585
Q Serve(g_s), s	11.5	1.3	1.0	1.1	3.1	3.9
Cycle Q Clear(g_c), s	11.5	1.3	1.0	1.1	3.1	3.9
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1355	1158	642	2928	106	94
V/C Ratio(X)	0.41	0.06	0.13	0.07	0.54	0.67
Avail Cap(c_a), veh/h	1355	1158	874	2928	401	357
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.93	0.93	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2	3.8	3.2	1.5	45.7	46.1
Incr Delay (d2), s/veh	0.9	0.1	0.1	0.0	4.2	7.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	6.8	4.8	0.4	0.4	2.7	6.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.0	3.9	3.3	1.6	49.9	54.0
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	630			301	120	
Approach Delay, s/veh	5.8			2.1	52.0	
Approach LOS	A			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		88.6		11.4	10.0	78.6
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		66.5		22.5	17.5	43.5
Max Q Clear Time (g_c+I1), s		3.1		5.9	3.0	13.5
Green Ext Time (p_c), s		2.9		0.3	0.1	8.2

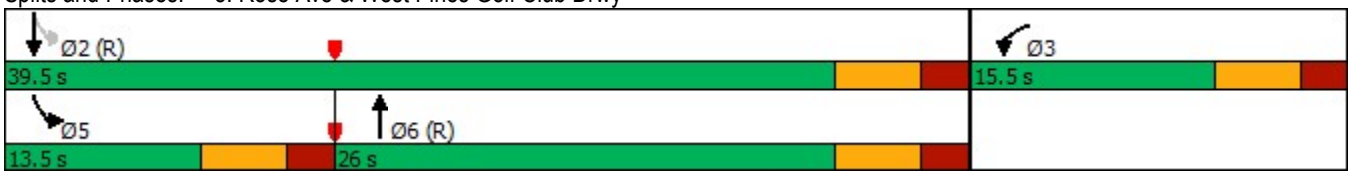
Intersection Summary	
HCM 6th Ctrl Delay	10.0
HCM 6th LOS	A

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	2	408	4	260
Future Volume (vph)	2	408	4	260
Lane Group Flow (vph)	3	459	4	280
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	3	6	5	2
Permitted Phases			2	
Detector Phase	3	6	5	2
Switch Phase				
Minimum Initial (s)	5.0	15.0	5.0	15.0
Minimum Split (s)	23.5	28.5	21.5	28.5
Total Split (s)	15.5	26.0	13.5	39.5
Total Split (%)	28.2%	47.3%	24.5%	71.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes		
Recall Mode	None	C-Min	None	C-Min
v/c Ratio	0.02	0.28	0.01	0.16
Control Delay	20.3	3.8	1.8	1.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.3	3.8	1.8	1.3
Queue Length 50th (ft)	1	0	0	0
Queue Length 95th (ft)	7	162	2	46
Internal Link Dist (ft)	850	126		449
Turn Bay Length (ft)			83	
Base Capacity (vph)	313	1646	817	1730
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.01	0.28	0.00	0.16

Intersection Summary

Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 8: Rose Ave & West Pines Golf Club Drwy



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	1	408	19	4	260
Future Volume (veh/h)	2	1	408	19	4	260
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	1870	1856	1870	1870	1856
Adj Flow Rate, veh/h	2	1	439	20	4	280
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	3	2	2	3
Cap, veh/h	5	2	1214	55	687	1474
Arrive On Green	0.01	0.01	0.69	0.69	0.01	0.79
Sat Flow, veh/h	874	437	1761	80	1781	1856
Grp Volume(v), veh/h	4	0	0	459	4	280
Grp Sat Flow(s),veh/h/ln	1748	0	0	1841	1781	1856
Q Serve(g_s), s	0.1	0.0	0.0	5.7	0.0	2.0
Cycle Q Clear(g_c), s	0.1	0.0	0.0	5.7	0.0	2.0
Prop In Lane	0.50	0.25		0.04	1.00	
Lane Grp Cap(c), veh/h	9	0	0	1269	687	1474
V/C Ratio(X)	0.42	0.00	0.00	0.36	0.01	0.19
Avail Cap(c_a), veh/h	318	0	0	1269	937	1474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	0.0	3.5	2.5	1.4
Incr Delay (d2), s/veh	27.5	0.0	0.0	0.8	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.0	2.3	0.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.8	0.0	0.0	4.3	2.5	1.7
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	4		459			284
Approach Delay, s/veh	54.8		4.3			1.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		49.2			5.8	43.4	5.8
Change Period (Y+Rc), s		5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s		34.0			8.0	20.5	10.0
Max Q Clear Time (g_c+I1), s		4.0			2.0	7.7	2.1
Green Ext Time (p_c), s		3.2			0.0	3.9	0.0

Intersection Summary	
HCM 6th Ctrl Delay	3.6
HCM 6th LOS	A

Notes

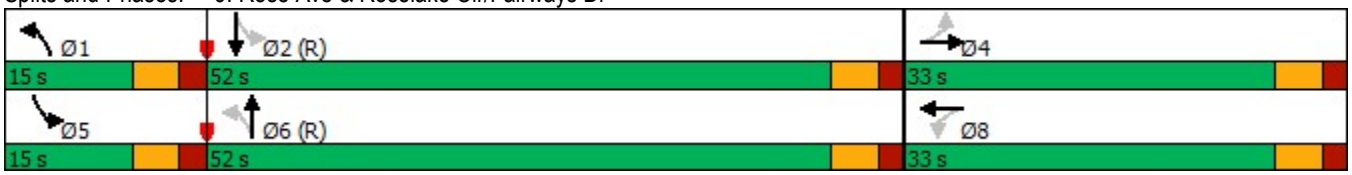
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

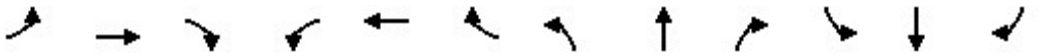
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	0	21	1	15	378	13	216
Future Volume (vph)	17	0	21	1	15	378	13	216
Lane Group Flow (vph)	0	47	0	49	16	419	14	243
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	1	6	5	2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	1	6	5	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	15.0	28.5	15.0	28.5
Total Split (s)	33.0	33.0	33.0	33.0	15.0	52.0	15.0	52.0
Total Split (%)	33.0%	33.0%	33.0%	33.0%	15.0%	52.0%	15.0%	52.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio		0.24		0.36	0.02	0.28	0.02	0.17
Control Delay		5.1		32.5	2.1	3.9	1.8	4.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		5.1		32.5	2.1	3.9	1.8	4.2
Queue Length 50th (ft)		0		14	1	45	1	12
Queue Length 95th (ft)		10		49	6	149	4	103
Internal Link Dist (ft)		501		600		323		289
Turn Bay Length (ft)					70		70	
Base Capacity (vph)		478		424	989	1514	870	1466
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.10		0.12	0.02	0.28	0.02	0.17

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 9: Rose Ave & Roselake Cir/Fairways Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	27	21	1	24	15	378	16	13	216	12
Future Volume (veh/h)	17	0	27	21	1	24	15	378	16	13	216	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	18	0	29	22	1	26	16	402	17	14	230	13
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	77	8	56	85	9	48	928	1349	57	772	1324	75
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.02	0.76	0.76	0.02	0.76	0.76
Sat Flow, veh/h	485	139	1005	597	166	863	1781	1767	75	1781	1740	98
Grp Volume(v), veh/h	47	0	0	49	0	0	16	0	419	14	0	243
Grp Sat Flow(s),veh/h/ln	1629	0	0	1626	0	0	1781	0	1842	1781	0	1838
Q Serve(g_s), s	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	7.0	0.2	0.0	3.6
Cycle Q Clear(g_c), s	2.6	0.0	0.0	2.7	0.0	0.0	0.2	0.0	7.0	0.2	0.0	3.6
Prop In Lane	0.38		0.62	0.45		0.53	1.00		0.04	1.00		0.05
Lane Grp Cap(c), veh/h	141	0	0	143	0	0	928	0	1406	772	0	1399
V/C Ratio(X)	0.33	0.00	0.00	0.34	0.00	0.00	0.02	0.00	0.30	0.02	0.00	0.17
Avail Cap(c_a), veh/h	470	0	0	470	0	0	1065	0	1406	912	0	1399
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.8	0.0	0.0	45.9	0.0	0.0	2.5	0.0	3.6	2.7	0.0	3.3
Incr Delay (d2), s/veh	1.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0	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(95%),veh/ln	2.1	0.0	0.0	2.2	0.0	0.0	0.1	0.0	3.8	0.1	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.2	0.0	0.0	47.3	0.0	0.0	2.5	0.0	4.2	2.7	0.0	3.6
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		47			49			435			257	
Approach Delay, s/veh		47.2			47.3			4.1			3.5	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	81.6		11.1	7.1	81.8		11.1				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	46.5		27.5	9.5	46.5		27.5				
Max Q Clear Time (g_c+I1), s	2.2	5.6		4.6	2.2	9.0		4.7				
Green Ext Time (p_c), s	0.0	3.0		0.2	0.0	5.6		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	9.2	
HCM 6th LOS	A	

Notes

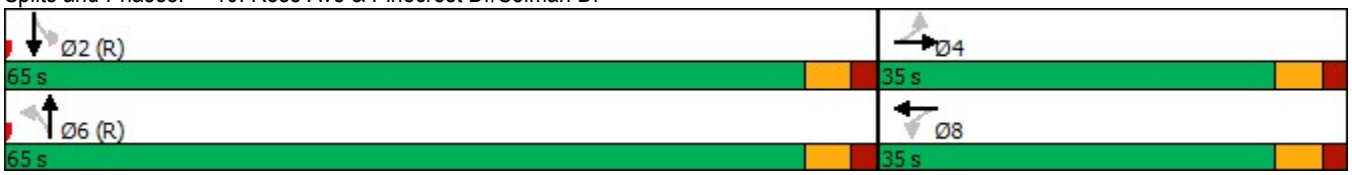
User approved pedestrian interval to be less than phase max green.

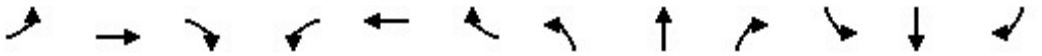
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	22	18	44	10	121	168	33	157
Future Volume (vph)	22	18	44	10	121	168	33	157
Lane Group Flow (vph)	0	103	0	92	0	460	0	221
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	35.0	35.0	35.0	35.0	65.0	65.0	65.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.49		0.59		0.37		0.16
Control Delay		28.1		44.9		3.9		1.1
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		28.1		44.9		3.9		1.1
Queue Length 50th (ft)		26		39		95		8
Queue Length 95th (ft)		74		86		6		14
Internal Link Dist (ft)		531		777		1526		1114
Turn Bay Length (ft)								
Base Capacity (vph)		497		401		1234		1349
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.21		0.23		0.37		0.16

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 99 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 10: Rose Ave & Pinecrest Dr/Selman Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	18	54	44	10	30	121	168	133	33	157	13
Future Volume (veh/h)	22	18	54	44	10	30	121	168	133	33	157	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	24	20	59	48	11	33	132	183	145	36	171	14
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	68	36	80	114	24	47	378	520	392	229	1067	85
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.81	0.81	0.81	0.81	0.81	0.81
Sat Flow, veh/h	294	439	982	733	292	573	410	643	485	232	1319	105
Grp Volume(v), veh/h	103	0	0	92	0	0	460	0	0	221	0	0
Grp Sat Flow(s),veh/h/ln	1715	0	0	1598	0	0	1538	0	0	1656	0	0
Q Serve(g_s), s	0.3	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.7	0.0	0.0	5.4	0.0	0.0	7.2	0.0	0.0	2.6	0.0	0.0
Prop In Lane	0.23		0.57	0.52		0.36	0.29		0.32	0.16		0.06
Lane Grp Cap(c), veh/h	184	0	0	184	0	0	1291	0	0	1382	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.50	0.00	0.00	0.36	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	520	0	0	496	0	0	1291	0	0	1382	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.8	0.0	0.0	44.7	0.0	0.0	2.5	0.0	0.0	2.1	0.0	0.0
Incr Delay (d2), s/veh	2.7	0.0	0.0	2.1	0.0	0.0	0.8	0.0	0.0	0.2	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(95%),veh/ln	4.7	0.0	0.0	4.1	0.0	0.0	3.0	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	0.0	0.0	46.7	0.0	0.0	3.3	0.0	0.0	2.3	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		103			92			460			221	
Approach Delay, s/veh		47.5			46.7			3.3			2.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		86.4		13.6		86.4		13.6				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		59.5		29.5		59.5		29.5				
Max Q Clear Time (g_c+I1), s		4.6		7.7		9.2		7.4				
Green Ext Time (p_c), s		2.9		0.5		7.1		0.4				

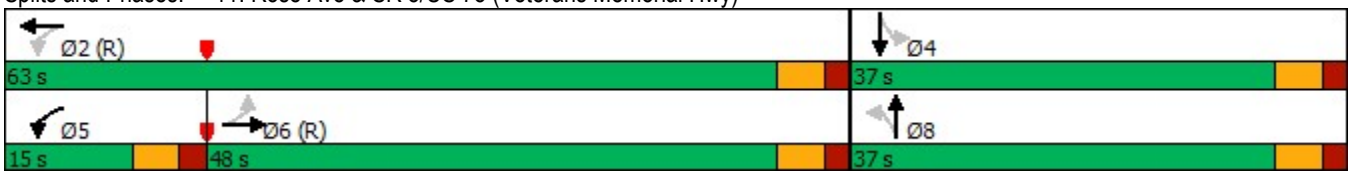
Intersection Summary		
HCM 6th Ctrl Delay		12.8
HCM 6th LOS		B

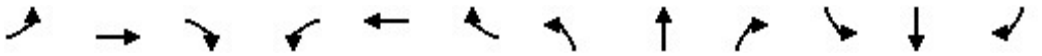
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	393	54	218	12	113	68	146
Future Volume (vph)	17	393	54	218	12	113	68	146
Lane Group Flow (vph)	18	425	56	241	0	228	0	258
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		6	5	2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	5	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	15.0	28.5	30.5	30.5	30.5	30.5
Total Split (s)	48.0	48.0	15.0	63.0	37.0	37.0	37.0	37.0
Total Split (%)	48.0%	48.0%	15.0%	63.0%	37.0%	37.0%	37.0%	37.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	C-Min	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.03	0.40	0.10	0.19		0.56		0.91
Control Delay	13.5	15.7	7.6	7.6		29.5		69.6
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	13.5	15.7	7.6	7.6		29.5		69.6
Queue Length 50th (ft)	5	149	11	51		112		156
Queue Length 95th (ft)	19	274	30	105		178		231
Internal Link Dist (ft)		1161		1176		925		49
Turn Bay Length (ft)	125		170					
Base Capacity (vph)	646	1056	596	1238		564		405
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.03	0.40	0.09	0.19		0.40		0.64

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 96 (96%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 11: Rose Ave & SR 8/US 78 (Veterans Memorial Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	393	15	54	218	13	12	113	93	68	146	34
Future Volume (veh/h)	17	393	15	54	218	13	12	113	93	68	146	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	18	409	16	56	227	14	12	118	97	71	152	35
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	752	1068	42	602	1206	74	46	189	148	112	193	41
Arrive On Green	0.60	0.60	0.60	0.04	0.69	0.69	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1139	1788	70	1781	1743	108	42	955	744	332	972	205
Grp Volume(v), veh/h	18	0	425	56	0	241	227	0	0	258	0	0
Grp Sat Flow(s),veh/h/ln	1139	0	1858	1781	0	1851	1741	0	0	1510	0	0
Q Serve(g_s), s	0.6	0.0	11.9	1.1	0.0	4.6	0.0	0.0	0.0	4.6	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	11.9	1.1	0.0	4.6	12.1	0.0	0.0	16.7	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.06	0.05		0.43	0.28		0.14
Lane Grp Cap(c), veh/h	752	0	1110	602	0	1280	383	0	0	345	0	0
V/C Ratio(X)	0.02	0.00	0.38	0.09	0.00	0.19	0.59	0.00	0.00	0.75	0.00	0.00
Avail Cap(c_a), veh/h	752	0	1110	701	0	1280	579	0	0	527	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	10.5	7.1	0.0	5.5	37.0	0.0	0.0	38.6	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.0	0.1	0.0	0.3	1.5	0.0	0.0	3.2	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(95%),veh/ln	0.3	0.0	8.3	0.7	0.0	2.9	8.9	0.0	0.0	10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.3	0.0	11.5	7.2	0.0	5.8	38.5	0.0	0.0	41.9	0.0	0.0
LnGrp LOS	A	A	B	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		443			297			227			258	
Approach Delay, s/veh		11.4			6.1			38.5			41.9	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		74.7		25.3	9.4	65.2		25.3				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		57.5		31.5	9.5	42.5		31.5				
Max Q Clear Time (g_c+I1), s		6.6		18.7	3.1	13.9		14.1				
Green Ext Time (p_c), s		3.0		1.2	0.0	5.5		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			21.5									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	6	1	7	114	2	21	8	391	196	23	456	1
Future Vol, veh/h	6	1	7	114	2	21	8	391	196	23	456	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	6	1	7	118	2	22	8	403	202	24	470	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1051	1140	471	1043	1039	504	471	0	0	605	0	0
Stage 1	519	519	-	520	520	-	-	-	-	-	-	-
Stage 2	532	621	-	523	519	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	205	201	593	207	231	568	1091	-	-	973	-	-
Stage 1	540	533	-	539	532	-	-	-	-	-	-	-
Stage 2	531	479	-	537	533	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	189	192	593	197	221	568	1091	-	-	973	-	-
Mov Cap-2 Maneuver	189	192	-	197	221	-	-	-	-	-	-	-
Stage 1	534	515	-	533	526	-	-	-	-	-	-	-
Stage 2	503	474	-	512	515	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.2	47.2	0.1	0.4
HCM LOS	C	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	287	219	973	-	-
HCM Lane V/C Ratio	0.008	-	-	0.05	0.645	0.024	-	-
HCM Control Delay (s)	8.3	0	-	18.2	47.2	8.8	0	-
HCM Lane LOS	A	A	-	C	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	3.9	0.1	-	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	4	67	33	7	6	105	549	51	11	537	29
Future Vol, veh/h	40	4	67	33	7	6	105	549	51	11	537	29
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	90	-	-	-	150	-	120	150	-	165
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	43	4	72	35	8	6	113	590	55	12	577	31

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1424	1417	577	1419	1417	590	577	0	0	590	0	0
Stage 1	601	601	-	816	816	-	-	-	-	-	-	-
Stage 2	823	816	-	603	601	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	113	137	516	114	137	508	996	-	-	985	-	-
Stage 1	487	489	-	371	391	-	-	-	-	-	-	-
Stage 2	368	391	-	486	489	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	96	120	516	86	120	508	996	-	-	985	-	-
Mov Cap-2 Maneuver	96	120	-	86	120	-	-	-	-	-	-	-
Stage 1	432	483	-	329	347	-	-	-	-	-	-	-
Stage 2	315	347	-	409	483	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	36.5	70.9	1.4	0.2
HCM LOS	E	F		

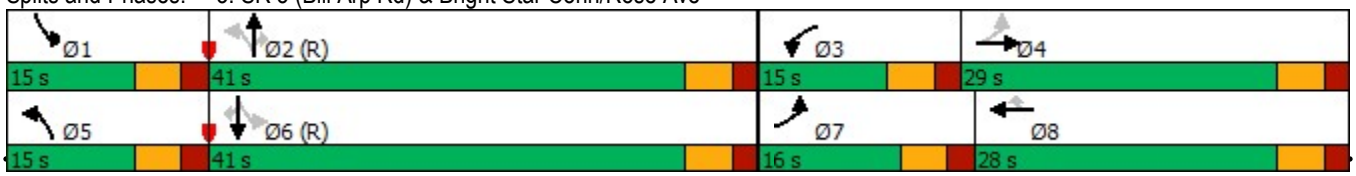
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	996	-	-	98	516	101	985	-	-
HCM Lane V/C Ratio	0.113	-	-	0.483	0.14	0.49	0.012	-	-
HCM Control Delay (s)	9.1	-	-	72.1	13.1	70.9	8.7	-	-
HCM Lane LOS	A	-	-	F	B	F	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	2.1	0.5	2.2	0	-	-

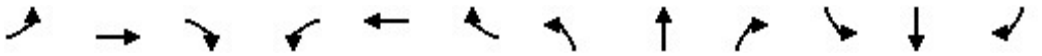
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	36	101	249	102	122	56	575	289	94	526	39
Future Volume (vph)	36	101	249	102	122	56	575	289	94	526	39
Lane Group Flow (vph)	38	178	259	106	127	58	599	301	98	548	41
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4				8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	5.0	6.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	28.5	15.0	28.5	28.5	15.0	32.5	32.5	15.0	31.5	31.5
Total Split (s)	16.0	29.0	15.0	28.0	28.0	15.0	41.0	41.0	15.0	41.0	41.0
Total Split (%)	16.0%	29.0%	15.0%	28.0%	28.0%	15.0%	41.0%	41.0%	15.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.15	0.46	0.79	0.35	0.33	0.13	0.63	0.31	0.24	0.57	0.04
Control Delay	29.2	28.1	63.0	42.1	7.2	6.6	16.0	1.4	9.1	19.9	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.2	28.1	63.0	42.1	7.2	6.6	16.0	1.4	9.1	19.9	0.1
Queue Length 50th (ft)	19	33	84	65	0	8	104	7	21	224	0
Queue Length 95th (ft)	42	63	#146	114	38	m15	186	13	47	392	0
Internal Link Dist (ft)		1365		665			381			477	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	309	836	326	419	470	476	946	984	429	965	927
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.21	0.79	0.25	0.27	0.12	0.63	0.31	0.23	0.57	0.04

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: SR 5 (Bill Arp Rd) & Bright Star Conn/Rose Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	101	70	249	102	122	56	575	289	94	526	39
Future Volume (veh/h)	36	101	70	249	102	122	56	575	289	94	526	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	38	105	0	259	106	0	58	599	0	98	548	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	207	213		323	226		491	1042		458	1054	
Arrive On Green	0.03	0.06	0.00	0.09	0.12	0.00	0.04	0.58	0.00	0.05	0.59	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	1796	1585	1781	1796	1585
Grp Volume(v), veh/h	38	105	0	259	106	0	58	599	0	98	548	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1796	1585	1781	1796	1585
Q Serve(g_s), s	2.0	2.9	0.0	7.3	5.3	0.0	1.3	21.0	0.0	2.2	18.2	0.0
Cycle Q Clear(g_c), s	2.0	2.9	0.0	7.3	5.3	0.0	1.3	21.0	0.0	2.2	18.2	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	207	213		323	226		491	1042		458	1054	
V/C Ratio(X)	0.18	0.49		0.80	0.47		0.12	0.58		0.21	0.52	
Avail Cap(c_a), veh/h	336	835		328	421		589	1042		544	1054	
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	0.00	0.97	0.97	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.1	45.5	0.0	44.4	41.0	0.0	9.1	13.2	0.0	9.9	12.3	0.0
Incr Delay (d2), s/veh	0.4	1.8	0.0	12.8	1.5	0.0	0.1	2.3	0.0	0.2	1.8	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(95%),veh/ln	1.6	2.3	0.0	6.6	4.5	0.0	0.8	12.6	0.0	1.3	11.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.5	47.3	0.0	57.2	42.4	0.0	9.2	15.6	0.0	10.1	14.1	0.0
LnGrp LOS	D	D		E	D		A	B		B	B	
Approach Vol, veh/h		143			365			657			646	
Approach Delay, s/veh		46.0			52.9			15.0			13.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	63.5	14.9	11.5	9.5	64.2	8.8	17.6
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	9.5	23.5	9.5	35.5	10.5	22.5
Max Q Clear Time (g_c+I1), s	4.2	23.0	9.3	4.9	3.3	20.2	4.0	7.3
Green Ext Time (p_c), s	0.1	5.0	0.0	0.4	0.0	5.2	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	24.6
HCM 6th LOS	C

Notes

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

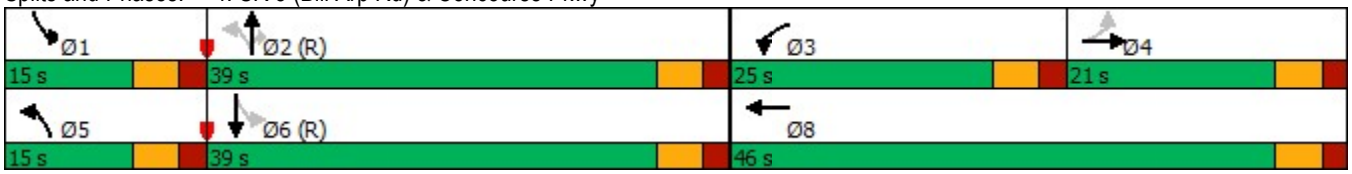
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

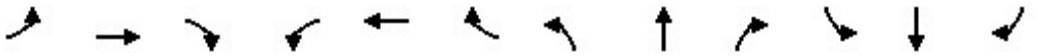
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	33	11	394	37	128	829	418	42	644
Future Volume (vph)	33	11	394	37	128	829	418	42	644
Lane Group Flow (vph)	35	120	415	94	135	873	440	44	714
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		1	6
Permitted Phases	4				2		2	6	
Detector Phase	4	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	21.0	21.0	25.0	46.0	15.0	39.0	39.0	15.0	39.0
Total Split (%)	21.0%	21.0%	25.0%	46.0%	15.0%	39.0%	39.0%	15.0%	39.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.32	0.51	0.72	0.17	0.34	0.51	0.43	0.13	0.49
Control Delay	50.2	18.7	46.8	11.7	16.3	24.5	7.5	12.5	21.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	50.2	18.7	46.8	11.7	16.3	24.5	7.6	12.5	21.2
Queue Length 50th (ft)	21	7	129	18	53	243	57	13	118
Queue Length 95th (ft)	51	59	176	50	m89	304	132	m26	201
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	200	340	669	720	416	1708	1018	386	1468
Starvation Cap Reductn	0	0	0	0	0	0	73	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	14
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.35	0.62	0.13	0.32	0.51	0.47	0.11	0.49

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: SR 5 (Bill Arp Rd) & Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	33	11	103	394	37	52	128	829	418	42	644	34
Future Volume (veh/h)	33	11	103	394	37	52	128	829	418	42	644	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	35	12	108	415	39	55	135	873	440	44	678	36
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	197	15	139	501	208	293	430	1719	798	274	1587	84
Arrive On Green	0.10	0.10	0.10	0.14	0.30	0.30	0.06	0.50	0.50	0.04	0.48	0.48
Sat Flow, veh/h	1302	161	1449	3456	702	990	1781	3413	1585	1781	3296	175
Grp Volume(v), veh/h	35	0	120	415	0	94	135	873	440	44	351	363
Grp Sat Flow(s),veh/h/ln	1302	0	1610	1728	0	1692	1781	1706	1585	1781	1706	1765
Q Serve(g_s), s	2.5	0.0	7.3	11.7	0.0	4.1	3.8	17.1	19.1	1.2	13.4	13.4
Cycle Q Clear(g_c), s	2.5	0.0	7.3	11.7	0.0	4.1	3.8	17.1	19.1	1.2	13.4	13.4
Prop In Lane	1.00		0.90	1.00		0.59	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	197	0	155	501	0	501	430	1719	798	274	822	850
V/C Ratio(X)	0.18	0.00	0.78	0.83	0.00	0.19	0.31	0.51	0.55	0.16	0.43	0.43
Avail Cap(c_a), veh/h	274	0	249	674	0	685	497	1719	798	381	822	850
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	0.85	0.85	0.85	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.0	0.0	44.1	41.6	0.0	26.2	12.6	16.5	17.0	13.2	16.9	16.9
Incr Delay (d2), s/veh	0.4	0.0	8.0	6.4	0.0	0.2	0.4	0.9	2.3	0.3	1.6	1.6
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(95%),veh/ln	1.5	0.0	5.8	9.2	0.0	3.1	2.6	10.3	11.4	0.9	9.2	9.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	0.0	52.2	47.9	0.0	26.4	13.0	17.5	19.4	13.5	18.5	18.5
LnGrp LOS	D	A	D	D	A	C	B	B	B	B	B	B
Approach Vol, veh/h		155			509			1448			758	
Approach Delay, s/veh		50.0			44.0			17.6			18.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.0	55.9	20.0	15.1	11.2	53.7		35.1				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	33.5	19.5	15.5	9.5	33.5		40.5				
Max Q Clear Time (g_c+I1), s	3.2	21.1	13.7	9.3	5.8	15.4		6.1				
Green Ext Time (p_c), s	0.0	9.1	0.8	0.3	0.1	7.3		0.6				

Intersection Summary	
HCM 6th Ctrl Delay	24.2
HCM 6th LOS	C

Notes

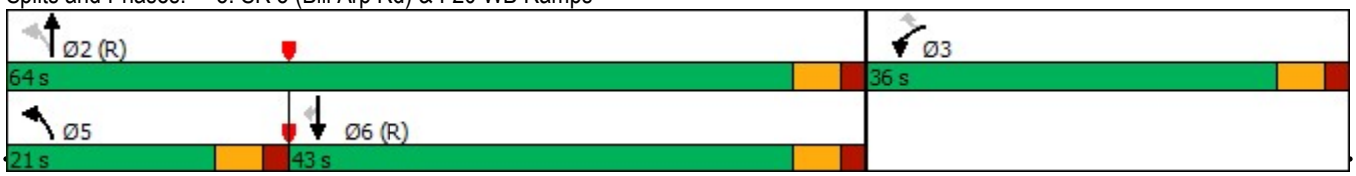
User approved pedestrian interval to be less than phase max green.

