DEVELOPMENT OF REGIONAL IMPACT
(DRI #3523)
TRAFFIC STUDY
FOR
DOUGLAS COUNTY ARENA ON BILL ARP ROAD

DOUGLASVILLE, GEORGIA

Prepared for:

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A & R Project # 21-147

EXECUTIVE SUMMARY

Traffic impacts were evaluated for the added traffic from the proposed arena that will be located to the northeast of the intersection of SR 5 (Bill Arp Road) at Gurley Road. The arena will consist of 7,362 seats and is intended to serve the Douglas County School System for graduations and other extracurricular activities. The arena will be used for graduations approximately 4 times a year and will be used for extracurricular activities on a more frequent, small-scale basis.

The development proposes one full access and one exit only driveways 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.

In addition to the site driveways, existing and future operations after completion of the project were analyzed at the intersections of:

1. SR 8/US 78 (Veterans Memorial Highway) @ Cedar Mountain Road
2. SR 8/US 78 (Veterans Memorial Highway) @ Gurley Road
3. SR 5 (Bill Arp Road) @ Gurley Road
4. SR 5 (Bill Arp Road) @ Rocky Ridge Boulevard / Arbor Vista Drive
5. SR 5 (Bill Arp Road) @ Bright Star Connector / Rose Avenue
6. SR 5 (Bill Arp Road) @ Concourse Road / Concourse Parkway
7. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
8. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
9. SR 5 (Bill Arp Road) @ Douglas Boulevard

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. The results of the analysis indicated that all signalized intersections would continue to operate at level-of-service “D” or better after site generated trips are added to the study intersections in the “Build” condition.

Recommended Site Access Configuration

The following improvements are recommended at the proposed intersections:

- <u>Intersection of SR 5 (Bill Arp Road) and Gurley Road</u>
    - Gurley Road (westbound) approach to include a yield controlled, channelized right turn lane, and shared through/left turn lane
    - Based on existing traffic counts during most of the hours of the day, volumes do not warrant installation of a traffic signal
        - Monitor traffic volumes for potential installation of a traffic signal when warranted

- <u>Site Driveway 1: Full access western driveway on SR 5 (Bill Arp Road)</u>
    - Two entering lanes and two exiting lanes
    - The intersection to be un-signalized with a STOP sign on the driveway approach. It is recommended that a police officer initially direct traffic during large occupancy events.

        - Monitor traffic volumes for potential installation of a traffic signal when warranted
    - Deceleration lane on SR 5 (Bill Arp Road) for entering traffic
    - Left turn lane on SR 5 (Bill Arp Road) for entering traffic

- <u>Site Driveway 2: Exit Only eastern driveway on SR 5 (Bill Arp Road)</u>
    - This driveway to consist of one exiting (shared left/right turn) lane.
    - The intersection to be un-signalized with a STOP sign on the driveway approach.

- <u>Site Driveway 3: Full access driveway on Gurley Road</u>
    - One entering and one exiting lane
    - The intersection to be un-signalized with a STOP sign on the driveway approach. It is recommended that a police officer direct traffic during large occupancy events.
    - Deceleration lane on SR 5 (Gurley Road) for entering traffic
    - Left turn lane on SR 5 (Gurley Road) for entering traffic

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INTRODUCTION

The purpose of this study is to determine the traffic impact that will result from the proposed arena on SR 5 (Bill Arp Road) by the Douglas County School System in Douglasville, Georgia. The development will be located to the northeast of the intersection of SR 5 (Bill Arp Road) at Gurley Road and to the south of Hunter Memorial Park. The arena will consist of 7,362 seats. The traffic analysis evaluates the current operations compared to the future conditions with the traffic generated by the development.

The development proposes access at the following locations:

- Site Driveway 1: Full access, western driveway on SR 5 (Bill Arp Road)
- Site Driveway 2: Exit Only, eastern driveway on SR 5 (Bill Arp Road)
- Site Driveway 3: Full access driveway on Gurley Road

The site will also have a cart path that will connect to Hunter Memorial Park. The Park parking lot will be used for additional parking during larger events, such as graduation ceremonies.

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

1. SR 8/US 78 (Veterans Memorial Highway) @ Cedar Mountain Road
2. SR 8/US 78 (Veterans Memorial Highway) @ Gurley Road
3. SR 5 (Bill Arp Road) @ Gurley Road
4. SR 5 (Bill Arp Road) @ Rocky Ridge Boulevard / Arbor Vista Drive
5. SR 5 (Bill Arp Road) @ Bright Star Connector / Rose Avenue
6. SR 5 (Bill Arp Road) @ Concourse Road / Concourse Parkway
7. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps

8. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
9. SR 5 (Bill Arp Road) @ Douglas Boulevard

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 by evaluating the amount of traffic that the proposed development will add to each roadway segment in the area. According to GRTA requirements, a roadway segment carries a "significant" amount of traffic if the project contributes 7% or more trips to the two-way daily service volumes of the roadway at the appropriate level of service standard. Upon agreement with GRTA a level of service standard of "D" was used for determining the study area network.

The traffic generated by the proposed project was then assigned to the area roadways using the trip distribution to determine the site-generated traffic on each roadway segment. The boundaries of the study network extend to the most distant intersections where at least 7% of the service volumes on the segment are attributed to project traffic. The following study intersections fell within the 7% rule and/or have been selected as being suitable for evaluation in discussions with GRTA, ARC, GDOT, City of Douglasville and Douglas County:

1. SR 8/US 78 (Veterans Memorial Highway) @ Cedar Mountain Road
2. SR 8/US 78 (Veterans Memorial Highway) @ Gurley Road
3. SR 5 (Bill Arp Road) @ Gurley Road
4. SR 5 (Bill Arp Road) @ Rocky Ridge Boulevard / Arbor Vista Drive
5. SR 5 (Bill Arp Road) @ Bright Star Connector / Rose Avenue
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7. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
8. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
9. SR 5 (Bill Arp Road) @ Douglas Boulevard

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.

Existing Roadway Facilities

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

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 45 mph in the vicinity of the site. GDOT traffic counts (Station ID's 097-0058 & 097-0021) indicate that the daily traffic volume on SR 8/US 78 (Veterans Memorial Highway) in 2019 was 8,490 vehicles per day west of SR 5 (Bill Arp Road) and 11,100 vehicles per day east of Gurley Road. GDOT classifies SR 8/US 78 (Veterans Memorial Highway) as an Urban Minor Arterial roadway.

Cedar Mountain Road

Cedar Mountain Road is a north-south, two-lane, undivided roadway without any posted speed limit.

Gurley Road

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

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 2019 was 10,800 vehicles per day southeast of Gurley Road and 25,200 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.

Rocky Ridge Boulevard

Rocky Ridge Boulevard is a north-south, two-lane, undivided roadway with no posted speed limit.

Arbor Vista Drive

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

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.

Rose Avenue

Rose Avenue 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 097-0227) indicate that the daily traffic volume on Rose Avenue in 2019 was 11,500 vehicles per day south of Roselake Circle / Fairways Drive. GDOT classifies Rose Avenue as an Urban Minor Collector roadway.

Concourse Road

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

Concourse Parkway

Concourse Parkway is an east-west, four-lane, undivided roadway with a posted speed limit of 25 mph.

Douglas Boulevard

Douglas Boulevard is an east-west, four-lane roadway with a two-way left-turn lane and posted speed limit of 45 mph in the vicinity of the site. GDOT traffic counts (Station ID 097-4181) indicate that the daily traffic volume on Douglas Boulevard in 2019 was 16,800 vehicles per day east of SR 5 (Bill Arp Road). GDOT classifies Douglas Boulevard as an Urban Minor Arterial roadway.

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 2019 was 62,200 vehicles per day west of SR 5 (Bill Arp Road) and 85,600 vehicles per day east of SR 5 (Bill Arp Road).

Existing Bicycle and Pedestrian Facilities

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

Nearby local or regional trails

No trails were identified in the vicinity of the study network.

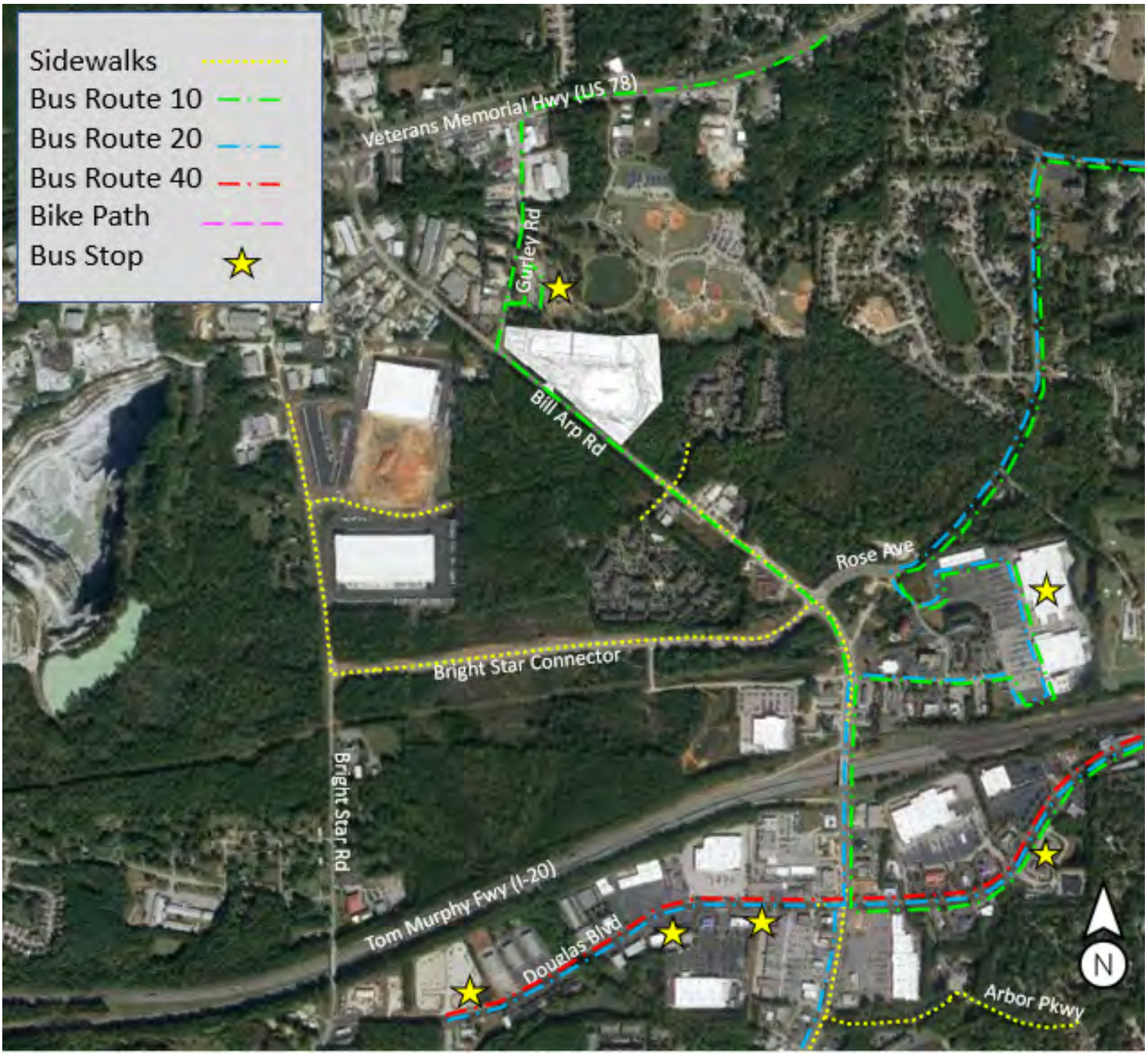
Bicycle paths or sidewalks

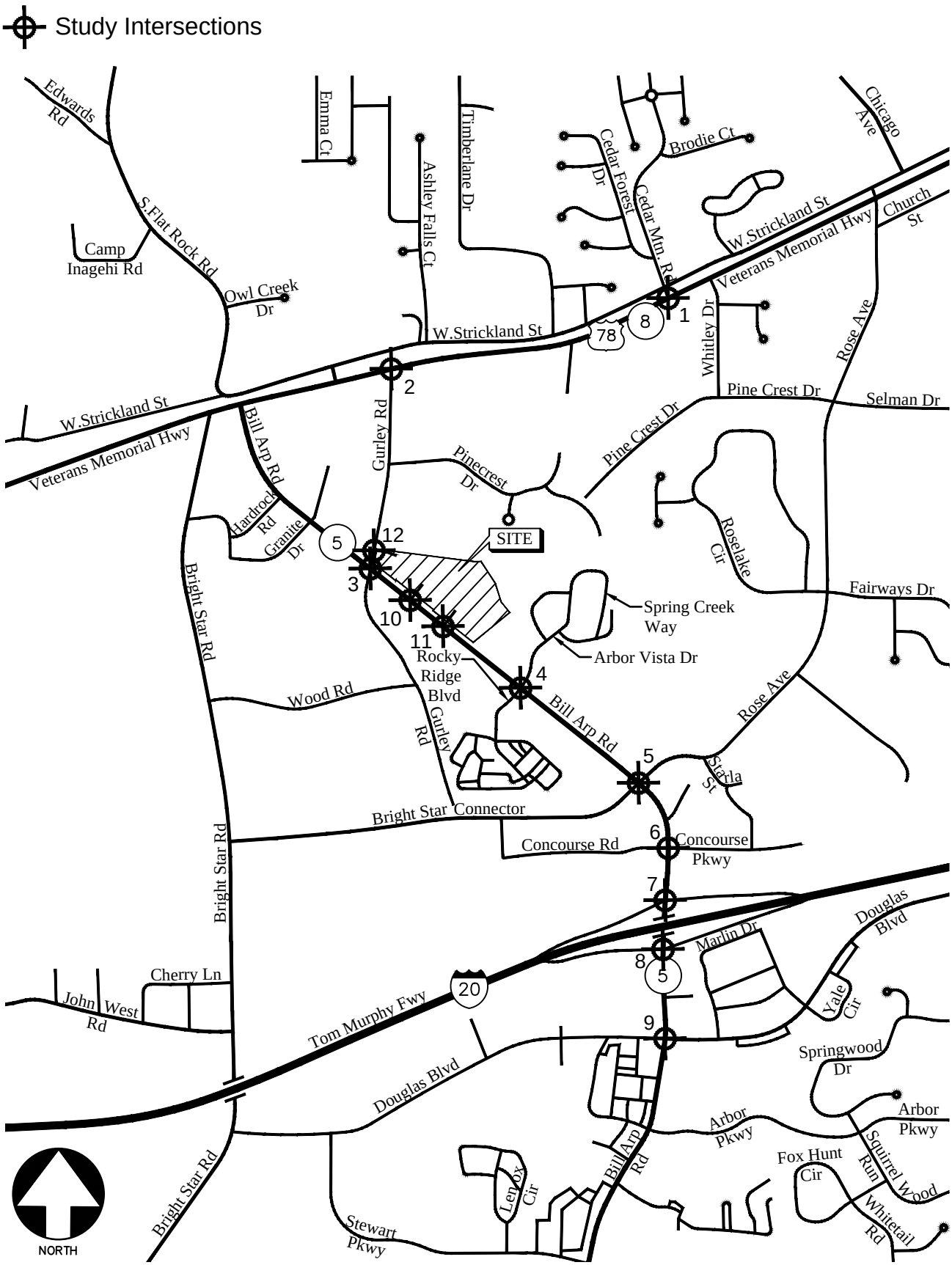
- Sidewalks are present along Bright Star Road, Bright Star Connector, Arbor Parkway and parts of SR 5 (Bill Arp Road)
- Bike paths are not present in the study network

Existing Transit Facilities

Douglas County Transportation's Bus Routes 10, 20, and 40 have bus stops located on Douglas Boulevard and near Gurley Road. The existing alternative transportation map is included on the next page. In consideration of these existing transit facilities, a 2% alternate mode trip generation reduction was agreed upon during the Methodology Meeting with local reviewing agencies.

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





LOCATION MAP AND STUDY INTERSECTIONS FIGURE 1

A&R Engineering Inc.

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 at which the side street or minor street is controlled by a stop sign, the criteria for evaluating traffic operations are the level-of-service (LOS) for the turning movements at the intersection and the level-of-service for the overall intersection. Level-of-service is based on the control delay incurred at the intersection. 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 safely, resulting in extremely long total delays and long queues. The level-of-service criteria for two-way stop-controlled and all-way stop-controlled (unsignalized) intersections are given in Table 1.

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

Level-of-service	Control Delay (sec)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: Highway Capacity Manual

Signalized Intersections

For signalized intersections, it is necessary to evaluate both capacity and level-of-service in order to evaluate the overall operation of the intersection. The capacity analysis of an intersection is performed by comparing the volume of traffic using the various lane groups at the intersection to the capacity of those lane groups. This results in a volume/capacity (v/c) ratio for each lane group. A v/c ratio greater than 1.0 indicates that the volume of traffic has exceeded the capacity available, resulting in a temporary excess of demand. Although the capacity of the entire intersection is not defined, a composite v/c ratio for the sum of the critical lane groups within the intersection is computed. This composite v/c ratio is an indication of the overall intersection sufficiency.

Level-of-service for a signalized intersection is defined in terms of control delay per vehicle, which is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The level-of-service criteria for signalized intersections, based on control delay, are shown in Table 2. Level-of-service "A" indicates operations with very low control delay, while level-of-service "F" describes operations with extremely high control delay. Level-of-service "E" is typically considered to be the limit of acceptable delay, and level-of-service "F" is considered unacceptable by most drivers.

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

Level-of-service	Control Delay (sec)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Source: Highway Capacity Manual

EXISTING 2021 TRAFFIC ANALYSIS

Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

1. SR 8/US 78 (Veterans Memorial Highway) @ Cedar Mountain Road
2. SR 8/US 78 (Veterans Memorial Highway) @ Gurley Road
3. SR 5 (Bill Arp Road) @ Gurley Road
4. SR 5 (Bill Arp Road) @ Rocky Ridge Boulevard / Arbor Vista Drive
5. SR 5 (Bill Arp Road) @ Bright Star Connector / Rose Avenue
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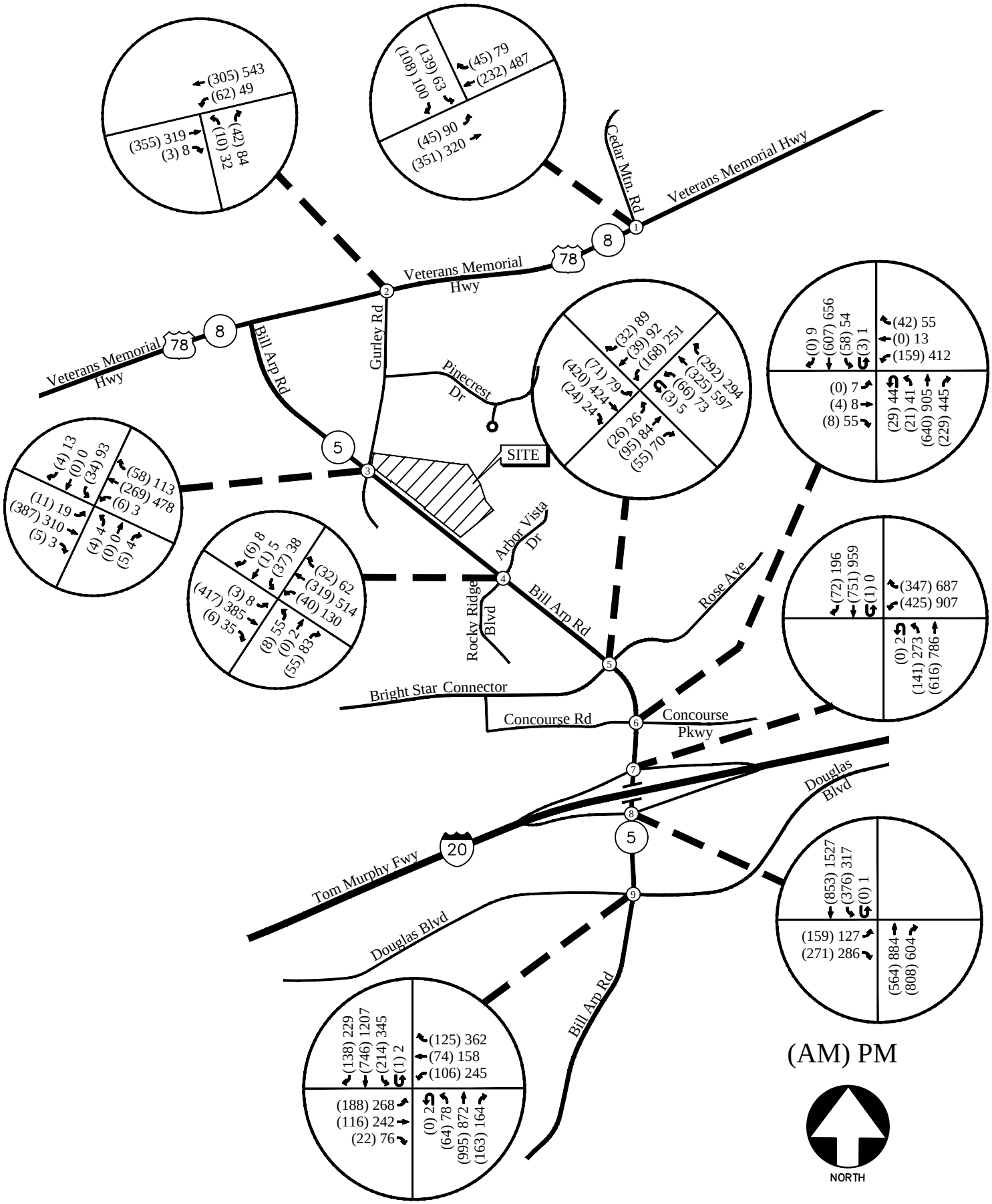
7. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
8. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
9. SR 5 (Bill Arp Road) @ Douglas Boulevard

Turning movement counts were collected on Thursday, December 2, 2021 at the first four unsignalized intersections of (1) SR 8/US 78 (Veterans Memorial Highway) at (2) Cedar Mountain Road, SR 8/US 78 (Veterans Memorial Highway) at Gurley Road, (3) SR 5 (Bill Arp Road) at Gurley Road and (4) SR 5 (Bill Arp Road) at Rocky Ridge Boulevard / Arbor Vista Drive.

For the remaining five signalized intersections, counts were collected on Tuesday, September 28, 2021, were obtained from Douglas County. 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 summed to produce 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.

For the intersection analyses, heavy vehicles percent was used from the counts provided by Douglas County. For intersections where A&R Engineering, Inc. collected traffic volumes, a value of 8% heavy vehicles on SR 8/US 78 (Veterans Memorial Highway) and SR 5 (Bill Arp Road) was used based on the truck percent given in the GDOT counts from the TADA (Traffic Analysis and Data Application) website near the study network.



EXISTING WEEKDAY PEAK-HOUR VOLUMES FIGURE 2

A&R Engineering Inc.

Existing Traffic Operations

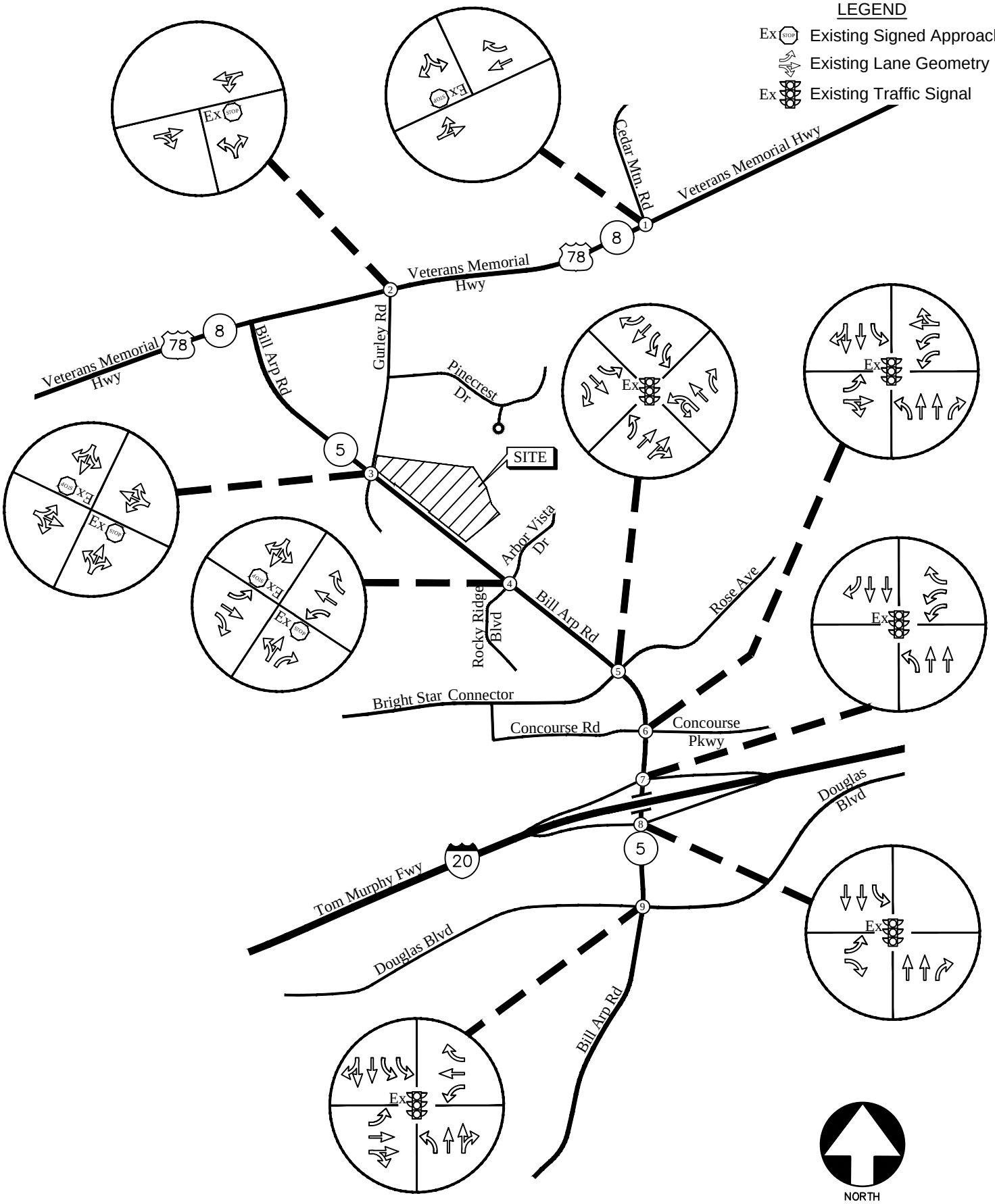
Existing 2021 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

TABLE 3 – EXISTING INTERSECTION OPERATIONS

	Intersection	Traffic Control	AM Peak	PM Peak
1	**SR 8/US 78 (Veterans Memorial Hwy) @ Cedar Mountain Rd** -Eastbound Left -Southbound Approach	Stop Controlled on SB Approach	 A (8.0) C (24.9)	 A (9.0) C (23.5)
`2	**SR 8/US 78 (Veterans Memorial Hwy) @ Gurley Rd** -Westbound Left -Northbound Approach	Stop Controlled on NB Approach	 A (8.3) B (12.4)	 A (8.1) C (15.9)
3	**SR 5 (Bill Arp Rd) @ Gurley Rd** -Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach	Stop Controlled on NB and SB Approaches	 A (8.0) A (8.2) B (13.5) C (17.4)	 A (8.8) A (7.9) C (15.4) D (29.0)
4	**SR 5 (Bill Arp Rd) @ Rocky Ridge Blvd / Arbor Vista Drive** -Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach	Stop Controlled on NB and SB Approaches	 A (7.9) A (8.3) B (12.4) C (21.0)	 A (8.5) A (8.5) D (28.4) E (46.8)
5	**SR 5 (Bill Arp Rd) @ Bright Star Connector / Rose Ave** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**C (22.7)** E (55.4) E (58.0) A (9.5) B (10.3)	**C (25.3)** D (55.0) E (61.1) B (13.0) B (11.1)
6	**SR 5 (Bill Arp Rd) @ Concourse Rd / Concourse Pkwy** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (10.2)** E (55.2) E (56.3) A (0.7) A (8.7)	**B (17.0)** E (57.2) E (62.2) A (1.3) B (14.4)
7	**SR 5 (Bill Arp Rd) @ I-20 WB Ramps** -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (15.8)** D (51.5) B (10.9) A (0.5)	**C (32.5)** D (45.4) C (28.1) C (25.2)
8	**SR 5 (Bill Arp Rd) @ I-20 EB Ramps** -Eastbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (10.1)** E (60.6) B (12.0) A (2.6)	**B (12.2)** E (63.3) A (7.0) B (11.2)
9	**SR 5 (Bill Arp Rd) @ Douglas Blvd** -Eastbound Approach -Westbound Approach -Northbound Approach	Signalized	**C (26.2)** D (50.1) D (46.6) C (26.2)	**D (35.4)** D (37.6) D (44.4) D (42.0)

	-Southbound Approach		B (13.5)	C (26.6)

The results of existing traffic operations analysis indicate that all signalized intersections are operating at an overall level of service “D” or better in both the AM and PM peak hours. The level-of-service standard for signalized intersections in DRI traffic analysis is level-of-service “D”. The existing traffic control and lane geometry for the intersections are shown in Figure 3.