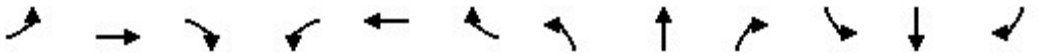
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	854	504	283	879	990	267
Future Volume (vph)	854	504	283	879	990	267
Lane Group Flow (vph)	871	514	289	897	1010	272
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		3	2			6
Detector Phase	3	3	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	15.0	15.0	21.5	21.5	21.5
Total Split (s)	36.0	36.0	21.0	64.0	43.0	43.0
Total Split (%)	36.0%	36.0%	21.0%	64.0%	43.0%	43.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	C-Min
v/c Ratio	0.87	0.64	0.82	0.45	0.75	0.34
Control Delay	44.4	34.6	52.8	9.1	28.6	6.1
Queue Delay	0.0	0.0	0.0	0.1	0.0	0.0
Total Delay	44.4	34.6	52.8	9.2	28.7	6.1
Queue Length 50th (ft)	265	158	155	80	320	27
Queue Length 95th (ft)	#347	219	m209	131	281	57
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		320				375
Base Capacity (vph)	1037	841	376	2013	1354	792
Starvation Cap Reductn	0	0	0	227	10	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.61	0.77	0.50	0.75	0.34

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: SR 5 (Bill Arp Rd) & I-20 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	854	0	504	283	879	0	0	990	267
Future Volume (veh/h)	0	0	0	854	0	504	283	879	0	0	990	267
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1796	0	0	1796	1856
Adj Flow Rate, veh/h				871	0	0	289	897	0	0	1010	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				3	0	3	3	7	0	0	7	3
Cap, veh/h				958	0		381	2084	0	0	1531	
Arrive On Green				0.28	0.00	0.00	0.11	0.61	0.00	0.00	0.45	0.00
Sat Flow, veh/h				3428	0	2768	1767	3503	0	0	3503	1572
Grp Volume(v), veh/h				871	0	0	289	897	0	0	1010	0
Grp Sat Flow(s),veh/h/ln				1714	0	1384	1767	1706	0	0	1706	1572
Q Serve(g_s), s				24.5	0.0	0.0	8.3	13.9	0.0	0.0	23.2	0.0
Cycle Q Clear(g_c), s				24.5	0.0	0.0	8.3	13.9	0.0	0.0	23.2	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				958	0		381	2084	0	0	1531	
V/C Ratio(X)				0.91	0.00		0.76	0.43	0.00	0.00	0.66	
Avail Cap(c_a), veh/h				1046	0		466	2084	0	0	1531	
HCM Platoon Ratio				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	0.00	0.57	0.57	0.00	0.00	0.80	0.00
Uniform Delay (d), s/veh				34.8	0.0	0.0	17.2	10.3	0.0	0.0	21.6	0.0
Incr Delay (d2), s/veh				11.0	0.0	0.0	3.3	0.4	0.0	0.0	1.8	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
%ile BackOfQ(95%),veh/ln				16.5	0.0	0.0	5.6	7.5	0.0	0.0	13.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.8	0.0	0.0	20.6	10.7	0.0	0.0	23.4	0.0
LnGrp LOS				D	A		C	B	A	A	C	
Approach Vol, veh/h					871			1186			1010	
Approach Delay, s/veh					45.8			13.1			23.4	
Approach LOS					D			B			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	66.6		16.2	50.4		33.4						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	58.5		15.5	37.5		30.5						
Max Q Clear Time (g_c+I1), s	15.9		10.3	25.2		26.5						
Green Ext Time (p_c), s	15.0		0.4	8.1		1.4						

Intersection Summary		
HCM 6th Ctrl Delay	25.8	
HCM 6th LOS	C	

Notes

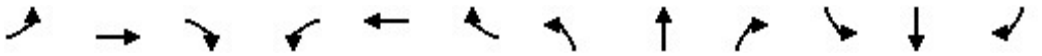
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	210	391	973	694	387	1392
Future Volume (vph)	210	391	973	694	387	1392
Lane Group Flow (vph)	221	412	1024	731	407	1465
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	7		2		1	6
Permitted Phases		4		2	6	
Detector Phase	7	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	15.0	21.5
Total Split (s)	34.0	34.0	40.0	40.0	26.0	66.0
Total Split (%)	34.0%	34.0%	40.0%	40.0%	26.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.50	0.89	0.81	0.72	0.91	0.68
Control Delay	35.4	50.9	35.3	7.6	49.2	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4
Total Delay	35.4	50.9	35.3	7.6	49.2	14.7
Queue Length 50th (ft)	116	198	320	19	249	296
Queue Length 95th (ft)	186	#353	#437	138	m#360	387
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	499	509	1265	1017	456	2150
Starvation Cap Reductn	0	0	0	0	0	259
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.81	0.81	0.72	0.89	0.77

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: SR 5 (Bill Arp Rd) & I-20 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	210	0	391	0	0	0	0	973	694	387	1392	0
Future Volume (veh/h)	210	0	391	0	0	0	0	973	694	387	1392	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1796	1856	1856	1796	0
Adj Flow Rate, veh/h	221	0	0				0	1024	0	407	1465	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	0	3				0	7	3	3	7	0
Cap, veh/h	259	0					0	1952		490	2537	0
Arrive On Green	0.15	0.00	0.00				0.00	0.57	0.00	0.12	0.74	0.00
Sat Flow, veh/h	1767	0	1572				0	3503	1572	1767	3503	0
Grp Volume(v), veh/h	221	0	0				0	1024	0	407	1465	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1706	1572	1767	1706	0
Q Serve(g_s), s	12.2	0.0	0.0				0.0	18.4	0.0	8.7	19.3	0.0
Cycle Q Clear(g_c), s	12.2	0.0	0.0				0.0	18.4	0.0	8.7	19.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	259	0					0	1952		490	2537	0
V/C Ratio(X)	0.85	0.00					0.00	0.52		0.83	0.58	0.00
Avail Cap(c_a), veh/h	504	0					0	1952		646	2537	0
HCM Platoon Ratio	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	0.00				0.00	1.00	0.00	0.49	0.49	0.00
Uniform Delay (d), s/veh	41.6	0.0	0.0				0.0	13.1	0.0	12.9	5.8	0.0
Incr Delay (d2), s/veh	7.8	0.0	0.0				0.0	1.0	0.0	3.5	0.5	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
%ile BackOfQ(95%),veh/ln	9.5	0.0	0.0				0.0	10.9	0.0	7.0	8.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.4	0.0	0.0				0.0	14.1	0.0	16.4	6.2	0.0
LnGrp LOS	D	A					A	B		B	A	A
Approach Vol, veh/h		221						1024			1872	
Approach Delay, s/veh		49.4						14.1			8.5	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	17.2	62.7		20.2		79.8
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	20.5	34.5		28.5		60.5
Max Q Clear Time (g_c+I1), s	10.7	20.4		14.2		21.3
Green Ext Time (p_c), s	0.9	9.1		0.5		26.5

Intersection Summary	
HCM 6th Ctrl Delay	13.2
HCM 6th LOS	B

Notes

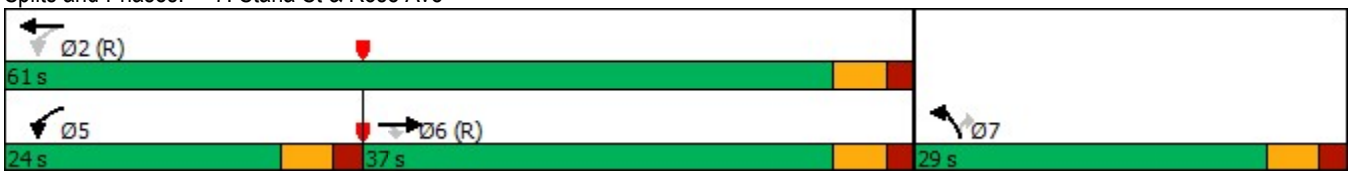
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	331	153	150	309	164	186
Future Volume (vph)	331	153	150	309	164	186
Lane Group Flow (vph)	338	156	153	315	167	190
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	7	
Permitted Phases		6	2			7
Detector Phase	6	6	5	2	7	7
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	23.5	28.5	27.5	27.5
Total Split (s)	37.0	37.0	24.0	61.0	29.0	29.0
Total Split (%)	41.1%	41.1%	26.7%	67.8%	32.2%	32.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.32	0.16	0.21	0.12	0.62	0.47
Control Delay	12.2	2.5	2.6	2.0	45.1	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	2.5	2.6	2.0	45.1	9.0
Queue Length 50th (ft)	92	0	13	14	90	0
Queue Length 95th (ft)	178	30	14	12	144	53
Internal Link Dist (ft)	665			422	309	
Turn Bay Length (ft)			145		140	
Base Capacity (vph)	1059	975	819	2540	462	553
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.16	0.19	0.12	0.36	0.34

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: Starla St & Rose Ave



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	331	153	150	309	164	186
Future Volume (veh/h)	331	153	150	309	164	186
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	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	338	156	153	315	167	190
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	3	2	2
Cap, veh/h	1140	974	654	2572	264	235
Arrive On Green	0.61	0.61	0.05	0.73	0.15	0.15
Sat Flow, veh/h	1856	1585	1781	3618	1781	1585
Grp Volume(v), veh/h	338	156	153	315	167	190
Grp Sat Flow(s),veh/h/ln	1856	1585	1781	1763	1781	1585
Q Serve(g_s), s	7.7	3.8	2.6	2.4	7.9	10.4
Cycle Q Clear(g_c), s	7.7	3.8	2.6	2.4	7.9	10.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1140	974	654	2572	264	235
V/C Ratio(X)	0.30	0.16	0.23	0.12	0.63	0.81
Avail Cap(c_a), veh/h	1140	974	923	2572	465	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.2	7.4	5.3	3.6	36.0	37.1
Incr Delay (d2), s/veh	0.6	0.3	0.2	0.1	2.5	6.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	9.2	1.4	1.2	6.5	14.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.8	7.8	5.5	3.7	38.5	43.6
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	494			468	357	
Approach Delay, s/veh	8.5			4.3	41.2	
Approach LOS	A			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		71.2		18.8	10.4	60.8
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		55.5		23.5	18.5	31.5
Max Q Clear Time (g_c+I1), s		4.4		12.4	4.6	9.7
Green Ext Time (p_c), s		4.3		0.9	0.3	4.9

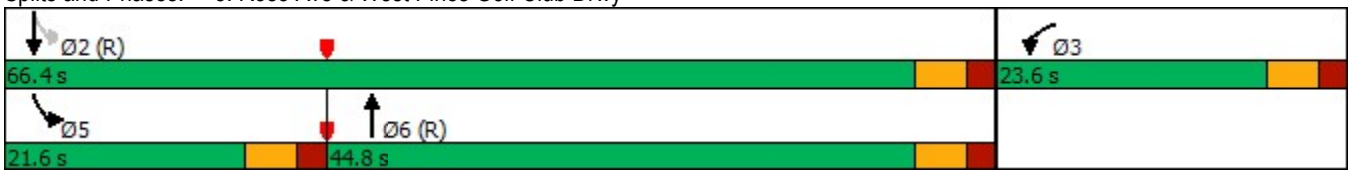
Intersection Summary		
HCM 6th Ctrl Delay		15.9
HCM 6th LOS		B

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	13	500	3	396
Future Volume (vph)	13	500	3	396
Lane Group Flow (vph)	26	546	3	426
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	3	6	5	2
Permitted Phases			2	
Detector Phase	3	6	5	2
Switch Phase				
Minimum Initial (s)	5.0	15.0	5.0	15.0
Minimum Split (s)	23.5	28.5	21.5	28.5
Total Split (s)	23.6	44.8	21.6	66.4
Total Split (%)	26.2%	49.8%	24.0%	73.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes		
Recall Mode	None	C-Min	None	C-Min
v/c Ratio	0.19	0.33	0.00	0.25
Control Delay	29.8	1.8	1.3	1.2
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	29.8	1.8	1.3	1.2
Queue Length 50th (ft)	8	4	0	0
Queue Length 95th (ft)	32	64	m1	48
Internal Link Dist (ft)	850	126		449
Turn Bay Length (ft)			83	
Base Capacity (vph)	351	1642	845	1691
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.07	0.33	0.00	0.25

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 51 (57%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Rose Ave & West Pines Golf Club Drwy



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	13	11	500	7	3	396
Future Volume (veh/h)	13	11	500	7	3	396
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	1870	1856	1870	1870	1856
Adj Flow Rate, veh/h	14	12	538	8	3	426
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	3	2	2	3
Cap, veh/h	24	20	1432	21	686	1578
Arrive On Green	0.03	0.03	0.79	0.79	0.00	0.85
Sat Flow, veh/h	877	752	1824	27	1781	1856
Grp Volume(v), veh/h	27	0	0	546	3	426
Grp Sat Flow(s),veh/h/ln	1691	0	0	1851	1781	1856
Q Serve(g_s), s	1.4	0.0	0.0	8.1	0.0	4.0
Cycle Q Clear(g_c), s	1.4	0.0	0.0	8.1	0.0	4.0
Prop In Lane	0.52	0.44		0.01	1.00	
Lane Grp Cap(c), veh/h	46	0	0	1453	686	1578
V/C Ratio(X)	0.59	0.00	0.00	0.38	0.00	0.27
Avail Cap(c_a), veh/h	340	0	0	1453	997	1578
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.3	0.0	0.0	2.9	2.2	1.3
Incr Delay (d2), s/veh	11.2	0.0	0.0	0.7	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.3	0.0	0.0	3.7	0.0	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.5	0.0	0.0	3.7	2.2	1.7
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	27		546			429
Approach Delay, s/veh	54.5		3.7			1.7
Approach LOS	D		A			A

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		82.0			5.9	76.2	8.0
Change Period (Y+Rc), s		5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s		60.9			16.1	39.3	18.1
Max Q Clear Time (g_c+I1), s		6.0			2.0	10.1	3.4
Green Ext Time (p_c), s		6.1			0.0	7.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.2
HCM 6th LOS	A

Notes

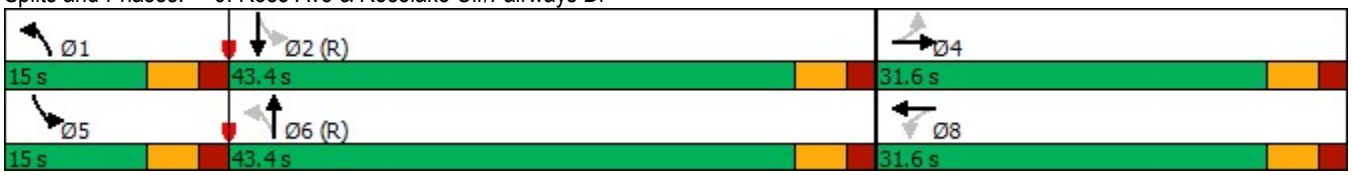
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	13	0	26	1	24	447	25	356
Future Volume (vph)	13	0	26	1	24	447	25	356
Lane Group Flow (vph)	0	32	0	58	25	508	26	389
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	1	6	5	2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	1	6	5	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	15.0	28.5	15.0	28.5
Total Split (s)	31.6	31.6	31.6	31.6	15.0	43.4	15.0	43.4
Total Split (%)	35.1%	35.1%	35.1%	35.1%	16.7%	48.2%	16.7%	48.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio		0.15		0.39	0.03	0.36	0.04	0.27
Control Delay		1.4		29.8	1.5	2.5	2.5	6.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		1.4		29.8	1.5	2.5	2.5	6.2
Queue Length 50th (ft)		0		15	1	22	2	58
Queue Length 95th (ft)		0		51	4	42	6	166
Internal Link Dist (ft)		501		600		323		289
Turn Bay Length (ft)					70		70	
Base Capacity (vph)		508		440	865	1422	767	1426
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.06		0.13	0.03	0.36	0.03	0.27

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 64 (71%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 9: Rose Ave & Roselake Cir/Fairways Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	0	17	26	1	29	24	447	40	25	356	17
Future Volume (veh/h)	13	0	17	26	1	29	24	447	40	25	356	17
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	14	0	18	27	1	30	25	466	42	26	371	18
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	89	12	55	96	8	49	782	1225	110	686	1283	62
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.03	0.73	0.73	0.03	0.73	0.73
Sat Flow, veh/h	522	200	928	625	137	816	1781	1677	151	1781	1755	85
Grp Volume(v), veh/h	32	0	0	58	0	0	25	0	508	26	0	389
Grp Sat Flow(s),veh/h/ln	1650	0	0	1578	0	0	1781	0	1828	1781	0	1840
Q Serve(g_s), s	0.0	0.0	0.0	1.5	0.0	0.0	0.3	0.0	9.3	0.3	0.0	6.5
Cycle Q Clear(g_c), s	1.6	0.0	0.0	3.1	0.0	0.0	0.3	0.0	9.3	0.3	0.0	6.5
Prop In Lane	0.44		0.56	0.47		0.52	1.00		0.08	1.00		0.05
Lane Grp Cap(c), veh/h	156	0	0	153	0	0	782	0	1336	686	0	1346
V/C Ratio(X)	0.21	0.00	0.00	0.38	0.00	0.00	0.03	0.00	0.38	0.04	0.00	0.29
Avail Cap(c_a), veh/h	499	0	0	497	0	0	924	0	1336	827	0	1346
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.6	0.0	0.0	41.2	0.0	0.0	2.9	0.0	4.5	3.2	0.0	4.1
Incr Delay (d2), s/veh	0.6	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.8	0.0	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(95%),veh/ln	1.3	0.0	0.0	2.4	0.0	0.0	0.1	0.0	5.1	0.1	0.0	3.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	0.0	42.7	0.0	0.0	3.0	0.0	5.4	3.2	0.0	4.7
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		32			58			533			415	
Approach Delay, s/veh		41.2			42.7			5.2			4.6	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.8	71.3		10.9	7.9	71.2		10.9				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	37.9		26.1	9.5	37.9		26.1				
Max Q Clear Time (g_c+I1), s	2.3	8.5		3.6	2.3	11.3		5.1				
Green Ext Time (p_c), s	0.0	4.8		0.1	0.0	6.5		0.2				

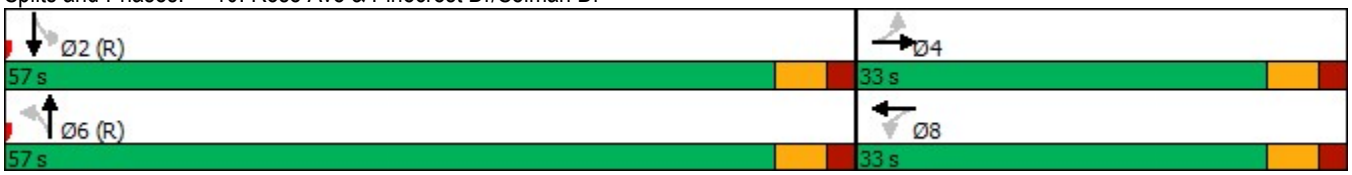
Intersection Summary			
HCM 6th Ctrl Delay		8.2	
HCM 6th LOS		A	

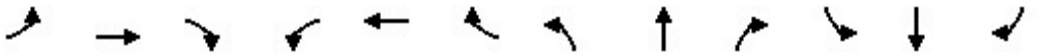
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	22	23	65	19	106	279	15	240
Future Volume (vph)	22	23	65	19	106	279	15	240
Lane Group Flow (vph)	0	135	0	111	0	509	0	285
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	33.0	33.0	33.0	33.0	57.0	57.0	57.0	57.0
Total Split (%)	36.7%	36.7%	36.7%	36.7%	63.3%	63.3%	63.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.48		0.67		0.44		0.21
Control Delay		19.9		51.0		2.0		4.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		19.9		51.0		2.0		4.3
Queue Length 50th (ft)		24		53		10		38
Queue Length 95th (ft)		73		102		20		82
Internal Link Dist (ft)		531		777		1526		1114
Turn Bay Length (ft)								
Base Capacity (vph)		545		372		1167		1329
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.25		0.30		0.44		0.21

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 89 (99%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 10: Rose Ave & Pinecrest Dr/Selman Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	23	84	65	19	22	106	279	98	15	240	15
Future Volume (veh/h)	22	23	84	65	19	22	106	279	98	15	240	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	23	24	88	68	20	23	112	294	103	16	253	16
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	67	41	116	146	37	31	288	741	249	87	1261	78
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.77	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	199	400	1120	790	355	299	309	956	321	57	1629	100
Grp Volume(v), veh/h	135	0	0	111	0	0	509	0	0	285	0	0
Grp Sat Flow(s),veh/h/ln	1718	0	0	1444	0	0	1586	0	0	1786	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.7	0.0	0.0	6.7	0.0	0.0	8.3	0.0	0.0	3.7	0.0	0.0
Prop In Lane	0.17		0.65	0.61		0.21	0.22		0.20	0.06		0.06
Lane Grp Cap(c), veh/h	224	0	0	214	0	0	1277	0	0	1426	0	0
V/C Ratio(X)	0.60	0.00	0.00	0.52	0.00	0.00	0.40	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	545	0	0	500	0	0	1277	0	0	1426	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.2	0.0	0.0	39.1	0.0	0.0	3.2	0.0	0.0	2.7	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	1.9	0.0	0.0	0.9	0.0	0.0	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(95%),veh/ln	5.4	0.0	0.0	4.4	0.0	0.0	3.9	0.0	0.0	1.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.8	0.0	0.0	41.0	0.0	0.0	4.1	0.0	0.0	3.0	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		135			111			509			285	
Approach Delay, s/veh		41.8			41.0			4.1			3.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		75.2		14.8		75.2		14.8				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		51.5		27.5		51.5		27.5				
Max Q Clear Time (g_c+I1), s		5.7		8.7		10.3		8.7				
Green Ext Time (p_c), s		3.7		0.7		7.8		0.5				

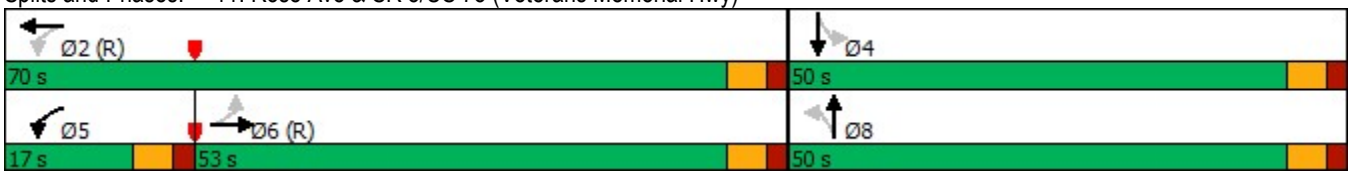
Intersection Summary												
HCM 6th Ctrl Delay			12.7									
HCM 6th LOS			B									

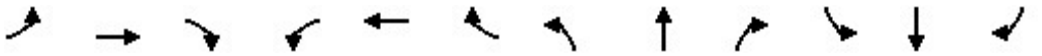
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	336	95	423	39	195	24	129
Future Volume (vph)	21	336	95	423	39	195	24	129
Lane Group Flow (vph)	22	370	99	468	0	325	0	208
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		6	5	2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	5	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	15.0	28.5	30.5	30.5	30.5	30.5
Total Split (s)	53.0	53.0	17.0	70.0	50.0	50.0	50.0	50.0
Total Split (%)	44.2%	44.2%	14.2%	58.3%	41.7%	41.7%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	C-Min	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.04	0.36	0.16	0.38		0.83		0.55
Control Delay	15.4	17.2	8.7	10.6		58.7		41.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	15.4	17.2	8.7	10.6		58.7		41.8
Queue Length 50th (ft)	7	148	24	143		229		132
Queue Length 95th (ft)	25	267	55	258		307		190
Internal Link Dist (ft)		1161		1176		925		49
Turn Bay Length (ft)	125		170					
Base Capacity (vph)	517	1039	643	1245		611		589
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.04	0.36	0.15	0.38		0.53		0.35

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 11: Rose Ave & SR 8/US 78 (Veterans Memorial Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	336	19	95	423	26	39	195	78	24	129	47
Future Volume (veh/h)	21	336	19	95	423	26	39	195	78	24	129	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	22	350	20	99	441	27	41	203	81	25	134	49
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	605	1064	61	647	1209	74	67	243	92	58	245	83
Arrive On Green	0.61	0.61	0.61	0.04	0.69	0.69	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	925	1752	100	1781	1744	107	154	1129	426	114	1138	386
Grp Volume(v), veh/h	22	0	370	99	0	468	325	0	0	208	0	0
Grp Sat Flow(s),veh/h/ln	925	0	1852	1781	0	1851	1710	0	0	1638	0	0
Q Serve(g_s), s	1.2	0.0	11.8	2.4	0.0	12.5	9.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.4	0.0	11.8	2.4	0.0	12.5	22.0	0.0	0.0	13.0	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.06	0.13		0.25	0.12		0.24
Lane Grp Cap(c), veh/h	605	0	1124	647	0	1283	402	0	0	386	0	0
V/C Ratio(X)	0.04	0.00	0.33	0.15	0.00	0.36	0.81	0.00	0.00	0.54	0.00	0.00
Avail Cap(c_a), veh/h	605	0	1124	746	0	1283	661	0	0	642	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.4	0.0	11.6	8.1	0.0	7.6	45.4	0.0	0.0	41.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.8	0.1	0.0	0.8	3.9	0.0	0.0	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(95%),veh/ln	0.5	0.0	8.5	1.6	0.0	8.3	14.8	0.0	0.0	9.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.5	0.0	12.4	8.2	0.0	8.4	49.3	0.0	0.0	43.0	0.0	0.0
LnGrp LOS	B	A	B	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		392			567			325			208	
Approach Delay, s/veh		12.3			8.3			49.3			43.0	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		88.7		31.3	10.3	78.3		31.3				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		64.5		44.5	11.5	47.5		44.5				
Max Q Clear Time (g_c+I1), s		14.5		15.0	4.4	13.8		24.0				
Green Ext Time (p_c), s		6.8		1.2	0.1	5.0		1.9				

Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Future “No-Build” Intersection Analysis

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	7	47	0	6	8	302	119	19	348	12
Future Vol, veh/h	1	1	7	47	0	6	8	302	119	19	348	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	1	1	8	51	0	6	9	325	128	20	374	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	828	892	381	832	834	389	387	0	0	453	0	0
Stage 1	421	421	-	407	407	-	-	-	-	-	-	-
Stage 2	407	471	-	425	427	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	290	281	666	288	304	659	1171	-	-	1108	-	-
Stage 1	610	589	-	621	597	-	-	-	-	-	-	-
Stage 2	621	560	-	607	585	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	280	272	666	277	294	659	1171	-	-	1108	-	-
Mov Cap-2 Maneuver	280	272	-	277	294	-	-	-	-	-	-	-
Stage 1	604	575	-	615	591	-	-	-	-	-	-	-
Stage 2	609	554	-	585	572	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	19.7	0.2	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1171	-	-	507	277	659	1108	-	-
HCM Lane V/C Ratio	0.007	-	-	0.019	0.182	0.01	0.018	-	-
HCM Control Delay (s)	8.1	0	-	12.2	20.9	10.5	8.3	0	-
HCM Lane LOS	A	A	-	B	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	86	61	4	20	36	406	34	7	387	10
Future Vol, veh/h	14	0	86	61	4	20	36	406	34	7	387	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	90	-	-	-	150	-	120	150	-	165
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	15	0	91	65	4	21	38	432	36	7	412	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	947	934	412	934	934	432	412	0	0	432	0	0
Stage 1	426	426	-	508	508	-	-	-	-	-	-	-
Stage 2	521	508	-	426	426	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	241	266	640	246	266	624	1147	-	-	1128	-	-
Stage 1	606	586	-	547	539	-	-	-	-	-	-	-
Stage 2	539	539	-	606	586	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	223	256	640	204	256	624	1147	-	-	1128	-	-
Mov Cap-2 Maneuver	223	256	-	204	256	-	-	-	-	-	-	-
Stage 1	586	582	-	529	521	-	-	-	-	-	-	-
Stage 2	499	521	-	516	582	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.1	28	0.6	0.1
HCM LOS	B	D		

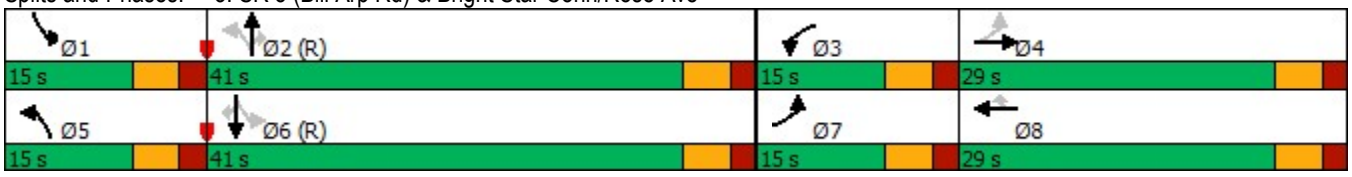
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1147	-	-	223	640	245	1128	-	-
HCM Lane V/C Ratio	0.033	-	-	0.067	0.143	0.369	0.007	-	-
HCM Control Delay (s)	8.2	-	-	22.3	11.6	28	8.2	-	-
HCM Lane LOS	A	-	-	C	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.5	1.6	0	-	-

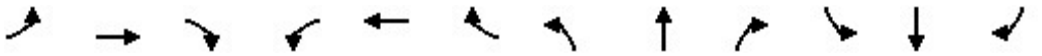
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	21	91	150	43	40	55	435	521	80	446	31
Future Volume (vph)	21	91	150	43	40	55	435	521	80	446	31
Lane Group Flow (vph)	22	141	156	45	42	57	453	543	83	465	32
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4				8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	5.0	6.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	28.5	15.0	28.5	28.5	15.0	32.5	32.5	15.0	31.5	31.5
Total Split (s)	15.0	29.0	15.0	29.0	29.0	15.0	41.0	41.0	15.0	41.0	41.0
Total Split (%)	15.0%	29.0%	15.0%	29.0%	29.0%	15.0%	41.0%	41.0%	15.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.10	0.44	0.51	0.14	0.11	0.11	0.46	0.48	0.16	0.47	0.03
Control Delay	30.2	33.1	49.1	40.9	2.0	2.3	5.0	1.8	7.3	16.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.2	33.1	49.1	40.9	2.0	2.3	5.0	1.8	7.3	16.4	0.1
Queue Length 50th (ft)	11	30	51	25	0	2	24	6	17	176	0
Queue Length 95th (ft)	30	60	84	62	1	8	47	22	37	287	0
Internal Link Dist (ft)		1365		665			381			477	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	280	826	326	437	484	562	990	1123	564	1000	956
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.17	0.48	0.10	0.09	0.10	0.46	0.48	0.15	0.47	0.03

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 13 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 3: SR 5 (Bill Arp Rd) & Bright Star Conn/Rose Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	91	44	150	43	40	55	435	521	80	446	31
Future Volume (veh/h)	21	91	44	150	43	40	55	435	521	80	446	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	22	95	0	156	45	0	57	453	0	83	465	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	193	211		223	189		590	1098		602	1107	
Arrive On Green	0.02	0.06	0.00	0.06	0.10	0.00	0.04	0.61	0.00	0.05	0.62	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	1796	1585	1781	1796	1585
Grp Volume(v), veh/h	22	95	0	156	45	0	57	453	0	83	465	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1796	1585	1781	1796	1585
Q Serve(g_s), s	1.1	2.6	0.0	4.4	2.2	0.0	1.2	13.1	0.0	1.7	13.4	0.0
Cycle Q Clear(g_c), s	1.1	2.6	0.0	4.4	2.2	0.0	1.2	13.1	0.0	1.7	13.4	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	193	211		223	189		590	1098		602	1107	
V/C Ratio(X)	0.11	0.45		0.70	0.24		0.10	0.41		0.14	0.42	
Avail Cap(c_a), veh/h	322	835		328	440		689	1098		691	1107	
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	0.00	0.99	0.99	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.6	45.5	0.0	45.8	41.4	0.0	7.2	10.1	0.0	7.1	9.9	0.0
Incr Delay (d2), s/veh	0.3	1.5	0.0	3.9	0.6	0.0	0.1	1.1	0.0	0.1	1.2	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(95%),veh/ln	0.9	2.1	0.0	3.6	1.9	0.0	0.7	8.3	0.0	1.0	8.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	47.0	0.0	49.7	42.0	0.0	7.3	11.3	0.0	7.3	11.1	0.0
LnGrp LOS	D	D		D	D		A	B		A	B	
Approach Vol, veh/h		117			201			510			548	
Approach Delay, s/veh		46.2			48.0			10.8			10.5	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	66.6	12.0	11.4	9.5	67.1	7.8	15.6
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	9.5	23.5	9.5	35.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	3.7	15.1	6.4	4.6	3.2	15.4	3.1	4.2
Green Ext Time (p_c), s	0.1	4.8	0.1	0.4	0.0	4.9	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	19.1
HCM 6th LOS	B