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 3

A&R Engineering Inc.

PROJECT DESCRIPTION

The proposed multi-purpose arena by the Douglas County School System will be located on SR 5 (Bill Arp Road) in Douglasville, Georgia. The development will be located to the northeast of the intersection of SR 5 (Bill Arp Road) at Gurley Road and to the south of Hunter Memorial Park. The arena will consist of 7,362 seats and is intended to serve the Douglas County School System for graduations and other extracurricular activities. The arena will be used for graduations approximately 4 times a year and will be used for extracurricular activities on a more frequent, small-scale basis.

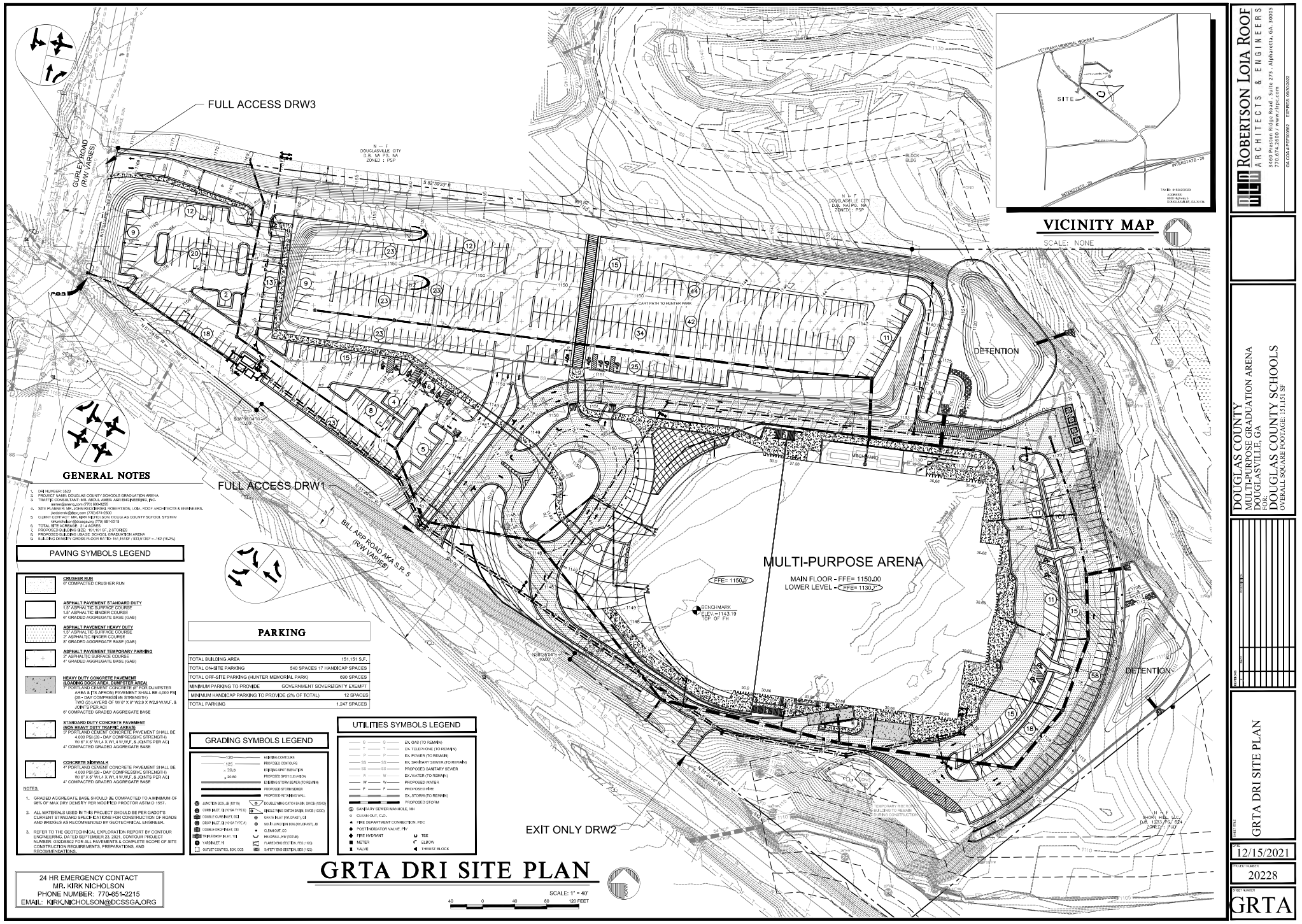
The development proposes access at the following locations:

- Site Driveway 1: Full access northern/western driveway on SR 5 (Bill Arp Road)
- Site Driveway 2: Exit Only southern/eastern driveway on SR 5 (Bill Arp Road)
- Site Driveway 3: Full access driveway on Gurley Road

The site will also have a cart path that will connect to Hunter Memorial Park. The Park parking lot will be used for additional parking during larger annual events, such as graduation ceremonies.

Site Plan

A site plan is shown in Figure 4.



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GA COA # PEO00982 EXPIRES: 06/30/2022

DOUGLAS COUNTY
MULTI-PURPOSE GRADUATION ARENA
FOR
DOUGLAS COUNTY SCHOOLS
OVERALL SQUARE FOOTAGE: 151,151 SF

REVISIONS

SHEET TITLE: GRTA DRI SITE PLAN

DATE: 12/15/2021

PROJECT NUMBER: 20228

SHEET NUMBER: GRTA

Planned Bicycle and Pedestrian Facilities

The on and/or off-site provisions for non-motorized travel included in the planned construction of the proposed development are as follows:

- Pedestrian sidewalks will be provided throughout the development.
- Cart path connection to Memorial Park.

Planned Transit Facilities

An alternate mode of transportation reduction of 2% was considered in the trip generation analysis based on discussions with ARC/GRTA and local reviewing agencies. This considered the existing transit routes in the vicinity of the proposed development which are detailed in the "Existing Transit Facilities" section of this study (Page 5).

Consistency with Adopted Comprehensive Plan

The vision for the City of Douglasville and in particular, the area of the proposed site, the land use visions and goals are to:

- Incorporating multimodal facilities planning, provide safe and accessible transportation facilities and to balance/prioritize transportation projects with political and public support.
- Preserve and protect neighborhood integrity by maintaining consistency with comprehensive land use plan
- Preserve the environment and incorporate connectivity to greenways
- Promote economic development.

The proposed development is consistent and land use aligns with the land use visions and goals adopted by the City of Douglasville.

Project Phasing

This project has been evaluated for the complete build-out of the development in 2023.

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.

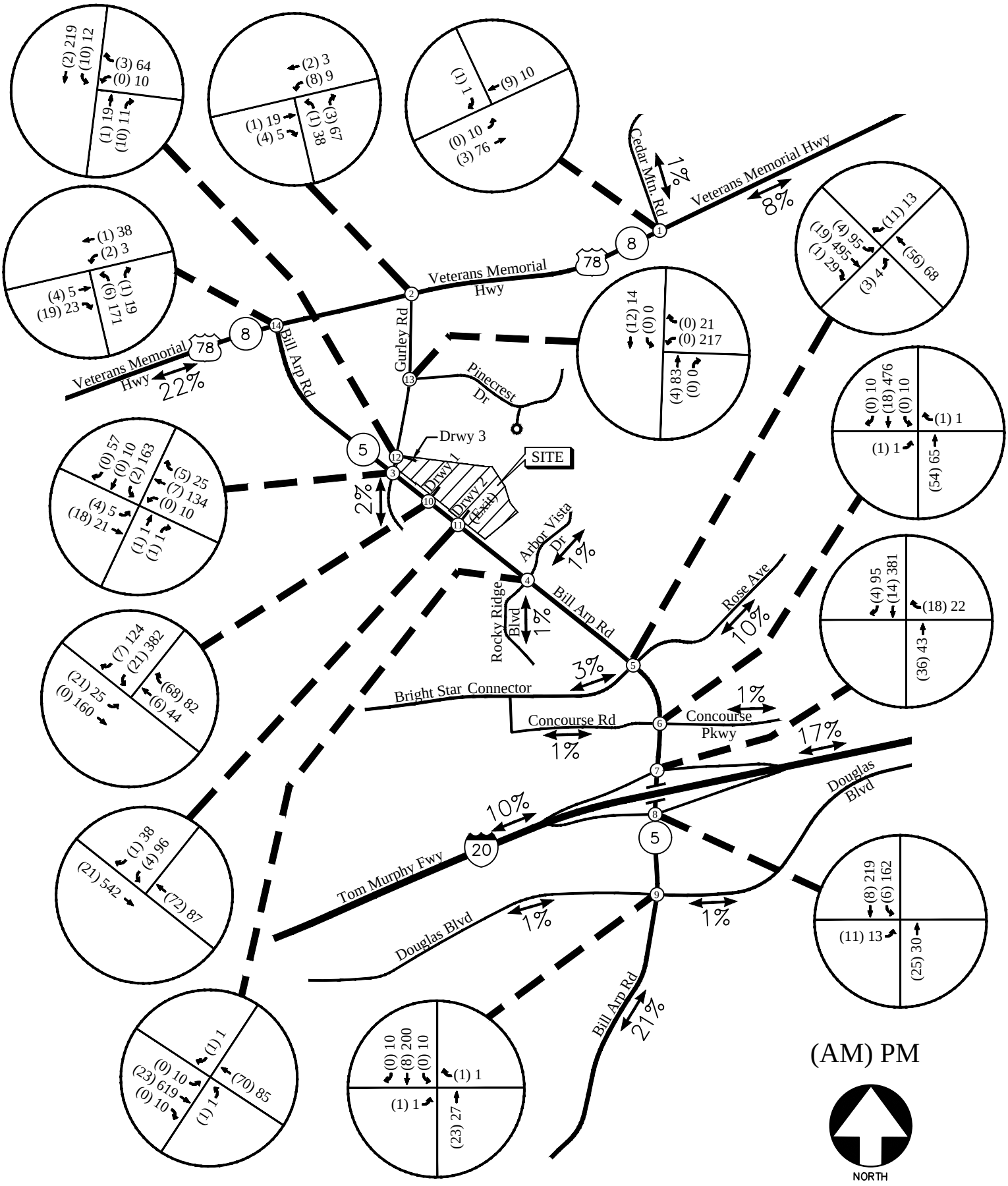
Since ITE 11th edition does not have a land use for "Arena", the ITE land use 462 – Professional Baseball Stadium was proposed to be used instead due to similar trip patterns, independent variable, and available data points. ARC/GRTA and local reviewing agencies agreed of this land used during the Methodology Meeting. The trip generation was based on the following ITE Land Use: 462 – Professional Baseball Stadium. An alternate mode of transportation reduction of 2% was applied to the trip generation. The calculated total trip generation for the proposed development is shown in Table 4 on the next page.

Table 4 – Trip Generation for Proposed Arena								
Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-way
ITE 462 – Professional Baseball Stadium	7,362 attendees	110	37	147	133	971	1,104	9,129
Alternate Mode Reduction (2)%		-2	-1	-3	-3	-19	-22	-183
New External Trips		108	36	144	130	952	1,082	8,946

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 a review of GDOT ADT volumes and the locations of major roadways and highways that will serve the development. 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.

For larger events that would generate more trips, it was assumed that Hunter Memorial Park, which is located to the north of the site, will be used for parking. People will have access to a proposed cart path to walk from the park to the proposed development. It is assumed that 25% of the vehicles will park at Hunter Memorial Park. Therefore, 25% of the exiting trips were assumed to use Pinecrest Drive in the PM peak hour.



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 5

A&R Engineering Inc.

FUTURE 2023 TRAFFIC ANALYSIS

The future 2023 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. 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.

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.

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 through traffic.

Annual Traffic Growth

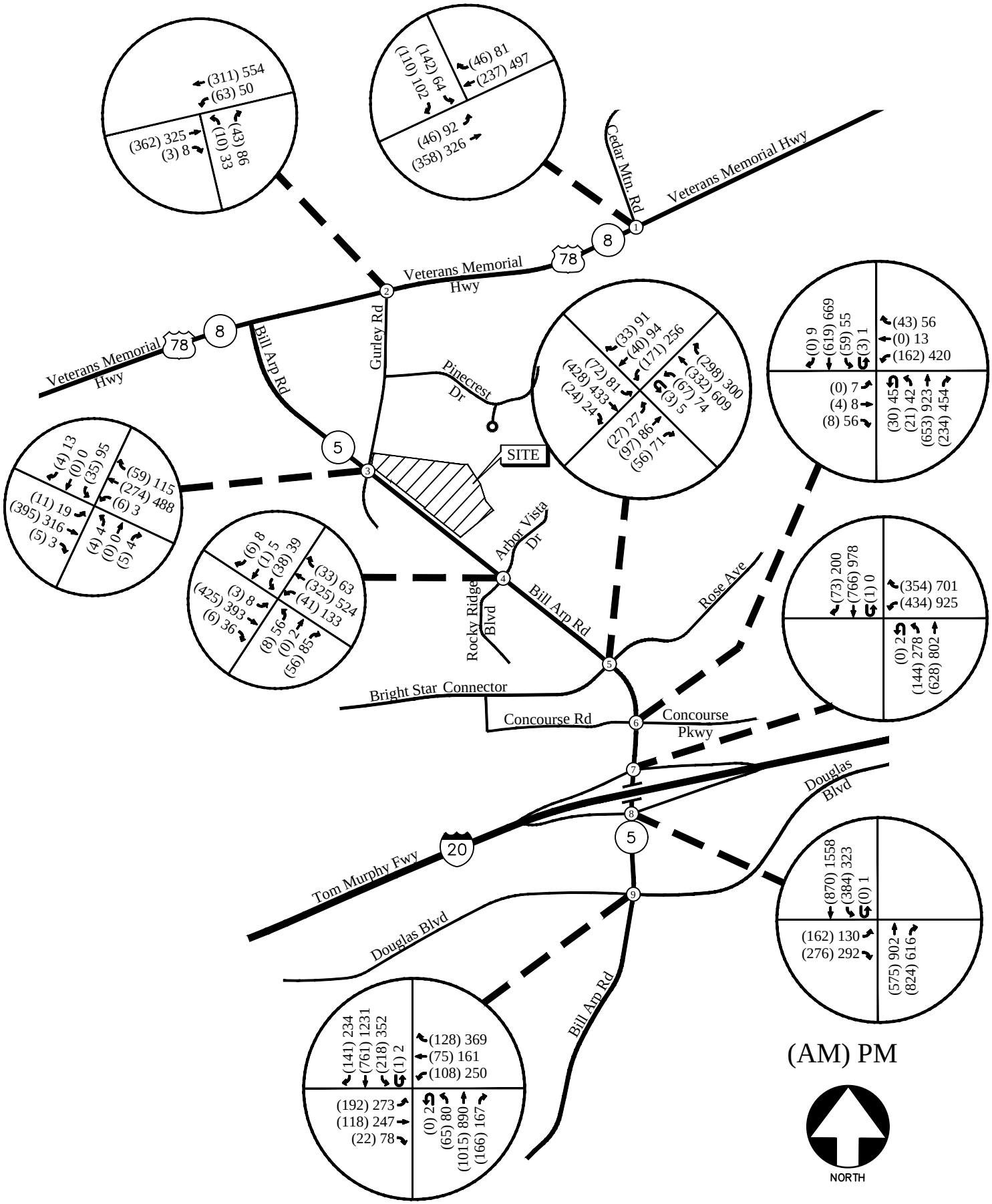
In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three (2017-2019) years revealed no consistent, positive growth of through traffic; therefore, a growth rate of 1% was used in the analysis. This growth factor was applied to the existing traffic volumes in order to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future "No-Build" volumes on the roadway are shown in Figure 6.

Planned and Programmed Improvements in Study Area

No planned projects were found in the study network.

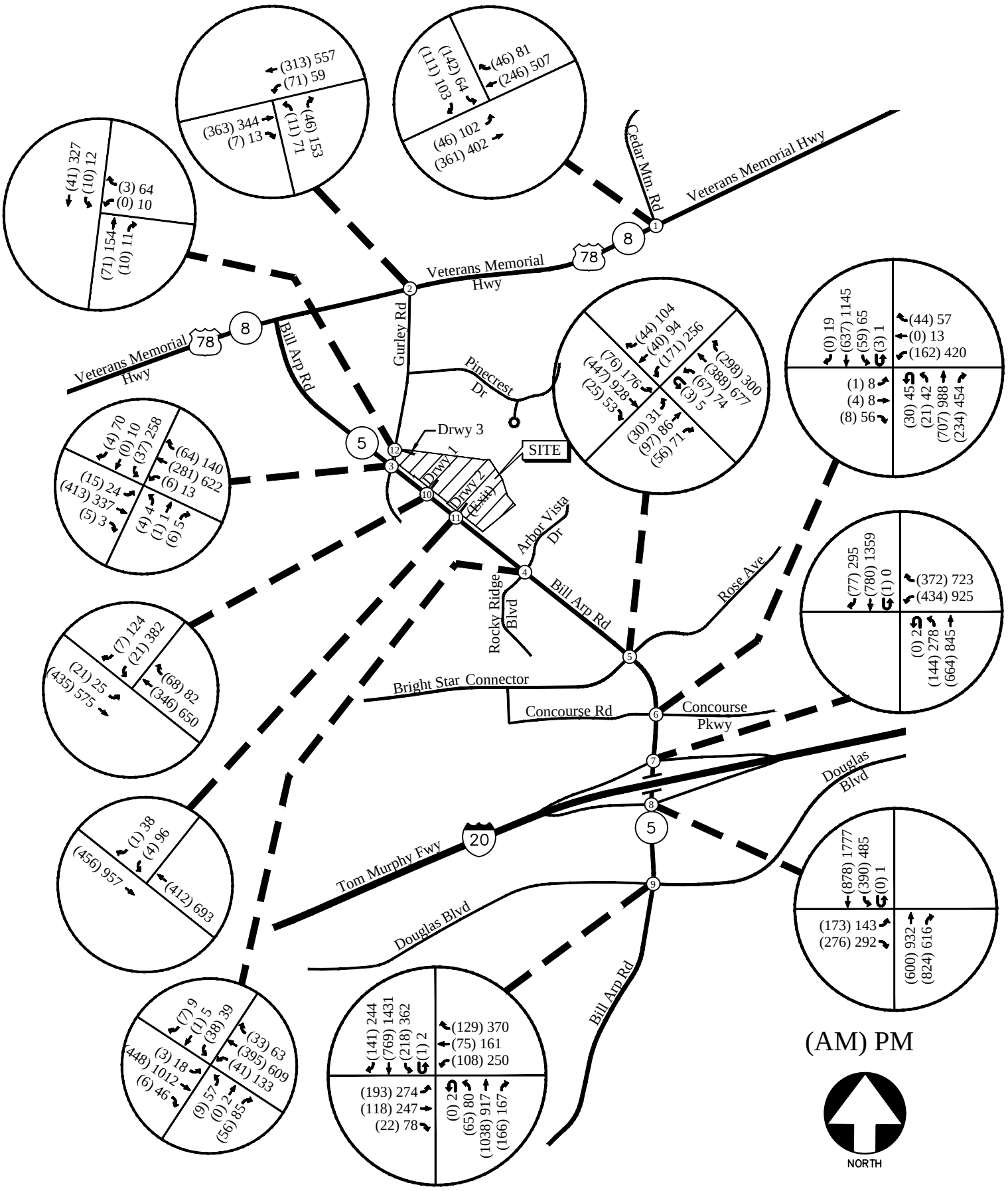
Future "Build" Conditions

The "Build" or development conditions include the estimated background traffic from the "No-Build" conditions plus the added traffic from the proposed development. In order to evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future traffic volumes are shown in Figure 7.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 6

A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES FIGURE 7

A&R Engineering Inc.

Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in Section Trip Distribution. According to the trip distribution, the total 24-hour two-way volume entering and exiting the site is 9,129 vehicles. The AADT on Gurley Road is assumed to be more than 6,000 vehicles based on the GDOT volumes on the surrounding roadways.

Left Turn Lane Analysis

For two lane roadways with AADT's more than 6,000 vehicles and a posted speed limit of 45 and 35 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 200 and 175 left-turning 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)	
SR 5 (Bill Arp Rd) @ Site Driveway 1 (Western)	19.4%	868 (total trips) ÷ 2 × 0.194 = (8,946) ÷ 2 x 0.194 = 868	45 mph / 2-Lane / > 6,000	200	Yes
Gurley Rd @ Site Driveway 3	9%	403 (total trips) ÷ 2 × 0.09 = (8,946) ÷ 2 x 0.09 = 403	35 mph / 2-Lane / > 6,000	175	Yes

Left turn lanes are warranted at Site Driveway 1 on SR 5 (Bill Arp Road). Since an officer is recommended to control traffic at Site Driveway 3 during large events, a left turn lane is not recommended.

Deceleration Turn Lane Analysis

For two lane roadways with AADT's more than 6,000 vehicles and a posted speed limit of 45 and 35 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 100 and 75 right -turning 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)	Warrant Met? (Yes or No)
SR 5 (Bill Arp Rd) @ Site Driveway 1 (Western)	62.8%	2,809 (total trips) ÷ 2 × 0.628 = (8,946) ÷ 2 x 0.628 = 2809	45 mph / 2-Lane / > 6,000	100	Yes
Gurley Rd @ Site Driveway 3	8.8%	394 (total trips) ÷ 2 × 0.088 = (8,946) ÷ 2 x 0.088 = 394	35 mph / 2-Lane / > 6,000	75	Yes

Deceleration lanes are warranted at Site Driveway 1 on SR 5 (Bill Arp Road) and Site Driveway 3 on Gurley Road per GDOT Standards.

Future Traffic Operations

The future "No-Build" and "Build" traffic operations were analyzed using the volumes in Figure 6 and Figure 7, respectively. The results of the future traffic operations analysis are shown below in Table 7.

TABLE 7 – FUTURE INTERSECTION OPERATIONS

	Intersection	Traffic Control	Future Condition: LOS (Delay)			
			NO-BUILD		**BUILD with Improvements**	
			AM Peak	PM Peak	AM Peak	PM Peak
1	**SR 8/US 78 (Veterans Memorial Hwy) @ Cedar Mountain Rd** -Eastbound Left -Southbound Approach	Stop Controlled on SB Approach	A (8.0) D (26.6)	A (9.1) C (24.7)	A (8.1) D (27.7)	A (9.2) D (30.0)
2	**SR 8/US 78 (Veterans Memorial Hwy) @ Gurley Rd** -Westbound Left -Northbound Approach	Stop Controlled on NB Approach	A (8.3) B (12.5)	A (8.1) C (16.3)	A (8.3) B (12.7)	A (8.2) D (26.6)
3	**SR 5 (Bill Arp Rd) @ Gurley Rd** -Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach	Stop Controlled on NB and SB Approaches	A (8.0) A (8.2) B (13.6) C (17.8)	A (8.9) A (7.9) C (15.7) D (30.5)	A (8.1) A (8.2) B (14.2) C (18.8)	A (9.5) A (8.0) C (21.5) F (*)

4	**SR 5 (Bill Arp Rd) @ Rocky Ridge Blvd / Arbor Vista Drive** -Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach	Stop Controlled on NB and SB Approaches	A (8.0) A (8.4) B (12.5) C (21.8)	A (8.6) A (8.6) D (30.4) F (50.4)	A (8.1) A (8.4) B (13.1) D (25.1)	A (8.9) B (12.0) F (*) F (*)
5	**SR 5 (Bill Arp Rd) @ Bright Star Connector / Rose Ave** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**C (23.0)** E (55.5) E (59.5) A (9.6) B (10.5)	**C (25.6)** E (55.0) E (61.4) B (13.2) B (11.3)	**C (22.7)** E (55.4) E (59.6) B (10.2) B (10.7)	**C (29.1)** D (54.9) F (81.8) B (15.3) B (19.0)
6	**SR 5 (Bill Arp Rd) @ Concourse Rd / Concourse Pkwy** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (10.3)** E (55.2) E (56.4) A (0.7) A (8.8)	**B (17.2)** E (57.2) E (62.8) A (1.3) B (14.7)	**B (10.1)** E (55.1) E (56.4) A (0.7) A (8.9)	**B (18.2)** E (57.1) E (62.7) A (1.5) B (19.1)
7	**SR 5 (Bill Arp Rd) @ I-20 WB Ramps** -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (15.8)** D (51.2) B (11.1) A (0.5)	**C (33.3)** D (45.2) C (29.3) C (26.3)	**B (18.4)** D (51.2) B (18.1) A (0.5)	**D (38.2)** D (45.2) D (38.9) C (32.8)
8	**SR 5 (Bill Arp Rd) @ I-20 EB Ramps** -Eastbound Approach -Northbound Approach -Southbound Approach	Signalized	**B (10.2)** E (60.5) B (11.4) A (3.1)	**B (12.5)** E (63.1) A (7.2) B (11.5)	**B (11.1)** E (60.5) B (13.4) A (3.2)	**B (14.9)** E (66.3) B (14.9) B (11.5)
9	**SR 5 (Bill Arp Rd) @ Douglas Blvd** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**C (27.2)** D (48.0) D (46.6) C (27.3) B (15.5)	**D (35.4)** D (39.3) D (49.1) D (41.2) C (24.5)	**C (27.2)** D (50.3) D (46.5) C (26.8) B (15.4)	**D (43.9)** D (39.3) D (48.7) D (42.7) D (44.0)
10	**SR 5 (Bill Arp Rd) @ Site Driveway 1 (Western)** -Eastbound Left (SR 5) -Westbound Approach (SR 5) -Southbound Approach (Drwy)	****** Stop Sign Controlled on WB Approach	-	-	A (8.3) - C (16.0)	B (11.5) B (12.7) A (18.7)
11	**SR 5 (Bill Arp Rd) @ Site Driveway 2 (Eastern, Exit-Only)** -Southbound Approach	Stop Sign Controlled on WB Approach	-	-	C (16.3)	F (247.6)
12	**Gurley Rd @ Site Driveway 3** -Westbound Approach -Southbound Left	Stop Sign Controlled on NB Approach	-	-	A (8.7) A (7.4)	B (10.1) A (7.6)

* Delay exceeds 300 seconds

** Police Officer was modeled in Synchro as an actuated, uncoordinated traffic signal to model traffic patterns during large occupancy events (Build PM Peak Hour only)

The results of "No-Build" traffic operations analysis indicate that all the intersections will continue to operate at level of service "D" or better in both the AM and PM peak hours. The southbound (Arbor Vista Drive) approach at the intersection of SR 5 (Bill Arp Road) and Rocky Ridge Boulevard / Arbor Vista Drive will operate at level-of-service "F" in the PM peak hour with minor increase in delays from the existing conditions. The results of the "Build" traffic operations show that the stop-controlled side-streets to the intersections of SR 5 (Bill Arp Road) at Gurley Road and SR 5 (Bill Arp Road) at Rocky Ridge Boulevard / Arbor Vista Drive will operate at level-of-service "F". 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.

The following access improvements were modeled in the Synchro analysis for the "Build" condition and are recommended at the respective intersections listed below:

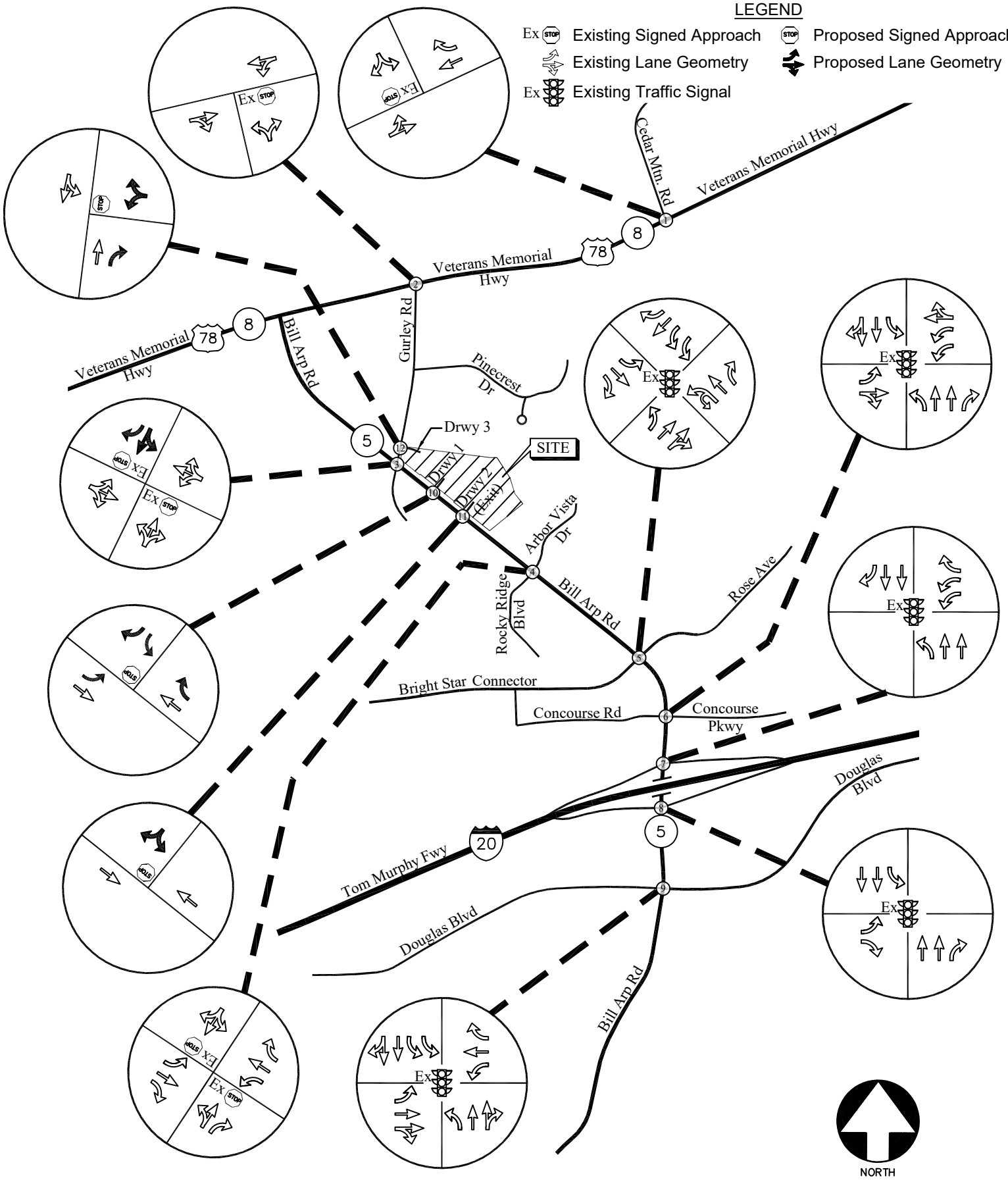
- Intersection of SR 5 (Bill Arp Road) and Gurley Road
    - Gurley Road (westbound) approach to include a yield controlled, channelized right turn lane, and shared through/left turn lane
    - Based on existing traffic counts during most of the hours of the day, volumes do not warrant installation of a traffic signal
        - Monitor traffic volumes for potential installation of a traffic signal when warranted

- Site Driveway 1: Full access western driveway on SR 5 (Bill Arp Road)
    - Two entering lanes and two exiting lanes
    - The intersection to be un-signalized with a STOP sign on the driveway approach. It is recommended that a police officer initially direct traffic during large occupancy events.
        - Monitor traffic volumes for potential installation of a traffic signal when warranted
    - Deceleration lane on SR 5 (Bill Arp Road) for entering traffic
    - Left turn lane on SR 5 (Bill Arp Road) for entering traffic

- Site Driveway 2: Exit Only eastern driveway on SR 5 (Bill Arp Road)
    - This driveway to consist of one exiting (shared left/right turn) lane.
    - The intersection to be un-signalized with a STOP sign on the driveway approach.

- Site Driveway 3: Full access driveway on Gurley Road
    - One entering and one exiting lane
    - The intersection to be un-signalized with a STOP sign on the driveway approach. It is recommended that a police officer direct traffic during large occupancy events.
    - Deceleration lane on SR 5 (Gurley Road) for entering traffic
    - Left turn lane on SR 5 (Gurley Road) for entering traffic

Recommendations for future traffic control and lane geometry are shown in Figure 8.



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 8

A&R Engineering Inc.

CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the added traffic from the proposed arena that will be located to the northeast of the intersection of SR 5 (Bill Arp Road) at Gurley Road. The arena will consist of 7,362 seats and is intended to serve the Douglas County School System for graduations and other extracurricular activities. The arena will be used for graduations approximately 4 times a year and it will be used for extracurricular activities on a more frequent, small-scale basis.

The development proposes one full access and one exit only driveways 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.

In addition to the site driveways, existing and future operations after completion of the project were analyzed at the intersections of:

10. SR 8/US 78 (Veterans Memorial Highway) @ Cedar Mountain Road
11. SR 8/US 78 (Veterans Memorial Highway) @ Gurley Road
12. SR 5 (Bill Arp Road) @ Gurley Road
13. SR 5 (Bill Arp Road) @ Rocky Ridge Boulevard / Arbor Vista Drive
14. SR 5 (Bill Arp Road) @ Bright Star Connector / Rose Avenue
15. SR 5 (Bill Arp Road) @ Concourse Road / Concourse Parkway
16. SR 5 (Bill Arp Road) @ I-20 Westbound Ramps
17. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramps
18. SR 5 (Bill Arp Road) @ Douglas Boulevard

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. The results of the analysis indicated that all signalized intersections would continue to operate at level-of-service “D” or better after site generated trips are added to the study intersections in the “Build” condition.

Recommended Site Access Configuration and Recommendations

The following improvements are recommended at the proposed intersections:

- <u>Intersection of SR 5 (Bill Arp Road) and Gurley Road</u>
    - Gurley Road (westbound) approach to include a yield controlled, channelized right turn lane, and shared through/left turn lane
    - Based on existing traffic counts during most of the hours of the day, volumes do not warrant installation of a traffic signal
        - Monitor traffic volumes for potential installation of a traffic signal when warranted

- <u>Site Driveway 1: Full access western driveway on SR 5 (Bill Arp Road)</u>
    - Two entering lanes and two exiting lanes
    - The intersection to be un-signalized with a STOP sign on the driveway approach. It is recommended that a police officer initially direct traffic during large occupancy events.

        - Monitor traffic volumes for potential installation of a traffic signal when warranted
    - Deceleration lane on SR 5 (Bill Arp Road) for entering traffic
    - Left turn lane on SR 5 (Bill Arp Road) for entering traffic

- <u>Site Driveway 2: Exit Only eastern driveway on SR 5 (Bill Arp Road)</u>
    - This driveway to consist of one exiting (shared left/right turn) lane.
    - The intersection to be un-signalized with a STOP sign on the driveway approach.

- <u>Site Driveway 3: Full access driveway on Gurley Road</u>
    - One entering and one exiting lane
    - The intersection to be un-signalized with a STOP sign on the driveway approach. It is recommended that a police officer direct traffic during large occupancy events.
    - Deceleration lane on SR 5 (Gurley Road) for entering traffic
    - Left turn lane on SR 5 (Gurley Road) for entering traffic

Appendix

Existing Intersection Traffic Counts

A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Veterans Memorial Hwy) @ Cedar Mountain Rd
7-9 am | 4-6 pm

File Name : 20210420
Site Code : 20210420
Start Date : 12/3/2021
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Northbound				Cedar Mountain Rd Southbound				SR 8 (Veterans Memorial Hwy) Eastbound				SR 8 (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	0	0	0	23	0	20	43	3	54	0	57	0	43	4	47	147
07:15 AM	0	0	0	0	26	0	48	74	6	65	0	71	0	45	9	54	199
07:30 AM	0	0	0	0	31	0	46	77	16	68	0	84	0	58	9	67	228
07:45 AM	0	0	0	0	41	0	23	64	13	105	0	118	0	70	12	82	264
Total	0	0	0	0	121	0	137	258	38	292	0	330	0	216	34	250	838
08:00 AM	0	0	0	0	37	0	17	54	8	97	0	105	0	46	11	57	216
08:15 AM	0	0	0	0	30	0	22	52	8	81	0	89	0	58	13	71	212
08:30 AM	0	0	0	0	24	0	20	44	12	63	0	75	0	45	12	57	176
08:45 AM	0	0	0	0	17	0	21	38	5	54	0	59	0	56	8	64	161
Total	0	0	0	0	108	0	80	188	33	295	0	328	0	205	44	249	765
*** BREAK ***																	
04:00 PM	0	0	0	0	26	0	21	47	25	76	0	101	0	100	25	125	273
04:15 PM	0	0	0	0	15	0	24	39	25	81	0	106	0	137	15	152	297
04:30 PM	0	0	0	0	18	0	17	35	22	75	0	97	0	131	22	153	285
04:45 PM	0	0	0	0	15	0	35	50	18	79	0	97	0	100	21	121	268
Total	0	0	0	0	74	0	97	171	90	311	0	401	0	468	83	551	1123
05:00 PM	0	0	0	0	15	0	24	39	25	85	0	110	0	119	21	140	289
05:15 PM	0	0	0	0	22	0	23	45	37	73	0	110	0	120	21	141	296
05:30 PM	0	0	0	0	24	0	18	42	26	72	0	98	0	87	24	111	251
05:45 PM	0	0	0	0	20	0	30	50	26	56	0	82	0	108	14	122	254
Total	0	0	0	0	81	0	95	176	114	286	0	400	0	434	80	514	1090
Grand Total	0	0	0	0	384	0	409	793	275	1184	0	1459	0	1323	241	1564	3816
Apprch %	0	0	0		48.4	0	51.6		18.8	81.2	0		0	84.6	15.4		
Total %	0	0	0	0	10.1	0	10.7	20.8	7.2	31	0	38.2	0	34.7	6.3	41	

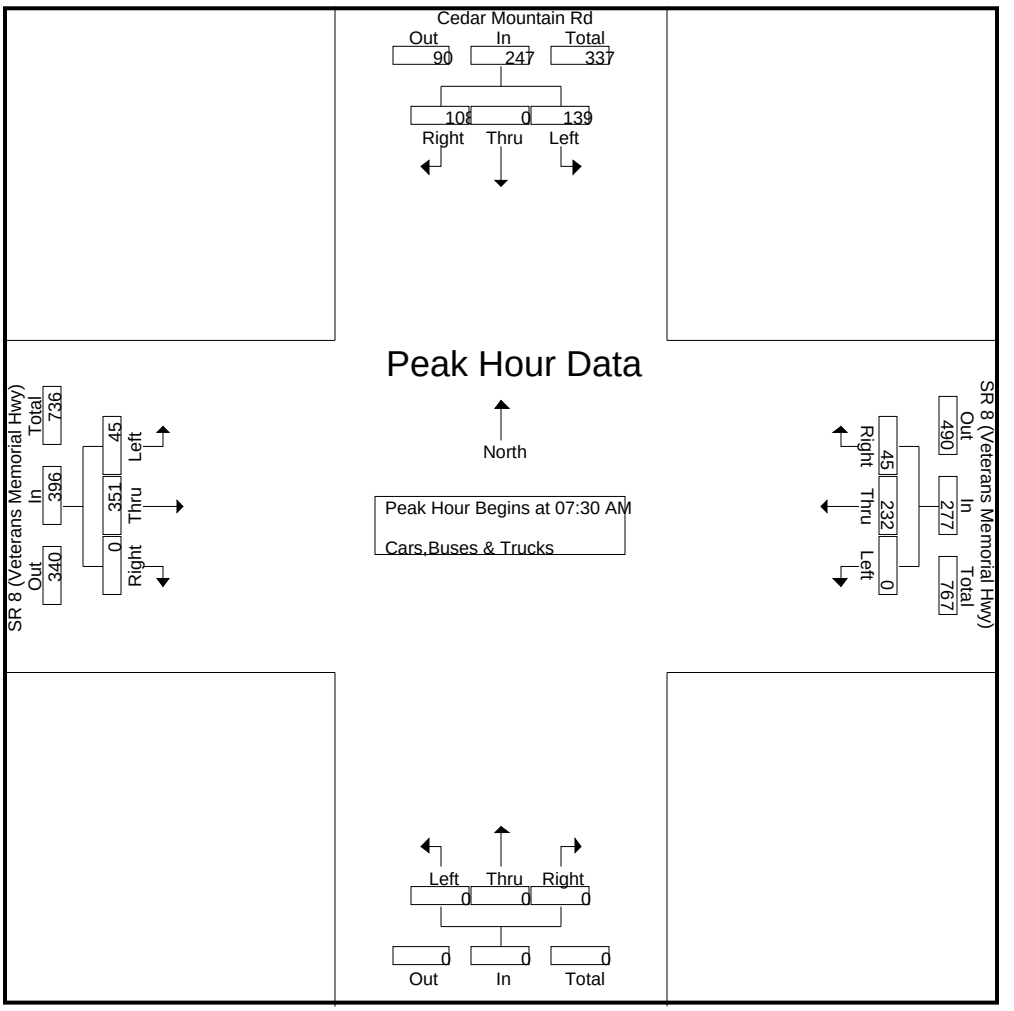
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Veterans Memorial Hwy) @ Cedar Mountain Rd
7-9 am | 4-6 pm

File Name : 20210420
Site Code : 20210420
Start Date : 12/3/2021

	Northbound				Cedar Mountain Rd Southbound				SR 8 (Veterans Memorial Hwy) Eastbound				SR 8 (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	0	0	0	0	31	0	**46**	**77**	**16**	68	0	84	0	58	9	67	228
07:45 AM	0	0	0	0	**41**	0	23	64	13	**105**	0	**118**	0	**70**	12	**82**	**264**
08:00 AM	0	0	0	0	37	0	17	54	8	97	0	105	0	46	11	57	216
08:15 AM	0	0	0	0	30	0	22	52	8	81	0	89	0	58	**13**	71	212
Total Volume	0	0	0	0	139	0	108	247	45	351	0	396	0	232	45	277	920
% App. Total	0	0	0		56.3	0	43.7		11.4	88.6	0		0	83.8	16.2		
PHF	.000	.000	.000	.000	.848	.000	.587	.802	.703	.836	.000	.839	.000	.829	.865	.845	.871



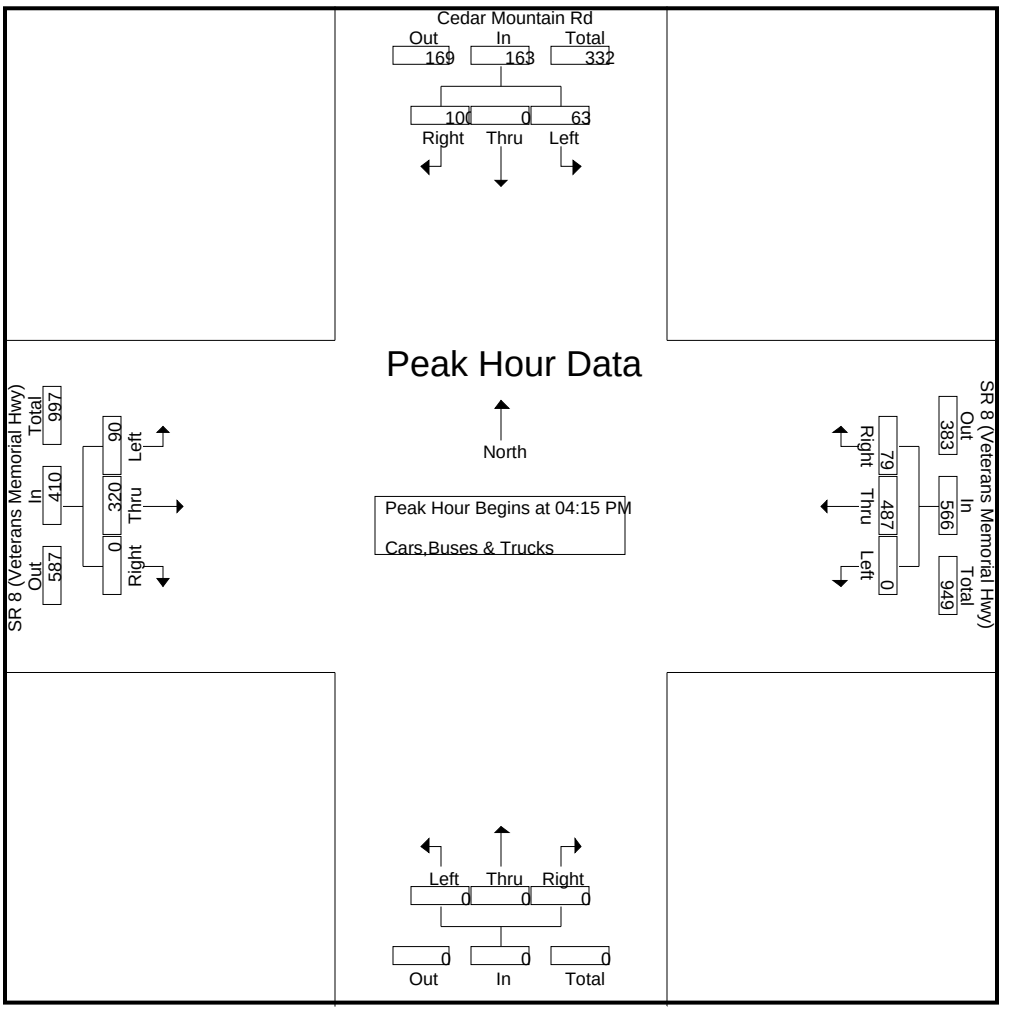
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Veterans Memorial Hwy) @ Cedar Mountain Rd
7-9 am | 4-6 pm

File Name : 20210420
Site Code : 20210420
Start Date : 12/3/2021
Page No : 3

	Northbound				Cedar Mountain Rd Southbound				SR 8 (Veterans Memorial Hwy) Eastbound				SR 8 (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 04:15 PM																	
04:15 PM	0	0	0	0	15	0	24	39	**25**	81	0	106	0	**137**	15	152	**297**
04:30 PM	0	0	0	0	**18**	0	17	35	22	75	0	97	0	131	**22**	**153**	285
04:45 PM	0	0	0	0	15	0	**35**	**50**	18	79	0	97	0	100	21	121	268
05:00 PM	0	0	0	0	15	0	24	39	25	**85**	0	**110**	0	119	21	140	289
Total Volume	0	0	0	0	63	0	100	163	90	320	0	410	0	487	79	566	1139
% App. Total	0	0	0		38.7	0	61.3		22	78	0		0	86	14		
PHF	.000	.000	.000	.000	.875	.000	.714	.815	.900	.941	.000	.932	.000	.889	.898	.925	.959



A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Veterans Memorial Hwy) @ Gurley Rd
7-9 am | 4-6 pm

File Name : 20210419
Site Code : 20210419
Start Date : 12/3/2021
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Gurley Rd Northbound				Southbound				SR 5 (Veterans Memorial Hwy) Eastbound				SR 8 (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	3	0	6	9	0	0	0	0	0	58	3	61	11	53	0	64	134
07:15 AM	2	0	10	12	0	0	0	0	0	61	0	61	19	89	0	108	181
07:30 AM	4	0	12	16	0	0	0	0	0	91	1	92	15	83	0	98	206
07:45 AM	1	0	12	13	0	0	0	0	0	109	1	110	17	70	0	87	210
Total	10	0	40	50	0	0	0	0	0	319	5	324	62	295	0	357	731
08:00 AM	3	0	8	11	0	0	0	0	0	94	1	95	11	63	0	74	180
08:15 AM	2	0	10	12	0	0	0	0	0	70	2	72	5	64	0	69	153
08:30 AM	2	0	10	12	0	0	0	0	0	55	0	55	9	65	0	74	141
08:45 AM	3	0	10	13	0	0	0	0	0	67	1	68	4	81	0	85	166
Total	10	0	38	48	0	0	0	0	0	286	4	290	29	273	0	302	640
*** BREAK ***																	
04:00 PM	5	0	22	27	0	0	0	0	0	80	0	80	11	131	0	142	249
04:15 PM	8	0	10	18	0	0	0	0	0	81	3	84	14	144	0	158	260
04:30 PM	5	0	26	31	0	0	0	0	0	74	5	79	9	132	0	141	251
04:45 PM	10	0	23	33	0	0	0	0	0	79	0	79	16	119	0	135	247
Total	28	0	81	109	0	0	0	0	0	314	8	322	50	526	0	576	1007
05:00 PM	9	0	25	34	0	0	0	0	0	85	0	85	10	148	0	158	277
05:15 PM	9	0	26	35	0	0	0	0	0	68	2	70	12	141	0	153	258
05:30 PM	8	0	15	23	0	0	0	0	0	70	0	70	11	122	0	133	226
05:45 PM	6	0	19	25	0	0	0	0	0	67	0	67	19	115	0	134	226
Total	32	0	85	117	0	0	0	0	0	290	2	292	52	526	0	578	987
Grand Total	80	0	244	324	0	0	0	0	0	1209	19	1228	193	1620	0	1813	3365
Apprch %	24.7	0	75.3		0	0	0		0	98.5	1.5		10.6	89.4	0		
Total %	2.4	0	7.3	9.6	0	0	0	0	0	35.9	0.6	36.5	5.7	48.1	0	53.9	

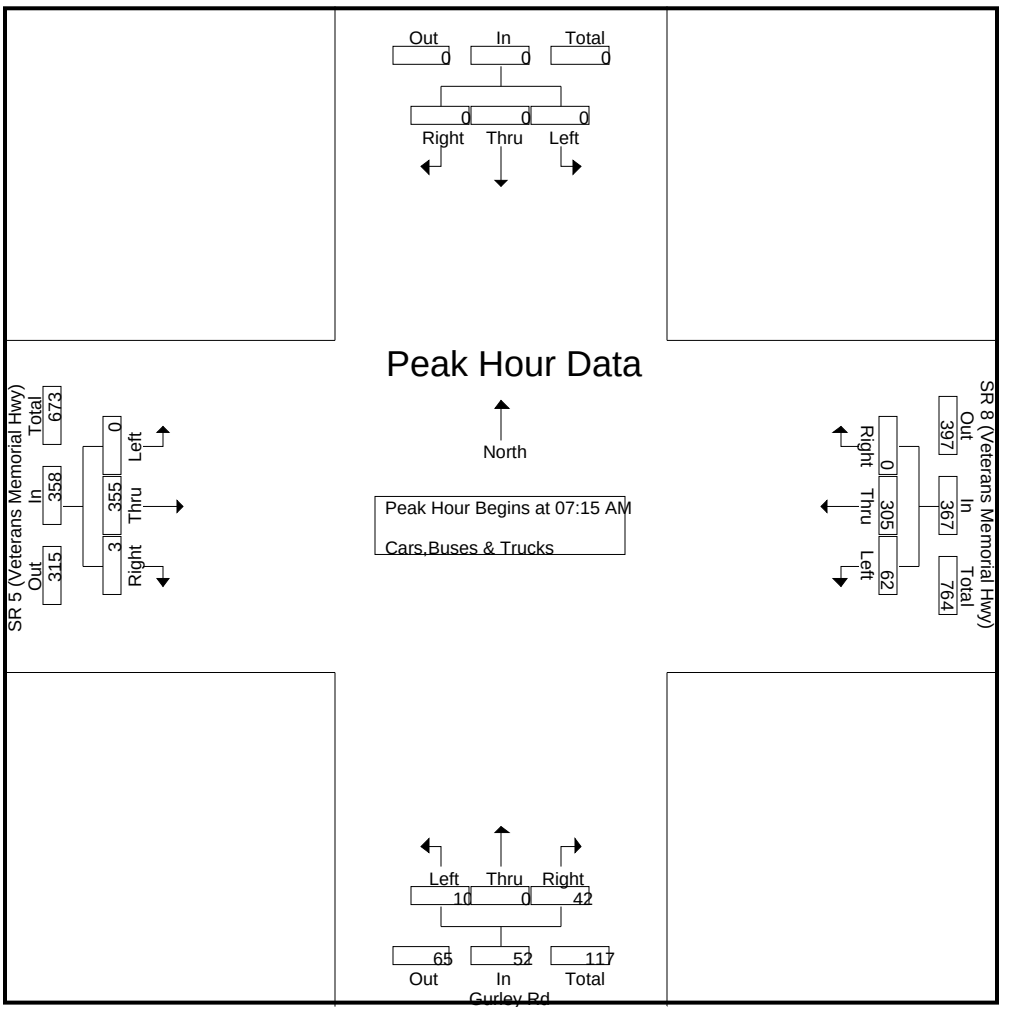
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Veterans Memorial Hwy) @ Gurley Rd
7-9 am | 4-6 pm

File Name : 20210419
Site Code : 20210419
Start Date : 12/3/2021
Page No : 2

	Gurley Rd Northbound				Southbound				SR 5 (Veterans Memorial Hwy) Eastbound				SR 8 (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 07:15 AM																	
07:15 AM	2	0	10	12	0	0	0	0	0	61	0	61	**19**	**89**	0	**108**	181
07:30 AM	**4**	0	**12**	**16**	0	0	0	0	0	91	**1**	92	15	83	0	98	206
07:45 AM	1	0	12	13	0	0	0	0	0	**109**	1	**110**	17	70	0	87	**210**
08:00 AM	3	0	8	11	0	0	0	0	0	94	1	95	11	63	0	74	180
Total Volume	10	0	42	52	0	0	0	0	0	355	3	358	62	305	0	367	777
% App. Total	19.2	0	80.8		0	0	0		0	99.2	0.8		16.9	83.1	0		
PHF	.625	.000	.875	.813	.000	.000	.000	.000	.000	.814	.750	.814	.816	.857	.000	.850	.925



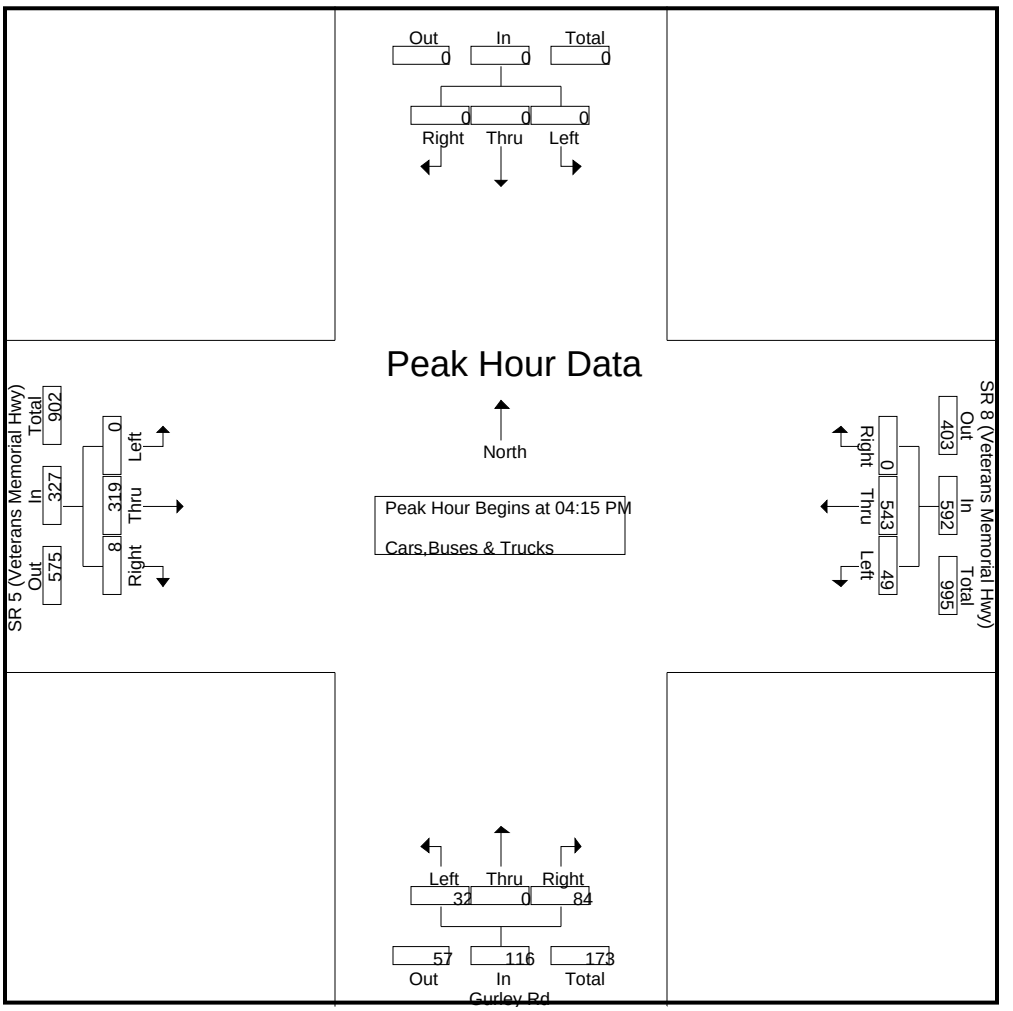
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Veterans Memorial Hwy) @ Gurley Rd
7-9 am | 4-6 pm