Notes

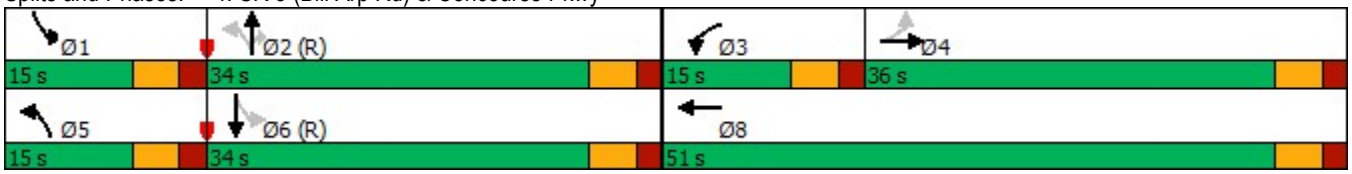
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

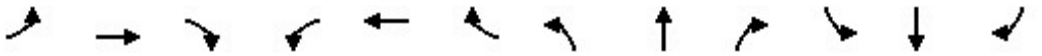
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	31	6	167	7	96	874	274	48	437
Future Volume (vph)	31	6	167	7	96	874	274	48	437
Lane Group Flow (vph)	33	46	176	64	101	920	288	51	527
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		1	6
Permitted Phases	4				2		2	6	
Detector Phase	4	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	36.0	36.0	15.0	51.0	15.0	34.0	34.0	15.0	34.0
Total Split (%)	36.0%	36.0%	15.0%	51.0%	15.0%	34.0%	34.0%	15.0%	34.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.31	0.27	0.57	0.17	0.17	0.46	0.28	0.13	0.27
Control Delay	49.9	19.9	51.1	10.7	3.0	5.4	1.3	6.4	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	19.9	51.1	10.7	3.0	5.4	1.3	6.4	11.3
Queue Length 50th (ft)	20	4	56	4	3	18	1	6	85
Queue Length 95th (ft)	50	37	90	36	18	166	10	m23	124
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	406	522	326	764	622	1982	1036	435	1930
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.09	0.54	0.08	0.16	0.46	0.28	0.12	0.27

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 8 (8%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: SR 5 (Bill Arp Rd) & Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	6	38	167	7	54	96	874	274	48	437	64
Future Volume (veh/h)	31	6	38	167	7	54	96	874	274	48	437	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	33	6	40	176	7	57	101	920	288	51	460	67
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	151	12	83	244	33	265	621	2091	971	357	1805	262
Arrive On Green	0.06	0.06	0.06	0.07	0.18	0.18	0.05	0.61	0.61	0.04	0.60	0.60
Sat Flow, veh/h	1338	211	1406	3456	176	1436	1781	3413	1585	1781	2991	433
Grp Volume(v), veh/h	33	0	46	176	0	64	101	920	288	51	261	266
Grp Sat Flow(s),veh/h/ln	1338	0	1617	1728	0	1612	1781	1706	1585	1781	1706	1718
Q Serve(g_s), s	2.4	0.0	2.8	5.0	0.0	3.4	2.1	14.3	8.6	1.1	7.2	7.2
Cycle Q Clear(g_c), s	2.4	0.0	2.8	5.0	0.0	3.4	2.1	14.3	8.6	1.1	7.2	7.2
Prop In Lane	1.00		0.87	1.00		0.89	1.00		1.00	1.00		0.25
Lane Grp Cap(c), veh/h	151	0	95	244	0	297	621	2091	971	357	1030	1037
V/C Ratio(X)	0.22	0.00	0.48	0.72	0.00	0.22	0.16	0.44	0.30	0.14	0.25	0.26
Avail Cap(c_a), veh/h	480	0	493	328	0	733	706	2091	971	459	1030	1037
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	0.89	0.89	0.89	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.4	0.0	45.6	45.5	0.0	34.6	6.8	10.3	9.2	7.6	9.3	9.3
Incr Delay (d2), s/veh	0.7	0.0	3.8	5.0	0.0	0.4	0.1	0.6	0.7	0.2	0.6	0.6
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(95%),veh/ln	1.5	0.0	2.2	4.2	0.0	2.5	1.3	8.4	5.5	0.7	4.7	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.1	0.0	49.3	50.5	0.0	35.0	6.9	10.9	9.9	7.8	9.9	9.9
LnGrp LOS	D	A	D	D	A	C	A	B	A	A	A	A
Approach Vol, veh/h		79			240			1309			578	
Approach Delay, s/veh		48.0			46.4			10.3			9.7	
Approach LOS		D			D			B			A	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.3	66.8	12.6	11.4	10.2	65.9		24.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	28.5	9.5	30.5	9.5	28.5		45.5				
Max Q Clear Time (g_c+I1), s	3.1	16.3	7.0	4.8	4.1	9.2		5.4				
Green Ext Time (p_c), s	0.0	8.6	0.1	0.3	0.1	5.4		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

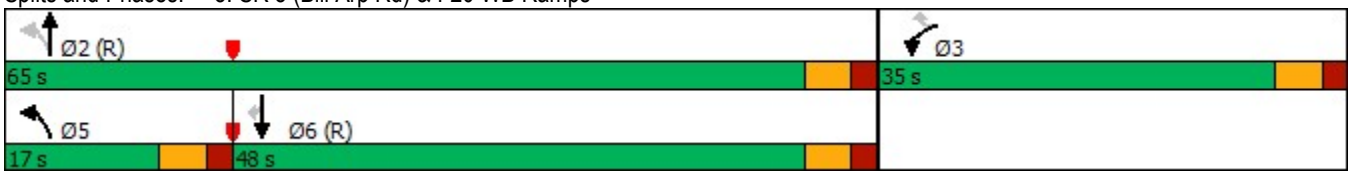
User approved pedestrian interval to be less than phase max green.

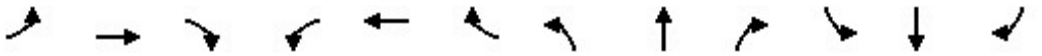
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	654	424	157	751	873	101
Future Volume (vph)	654	424	157	751	873	101
Lane Group Flow (vph)	667	433	160	766	891	103
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		3	2			6
Detector Phase	3	3	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	15.0	15.0	21.5	21.5	21.5
Total Split (s)	35.0	35.0	17.0	65.0	48.0	48.0
Total Split (%)	35.0%	35.0%	17.0%	65.0%	48.0%	48.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	C-Min
v/c Ratio	0.77	0.62	0.43	0.36	0.54	0.13
Control Delay	41.0	36.7	20.3	19.6	14.3	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.0	36.7	20.3	19.6	14.3	2.9
Queue Length 50th (ft)	201	137	78	208	148	2
Queue Length 95th (ft)	253	184	135	297	231	15
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		320				375
Base Capacity (vph)	1003	814	407	2147	1653	820
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.53	0.39	0.36	0.54	0.13

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 20 (20%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 5 (Bill Arp Rd) & I-20 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	654	0	424	157	751	0	0	873	101
Future Volume (veh/h)	0	0	0	654	0	424	157	751	0	0	873	101
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1796	0	0	1796	1856
Adj Flow Rate, veh/h				667	0	0	160	766	0	0	891	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				3	0	3	3	7	0	0	7	3
Cap, veh/h				770	0		419	2271	0	0	1885	
Arrive On Green				0.22	0.00	0.00	0.06	0.67	0.00	0.00	0.55	0.00
Sat Flow, veh/h				3428	0	2768	1767	3503	0	0	3503	1572
Grp Volume(v), veh/h				667	0	0	160	766	0	0	891	0
Grp Sat Flow(s),veh/h/ln				1714	0	1384	1767	1706	0	0	1706	1572
Q Serve(g_s), s				18.7	0.0	0.0	3.7	9.7	0.0	0.0	15.8	0.0
Cycle Q Clear(g_c), s				18.7	0.0	0.0	3.7	9.7	0.0	0.0	15.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				770	0		419	2271	0	0	1885	
V/C Ratio(X)				0.87	0.00		0.38	0.34	0.00	0.00	0.47	
Avail Cap(c_a), veh/h				1011	0		519	2271	0	0	1885	
HCM Platoon Ratio				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	0.00	0.85	0.85	0.00	0.00	0.95	0.00
Uniform Delay (d), s/veh				37.3	0.0	0.0	9.7	7.2	0.0	0.0	13.6	0.0
Incr Delay (d2), s/veh				6.4	0.0	0.0	0.5	0.3	0.0	0.0	0.8	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
%ile BackOfQ(95%),veh/ln				12.8	0.0	0.0	2.4	5.7	0.0	0.0	9.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.7	0.0	0.0	10.1	7.6	0.0	0.0	14.4	0.0
LnGrp LOS				D	A		B	A	A	A	B	
Approach Vol, veh/h					667			926			891	
Approach Delay, s/veh					43.7			8.0			14.4	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	72.0		11.3	60.7		28.0						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	59.5		11.5	42.5		29.5						
Max Q Clear Time (g_c+I1), s	11.7		5.7	17.8		20.7						
Green Ext Time (p_c), s	12.5		0.2	11.6		1.7						

Intersection Summary		
HCM 6th Ctrl Delay		19.9
HCM 6th LOS		B

Notes

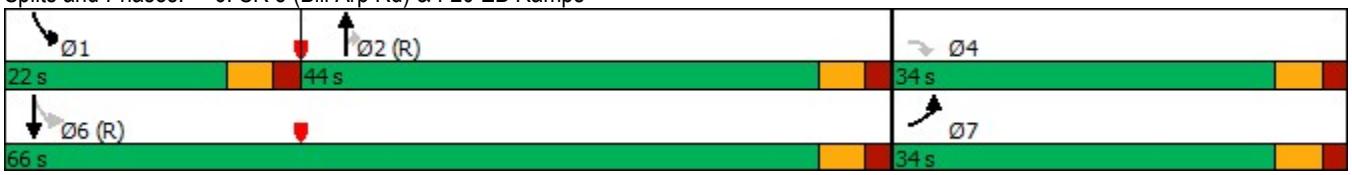
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

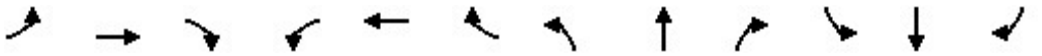
Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	234	362	729	750	339	1141
Future Volume (vph)	234	362	729	750	339	1141
Lane Group Flow (vph)	241	373	752	773	349	1176
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	7		2		1	6
Permitted Phases		4		2	6	
Detector Phase	7	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	15.0	21.5
Total Split (s)	34.0	34.0	44.0	44.0	22.0	66.0
Total Split (%)	34.0%	34.0%	44.0%	44.0%	22.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.59	0.86	0.49	0.68	0.71	0.53
Control Delay	39.2	47.1	21.7	5.2	17.8	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.3
Total Delay	39.2	47.1	21.7	5.2	17.8	5.7
Queue Length 50th (ft)	135	176	176	1	93	138
Queue Length 95th (ft)	203	278	256	86	157	191
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	499	509	1548	1136	522	2212
Starvation Cap Reductn	0	0	0	0	0	385
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.73	0.49	0.68	0.67	0.64

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 58 (58%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 5 (Bill Arp Rd) & I-20 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	234	0	362	0	0	0	0	729	750	339	1141	0
Future Volume (veh/h)	234	0	362	0	0	0	0	729	750	339	1141	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1796	1856	1856	1796	0
Adj Flow Rate, veh/h	241	0	0				0	752	0	349	1176	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	0	3				0	7	3	3	7	0
Cap, veh/h	279	0					0	1966		572	2498	0
Arrive On Green	0.16	0.00	0.00				0.00	0.58	0.00	0.10	0.73	0.00
Sat Flow, veh/h	1767	0	1572				0	3503	1572	1767	3503	0
Grp Volume(v), veh/h	241	0	0				0	752	0	349	1176	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1706	1572	1767	1706	0
Q Serve(g_s), s	13.3	0.0	0.0				0.0	12.0	0.0	7.5	14.1	0.0
Cycle Q Clear(g_c), s	13.3	0.0	0.0				0.0	12.0	0.0	7.5	14.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	279	0					0	1966		572	2498	0
V/C Ratio(X)	0.86	0.00					0.00	0.38		0.61	0.47	0.00
Avail Cap(c_a), veh/h	504	0					0	1966		685	2498	0
HCM Platoon Ratio	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	0.00				0.00	1.00	0.00	0.72	0.72	0.00
Uniform Delay (d), s/veh	41.0	0.0	0.0				0.0	11.5	0.0	7.7	5.5	0.0
Incr Delay (d2), s/veh	7.8	0.0	0.0				0.0	0.6	0.0	0.8	0.5	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
%ile BackOfQ(95%),veh/ln	10.2	0.0	0.0				0.0	7.7	0.0	4.4	6.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.8	0.0	0.0				0.0	12.1	0.0	8.5	5.9	0.0
LnGrp LOS	D	A					A	B		A	A	A
Approach Vol, veh/h		241						752			1525	
Approach Delay, s/veh		48.8						12.1			6.5	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	15.6	63.1		21.3		78.7
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	16.5	38.5		28.5		60.5
Max Q Clear Time (g_c+I1), s	9.5	14.0		15.3		16.1
Green Ext Time (p_c), s	0.6	9.6		0.5		21.9

Intersection Summary	
HCM 6th Ctrl Delay	12.2
HCM 6th LOS	B

Notes

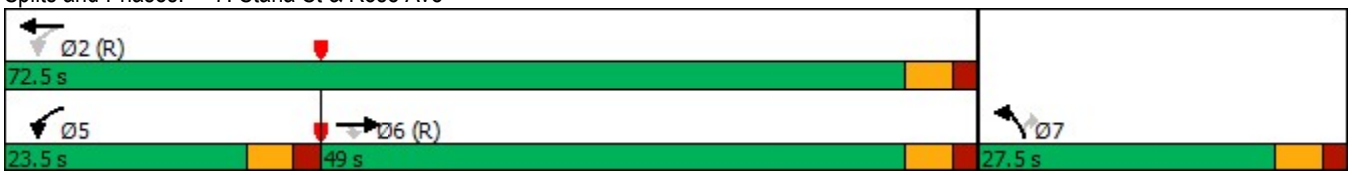
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	581	78	86	230	60	66
Future Volume (vph)	581	78	86	230	60	66
Lane Group Flow (vph)	668	90	99	264	69	76
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	7	
Permitted Phases		6	2			7
Detector Phase	6	6	5	2	7	7
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	23.5	28.5	27.5	27.5
Total Split (s)	49.0	49.0	23.5	72.5	27.5	27.5
Total Split (%)	49.0%	49.0%	23.5%	72.5%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.50	0.08	0.18	0.09	0.42	0.35
Control Delay	9.9	1.4	3.2	2.4	49.9	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	1.4	3.2	2.4	49.9	14.4
Queue Length 50th (ft)	215	1	11	14	42	0
Queue Length 95th (ft)	332	6	24	26	80	38
Internal Link Dist (ft)	665			422	309	
Turn Bay Length (ft)			145		140	
Base Capacity (vph)	1347	1180	693	2912	389	407
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.08	0.14	0.09	0.18	0.19

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 41 (41%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: Starla St & Rose Ave



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	581	78	86	230	60	66
Future Volume (veh/h)	581	78	86	230	60	66
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	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	668	90	99	264	69	76
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	2	2	3	2	2
Cap, veh/h	1334	1140	552	2894	123	109
Arrive On Green	0.72	0.72	0.05	0.82	0.07	0.07
Sat Flow, veh/h	1856	1585	1781	3618	1781	1585
Grp Volume(v), veh/h	668	90	99	264	69	76
Grp Sat Flow(s),veh/h/ln	1856	1585	1781	1763	1781	1585
Q Serve(g_s), s	15.8	1.7	1.3	1.4	3.8	4.7
Cycle Q Clear(g_c), s	15.8	1.7	1.3	1.4	3.8	4.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1334	1140	552	2894	123	109
V/C Ratio(X)	0.50	0.08	0.18	0.09	0.56	0.69
Avail Cap(c_a), veh/h	1334	1140	789	2894	392	349
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.90	0.90	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.2	4.2	4.3	1.7	45.1	45.5
Incr Delay (d2), s/veh	1.2	0.1	0.2	0.1	4.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	8.9	5.8	0.6	0.5	3.2	7.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	4.3	4.4	1.8	49.1	53.2
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	758			363	145	
Approach Delay, s/veh	7.0			2.5	51.2	
Approach LOS	A			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		87.6		12.4	10.2	77.4
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		67.0		22.0	18.0	43.5
Max Q Clear Time (g_c+I1), s		3.4		6.7	3.3	17.8
Green Ext Time (p_c), s		3.6		0.3	0.2	9.8

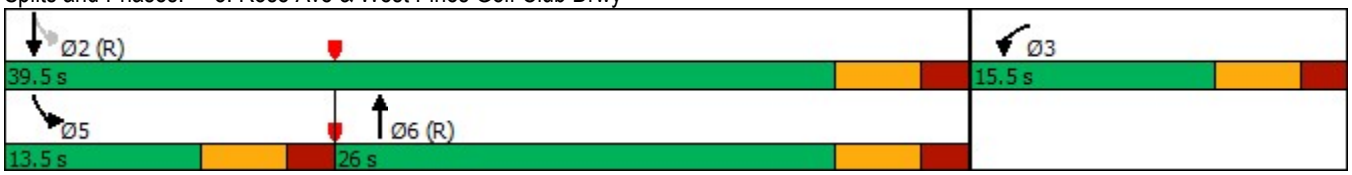
Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	2	491	5	314
Future Volume (vph)	2	491	5	314
Lane Group Flow (vph)	3	553	5	338
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	3	6	5	2
Permitted Phases			2	
Detector Phase	3	6	5	2
Switch Phase				
Minimum Initial (s)	5.0	15.0	5.0	15.0
Minimum Split (s)	23.5	28.5	21.5	28.5
Total Split (s)	15.5	26.0	13.5	39.5
Total Split (%)	28.2%	47.3%	24.5%	71.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes		
Recall Mode	None	C-Min	None	C-Min
v/c Ratio	0.02	0.34	0.01	0.20
Control Delay	20.3	4.2	1.8	1.4
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	20.3	4.2	1.8	1.4
Queue Length 50th (ft)	1	0	0	0
Queue Length 95th (ft)	7	208	3	57
Internal Link Dist (ft)	850	126		449
Turn Bay Length (ft)			83	
Base Capacity (vph)	313	1646	743	1730
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.01	0.34	0.01	0.20

Intersection Summary

Cycle Length: 55
Actuated Cycle Length: 55
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 8: Rose Ave & West Pines Golf Club Drwy



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	1	491	23	5	314
Future Volume (veh/h)	2	1	491	23	5	314
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	1870	1856	1870	1870	1856
Adj Flow Rate, veh/h	2	1	528	25	5	338
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	3	2	2	3
Cap, veh/h	5	2	1209	57	616	1474
Arrive On Green	0.01	0.01	0.69	0.69	0.01	0.79
Sat Flow, veh/h	874	437	1757	83	1781	1856
Grp Volume(v), veh/h	4	0	0	553	5	338
Grp Sat Flow(s),veh/h/ln	1748	0	0	1841	1781	1856
Q Serve(g_s), s	0.1	0.0	0.0	7.4	0.0	2.5
Cycle Q Clear(g_c), s	0.1	0.0	0.0	7.4	0.0	2.5
Prop In Lane	0.50	0.25		0.05	1.00	
Lane Grp Cap(c), veh/h	9	0	0	1266	616	1474
V/C Ratio(X)	0.42	0.00	0.00	0.44	0.01	0.23
Avail Cap(c_a), veh/h	318	0	0	1266	864	1474
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	0.0	0.0	3.8	2.8	1.4
Incr Delay (d2), s/veh	27.5	0.0	0.0	1.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	0.0	0.0	3.0	0.0	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.8	0.0	0.0	4.9	2.8	1.8
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	4		553			343
Approach Delay, s/veh	54.8		4.9			1.8
Approach LOS	D		A			A

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		49.2			5.9	43.3	5.8
Change Period (Y+Rc), s		5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s		34.0			8.0	20.5	10.0
Max Q Clear Time (g_c+I1), s		4.5			2.0	9.4	2.1
Green Ext Time (p_c), s		4.0			0.0	4.4	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.0
HCM 6th LOS	A

Notes

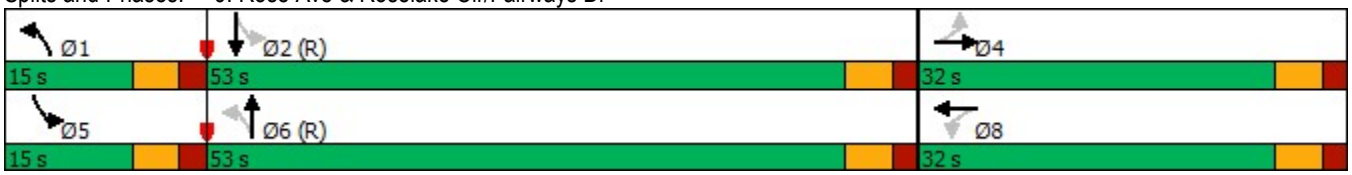
User approved pedestrian interval to be less than phase max green.
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	0	25	1	18	454	16	260
Future Volume (vph)	20	0	25	1	18	454	16	260
Lane Group Flow (vph)	0	55	0	59	19	503	17	292
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	1	6	5	2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	1	6	5	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	15.0	28.5	15.0	28.5
Total Split (s)	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio		0.27		0.40	0.02	0.34	0.02	0.20
Control Delay		6.9		32.3	2.3	5.4	1.9	4.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		6.9		32.3	2.3	5.4	1.9	4.4
Queue Length 50th (ft)		0		17	2	59	1	15
Queue Length 95th (ft)		16		56	7	194	5	124
Internal Link Dist (ft)		501		600		323		289
Turn Bay Length (ft)					70		70	
Base Capacity (vph)		472		430	958	1466	782	1460
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.12		0.14	0.02	0.34	0.02	0.20

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 82 (82%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 9: Rose Ave & Roselake Cir/Fairways Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	25	1	29	18	454	19	16	260	14
Future Volume (veh/h)	20	0	32	25	1	29	18	454	19	16	260	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	0	34	27	1	31	19	483	20	17	277	15
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	79	7	59	90	8	50	882	1342	56	704	1320	71
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.02	0.76	0.76	0.02	0.76	0.76
Sat Flow, veh/h	509	125	1026	645	137	866	1781	1769	73	1781	1744	94
Grp Volume(v), veh/h	55	0	0	59	0	0	19	0	503	17	0	292
Grp Sat Flow(s),veh/h/ln	1659	0	0	1648	0	0	1781	0	1842	1781	0	1839
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	9.1	0.2	0.0	4.6
Cycle Q Clear(g_c), s	3.0	0.0	0.0	3.2	0.0	0.0	0.2	0.0	9.1	0.2	0.0	4.6
Prop In Lane	0.38		0.62	0.46		0.53	1.00		0.04	1.00		0.05
Lane Grp Cap(c), veh/h	145	0	0	147	0	0	882	0	1398	704	0	1392
V/C Ratio(X)	0.38	0.00	0.00	0.40	0.00	0.00	0.02	0.00	0.36	0.02	0.00	0.21
Avail Cap(c_a), veh/h	456	0	0	455	0	0	1014	0	1398	840	0	1392
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	0.0	45.9	0.0	0.0	2.6	0.0	4.0	2.9	0.0	3.5
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.7	0.0	0.0	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(95%),veh/ln	2.5	0.0	0.0	2.7	0.0	0.0	0.1	0.0	5.0	0.1	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	0.0	0.0	47.7	0.0	0.0	2.6	0.0	4.7	3.0	0.0	3.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			59			522			309	
Approach Delay, s/veh		47.5			47.7			4.6			3.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	81.2		11.2	7.4	81.4		11.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	47.5		26.5	9.5	47.5		26.5				
Max Q Clear Time (g_c+I1), s	2.2	6.6		5.0	2.2	11.1		5.2				
Green Ext Time (p_c), s	0.0	3.7		0.2	0.0	7.1		0.2				

Intersection Summary		
HCM 6th Ctrl Delay	9.6	
HCM 6th LOS	A	

Notes

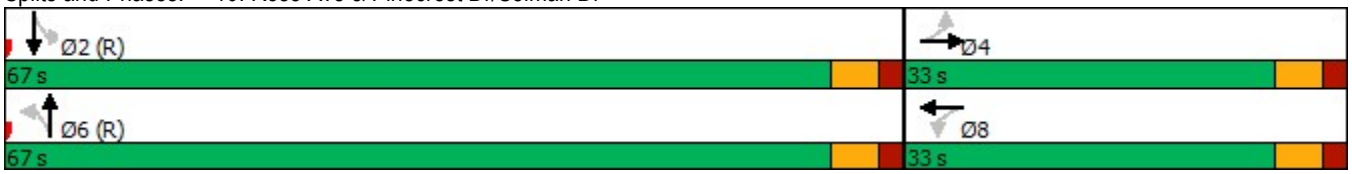
User approved pedestrian interval to be less than phase max green.

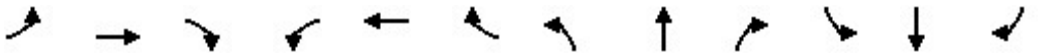
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	22	54	12	145	202	40	188
Future Volume (vph)	26	22	54	12	145	202	40	188
Lane Group Flow (vph)	0	123	0	111	0	552	0	264
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	33.0	33.0	33.0	33.0	67.0	67.0	67.0	67.0
Total Split (%)	33.0%	33.0%	33.0%	33.0%	67.0%	67.0%	67.0%	67.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.53		0.69		0.49		0.21
Control Delay		27.8		52.3		4.6		1.5
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		27.8		52.3		4.6		1.5
Queue Length 50th (ft)		33		52		126		10
Queue Length 95th (ft)		84		105		261		m23
Internal Link Dist (ft)		531		777		1526		1114
Turn Bay Length (ft)								
Base Capacity (vph)		468		353		1138		1240
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.26		0.31		0.49		0.21

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 14 (14%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Rose Ave & Pinecrest Dr/Selman Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	22	65	54	12	36	145	202	160	40	188	16
Future Volume (veh/h)	26	22	65	54	12	36	145	202	160	40	188	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	28	24	71	59	13	39	158	220	174	43	204	17
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	72	42	95	123	26	51	367	507	381	223	1034	84
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	286	439	990	701	270	526	404	638	480	228	1302	105
Grp Volume(v), veh/h	123	0	0	111	0	0	552	0	0	264	0	0
Grp Sat Flow(s),veh/h/ln	1715	0	0	1497	0	0	1522	0	0	1635	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	5.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.8	0.0	0.0	7.1	0.0	0.0	10.6	0.0	0.0	3.5	0.0	0.0
Prop In Lane	0.23		0.58	0.53		0.35	0.29		0.32	0.16		0.06
Lane Grp Cap(c), veh/h	209	0	0	199	0	0	1254	0	0	1340	0	0
V/C Ratio(X)	0.59	0.00	0.00	0.56	0.00	0.00	0.44	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	490	0	0	457	0	0	1254	0	0	1340	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	44.0	0.0	0.0	44.0	0.0	0.0	3.2	0.0	0.0	2.5	0.0	0.0
Incr Delay (d2), s/veh	2.6	0.0	0.0	2.4	0.0	0.0	1.1	0.0	0.0	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(95%),veh/ln	5.6	0.0	0.0	5.0	0.0	0.0	4.5	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.6	0.0	0.0	46.4	0.0	0.0	4.3	0.0	0.0	2.8	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		123			111			552			264	
Approach Delay, s/veh		46.6			46.4			4.3			2.8	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		84.9		15.1		84.9		15.1				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		61.5		27.5		61.5		27.5				
Max Q Clear Time (g_c+I1), s		5.5		8.8		12.6		9.1				
Green Ext Time (p_c), s		3.6		0.6		9.2		0.5				

Intersection Summary												
HCM 6th Ctrl Delay			13.3									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	472	65	264	14	136	82	175
Future Volume (vph)	20	472	65	264	14	136	82	175
Lane Group Flow (vph)	21	511	68	292	0	274	0	310
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		6	5	2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	5	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	15.0	28.5	30.5	30.5	30.5	30.5
Total Split (s)	46.0	46.0	15.0	61.0	39.0	39.0	39.0	39.0
Total Split (%)	46.0%	46.0%	15.0%	61.0%	39.0%	39.0%	39.0%	39.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	C-Min	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.04	0.53	0.15	0.25		0.58		0.94
Control Delay	16.2	20.8	9.6	9.8		27.4		70.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	16.2	20.8	9.6	9.8		27.4		70.0
Queue Length 50th (ft)	7	216	16	75		136		187
Queue Length 95th (ft)	23	377	39	141		191		#296
Internal Link Dist (ft)		1161		1176		925		49
Turn Bay Length (ft)	125		170					
Base Capacity (vph)	567	971	480	1161		596		422
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.04	0.53	0.14	0.25		0.46		0.73

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 17 (17%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Rose Ave & SR 8/US 78 (Veterans Memorial Hwy)

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	472	18	65	264	16	14	136	112	82	175	41
Future Volume (veh/h)	20	472	18	65	264	16	14	136	112	82	175	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	492	19	68	275	17	15	142	117	85	182	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	670	983	38	484	1128	70	49	230	180	124	224	49
Arrive On Green	0.55	0.55	0.55	0.04	0.65	0.65	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1087	1789	69	1781	1743	108	45	947	739	324	921	200
Grp Volume(v), veh/h	21	0	511	68	0	292	274	0	0	310	0	0
Grp Sat Flow(s),veh/h/ln	1087	0	1858	1781	0	1851	1732	0	0	1444	0	0
Q Serve(g_s), s	0.9	0.0	17.1	1.5	0.0	6.6	0.0	0.0	0.0	6.7	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	17.1	1.5	0.0	6.6	14.3	0.0	0.0	21.0	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.06	0.05		0.43	0.27		0.14
Lane Grp Cap(c), veh/h	670	0	1021	484	0	1198	459	0	0	397	0	0
V/C Ratio(X)	0.03	0.00	0.50	0.14	0.00	0.24	0.60	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	670	0	1021	578	0	1198	612	0	0	538	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.3	0.0	14.0	9.8	0.0	7.4	34.1	0.0	0.0	36.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.8	0.1	0.0	0.5	1.2	0.0	0.0	5.2	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(95%),veh/ln	0.4	0.0	11.5	1.0	0.0	4.5	10.0	0.0	0.0	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	0.0	15.7	9.9	0.0	7.9	35.3	0.0	0.0	41.6	0.0	0.0
LnGrp LOS	B	A	B	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		532			360			274			310	
Approach Delay, s/veh		15.5			8.3			35.3			41.6	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		70.2		29.8	9.7	60.5		29.8				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		55.5		33.5	9.5	40.5		33.5				
Max Q Clear Time (g_c+I1), s		8.6		23.0	3.5	19.1		16.3				
Green Ext Time (p_c), s		3.8		1.3	0.1	6.1		1.4				