File Name : 20210419
Site Code : 20210419
Start Date : 12/3/2021
Page No : 3

	Gurley Rd Northbound				Southbound				SR 5 (Veterans Memorial Hwy) Eastbound				SR 8 (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 04:15 PM																	
04:15 PM	8	0	10	18	0	0	0	0	0	81	3	84	14	144	0	**158**	260
04:30 PM	5	0	**26**	31	0	0	0	0	0	74	**5**	79	9	132	0	141	251
04:45 PM	**10**	0	23	33	0	0	0	0	0	79	0	79	**16**	119	0	135	247
05:00 PM	9	0	25	**34**	0	0	0	0	0	**85**	0	**85**	10	**148**	0	158	**277**
Total Volume	32	0	84	116	0	0	0	0	0	319	8	327	49	543	0	592	1035
% App. Total	27.6	0	72.4		0	0	0		0	97.6	2.4		8.3	91.7	0		
PHF	.800	.000	.808	.853	.000	.000	.000	.000	.000	.938	.400	.962	.766	.917	.000	.937	.934



A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 5 (Bill Arp Rd) @ Gurley Rd
7-9 am | 4-6 pm

File Name : 20210417
Site Code : 20210417
Start Date : 12/3/2021
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Gurley Rd Northbound				Gurley Rd Southbound				SR 5 (Bill Arp Rd) Eastbound				SR 5 (Bill Arp Rd) 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	1	0	0	1	9	0	0	9	0	68	0	68	0	47	6	53	131
07:15 AM	0	0	1	1	11	0	0	11	2	87	0	89	2	66	14	82	183
07:30 AM	0	0	5	5	12	0	0	12	4	86	3	93	3	67	15	85	195
07:45 AM	1	0	1	2	11	0	0	11	2	101	1	104	1	74	16	91	208
Total	2	0	7	9	43	0	0	43	8	342	4	354	6	254	51	311	717
08:00 AM	2	0	1	3	6	0	0	6	2	95	1	98	2	62	12	76	183
08:15 AM	1	0	1	2	11	0	1	12	7	84	2	93	3	70	14	87	194
08:30 AM	0	0	2	2	6	0	3	9	0	107	1	108	0	63	16	79	198
08:45 AM	0	0	0	0	12	0	0	12	2	80	0	82	0	59	13	72	166
Total	3	0	4	7	35	0	4	39	11	366	4	381	5	254	55	314	741
*** BREAK ***																	
04:00 PM	0	0	1	1	17	0	1	18	2	81	2	85	1	123	20	144	248
04:15 PM	1	0	1	2	15	0	4	19	3	75	0	78	3	111	19	133	232
04:30 PM	1	0	5	6	13	0	5	18	4	91	0	95	1	103	22	126	245
04:45 PM	0	0	1	1	16	0	2	18	10	99	1	110	0	105	21	126	255
Total	2	0	8	10	61	0	12	73	19	346	3	368	5	442	82	529	980
05:00 PM	1	0	2	3	17	0	1	18	4	87	1	92	0	103	31	134	247
05:15 PM	1	0	1	2	30	0	1	31	1	74	0	75	1	126	36	163	271
05:30 PM	1	0	1	2	29	0	3	32	5	71	2	78	1	128	25	154	266
05:45 PM	1	0	0	1	17	0	8	25	9	78	0	87	1	121	21	143	256
Total	4	0	4	8	93	0	13	106	19	310	3	332	3	478	113	594	1040
Grand Total	11	0	23	34	232	0	29	261	57	1364	14	1435	19	1428	301	1748	3478
Apprch %	32.4	0	67.6		88.9	0	11.1		4	95.1	1		1.1	81.7	17.2		
Total %	0.3	0	0.7	1	6.7	0	0.8	7.5	1.6	39.2	0.4	41.3	0.5	41.1	8.7	50.3	

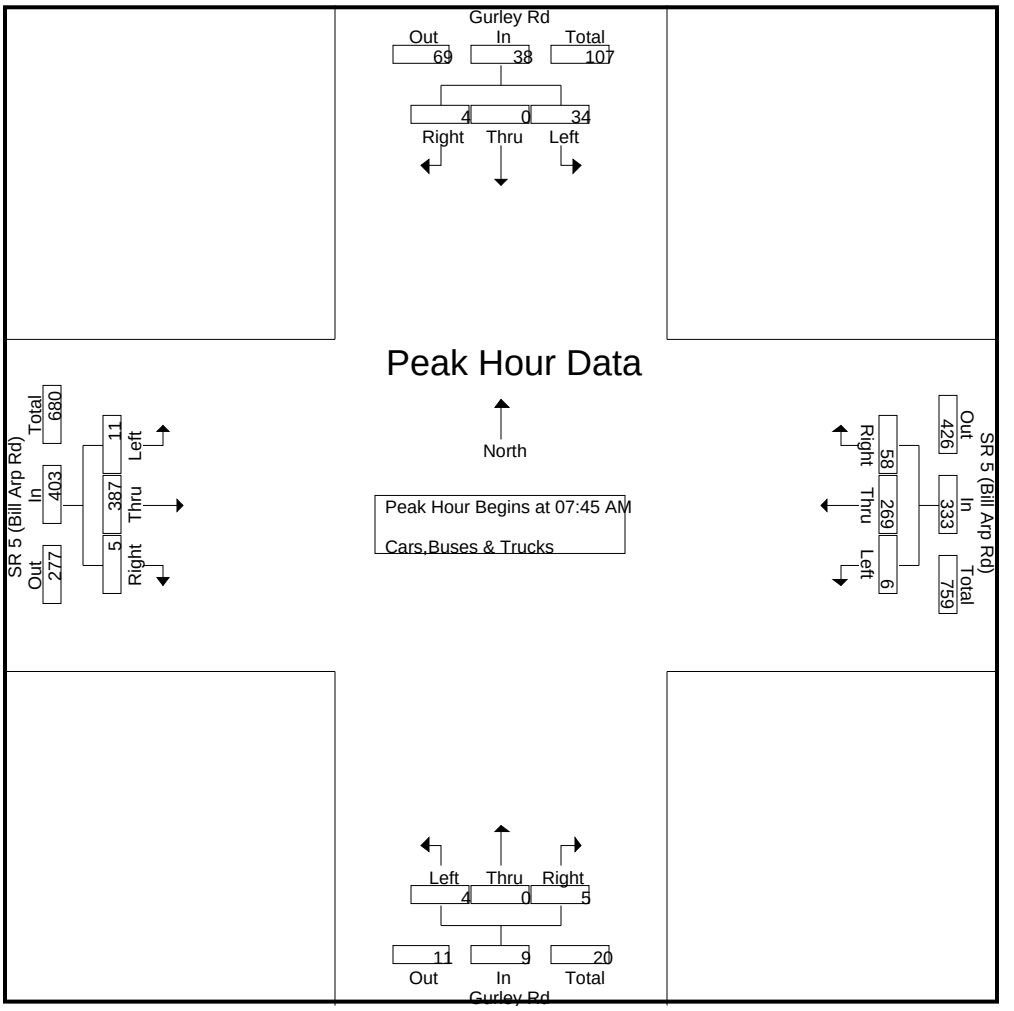
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 5 (Bill Arp Rd) @ Gurley Rd
7-9 am | 4-6 pm

File Name : 20210417
Site Code : 20210417
Start Date : 12/3/2021
Page No : 2

	Gurley Rd Northbound				Gurley Rd Southbound				SR 5 (Bill Arp Rd) Eastbound				SR 5 (Bill Arp Rd) 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	1	0	1	2	**11**	0	0	11	2	101	1	104	1	**74**	**16**	**91**	**208**
08:00 AM	**2**	0	1	**3**	6	0	0	6	2	95	1	98	2	62	12	76	183
08:15 AM	1	0	1	2	11	0	1	**12**	**7**	84	**2**	93	**3**	70	14	87	194
08:30 AM	0	0	**2**	2	6	0	**3**	9	0	**107**	1	**108**	0	63	16	79	198
Total Volume	4	0	5	9	34	0	4	38	11	387	5	403	6	269	58	333	783
% App. Total	44.4	0	55.6		89.5	0	10.5		2.7	96	1.2		1.8	80.8	17.4		
PHF	.500	.000	.625	.750	.773	.000	.333	.792	.393	.904	.625	.933	.500	.909	.906	.915	.941



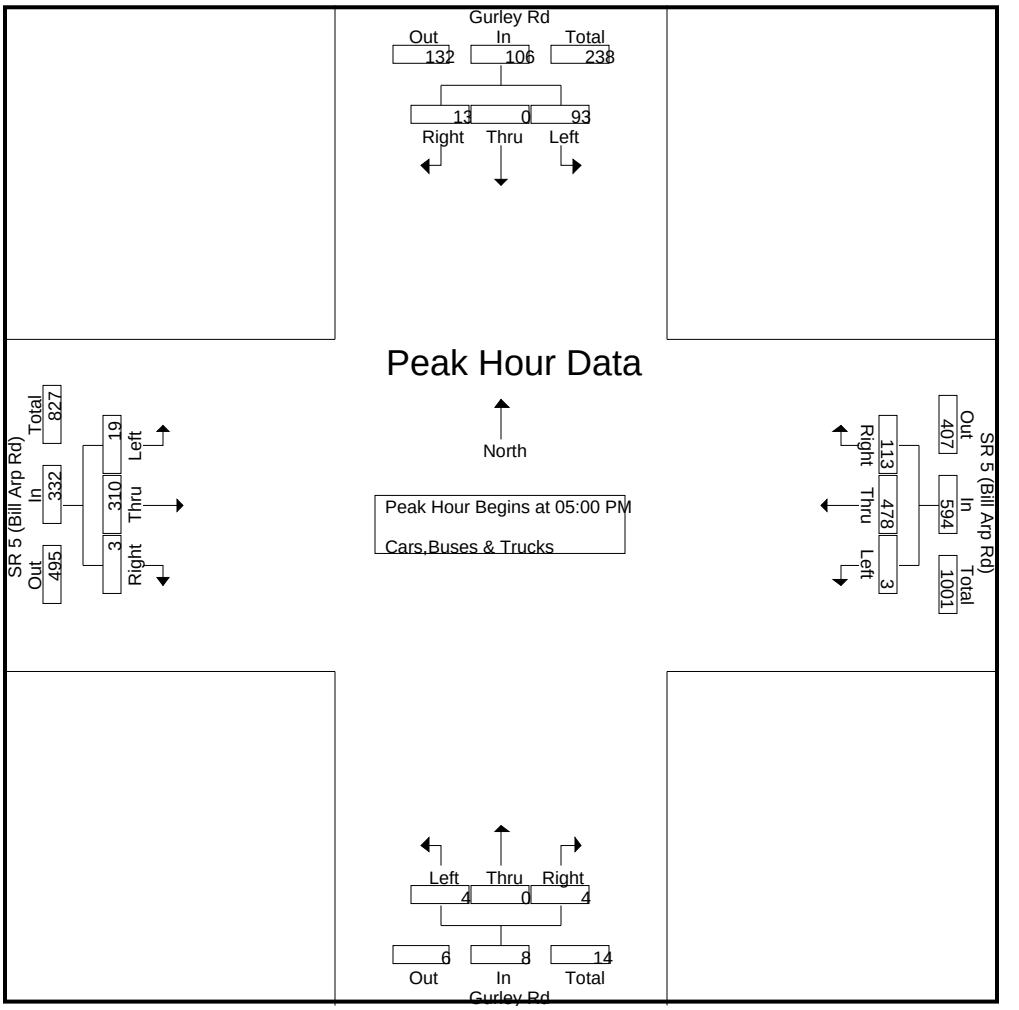
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 5 (Bill Arp Rd) @ Gurley Rd
7-9 am | 4-6 pm

File Name : 20210417
Site Code : 20210417
Start Date : 12/3/2021
Page No : 3

	Gurley Rd Northbound				Gurley Rd Southbound				SR 5 (Bill Arp Rd) Eastbound				SR 5 (Bill Arp Rd) 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	**1**	0	**2**	**3**	17	0	1	18	4	**87**	1	**92**	0	103	31	134	247
05:15 PM	1	0	1	2	**30**	0	1	31	1	74	0	75	**1**	126	**36**	**163**	**271**
05:30 PM	1	0	1	2	29	0	3	**32**	5	71	**2**	78	1	**128**	25	154	266
05:45 PM	1	0	0	1	17	0	**8**	25	**9**	78	0	87	1	121	21	143	256
Total Volume	4	0	4	8	93	0	13	106	19	310	3	332	3	478	113	594	1040
% App. Total	50	0	50		87.7	0	12.3		5.7	93.4	0.9		0.5	80.5	19		
PHF	1.00	.000	.500	.667	.775	.000	.406	.828	.528	.891	.375	.902	.750	.934	.785	.911	.959



A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 5 (Bill Arp Rd) @ Rocky Ridge Blvd - Arbor Vista Dr
7-9 am | 4-6 pm

File Name : 20210418
Site Code : 20210418
Start Date : 12/3/2021
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Rocky Ridge Blvd Northbound				Arbor Vista Dr Southbound				SR 5 (Bill Arp Rd) Eastbound				SR 5 (Bill Arp Rd) 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	0	18	23	15	1	2	18	0	76	1	77	6	46	6	58	176
07:15 AM	2	0	14	16	13	2	6	21	0	98	1	99	3	74	10	87	223
07:30 AM	2	0	15	17	12	0	5	17	4	98	1	103	8	78	8	94	231
07:45 AM	3	0	16	19	8	0	1	9	1	111	1	113	7	87	6	100	241
Total	12	0	63	75	48	3	14	65	5	383	4	392	24	285	30	339	871
08:00 AM	0	0	16	16	7	1	1	9	1	99	2	102	6	75	8	89	216
08:15 AM	1	0	14	15	11	0	1	12	0	94	2	96	9	85	9	103	226
08:30 AM	4	0	9	13	11	0	3	14	1	113	1	115	18	72	9	99	241
08:45 AM	1	0	12	13	7	0	1	8	3	88	1	92	13	70	4	87	200
Total	6	0	51	57	36	1	6	43	5	394	6	405	46	302	30	378	883
*** BREAK ***																	
04:00 PM	9	2	24	35	8	0	1	9	0	89	10	99	27	134	10	171	314
04:15 PM	12	0	23	35	15	1	1	17	5	75	11	91	25	120	12	157	300
04:30 PM	10	0	19	29	5	1	3	9	0	100	9	109	34	113	9	156	303
04:45 PM	12	1	17	30	10	2	1	13	1	104	11	116	32	113	12	157	316
Total	43	3	83	129	38	4	6	48	6	368	41	415	118	480	43	641	1233
05:00 PM	22	0	15	37	14	1	2	17	2	92	12	106	31	110	15	156	316
05:15 PM	11	0	25	36	5	1	4	10	1	98	6	105	30	148	20	198	349
05:30 PM	10	1	26	37	9	1	1	11	4	91	6	101	37	143	15	195	344
05:45 PM	9	0	22	31	6	3	2	11	3	87	5	95	30	132	10	172	309
Total	52	1	88	141	34	6	9	49	10	368	29	407	128	533	60	721	1318
Grand Total	113	4	285	402	156	14	35	205	26	1513	80	1619	316	1600	163	2079	4305
Apprch %	28.1	1	70.9		76.1	6.8	17.1		1.6	93.5	4.9		15.2	77	7.8		
Total %	2.6	0.1	6.6	9.3	3.6	0.3	0.8	4.8	0.6	35.1	1.9	37.6	7.3	37.2	3.8	48.3	

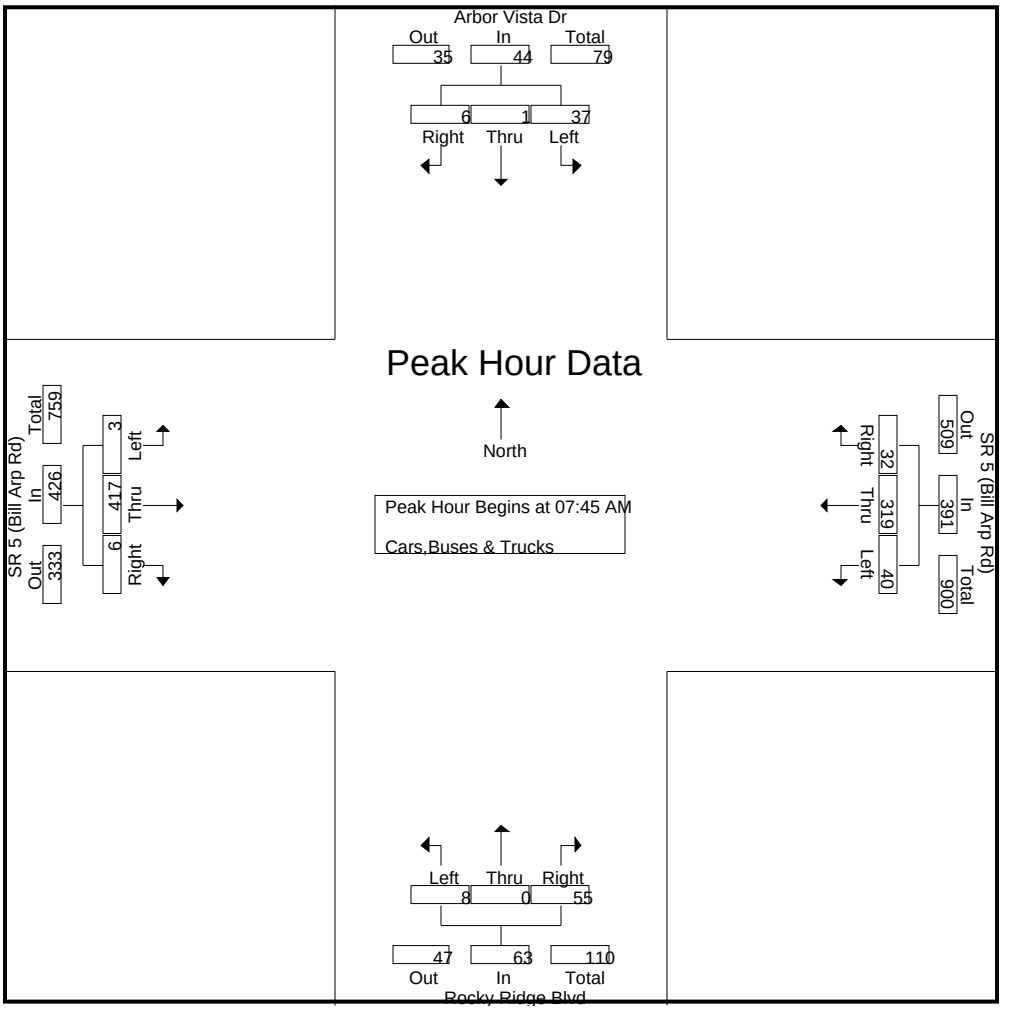
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 5 (Bill Arp Rd) @ Rocky Ridge Blvd - Arbor Vista Dr
7-9 am | 4-6 pm

File Name : 20210418
Site Code : 20210418
Start Date : 12/3/2021
Page No : 2

	Rocky Ridge Blvd Northbound				Arbor Vista Dr Southbound				SR 5 (Bill Arp Rd) Eastbound				SR 5 (Bill Arp Rd) 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	3	0	**16**	**19**	8	0	1	9	**1**	111	1	113	7	**87**	6	100	**241**
08:00 AM	0	0	16	16	7	**1**	1	9	1	99	**2**	102	6	75	8	89	216
08:15 AM	1	0	14	15	**11**	0	1	12	0	94	2	96	9	85	**9**	**103**	226
08:30 AM	**4**	0	9	13	11	0	**3**	**14**	1	**113**	1	**115**	**18**	72	9	99	241
Total Volume	8	0	55	63	37	1	6	44	3	417	6	426	40	319	32	391	924
% App. Total	12.7	0	87.3		84.1	2.3	13.6		0.7	97.9	1.4		10.2	81.6	8.2		
PHF	.500	.000	.859	.829	.841	.250	.500	.786	.750	.923	.750	.926	.556	.917	.889	.949	.959



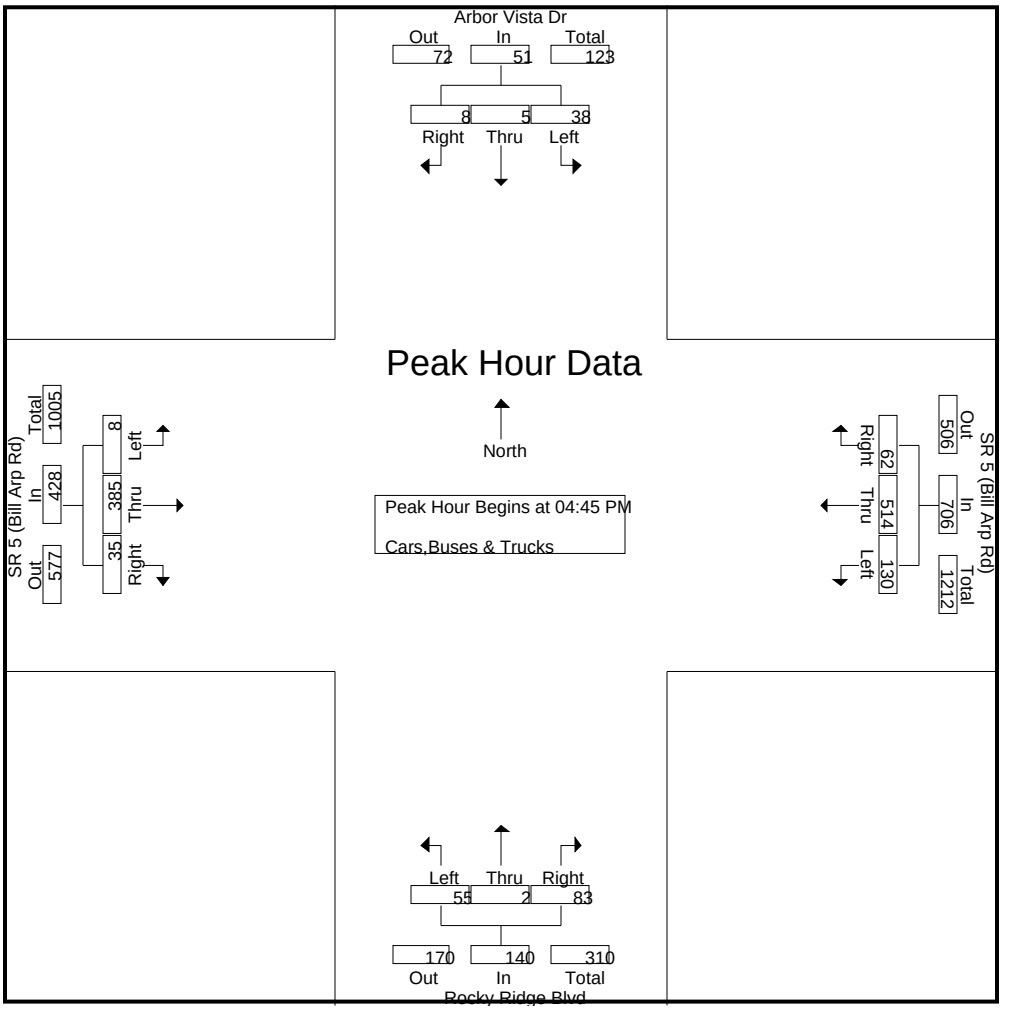
A & R Engineering, Inc.