Intersection Summary												
HCM 6th Ctrl Delay			22.9									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	18.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↰	↗		↕			↕	
Traffic Vol, veh/h	7	1	8	138	4	25	12	507	240	29	551	1
Future Vol, veh/h	7	1	8	138	4	25	12	507	240	29	551	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	7	1	8	142	4	26	12	523	247	30	568	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1302	1423	569	1304	1300	647	569	0	0	770	0	0
Stage 1	629	629	-	671	671	-	-	-	-	-	-	-
Stage 2	673	794	-	633	629	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	138	136	522	~ 137	161	471	1003	-	-	844	-	-
Stage 1	470	475	-	446	455	-	-	-	-	-	-	-
Stage 2	445	400	-	468	475	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	121	126	522	~ 127	149	471	1003	-	-	844	-	-
Mov Cap-2 Maneuver	121	126	-	~ 127	149	-	-	-	-	-	-	-
Stage 1	460	450	-	436	445	-	-	-	-	-	-	-
Stage 2	408	391	-	436	450	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	24.9	163.5	0.1	0.5
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1003	-	-	197	128	471	844	-	-
HCM Lane V/C Ratio	0.012	-	-	0.084	1.144	0.055	0.035	-	-
HCM Control Delay (s)	8.6	0	-	24.9	190	13.1	9.4	0	-
HCM Lane LOS	A	A	-	C	F	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	8.6	0.2	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	25

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	5	80	40	8	7	126	676	61	15	768	37
Future Vol, veh/h	48	5	80	40	8	7	126	676	61	15	768	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	90	-	-	-	150	-	120	150	-	165
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	52	5	86	43	9	8	135	727	66	16	826	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1864	1855	826	1858	1855	727	826	0	0	727	0	0
Stage 1	858	858	-	997	997	-	-	-	-	-	-	-
Stage 2	1006	997	-	861	858	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	56	74	372	56	74	424	805	-	-	876	-	-
Stage 1	352	374	-	294	322	-	-	-	-	-	-	-
Stage 2	291	322	-	350	374	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 42	60	372	~ 35	60	424	805	-	-	876	-	-
Mov Cap-2 Maneuver	~ 42	60	-	~ 35	60	-	-	-	-	-	-	-
Stage 1	293	367	-	245	268	-	-	-	-	-	-	-
Stage 2	230	268	-	260	367	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	168.8	$ 416	1.5	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	805	-	-	43	372	43	876	-	-
HCM Lane V/C Ratio	0.168	-	-	1.325	0.231	1.375	0.018	-	-
HCM Control Delay (s)	10.4	-	-	-$ 397.1	17.6	$ 416	9.2	-	-
HCM Lane LOS	B	-	-	F	C	F	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	5.6	0.9	5.8	0.1	-	-

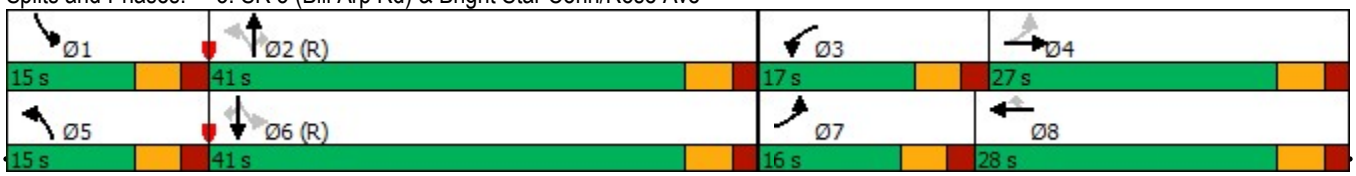
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

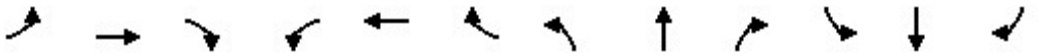
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	44	121	299	122	149	67	704	347	132	730	53
Future Volume (vph)	44	121	299	122	149	67	704	347	132	730	53
Lane Group Flow (vph)	46	214	311	127	155	70	733	361	138	760	55
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4				8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	5.0	6.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	28.5	15.0	28.5	28.5	15.0	32.5	32.5	15.0	31.5	31.5
Total Split (s)	16.0	27.0	17.0	28.0	28.0	15.0	41.0	41.0	15.0	41.0	41.0
Total Split (%)	16.0%	27.0%	17.0%	28.0%	28.0%	15.0%	41.0%	41.0%	15.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.18	0.53	0.80	0.37	0.37	0.28	0.87	0.40	0.52	0.82	0.06
Control Delay	28.3	29.3	59.5	41.0	9.1	13.2	27.9	3.2	17.4	31.8	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	29.3	59.5	41.0	9.1	13.2	27.9	3.2	17.4	31.8	0.1
Queue Length 50th (ft)	22	40	101	76	0	9	117	8	33	405	0
Queue Length 95th (ft)	47	73	#164	130	54	m23	#720	70	80	#734	0
Internal Link Dist (ft)		1365		665			381			477	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	308	782	394	428	483	291	842	910	285	923	893
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.27	0.79	0.30	0.32	0.24	0.87	0.40	0.48	0.82	0.06

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: SR 5 (Bill Arp Rd) & Bright Star Conn/Rose Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	121	84	299	122	149	67	704	347	132	730	53
Future Volume (veh/h)	44	121	84	299	122	149	67	704	347	132	730	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	46	126	0	311	127	0	70	733	0	138	760	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	212	213		377	249		326	1003		350	1021	
Arrive On Green	0.04	0.06	0.00	0.11	0.13	0.00	0.04	0.56	0.00	0.05	0.57	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	1796	1585	1781	1796	1585
Grp Volume(v), veh/h	46	126	0	311	127	0	70	733	0	138	760	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1796	1585	1781	1796	1585
Q Serve(g_s), s	2.4	3.5	0.0	8.8	6.3	0.0	1.6	30.4	0.0	3.3	31.7	0.0
Cycle Q Clear(g_c), s	2.4	3.5	0.0	8.8	6.3	0.0	1.6	30.4	0.0	3.3	31.7	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	212	213		377	249		326	1003		350	1021	
V/C Ratio(X)	0.22	0.59		0.83	0.51		0.21	0.73		0.39	0.74	
Avail Cap(c_a), veh/h	335	764		397	421		419	1003		425	1021	
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	0.00	0.95	0.95	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.9	45.8	0.0	43.6	40.3	0.0	13.5	16.5	0.0	13.9	16.2	0.0
Incr Delay (d2), s/veh	0.5	2.6	0.0	12.3	1.5	0.0	0.3	4.7	0.0	0.7	4.9	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(95%),veh/ln	1.9	2.8	0.0	7.7	5.3	0.0	1.0	17.8	0.0	2.1	18.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	48.4	0.0	55.9	41.9	0.0	13.8	21.2	0.0	14.6	21.1	0.0
LnGrp LOS	D	D		E	D		B	C		B	C	
Approach Vol, veh/h		172			438			803			898	
Approach Delay, s/veh		46.8			51.8			20.5			20.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.8	61.3	16.4	11.5	9.8	62.3	9.1	18.8
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	11.5	21.5	9.5	35.5	10.5	22.5
Max Q Clear Time (g_c+I1), s	5.3	32.4	10.8	5.5	3.6	33.7	4.4	8.3
Green Ext Time (p_c), s	0.1	1.9	0.1	0.5	0.1	1.2	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	28.2
HCM 6th LOS	C

Notes

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

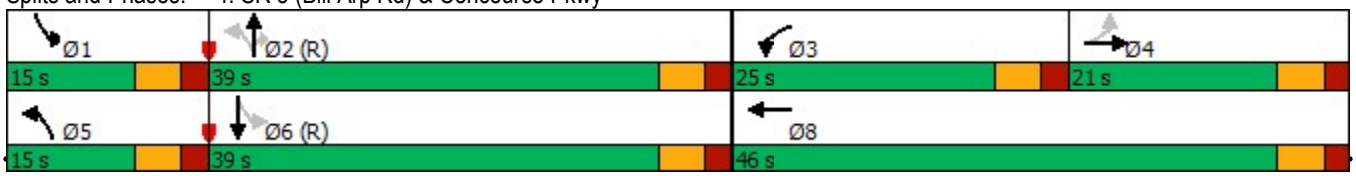
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

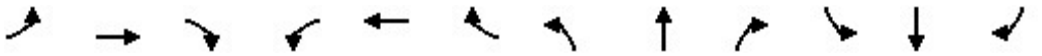
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	13	473	44	154	1008	502	52	868
Future Volume (vph)	40	13	473	44	154	1008	502	52	868
Lane Group Flow (vph)	42	145	498	111	162	1061	528	55	959
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		1	6
Permitted Phases	4				2		2	6	
Detector Phase	4	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	21.0	21.0	25.0	46.0	15.0	39.0	39.0	15.0	39.0
Total Split (%)	21.0%	21.0%	25.0%	46.0%	15.0%	39.0%	39.0%	15.0%	39.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.37	0.55	0.80	0.19	0.53	0.68	0.55	0.22	0.70
Control Delay	51.2	18.1	49.5	11.1	21.7	30.2	10.1	15.4	26.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	1.0
Total Delay	51.2	18.1	49.5	11.1	21.7	30.2	10.3	15.4	27.9
Queue Length 50th (ft)	26	8	155	20	62	307	76	16	180
Queue Length 95th (ft)	58	65	212	55	m108	362	127	m28	#347
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	197	360	669	726	316	1557	967	297	1375
Starvation Cap Reductn	0	0	0	0	0	0	62	0	0
Spillback Cap Reductn	0	7	0	0	0	0	0	0	190
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.41	0.74	0.15	0.51	0.68	0.58	0.19	0.81

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: SR 5 (Bill Arp Rd) & Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	13	124	473	44	62	154	1008	502	52	868	43
Future Volume (veh/h)	40	13	124	473	44	62	154	1008	502	52	868	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	42	14	131	498	46	65	162	1061	528	55	914	45
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	215	17	162	578	234	331	322	1577	732	212	1427	70
Arrive On Green	0.11	0.11	0.11	0.17	0.33	0.33	0.07	0.46	0.46	0.04	0.43	0.43
Sat Flow, veh/h	1282	155	1453	3456	701	991	1781	3413	1585	1781	3310	163
Grp Volume(v), veh/h	42	0	145	498	0	111	162	1061	528	55	471	488
Grp Sat Flow(s),veh/h/ln	1282	0	1609	1728	0	1692	1781	1706	1585	1781	1706	1767
Q Serve(g_s), s	3.0	0.0	8.8	14.0	0.0	4.7	5.0	24.3	26.9	1.7	21.7	21.7
Cycle Q Clear(g_c), s	3.0	0.0	8.8	14.0	0.0	4.7	5.0	24.3	26.9	1.7	21.7	21.7
Prop In Lane	1.00		0.90	1.00		0.59	1.00		1.00	1.00		0.09
Lane Grp Cap(c), veh/h	215	0	179	578	0	565	322	1577	732	212	736	762
V/C Ratio(X)	0.20	0.00	0.81	0.86	0.00	0.20	0.50	0.67	0.72	0.26	0.64	0.64
Avail Cap(c_a), veh/h	271	0	249	674	0	685	367	1577	732	312	736	762
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	0.76	0.76	0.76	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	0.0	43.4	40.5	0.0	23.8	16.9	21.0	21.7	17.2	22.3	22.3
Incr Delay (d2), s/veh	0.4	0.0	12.7	9.9	0.0	0.2	0.9	1.8	4.7	0.6	4.2	4.1
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(95%),veh/ln	1.8	0.0	7.4	11.0	0.0	3.4	3.6	13.9	15.3	1.2	14.1	14.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	56.0	50.4	0.0	23.9	17.9	22.8	26.3	17.8	26.6	26.5
LnGrp LOS	D	A	E	D	A	C	B	C	C	B	C	C
Approach Vol, veh/h		187			609			1751			1014	
Approach Delay, s/veh		52.7			45.6			23.4			26.0	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	51.7	22.2	16.7	12.5	48.6		38.9				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	33.5	19.5	15.5	9.5	33.5		40.5				
Max Q Clear Time (g_c+I1), s	3.7	28.9	16.0	10.8	7.0	23.7		6.7				
Green Ext Time (p_c), s	0.0	4.1	0.7	0.4	0.1	6.3		0.7				

Intersection Summary	
HCM 6th Ctrl Delay	29.5
HCM 6th LOS	C

Notes

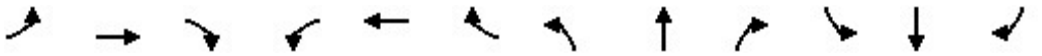
User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1025	609	340	1064	1264	339
Future Volume (vph)	1025	609	340	1064	1264	339
Lane Group Flow (vph)	1035	615	343	1075	1277	342
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		3	2			6
Detector Phase	3	3	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	15.0	15.0	21.5	21.5	21.5
Total Split (s)	37.0	37.0	20.0	63.0	43.0	43.0
Total Split (%)	37.0%	37.0%	20.0%	63.0%	43.0%	43.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	C-Min
v/c Ratio	0.97	0.71	1.05	0.55	1.01	0.43
Control Delay	55.1	35.5	84.7	11.2	53.6	5.7
Queue Delay	9.6	0.0	0.0	0.2	1.8	0.0
Total Delay	64.7	35.5	84.7	11.4	55.5	5.7
Queue Length 50th (ft)	332	195	~216	131	~433	31
Queue Length 95th (ft)	#469	265	m#225	m128	#573	m70
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		320				375
Base Capacity (vph)	1071	869	328	1940	1265	801
Starvation Cap Reductn	0	0	0	222	8	0
Spillback Cap Reductn	49	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.01	0.71	1.05	0.63	1.02	0.43

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: SR 5 (Bill Arp Rd) & I-20 WB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1025	0	609	340	1064	0	0	1264	339
Future Volume (veh/h)	0	0	0	1025	0	609	340	1064	0	0	1264	339
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1796	0	0	1796	1856
Adj Flow Rate, veh/h				1035	0	0	343	1075	0	0	1277	0
Peak Hour Factor				0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %				3	0	3	3	7	0	0	7	3
Cap, veh/h				1080	0		329	1962	0	0	1280	
Arrive On Green				0.31	0.00	0.00	0.14	0.57	0.00	0.00	0.38	0.00
Sat Flow, veh/h				3428	0	2768	1767	3503	0	0	3503	1572
Grp Volume(v), veh/h				1035	0	0	343	1075	0	0	1277	0
Grp Sat Flow(s),veh/h/ln				1714	0	1384	1767	1706	0	0	1706	1572
Q Serve(g_s), s				29.6	0.0	0.0	14.5	19.5	0.0	0.0	37.4	0.0
Cycle Q Clear(g_c), s				29.6	0.0	0.0	14.5	19.5	0.0	0.0	37.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1080	0		329	1962	0	0	1280	
V/C Ratio(X)				0.96	0.00		1.04	0.55	0.00	0.00	1.00	
Avail Cap(c_a), veh/h				1080	0		329	1962	0	0	1280	
HCM Platoon Ratio				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	0.00	0.17	0.17	0.00	0.00	0.61	0.00
Uniform Delay (d), s/veh				33.6	0.0	0.0	31.0	13.2	0.0	0.0	31.2	0.0
Incr Delay (d2), s/veh				18.2	0.0	0.0	32.8	0.2	0.0	0.0	19.1	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
%ile BackOfQ(95%),veh/ln				20.3	0.0	0.0	8.8	8.6	0.0	0.0	23.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.8	0.0	0.0	63.8	13.4	0.0	0.0	50.3	0.0
LnGrp LOS				D	A		F	B	A	A	D	
Approach Vol, veh/h					1035			1418			1277	
Approach Delay, s/veh					51.8			25.6			50.3	
Approach LOS					D			C			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	63.0		20.0	43.0		37.0						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	57.5		14.5	37.5		31.5						
Max Q Clear Time (g_c+I1), s	21.5		16.5	39.4		31.6						
Green Ext Time (p_c), s	17.6		0.0	0.0		0.0						

Intersection Summary		
HCM 6th Ctrl Delay	41.3	
HCM 6th LOS	D	

Notes

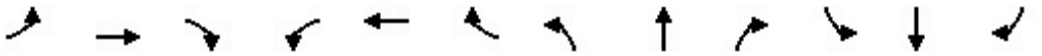
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	255	469	1174	833	496	1714
Future Volume (vph)	255	469	1174	833	496	1714
Lane Group Flow (vph)	268	494	1236	877	522	1804
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	7		2		1	6
Permitted Phases		4		2	6	
Detector Phase	7	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	15.0	21.5
Total Split (s)	34.0	34.0	40.0	40.0	26.0	66.0
Total Split (%)	34.0%	34.0%	40.0%	40.0%	26.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.54	0.97	1.06	0.90	1.21	0.88
Control Delay	35.0	64.0	77.3	21.6	130.9	20.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	10.2
Total Delay	35.0	64.0	77.3	21.6	130.9	31.0
Queue Length 50th (ft)	144	265	~458	141	~374	417
Queue Length 95th (ft)	226	#477	#592	#455	m#382	m422
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	499	509	1164	973	432	2042
Starvation Cap Reductn	0	0	0	0	0	242
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.97	1.06	0.90	1.21	1.00

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 115
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: SR 5 (Bill Arp Rd) & I-20 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	255	0	469	0	0	0	0	1174	833	496	1714	0
Future Volume (veh/h)	255	0	469	0	0	0	0	1174	833	496	1714	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1796	1856	1856	1796	0
Adj Flow Rate, veh/h	268	0	0				0	1236	0	522	1804	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	0	3				0	7	3	3	7	0
Cap, veh/h	306	0					0	1558		500	2446	0
Arrive On Green	0.17	0.00	0.00				0.00	0.46	0.00	0.20	0.72	0.00
Sat Flow, veh/h	1767	0	1572				0	3503	1572	1767	3503	0
Grp Volume(v), veh/h	268	0	0				0	1236	0	522	1804	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1706	1572	1767	1706	0
Q Serve(g_s), s	14.8	0.0	0.0				0.0	30.9	0.0	20.5	31.8	0.0
Cycle Q Clear(g_c), s	14.8	0.0	0.0				0.0	30.9	0.0	20.5	31.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	306	0					0	1558		500	2446	0
V/C Ratio(X)	0.87	0.00					0.00	0.79		1.04	0.74	0.00
Avail Cap(c_a), veh/h	504	0					0	1558		500	2446	0
HCM Platoon Ratio	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	0.00				0.00	1.00	0.00	0.11	0.11	0.00
Uniform Delay (d), s/veh	40.3	0.0	0.0				0.0	23.1	0.0	27.2	8.5	0.0
Incr Delay (d2), s/veh	9.4	0.0	0.0				0.0	4.2	0.0	26.4	0.2	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
%ile BackOfQ(95%),veh/ln	11.2	0.0	0.0				0.0	18.3	0.0	18.0	10.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	49.6	0.0	0.0				0.0	27.4	0.0	53.6	8.7	0.0
LnGrp LOS	D	A					A	C		F	A	A
Approach Vol, veh/h		268						1236			2326	
Approach Delay, s/veh		49.6						27.4			18.8	
Approach LOS		D						C			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	26.0	51.2		22.8		77.2
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	20.5	34.5		28.5		60.5
Max Q Clear Time (g_c+I1), s	22.5	32.9		16.8		33.8
Green Ext Time (p_c), s	0.0	1.4		0.6		23.2

Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

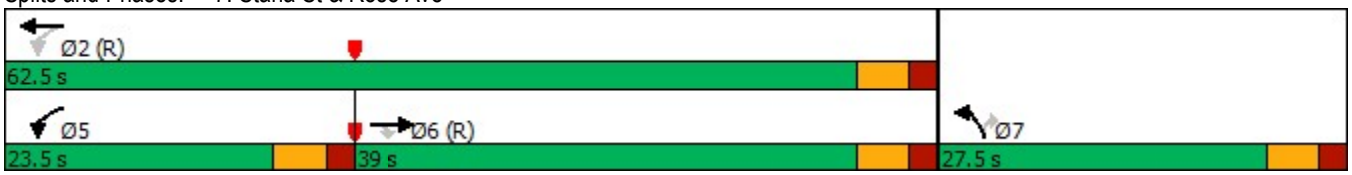
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	416	184	180	374	197	223
Future Volume (vph)	416	184	180	374	197	223
Lane Group Flow (vph)	424	188	184	382	201	228
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	7	
Permitted Phases		6	2			7
Detector Phase	6	6	5	2	7	7
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	23.5	28.5	27.5	27.5
Total Split (s)	39.0	39.0	23.5	62.5	27.5	27.5
Total Split (%)	43.3%	43.3%	26.1%	69.4%	30.6%	30.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.42	0.20	0.30	0.15	0.67	0.50
Control Delay	15.0	2.7	3.2	2.2	45.1	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.0	2.7	3.2	2.2	45.1	8.2
Queue Length 50th (ft)	132	0	8	8	108	0
Queue Length 95th (ft)	251	36	17	15	167	56
Internal Link Dist (ft)	665			422	309	
Turn Bay Length (ft)			145		140	
Base Capacity (vph)	1011	952	728	2476	432	559
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.20	0.25	0.15	0.47	0.41

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 58 (64%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: Starla St & Rose Ave



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	416	184	180	374	197	223
Future Volume (veh/h)	416	184	180	374	197	223
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	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	424	188	184	382	201	228
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	3	2	2
Cap, veh/h	1078	921	564	2490	305	272
Arrive On Green	0.58	0.58	0.06	0.71	0.17	0.17
Sat Flow, veh/h	1856	1585	1781	3618	1781	1585
Grp Volume(v), veh/h	424	188	184	382	201	228
Grp Sat Flow(s),veh/h/ln	1856	1585	1781	1763	1781	1585
Q Serve(g_s), s	11.2	5.1	3.4	3.2	9.5	12.5
Cycle Q Clear(g_c), s	11.2	5.1	3.4	3.2	9.5	12.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1078	921	564	2490	305	272
V/C Ratio(X)	0.39	0.20	0.33	0.15	0.66	0.84
Avail Cap(c_a), veh/h	1078	921	806	2490	435	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.2	9.0	6.8	4.4	34.8	36.1
Incr Delay (d2), s/veh	1.0	0.4	0.3	0.1	2.4	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.6	10.8	2.0	1.7	7.7	16.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	11.2	9.4	7.1	4.5	37.2	46.7
LnGrp LOS	B	A	A	A	D	D
Approach Vol, veh/h	612			566	429	
Approach Delay, s/veh	10.6			5.3	42.3	
Approach LOS	B			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		69.1		20.9	11.3	57.8
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		57.0		22.0	18.0	33.5
Max Q Clear Time (g_c+I1), s		5.2		14.5	5.4	13.2
Green Ext Time (p_c), s		5.4		0.9	0.4	6.1

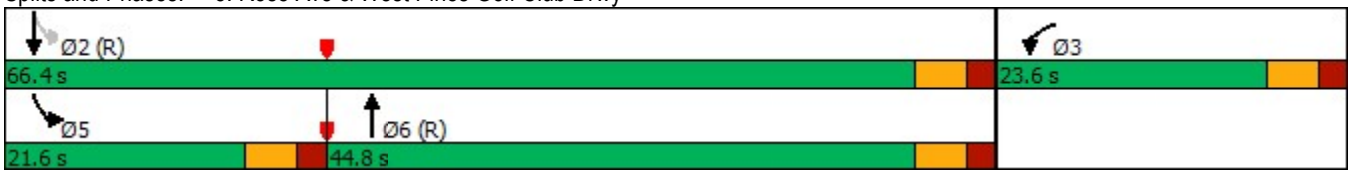
Intersection Summary		
HCM 6th Ctrl Delay		17.2
HCM 6th LOS		B

Lane Group	WBL	NBT	SBL	SBT
Lane Configurations				
Traffic Volume (vph)	16	619	4	478
Future Volume (vph)	16	619	4	478
Lane Group Flow (vph)	31	675	4	514
Turn Type	Prot	NA	pm+pt	NA
Protected Phases	3	6	5	2
Permitted Phases			2	
Detector Phase	3	6	5	2
Switch Phase				
Minimum Initial (s)	5.0	15.0	5.0	15.0
Minimum Split (s)	23.5	28.5	21.5	28.5
Total Split (s)	23.6	44.8	21.6	66.4
Total Split (%)	26.2%	49.8%	24.0%	73.8%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lead	
Lead-Lag Optimize?		Yes		
Recall Mode	None	C-Min	None	C-Min
v/c Ratio	0.22	0.43	0.01	0.32
Control Delay	29.7	2.4	1.5	1.8
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	29.7	2.4	1.5	1.8
Queue Length 50th (ft)	9	23	0	40
Queue Length 95th (ft)	36	80	m1	51
Internal Link Dist (ft)	850	126		449
Turn Bay Length (ft)			83	
Base Capacity (vph)	353	1569	737	1618
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.09	0.43	0.01	0.32

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 87 (97%), Referenced to phase 2:SBTL and 6:NBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Rose Ave & West Pines Golf Club Drwy



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	16	13	619	8	4	478
Future Volume (veh/h)	16	13	619	8	4	478
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	1870	1856	1870	1870	1856
Adj Flow Rate, veh/h	17	14	666	9	4	514
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	3	2	2	3
Cap, veh/h	28	23	1426	19	590	1572
Arrive On Green	0.03	0.03	0.78	0.78	0.01	0.85
Sat Flow, veh/h	899	740	1826	25	1781	1856
Grp Volume(v), veh/h	32	0	0	675	4	514
Grp Sat Flow(s),veh/h/ln	1692	0	0	1851	1781	1856
Q Serve(g_s), s	1.7	0.0	0.0	11.3	0.0	5.3
Cycle Q Clear(g_c), s	1.7	0.0	0.0	11.3	0.0	5.3
Prop In Lane	0.53	0.44		0.01	1.00	
Lane Grp Cap(c), veh/h	52	0	0	1445	590	1572
V/C Ratio(X)	0.62	0.00	0.00	0.47	0.01	0.33
Avail Cap(c_a), veh/h	340	0	0	1445	899	1572
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.1	0.0	0.0	3.4	2.6	1.5
Incr Delay (d2), s/veh	11.4	0.0	0.0	1.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	0.0	0.0	5.3	0.0	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	54.5	0.0	0.0	4.5	2.7	2.0
LnGrp LOS	D	A	A	A	A	A
Approach Vol, veh/h	32		675			518
Approach Delay, s/veh	54.5		4.5			2.0
Approach LOS	D		A			A

Timer - Assigned Phs		2			5	6	8
Phs Duration (G+Y+Rc), s		81.7			6.0	75.8	8.3
Change Period (Y+Rc), s		5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s		60.9			16.1	39.3	18.1
Max Q Clear Time (g_c+I1), s		7.3			2.0	13.3	3.7
Green Ext Time (p_c), s		7.8			0.0	9.3	0.0

Intersection Summary	
HCM 6th Ctrl Delay	4.7
HCM 6th LOS	A

Notes

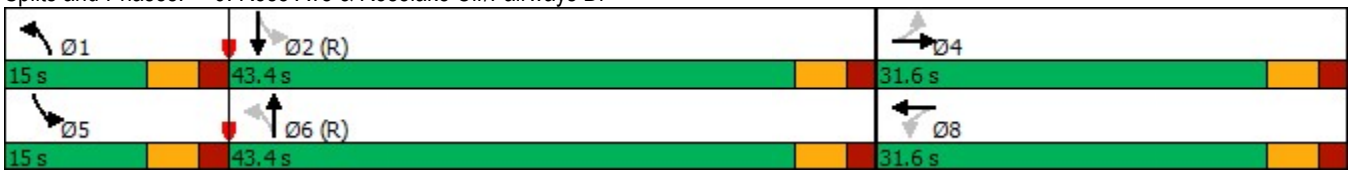
User approved volume balancing among the lanes for turning movement.

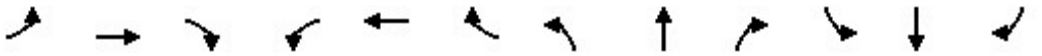
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	0	32	1	33	547	30	429
Future Volume (vph)	16	0	32	1	33	547	30	429
Lane Group Flow (vph)	0	39	0	70	34	624	31	468
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	1	6	5	2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	1	6	5	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	15.0	28.5	15.0	28.5
Total Split (s)	31.6	31.6	31.6	31.6	15.0	43.4	15.0	43.4
Total Split (%)	35.1%	35.1%	35.1%	35.1%	16.7%	48.2%	16.7%	48.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio		0.17		0.44	0.05	0.46	0.05	0.34
Control Delay		1.7		30.3	1.4	2.9	2.6	8.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		1.7		30.3	1.4	2.9	2.6	8.0
Queue Length 50th (ft)		0		19	1	18	2	120
Queue Length 95th (ft)		0		57	m5	47	m6	219
Internal Link Dist (ft)		501		600		323		289
Turn Bay Length (ft)					70		70	
Base Capacity (vph)		510		442	785	1366	662	1372
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.08		0.16	0.04	0.46	0.05	0.34

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 8 (9%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Rose Ave & Roselake Cir/Fairways Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	21	32	1	35	33	547	52	30	429	20
Future Volume (veh/h)	16	0	21	32	1	35	33	547	52	30	429	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	17	0	22	33	1	36	34	570	54	31	447	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	92	12	60	100	7	51	717	1208	114	598	1269	60
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.03	0.72	0.72	0.03	0.72	0.72
Sat Flow, veh/h	546	186	948	660	114	819	1781	1669	158	1781	1758	83
Grp Volume(v), veh/h	39	0	0	70	0	0	34	0	624	31	0	468
Grp Sat Flow(s),veh/h/ln	1680	0	0	1593	0	0	1781	0	1827	1781	0	1841
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.4	0.0	12.9	0.4	0.0	8.5
Cycle Q Clear(g_c), s	1.9	0.0	0.0	3.7	0.0	0.0	0.4	0.0	12.9	0.4	0.0	8.5
Prop In Lane	0.44		0.56	0.47		0.51	1.00		0.09	1.00		0.04
Lane Grp Cap(c), veh/h	163	0	0	159	0	0	717	0	1323	598	0	1329
V/C Ratio(X)	0.24	0.00	0.00	0.44	0.00	0.00	0.05	0.00	0.47	0.05	0.00	0.35
Avail Cap(c_a), veh/h	500	0	0	497	0	0	848	0	1323	733	0	1329
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	0.0	0.0	41.2	0.0	0.0	3.2	0.0	5.2	3.8	0.0	4.7
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.9	0.0	0.0	0.0	0.0	1.2	0.0	0.0	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(95%),veh/ln	1.6	0.0	0.0	2.9	0.0	0.0	0.2	0.0	7.3	0.2	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	0.0	43.1	0.0	0.0	3.2	0.0	6.4	3.8	0.0	5.4
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		39			70			658			499	
Approach Delay, s/veh		41.2			43.1			6.3			5.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	70.5		11.2	8.2	70.7		11.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	37.9		26.1	9.5	37.9		26.1				
Max Q Clear Time (g_c+I1), s	2.4	10.5		3.9	2.4	14.9		5.7				
Green Ext Time (p_c), s	0.0	5.9		0.1	0.0	7.9		0.3				

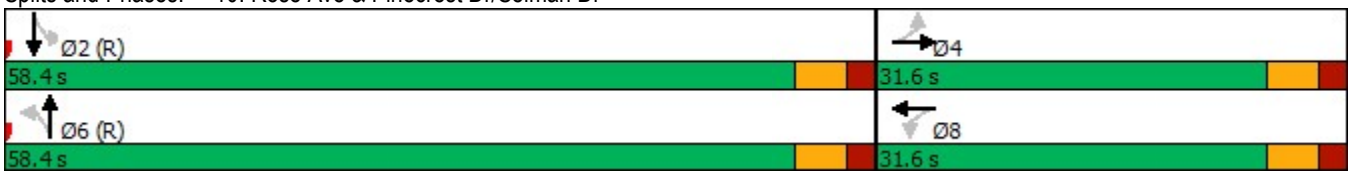
Intersection Summary			
HCM 6th Ctrl Delay		9.0	
HCM 6th LOS		A	

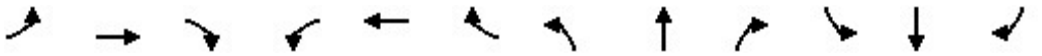
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	28	79	23	129	335	18	288
Future Volume (vph)	26	28	79	23	129	335	18	288
Lane Group Flow (vph)	0	162	0	134	0	624	0	341
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	31.6	31.6	31.6	31.6	58.4	58.4	58.4	58.4
Total Split (%)	35.1%	35.1%	35.1%	35.1%	64.9%	64.9%	64.9%	64.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.50		0.76		0.56		0.27
Control Delay		18.2		58.1		3.0		5.3
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		18.2		58.1		3.0		5.3
Queue Length 50th (ft)		28		66		14		53
Queue Length 95th (ft)		80		120		24		112
Internal Link Dist (ft)		531		777		1526		1114
Turn Bay Length (ft)								
Base Capacity (vph)		533		328		1105		1280
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.30		0.41		0.56		0.27

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 31 (34%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated

Splits and Phases: 10: Rose Ave & Pinecrest Dr/Selman Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	28	101	79	23	26	129	335	128	18	288	18
Future Volume (veh/h)	26	28	101	79	23	26	129	335	128	18	288	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	27	29	106	83	24	27	136	353	135	19	303	19
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	71	51	143	158	42	34	274	695	254	84	1220	74
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	192	401	1121	736	330	269	300	926	338	55	1625	99
Grp Volume(v), veh/h	162	0	0	134	0	0	624	0	0	341	0	0
Grp Sat Flow(s),veh/h/ln	1714	0	0	1335	0	0	1564	0	0	1779	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	0.0	6.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.0	0.0	0.0	8.9	0.0	0.0	13.4	0.0	0.0	5.1	0.0	0.0
Prop In Lane	0.17		0.65	0.62		0.20	0.22		0.22	0.06		0.06
Lane Grp Cap(c), veh/h	265	0	0	235	0	0	1223	0	0	1378	0	0
V/C Ratio(X)	0.61	0.00	0.00	0.57	0.00	0.00	0.51	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	522	0	0	462	0	0	1223	0	0	1378	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.9	0.0	0.0	38.0	0.0	0.0	4.4	0.0	0.0	3.4	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.0	0.0	2.2	0.0	0.0	1.5	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(95%),veh/ln	6.4	0.0	0.0	5.3	0.0	0.0	6.3	0.0	0.0	2.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.1	0.0	0.0	40.2	0.0	0.0	5.9	0.0	0.0	3.9	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		162			134			624			341	
Approach Delay, s/veh		40.1			40.2			5.9			3.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		73.0		17.0		73.0		17.0				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		52.9		26.1		52.9		26.1				
Max Q Clear Time (g_c+I1), s		7.1		10.0		15.4		10.9				
Green Ext Time (p_c), s		4.6		0.8		10.3		0.6				

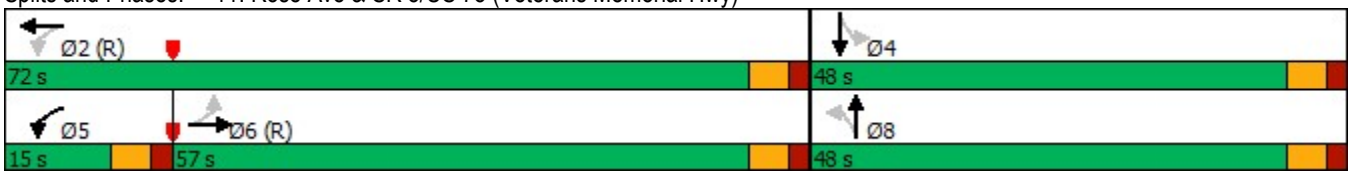
Intersection Summary												
HCM 6th Ctrl Delay			13.4									
HCM 6th LOS			B									

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	416	114	510	47	234	29	155
Future Volume (vph)	27	416	114	510	47	234	29	155
Lane Group Flow (vph)	28	457	119	563	0	391	0	249
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		6	5	2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	5	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	15.0	28.5	30.5	30.5	30.5	30.5
Total Split (s)	57.0	57.0	15.0	72.0	48.0	48.0	48.0	48.0
Total Split (%)	47.5%	47.5%	12.5%	60.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	C-Min	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.06	0.48	0.24	0.48		0.87		0.58
Control Delay	18.4	22.2	11.3	14.4		59.0		39.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	18.4	22.2	11.3	14.4		59.0		39.7
Queue Length 50th (ft)	10	218	34	212		278		157
Queue Length 95th (ft)	32	369	72	369		361		217
Internal Link Dist (ft)		1161		1176		925		49
Turn Bay Length (ft)	125		170					
Base Capacity (vph)	434	960	508	1173		577		555
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.06	0.48	0.23	0.48		0.68		0.45

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 11: Rose Ave & SR 8/US 78 (Veterans Memorial Hwy)



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	416	23	114	510	31	47	234	94	29	155	56
Future Volume (veh/h)	27	416	23	114	510	31	47	234	94	29	155	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	28	433	24	119	531	32	49	244	98	30	161	58
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	482	985	55	528	1136	68	74	284	109	63	282	95
Arrive On Green	0.56	0.56	0.56	0.04	0.65	0.65	0.26	0.26	0.26	0.26	0.26	0.26
Sat Flow, veh/h	847	1756	97	1781	1746	105	156	1103	421	113	1096	367
Grp Volume(v), veh/h	28	0	457	119	0	563	391	0	0	249	0	0
Grp Sat Flow(s),veh/h/ln	847	0	1853	1781	0	1851	1681	0	0	1576	0	0
Q Serve(g_s), s	2.1	0.0	17.2	3.3	0.0	18.3	11.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.6	0.0	17.2	3.3	0.0	18.3	26.9	0.0	0.0	15.5	0.0	0.0
Prop In Lane	1.00		0.05	1.00		0.06	0.13		0.25	0.12		0.23
Lane Grp Cap(c), veh/h	482	0	1040	528	0	1205	467	0	0	440	0	0
V/C Ratio(X)	0.06	0.00	0.44	0.23	0.00	0.47	0.84	0.00	0.00	0.57	0.00	0.00
Avail Cap(c_a), veh/h	482	0	1040	591	0	1205	626	0	0	597	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	15.6	0.0	15.3	11.0	0.0	10.5	42.9	0.0	0.0	38.5	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	1.4	0.2	0.0	1.3	7.4	0.0	0.0	1.1	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(95%),veh/ln	0.8	0.0	11.8	2.2	0.0	11.8	17.6	0.0	0.0	10.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.9	0.0	16.7	11.2	0.0	11.8	50.3	0.0	0.0	39.7	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	D	A	A	D	A	A
Approach Vol, veh/h		485			682			391			249	
Approach Delay, s/veh		16.6			11.7			50.3			39.7	
Approach LOS		B			B			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		83.6		36.4	10.7	72.8		36.4				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		66.5		42.5	9.5	51.5		42.5				
Max Q Clear Time (g_c+I1), s		20.3		17.5	5.3	19.2		28.9				
Green Ext Time (p_c), s		8.7		1.5	0.1	6.4		2.0				

Intersection Summary												
HCM 6th Ctrl Delay			25.2									
HCM 6th LOS			C									

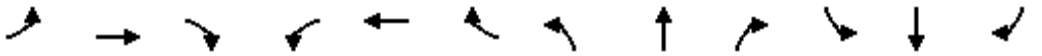
Future “No-Build” Intersection Analysis with Improvements

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	1	47	0	8	302	19	348
Future Volume (vph)	1	1	47	0	8	302	19	348
Lane Group Flow (vph)	0	10	51	6	0	462	0	407
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	34.0	34.0	34.0	34.0	66.0	66.0	66.0	66.0
Total Split (%)	34.0%	34.0%	34.0%	34.0%	66.0%	66.0%	66.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.06	0.40	0.01		0.32		0.28
Control Delay		25.3	51.0	0.0		5.5		3.3
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay		25.3	51.0	0.0		5.5		3.3
Queue Length 50th (ft)		1	31	0		21		52
Queue Length 95th (ft)		17	67	0		298		98
Internal Link Dist (ft)		413		535		1885		1003
Turn Bay Length (ft)			250					
Base Capacity (vph)		465	398	842		1437		1434
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.02	0.13	0.01		0.32		0.28

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: SR 5 (Bill Arp Rd) & Gurley Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	7	47	0	6	8	302	119	19	348	12
Future Volume (veh/h)	1	1	7	47	0	6	8	302	119	19	348	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	1	1	8	51	0	0	9	325	128	20	374	13
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	43	12	63	143	92		46	1026	397	80	1372	47
Arrive On Green	0.05	0.05	0.05	0.05	0.00	0.00	0.84	0.84	0.84	0.84	0.84	0.84
Sat Flow, veh/h	79	244	1290	1406	1870	0	11	1220	472	50	1631	55
Grp Volume(v), veh/h	10	0	0	51	0	0	462	0	0	407	0	0
Grp Sat Flow(s),veh/h/ln	1613	0	0	1406	1870	0	1702	0	0	1737	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	3.4	0.0	0.0	5.9	0.0	0.0	4.7	0.0	0.0
Prop In Lane	0.10		0.80	1.00		0.00	0.02		0.28	0.05		0.03
Lane Grp Cap(c), veh/h	119	0	0	143	92		1468	0	0	1498	0	0
V/C Ratio(X)	0.08	0.00	0.00	0.36	0.00		0.31	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	494	0	0	475	533		1468	0	0	1498	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.5	0.0	0.0	46.8	0.0	0.0	1.7	0.0	0.0	1.6	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.5	0.0	0.0	0.6	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(95%),veh/ln	0.4	0.0	0.0	2.3	0.0	0.0	1.4	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.0	0.0	48.3	0.0	0.0	2.3	0.0	0.0	2.1	0.0	0.0
LnGrp LOS	D	A	A	D	A		A	A	A	A	A	A
Approach Vol, veh/h		10			51			462			407	
Approach Delay, s/veh		45.8			48.3			2.3			2.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		89.6		10.4		89.6		10.4				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		60.5		28.5		60.5		28.5				
Max Q Clear Time (g_c+I1), s		6.7		2.6		7.9		5.4				
Green Ext Time (p_c), s		5.5		0.0		6.5		0.1				

Intersection Summary		
HCM 6th Ctrl Delay		5.2
HCM 6th LOS		A

Notes

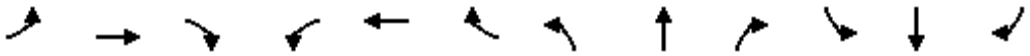
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	7	1	138	4	12	507	29	551
Future Volume (vph)	7	1	138	4	12	507	29	551
Lane Group Flow (vph)	0	16	142	30	0	782	0	599
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	31.5	31.5	31.5	31.5	68.5	68.5	68.5	68.5
Total Split (%)	31.5%	31.5%	31.5%	31.5%	68.5%	68.5%	68.5%	68.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.06	0.66	0.11		0.62		0.49
Control Delay		23.8	53.5	15.0		18.2		7.8
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay		23.8	53.5	15.0		18.2		7.8
Queue Length 50th (ft)		4	86	2		365		132
Queue Length 95th (ft)		22	141	26		m510		258
Internal Link Dist (ft)		413		535		1885		1003
Turn Bay Length (ft)			250					
Base Capacity (vph)		413	361	440		1268		1234
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.04	0.39	0.07		0.62		0.49

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SR 5 (Bill Arp Rd) & Gurley Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	1	8	138	4	25	12	507	240	29	551	1
Future Volume (veh/h)	7	1	8	138	4	25	12	507	240	29	551	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	7	1	8	142	4	0	12	523	247	30	568	1
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	114	30	92	241	221		44	884	412	75	1285	2
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.00	0.77	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	525	255	780	1406	1870	0	10	1146	533	48	1665	3
Grp Volume(v), veh/h	16	0	0	142	4	0	782	0	0	599	0	0
Grp Sat Flow(s),veh/h/ln	1560	0	0	1406	1870	0	1689	0	0	1716	0	0
Q Serve(g_s), s	0.0	0.0	0.0	8.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	9.7	0.2	0.0	19.5	0.0	0.0	11.4	0.0	0.0
Prop In Lane	0.44		0.50	1.00		0.00	0.02		0.32	0.05		0.00
Lane Grp Cap(c), veh/h	236	0	0	241	221		1340	0	0	1362	0	0
V/C Ratio(X)	0.07	0.00	0.00	0.59	0.02		0.58	0.00	0.00	0.44	0.00	0.00
Avail Cap(c_a), veh/h	451	0	0	441	486		1340	0	0	1362	0	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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.2	0.0	0.0	43.0	39.0	0.0	4.8	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.3	0.0	0.0	1.9	0.0	0.0	1.0	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(95%),veh/ln	0.6	0.0	0.0	6.3	0.2	0.0	8.3	0.0	0.0	5.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.4	0.0	0.0	45.3	39.0	0.0	6.7	0.0	0.0	4.9	0.0	0.0
LnGrp LOS	D	A	A	D	D		A	A	A	A	A	A
Approach Vol, veh/h		16			146			782			599	
Approach Delay, s/veh		39.4			45.1			6.7			4.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		82.7		17.3		82.7		17.3				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		63.0		26.0		63.0		26.0				
Max Q Clear Time (g_c+I1), s		13.4		2.8		21.5		11.7				
Green Ext Time (p_c), s		9.4		0.0		13.6		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			10.0									
HCM 6th LOS			A									

Notes

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

Future “Build” Intersections Analysis

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	1	7	48	0	6	8	316	122	19	352	12
Future Vol, veh/h	1	1	7	48	0	6	8	316	122	19	352	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	1	1	8	52	0	6	9	340	131	20	378	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	849	914	385	853	855	406	391	0	0	471	0	0
Stage 1	425	425	-	424	424	-	-	-	-	-	-	-
Stage 2	424	489	-	429	431	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	281	273	663	279	296	645	1168	-	-	1091	-	-
Stage 1	607	586	-	608	587	-	-	-	-	-	-	-
Stage 2	608	549	-	604	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	271	264	663	268	286	645	1168	-	-	1091	-	-
Mov Cap-2 Maneuver	271	264	-	268	286	-	-	-	-	-	-	-
Stage 1	600	573	-	601	581	-	-	-	-	-	-	-
Stage 2	595	543	-	582	570	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.4	20.4	0.1	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1168	-	-	499	268	645	1091	-	-
HCM Lane V/C Ratio	0.007	-	-	0.019	0.193	0.01	0.019	-	-
HCM Control Delay (s)	8.1	0	-	12.4	21.6	10.6	8.4	0	-
HCM Lane LOS	A	A	-	B	C	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0	0.1	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	0	86	61	4	20	36	422	34	7	392	10
Future Vol, veh/h	14	0	86	61	4	20	36	422	34	7	392	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	90	-	-	-	150	-	120	150	-	165
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	15	0	91	65	4	21	38	449	36	7	417	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	969	956	417	956	956	449	417	0	0	449	0	0
Stage 1	431	431	-	525	525	-	-	-	-	-	-	-
Stage 2	538	525	-	431	431	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	233	258	636	238	258	610	1142	-	-	1111	-	-
Stage 1	603	583	-	536	529	-	-	-	-	-	-	-
Stage 2	527	529	-	603	583	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	215	248	636	198	248	610	1142	-	-	1111	-	-
Mov Cap-2 Maneuver	215	248	-	198	248	-	-	-	-	-	-	-
Stage 1	583	580	-	518	512	-	-	-	-	-	-	-
Stage 2	488	512	-	513	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.2	29.1	0.6	0.1
HCM LOS	B	D		

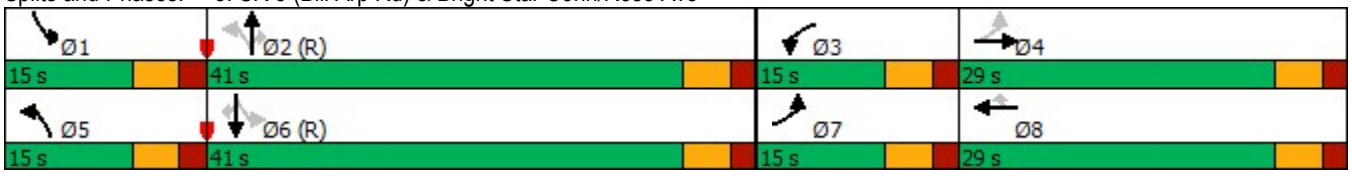
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1142	-	-	215	636	238	1111	-	-
HCM Lane V/C Ratio	0.034	-	-	0.069	0.144	0.38	0.007	-	-
HCM Control Delay (s)	8.3	-	-	23	11.6	29.1	8.3	-	-
HCM Lane LOS	A	-	-	C	B	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.5	1.7	0	-	-

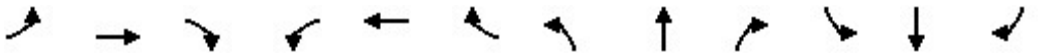
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	22	92	246	47	44	55	466	552	86	542	35
Future Volume (vph)	22	92	246	47	44	55	466	552	86	542	35
Lane Group Flow (vph)	23	142	256	49	46	57	485	575	90	565	36
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4				8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	5.0	6.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	28.5	15.0	28.5	28.5	15.0	32.5	32.5	15.0	31.5	31.5
Total Split (s)	15.0	29.0	15.0	29.0	29.0	15.0	41.0	41.0	15.0	41.0	41.0
Total Split (%)	15.0%	29.0%	15.0%	29.0%	29.0%	15.0%	41.0%	41.0%	15.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.10	0.44	0.79	0.15	0.11	0.13	0.50	0.51	0.18	0.57	0.04
Control Delay	30.1	33.2	64.0	38.0	1.7	7.5	17.6	3.0	7.6	18.7	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.1	33.2	64.0	38.0	1.7	7.5	17.6	3.0	7.6	18.7	0.1
Queue Length 50th (ft)	12	31	75	24	1	12	190	0	19	232	0
Queue Length 95th (ft)	31	60	#148	59	4	28	311	55	40	374	0
Internal Link Dist (ft)		1365		665			381			591	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	281	826	326	437	484	472	976	1129	528	988	946
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.17	0.79	0.11	0.10	0.12	0.50	0.51	0.17	0.57	0.04

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 13 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 5 (Bill Arp Rd) & Bright Star Conn/Rose Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	92	44	246	47	44	55	466	552	86	542	35
Future Volume (veh/h)	22	92	44	246	47	44	55	466	552	86	542	35
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	23	96	0	256	49	0	57	485	0	90	565	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	195	211		320	240		480	1045		543	1056	
Arrive On Green	0.02	0.06	0.00	0.09	0.13	0.00	0.04	0.58	0.00	0.05	0.59	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	1796	1585	1781	1796	1585
Grp Volume(v), veh/h	23	96	0	256	49	0	57	485	0	90	565	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1796	1585	1781	1796	1585
Q Serve(g_s), s	1.2	2.6	0.0	7.3	2.3	0.0	1.3	15.5	0.0	2.0	18.9	0.0
Cycle Q Clear(g_c), s	1.2	2.6	0.0	7.3	2.3	0.0	1.3	15.5	0.0	2.0	18.9	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	195	211		320	240		480	1045		543	1056	
V/C Ratio(X)	0.12	0.45		0.80	0.20		0.12	0.46		0.17	0.53	
Avail Cap(c_a), veh/h	322	835		328	440		579	1045		630	1056	
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	0.00	0.99	0.99	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.6	45.5	0.0	44.4	39.0	0.0	9.2	12.0	0.0	8.6	12.4	0.0
Incr Delay (d2), s/veh	0.3	1.5	0.0	12.7	0.4	0.0	0.1	1.5	0.0	0.1	1.9	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(95%),veh/ln	0.9	2.1	0.0	6.5	2.0	0.0	0.8	9.7	0.0	1.2	11.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	47.0	0.0	57.1	39.4	0.0	9.3	13.5	0.0	8.8	14.3	0.0
LnGrp LOS	D	D		E	D		A	B		A	B	
Approach Vol, veh/h		119			305			542			655	
Approach Delay, s/veh		46.2			54.3			13.0			13.6	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	63.7	14.8	11.4	9.5	64.3	7.9	18.4
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	9.5	23.5	9.5	35.5	9.5	23.5
Max Q Clear Time (g_c+I1), s	4.0	17.5	9.3	4.6	3.3	20.9	3.2	4.3
Green Ext Time (p_c), s	0.1	4.9	0.0	0.4	0.0	5.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

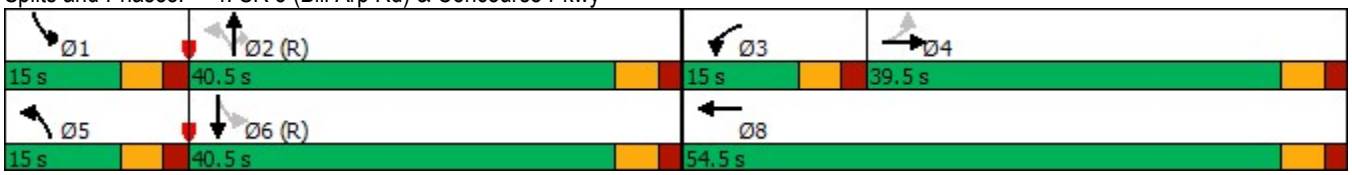
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

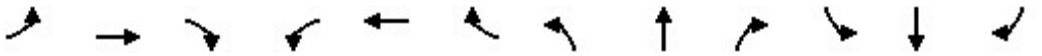
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	31	6	167	7	96	936	274	48	629
Future Volume (vph)	31	6	167	7	96	936	274	48	629
Lane Group Flow (vph)	33	46	176	64	101	985	288	51	729
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		1	6
Permitted Phases	4				2		2	6	
Detector Phase	4	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	39.5	39.5	15.0	54.5	15.0	40.5	40.5	15.0	40.5
Total Split (%)	35.9%	35.9%	13.6%	49.5%	13.6%	36.8%	36.8%	13.6%	36.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.33	0.29	0.62	0.18	0.21	0.47	0.27	0.14	0.37
Control Delay	55.8	21.8	58.4	12.0	7.0	13.9	3.6	7.1	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
Total Delay	55.8	21.8	58.4	12.0	7.0	14.3	3.6	7.1	13.3
Queue Length 50th (ft)	23	4	62	4	21	204	17	10	137
Queue Length 95th (ft)	53	39	99	38	43	286	61	25	203
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	411	528	296	750	516	2097	1070	423	1983
Starvation Cap Reductn	0	0	0	0	0	548	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.09	0.59	0.09	0.20	0.64	0.27	0.12	0.37

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated

Splits and Phases: 4: SR 5 (Bill Arp Rd) & Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	6	38	167	7	54	96	936	274	48	629	64
Future Volume (veh/h)	31	6	38	167	7	54	96	936	274	48	629	64
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	33	6	40	176	7	57	101	985	288	51	662	67
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	138	11	76	238	30	248	532	2189	1017	345	1984	201
Arrive On Green	0.05	0.05	0.05	0.07	0.17	0.17	0.04	0.64	0.64	0.04	0.63	0.63
Sat Flow, veh/h	1338	211	1406	3456	176	1436	1781	3413	1585	1781	3129	316
Grp Volume(v), veh/h	33	0	46	176	0	64	101	985	288	51	361	368
Grp Sat Flow(s),veh/h/ln	1338	0	1617	1728	0	1612	1781	1706	1585	1781	1706	1739
Q Serve(g_s), s	2.6	0.0	3.0	5.5	0.0	3.8	2.1	16.0	8.8	1.1	10.8	10.8
Cycle Q Clear(g_c), s	2.6	0.0	3.0	5.5	0.0	3.8	2.1	16.0	8.8	1.1	10.8	10.8
Prop In Lane	1.00		0.87	1.00		0.89	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	138	0	87	238	0	278	532	2189	1017	345	1082	1103
V/C Ratio(X)	0.24	0.00	0.53	0.74	0.00	0.23	0.19	0.45	0.28	0.15	0.33	0.33
Avail Cap(c_a), veh/h	479	0	500	298	0	718	608	2189	1017	435	1082	1103
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	0.87	0.87	0.87	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.5	0.0	50.7	50.3	0.0	39.2	6.7	9.9	8.6	7.4	9.3	9.3
Incr Delay (d2), s/veh	0.9	0.0	4.9	7.2	0.0	0.4	0.1	0.6	0.6	0.2	0.8	0.8
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(95%),veh/ln	1.6	0.0	2.4	4.7	0.0	2.8	1.3	9.2	5.6	0.7	7.1	7.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	0.0	55.6	57.5	0.0	39.6	6.8	10.5	9.2	7.6	10.2	10.2
LnGrp LOS	D	A	E	E	A	D	A	B	A	A	B	B
Approach Vol, veh/h		79			240			1374			780	
Approach Delay, s/veh		53.8			52.7			10.0			10.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.4	76.1	13.1	11.4	10.3	75.2		24.5				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	35.0	9.5	34.0	9.5	35.0		49.0				
Max Q Clear Time (g_c+I1), s	3.1	18.0	7.5	5.0	4.1	12.8		5.8				
Green Ext Time (p_c), s	0.0	11.6	0.1	0.3	0.1	8.3		0.4				

Intersection Summary	
HCM 6th Ctrl Delay	15.5
HCM 6th LOS	B

Notes

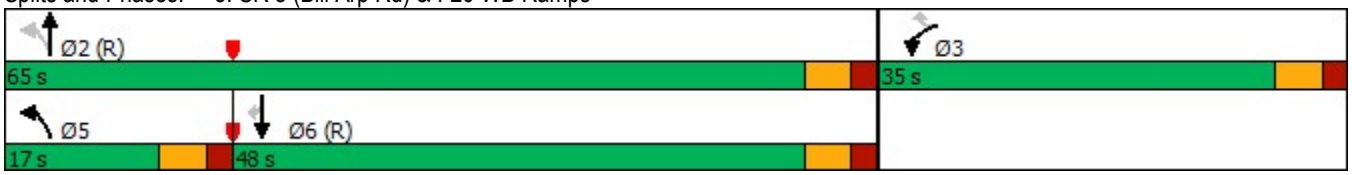
User approved pedestrian interval to be less than phase max green.