2160 Kingston Court, Suite 'O'
Marietta, GA 30067

TMC DATA
SR 5 (Bill Arp Rd) @ Rocky Ridge Blvd - Arbor Vista Dr
7-9 am | 4-6 pm

File Name : 20210418
Site Code : 20210418
Start Date : 12/3/2021
Page No : 3

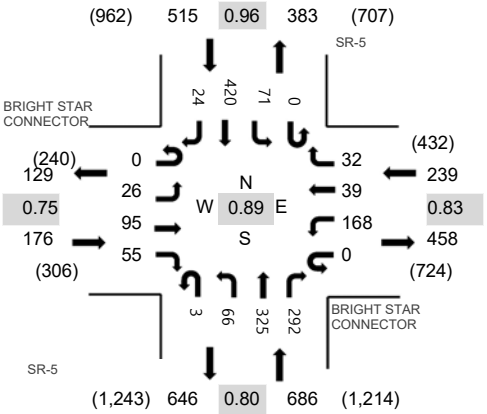
	Rocky Ridge Blvd Northbound				Arbor Vista Dr Southbound				SR 5 (Bill Arp Rd) Eastbound				SR 5 (Bill Arp Rd) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	12	**1**	17	30	10	**2**	1	13	1	**104**	11	**116**	32	113	12	157	316
05:00 PM	**22**	0	15	**37**	**14**	1	2	**17**	2	92	**12**	106	31	110	15	156	316
05:15 PM	11	0	25	36	5	1	**4**	10	1	98	6	105	30	**148**	**20**	**198**	**349**
05:30 PM	10	1	**26**	37	9	1	1	11	**4**	91	6	101	**37**	143	15	195	344
Total Volume	55	2	83	140	38	5	8	51	8	385	35	428	130	514	62	706	1325
% App. Total	39.3	1.4	59.3		74.5	9.8	15.7		1.9	90	8.2		18.4	72.8	8.8		
PHF	.625	.500	.798	.946	.679	.625	.500	.750	.500	.925	.729	.922	.878	.868	.775	.891	.949



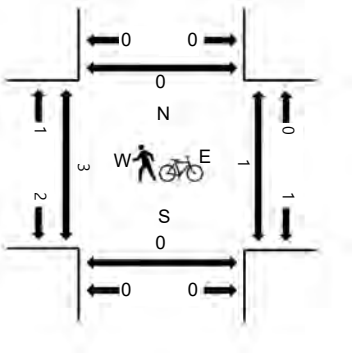
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #15 SR-5 & BRIGHT STAR CONNECTOR AM
Date: Tuesday, September 28, 2021
Peak Hour: 07:30 AM - 08:30 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BRIGHT STAR Eastbound				BRIGHT STAR Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	3	7	11	0	26	8	4	0	10	61	40	0	11	92	5	278	1,476	0	0	0	0
7:15 AM	0	7	16	27	0	35	9	8	0	22	66	45	0	6	116	6	363	1,608	2	1	0	0
7:30 AM	0	9	19	14	0	35	3	5	1	28	77	59	0	17	105	8	380	1,616	0	0	0	0
7:45 AM	0	9	42	15	0	31	12	6	0	18	99	97	0	23	98	5	455	1,591	1	0	0	0
8:00 AM	0	3	20	17	0	51	11	15	1	13	67	76	0	20	107	9	410	1,438	0	0	0	0
8:15 AM	0	5	14	9	0	51	13	6	1	7	82	60	0	11	110	2	371		2	1	0	0
8:30 AM	0	5	11	17	0	42	12	5	0	10	85	58	0	7	100	3	355		0	0	0	0
8:45 AM	0	0	12	14	0	27	9	8	1	14	72	44	0	9	89	3	302		0	0	0	0

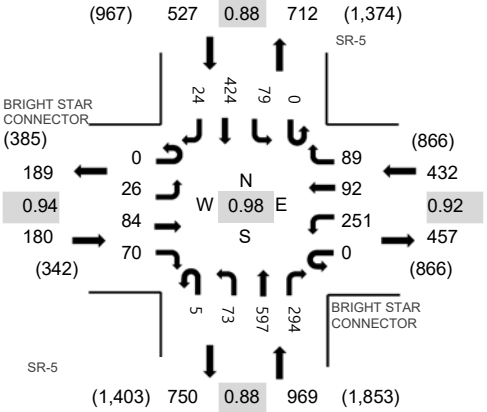
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	7	0	0	2	0	0	0	12	0	0	0	11	0	32
Lights	0	26	93	35	0	164	37	30	3	61	279	286	0	65	383	24	1,486
Mediums	0	0	2	13	0	4	0	2	0	5	34	6	0	6	26	0	98
Total	0	26	95	55	0	168	39	32	3	66	325	292	0	71	420	24	1,616

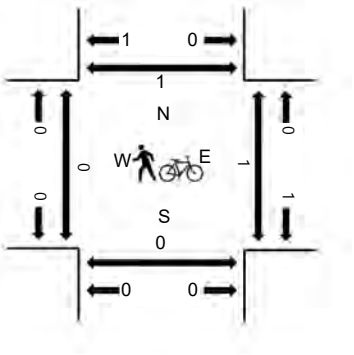
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #15 SR-5 & BRIGHT STAR CONNECTOR PM
Date: Tuesday, September 28, 2021
Peak Hour: 05:00 PM - 06:00 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	BRIGHT STAR Eastbound				BRIGHT STAR Westbound				SR-5 Northbound				SR-5 Southbound				Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	5	19	22	0	64	29	30	0	19	122	72	0	15	83	8	488	1,920	0	0	0	0
4:15 PM	1	4	20	9	0	62	14	21	0	20	131	64	0	22	95	8	471	1,965	0	0	0	0
4:30 PM	0	8	22	14	0	59	20	23	3	19	126	65	0	10	79	7	455	2,034	0	0	0	0
4:45 PM	0	13	12	13	0	54	29	29	3	16	150	74	0	14	93	6	506	2,087	1	0	0	0
5:00 PM	0	5	14	20	0	56	30	20	1	20	135	88	0	17	120	7	533	2,108	0	0	0	0
5:15 PM	0	8	26	13	0	83	12	24	0	16	193	71	0	14	80	0	540		0	1	0	0
5:30 PM	0	7	26	15	0	53	22	23	1	17	131	63	0	28	113	9	508		0	0	0	0
5:45 PM	0	6	18	22	0	59	28	22	3	20	138	72	0	20	111	8	527		0	0	0	1

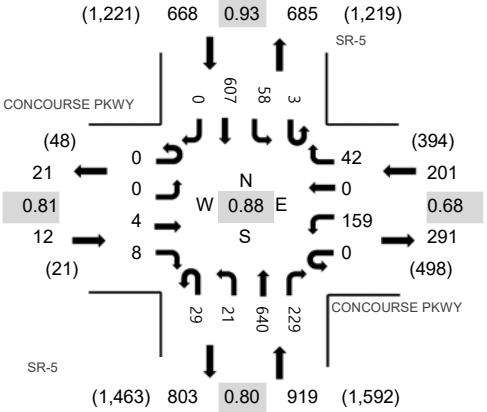
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	0	0	0	5	5	0	0	0	5	0	16
Lights	0	25	83	69	0	250	92	89	5	59	578	290	0	75	404	23	2,042
Mediums	0	1	1	0	0	1	0	0	0	9	14	4	0	4	15	1	50
Total	0	26	84	70	0	251	92	89	5	73	597	294	0	79	424	24	2,108

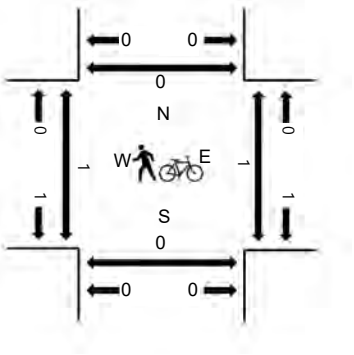
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #14 SR-5 & CONCOURSE PKWY AM
Date: Tuesday, September 28, 2021
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CONCOURSE PKWY Eastbound				CONCOURSE PKWY Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	40	0	4	6	2	108	20	0	17	112	0	309	1,515	0	0	0	0
7:15 AM	0	0	1	1	0	24	0	7	3	3	126	31	0	14	159	1	370	1,629	2	1	0	0
7:30 AM	0	1	0	2	0	9	2	16	2	10	135	24	9	8	103	1	322	1,694	0	0	0	0
7:45 AM	0	0	1	2	0	32	0	12	7	7	215	59	2	16	161	0	514	1,800	1	1	0	0
8:00 AM	0	0	0	3	0	43	0	9	11	2	143	50	0	15	147	0	423	1,713	0	0	0	0
8:15 AM	0	0	2	1	0	34	0	8	2	4	149	66	1	17	151	0	435		0	0	0	0
8:30 AM	0	0	1	2	0	50	0	13	9	8	133	54	0	10	148	0	428		0	0	0	0
8:45 AM	0	1	1	2	0	78	0	13	5	8	114	76	0	15	114	0	427		0	0	0	0

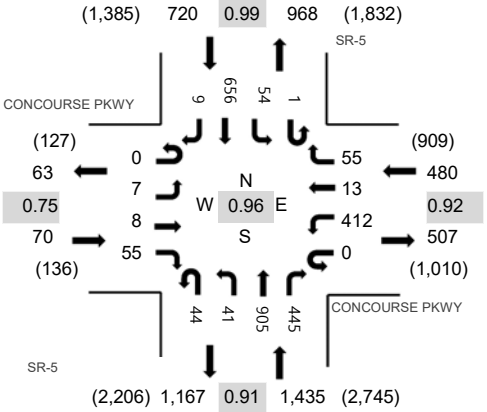
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	4	0	0	0	0	11	1	0	1	14	0	31
Lights	0	0	4	8	0	148	0	37	29	20	587	218	3	51	562	0	1,667
Mediums	0	0	0	0	0	7	0	5	0	1	42	10	0	6	31	0	102
Total	0	0	4	8	0	159	0	42	29	21	640	229	3	58	607	0	1,800

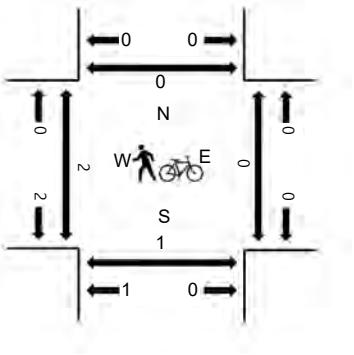
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #14 SR-5 & CONCOURSE PKWY PM
Date: Tuesday, September 28, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	CONCOURSE PKWY Eastbound				CONCOURSE PKWY Westbound				SR-5 Northbound				SR-5 Southbound				Rolling Hour		Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	4	0	14	0	105	2	16	13	11	187	100	0	11	151	1	615	2,518	0	1	0	0
4:15 PM	0	4	8	12	0	74	4	8	9	11	197	107	0	15	165	0	614	2,581	0	0	0	0
4:30 PM	0	2	2	7	0	94	6	15	14	12	194	118	0	10	127	1	602	2,670	0	0	0	0
4:45 PM	0	2	2	13	0	104	10	12	10	11	233	116	1	14	156	3	687	2,705	0	0	1	0
5:00 PM	0	4	3	13	0	112	1	18	9	8	218	108	0	18	164	2	678	2,657	0	0	0	0
5:15 PM	0	1	2	12	0	94	1	11	13	14	264	110	0	9	170	2	703		0	0	0	0
5:30 PM	0	0	1	17	0	102	1	14	12	8	190	111	0	13	166	2	637		2	0	0	0
5:45 PM	0	0	6	7	0	83	3	19	4	8	218	107	0	19	160	5	639		0	0	0	0

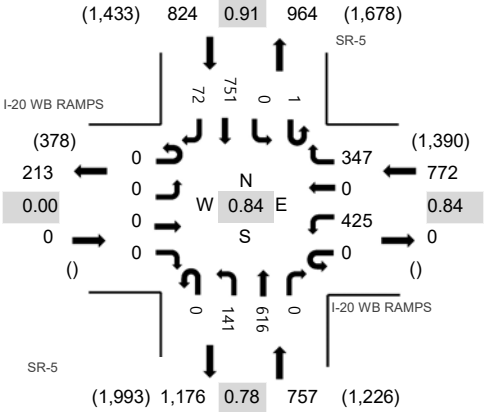
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	8	0	0	0	6	0	14
Lights	0	7	8	55	0	404	13	54	43	41	870	442	1	53	635	9	2,635
Mediums	0	0	0	0	0	8	0	1	1	0	27	3	0	1	15	0	56
Total	0	7	8	55	0	412	13	55	44	41	905	445	1	54	656	9	2,705

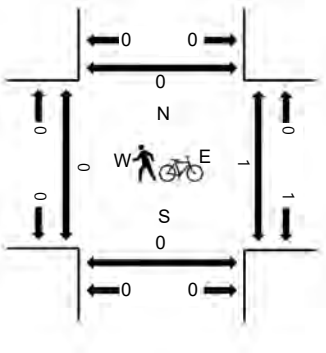
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #13 SR-5 & I-20 WB RAMPS AM
Date: Tuesday, September 28, 2021
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	I-20 WB RAMPS Eastbound				I-20 WB RAMPS Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	0	0	0	0	57	0	57	3	17	80	0	0	0	144	13	371	1,847	0	0	0	0
7:15 AM	0	0	0	0	0	71	0	70	0	40	113	0	0	0	160	19	473	2,034	1	0	0	0
7:30 AM	0	0	0	0	0	28	3	111	0	10	62	0	2	0	63	24	303	2,099	1	0	0	0
7:45 AM	0	0	0	0	0	133	0	98	0	40	202	0	0	0	208	19	700	2,353	0	0	0	0
8:00 AM	0	0	0	0	0	116	0	85	0	28	141	0	0	0	175	13	558	2,202	0	1	0	0
8:15 AM	0	0	0	0	0	81	0	79	0	36	148	0	1	0	174	19	538		0	0	0	0
8:30 AM	0	0	0	0	0	95	0	85	0	37	125	0	0	0	194	21	557		0	0	0	0
8:45 AM	0	0	0	0	0	119	0	102	1	26	117	0	0	0	171	13	549		1	1	0	0

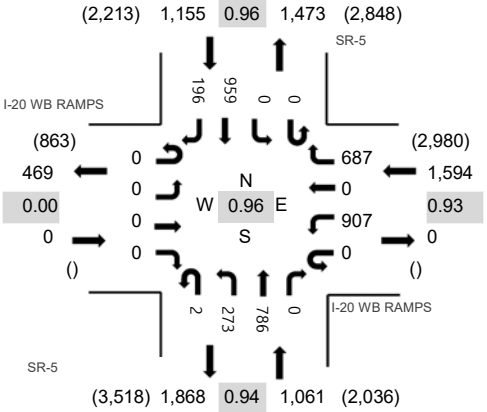
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	9	0	9	0	4	4	0	0	0	15	6	47
Lights	0	0	0	0	0	408	0	305	0	132	593	0	1	0	693	64	2,196
Mediums	0	0	0	0	0	8	0	33	0	5	19	0	0	0	43	2	110
Total	0	0	0	0	0	425	0	347	0	141	616	0	1	0	751	72	2,353

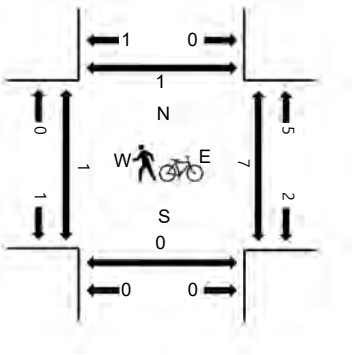
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #13 SR-5 & I-20 WB RAMPS PM
Date: Tuesday, September 28, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	I-20 WB RAMPS Eastbound				I-20 WB RAMPS Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	0	0	0	0	215	0	159	0	54	170	0	0	0	237	49	884	3,533	0	1	0	0
4:15 PM	0	0	0	0	0	219	0	158	0	59	187	0	0	0	229	38	890	3,609	0	2	0	0
4:30 PM	0	0	0	0	0	188	0	164	0	50	198	0	0	0	202	41	843	3,712	1	1	0	0
4:45 PM	0	0	0	0	0	206	0	175	0	71	188	0	0	0	238	38	916	3,810	0	3	0	0
5:00 PM	0	0	0	0	0	235	0	173	1	53	198	0	0	0	257	43	960	3,696	0	1	0	0
5:15 PM	0	0	0	0	0	241	0	189	1	71	211	0	0	0	221	59	993		1	1	0	0
5:30 PM	0	0	0	0	0	225	0	150	0	78	189	0	0	0	243	56	941		0	2	0	1
5:45 PM	0	0	0	0	0	138	0	145	0	63	194	0	0	0	222	40	802		2	1	0	1

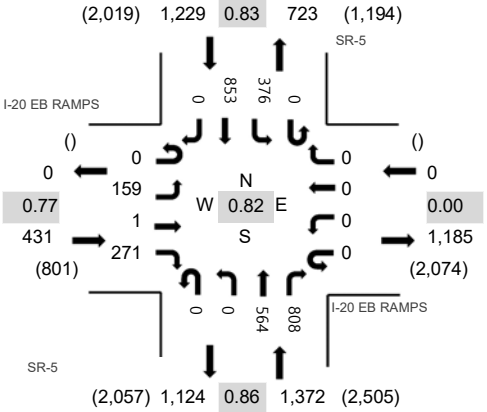
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	2	0	8	0	2	1	0	0	0	6	0	19
Lights	0	0	0	0	0	893	0	663	2	268	775	0	0	0	931	194	3,726
Mediums	0	0	0	0	0	12	0	16	0	3	10	0	0	0	22	2	65
Total	0	0	0	0	0	907	0	687	2	273	786	0	0	0	959	196	3,810

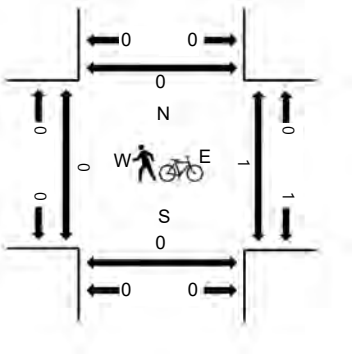
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #12 SR-5 & I-20 EB RAMPS AM
Date: Tuesday, September 28, 2021
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	I-20 EB RAMPS Eastbound				I-20 EB RAMPS Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	25	0	40	0	0	0	0	1	0	86	194	0	12	189	0	547	2,556	0	4	0	0
7:15 AM	0	36	0	50	0	0	0	0	0	0	117	228	0	1	238	0	670	2,746	2	4	0	2
7:30 AM	0	41	0	74	0	0	0	0	0	0	29	216	0	3	54	0	417	2,749	0	0	0	0
7:45 AM	0	59	0	92	0	0	0	0	0	0	167	233	0	111	260	0	922	3,032	0	0	0	0
8:00 AM	0	43	1	60	0	0	0	0	0	0	122	211	0	93	207	0	737	2,769	0	1	0	0
8:15 AM	0	35	0	60	0	0	0	0	0	0	135	179	0	92	172	0	673		0	0	0	0
8:30 AM	0	22	0	59	0	0	0	0	0	0	140	185	0	80	214	0	700		0	0	0	0
8:45 AM	0	29	0	75	0	0	0	0	0	0	108	154	0	81	212	0	659		1	1	0	0

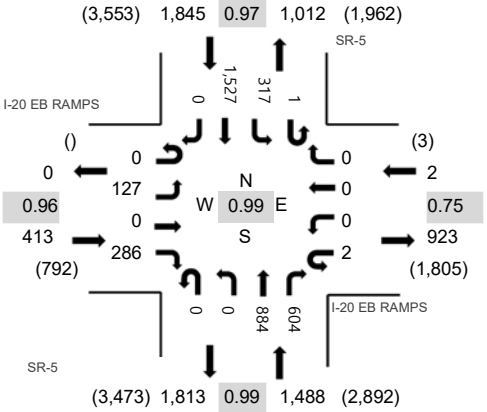
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	3	0	2	0	0	0	0	0	0	5	5	0	13	10	0	38
Lights	0	152	1	265	0	0	0	0	0	0	544	788	0	333	815	0	2,898
Mediums	0	4	0	4	0	0	0	0	0	0	15	15	0	30	28	0	96
Total	0	159	1	271	0	0	0	0	0	0	564	808	0	376	853	0	3,032

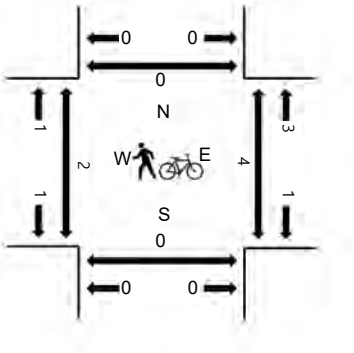
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #12 SR-5 & I-20 EB RAMPS PM
Date: Tuesday, September 28, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	I-20 EB RAMPS Eastbound				I-20 EB RAMPS Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	17	0	54	0	0	0	0	0	0	177	145	0	87	356	0	836	3,528	0	1	0	0
4:15 PM	0	18	0	68	0	0	0	0	0	0	216	152	0	81	372	0	907	3,641	0	0	0	0
4:30 PM	0	37	1	74	0	0	0	0	0	0	217	154	0	76	294	0	853	3,670	0	1	1	0
4:45 PM	0	34	0	68	0	0	0	0	0	0	209	169	1	81	370	0	932	3,748	0	2	0	0
5:00 PM	0	30	0	79	1	0	0	0	0	0	226	151	0	83	379	0	949	3,712	0	0	0	0
5:15 PM	0	32	0	60	0	0	0	0	0	0	233	137	0	71	403	0	936		1	1	0	0
5:30 PM	0	31	0	79	1	0	0	0	0	0	216	147	0	82	375	0	931		1	1	0	0
5:45 PM	0	37	0	73	1	0	0	0	0	0	231	112	0	73	369	0	896		0	0	0	0

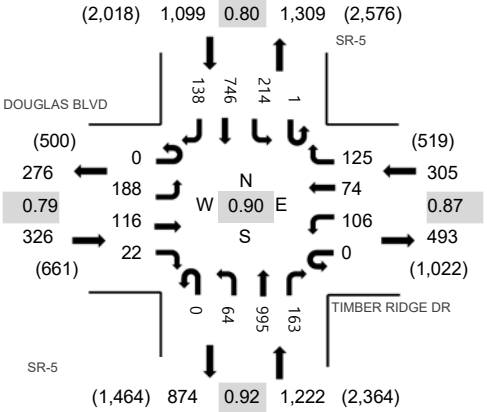
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	3	1	0	4	6	0	14
Lights	0	126	0	279	2	0	0	0	0	0	868	589	1	296	1,503	0	3,664
Mediums	0	1	0	7	0	0	0	0	0	0	13	14	0	17	18	0	70
Total	0	127	0	286	2	0	0	0	0	0	884	604	1	317	1,527	0	3,748

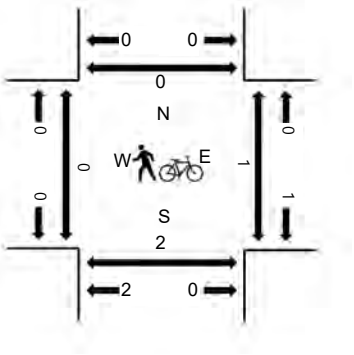
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #11 SR-5 & DOUGLAS BLVD/TIMBER RIDGE DR AM
Date: Tuesday, September 28, 2021
Peak Hour: 07:45 AM - 08:45 AM
Peak 15-Minutes: 07:45 AM - 08:00 AM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DOUGLAS BLVD Eastbound				TIMBER RIDGE DR Westbound				SR-5 Northbound				SR-5 Southbound					Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
7:00 AM	0	45	22	2	0	14	13	6	0	5	202	28	23	77	106	14	557	2,619	0	0	0	0
7:15 AM	0	50	22	4	0	24	12	17	1	12	255	44	22	84	124	25	696	2,767	0	0	0	0
7:30 AM	0	48	30	7	0	19	11	24	0	22	200	29	9	57	78	11	545	2,789	0	0	0	0
7:45 AM	0	57	37	4	0	34	19	25	0	20	249	34	1	62	243	36	821	2,952	0	0	0	0
8:00 AM	0	40	23	6	0	16	15	30	0	8	267	45	0	37	182	36	705	2,943	0	1	1	0
8:15 AM	0	46	28	7	0	25	14	39	0	13	257	41	0	60	157	31	718		0	0	0	0
8:30 AM	0	45	28	5	0	31	26	31	0	23	222	43	0	55	164	35	708		0	0	1	0
8:45 AM	0	53	41	11	0	24	16	34	0	23	279	42	0	53	176	60	812		0	0	0	0

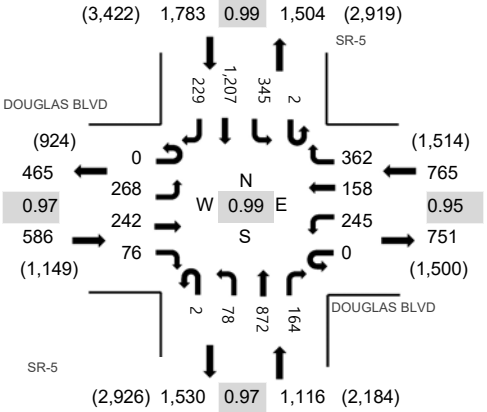
Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	1	0	0	0	0	0	3	0	0	5	0	0	3	8	1	21
Lights	0	186	116	22	0	105	71	117	0	64	967	162	1	206	715	135	2,867
Mediums	0	1	0	0	0	1	3	5	0	0	23	1	0	5	23	2	64
Total	0	188	116	22	0	106	74	125	0	64	995	163	1	214	746	138	2,952

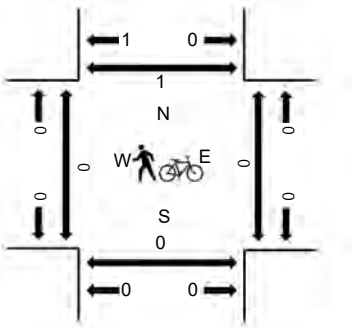
ALL TRAFFIC DATA SERVICES
(303) 216-2439
www.alltrafficdata.net

Location: #11 SR-5 & DOUGLAS BLVD PM
Date: Tuesday, September 28, 2021
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:00 PM - 05:15 PM

Peak Hour - Motorized Vehicles



Peak Hour - Pedestrians/Bicycles in Crosswalk



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	DOUGLAS BLVD Eastbound				DOUGLAS BLVD Westbound				SR-5 Northbound				SR-5 Southbound				Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	Total		West	East	South	North
4:00 PM	0	60	62	18	0	64	59	72	1	18	198	50	1	71	267	58	999	4,086	0	2	0	0
4:15 PM	0	72	58	19	0	57	44	95	0	20	203	53	2	101	268	62	1,054	4,158	0	0	0	0
4:30 PM	0	70	45	21	0	60	34	77	0	16	216	49	0	81	260	44	973	4,165	0	2	0	0
4:45 PM	0	68	64	19	0	54	44	82	0	21	227	47	1	90	289	54	1,060	4,250	0	0	0	0
5:00 PM	0	69	55	17	0	59	39	94	0	18	233	36	1	83	303	64	1,071	4,183	0	0	0	0
5:15 PM	0	63	65	22	0	66	39	99	2	19	201	38	0	78	305	64	1,061		0	0	0	0
5:30 PM	0	68	58	18	0	66	36	87	0	20	211	43	0	94	310	47	1,058		0	0	0	0
5:45 PM	0	64	58	16	0	61	35	91	0	14	194	36	0	85	284	55	993		0	0	2	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	3	0	0	0	1	3	8
Lights	0	264	241	76	0	245	154	356	2	77	856	164	2	340	1,195	221	4,193
Mediums	0	4	1	0	0	0	4	5	0	1	13	0	0	5	11	5	49
Total	0	268	242	76	0	245	158	362	2	78	872	164	2	345	1,207	229	4,250

GRTA Letter of Understanding

LETTER OF UNDERSTANDING

December 16, 2021

Kirk Nicholson
Douglas County Schools System
11490 Veterans Memorial Highway,
City of Douglasville, GA 30134

RE: **Douglas County Graduation, Multipurpose Arena** (**DRI#: 3523)**

Dear Mr. Nicholson:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on November 29, 2021 regarding **Douglas County Graduation, Multipurpose Arena** 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 east of SR 5 (Bill Arp Rd) and south of Hunter Memorial Park.
- The proposed development includes a 7,362-seat arena.
- The projected build-out is one phase to be completed by 2023.
- The proposed development includes (3) site accesses:
  (1) Full access driveway on SR 5 (Bill Arp Road), south of Gurley Road
  (2) Exit only driveway on Gurley Road, east of SR 5 (Bill Arp Road)
  (3) Full access driveway on SR 5 (Bill Arp Road).
- The DRI trigger for this development is a Preliminary Site Plan Submission for Land Disturbance Permit (LDP) (arena, more than 6,000 seating capacity).
- The vehicular trip generation is estimated to be 10,037 trips net daily trips based on the *ITE Trip Generation Manual 11th edition.*
- The applicant is applying for approval under GRTA's non-expedited review process.

STUDY NETWORK

1. SR 8/US 78 (Veterans Memorial Highway) @ Cedar Mountain Road
2. SR 8/US 78 (Veterans Memorial Highway) @ Gurley Road
3. SR 5 (Bill Arp Road) @ Gurley Road
4. SR 5 (Bill Arp Road) @ Rocky Ridge Boulevard / Arbor Vista Drive
5. SR 5 (Bill Arp Road) @ Bright Star Connector / Rose Avenue
6. SR 5 (Bill Arp Road) @ I-20 Westbound Ramp
7. SR 5 (Bill Arp Road) @ I-20 Eastbound Ramp
8. SR 5 (Bill Arp Road) @ Douglas Boulevard
9. SR 5 (Bill Arp Road) @ Concourse Pkwy

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 2023.

- 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. An Alternative Mode Reduction of 2% shall be included for the Project.

- 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 1.0% 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.