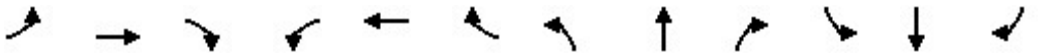
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	654	453	157	784	1027	139
Future Volume (vph)	654	453	157	784	1027	139
Lane Group Flow (vph)	667	462	160	800	1048	142
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		3	2			6
Detector Phase	3	3	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	15.0	15.0	21.5	21.5	21.5
Total Split (s)	35.0	35.0	17.0	65.0	48.0	48.0
Total Split (%)	35.0%	35.0%	17.0%	65.0%	48.0%	48.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	C-Min
v/c Ratio	0.77	0.66	0.50	0.37	0.64	0.17
Control Delay	40.7	37.7	13.7	9.8	22.3	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.5	0.0
Total Delay	40.7	37.7	13.7	9.8	22.8	3.6
Queue Length 50th (ft)	201	148	38	120	255	0
Queue Length 95th (ft)	253	197	72	172	365	35
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		320				375
Base Capacity (vph)	1003	814	354	2142	1647	838
Starvation Cap Reductn	0	0	0	0	224	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.57	0.45	0.37	0.74	0.17

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 20 (20%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 5 (Bill Arp Rd) & I-20 WB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	654	0	453	157	784	0	0	1027	139
Future Volume (veh/h)	0	0	0	654	0	453	157	784	0	0	1027	139
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1796	0	0	1796	1856
Adj Flow Rate, veh/h				667	0	0	160	800	0	0	1048	0
Peak Hour Factor				0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %				3	0	3	3	7	0	0	7	3
Cap, veh/h				770	0		364	2271	0	0	1885	
Arrive On Green				0.22	0.00	0.00	0.06	0.67	0.00	0.00	0.55	0.00
Sat Flow, veh/h				3428	0	2768	1767	3503	0	0	3503	1572
Grp Volume(v), veh/h				667	0	0	160	800	0	0	1048	0
Grp Sat Flow(s),veh/h/ln				1714	0	1384	1767	1706	0	0	1706	1572
Q Serve(g_s), s				18.7	0.0	0.0	3.7	10.2	0.0	0.0	19.8	0.0
Cycle Q Clear(g_c), s				18.7	0.0	0.0	3.7	10.2	0.0	0.0	19.8	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				770	0		364	2271	0	0	1885	
V/C Ratio(X)				0.87	0.00		0.44	0.35	0.00	0.00	0.56	
Avail Cap(c_a), veh/h				1011	0		464	2271	0	0	1885	
HCM Platoon Ratio				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	0.00	0.79	0.79	0.00	0.00	0.91	0.00
Uniform Delay (d), s/veh				37.3	0.0	0.0	10.9	7.3	0.0	0.0	14.5	0.0
Incr Delay (d2), s/veh				6.4	0.0	0.0	0.7	0.3	0.0	0.0	1.1	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
%ile BackOfQ(95%),veh/ln				12.8	0.0	0.0	2.4	6.0	0.0	0.0	11.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.7	0.0	0.0	11.6	7.7	0.0	0.0	15.5	0.0
LnGrp LOS				D	A		B	A	A	A	B	
Approach Vol, veh/h					667			960			1048	
Approach Delay, s/veh					43.7			8.3			15.5	
Approach LOS					D			A			B	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	72.0		11.3	60.7		28.0						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	59.5		11.5	42.5		29.5						
Max Q Clear Time (g_c+I1), s	12.2		5.7	21.8		20.7						
Green Ext Time (p_c), s	13.3		0.2	12.2		1.7						

Intersection Summary		
HCM 6th Ctrl Delay	20.0	
HCM 6th LOS	B	

Notes

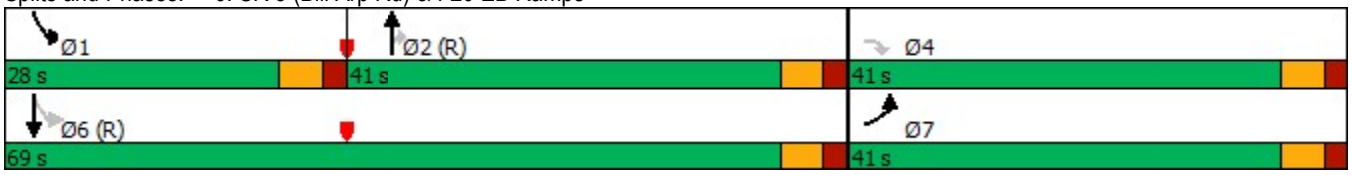
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

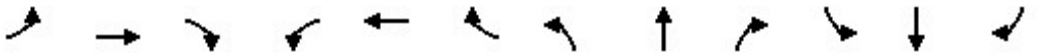
Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	246	362	750	750	428	1206
Future Volume (vph)	246	362	750	750	428	1206
Lane Group Flow (vph)	254	373	773	773	441	1243
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	7		2		1	6
Permitted Phases		4		2	6	
Detector Phase	7	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	15.0	21.5
Total Split (s)	41.0	41.0	41.0	41.0	28.0	69.0
Total Split (%)	37.3%	37.3%	37.3%	37.3%	25.5%	62.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.60	0.85	0.58	0.73	0.80	0.56
Control Delay	41.9	48.4	30.1	8.1	27.1	12.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.0
Total Delay	41.9	48.4	30.1	8.1	27.1	13.5
Queue Length 50th (ft)	159	202	237	22	149	231
Queue Length 95th (ft)	219	289	322	169	#361	362
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	565	559	1338	1059	561	2218
Starvation Cap Reductn	0	0	0	0	0	654
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.67	0.58	0.73	0.79	0.79

Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: SR 5 (Bill Arp Rd) & I-20 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	246	0	362	0	0	0	0	750	750	428	1206	0
Future Volume (veh/h)	246	0	362	0	0	0	0	750	750	428	1206	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1796	1856	1856	1796	0
Adj Flow Rate, veh/h	254	0	0				0	773	0	441	1243	0
Peak Hour Factor	0.97	0.97	0.97				0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	3	0	3				0	7	3	3	7	0
Cap, veh/h	290	0					0	1911		586	2511	0
Arrive On Green	0.16	0.00	0.00				0.00	0.56	0.00	0.13	0.74	0.00
Sat Flow, veh/h	1767	0	1572				0	3503	1572	1767	3503	0
Grp Volume(v), veh/h	254	0	0				0	773	0	441	1243	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1706	1572	1767	1706	0
Q Serve(g_s), s	15.4	0.0	0.0				0.0	14.2	0.0	10.8	16.6	0.0
Cycle Q Clear(g_c), s	15.4	0.0	0.0				0.0	14.2	0.0	10.8	16.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	290	0					0	1911		586	2511	0
V/C Ratio(X)	0.88	0.00					0.00	0.40		0.75	0.49	0.00
Avail Cap(c_a), veh/h	570	0					0	1911		725	2511	0
HCM Platoon Ratio	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	0.00				0.00	1.00	0.00	0.67	0.67	0.00
Uniform Delay (d), s/veh	44.9	0.0	0.0				0.0	13.8	0.0	9.7	6.0	0.0
Incr Delay (d2), s/veh	8.2	0.0	0.0				0.0	0.6	0.0	2.4	0.5	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
%ile BackOfQ(95%),veh/ln	11.6	0.0	0.0				0.0	9.1	0.0	6.5	8.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.1	0.0	0.0				0.0	14.4	0.0	12.1	6.5	0.0
LnGrp LOS	D	A					A	B		B	A	A
Approach Vol, veh/h		254						773			1684	
Approach Delay, s/veh		53.1						14.4			8.0	
Approach LOS		D						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.4	67.1		23.6		86.4
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	22.5	35.5		35.5		63.5
Max Q Clear Time (g_c+I1), s	12.8	16.2		17.4		18.6
Green Ext Time (p_c), s	1.0	8.7		0.6		23.7

Intersection Summary	
HCM 6th Ctrl Delay	14.0
HCM 6th LOS	B

Notes

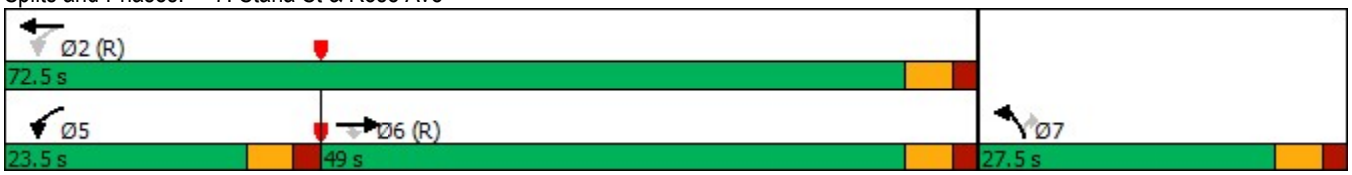
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	620	78	86	335	60	66
Future Volume (vph)	620	78	86	335	60	66
Lane Group Flow (vph)	713	90	99	385	69	76
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	7	
Permitted Phases		6	2			7
Detector Phase	6	6	5	2	7	7
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	23.5	28.5	27.5	27.5
Total Split (s)	49.0	49.0	23.5	72.5	27.5	27.5
Total Split (%)	49.0%	49.0%	23.5%	72.5%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.53	0.08	0.19	0.13	0.42	0.35
Control Delay	11.5	2.1	2.2	1.5	49.9	14.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	2.1	2.2	1.5	49.9	14.4
Queue Length 50th (ft)	255	0	14	32	42	0
Queue Length 95th (ft)	406	18	8	12	80	38
Internal Link Dist (ft)	665			422	309	
Turn Bay Length (ft)			145		140	
Base Capacity (vph)	1347	1180	663	2912	389	407
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.08	0.15	0.13	0.18	0.19

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 7: Starla St & Rose Ave



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	620	78	86	335	60	66
Future Volume (veh/h)	620	78	86	335	60	66
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	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	713	90	99	385	69	76
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	3	2	2	3	2	2
Cap, veh/h	1334	1140	620	2894	123	109
Arrive On Green	0.96	0.96	0.05	0.82	0.07	0.07
Sat Flow, veh/h	1856	1585	1781	3618	1781	1585
Grp Volume(v), veh/h	713	90	99	385	69	76
Grp Sat Flow(s),veh/h/ln	1856	1585	1781	1763	1781	1585
Q Serve(g_s), s	3.4	0.3	1.3	2.2	3.8	4.7
Cycle Q Clear(g_c), s	3.4	0.3	1.3	2.2	3.8	4.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1334	1140	620	2894	123	109
V/C Ratio(X)	0.53	0.08	0.16	0.13	0.56	0.69
Avail Cap(c_a), veh/h	1334	1140	857	2894	392	349
HCM Platoon Ratio	1.33	1.33	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.89	0.89	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.7	0.6	2.6	1.8	45.1	45.5
Incr Delay (d2), s/veh	1.4	0.1	0.1	0.1	4.0	7.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	4.8	0.6	0.8	3.2	7.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	2.1	0.7	2.7	1.9	49.1	53.2
LnGrp LOS	A	A	A	A	D	D
Approach Vol, veh/h	803			484	145	
Approach Delay, s/veh	1.9			2.1	51.2	
Approach LOS	A			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		87.6		12.4	10.2	77.4
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		67.0		22.0	18.0	43.5
Max Q Clear Time (g_c+I1), s		4.2		6.7	3.3	5.4
Green Ext Time (p_c), s		5.5		0.3	0.2	12.6

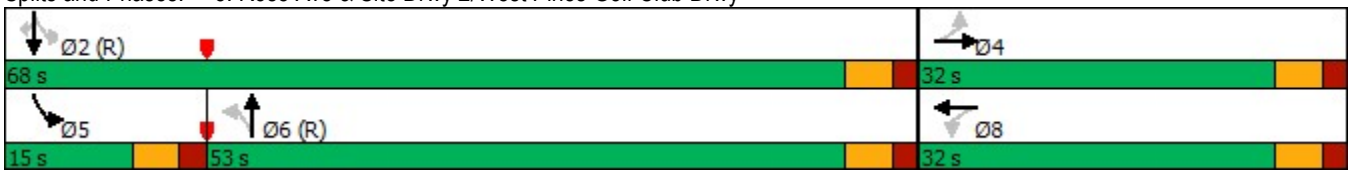
Intersection Summary	
HCM 6th Ctrl Delay	7.0
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	49	0	2	0	33	496	5	316	16
Future Volume (vph)	49	0	2	0	33	496	5	316	16
Lane Group Flow (vph)	0	164	0	3	35	558	5	340	17
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		6	5	2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	15.0	28.5	28.5
Total Split (s)	32.0	32.0	32.0	32.0	53.0	53.0	15.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	53.0%	53.0%	15.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio		0.66		0.01	0.04	0.40	0.01	0.23	0.01
Control Delay		30.3		0.0	1.2	1.8	1.2	1.7	0.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		30.3		0.0	1.2	1.8	1.2	1.7	0.1
Queue Length 50th (ft)		37		0	1	7	0	18	0
Queue Length 95th (ft)		98		0	m3	32	m1	27	0
Internal Link Dist (ft)		646		850		726		449	
Turn Bay Length (ft)					160		83		100
Base Capacity (vph)		475		422	792	1402	659	1452	1251
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.35		0.01	0.04	0.40	0.01	0.23	0.01

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 48 (48%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Rose Ave & Site Drwy 2/West Pines Golf Club Drwy



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	0	103	2	0	1	33	496	23	5	316	16
Future Volume (veh/h)	49	0	103	2	0	1	33	496	23	5	316	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	53	0	111	2	0	1	35	533	25	5	340	17
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	100	12	135	154	12	53	789	1230	58	568	1412	1206
Arrive On Green	0.13	0.00	0.13	0.13	0.00	0.13	0.70	0.70	0.70	0.01	0.76	0.76
Sat Flow, veh/h	405	96	1050	733	91	412	1024	1758	82	1781	1856	1585
Grp Volume(v), veh/h	164	0	0	3	0	0	35	0	558	5	340	17
Grp Sat Flow(s),veh/h/ln	1551	0	0	1236	0	0	1024	0	1841	1781	1856	1585
Q Serve(g_s), s	7.9	0.0	0.0	0.0	0.0	0.0	1.1	0.0	13.1	0.1	5.4	0.3
Cycle Q Clear(g_c), s	10.2	0.0	0.0	0.1	0.0	0.0	1.1	0.0	13.1	0.1	5.4	0.3
Prop In Lane	0.32		0.68	0.67		0.33	1.00		0.04	1.00		1.00
Lane Grp Cap(c), veh/h	248	0	0	219	0	0	789	0	1288	568	1412	1206
V/C Ratio(X)	0.66	0.00	0.00	0.01	0.00	0.00	0.04	0.00	0.43	0.01	0.24	0.01
Avail Cap(c_a), veh/h	455	0	0	406	0	0	789	0	1288	725	1412	1206
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.3	0.0	0.0	38.0	0.0	0.0	4.7	0.0	6.5	4.9	3.5	2.9
Incr Delay (d2), s/veh	3.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.4	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(95%),veh/ln	7.5	0.0	0.0	0.1	0.0	0.0	0.4	0.0	8.1	0.0	2.9	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.3	0.0	0.0	38.0	0.0	0.0	4.8	0.0	7.5	4.9	3.9	2.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		164			3			593			362	
Approach Delay, s/veh		45.3			38.0			7.4			3.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		81.6		18.4	6.1	75.5		18.4				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5	9.5	47.5		26.5				
Max Q Clear Time (g_c+I1), s		7.4		12.2	2.1	15.1		2.1				
Green Ext Time (p_c), s		4.7		0.8	0.0	8.3		0.0				

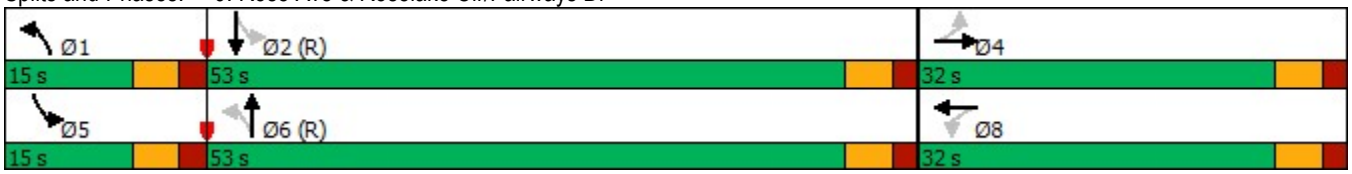
Intersection Summary												
HCM 6th Ctrl Delay			11.9									
HCM 6th LOS			B									

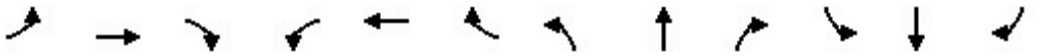
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	0	25	1	18	508	16	278
Future Volume (vph)	20	0	25	1	18	508	16	278
Lane Group Flow (vph)	0	55	0	59	19	560	17	311
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	1	6	5	2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	1	6	5	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	15.0	28.5	15.0	28.5
Total Split (s)	32.0	32.0	32.0	32.0	15.0	53.0	15.0	53.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	15.0%	53.0%	15.0%	53.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio		0.27		0.40	0.02	0.38	0.02	0.21
Control Delay		6.9		32.3	0.9	2.2	2.1	4.7
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		6.9		32.3	0.9	2.2	2.1	4.7
Queue Length 50th (ft)		0		17	0	16	1	25
Queue Length 95th (ft)		16		56	m2	33	m5	125
Internal Link Dist (ft)		501		600		323		289
Turn Bay Length (ft)					70		70	
Base Capacity (vph)		472		430	944	1468	736	1463
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.12		0.14	0.02	0.38	0.02	0.21

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 71 (71%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Rose Ave & Roselake Cir/Fairways Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	0	32	25	1	29	18	508	19	16	278	14
Future Volume (veh/h)	20	0	32	25	1	29	18	508	19	16	278	14
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	0	34	27	1	31	19	540	20	17	296	15
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	79	7	59	90	8	50	865	1349	50	661	1325	67
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.02	0.76	0.76	0.02	0.76	0.76
Sat Flow, veh/h	509	125	1026	645	137	866	1781	1778	66	1781	1751	89
Grp Volume(v), veh/h	55	0	0	59	0	0	19	0	560	17	0	311
Grp Sat Flow(s),veh/h/ln	1659	0	0	1648	0	0	1781	0	1844	1781	0	1840
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	10.5	0.2	0.0	4.9
Cycle Q Clear(g_c), s	3.0	0.0	0.0	3.2	0.0	0.0	0.2	0.0	10.5	0.2	0.0	4.9
Prop In Lane	0.38		0.62	0.46		0.53	1.00		0.04	1.00		0.05
Lane Grp Cap(c), veh/h	145	0	0	147	0	0	865	0	1399	661	0	1393
V/C Ratio(X)	0.38	0.00	0.00	0.40	0.00	0.00	0.02	0.00	0.40	0.03	0.00	0.22
Avail Cap(c_a), veh/h	456	0	0	455	0	0	997	0	1399	796	0	1393
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	45.9	0.0	0.0	45.9	0.0	0.0	2.6	0.0	4.2	3.1	0.0	3.6
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.9	0.0	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(95%),veh/ln	2.5	0.0	0.0	2.7	0.0	0.0	0.1	0.0	5.8	0.1	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.5	0.0	0.0	47.7	0.0	0.0	2.6	0.0	5.0	3.1	0.0	3.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		55			59			579			328	
Approach Delay, s/veh		47.5			47.7			5.0			3.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.6	81.2		11.2	7.4	81.4		11.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	47.5		26.5	9.5	47.5		26.5				
Max Q Clear Time (g_c+I1), s	2.2	6.9		5.0	2.2	12.5		5.2				
Green Ext Time (p_c), s	0.0	4.0		0.2	0.0	8.1		0.2				

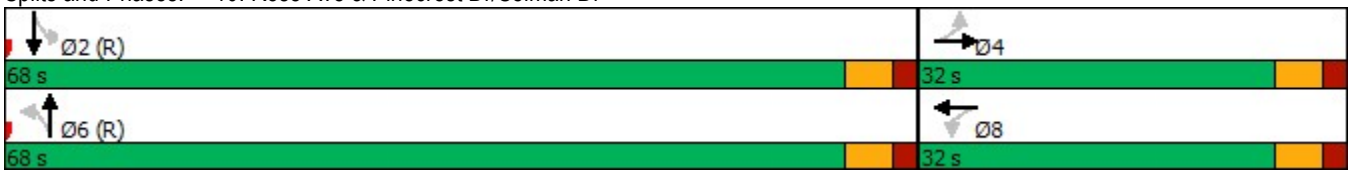
Intersection Summary			
HCM 6th Ctrl Delay		9.4	
HCM 6th LOS		A	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	22	62	12	145	232	40	198
Future Volume (vph)	26	22	62	12	145	232	40	198
Lane Group Flow (vph)	0	123	0	119	0	610	0	275
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.50		0.71		0.53		0.23
Control Delay		26.6		55.1		3.5		1.8
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		26.6		55.1		3.5		1.8
Queue Length 50th (ft)		33		59		39		12
Queue Length 95th (ft)		84		113		29		m30
Internal Link Dist (ft)		531		777		1526		1114
Turn Bay Length (ft)								
Base Capacity (vph)		454		339		1142		1220
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.27		0.35		0.53		0.23

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 96 (96%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 10: Rose Ave & Pinecrest Dr/Selman Dr



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	22	65	62	12	36	145	232	184	40	198	16
Future Volume (veh/h)	26	22	65	62	12	36	145	232	184	40	198	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	28	24	71	67	13	39	158	252	200	43	215	17
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	73	46	102	133	25	50	332	525	396	211	1034	79
Arrive On Green	0.10	0.10	0.10	0.10	0.10	0.10	0.79	0.79	0.79	0.79	0.79	0.79
Sat Flow, veh/h	279	444	987	742	247	482	365	667	503	216	1314	101
Grp Volume(v), veh/h	123	0	0	119	0	0	610	0	0	275	0	0
Grp Sat Flow(s),veh/h/ln	1710	0	0	1471	0	0	1536	0	0	1631	0	0
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	0.0	7.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	6.8	0.0	0.0	7.8	0.0	0.0	12.8	0.0	0.0	3.8	0.0	0.0
Prop In Lane	0.23		0.58	0.56		0.33	0.26		0.33	0.16		0.06
Lane Grp Cap(c), veh/h	220	0	0	208	0	0	1254	0	0	1325	0	0
V/C Ratio(X)	0.56	0.00	0.00	0.57	0.00	0.00	0.49	0.00	0.00	0.21	0.00	0.00
Avail Cap(c_a), veh/h	475	0	0	440	0	0	1254	0	0	1325	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	43.3	0.0	0.0	43.6	0.0	0.0	3.6	0.0	0.0	2.7	0.0	0.0
Incr Delay (d2), s/veh	2.2	0.0	0.0	2.5	0.0	0.0	1.4	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(95%),veh/ln	5.5	0.0	0.0	5.3	0.0	0.0	5.6	0.0	0.0	1.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.5	0.0	0.0	46.1	0.0	0.0	4.9	0.0	0.0	3.0	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		123			119			610			275	
Approach Delay, s/veh		45.5			46.1			4.9			3.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		84.2		15.8		84.2		15.8				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5		62.5		26.5				
Max Q Clear Time (g_c+I1), s		5.8		8.8		14.8		9.8				
Green Ext Time (p_c), s		3.8		0.6		10.6		0.5				

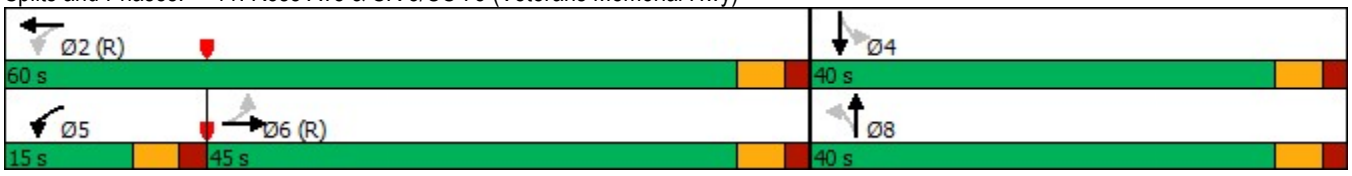
Intersection Summary												
HCM 6th Ctrl Delay			13.2									
HCM 6th LOS			B									

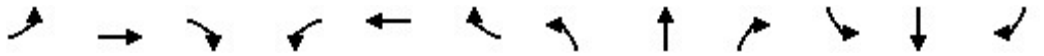
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	20	472	74	264	17	136	82	175
Future Volume (vph)	20	472	74	264	17	136	82	175
Lane Group Flow (vph)	21	512	77	292	0	305	0	310
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		6	5	2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	5	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	15.0	28.5	30.5	30.5	30.5	30.5
Total Split (s)	45.0	45.0	15.0	60.0	40.0	40.0	40.0	40.0
Total Split (%)	45.0%	45.0%	15.0%	60.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	C-Min	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.04	0.54	0.17	0.25		0.63		0.95
Control Delay	16.9	21.7	10.0	10.2		26.0		73.1
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	16.9	21.7	10.0	10.2		26.0		73.1
Queue Length 50th (ft)	7	220	18	76		152		188
Queue Length 95th (ft)	24	389	44	145		189		#299
Internal Link Dist (ft)		1161		1176		925		49
Turn Bay Length (ft)	125		170					
Base Capacity (vph)	558	956	470	1150		614		418
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.04	0.54	0.16	0.25		0.50		0.74

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 4 (4%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Rose Ave & SR 8/US 78 (Veterans Memorial Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	472	19	74	264	16	17	136	139	82	175	41
Future Volume (veh/h)	20	472	19	74	264	16	17	136	139	82	175	41
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	21	492	20	77	275	17	18	142	145	85	182	43
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	657	960	39	472	1111	69	51	214	206	123	225	49
Arrive On Green	0.54	0.54	0.54	0.04	0.64	0.64	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1087	1785	73	1781	1743	108	51	848	815	306	888	192
Grp Volume(v), veh/h	21	0	512	77	0	292	305	0	0	310	0	0
Grp Sat Flow(s),veh/h/ln	1087	0	1857	1781	0	1851	1715	0	0	1387	0	0
Q Serve(g_s), s	0.9	0.0	17.6	1.8	0.0	6.8	0.0	0.0	0.0	5.8	0.0	0.0
Cycle Q Clear(g_c), s	0.9	0.0	17.6	1.8	0.0	6.8	16.1	0.0	0.0	21.9	0.0	0.0
Prop In Lane	1.00		0.04	1.00		0.06	0.06		0.48	0.27		0.14
Lane Grp Cap(c), veh/h	657	0	999	472	0	1179	472	0	0	396	0	0
V/C Ratio(X)	0.03	0.00	0.51	0.16	0.00	0.25	0.65	0.00	0.00	0.78	0.00	0.00
Avail Cap(c_a), veh/h	657	0	999	563	0	1179	624	0	0	537	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.9	0.0	14.7	10.4	0.0	7.8	34.0	0.0	0.0	35.9	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	1.9	0.2	0.0	0.5	1.5	0.0	0.0	5.2	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(95%),veh/ln	0.4	0.0	11.8	1.2	0.0	4.6	11.0	0.0	0.0	12.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	0.0	16.6	10.5	0.0	8.3	35.5	0.0	0.0	41.2	0.0	0.0
LnGrp LOS	B	A	B	B	A	A	D	A	A	D	A	A
Approach Vol, veh/h		533			369			305			310	
Approach Delay, s/veh		16.4			8.8			35.5			41.2	
Approach LOS		B			A			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		69.2		30.8	9.9	59.3		30.8				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		54.5		34.5	9.5	39.5		34.5				
Max Q Clear Time (g_c+I1), s		8.8		23.9	3.8	19.6		18.1				
Green Ext Time (p_c), s		3.8		1.4	0.1	5.9		1.6				

Intersection Summary												
HCM 6th Ctrl Delay			23.4									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	106	14	499	34	4	558
Future Vol, veh/h	106	14	499	34	4	558
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	0	0	-	300	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	7	2	2	7
Mvmt Flow	115	15	542	37	4	607

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1157	542	0	0	542	0
Stage 1	542	-	-	-	-	-
Stage 2	615	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	217	540	-	-	1027	-
Stage 1	583	-	-	-	-	-
Stage 2	539	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	216	540	-	-	1027	-
Mov Cap-2 Maneuver	353	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	536	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.1	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	353	540	1027	-
HCM Lane V/C Ratio	-	-	0.326	0.028	0.004	-
HCM Control Delay (s)	-	-	20.1	11.9	8.5	0
HCM Lane LOS	-	-	C	B	A	A
HCM 95th %tile Q(veh)	-	-	1.4	0.1	0	-

Intersection	
Int Delay, s/veh	21.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	8	141	4	25	12	516	242	29	564	1
Future Vol, veh/h	7	1	8	141	4	25	12	516	242	29	564	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	-	-	100	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	7	1	8	145	4	26	12	532	249	30	581	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1325	1447	582	1327	1323	657	582	0	0	781	0	0
Stage 1	642	642	-	681	681	-	-	-	-	-	-	-
Stage 2	683	805	-	646	642	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	133	131	513	~ 132	156	465	992	-	-	837	-	-
Stage 1	463	469	-	440	450	-	-	-	-	-	-	-
Stage 2	439	395	-	460	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	121	513	~ 122	144	465	992	-	-	837	-	-
Mov Cap-2 Maneuver	116	121	-	~ 122	144	-	-	-	-	-	-	-
Stage 1	453	444	-	430	440	-	-	-	-	-	-	-
Stage 2	402	386	-	428	444	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	25.7	188.1	0.1	0.5
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	992	-	-	190	123	465	837	-	-
HCM Lane V/C Ratio	0.012	-	-	0.087	1.215	0.055	0.036	-	-
HCM Control Delay (s)	8.7	0	-	25.7	218.2	13.2	9.5	0	-
HCM Lane LOS	A	A	-	D	F	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	9.3	0.2	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	27.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	48	5	80	40	8	7	126	686	61	15	784	37
Future Vol, veh/h	48	5	80	40	8	7	126	686	61	15	784	37
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	Yield
Storage Length	-	-	90	-	-	-	150	-	120	150	-	165
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2	2	7	2	2	7	2
Mvmt Flow	52	5	86	43	9	8	135	738	66	16	843	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1892	1883	843	1886	1883	738	843	0	0	738	0	0
Stage 1	875	875	-	1008	1008	-	-	-	-	-	-	-
Stage 2	1017	1008	-	878	875	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	53	71	364	54	71	418	793	-	-	868	-	-
Stage 1	344	367	-	290	318	-	-	-	-	-	-	-
Stage 2	287	318	-	343	367	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 40	58	364	~ 33	58	418	793	-	-	868	-	-
Mov Cap-2 Maneuver	~ 40	58	-	~ 33	58	-	-	-	-	-	-	-
Stage 1	286	360	-	241	264	-	-	-	-	-	-	-
Stage 2	226	264	-	253	360	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	182.4	$ 470	1.5	0.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	793	-	-	41	364	40	868	-	-
HCM Lane V/C Ratio	0.171	-	-	1.39	0.236	1.478	0.019	-	-
HCM Control Delay (s)	10.5	-	-	-$ 430.8	17.9	$ 470	9.2	-	-
HCM Lane LOS	B	-	-	F	C	F	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	5.7	0.9	6.1	0.1	-	-

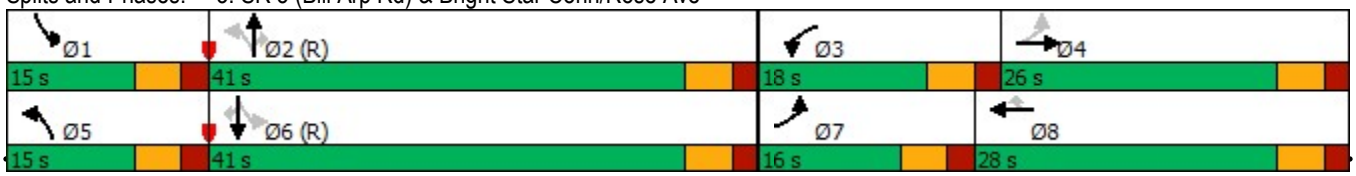
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

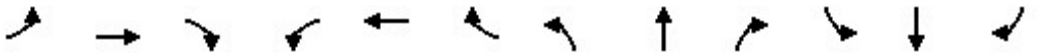
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	48	125	360	125	156	67	797	440	138	791	56
Future Volume (vph)	48	125	360	125	156	67	797	440	138	791	56
Lane Group Flow (vph)	49	216	371	129	161	69	822	454	142	815	58
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	7	4	3	8		5	2		1	6	
Permitted Phases	4				8	2		2	6		6
Detector Phase	7	4	3	8	8	5	2	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	6.0	5.0	6.0	6.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.0	28.5	15.0	28.5	28.5	15.0	32.5	32.5	15.0	31.5	31.5
Total Split (s)	16.0	26.0	18.0	28.0	28.0	15.0	41.0	41.0	15.0	41.0	41.0
Total Split (%)	16.0%	26.0%	18.0%	28.0%	28.0%	15.0%	41.0%	41.0%	15.0%	41.0%	41.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio	0.19	0.54	0.86	0.41	0.40	0.33	1.00	0.50	0.57	0.90	0.07
Control Delay	28.1	30.2	63.9	42.8	9.4	20.4	46.3	4.3	23.8	39.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.1	30.2	63.9	42.8	9.4	20.4	46.3	4.3	23.8	39.3	0.1
Queue Length 50th (ft)	23	41	121	77	0	8	178	12	35	468	0
Queue Length 95th (ft)	49	75	#199	132	55	m27	#852	m82	98	#812	0
Internal Link Dist (ft)		1365		665			381			591	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	306	751	429	425	484	251	821	914	264	906	879
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.29	0.86	0.30	0.33	0.27	1.00	0.50	0.54	0.90	0.07