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,

Julia Billings, AICP
Senior Planner

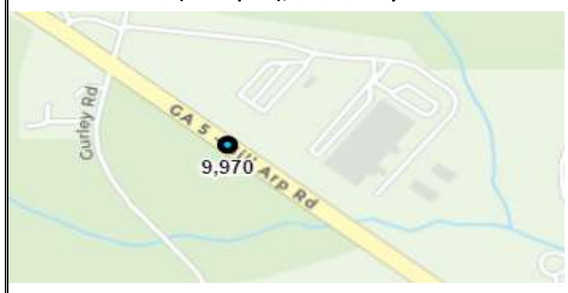
Cc:

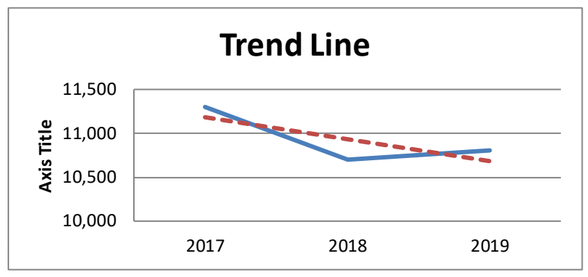
Jon West, DCA
Cain Williamson, ATL/GRTA
Aileen Daney, ATL/GRTA
Malaika Faciane, ATL/GRTA/Modern Mobility Partners
Andrew Smith, ARC
Donald Shockey, ARC
Aries Little, ARC
Ryan Anderson, City of Douglasville
Patrice Williams, City of Douglasville
April McKown, City of Douglasville
Jennifer Owens, City of Douglasville
Stanley Meranthus, City of Douglasville
Brian Keel, Douglas County
Karla Poshedly, Douglas County
Philip Shafer, Douglas County
Miguel Valentin, Douglas County
Bruce Mercer, Douglas County
Ron Roberts, Douglas County
Allison Duncan, Douglas County
Justin Hatch, GDOT District 7
Josh Montefusco, GDOT District 7
Paul DeNard, GDOT District 7
Megan Wilson, GDOT District 7
Daniel Parker, GDOT District 7
Joshua Higgins, GDOT District 7
Perry Landon, GDOT District 7
Abdul Amer, A&R Engineering, Inc.
Naila Amer, A&R Engineering, Inc.
Jeff Couch, Robertson Loia Roof Architects & Engineers
Kirk Nicholson, Douglas County Schools System
John Kedzierski, Robertson Loia Roof, Architects & Engineers

Linear Regression of Daily Traffic

Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019	2020
SR 5 (Bill Arp Rd), SE of Gurley Rc	-2.3%	0.60	097-0016	00000500	11,300	10,700	10,800	9,970
SR 8/US 78 (Veterans Memorial I	-9.5%	0.73	097-0058	00000800	10,300	8,430	8,490	9,530
SR 8/US 78 (Veterans Memorial I	1.9%	0.75	097-0021	00000500	10,700	10,700	11,100	10,200
Rose Ave, S of Fairways Dr	1.8%	1.00	097-0227	00057303	11,100	11,300	11,500	10,700
SR 5 (Bill Arp Rd), N of Tonya Ln	-5.4%	0.70	097-0012	00000500	28,100	25,000	25,200	23,200
Weighted Average	**-3.2%**	0.59	Sum of Count Stations =		71,500	66,130	67,090	

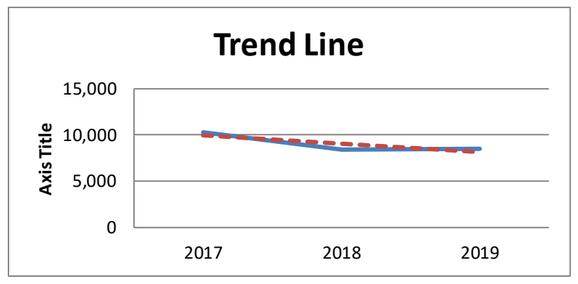
Location	Traffic Counter	RCLINK	2017	2018	2019	2020
SR 5 (Bill Arp Rd), SE of Gurley Rd	097-0016	00000500	11,300	10,700	10,800	9,970





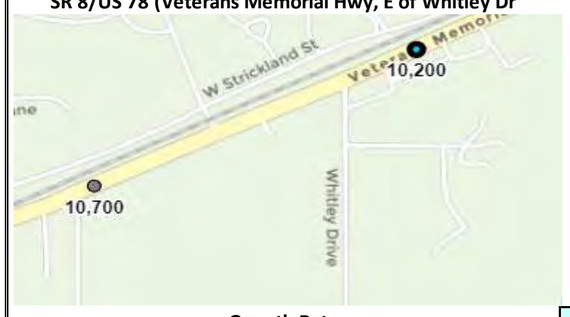
Growth Rate	-2.3%	Intercept	515,433	Slope	-250.00
Trend Line			11,183	10,933	10,683

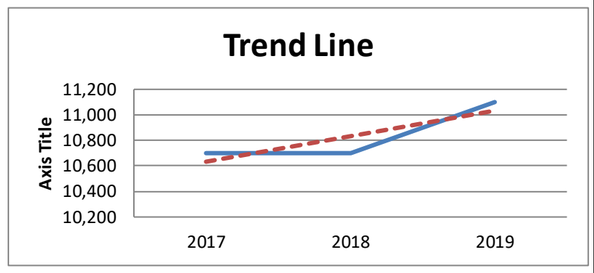
Location	Traffic Counter	RCLINK	2017	2018	2019	2020
SR 8/US 78 (Veterans Memorial Hwy), W of SR 5	097-0058	00000800	10,300	8,430	8,490	9,530



Growth Rate	-9.5%	Intercept	1,835,363	Slope	-905.00
Trend Line			9,978	9,073	8,168

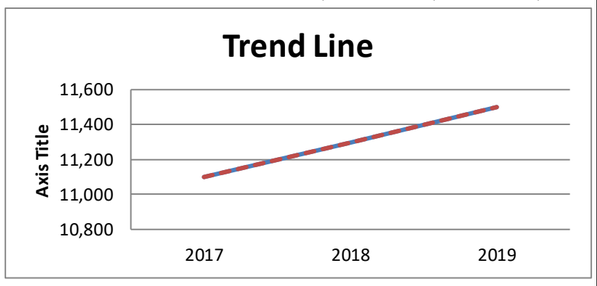
Location	Traffic Counter	RCLINK	2017	2018	2019	2020
SR 8/US 78 (Veterans Memorial Hwy, E of Whitley Dr	097-0021	00000500	10,700	10,700	11,100	10,200





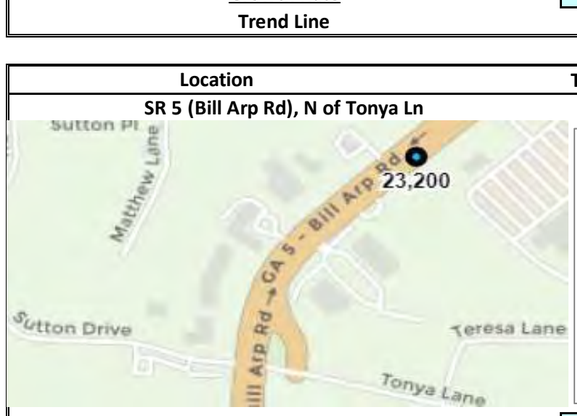
Growth Rate	1.9%	Intercept	-392,767	Slope	200.00
Trend Line			10,633	10,833	11,033

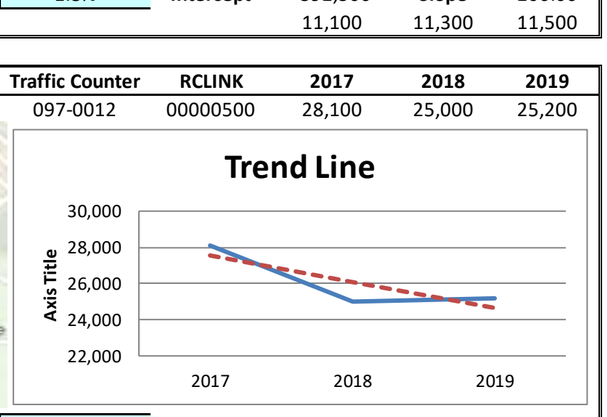
Location	Traffic Counter	RCLINK	2017	2018	2019	2020
Rose Ave, S of Fairways Dr	097-0227	00057303	11,100	11,300	11,500	10,700



Growth Rate	1.8%	Intercept	-392,300	Slope	200.00
Trend Line			11,100	11,300	11,500

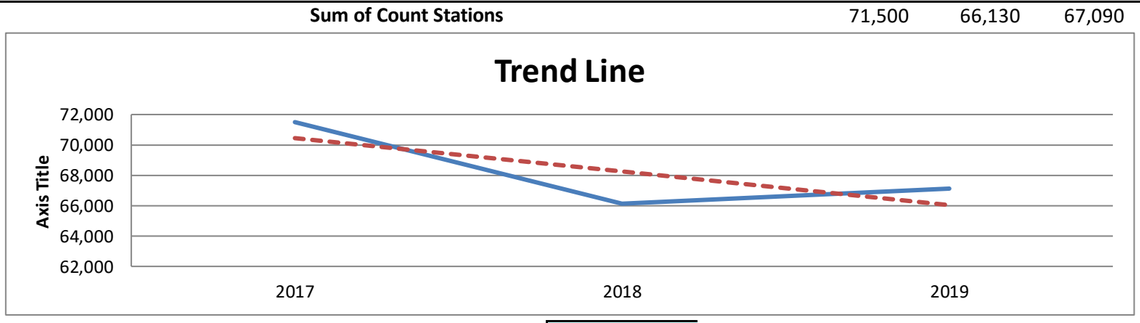
Location	Traffic Counter	RCLINK	2017	2018	2019	2020
SR 5 (Bill Arp Rd), N of Tonya Ln	097-0012	00000500	28,100	25,000	25,200	23,200





Growth Rate	-5.4%	Intercept	2,952,200	Slope	-1,450.00
Trend Line			27,550	26,100	24,650

Weighted Average	2017	2018	2019	2020
Sum of Count Stations	71,500	66,130	67,090	0



Growth Rate	-3.2%	Intercept	4,517,930	Slope	-2,205.00
Trend Line			70,445	68,240	66,035

Existing Intersection Analysis

Intersection	
Int Delay, s/veh	7.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	45	351	232	45	139	108
Future Vol, veh/h	45	351	232	45	139	108
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	52	403	267	52	160	124

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	319	0	-	0	774	267
Stage 1	-	-	-	-	267	-
Stage 2	-	-	-	-	507	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1241	-	-	-	367	772
Stage 1	-	-	-	-	778	-
Stage 2	-	-	-	-	605	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1241	-	-	-	347	772
Mov Cap-2 Maneuver	-	-	-	-	347	-
Stage 1	-	-	-	-	736	-
Stage 2	-	-	-	-	605	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1241	-	-	-	457
HCM Lane V/C Ratio	0.042	-	-	-	0.621
HCM Control Delay (s)	8	0	-	-	24.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	4.1

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	355	3	62	305	10	42
Future Vol, veh/h	355	3	62	305	10	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	382	3	67	328	11	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	385	0	846	384
Stage 1	-	-	-	-	384	-
Stage 2	-	-	-	-	462	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1173	-	333	664
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1173	-	310	664
Mov Cap-2 Maneuver	-	-	-	-	310	-
Stage 1	-	-	-	-	688	-
Stage 2	-	-	-	-	590	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	12.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	544	-	-	1173	-
HCM Lane V/C Ratio	0.103	-	-	0.057	-
HCM Control Delay (s)	12.4	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	11	387	5	6	269	58	4	0	5	34	0	4
Future Vol, veh/h	11	387	5	6	269	58	4	0	5	34	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	12	412	5	6	286	62	4	0	5	36	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	348	0	0	417	0	0	770	799	415	770	770	317
Stage 1	-	-	-	-	-	-	439	439	-	329	329	-
Stage 2	-	-	-	-	-	-	331	360	-	441	441	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1211	-	-	1142	-	-	318	319	637	318	331	724
Stage 1	-	-	-	-	-	-	597	578	-	684	646	-
Stage 2	-	-	-	-	-	-	682	626	-	595	577	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1211	-	-	1142	-	-	311	313	637	311	324	724
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	313	-	311	324	-
Stage 1	-	-	-	-	-	-	589	570	-	675	641	-
Stage 2	-	-	-	-	-	-	673	622	-	582	569	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	13.5	17.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	435	1211	-	-	1142	-	-	331
HCM Lane V/C Ratio	0.022	0.01	-	-	0.006	-	-	0.122
HCM Control Delay (s)	13.5	8	0	-	8.2	0	-	17.4
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	417	6	40	319	32	8	0	55	37	1	6
Future Vol, veh/h	3	417	6	40	319	32	8	0	55	37	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	3	434	6	42	332	33	8	0	57	39	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	332	0	0	434	0	0	860	856	434	856	856	332
Stage 1	-	-	-	-	-	-	440	440	-	416	416	-
Stage 2	-	-	-	-	-	-	420	416	-	440	440	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1227	-	-	1126	-	-	276	295	622	278	295	710
Stage 1	-	-	-	-	-	-	596	578	-	614	592	-
Stage 2	-	-	-	-	-	-	611	592	-	596	578	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1227	-	-	1126	-	-	265	283	622	245	283	710
Mov Cap-2 Maneuver	-	-	-	-	-	-	265	283	-	245	283	-
Stage 1	-	-	-	-	-	-	595	577	-	613	570	-
Stage 2	-	-	-	-	-	-	582	570	-	540	577	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.9	12.4	21
HCM LOS			B	C

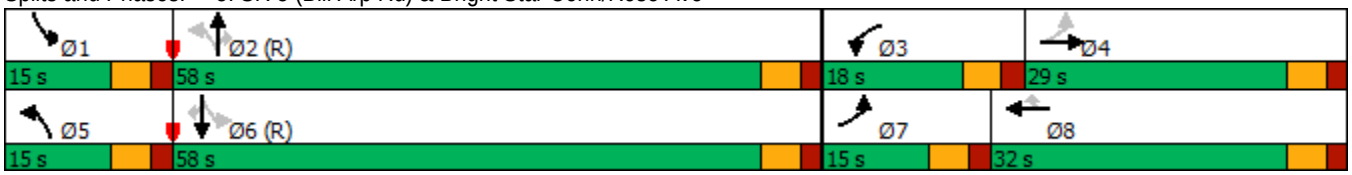
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	265	622	1227	-	-	1126	-	-	270
HCM Lane V/C Ratio	0.031	0.092	0.003	-	-	0.037	-	-	0.17
HCM Control Delay (s)	19	11.4	7.9	-	-	8.3	-	-	21
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.6

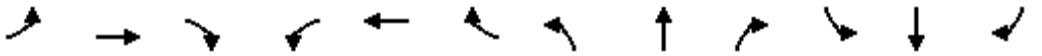
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	26	95	168	39	32	69	325	292	71	420	24
Future Volume (vph)	26	95	168	39	32	69	325	292	71	420	24
Lane Group Flow (vph)	29	169	189	44	36	78	365	328	80	472	27
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	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	18.0	32.0	32.0	15.0	58.0	58.0	15.0	58.0	58.0
Total Split (%)	12.5%	24.2%	15.0%	26.7%	26.7%	12.5%	48.3%	48.3%	12.5%	48.3%	48.3%
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	0.14	0.55	0.58	0.16	0.11	0.14	0.34	0.30	0.12	0.42	0.03
Control Delay	37.3	39.7	59.5	47.6	0.6	2.1	5.4	3.1	7.3	15.8	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	37.3	39.7	59.5	47.6	0.6	2.1	5.4	3.1	7.3	15.8	0.0
Queue Length 50th (ft)	18	42	73	31	0	1	130	61	18	196	0
Queue Length 95th (ft)	41	75	110	66	0	3	155	108	39	307	0
Internal Link Dist (ft)		1365		588			381			1488	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	251	683	364	399	444	593	1089	1082	677	1113	1008
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	0.25	0.52	0.11	0.08	0.13	0.34	0.30	0.12	0.42	0.03

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 19 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 5: 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)	26	95	55	168	39	32	69	325	292	71	420	24
Future Volume (veh/h)	26	95	55	168	39	32	69	325	292	71	420	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		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	1900	1900	1707	1900	1826	1900	1900	1841	1900	1900	1856	1900
Adj Flow Rate, veh/h	29	107	0	189	44	0	78	365	0	80	472	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	13	0	5	0	0	4	0	0	3	0
Cap, veh/h	188	214		250	191		624	1192		709	1202	
Arrive On Green	0.03	0.06	0.00	0.07	0.10	0.00	0.04	0.65	0.00	0.04	0.65	0.00
Sat Flow, veh/h	1810	3705	0	3510	1826	1610	1810	1841	1610	1810	1856	1610
Grp Volume(v), veh/h	29	107	0	189	44	0	78	365	0	80	472	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1826	1610	1810	1841	1610	1810	1856	1610
Q Serve(g_s), s	1.8	3.4	0.0	6.3	2.7	0.0	1.7	10.5	0.0	1.7	14.4	0.0
Cycle Q Clear(g_c), s	1.8	3.4	0.0	6.3	2.7	0.0	1.7	10.5	0.0	1.7	14.4	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	188	214		250	191		624	1192		709	1202	
V/C Ratio(X)	0.15	0.50		0.76	0.23		0.13	0.31		0.11	0.39	
Avail Cap(c_a), veh/h	285	707		366	403		697	1192		782	1202	
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	51.0	54.7	0.0	54.7	49.3	0.0	7.1	9.3	0.0	6.7	10.0	0.0
Incr Delay (d2), s/veh	0.4	1.8	0.0	5.2	0.6	0.0	0.1	0.7	0.0	0.1	1.0	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	1.5	2.9	0.0	5.3	2.2	0.0	1.0	7.1	0.0	1.1	9.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	56.5	0.0	59.9	49.9	0.0	7.2	10.0	0.0	6.7	11.0	0.0
LnGrp LOS	D	E		E	D		A	A		A	B	
Approach Vol, veh/h		136	A		233	A		443	A		552	A
Approach Delay, s/veh		55.4			58.0			9.5			10.3	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	83.2	14.0	12.6	10.1	83.2	8.6	18.0
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	52.5	12.5	23.5	9.5	52.5	9.5	26.5
Max Q Clear Time (g_c+I1), s	3.7	12.5	8.3	5.4	3.7	16.4	3.8	4.7
Green Ext Time (p_c), s	0.1	4.5	0.2	0.4	0.1	6.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

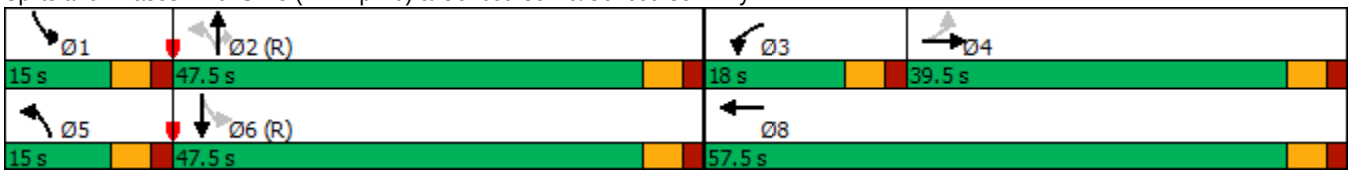
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

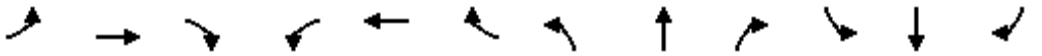
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	159	0	50	640	229	61	607
Future Volume (vph)	4	159	0	50	640	229	61	607
Lane Group Flow (vph)	14	181	48	57	727	260	69	690
Turn Type	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	4	3	8	5	2		1	6
Permitted Phases				2		2	6	
Detector Phase	4	3	8	5	2	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	39.5	18.0	57.5	15.0	47.5	47.5	15.0	47.5
Total Split (%)	32.9%	15.0%	47.9%	12.5%	39.6%	39.6%	12.5%	39.6%
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	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.14	0.58	0.11	0.10	0.30	0.22	0.13	0.28
Control Delay	37.1	59.6	0.5	2.9	5.6	0.8	3.7	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	59.6	0.5	2.9	5.6	0.8	3.7	7.8
Queue Length 50th (ft)	4	70	0	4	72	5	6	62
Queue Length 95th (ft)	25	105	0	m13	106	4	16	171
Internal Link Dist (ft)	824		844		448			234
Turn Bay Length (ft)				335		190	145	
Base Capacity (vph)	488	354	835	612	2432	1176	574	2450
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.51	0.06	0.09	0.30	0.22	0.12	0.28

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 16 (13%), 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: 6: SR 5 (Bill Arp Rd) & Concourse Rd/Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	4	8	159	0	42	50	640	229	61	607	0
Future Volume (veh/h)	0	4	8	159	0	42	50	640	229	61	607	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1856	1900	1900	1900	1870	1900	1870	1870	1900
Adj Flow Rate, veh/h	0	5	9	181	0	48	57	727	260	69	690	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	3	0	0	0	2	0	2	2	0
Cap, veh/h	60	31	56	240	0	269	566	2336	1058	502	2343	0
Arrive On Green	0.00	0.05	0.05	0.07	0.00	0.17	0.07	1.00	1.00	0.04	0.66	0.00
Sat Flow, veh/h	1379	606	1090	3428	0	1607	1810	3554	1609	1781	3647	0
Grp Volume(v), veh/h	0	0	14	181	0	48	57	727	260	69	690	0
Grp Sat Flow(s),veh/h/ln	1379	0	1696	1714	0	1607	1810	1777	1609	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.9	6.2	0.0	3.1	1.2	0.0	0.0	1.5	9.8	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.9	6.2	0.0	3.1	1.2	0.0	0.0	1.5	9.8	0.0
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	60	0	88	240	0	269	566	2336	1058	502	2343	0
V/C Ratio(X)	0.00	0.00	0.16	0.75	0.00	0.18	0.10	0.31	0.25	0.14	0.29	0.00
Avail Cap(c_a), veh/h	379	0	481	357	0	696	645	2336	1058	576	2343	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	54.4	54.8	0.0	42.9	6.0	0.0	0.0	5.8	8.6	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.8	5.0	0.0	0.3	0.1	0.3	0.5	0.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.8	5.2	0.0	2.3	0.7	0.2	0.3	0.9	6.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	55.2	59.7	0.0	43.2	6.1	0.3	0.5	5.9	9.0	0.0
LnGrp LOS	A	A	E	E	A	D	A	A	A	A	A	A
Approach Vol, veh/h		14			229			1044			759	
Approach Delay, s/veh		55.2			56.3			0.7			8.7	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	84.4	13.9	11.7	9.8	84.6		25.6				
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	42.0	12.5	34.0	9.5	42.0		52.0				
Max Q Clear Time (g_c+I1), s	3.5	2.0	8.2	2.9	3.2	11.8		5.1				
Green Ext Time (p_c), s	0.1	14.2	0.2	0.0	0.0	9.5		0.3				

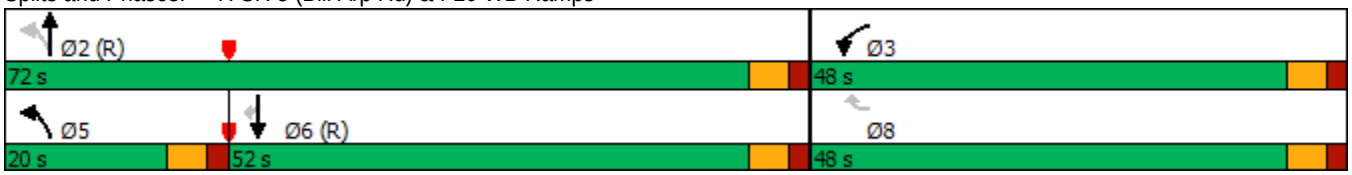
Intersection Summary			
HCM 6th Ctrl Delay		10.2	
HCM 6th LOS		B	

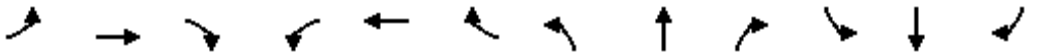
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	425	347	141	616	751	72
Future Volume (vph)	425	347	141	616	751	72
Lane Group Flow (vph)	506	413	168	733	894	86
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		8	2			6
Detector Phase	3	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	35.5	15.0	21.5	21.5	21.5
Total Split (s)	48.0	48.0	20.0	72.0	52.0	52.0
Total Split (%)	40.0%	40.0%	16.7%	60.0%	43.3%	43.3%
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	0.67	0.84	0.41	0.30	0.45	0.10
Control Delay	46.6	38.9	5.9	2.5	13.6	5.2
Queue Delay	0.0	0.0	0.0	0.1	0.2	0.0
Total Delay	46.6	38.9	5.9	2.7	13.8	5.2
Queue Length 50th (ft)	188	175	19	11	156	7
Queue Length 95th (ft)	196	231	18	34	256	25
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		555				375
Base Capacity (vph)	1215	671	459	2460	1985	876
Starvation Cap Reductn	0	0	0	694	403	0
Spillback Cap Reductn	35	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.62	0.37	0.42	0.57	0.10

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 7: 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	425	0	347	141	616	0	0	751	72
Future Volume (veh/h)	0	0	0	425	0	347	141	616	0	0	751	72
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				1870	0	1856	1856	1885	0	0	1870	1781
Adj Flow Rate, veh/h				506	0	0	168	733	0	0	894	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				2	0	3	3	1	0	0	2	8
Cap, veh/h				598	0		542	2634	0	0	2275	
Arrive On Green				0.17	0.00	0.00	0.03	0.49	0.00	0.00	1.00	0.00
Sat Flow, veh/h				3456	0	1572	1767	3676	0	0	3647	1510
Grp Volume(v), veh/h				506	0	0	168	733	0	0	894	0
Grp Sat Flow(s),veh/h/ln				1728	0	1572	1767	1791	0	0	1777	1510
Q Serve(g_s), s				17.0	0.0	0.0	3.6	14.4	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				17.0	0.0	0.0	3.6	14.4	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				598	0		542	2634	0	0	2275	
V/C Ratio(X)				0.85	0.00		0.31	0.28	0.00	0.00	0.39	
Avail Cap(c_a), veh/h				1224	0		669	2634	0	0	2275	
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.91	0.91	0.00	0.00	0.95	0.00
Uniform Delay (d), s/veh				48.1	0.0	0.0	5.8	11.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				3.4	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				11.9	0.0	0.0	2.3	10.3	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.5	0.0	0.0	6.1	12.0	0.0	0.0	0.5	0.0
LnGrp LOS				D	A		A	B	A	A	A	
Approach Vol, veh/h					506	A		901			894	A
Approach Delay, s/veh					51.5			10.9			0.5	
Approach LOS					D			B			A	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	93.7		11.4	82.3		26.3						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	66.5		14.5	46.5		42.5						
Max Q Clear Time (g_c+I1), s	16.4		5.6	2.0		19.0						
Green Ext Time (p_c), s	11.9		0.3	15.1		1.7						

Intersection Summary		
HCM 6th Ctrl Delay	15.8	
HCM 6th LOS	B	

Notes

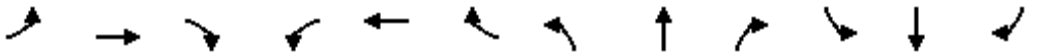
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	159	1	271	564	808	376	853
Future Volume (vph)	159	1	271	564	808	376	853
Lane Group Flow (vph)	194	1	330	688	985	459	1040
Turn Type	Prot	NA	Perm	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			4		2	6	
Detector Phase	7	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	6.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	33.5	15.0	21.5
Total Split (s)	33.5	33.5	33.5	62.5	62.5	24.0	86.5
Total Split (%)	27.9%	27.9%	27.9%	52.1%	52.1%	20.0%	72.1%
Yellow Time (s)	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
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	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.59	no cap	0.80	0.37	0.85	0.78	0.40
Control Delay	50.7		39.7	11.6	16.3	26.4	6.7
Queue Delay	0.0		0.0	0.0	0.9	5.3	0.4
Total Delay	50.7	Error	39.7	11.6	17.2	31.8	7.0
Queue Length 50th (ft)	130	0	133	183	505	119	95
Queue Length 95th (ft)	184	0	202	146	574	352	257
Internal Link Dist (ft)		545		861			415
Turn Bay Length (ft)			270		320		
Base Capacity (vph)	413	1	482	1881	1164	593	2577
Starvation Cap Reductn	0	0	0	0	46	85	889
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	1.00	0.68	0.37	0.88	0.90	0.62

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 8: 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)	159	1	271	0	0	0	0	564	808	376	853	0
Future Volume (veh/h)	159	1	271	0	0	0	0	564	808	376	853	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	1870	1900	1885				0	1885	1885	1856	1885	0
Adj Flow Rate, veh/h	194	1	0				0	688	0	459	1040	0
Peak Hour Factor	0.82	0.82	0.82				0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	0	1				0	1	1	3	1	0
Cap, veh/h	225	0					0	2157		676	2800	0
Arrive On Green	0.13	0.13	0.00				0.00	0.60	0.00	0.27	1.00	0.00
Sat Flow, veh/h	1781	0	1598				0	3676	1598	1767	3676	0
Grp Volume(v), veh/h	194	0	0				0	688	0	459	1040	0
Grp Sat Flow(s),veh/h/ln	1781	0	1598				0	1791	1598	1767	1791	0
Q Serve(g_s), s	12.8	0.0	0.0				0.0	11.4	0.0	13.6	0.0	0.0
Cycle Q Clear(g_c), s	12.8	0.0	0.0				0.0	11.4	0.0	13.6	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	225	0					0	2157		676	2800	0
V/C Ratio(X)	0.86	0.00					0.00	0.32		0.68	0.37	0.00
Avail Cap(c_a), veh/h	416	0					0	2157		712	2800	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.68	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	51.4	0.0	0.0				0.0	11.8	0.0	5.8	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.0				0.0	0.3	0.0	2.0	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	10.2	0.0	0.0				0.0	7.2	0.0	5.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.6	0.0	0.0				0.0	12.0	0.0	7.9	0.3	0.0
LnGrp LOS	E	A					A	B		A	A	A
Approach Vol, veh/h		194	A					688	A		1499	
Approach Delay, s/veh		60.6						12.0			2.6	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.6	77.8		20.7		99.3
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	18.5	57.0		28.0		81.0
Max Q Clear Time (g_c+I1), s	15.6	13.4		14.8		2.0
Green Ext Time (p_c), s	0.5	10.6		0.4		21.8