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: SR 5 (Bill Arp Rd) & Bright Star Conn/Rose Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	125	84	360	125	156	67	797	440	138	791	56
Future Volume (veh/h)	48	125	84	360	125	156	67	797	440	138	791	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	49	129	0	371	129	0	69	822	0	142	815	0
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	214	215		432	277		269	969		271	991	
Arrive On Green	0.04	0.06	0.00	0.13	0.15	0.00	0.04	0.54	0.00	0.06	0.55	0.00
Sat Flow, veh/h	1781	3647	0	3456	1870	1585	1781	1796	1585	1781	1796	1585
Grp Volume(v), veh/h	49	129	0	371	129	0	69	822	0	142	815	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	1728	1870	1585	1781	1796	1585	1781	1796	1585
Q Serve(g_s), s	2.6	3.5	0.0	10.5	6.3	0.0	1.7	38.9	0.0	3.5	37.2	0.0
Cycle Q Clear(g_c), s	2.6	3.5	0.0	10.5	6.3	0.0	1.7	38.9	0.0	3.5	37.2	0.0
Prop In Lane	1.00		0.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	214	215		432	277		269	969		271	991	
V/C Ratio(X)	0.23	0.60		0.86	0.47		0.26	0.85		0.52	0.82	
Avail Cap(c_a), veh/h	335	729		432	421		362	969		342	991	
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	0.00	0.95	0.95	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	41.9	45.8	0.0	42.9	39.0	0.0	16.3	19.6	0.0	18.5	18.4	0.0
Incr Delay (d2), s/veh	0.5	2.7	0.0	15.1	1.2	0.0	0.5	9.2	0.0	1.6	7.7	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(95%),veh/ln	2.0	2.9	0.0	9.0	5.3	0.0	1.1	23.1	0.0	2.6	21.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.4	48.5	0.0	58.0	40.1	0.0	16.8	28.7	0.0	20.1	26.0	0.0
LnGrp LOS	D	D		E	D		B	C		C	C	
Approach Vol, veh/h		178			500			891			957	
Approach Delay, s/veh		46.8			53.4			27.8			25.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	59.4	18.0	11.5	9.8	60.7	9.2	20.3
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	12.5	20.5	9.5	35.5	10.5	22.5
Max Q Clear Time (g_c+I1), s	5.5	40.9	12.5	5.5	3.7	39.2	4.6	8.3
Green Ext Time (p_c), s	0.1	0.0	0.0	0.5	0.1	0.0	0.0	0.5

Intersection Summary	
HCM 6th Ctrl Delay	33.2
HCM 6th LOS	C

Notes

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

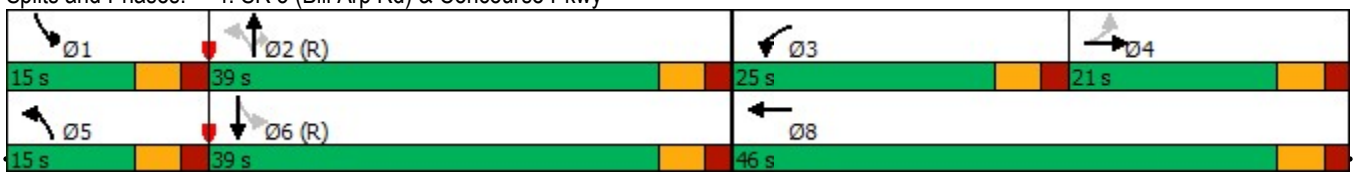
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

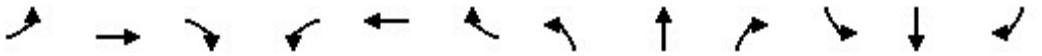
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	40	13	473	44	154	1195	502	52	990
Future Volume (vph)	40	13	473	44	154	1195	502	52	990
Lane Group Flow (vph)	42	145	498	111	162	1258	528	55	1087
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		1	6
Permitted Phases	4				2		2	6	
Detector Phase	4	4	3	8	5	2	2	1	6
Switch Phase									
Minimum Initial (s)	6.0	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	21.0	21.0	25.0	46.0	15.0	39.0	39.0	15.0	39.0
Total Split (%)	21.0%	21.0%	25.0%	46.0%	15.0%	39.0%	39.0%	15.0%	39.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.37	0.55	0.80	0.19	0.60	0.81	0.57	0.28	0.79
Control Delay	51.2	18.1	49.5	11.1	25.7	33.8	12.9	16.4	29.9
Queue Delay	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	8.4
Total Delay	51.2	18.2	49.5	11.1	25.7	33.8	13.0	16.4	38.3
Queue Length 50th (ft)	26	8	155	20	67	368	104	19	256
Queue Length 95th (ft)	58	65	212	55	m110	#567	m193	m26	m#456
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	197	360	669	726	278	1557	930	244	1376
Starvation Cap Reductn	0	0	0	0	0	0	50	0	0
Spillback Cap Reductn	0	9	0	0	0	0	0	0	260
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.41	0.74	0.15	0.58	0.81	0.60	0.23	0.97

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: SR 5 (Bill Arp Rd) & Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	13	124	473	44	62	154	1195	502	52	990	43
Future Volume (veh/h)	40	13	124	473	44	62	154	1195	502	52	990	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	42	14	131	498	46	65	162	1258	528	55	1042	45
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	215	17	162	578	234	331	286	1577	732	181	1437	62
Arrive On Green	0.11	0.11	0.11	0.17	0.33	0.33	0.07	0.46	0.46	0.04	0.43	0.43
Sat Flow, veh/h	1282	155	1453	3456	701	991	1781	3413	1585	1781	3333	144
Grp Volume(v), veh/h	42	0	145	498	0	111	162	1258	528	55	533	554
Grp Sat Flow(s),veh/h/ln	1282	0	1609	1728	0	1692	1781	1706	1585	1781	1706	1770
Q Serve(g_s), s	3.0	0.0	8.8	14.0	0.0	4.7	5.0	31.4	26.9	1.7	25.9	25.9
Cycle Q Clear(g_c), s	3.0	0.0	8.8	14.0	0.0	4.7	5.0	31.4	26.9	1.7	25.9	25.9
Prop In Lane	1.00		0.90	1.00		0.59	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	215	0	179	578	0	565	286	1577	732	181	736	763
V/C Ratio(X)	0.20	0.00	0.81	0.86	0.00	0.20	0.57	0.80	0.72	0.30	0.73	0.73
Avail Cap(c_a), veh/h	271	0	249	674	0	685	331	1577	732	281	736	763
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	0.67	0.67	0.67	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	0.0	43.4	40.5	0.0	23.8	18.5	22.9	21.7	19.5	23.5	23.5
Incr Delay (d2), s/veh	0.4	0.0	12.7	9.9	0.0	0.2	1.2	2.9	4.1	0.9	6.1	5.9
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(95%),veh/ln	1.8	0.0	7.4	11.0	0.0	3.4	3.6	17.1	14.9	1.3	16.6	17.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	56.0	50.4	0.0	23.9	19.7	25.8	25.8	20.5	29.7	29.5
LnGrp LOS	D	A	E	D	A	C	B	C	C	C	C	C
Approach Vol, veh/h		187			609			1948			1142	
Approach Delay, s/veh		52.7			45.6			25.3			29.1	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	9.4	51.7	22.2	16.7	12.5	48.6		38.9
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5
Max Green Setting (Gmax), s	9.5	33.5	19.5	15.5	9.5	33.5		40.5
Max Q Clear Time (g_c+I1), s	3.7	33.4	16.0	10.8	7.0	27.9		6.7
Green Ext Time (p_c), s	0.0	0.1	0.7	0.4	0.1	4.3		0.7

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

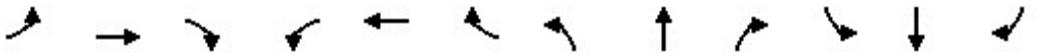
User approved pedestrian interval to be less than phase max green.

Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	1025	696	340	1164	1362	363
Future Volume (vph)	1025	696	340	1164	1362	363
Lane Group Flow (vph)	1035	703	343	1176	1376	367
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		3	2			6
Detector Phase	3	3	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	15.0	15.0	21.5	21.5	21.5
Total Split (s)	37.0	37.0	17.0	63.0	46.0	46.0
Total Split (%)	37.0%	37.0%	17.0%	63.0%	46.0%	46.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?						
Recall Mode	None	None	None	C-Min	C-Min	C-Min
v/c Ratio	0.97	0.81	1.25	0.61	1.01	0.43
Control Delay	55.1	40.2	153.0	9.0	48.1	4.2
Queue Delay	31.7	0.0	0.0	0.2	6.6	0.0
Total Delay	86.9	40.2	153.0	9.2	54.7	4.2
Queue Length 50th (ft)	332	232	~235	117	~465	28
Queue Length 95th (ft)	#469	313	m#228	m111	#605	m47
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		320				375
Base Capacity (vph)	1071	869	275	1940	1366	853
Starvation Cap Reductn	0	0	0	210	29	0
Spillback Cap Reductn	109	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.08	0.81	1.25	0.68	1.03	0.43

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: SR 5 (Bill Arp Rd) & I-20 WB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	1025	0	696	340	1164	0	0	1362	363
Future Volume (veh/h)	0	0	0	1025	0	696	340	1164	0	0	1362	363
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	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
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1856	0	1856	1856	1796	0	0	1796	1856
Adj Flow Rate, veh/h				1035	0	0	343	1176	0	0	1376	0
Peak Hour Factor				0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %				3	0	3	3	7	0	0	7	3
Cap, veh/h				1080	0		276	1962	0	0	1382	
Arrive On Green				0.31	0.00	0.00	0.12	0.57	0.00	0.00	0.41	0.00
Sat Flow, veh/h				3428	0	2768	1767	3503	0	0	3503	1572
Grp Volume(v), veh/h				1035	0	0	343	1176	0	0	1376	0
Grp Sat Flow(s),veh/h/ln				1714	0	1384	1767	1706	0	0	1706	1572
Q Serve(g_s), s				29.6	0.0	0.0	11.5	22.3	0.0	0.0	40.2	0.0
Cycle Q Clear(g_c), s				29.6	0.0	0.0	11.5	22.3	0.0	0.0	40.2	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1080	0		276	1962	0	0	1382	
V/C Ratio(X)				0.96	0.00		1.24	0.60	0.00	0.00	1.00	
Avail Cap(c_a), veh/h				1080	0		276	1962	0	0	1382	
HCM Platoon Ratio				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	0.00	0.09	0.09	0.00	0.00	0.51	0.00
Uniform Delay (d), s/veh				33.6	0.0	0.0	30.5	13.8	0.0	0.0	29.7	0.0
Incr Delay (d2), s/veh				18.2	0.0	0.0	111.3	0.1	0.0	0.0	16.3	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
%ile BackOfQ(95%),veh/ln				20.3	0.0	0.0	14.9	9.2	0.0	0.0	23.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.8	0.0	0.0	141.9	13.9	0.0	0.0	45.9	0.0
LnGrp LOS				D	A		F	B	A	A	D	
Approach Vol, veh/h					1035			1519			1376	
Approach Delay, s/veh					51.8			42.8			45.9	
Approach LOS					D			D			D	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	63.0		17.0	46.0		37.0						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	57.5		11.5	40.5		31.5						
Max Q Clear Time (g_c+I1), s	24.3		13.5	42.2		31.6						
Green Ext Time (p_c), s	18.7		0.0	0.0		0.0						

Intersection Summary		
HCM 6th Ctrl Delay	46.3	
HCM 6th LOS	D	

Notes

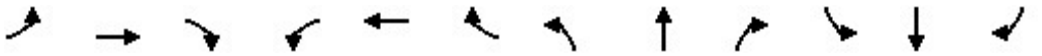
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	292	469	1237	833	553	1755
Future Volume (vph)	292	469	1237	833	553	1755
Lane Group Flow (vph)	307	494	1302	877	582	1847
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	7		2		1	6
Permitted Phases		4		2	6	
Detector Phase	7	4	2	2	1	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	15.0	21.5
Total Split (s)	34.0	34.0	40.0	40.0	26.0	66.0
Total Split (%)	34.0%	34.0%	40.0%	40.0%	26.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.62	0.97	1.12	0.91	1.35	0.90
Control Delay	37.3	64.0	97.4	22.2	189.0	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	18.6
Total Delay	37.3	64.0	97.4	22.2	189.0	40.4
Queue Length 50th (ft)	169	265	~505	148	~456	438
Queue Length 95th (ft)	261	#477	#638	#462	m#466	m443
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	499	509	1164	969	432	2042
Starvation Cap Reductn	0	0	0	0	0	252
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.97	1.12	0.91	1.35	1.03

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 125
Control Type: Actuated-Coordinated
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: SR 5 (Bill Arp Rd) & I-20 EB Ramps



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	0	469	0	0	0	0	1237	833	553	1755	0
Future Volume (veh/h)	292	0	469	0	0	0	0	1237	833	553	1755	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	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
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1856	0	1856				0	1796	1856	1856	1796	0
Adj Flow Rate, veh/h	307	0	0				0	1302	0	582	1847	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	0	3				0	7	3	3	7	0
Cap, veh/h	345	0					0	1483		470	2371	0
Arrive On Green	0.20	0.00	0.00				0.00	0.43	0.00	0.20	0.69	0.00
Sat Flow, veh/h	1767	0	1572				0	3503	1572	1767	3503	0
Grp Volume(v), veh/h	307	0	0				0	1302	0	582	1847	0
Grp Sat Flow(s),veh/h/ln	1767	0	1572				0	1706	1572	1767	1706	0
Q Serve(g_s), s	16.9	0.0	0.0				0.0	34.9	0.0	20.5	36.0	0.0
Cycle Q Clear(g_c), s	16.9	0.0	0.0				0.0	34.9	0.0	20.5	36.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	345	0					0	1483		470	2371	0
V/C Ratio(X)	0.89	0.00					0.00	0.88		1.24	0.78	0.00
Avail Cap(c_a), veh/h	504	0					0	1483		470	2371	0
HCM Platoon Ratio	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	0.00				0.00	1.00	0.00	0.11	0.11	0.00
Uniform Delay (d), s/veh	39.2	0.0	0.0				0.0	25.8	0.0	29.2	10.2	0.0
Incr Delay (d2), s/veh	12.9	0.0	0.0				0.0	7.6	0.0	109.0	0.3	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
%ile BackOfQ(95%),veh/ln	12.9	0.0	0.0				0.0	21.2	0.0	31.9	12.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.1	0.0	0.0				0.0	33.5	0.0	138.2	10.5	0.0
LnGrp LOS	D	A					A	C		F	B	A
Approach Vol, veh/h		307						1302			2429	
Approach Delay, s/veh		52.1						33.5			41.1	
Approach LOS		D						C			D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	26.0	49.0		25.0		75.0
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	20.5	34.5		28.5		60.5
Max Q Clear Time (g_c+I1), s	22.5	36.9		18.9		38.0
Green Ext Time (p_c), s	0.0	0.0		0.6		20.1

Intersection Summary		
HCM 6th Ctrl Delay		39.5
HCM 6th LOS		D

Notes

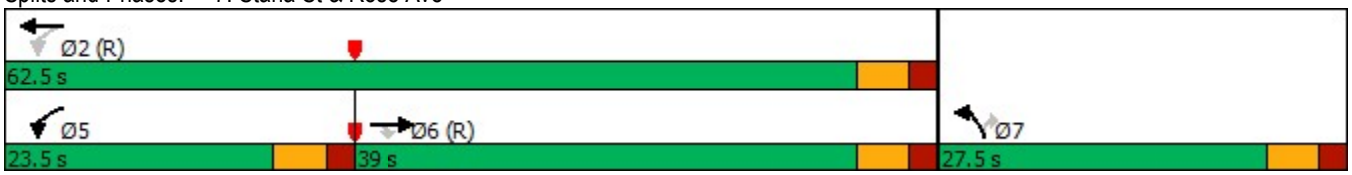
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	519	184	180	445	197	223
Future Volume (vph)	519	184	180	445	197	223
Lane Group Flow (vph)	530	188	184	454	201	228
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6		5	2	7	
Permitted Phases		6	2			7
Detector Phase	6	6	5	2	7	7
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	23.5	28.5	27.5	27.5
Total Split (s)	39.0	39.0	23.5	62.5	27.5	27.5
Total Split (%)	43.3%	43.3%	26.1%	69.4%	30.6%	30.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.52	0.20	0.34	0.18	0.67	0.50
Control Delay	16.8	2.7	4.2	2.4	45.1	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.8	2.7	4.2	2.4	45.1	8.2
Queue Length 50th (ft)	178	0	10	12	108	0
Queue Length 95th (ft)	334	36	25	23	167	56
Internal Link Dist (ft)	665			422	309	
Turn Bay Length (ft)			145		140	
Base Capacity (vph)	1011	952	658	2476	432	559
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.20	0.28	0.18	0.47	0.41

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 53 (59%), Referenced to phase 2:WBTL and 6:EBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: Starla St & Rose Ave



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	519	184	180	445	197	223
Future Volume (veh/h)	519	184	180	445	197	223
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	1870	1870	1856	1870	1870
Adj Flow Rate, veh/h	530	188	184	454	201	228
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	3	2	2	3	2	2
Cap, veh/h	1078	921	498	2490	305	272
Arrive On Green	0.58	0.58	0.06	0.71	0.17	0.17
Sat Flow, veh/h	1856	1585	1781	3618	1781	1585
Grp Volume(v), veh/h	530	188	184	454	201	228
Grp Sat Flow(s),veh/h/ln	1856	1585	1781	1763	1781	1585
Q Serve(g_s), s	15.1	5.1	3.4	3.9	9.5	12.5
Cycle Q Clear(g_c), s	15.1	5.1	3.4	3.9	9.5	12.5
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	1078	921	498	2490	305	272
V/C Ratio(X)	0.49	0.20	0.37	0.18	0.66	0.84
Avail Cap(c_a), veh/h	1078	921	740	2490	435	387
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	9.0	7.7	4.5	34.8	36.1
Incr Delay (d2), s/veh	1.3	0.4	0.5	0.2	2.4	10.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	9.5	10.7	2.0	2.1	7.7	16.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	12.4	9.4	8.2	4.6	37.2	46.7
LnGrp LOS	B	A	A	A	D	D
Approach Vol, veh/h	718			638	429	
Approach Delay, s/veh	11.6			5.6	42.3	
Approach LOS	B			A	D	

Timer - Assigned Phs		2		4	5	6
Phs Duration (G+Y+Rc), s		69.1		20.9	11.3	57.8
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		57.0		22.0	18.0	33.5
Max Q Clear Time (g_c+I1), s		5.9		14.5	5.4	17.1
Green Ext Time (p_c), s		6.6		0.9	0.4	6.7

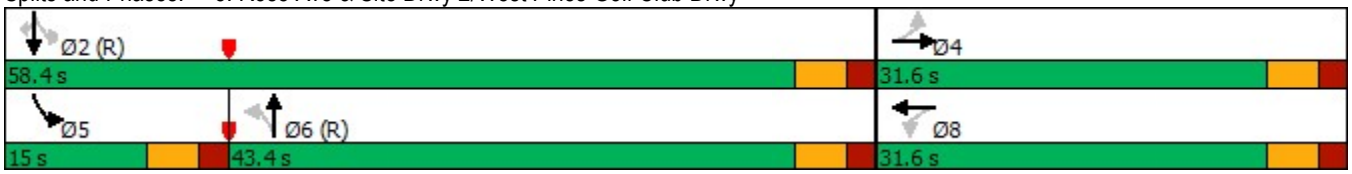
Intersection Summary	
HCM 6th Ctrl Delay	16.8
HCM 6th LOS	B

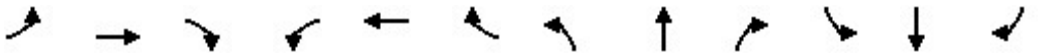
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	31	0	16	0	100	622	4	483	47
Future Volume (vph)	31	0	16	0	100	622	4	483	47
Lane Group Flow (vph)	0	103	0	31	108	678	4	519	51
Turn Type	Perm	NA	Perm	NA	Perm	NA	pm+pt	NA	Perm
Protected Phases		4		8		6	5	2	
Permitted Phases	4		8		6		2		2
Detector Phase	4	4	8	8	6	6	5	2	2
Switch Phase									
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	15.0	28.5	28.5
Total Split (s)	31.6	31.6	31.6	31.6	43.4	43.4	15.0	58.4	58.4
Total Split (%)	35.1%	35.1%	35.1%	35.1%	48.2%	48.2%	16.7%	64.9%	64.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lag	Lag	Lead		
Lead-Lag Optimize?					Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Min	C-Min	None	C-Min	C-Min
v/c Ratio		0.49		0.16	0.15	0.46	0.01	0.34	0.04
Control Delay		17.8		1.7	2.1	2.3	1.8	2.2	0.4
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		17.8		1.7	2.1	2.3	1.8	2.2	0.4
Queue Length 50th (ft)		3		0	3	19	0	39	0
Queue Length 95th (ft)		49		0	18	82	m1	60	3
Internal Link Dist (ft)		646		850		726		449	
Turn Bay Length (ft)					160		83		100
Base Capacity (vph)		500		448	711	1489	621	1538	1328
Starvation Cap Reductn		0		0	0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0	0
Reduced v/c Ratio		0.21		0.07	0.15	0.46	0.01	0.34	0.04

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 82 (91%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Rose Ave & Site Drwy 2/West Pines Golf Club Drwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	0	65	16	0	13	100	622	8	4	483	47
Future Volume (veh/h)	31	0	65	16	0	13	100	622	8	4	483	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	33	0	70	17	0	14	108	669	9	4	519	51
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	87	10	93	126	17	66	675	1320	18	518	1464	1251
Arrive On Green	0.09	0.00	0.09	0.09	0.00	0.09	0.72	0.72	0.72	0.01	0.79	0.79
Sat Flow, veh/h	382	115	1055	720	188	748	842	1827	25	1781	1856	1585
Grp Volume(v), veh/h	103	0	0	31	0	0	108	0	678	4	519	51
Grp Sat Flow(s),veh/h/ln	1552	0	0	1656	0	0	842	0	1851	1781	1856	1585
Q Serve(g_s), s	4.1	0.0	0.0	0.0	0.0	0.0	3.9	0.0	14.4	0.1	7.4	0.6
Cycle Q Clear(g_c), s	5.8	0.0	0.0	1.5	0.0	0.0	5.3	0.0	14.4	0.1	7.4	0.6
Prop In Lane	0.32		0.68	0.55		0.45	1.00		0.01	1.00		1.00
Lane Grp Cap(c), veh/h	190	0	0	209	0	0	675	0	1338	518	1464	1251
V/C Ratio(X)	0.54	0.00	0.00	0.15	0.00	0.00	0.16	0.00	0.51	0.01	0.35	0.04
Avail Cap(c_a), veh/h	497	0	0	498	0	0	675	0	1338	696	1464	1251
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	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	0.0	38.1	0.0	0.0	4.4	0.0	5.5	4.3	2.8	2.1
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.3	0.0	0.0	0.5	0.0	1.4	0.0	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(95%),veh/ln	4.2	0.0	0.0	1.2	0.0	0.0	1.1	0.0	8.1	0.0	3.3	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.3	0.0	0.0	38.4	0.0	0.0	4.9	0.0	6.8	4.3	3.5	2.1
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		103			31			786			574	
Approach Delay, s/veh		42.3			38.4			6.6			3.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		76.5		13.5	6.0	70.5		13.5				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		52.9		26.1	9.5	37.9		26.1				
Max Q Clear Time (g_c+I1), s		9.4		7.8	2.1	16.4		3.5				
Green Ext Time (p_c), s		8.1		0.5	0.0	9.6		0.1				

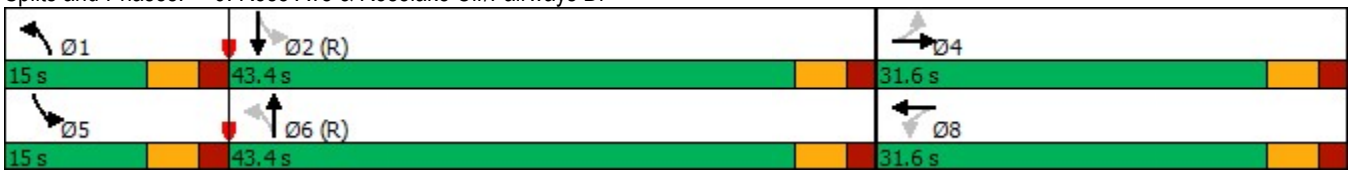
Intersection Summary												
HCM 6th Ctrl Delay			8.5									
HCM 6th LOS			A									

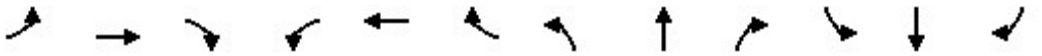
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	16	0	32	1	33	581	30	482
Future Volume (vph)	16	0	32	1	33	581	30	482
Lane Group Flow (vph)	0	39	0	70	34	659	31	523
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	pm+pt	NA
Protected Phases		4		8	1	6	5	2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	1	6	5	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	15.0	28.5	15.0	28.5
Total Split (s)	31.6	31.6	31.6	31.6	15.0	43.4	15.0	43.4
Total Split (%)	35.1%	35.1%	35.1%	35.1%	16.7%	48.2%	16.7%	48.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5	5.5	5.5	5.5	5.5
Lead/Lag					Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio		0.17		0.44	0.05	0.48	0.05	0.38
Control Delay		1.7		30.3	1.2	2.7	2.8	8.6
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0
Total Delay		1.7		30.3	1.2	2.7	2.8	8.6
Queue Length 50th (ft)		0		19	1	46	2	151
Queue Length 95th (ft)		0		57	m3	40	m8	264
Internal Link Dist (ft)		501		600		323		289
Turn Bay Length (ft)					70		70	
Base Capacity (vph)		510		442	741	1368	636	1373
Starvation Cap Reductn		0		0	0	0	0	0
Spillback Cap Reductn		0		0	0	0	0	0
Storage Cap Reductn		0		0	0	0	0	0
Reduced v/c Ratio		0.08		0.16	0.05	0.48	0.05	0.38

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 4 (4%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Rose Ave & Roselake Cir/Fairways Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	16	0	21	32	1	35	33	581	52	30	482	20
Future Volume (veh/h)	16	0	21	32	1	35	33	581	52	30	482	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	17	0	22	33	1	36	34	605	54	31	502	21
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	92	12	60	100	7	51	675	1215	108	574	1277	53
Arrive On Green	0.06	0.00	0.06	0.06	0.06	0.06	0.03	0.72	0.72	0.03	0.72	0.72
Sat Flow, veh/h	546	186	948	660	114	819	1781	1679	150	1781	1768	74
Grp Volume(v), veh/h	39	0	0	70	0	0	34	0	659	31	0	523
Grp Sat Flow(s),veh/h/ln	1680	0	0	1593	0	0	1781	0	1829	1781	0	1842
Q Serve(g_s), s	0.0	0.0	0.0	1.8	0.0	0.0	0.4	0.0	14.0	0.4	0.0	9.9
Cycle Q Clear(g_c), s	1.9	0.0	0.0	3.7	0.0	0.0	0.4	0.0	14.0	0.4	0.0	9.9
Prop In Lane	0.44		0.56	0.47		0.51	1.00		0.08	1.00		0.04
Lane Grp Cap(c), veh/h	163	0	0	159	0	0	675	0	1324	574	0	1330
V/C Ratio(X)	0.24	0.00	0.00	0.44	0.00	0.00	0.05	0.00	0.50	0.05	0.00	0.39
Avail Cap(c_a), veh/h	500	0	0	497	0	0	806	0	1324	709	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.4	0.0	0.0	41.2	0.0	0.0	3.3	0.0	5.4	3.9	0.0	4.9
Incr Delay (d2), s/veh	0.7	0.0	0.0	1.9	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.9
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(95%),veh/ln	1.6	0.0	0.0	2.9	0.0	0.0	0.2	0.0	7.9	0.2	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.2	0.0	0.0	43.1	0.0	0.0	3.4	0.0	6.7	4.0	0.0	5.7
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		39			70			693			554	
Approach Delay, s/veh		41.2			43.1			6.5			5.6	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	70.5		11.2	8.2	70.7		11.2				
Change Period (Y+Rc), s	5.5	5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	9.5	37.9		26.1	9.5	37.9		26.1				
Max Q Clear Time (g_c+I1), s	2.4	11.9		3.9	2.4	16.0		5.7				
Green Ext Time (p_c), s	0.0	6.7		0.1	0.0	8.3		0.3				

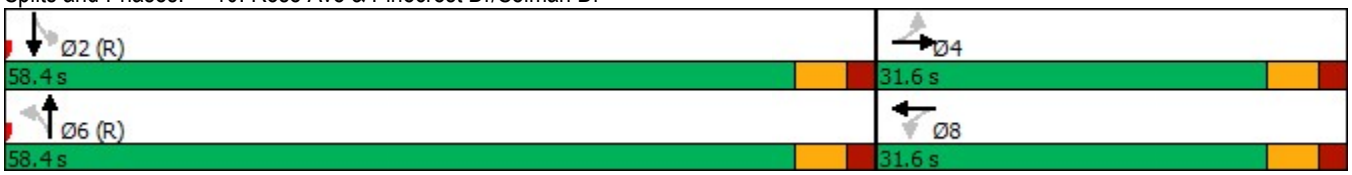
Intersection Summary			
HCM 6th Ctrl Delay		9.1	
HCM 6th LOS		A	

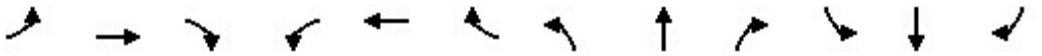
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	28	103	23	129	354	18	317
Future Volume (vph)	26	28	103	23	129	354	18	317
Lane Group Flow (vph)	0	162	0	159	0	660	0	372
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	31.6	31.6	31.6	31.6	58.4	58.4	58.4	58.4
Total Split (%)	35.1%	35.1%	35.1%	35.1%	64.9%	64.9%	64.9%	64.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.44		0.76		0.62		0.30
Control Delay		15.6		53.9		4.1		6.7
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		15.6		53.9		4.1		6.7
Queue Length 50th (ft)		27		80		13		68
Queue Length 95th (ft)		75		136		24		142
Internal Link Dist (ft)		531		777		1526		1114
Turn Bay Length (ft)								
Base Capacity (vph)		534		333		1060		1232
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.30		0.48		0.62		0.30

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 28 (31%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 10: Rose Ave & Pinecrest Dr/Selman Dr





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	28	101	103	23	26	129	354	143	18	317	18
Future Volume (veh/h)	26	28	101	103	23	26	129	354	143	18	317	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	27	29	106	108	24	27	136	373	151	19	334	19
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, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	74	61	168	190	39	33	251	674	260	77	1198	66
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.73	0.73	0.73	0.73	0.73	0.73
Sat Flow, veh/h	184	407	1119	816	261	220	279	926	358	47	1647	91
Grp Volume(v), veh/h	162	0	0	159	0	0	660	0	0	372	0	0
Grp Sat Flow(s),veh/h/ln	1710	0	0	1297	0	0	1563	0	0	1786	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.9	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.0	0.0	0.0	10.9	0.0	0.0	16.3	0.0	0.0	6.2	0.0	0.0
Prop In Lane	0.17		0.65	0.68		0.17	0.21		0.23	0.05		0.05
Lane Grp Cap(c), veh/h	303	0	0	262	0	0	1185	0	0	1341	0	0
V/C Ratio(X)	0.53	0.00	0.00	0.61	0.00	0.00	0.56	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	525	0	0	454	0	0	1185	0	0	1341	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	35.9	0.0	0.0	37.1	0.0	0.0	5.4	0.0	0.0	4.2	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.0	0.0	2.3	0.0	0.0	1.9	0.0	0.0	0.5	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(95%),veh/ln	6.1	0.0	0.0	6.2	0.0	0.0	8.0	0.0	0.0	3.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.4	0.0	0.0	39.4	0.0	0.0	7.3	0.0	0.0	4.7	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		162			159			660			372	
Approach Delay, s/veh		37.4			39.4			7.3			4.7	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		71.0		19.0		71.0		19.0				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		52.9		26.1		52.9		26.1				
Max Q Clear Time (g_c+I1), s		8.2		10.0		18.3		12.9				
Green Ext Time (p_c), s		5.1		0.8		10.8		0.7				

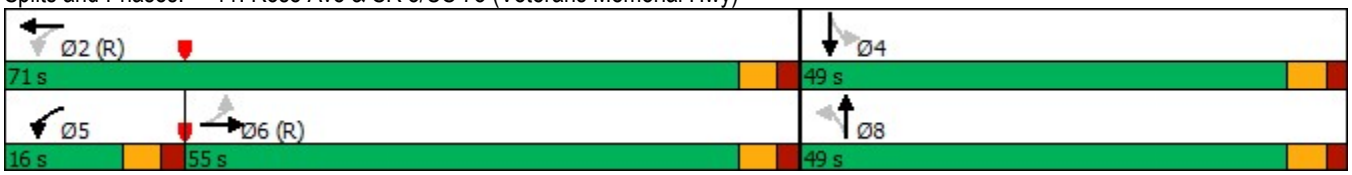
Intersection Summary												
HCM 6th Ctrl Delay			14.0									
HCM 6th LOS			B									

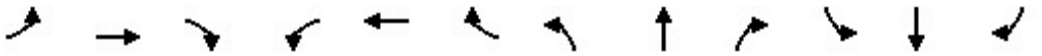
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	27	416	140	510	49	234	29	155
Future Volume (vph)	27	416	140	510	49	234	29	155
Lane Group Flow (vph)	28	460	146	563	0	411	0	249
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA
Protected Phases		6	5	2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	5	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	15.0	28.5	30.5	30.5	30.5	30.5
Total Split (s)	55.0	55.0	16.0	71.0	49.0	49.0	49.0	49.0
Total Split (%)	45.8%	45.8%	13.3%	59.2%	40.8%	40.8%	40.8%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag	Lag	Lag	Lead					
Lead-Lag Optimize?	Yes	Yes	Yes					
Recall Mode	C-Min	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.07	0.50	0.30	0.49		0.88		0.55
Control Delay	19.7	24.0	12.4	15.2		58.3		38.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	19.7	24.0	12.4	15.2		58.3		38.0
Queue Length 50th (ft)	11	230	44	221		290		154
Queue Length 95th (ft)	33	384	89	377		378		214
Internal Link Dist (ft)		1161		1176		925		49
Turn Bay Length (ft)	125		170					
Base Capacity (vph)	421	927	498	1153		593		569
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.07	0.50	0.29	0.49		0.69		0.44

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 11: Rose Ave & SR 8/US 78 (Veterans Memorial Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	416	26	140	510	31	49	234	111	29	155	56
Future Volume (veh/h)	27	416	26	140	510	31	49	234	111	29	155	56
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1856	1870	1870	1856	1870
Adj Flow Rate, veh/h	28	433	27	146	531	32	51	244	116	30	161	58
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	3	2	2	3	2
Cap, veh/h	467	942	59	515	1115	67	76	283	128	64	294	99
Arrive On Green	0.54	0.54	0.54	0.05	0.64	0.64	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	847	1742	109	1781	1746	105	156	1050	474	111	1091	365
Grp Volume(v), veh/h	28	0	460	146	0	563	411	0	0	249	0	0
Grp Sat Flow(s),veh/h/ln	847	0	1851	1781	0	1851	1680	0	0	1568	0	0
Q Serve(g_s), s	2.1	0.0	18.2	4.2	0.0	19.0	13.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	9.3	0.0	18.2	4.2	0.0	19.0	28.3	0.0	0.0	15.1	0.0	0.0
Prop In Lane	1.00		0.06	1.00		0.06	0.12		0.28	0.12		0.23
Lane Grp Cap(c), veh/h	467	0	1000	515	0	1182	487	0	0	457	0	0
V/C Ratio(X)	0.06	0.00	0.46	0.28	0.00	0.48	0.84	0.00	0.00	0.55	0.00	0.00
Avail Cap(c_a), veh/h	467	0	1000	578	0	1182	640	0	0	607	0	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	0.00	1.00	1.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.7	0.0	16.9	12.0	0.0	11.3	42.1	0.0	0.0	37.2	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.0	1.5	0.3	0.0	1.4	7.9	0.0	0.0	1.0	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(95%),veh/ln	0.8	0.0	12.5	2.9	0.0	12.2	18.4	0.0	0.0	10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	0.0	18.4	12.3	0.0	12.6	50.0	0.0	0.0	38.3	0.0	0.0
LnGrp LOS	B	A	B	B	A	B	D	A	A	D	A	A
Approach Vol, veh/h		488			709			411			249	
Approach Delay, s/veh		18.3			12.6			50.0			38.3	
Approach LOS		B			B			D			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		82.1		37.9	11.8	70.4		37.9				
Change Period (Y+Rc), s		5.5		5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s		65.5		43.5	10.5	49.5		43.5				
Max Q Clear Time (g_c+I1), s		21.0		17.1	6.2	20.2		30.3				
Green Ext Time (p_c), s		8.6		1.5	0.1	6.3		2.1				

Intersection Summary												
HCM 6th Ctrl Delay			25.8									
HCM 6th LOS			C									

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	67	9	899	103	13	918
Future Vol, veh/h	67	9	899	103	13	918
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	Yield	-	None
Storage Length	0	0	-	300	-	-
Veh in Median Storage, #	1	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	7	2	2	7
Mvmt Flow	73	10	977	112	14	998

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2003	977	0	0	977	0
Stage 1	977	-	-	-	-	-
Stage 2	1026	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	~ 66	304	-	-	706	-
Stage 1	365	-	-	-	-	-
Stage 2	346	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 63	304	-	-	706	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	365	-	-	-	-	-
Stage 2	331	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.8	0	0.1
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	187	304	706	-
HCM Lane V/C Ratio	-	-	0.389	0.032	0.02	-
HCM Control Delay (s)	-	-	36	17.2	10.2	0
HCM Lane LOS	-	-	E	C	B	A
HCM 95th %tile Q(veh)	-	-	1.7	0.1	0.1	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

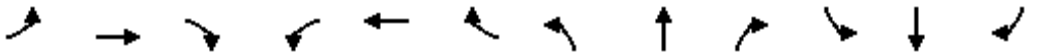
Future “Build” Intersections Analysis with Improvements

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	1	1	48	0	8	316	19	352
Future Volume (vph)	1	1	48	0	8	316	19	352
Lane Group Flow (vph)	0	10	52	6	0	480	0	411
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	34.0	34.0	34.0	34.0	66.0	66.0	66.0	66.0
Total Split (%)	34.0%	34.0%	34.0%	34.0%	66.0%	66.0%	66.0%	66.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.06	0.40	0.01		0.33		0.29
Control Delay		25.2	51.1	0.0		8.3		3.3
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay		25.2	51.1	0.0		8.3		3.3
Queue Length 50th (ft)		1	32	0		117		53
Queue Length 95th (ft)		17	68	0		304		101
Internal Link Dist (ft)		413		1006		1885		1003
Turn Bay Length (ft)			250					
Base Capacity (vph)		465	398	830		1436		1432
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.02	0.13	0.01		0.33		0.29

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 1: SR 5 (Bill Arp Rd) & Gurley Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	7	48	0	6	8	316	122	19	352	12
Future Volume (veh/h)	1	1	7	48	0	6	8	316	122	19	352	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	1	1	8	52	0	0	9	340	131	20	378	13
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	43	12	64	143	92		45	1033	391	79	1372	46
Arrive On Green	0.05	0.05	0.05	0.05	0.00	0.00	0.84	0.84	0.84	0.84	0.84	0.84
Sat Flow, veh/h	78	244	1290	1406	1870	0	10	1228	465	49	1632	55
Grp Volume(v), veh/h	10	0	0	52	0	0	480	0	0	411	0	0
Grp Sat Flow(s),veh/h/ln	1613	0	0	1406	1870	0	1703	0	0	1736	0	0
Q Serve(g_s), s	0.0	0.0	0.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.6	0.0	0.0	3.5	0.0	0.0	6.2	0.0	0.0	4.8	0.0	0.0
Prop In Lane	0.10		0.80	1.00		0.00	0.02		0.27	0.05		0.03
Lane Grp Cap(c), veh/h	119	0	0	143	92		1469	0	0	1497	0	0
V/C Ratio(X)	0.08	0.00	0.00	0.36	0.00		0.33	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	494	0	0	475	533		1469	0	0	1497	0	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	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	45.5	0.0	0.0	46.8	0.0	0.0	1.8	0.0	0.0	1.6	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.5	0.0	0.0	0.6	0.0	0.0	0.5	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(95%),veh/ln	0.4	0.0	0.0	2.4	0.0	0.0	1.5	0.0	0.0	1.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.8	0.0	0.0	48.3	0.0	0.0	2.4	0.0	0.0	2.1	0.0	0.0
LnGrp LOS	D	A	A	D	A		A	A	A	A	A	A
Approach Vol, veh/h		10			52			480			411	
Approach Delay, s/veh		45.8			48.3			2.4			2.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		89.6		10.4		89.6		10.4				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		60.5		28.5		60.5		28.5				
Max Q Clear Time (g_c+I1), s		6.8		2.6		8.2		5.5				
Green Ext Time (p_c), s		5.6		0.0		6.9		0.1				

Intersection Summary												
HCM 6th Ctrl Delay			5.2									
HCM 6th LOS			A									

Notes

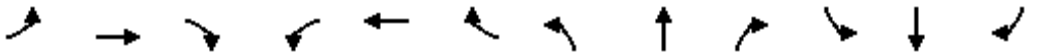
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	7	1	141	4	12	516	29	564
Future Volume (vph)	7	1	141	4	12	516	29	564
Lane Group Flow (vph)	0	16	145	30	0	793	0	612
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	31.5	31.5	31.5	31.5	68.5	68.5	68.5	68.5
Total Split (%)	31.5%	31.5%	31.5%	31.5%	68.5%	68.5%	68.5%	68.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)		5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.06	0.67	0.11		0.63		0.50
Control Delay		23.7	53.8	14.9		16.3		8.1
Queue Delay		0.0	0.0	0.0		0.0		0.0
Total Delay		23.7	53.8	14.9		16.3		8.1
Queue Length 50th (ft)		4	88	2		292		138
Queue Length 95th (ft)		22	143	26		m406		269
Internal Link Dist (ft)		413		1006		1885		1003
Turn Bay Length (ft)			250					
Base Capacity (vph)		414	361	440		1265		1231
Starvation Cap Reductn		0	0	0		0		0
Spillback Cap Reductn		0	0	0		0		0
Storage Cap Reductn		0	0	0		0		0
Reduced v/c Ratio		0.04	0.40	0.07		0.63		0.50

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SR 5 (Bill Arp Rd) & Gurley Rd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	1	8	141	4	25	12	516	242	29	564	1
Future Volume (veh/h)	7	1	8	141	4	25	12	516	242	29	564	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	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	1870	1870	1870	1870	1870	1870	1870	1796	1870	1870	1796	1870
Adj Flow Rate, veh/h	7	1	8	145	4	0	12	532	249	30	581	1
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, %	2	2	2	2	2	2	2	7	2	2	7	2
Cap, veh/h	115	30	94	244	225		44	884	408	73	1284	2
Arrive On Green	0.12	0.12	0.12	0.12	0.12	0.00	0.77	0.77	0.77	0.77	0.77	0.77
Sat Flow, veh/h	527	253	780	1406	1870	0	10	1149	530	46	1668	3
Grp Volume(v), veh/h	16	0	0	145	4	0	793	0	0	612	0	0
Grp Sat Flow(s),veh/h/ln	1559	0	0	1406	1870	0	1689	0	0	1717	0	0
Q Serve(g_s), s	0.0	0.0	0.0	9.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	9.9	0.2	0.0	20.1	0.0	0.0	11.9	0.0	0.0
Prop In Lane	0.44		0.50	1.00		0.00	0.02		0.31	0.05		0.00
Lane Grp Cap(c), veh/h	240	0	0	244	225		1336	0	0	1359	0	0
V/C Ratio(X)	0.07	0.00	0.00	0.59	0.02		0.59	0.00	0.00	0.45	0.00	0.00
Avail Cap(c_a), veh/h	451	0	0	441	486		1336	0	0	1359	0	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	0.00	0.00	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	39.0	0.0	0.0	42.9	38.8	0.0	5.0	0.0	0.0	4.0	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	2.3	0.0	0.0	1.9	0.0	0.0	1.1	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(95%),veh/ln	0.6	0.0	0.0	6.5	0.2	0.0	8.6	0.0	0.0	5.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.2	0.0	0.0	45.2	38.8	0.0	6.9	0.0	0.0	5.1	0.0	0.0
LnGrp LOS	D	A	A	D	D		A	A	A	A	A	A
Approach Vol, veh/h		16			149			793			612	
Approach Delay, s/veh		39.2			45.0			6.9			5.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		82.5		17.5		82.5		17.5				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		63.0		26.0		63.0		26.0				
Max Q Clear Time (g_c+I1), s		13.9		2.8		22.1		11.9				
Green Ext Time (p_c), s		9.7		0.0		13.8		0.3				

Intersection Summary		
HCM 6th Ctrl Delay		10.2
HCM 6th LOS		B

Notes

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

Traffic Volume Worksheets

24-066 - Bill Arp Road Residential Development DRI # 4125 - City of Douglasville, GA

Traffic Volumes

A&R Engineering
May 2024

1. Bill Arp @ Gurley Rd

A.M. Peak Hour

	SR 5 (Bill Arp Road) **Northbound**					SR 5 (Bill Arp Road) **Southbound**					Gurley Road **Eastbound**					Gurley Road **Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	7	251	98	356	0	15	287	10	312	0	1	1	6	8	0	39	0	5	44
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	1	1	2	0	1	4	0	5	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	8	302	119	429	0	19	348	12	379	0	1	1	7	9	0	47	0	6	53
Total New Trips:	0	0	14	3	17	0	0	4	0	4	0	0	0	0	0	0	1	0	0	1
Future 2034 Traffic Volumes:	0	8	316	122	446	0	19	352	12	383	0	1	1	7	9	0	48	0	6	54

P.M. Peak Hour

	SR 5 (Bill Arp Road) **Northbound**					SR 5 (Bill Arp Road) **Southbound**					Gurley Road **Eastbound**					Gurley Road **Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	8	391	196	595	0	23	456	1	480	0	6	1	7	14	0	114	2	21	137
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	2	38	5	45	0	1	4	0	5	0	0	0	0	0	0	1	2	0	3
No-Build 2034 Volumes:	0	12	507	240	759	0	29	551	1	581	0	7	1	8	16	0	138	4	25	167
Total New Trips:	0	0	9	2	11	0	0	13	0	13	0	0	0	0	0	0	3	0	0	3
Future 2034 Traffic Volumes:	0	12	516	242	770	0	29	564	1	594	0	7	1	8	16	0	141	4	25	170

24-066 - Bill Arp Road Residential Development DRI # 4125 - City of Douglasville, GA

Traffic Volumes

A&R Engineering
May 2024

2. Bill Arp @ Arbor Vista Dr

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Rocky Ridge Boulevard Eastbound					Arbor Vista Drive Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	30	327	28	385	0	6	318	8	332	0	12	0	72	84	0	51	3	17	71
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	14	0	14	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	36	406	34	476	0	7	387	10	404	0	14	0	86	100	0	61	4	20	85
Total New Trips:	0	0	16	0	16	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0
Future 2034 Traffic Volumes:	0	36	422	34	492	0	7	392	10	409	0	14	0	86	100	0	61	4	20	85

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Rocky Ridge Boulevard Eastbound					Arbor Vista Drive Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	105	549	51	705	0	11	537	29	577	0	40	4	67	111	0	33	7	6	46
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	17	0	17	0	2	124	2	128	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	126	676	61	863	0	15	768	37	820	0	48	5	80	133	0	40	8	7	55
Total New Trips:	0	0	10	0	10	0	0	16	0	16	0	0	0	0	0	0	0	0	0	0
Future 2034 Traffic Volumes:	0	126	686	61	873	0	15	784	37	836	0	48	5	80	133	0	40	8	7	55

24-066 - Bill Arp Road Residential Development DRI # 4125 - City of Douglasville, GA

Traffic Volumes

A&R Engineering
May 2024

3. Bill Arp @ Rose Ave

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Bright Star Connector Eastbound					Rose Avenue Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	46	353	434	833	0	66	368	26	460	0	17	76	37	130	0	125	36	32	193
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	11	0	11	0	1	4	0	5	0	1	0	0	1	0	0	0	2	2
No-Build 2034 Volumes:	0	55	435	521	1011	0	80	446	31	557	0	21	91	44	156	0	150	43	40	233
Total New Trips:	0	0	31	31	62	0	6	96	4	106	0	1	1	0	2	0	96	4	4	104
Future 2034 Traffic Volumes:	0	55	466	552	1073	0	86	542	35	663	0	22	92	44	158	0	246	47	44	337

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Bright Star Connector Eastbound					Rose Avenue Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	56	575	289	920	0	94	526	39	659	0	36	101	70	207	0	249	102	122	473
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	14	0	14	0	19	99	6	124	0	1	0	0	1	0	0	0	3	3
No-Build 2034 Volumes:	0	67	704	347	1118	0	132	730	53	915	0	44	121	84	249	0	299	122	149	570
Total New Trips:	0	0	93	93	186	0	6	61	3	70	0	4	4	0	8	0	61	3	7	71
Future 2034 Traffic Volumes:	0	67	797	440	1304	0	138	791	56	985	0	48	125	84	257	0	360	125	156	641

24-066 - Bill Arp Road Residential Development DRI # 4125 - City of Douglasville, GA

Traffic Volumes

A&R Engineering
May 2024

4. Bill Arp @ Concourse Pkwy

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Concourse Parkway Eastbound					Concourse Parkway Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	19	61	719	228	1027	0	40	361	53	454	0	26	5	32	63	0	139	6	45	190
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	11	0	11	0	0	4	0	4	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	23	73	874	274	1244	0	48	437	64	549	0	31	6	38	75	0	167	7	54	228
Total New Trips:	0	0	62	0	62	0	0	192	0	192	0	0	0	0	0	0	0	0	0	0
Future 2034 Traffic Volumes:	23	73	936	274	1306	0	48	629	64	741	0	31	6	38	75	0	167	7	54	228

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Concourse Parkway Eastbound					Concourse Parkway Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	20	108	829	418	1375	0	42	644	34	720	0	33	11	103	147	0	394	37	52	483
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	13	0	13	0	2	95	2	99	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	24	130	1008	502	1664	0	52	868	43	963	0	40	13	124	177	0	473	44	62	579
Total New Trips:	0	0	187	0	187	0	0	122	0	122	0	0	0	0	0	0	0	0	0	0
Future 2034 Traffic Volumes:	24	130	1195	502	1851	0	52	990	43	1085	0	40	13	124	177	0	473	44	62	579

24-066 - Bill Arp Road Residential Development DRI # 4125 - City of Douglasville, GA

Traffic Volumes

A&R Engineering
May 2024

5. Bill Arp @ I-20 WB Ramps

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					I-20 Westbound On-Ramp Eastbound					I-20 Westbound Off-Ramp Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	131	620	0	751	0	0	725	83	808	0	0	0	0	0	0	545	0	350	895
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	7	0	7	0	0	3	1	4	0	0	0	0	0	0	0	0	4	4
No-Build 2034 Volumes:	0	157	751	0	908	0	0	873	101	974	0	0	0	0	0	0	654	0	424	1078
Total New Trips:	0	0	33	0	33	0	0	154	38	192	0	0	0	0	0	0	0	0	29	29
Future 2034 Traffic Volumes:	0	157	784	0	941	0	0	1027	139	1166	0	0	0	0	0	0	654	0	453	1107

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					I-20 Westbound On-Ramp Eastbound					I-20 Westbound Off-Ramp Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	283	879	0	1162	0	0	990	267	1257	0	0	0	0	0	0	854	0	504	1358
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	9	0	9	0	0	76	19	95	0	0	0	0	0	0	0	0	4	4
No-Build 2034 Volumes:	0	340	1064	0	1404	0	0	1264	339	1603	0	0	0	0	0	0	1025	0	609	1634
Total New Trips:	0	0	100	0	100	0	0	98	24	122	0	0	0	0	0	0	0	0	87	87
Future 2034 Traffic Volumes:	0	340	1164	0	1504	0	0	1362	363	1725	0	0	0	0	0	0	1025	0	696	1721

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Traffic Volumes

A&R Engineering
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6. Bill Arp @ I-20 EB Ramps

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					I-20 Eastbound Off-Ramp Eastbound					I-20 Eastbound On-Ramp Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	0	603	625	1228	0	282	949	0	1231	0	193	0	302	495	0	0	0	0	0
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	5	0	5	0	1	2	0	3	0	2	0	0	2	0	0	0	0	0
No-Build 2034 Volumes:	0	0	729	750	1479	0	339	1141	0	1480	0	234	0	362	596	0	0	0	0	0
Total New Trips:	0	0	21	0	21	0	89	65	0	154	0	12	0	0	12	0	0	0	0	0
Future 2034 Traffic Volumes:	0	0	750	750	1500	0	428	1206	0	1634	0	246	0	362	608	0	0	0	0	0

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					I-20 Eastbound Off-Ramp Eastbound					I-20 Eastbound On-Ramp Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	0	973	694	1667	0	387	1392	0	1779	0	210	0	391	601	0	0	0	0	0
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	6	0	6	0	32	44	0	76	0	3	0	0	3	0	0	0	0	0
No-Build 2034 Volumes:	0	0	1174	833	2007	0	496	1714	0	2210	0	255	0	469	724	0	0	0	0	0
Total New Trips:	0	0	63	0	63	0	57	41	0	98	0	37	0	0	37	0	0	0	0	0
Future 2034 Traffic Volumes:	0	0	1237	833	2070	0	553	1755	0	2308	0	292	0	469	761	0	0	0	0	0

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Traffic Volumes

A&R Engineering
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7. Rose Ave @ Starla St

A.M. Peak Hour

	Starla Street (Walmart Access) Northbound					- Southbound					Rose Avenue Eastbound					Rose Avenue Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	50	0	55	105	0	0	0	0	0	0	0	483	65	548	0	72	190	0	262
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2
No-Build 2034 Volumes:	0	60	0	66	126	0	0	0	0	0	0	0	581	78	659	0	86	230	0	316
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	39	0	39	0	0	105	0	105
Future 2034 Traffic Volumes:	0	60	0	66	126	0	0	0	0	0	0	0	620	78	698	0	86	335	0	421

P.M. Peak Hour

	Starla Street (Walmart Access) Northbound					- Southbound					Rose Avenue Eastbound					Rose Avenue Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	164	0	186	350	0	0	0	0	0	0	0	331	153	484	0	150	309	0	459
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	0	0	0	0	0	0	0	0	0	0	19	0	19	0	0	3	0	3
No-Build 2034 Volumes:	0	197	0	223	420	0	0	0	0	0	0	0	416	184	600	0	180	374	0	554
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	103	0	103	0	0	71	0	71
Future 2034 Traffic Volumes:	0	197	0	223	420	0	0	0	0	0	0	0	519	184	703	0	180	445	0	625

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Traffic Volumes

A&R Engineering
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8. Rose Ave @ W.Pines Golf Club

A.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					Site Driveway 2 Eastbound					West Pines Golf Club Driveway Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	0	408	19	427	0	4	260	0	264	0	0	0	0	0	0	2	0	1	3
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	0	491	23	514	0	5	314	0	319	0	0	0	0	0	0	2	0	1	3
Total New Trips:	0	33	5	0	38	0	0	2	16	18	0	49	0	103	152	0	0	0	0	0
Future 2034 Traffic Volumes:	0	33	496	23	552	0	5	316	16	337	0	49	0	103	152	0	2	0	1	3

P.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					Site Driveway 2 Eastbound					West Pines Golf Club Driveway Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	0	500	7	507	0	3	396	0	399	0	0	0	0	0	0	13	0	11	24
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	19	0	19	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	0	619	8	627	0	4	478	0	482	0	0	0	0	0	0	16	0	13	29
Total New Trips:	0	100	3	0	103	0	0	5	47	52	0	31	0	65	96	0	0	0	0	0
Future 2034 Traffic Volumes:	0	100	622	8	730	0	4	483	47	534	0	31	0	65	96	0	16	0	13	29

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Traffic Volumes

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9. Rose Ave @ Roselake Cir

A.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					Roselake Circle Eastbound					Fairways Drive Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	15	378	16	409	0	13	216	12	241	0	17	0	27	44	0	21	1	24	46
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	18	454	19	491	0	16	260	14	290	0	20	0	32	52	0	25	1	29	55
Total New Trips:	0	0	54	0	54	0	0	18	0	18	0	0	0	0	0	0	0	0	0	0
Future 2034 Traffic Volumes:	0	18	508	19	545	0	16	278	14	308	0	20	0	32	52	0	25	1	29	55

P.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					Roselake Circle Eastbound					Fairways Drive Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	24	447	40	511	0	25	356	17	398	0	13	0	17	30	0	26	1	29	56
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	4	11	4	19	0	0	2	0	2	0	0	0	1	1	0	1	0	0	1
No-Build 2034 Volumes:	0	33	547	52	632	0	30	429	20	479	0	16	0	21	37	0	32	1	35	68
Total New Trips:	0	0	34	0	34	0	0	53	0	53	0	0	0	0	0	0	0	0	0	0
Future 2034 Traffic Volumes:	0	33	581	52	666	0	30	482	20	532	0	16	0	21	37	0	32	1	35	68

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Traffic Volumes

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10. Rose Ave @ Selman Dr

A.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					Pinecrest Drive Eastbound					Selman Drive Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	121	168	133	422	0	33	157	13	203	0	22	18	54	94	0	44	10	30	84
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
No-Build 2034 Volumes:	0	145	202	160	507	0	40	188	16	244	0	26	22	65	113	0	54	12	36	102
Total New Trips:	0	0	30	24	54	0	0	10	0	10	0	0	0	0	0	0	8	0	0	8
Future 2034 Traffic Volumes:	0	145	232	184	561	0	40	198	16	254	0	26	22	65	113	0	62	12	36	110

P.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					Pinecrest Drive Eastbound					Selman Drive Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	106	279	98	483	0	15	240	15	270	0	22	23	84	129	0	65	19	22	106
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	2	0	10	12	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
No-Build 2034 Volumes:	0	129	335	128	592	0	18	288	18	324	0	26	28	101	155	0	79	23	26	128
Total New Trips:	0	0	19	15	34	0	0	29	0	29	0	0	0	0	0	0	24	0	0	24
Future 2034 Traffic Volumes:	0	129	354	143	626	0	18	317	18	353	0	26	28	101	155	0	103	23	26	152

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11. SR 8-US 78 VMH @ Rose Ave

A.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					SR 8/US 78 (Veterans Memorial Hwy) Eastbound					SR 8/US 78 (Veterans Memorial Hwy) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	12	113	93	218	0	68	146	34	248	0	17	393	15	425	0	54	218	13	285
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
No-Build 2034 Volumes:	0	14	136	112	262	0	82	175	41	298	0	20	472	18	510	0	65	264	16	345
Total New Trips:	0	3	0	27	30	0	0	0	0	0	0	0	0	1	1	0	9	0	0	9
Future 2034 Traffic Volumes:	0	17	136	139	292	0	82	175	41	298	0	20	472	19	511	0	74	264	16	354

P.M. Peak Hour

	Rose Avenue Northbound					Rose Avenue Southbound					SR 8/US 78 (Veterans Memorial Hwy) Eastbound					SR 8/US 78 (Veterans Memorial Hwy) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	39	195	78	312	0	24	129	47	200	0	21	336	19	376	0	95	423	26	544
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	0	0	0	0	0	0	0	0	0	2	13	0	15	0	0	2	0	2
No-Build 2034 Volumes:	0	47	234	94	375	0	29	155	56	240	0	27	416	23	466	0	114	510	31	655
Total New Trips:	0	2	0	17	19	0	0	0	0	0	0	0	0	3	3	0	26	0	0	26
Future 2034 Traffic Volumes:	0	49	234	111	394	0	29	155	56	240	0	27	416	26	469	0	140	510	31	681

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12. Bill Arp @ Site Drwy 1

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					- Eastbound					Site Driveway 1 Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	0	402	0	402	0	0	460	0	460	0	0	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	14	0	14	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	0	496	0	496	0	0	557	0	557	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	3	34	37	0	4	1	0	5	0	0	0	0	0	0	106	0	14	120
Future 2034 Traffic Volumes:	0	0	499	34	533	0	4	558	0	562	0	0	0	0	0	0	106	0	14	120

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					- Eastbound					Site Driveway 1 Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2024 Volumes:	0	0	733	0	733	0	0	659	0	659	0	0	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2	2		2	2	2	2		2	2	2	2		2	2	2	2	
Adjacent DCSS Multi-Purpose Arena Trips:	0	0	17	0	17	0	0	124	0	124	0	0	0	0	0	0	0	0	0	0
No-Build 2034 Volumes:	0	0	897	0	897	0	0	915	0	915	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	2	103	105	0	13	3	0	16	0	0	0	0	0	0	67	0	9	76
Future 2034 Traffic Volumes:	0	0	899	103	1002	0	13	918	0	931	0	0	0	0	0	0	67	0	9	76