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B

Notes

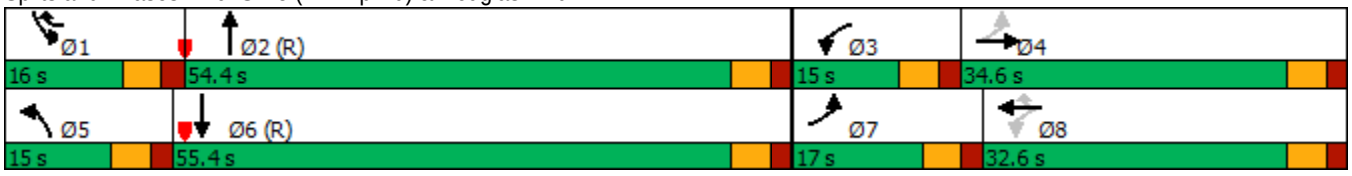
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

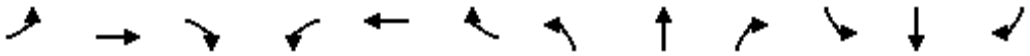
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	188	116	106	74	125	64	995	215	746
Future Volume (vph)	188	116	106	74	125	64	995	215	746
Lane Group Flow (vph)	209	153	118	82	139	71	1287	239	982
Turn Type	pm+pt	NA	pm+pt	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	6.0	5.0	6.0	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	34.5	15.0	21.5	15.0	15.0	30.5	15.0	30.5
Total Split (s)	17.0	34.6	15.0	32.6	16.0	15.0	54.4	16.0	55.4
Total Split (%)	14.2%	28.8%	12.5%	27.2%	13.3%	12.5%	45.3%	13.3%	46.2%
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	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.75	0.41	0.50	0.49	0.38	0.47	0.70	0.60	0.49
Control Delay	58.1	47.3	46.7	61.5	19.7	61.9	25.0	57.1	10.9
Queue Delay	0.7	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	58.8	47.3	46.7	61.5	19.8	61.9	25.0	57.1	10.9
Queue Length 50th (ft)	142	52	76	62	40	53	380	93	184
Queue Length 95th (ft)	#219	84	125	111	88	99	527	135	172
Internal Link Dist (ft)		891		822			1464		861
Turn Bay Length (ft)	195		165			350		420	
Base Capacity (vph)	280	865	238	429	362	164	1835	400	2011
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	7	0	0	0	13	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.18	0.50	0.19	0.40	0.43	0.70	0.60	0.49

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 92 (77%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: SR 5 (Bill Arp Rd) & Douglas Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	188	116	22	106	74	125	64	995	163	215	746	138
Future Volume (veh/h)	188	116	22	106	74	125	64	995	163	215	746	138
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		0.99	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	1885	1900	1900	1900	1900	1870	1900	1885	1900	1885	1885	1885
Adj Flow Rate, veh/h	209	129	24	118	82	139	71	1106	181	239	829	153
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	0	0	0	0	2	0	1	0	1	1	1
Cap, veh/h	303	378	69	297	192	292	91	1653	270	290	1718	317
Arrive On Green	0.10	0.12	0.12	0.07	0.10	0.10	0.05	0.54	0.54	0.17	1.00	1.00
Sat Flow, veh/h	1795	3048	554	1810	1900	1576	1810	3082	503	3483	3018	557
Grp Volume(v), veh/h	209	75	78	118	82	139	71	641	646	239	492	490
Grp Sat Flow(s),veh/h/ln	1795	1805	1797	1810	1900	1576	1810	1791	1794	1742	1791	1785
Q Serve(g_s), s	11.5	4.6	4.8	6.9	4.9	9.5	4.7	31.0	31.3	8.0	0.0	0.0
Cycle Q Clear(g_c), s	11.5	4.6	4.8	6.9	4.9	9.5	4.7	31.0	31.3	8.0	0.0	0.0
Prop In Lane	1.00		0.31	1.00		1.00	1.00		0.28	1.00		0.31
Lane Grp Cap(c), veh/h	303	224	223	297	192	292	91	960	962	290	1019	1016
V/C Ratio(X)	0.69	0.34	0.35	0.40	0.43	0.48	0.78	0.67	0.67	0.82	0.48	0.48
Avail Cap(c_a), veh/h	303	438	436	309	429	488	143	960	962	305	1019	1016
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.86	0.86	0.86
Uniform Delay (d), s/veh	44.4	48.0	48.1	43.8	50.7	43.8	56.3	20.1	20.2	49.2	0.0	0.0
Incr Delay (d2), s/veh	6.5	0.9	0.9	0.9	1.5	1.2	13.2	3.7	3.7	14.0	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	10.0	3.7	3.9	5.6	4.2	6.7	4.4	19.3	19.5	6.7	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	50.9	48.9	49.0	44.6	52.1	45.0	69.5	23.8	23.9	63.2	1.4	1.4
LnGrp LOS	D	D	D	D	D	D	E	C	C	E	A	A
Approach Vol, veh/h		362			339			1358			1221	
Approach Delay, s/veh		50.1			46.6			26.2			13.5	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	69.9	14.3	20.4	11.6	73.8	17.0	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	10.5	48.9	9.5	29.1	9.5	49.9	11.5	27.1
Max Q Clear Time (g_c+I1), s	10.0	33.3	8.9	6.8	6.7	2.0	13.5	11.5
Green Ext Time (p_c), s	0.0	11.6	0.0	0.7	0.0	16.6	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	26.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	90	320	487	79	63	100
Future Vol, veh/h	90	320	487	79	63	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	94	333	507	82	66	104

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	589	0	-	0	1028	507
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	986	-	-	-	259	566
Stage 1	-	-	-	-	605	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	986	-	-	-	229	566
Mov Cap-2 Maneuver	-	-	-	-	229	-
Stage 1	-	-	-	-	534	-
Stage 2	-	-	-	-	596	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	23.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	986	-	-	-	361
HCM Lane V/C Ratio	0.095	-	-	-	0.47
HCM Control Delay (s)	9	0	-	-	23.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	2.4

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	319	8	49	543	32	84
Future Vol, veh/h	319	8	49	543	32	84
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	343	9	53	584	34	90

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	352	0	1038	348
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	690	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1207	-	256	695
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1207	-	239	695
Mov Cap-2 Maneuver	-	-	-	-	239	-
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	466	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	455	-	-	1207	-
HCM Lane V/C Ratio	0.274	-	-	0.044	-
HCM Control Delay (s)	15.9	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	19	310	3	3	478	113	4	0	4	93	0	13
Future Vol, veh/h	19	310	3	3	478	113	4	0	4	93	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	20	323	3	3	498	118	4	0	4	97	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	616	0	0	326	0	0	935	987	325	930	929	557
Stage 1	-	-	-	-	-	-	365	365	-	563	563	-
Stage 2	-	-	-	-	-	-	570	622	-	367	366	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	964	-	-	1234	-	-	246	247	716	248	268	530
Stage 1	-	-	-	-	-	-	654	623	-	511	509	-
Stage 2	-	-	-	-	-	-	506	479	-	653	623	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	964	-	-	1234	-	-	234	240	716	241	260	530
Mov Cap-2 Maneuver	-	-	-	-	-	-	234	240	-	241	260	-
Stage 1	-	-	-	-	-	-	638	607	-	498	507	-
Stage 2	-	-	-	-	-	-	491	477	-	633	607	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	15.4	29
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	353	964	-	-	1234	-	-	258
HCM Lane V/C Ratio	0.024	0.021	-	-	0.003	-	-	0.428
HCM Control Delay (s)	15.4	8.8	0	-	7.9	0	-	29
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	2

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	8	385	35	130	514	62	55	2	83	38	5	8
Future Vol, veh/h	8	385	35	130	514	62	55	2	83	38	5	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	8	405	37	137	541	65	58	2	87	40	5	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	541	0	0	405	0	0	1243	1236	405	1237	1236	541
Stage 1	-	-	-	-	-	-	421	421	-	815	815	-
Stage 2	-	-	-	-	-	-	822	815	-	422	421	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1028	-	-	1154	-	-	151	176	646	153	176	541
Stage 1	-	-	-	-	-	-	610	589	-	371	391	-
Stage 2	-	-	-	-	-	-	368	391	-	609	589	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1028	-	-	1154	-	-	131	154	646	118	154	541
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	154	-	118	154	-
Stage 1	-	-	-	-	-	-	605	584	-	368	344	-
Stage 2	-	-	-	-	-	-	314	344	-	521	584	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	28.4	46.8
HCM LOS			D	E

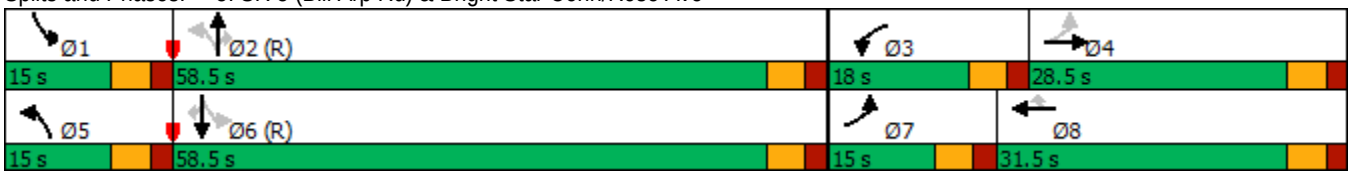
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	132	646	1028	-	-	1154	-	-	138
HCM Lane V/C Ratio	0.455	0.135	0.008	-	-	0.119	-	-	0.389
HCM Control Delay (s)	53.2	11.4	8.5	-	-	8.5	-	-	46.8
HCM Lane LOS	F	B	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	2	0.5	0	-	-	0.4	-	-	1.7

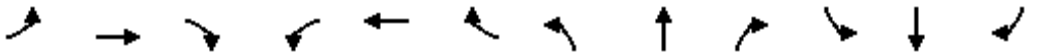
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	26	84	251	92	89	78	597	294	79	424	24
Future Volume (vph)	26	84	251	92	89	78	597	294	79	424	24
Lane Group Flow (vph)	27	157	256	94	91	80	609	300	81	433	24
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	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	28.5	18.0	31.5	31.5	15.0	58.5	58.5	15.0	58.5	58.5
Total Split (%)	12.5%	23.8%	15.0%	26.3%	26.3%	12.5%	48.8%	48.8%	12.5%	48.8%	48.8%
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	0.14	0.51	0.73	0.33	0.27	0.14	0.54	0.28	0.18	0.38	0.02
Control Delay	37.9	34.9	65.1	50.5	5.5	1.4	3.9	0.7	7.6	15.0	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	37.9	34.9	65.1	50.5	5.5	1.4	3.9	0.7	7.6	15.0	0.0
Queue Length 50th (ft)	17	34	100	69	0	2	16	1	19	173	0
Queue Length 95th (ft)	41	67	145	122	25	5	29	0	38	272	0
Internal Link Dist (ft)		1365		588			381			1488	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	237	699	364	411	437	582	1126	1071	477	1130	1007
Starvation Cap Reductn	0	0	0	0	0	0	14	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	0.11	0.22	0.70	0.23	0.21	0.14	0.55	0.28	0.17	0.38	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 6 (5%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 5: 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)	26	84	70	251	92	89	78	597	294	79	424	24
Future Volume (veh/h)	26	84	70	251	92	89	78	597	294	79	424	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		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	1900	1900	1885	1900	1900	1900	1796	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	27	86	0	256	94	0	80	609	0	81	433	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	1	0	0	0	7	1	0	0	1	0
Cap, veh/h	179	206		315	232		605	1190		506	1190	
Arrive On Green	0.02	0.06	0.00	0.09	0.12	0.00	0.04	0.63	0.00	0.04	0.63	0.00
Sat Flow, veh/h	1810	3705	0	3510	1900	1610	1711	1885	1610	1810	1885	1610
Grp Volume(v), veh/h	27	86	0	256	94	0	80	609	0	81	433	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1900	1610	1711	1885	1610	1810	1885	1610
Q Serve(g_s), s	1.7	2.8	0.0	8.6	5.5	0.0	1.9	21.1	0.0	1.9	13.2	0.0
Cycle Q Clear(g_c), s	1.7	2.8	0.0	8.6	5.5	0.0	1.9	21.1	0.0	1.9	13.2	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	179	206		315	232		605	1190		506	1190	
V/C Ratio(X)	0.15	0.42		0.81	0.41		0.13	0.51		0.16	0.36	
Avail Cap(c_a), veh/h	277	692		366	412		674	1190		579	1190	
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	51.4	54.7	0.0	53.6	48.7	0.0	7.7	12.1	0.0	8.9	10.6	0.0
Incr Delay (d2), s/veh	0.4	1.4	0.0	11.6	1.1	0.0	0.1	1.6	0.0	0.1	0.9	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	1.4	2.3	0.0	7.7	4.8	0.0	1.1	13.1	0.0	1.2	8.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	56.0	0.0	65.2	49.8	0.0	7.7	13.6	0.0	9.0	11.5	0.0
LnGrp LOS	D	E		E	D		A	B		A	B	
Approach Vol, veh/h		113	A		350	A		689	A		514	A
Approach Delay, s/veh		55.0			61.1			13.0			11.1	
Approach LOS		D			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	81.2	16.3	12.3	10.2	81.2	8.5	20.1
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	53.0	12.5	23.0	9.5	53.0	9.5	26.0
Max Q Clear Time (g_c+I1), s	3.9	23.1	10.6	4.8	3.9	15.2	3.7	7.5
Green Ext Time (p_c), s	0.1	8.1	0.2	0.3	0.1	5.5	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	25.3
HCM 6th LOS	C

Notes

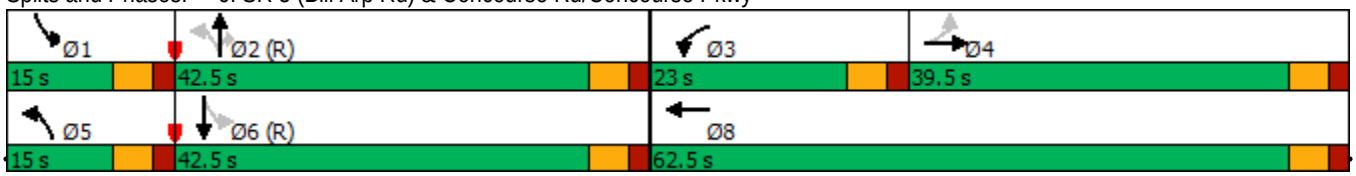
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

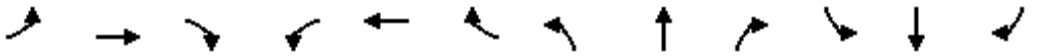
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	7	8	412	13	85	905	445	55	656
Future Volume (vph)	7	8	412	13	85	905	445	55	656
Lane Group Flow (vph)	7	65	429	71	89	943	464	57	692
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	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	23.0	62.5	15.0	42.5	42.5	15.0	42.5
Total Split (%)	32.9%	32.9%	19.2%	52.1%	12.5%	35.4%	35.4%	12.5%	35.4%
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	0.09	0.43	0.86	0.17	0.18	0.44	0.43	0.15	0.34
Control Delay	54.3	25.6	68.0	12.6	9.0	13.0	4.2	7.0	14.8
Queue Delay	0.0	0.0	5.4	0.0	0.0	0.3	0.3	0.0	0.0
Total Delay	54.3	25.6	73.3	12.6	9.0	13.3	4.6	7.0	14.8
Queue Length 50th (ft)	5	6	169	8	18	135	9	11	163
Queue Length 95th (ft)	21	50	#247	44	m32	m222	m67	m31	201
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	382	501	510	824	509	2123	1088	412	2031
Starvation Cap Reductn	0	0	0	0	0	574	211	0	0
Spillback Cap Reductn	0	0	45	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.13	0.92	0.09	0.17	0.61	0.53	0.14	0.34

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
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) & Concourse Rd/Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	8	55	412	13	55	85	905	445	55	656	9
Future Volume (veh/h)	7	8	55	412	13	55	85	905	445	55	656	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900	1900	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	7	8	57	429	14	57	89	943	464	57	683	9
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, %	0	0	0	0	0	0	0	1	0	0	1	0
Cap, veh/h	158	14	103	486	84	342	487	2043	917	344	2050	27
Arrive On Green	0.07	0.07	0.07	0.14	0.26	0.26	0.08	1.00	1.00	0.04	0.57	0.57
Sat Flow, veh/h	1345	200	1423	3510	327	1331	1810	3582	1608	1810	3620	48
Grp Volume(v), veh/h	7	0	65	429	0	71	89	943	464	57	338	354
Grp Sat Flow(s),veh/h/ln	1345	0	1623	1755	0	1658	1810	1791	1608	1810	1791	1876
Q Serve(g_s), s	0.6	0.0	4.6	14.4	0.0	4.0	2.5	0.0	0.0	1.6	12.1	12.1
Cycle Q Clear(g_c), s	0.6	0.0	4.6	14.4	0.0	4.0	2.5	0.0	0.0	1.6	12.1	12.1
Prop In Lane	1.00		0.88	1.00		0.80	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	158	0	118	486	0	426	487	2043	917	344	1014	1063
V/C Ratio(X)	0.04	0.00	0.55	0.88	0.00	0.17	0.18	0.46	0.51	0.17	0.33	0.33
Avail Cap(c_a), veh/h	441	0	460	512	0	788	558	2043	917	423	1014	1063
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.64	0.64	0.64	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.9	0.0	53.8	50.7	0.0	34.6	10.1	0.0	0.0	9.8	13.9	13.9
Incr Delay (d2), s/veh	0.1	0.0	4.0	16.0	0.0	0.2	0.1	0.5	1.3	0.2	0.9	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	0.4	0.0	3.7	11.9	0.0	3.0	1.6	0.2	0.6	1.1	8.6	8.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	0.0	57.8	66.8	0.0	34.8	10.2	0.5	1.3	10.1	14.8	14.8
LnGrp LOS	D	A	E	E	A	C	B	A	A	B	B	B
Approach Vol, veh/h		72			500			1496			749	
Approach Delay, s/veh		57.2			62.2			1.3			14.4	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	73.9	22.1	14.2	10.2	73.4		36.3				
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	37.0	17.5	34.0	9.5	37.0		57.0				
Max Q Clear Time (g_c+I1), s	3.6	2.0	16.4	6.6	4.5	14.1		6.0				
Green Ext Time (p_c), s	0.0	20.2	0.2	0.3	0.1	7.9		0.5				

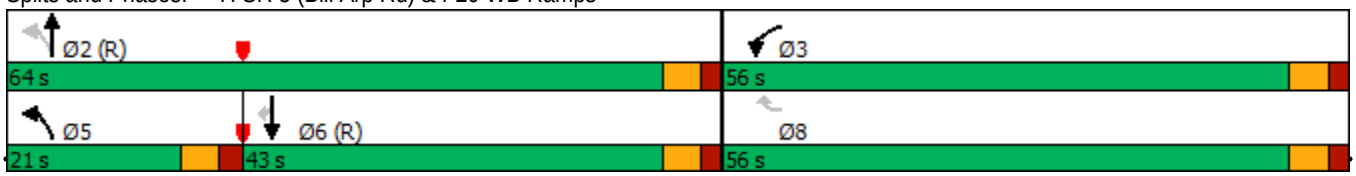
Intersection Summary												
HCM 6th Ctrl Delay			17.0									
HCM 6th LOS			B									

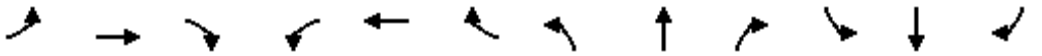
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	907	687	275	786	959	196
Future Volume (vph)	907	687	275	786	959	196
Lane Group Flow (vph)	945	716	286	819	999	204
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		8	2			6
Detector Phase	3	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	35.5	15.0	21.5	21.5	21.5
Total Split (s)	56.0	56.0	21.0	64.0	43.0	43.0
Total Split (%)	46.7%	46.7%	17.5%	53.3%	35.8%	35.8%
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	0.64	0.99	0.98	0.47	0.90	0.32
Control Delay	30.0	60.5	69.7	20.6	38.2	8.7
Queue Delay	0.5	0.0	0.0	0.9	0.7	0.0
Total Delay	30.6	60.5	69.7	21.5	38.8	8.7
Queue Length 50th (ft)	294	481	175	284	277	25
Queue Length 95th (ft)	364	#753	#345	318	#350	m57
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		555				375
Base Capacity (vph)	1473	724	293	1759	1116	633
Starvation Cap Reductn	0	0	0	623	19	0
Spillback Cap Reductn	194	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.99	0.98	0.72	0.91	0.32

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40 (33%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 90
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: 7: 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	907	0	687	275	786	0	0	959	196
Future Volume (veh/h)	0	0	0	907	0	687	275	786	0	0	959	196
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				1900	0	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				945	0	0	286	819	0	0	999	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				1061	0		378	2188	0	0	1663	
Arrive On Green				0.30	0.00	0.00	0.03	0.20	0.00	0.00	0.46	0.00
Sat Flow, veh/h				3510	0	1598	1795	3705	0	0	3676	1610
Grp Volume(v), veh/h				945	0	0	286	819	0	0	999	0
Grp Sat Flow(s),veh/h/ln				1755	0	1598	1795	1805	0	0	1791	1610
Q Serve(g_s), s				30.8	0.0	0.0	9.1	23.5	0.0	0.0	24.9	0.0
Cycle Q Clear(g_c), s				30.8	0.0	0.0	9.1	23.5	0.0	0.0	24.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1061	0		378	2188	0	0	1663	
V/C Ratio(X)				0.89	0.00		0.76	0.37	0.00	0.00	0.60	
Avail Cap(c_a), veh/h				1477	0		438	2188	0	0	1663	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.90	0.90	0.00	0.00	0.83	0.00
Uniform Delay (d), s/veh				40.0	0.0	0.0	20.6	28.3	0.0	0.0	23.9	0.0
Incr Delay (d2), s/veh				5.4	0.0	0.0	5.8	0.4	0.0	0.0	1.3	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				19.6	0.0	0.0	8.0	16.8	0.0	0.0	15.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.4	0.0	0.0	26.3	28.8	0.0	0.0	25.2	0.0
LnGrp LOS				D	A		C	C	A	A	C	
Approach Vol, veh/h					945	A		1105			999	A
Approach Delay, s/veh					45.4			28.1			25.2	
Approach LOS					D			C			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		78.2			17.0	61.2		41.8				
Change Period (Y+Rc), s		5.5			5.5	5.5		5.5				
Max Green Setting (Gmax), s		58.5			15.5	37.5		50.5				
Max Q Clear Time (g_c+I1), s		25.5			11.1	26.9		32.8				
Green Ext Time (p_c), s		12.0			0.3	7.1		3.4				

Intersection Summary		
HCM 6th Ctrl Delay	32.5	
HCM 6th LOS	C	

Notes

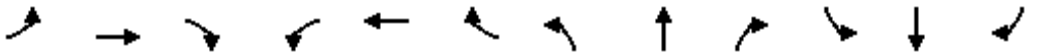
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	127	286	884	604	318	1527
Future Volume (vph)	127	286	884	604	318	1527
Lane Group Flow (vph)	128	289	893	610	321	1542
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)	37.0	37.0	55.0	55.0	28.0	83.0
Total Split (%)	30.8%	30.8%	45.8%	45.8%	23.3%	69.2%
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?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.38	0.82	0.45	0.54	0.66	0.59
Control Delay	44.4	52.2	13.8	2.0	13.1	13.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	1.1
Total Delay	44.4	52.2	13.8	2.0	13.1	14.7
Queue Length 50th (ft)	88	164	146	12	104	377
Queue Length 95th (ft)	134	245	223	23	m169	706
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	473	471	1984	1130	570	2609
Starvation Cap Reductn	0	0	0	0	0	747
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.61	0.45	0.54	0.56	0.83

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 110 (92%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: 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)	127	0	286	0	0	0	0	884	604	318	1527	0
Future Volume (veh/h)	127	0	286	0	0	0	0	884	604	318	1527	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	1900	0	1900				0	1900	1900	1885	1900	0
Adj Flow Rate, veh/h	128	0	0				0	893	0	321	1542	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, %	0	0	0				0	0	0	1	0	0
Cap, veh/h	158	0					0	2557		565	2964	0
Arrive On Green	0.09	0.00	0.00				0.00	0.71	0.00	0.04	0.55	0.00
Sat Flow, veh/h	1810	0	1610				0	3705	1610	1795	3705	0
Grp Volume(v), veh/h	128	0	0				0	893	0	321	1542	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1795	1805	0
Q Serve(g_s), s	8.3	0.0	0.0				0.0	11.5	0.0	5.2	32.3	0.0
Cycle Q Clear(g_c), s	8.3	0.0	0.0				0.0	11.5	0.0	5.2	32.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	158	0					0	2557		565	2964	0
V/C Ratio(X)	0.81	0.00					0.00	0.35		0.57	0.52	0.00
Avail Cap(c_a), veh/h	475	0					0	2557		781	2964	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.63	0.00	0.55	0.55	0.00
Uniform Delay (d), s/veh	53.8	0.0	0.0				0.0	6.8	0.0	4.8	12.1	0.0
Incr Delay (d2), s/veh	9.5	0.0	0.0				0.0	0.2	0.0	0.5	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
%ile BackOfQ(95%),veh/ln	7.4	0.0	0.0				0.0	6.6	0.0	2.9	18.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.3	0.0	0.0				0.0	7.0	0.0	5.3	12.5	0.0
LnGrp LOS	E	A					A	A		A	B	A
Approach Vol, veh/h		128	A					893	A		1863	
Approach Delay, s/veh		63.3						7.0			11.2	
Approach LOS		E						A			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.5	90.5		16.0		104.0
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	22.5	49.5		31.5		77.5
Max Q Clear Time (g_c+I1), s	7.2	13.5		10.3		34.3
Green Ext Time (p_c), s	0.8	13.9		0.3		29.9

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

Notes

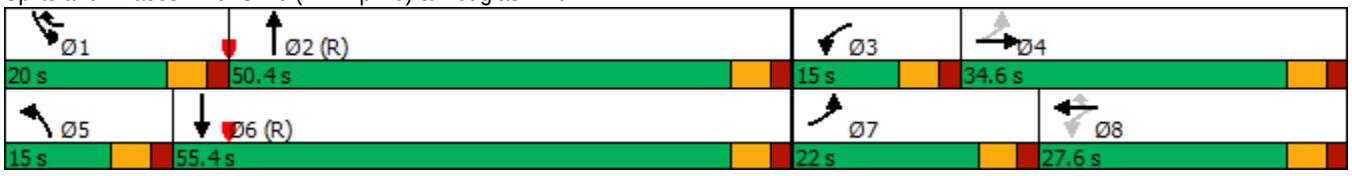
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

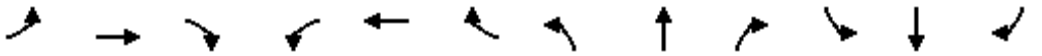
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	268	242	245	158	362	80	872	347	1207
Future Volume (vph)	268	242	245	158	362	80	872	347	1207
Lane Group Flow (vph)	271	321	247	160	366	81	1047	351	1450
Turn Type	pm+pt	NA	pm+pt	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	6.0	5.0	6.0	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	34.5	15.0	21.5	15.0	15.0	30.5	15.0	30.5
Total Split (s)	22.0	34.6	15.0	27.6	20.0	15.0	50.4	20.0	55.4
Total Split (%)	18.3%	28.8%	12.5%	23.0%	16.7%	12.5%	42.0%	16.7%	46.2%
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	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.77	0.48	0.89	0.66	0.71	0.54	0.70	0.74	0.83
Control Delay	49.0	41.0	69.6	62.4	31.0	66.3	32.4	75.3	18.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.0	41.0	69.6	62.4	31.0	66.3	32.4	75.3	18.1
Queue Length 50th (ft)	170	105	152	120	158	61	349	145	126
Queue Length 95th (ft)	236	143	#237	184	250	114	453	#202	#725
Internal Link Dist (ft)		891		822			1464		861
Turn Bay Length (ft)	195		165			350		420	
Base Capacity (vph)	356	868	278	349	517	158	1487	484	1739
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	0.76	0.37	0.89	0.46	0.71	0.51	0.70	0.73	0.83

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 97 (81%), Referenced to phase 2:NBT and 6:SBT, 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.

Splits and Phases: 9: SR 5 (Bill Arp Rd) & Douglas Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	268	242	76	245	158	362	80	872	164	347	1207	229
Future Volume (veh/h)	268	242	76	245	158	362	80	872	164	347	1207	229
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885
Adj Flow Rate, veh/h	271	244	77	247	160	366	81	881	166	351	1219	231
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	1
Cap, veh/h	400	650	200	377	350	480	103	1165	219	401	1338	252
Arrive On Green	0.13	0.24	0.24	0.08	0.18	0.18	0.06	0.38	0.38	0.23	0.88	0.88
Sat Flow, veh/h	1810	2716	837	1810	1900	1608	1810	3031	571	3510	3032	570
Grp Volume(v), veh/h	271	160	161	247	160	366	81	525	522	351	722	728
Grp Sat Flow(s),veh/h/ln	1810	1805	1748	1810	1900	1608	1810	1805	1797	1755	1805	1797
Q Serve(g_s), s	14.1	8.9	9.3	9.5	9.0	22.1	5.3	30.3	30.3	11.6	28.1	30.1
Cycle Q Clear(g_c), s	14.1	8.9	9.3	9.5	9.0	22.1	5.3	30.3	30.3	11.6	28.1	30.1
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.32	1.00		0.32
Lane Grp Cap(c), veh/h	400	432	418	377	350	480	103	693	690	401	797	793
V/C Ratio(X)	0.68	0.37	0.38	0.65	0.46	0.76	0.79	0.76	0.76	0.88	0.91	0.92
Avail Cap(c_a), veh/h	406	438	424	377	350	480	143	693	690	424	797	793
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.74	0.74	0.74
Uniform Delay (d), s/veh	31.9	38.1	38.3	39.0	43.6	38.2	55.9	32.1	32.1	45.5	5.6	5.7
Incr Delay (d2), s/veh	4.4	0.5	0.6	4.0	0.9	7.1	17.3	7.5	7.6	13.7	12.5	13.7
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	10.6	7.0	7.1	3.7	7.6	15.6	5.2	20.5	20.5	8.4	8.6	9.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.3	38.6	38.8	43.1	44.5	45.3	73.1	39.6	39.7	59.2	18.0	19.4
LnGrp LOS	D	D	D	D	D	D	E	D	D	E	B	B
Approach Vol, veh/h		592			773			1128			1801	
Approach Delay, s/veh		37.6			44.4			42.0			26.6	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.2	51.6	15.0	34.2	12.3	58.5	21.6	27.6
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	14.5	44.9	9.5	29.1	9.5	49.9	16.5	22.1
Max Q Clear Time (g_c+I1), s	13.6	32.3	11.5	11.3	7.3	32.1	16.1	24.1
Green Ext Time (p_c), s	0.1	8.3	0.0	1.5	0.0	14.1	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Future “No-Build” Intersection Analysis

Intersection	
Int Delay, s/veh	7.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	358	237	46	142	110
Future Vol, veh/h	46	358	237	46	142	110
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	53	411	272	53	163	126

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	325	0	-	0	789	272
Stage 1	-	-	-	-	272	-
Stage 2	-	-	-	-	517	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1235	-	-	-	359	767
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	598	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1235	-	-	-	339	767
Mov Cap-2 Maneuver	-	-	-	-	339	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	598	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	26.6
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1235	-	-	-	448
HCM Lane V/C Ratio	0.043	-	-	-	0.647
HCM Control Delay (s)	8	0	-	-	26.6
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	4.5

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	362	3	63	311	10	43
Future Vol, veh/h	362	3	63	311	10	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	389	3	68	334	11	46

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	392	0	861	391
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	470	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1167	-	326	658
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	629	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1167	-	303	658
Mov Cap-2 Maneuver	-	-	-	-	303	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	539	-	-	1167	-
HCM Lane V/C Ratio	0.106	-	-	0.058	-
HCM Control Delay (s)	12.5	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	395	5	6	274	59	4	0	5	35	0	4
Future Vol, veh/h	11	395	5	6	274	59	4	0	5	35	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	12	420	5	6	291	63	4	0	5	37	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	354	0	0	425	0	0	784	813	423	784	784	323
Stage 1	-	-	-	-	-	-	447	447	-	335	335	-
Stage 2	-	-	-	-	-	-	337	366	-	449	449	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1205	-	-	1134	-	-	311	313	631	311	325	718
Stage 1	-	-	-	-	-	-	591	573	-	679	643	-
Stage 2	-	-	-	-	-	-	677	623	-	589	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1205	-	-	1134	-	-	304	307	631	304	319	718
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	307	-	304	319	-
Stage 1	-	-	-	-	-	-	583	566	-	670	638	-
Stage 2	-	-	-	-	-	-	668	619	-	576	565	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	13.6	17.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	427	1205	-	-	1134	-	-	323
HCM Lane V/C Ratio	0.022	0.01	-	-	0.006	-	-	0.128
HCM Control Delay (s)	13.6	8	0	-	8.2	0	-	17.8
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.4

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	425	6	41	325	33	8	0	56	38	1	6
Future Vol, veh/h	3	425	6	41	325	33	8	0	56	38	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	3	443	6	43	339	34	8	0	58	40	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	339	0	0	443	0	0	878	874	443	874	874	339
Stage 1	-	-	-	-	-	-	449	449	-	425	425	-
Stage 2	-	-	-	-	-	-	429	425	-	449	449	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1220	-	-	1117	-	-	268	288	615	270	288	703
Stage 1	-	-	-	-	-	-	589	572	-	607	586	-
Stage 2	-	-	-	-	-	-	604	586	-	589	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1220	-	-	1117	-	-	256	276	615	237	276	703
Mov Cap-2 Maneuver	-	-	-	-	-	-	256	276	-	237	276	-
Stage 1	-	-	-	-	-	-	588	571	-	606	564	-
Stage 2	-	-	-	-	-	-	575	564	-	532	571	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.9	12.5	21.8
HCM LOS			B	C

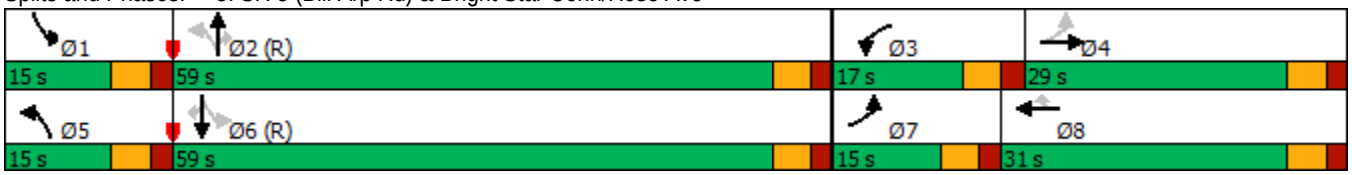
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	256	615	1220	-	-	1117	-	-	261
HCM Lane V/C Ratio	0.033	0.095	0.003	-	-	0.038	-	-	0.18
HCM Control Delay (s)	19.5	11.5	8	-	-	8.4	-	-	21.8
HCM Lane LOS	C	B	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.6

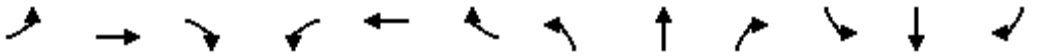
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	27	97	171	40	33	70	332	298	72	428	24
Future Volume (vph)	27	97	171	40	33	70	332	298	72	428	24
Lane Group Flow (vph)	30	172	192	45	37	79	373	335	81	481	27
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	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	17.0	31.0	31.0	15.0	59.0	59.0	15.0	59.0	59.0
Total Split (%)	12.5%	24.2%	14.2%	25.8%	25.8%	12.5%	49.2%	49.2%	12.5%	49.2%	49.2%
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	0.14	0.55	0.62	0.17	0.11	0.14	0.34	0.31	0.12	0.43	0.03
Control Delay	37.8	39.7	61.4	48.4	0.7	2.6	4.7	1.4	7.1	15.6	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	37.8	39.7	61.4	48.4	0.7	2.6	4.7	1.4	7.1	15.6	0.0
Queue Length 50th (ft)	19	43	74	32	0	3	107	51	19	200	0
Queue Length 95th (ft)	43	76	112	67	0	8	31	1	38	308	0
Internal Link Dist (ft)		1365		588			381			1488	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	252	684	335	384	432	589	1093	1088	671	1118	1012
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	0.25	0.57	0.12	0.09	0.13	0.34	0.31	0.12	0.43	0.03

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 11 (9%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 5: 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)	27	97	56	171	40	33	70	332	298	72	428	24
Future Volume (veh/h)	27	97	56	171	40	33	70	332	298	72	428	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		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	1900	1900	1707	1900	1826	1900	1900	1841	1900	1900	1856	1900
Adj Flow Rate, veh/h	30	109	0	192	45	0	79	373	0	81	481	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	13	0	5	0	0	4	0	0	3	0
Cap, veh/h	189	214		252	191		616	1191		701	1201	
Arrive On Green	0.03	0.06	0.00	0.07	0.10	0.00	0.04	0.65	0.00	0.04	0.65	0.00
Sat Flow, veh/h	1810	3705	0	3510	1826	1610	1810	1841	1610	1810	1856	1610
Grp Volume(v), veh/h	30	109	0	192	45	0	79	373	0	81	481	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1826	1610	1810	1841	1610	1810	1856	1610
Q Serve(g_s), s	1.8	3.5	0.0	6.4	2.7	0.0	1.7	10.8	0.0	1.8	14.8	0.0
Cycle Q Clear(g_c), s	1.8	3.5	0.0	6.4	2.7	0.0	1.7	10.8	0.0	1.8	14.8	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	189	214		252	191		616	1191		701	1201	
V/C Ratio(X)	0.16	0.51		0.76	0.24		0.13	0.31		0.12	0.40	
Avail Cap(c_a), veh/h	284	707		336	388		689	1191		774	1201	
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	51.0	54.8	0.0	54.7	49.3	0.0	7.2	9.4	0.0	6.7	10.1	0.0
Incr Delay (d2), s/veh	0.4	1.9	0.0	7.1	0.6	0.0	0.1	0.7	0.0	0.1	1.0	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	1.5	2.9	0.0	5.5	2.3	0.0	1.1	7.3	0.0	1.1	9.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	56.6	0.0	61.8	50.0	0.0	7.3	10.1	0.0	6.8	11.1	0.0
LnGrp LOS	D	E		E	D		A	B		A	B	
Approach Vol, veh/h		139	A		237	A		452	A		562	A
Approach Delay, s/veh		55.5			59.5			9.6			10.5	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	83.1	14.1	12.6	10.1	83.2	8.7	18.0
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	53.5	11.5	23.5	9.5	53.5	9.5	25.5
Max Q Clear Time (g_c+I1), s	3.8	12.8	8.4	5.5	3.7	16.8	3.8	4.7
Green Ext Time (p_c), s	0.1	4.6	0.2	0.4	0.1	6.2	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

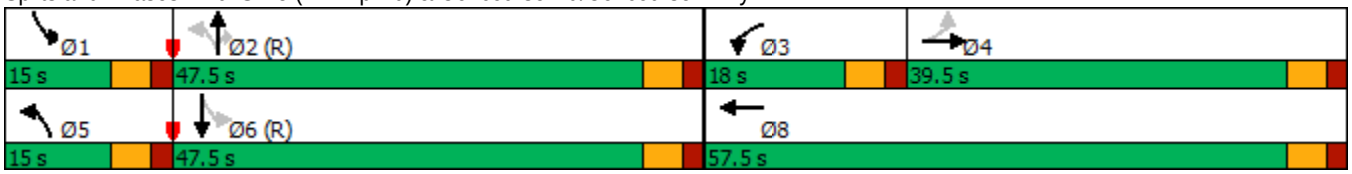
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

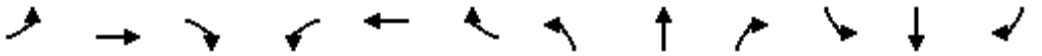
Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	4	162	0	51	653	234	62	619
Future Volume (vph)	4	162	0	51	653	234	62	619
Lane Group Flow (vph)	14	184	49	58	742	266	70	703
Turn Type	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	4	3	8	5	2		1	6
Permitted Phases				2		2	6	
Detector Phase	4	3	8	5	2	2	1	6
Switch Phase								
Minimum Initial (s)	6.0	5.0	6.0	5.0	15.0	15.0	5.0	15.0
Minimum Split (s)	39.5	15.0	39.5	15.0	39.5	39.5	15.0	33.5
Total Split (s)	39.5	18.0	57.5	15.0	47.5	47.5	15.0	47.5
Total Split (%)	32.9%	15.0%	47.9%	12.5%	39.6%	39.6%	12.5%	39.6%
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	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lead		Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.14	0.58	0.11	0.10	0.31	0.23	0.13	0.29
Control Delay	37.1	59.8	0.5	3.2	5.7	0.8	4.5	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.1	59.8	0.5	3.2	5.7	0.8	4.5	8.6
Queue Length 50th (ft)	4	71	0	3	68	5	6	115
Queue Length 95th (ft)	25	106	0	m15	121	4	m34	162
Internal Link Dist (ft)	824		844		448			234
Turn Bay Length (ft)				335		190	145	
Base Capacity (vph)	488	354	834	603	2431	1178	565	2448
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.03	0.52	0.06	0.10	0.31	0.23	0.12	0.29

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 16 (13%), 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: 6: SR 5 (Bill Arp Rd) & Concourse Rd/Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	4	8	162	0	43	51	653	234	62	619	0
Future Volume (veh/h)	0	4	8	162	0	43	51	653	234	62	619	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1856	1900	1900	1900	1870	1900	1870	1870	1900
Adj Flow Rate, veh/h	0	5	9	184	0	49	58	742	266	70	703	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	3	0	0	0	2	0	2	2	0
Cap, veh/h	60	31	57	243	0	271	558	2332	1056	494	2339	0
Arrive On Green	0.00	0.05	0.05	0.07	0.00	0.17	0.07	1.00	1.00	0.04	0.66	0.00
Sat Flow, veh/h	1378	606	1090	3428	0	1607	1810	3554	1609	1781	3647	0
Grp Volume(v), veh/h	0	0	14	184	0	49	58	742	266	70	703	0
Grp Sat Flow(s),veh/h/ln	1378	0	1696	1714	0	1607	1810	1777	1609	1781	1777	0
Q Serve(g_s), s	0.0	0.0	0.9	6.3	0.0	3.1	1.2	0.0	0.0	1.5	10.1	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.9	6.3	0.0	3.1	1.2	0.0	0.0	1.5	10.1	0.0
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	60	0	88	243	0	271	558	2332	1056	494	2339	0
V/C Ratio(X)	0.00	0.00	0.16	0.76	0.00	0.18	0.10	0.32	0.25	0.14	0.30	0.00
Avail Cap(c_a), veh/h	379	0	481	357	0	696	637	2332	1056	568	2339	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	0.86	0.86	0.86	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	54.4	54.7	0.0	42.8	6.1	0.0	0.0	5.9	8.7	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.8	5.2	0.0	0.3	0.1	0.3	0.5	0.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.8	5.3	0.0	2.3	0.8	0.2	0.3	1.0	6.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	55.2	60.0	0.0	43.1	6.2	0.3	0.5	6.0	9.1	0.0
LnGrp LOS	A	A	E	E	A	D	A	A	A	A	A	A
Approach Vol, veh/h		14			233			1066			773	
Approach Delay, s/veh		55.2			56.4			0.7			8.8	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	84.2	14.0	11.7	9.8	84.5		25.7				
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	42.0	12.5	34.0	9.5	42.0		52.0				
Max Q Clear Time (g_c+I1), s	3.5	2.0	8.3	2.9	3.2	12.1		5.1				
Green Ext Time (p_c), s	0.1	14.6	0.2	0.0	0.0	9.7		0.3				

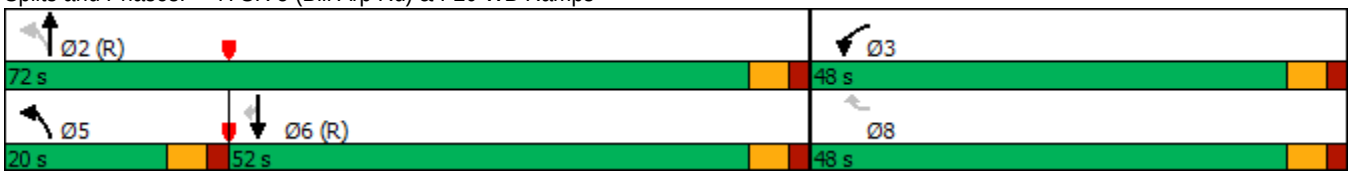
Intersection Summary	
HCM 6th Ctrl Delay	10.3
HCM 6th LOS	B

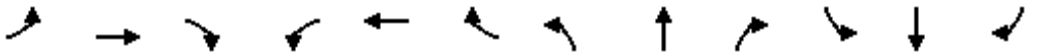
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	434	354	144	628	766	73
Future Volume (vph)	434	354	144	628	766	73
Lane Group Flow (vph)	517	421	171	748	912	87
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		8	2			6
Detector Phase	3	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	35.5	15.0	21.5	21.5	21.5
Total Split (s)	48.0	48.0	20.0	72.0	52.0	52.0
Total Split (%)	40.0%	40.0%	16.7%	60.0%	43.3%	43.3%
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	0.66	0.85	0.43	0.31	0.47	0.10
Control Delay	45.6	40.3	6.2	2.7	15.1	5.2
Queue Delay	0.0	0.0	0.0	0.1	0.2	0.0
Total Delay	45.6	40.3	6.2	2.9	15.4	5.2
Queue Length 50th (ft)	190	186	14	11	166	11
Queue Length 95th (ft)	197	241	21	77	321	22
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		555				375
Base Capacity (vph)	1215	667	446	2434	1954	864
Starvation Cap Reductn	0	0	0	668	379	0
Spillback Cap Reductn	40	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.63	0.38	0.42	0.58	0.10

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: 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	434	0	354	144	628	0	0	766	73
Future Volume (veh/h)	0	0	0	434	0	354	144	628	0	0	766	73
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				1870	0	1856	1856	1885	0	0	1870	1781
Adj Flow Rate, veh/h				517	0	0	171	748	0	0	912	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				2	0	3	3	1	0	0	2	8
Cap, veh/h				610	0		535	2622	0	0	2260	
Arrive On Green				0.18	0.00	0.00	0.03	0.49	0.00	0.00	1.00	0.00
Sat Flow, veh/h				3456	0	1572	1767	3676	0	0	3647	1510
Grp Volume(v), veh/h				517	0	0	171	748	0	0	912	0
Grp Sat Flow(s),veh/h/ln				1728	0	1572	1767	1791	0	0	1777	1510
Q Serve(g_s), s				17.4	0.0	0.0	3.8	14.8	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				17.4	0.0	0.0	3.8	14.8	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0		535	2622	0	0	2260	
V/C Ratio(X)				0.85	0.00		0.32	0.29	0.00	0.00	0.40	
Avail Cap(c_a), veh/h				1224	0		660	2622	0	0	2260	
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.91	0.91	0.00	0.00	0.95	0.00
Uniform Delay (d), s/veh				47.9	0.0	0.0	6.0	12.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				3.4	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				12.1	0.0	0.0	2.4	10.6	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.2	0.0	0.0	6.3	12.2	0.0	0.0	0.5	0.0
LnGrp LOS				D	A		A	B	A	A	A	
Approach Vol, veh/h					517	A		919			912	A
Approach Delay, s/veh					51.2			11.1			0.5	
Approach LOS					D			B			A	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	93.3		11.5	81.8		26.7						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	66.5		14.5	46.5		42.5						
Max Q Clear Time (g_c+I1), s	16.8		5.8	2.0		19.4						
Green Ext Time (p_c), s	12.2		0.3	15.5		1.8						

Intersection Summary		
HCM 6th Ctrl Delay		15.8
HCM 6th LOS		B

Notes

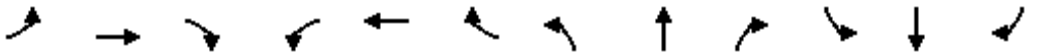
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	162	1	276	575	824	384	870
Future Volume (vph)	162	1	276	575	824	384	870
Lane Group Flow (vph)	198	1	337	701	1005	468	1061
Turn Type	Prot	NA	Perm	NA	Perm	pm+pt	NA
Protected Phases	7	4		2		1	6
Permitted Phases			4		2	6	
Detector Phase	7	4	4	2	2	1	6
Switch Phase							
Minimum Initial (s)	5.0	6.0	6.0	15.0	15.0	5.0	15.0
Minimum Split (s)	15.0	33.5	33.5	33.5	33.5	15.0	21.5
Total Split (s)	33.5	33.5	33.5	62.5	62.5	24.0	86.5
Total Split (%)	27.9%	27.9%	27.9%	52.1%	52.1%	20.0%	72.1%
Yellow Time (s)	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
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	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.59	no cap	0.82	0.37	0.87	0.81	0.41
Control Delay	50.7		42.7	12.7	14.9	29.6	6.8
Queue Delay	0.0		0.0	0.0	1.6	8.5	0.4
Total Delay	50.7	Error	42.7	12.7	16.4	38.1	7.2
Queue Length 50th (ft)	133	0	144	146	530	155	96
Queue Length 95th (ft)	188	0	214	112	630	368	292
Internal Link Dist (ft)		545		861			415
Turn Bay Length (ft)			270		320		
Base Capacity (vph)	413	1	478	1876	1161	585	2570
Starvation Cap Reductn	0	0	0	0	56	88	894
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	1.00	0.71	0.37	0.91	0.94	0.63

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated

Splits and Phases: 8: 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)	162	1	276	0	0	0	0	575	824	384	870	0
Future Volume (veh/h)	162	1	276	0	0	0	0	575	824	384	870	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	1870	1900	1885				0	1885	1885	1856	1885	0
Adj Flow Rate, veh/h	198	1	0				0	701	0	468	1061	0
Peak Hour Factor	0.82	0.82	0.82				0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	0	1				0	1	1	3	1	0
Cap, veh/h	229	0					0	2197		657	2792	0
Arrive On Green	0.13	0.13	0.00				0.00	0.61	0.00	0.16	1.00	0.00
Sat Flow, veh/h	1781	0	1598				0	3676	1598	1767	3676	0
Grp Volume(v), veh/h	198	0	0				0	701	0	468	1061	0
Grp Sat Flow(s),veh/h/ln	1781	0	1598				0	1791	1598	1767	1791	0
Q Serve(g_s), s	13.1	0.0	0.0				0.0	11.3	0.0	11.7	0.0	0.0
Cycle Q Clear(g_c), s	13.1	0.0	0.0				0.0	11.3	0.0	11.7	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	229	0					0	2197		657	2792	0
V/C Ratio(X)	0.86	0.00					0.00	0.32		0.71	0.38	0.00
Avail Cap(c_a), veh/h	416	0					0	2197		717	2792	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.33	1.33	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.65	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	51.2	0.0	0.0				0.0	11.1	0.0	6.7	0.0	0.0
Incr Delay (d2), s/veh	9.3	0.0	0.0				0.0	0.2	0.0	2.5	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	10.4	0.0	0.0				0.0	7.1	0.0	6.4	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	0.0	0.0				0.0	11.4	0.0	9.3	0.3	0.0
LnGrp LOS	E	A					A	B		A	A	A
Approach Vol, veh/h		198	A					701	A		1529	
Approach Delay, s/veh		60.5						11.4			3.1	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	19.9	79.1		21.0		99.0
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	18.5	57.0		28.0		81.0
Max Q Clear Time (g_c+I1), s	13.7	13.3		15.1		2.0
Green Ext Time (p_c), s	0.7	10.9		0.4		22.6

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

Notes

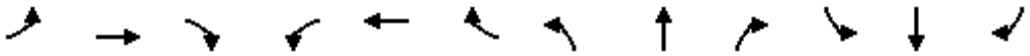
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	192	118	108	75	128	65	1015	219	761
Future Volume (vph)	192	118	108	75	128	65	1015	219	761
Lane Group Flow (vph)	213	155	120	83	142	72	1312	243	1003
Turn Type	pm+pt	NA	pm+pt	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	6.0	5.0	6.0	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	34.5	15.0	21.5	15.0	15.0	30.5	15.0	30.5
Total Split (s)	18.0	34.6	15.0	31.6	15.0	15.0	55.4	15.0	55.4
Total Split (%)	15.0%	28.8%	12.5%	26.3%	12.5%	12.5%	46.2%	12.5%	46.2%
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	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.72	0.39	0.51	0.50	0.38	0.47	0.73	0.59	0.51
Control Delay	54.7	46.4	46.2	61.5	20.0	61.9	26.8	58.9	14.1
Queue Delay	0.3	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	55.0	46.4	46.2	61.5	20.0	61.9	26.8	58.9	14.1
Queue Length 50th (ft)	143	53	76	62	42	54	406	97	222
Queue Length 95th (ft)	212	84	125	112	90	100	554	136	187
Internal Link Dist (ft)		891		822			1464		861
Turn Bay Length (ft)	195		165			350		420	
Base Capacity (vph)	295	865	238	413	369	164	1793	415	1983
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	4	0	0	0	8	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.18	0.50	0.20	0.39	0.44	0.73	0.59	0.51

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 100 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 105
Control Type: Actuated-Coordinated

Splits and Phases: 9: SR 5 (Bill Arp Rd) & Douglas Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	118	22	108	75	128	65	1015	166	219	761	141
Future Volume (veh/h)	192	118	22	108	75	128	65	1015	166	219	761	141
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		0.99	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	1885	1900	1900	1900	1900	1870	1900	1885	1900	1885	1885	1885
Adj Flow Rate, veh/h	213	131	24	120	83	142	72	1128	184	243	846	157
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	0	0	0	0	2	0	1	0	1	1	1
Cap, veh/h	319	408	73	311	196	288	93	1635	266	276	1683	312
Arrive On Green	0.10	0.13	0.13	0.07	0.10	0.10	0.05	0.53	0.53	0.16	1.00	1.00
Sat Flow, veh/h	1795	3056	547	1810	1900	1576	1810	3084	501	3483	3015	560
Grp Volume(v), veh/h	213	76	79	120	83	142	72	654	658	243	502	501
Grp Sat Flow(s),veh/h/ln	1795	1805	1799	1810	1900	1576	1810	1791	1794	1742	1791	1784
Q Serve(g_s), s	12.5	4.6	4.8	7.0	4.9	9.7	4.7	32.4	32.7	8.2	0.0	0.0
Cycle Q Clear(g_c), s	12.5	4.6	4.8	7.0	4.9	9.7	4.7	32.4	32.7	8.2	0.0	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.28	1.00		0.31
Lane Grp Cap(c), veh/h	319	241	240	311	196	288	93	949	951	276	1000	996
V/C Ratio(X)	0.67	0.32	0.33	0.39	0.42	0.49	0.78	0.69	0.69	0.88	0.50	0.50
Avail Cap(c_a), veh/h	319	438	436	320	413	468	143	949	951	276	1000	996
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Uniform Delay (d), s/veh	42.9	47.0	47.1	43.5	50.5	44.1	56.3	20.9	20.9	49.9	0.0	0.0
Incr Delay (d2), s/veh	5.2	0.7	0.8	0.8	1.4	1.3	13.3	4.1	4.1	23.3	1.5	1.5
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	10.0	3.7	3.9	5.6	4.3	6.8	4.5	20.1	20.3	7.2	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	48.1	47.8	47.9	44.3	51.9	45.4	69.5	24.9	25.1	73.3	1.5	1.5
LnGrp LOS	D	D	D	D	D	D	E	C	C	E	A	A
Approach Vol, veh/h		368			345			1384			1246	
Approach Delay, s/veh		48.0			46.6			27.3			15.5	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	69.1	14.4	21.5	11.6	72.5	18.0	17.9
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	49.9	9.5	29.1	9.5	49.9	12.5	26.1
Max Q Clear Time (g_c+I1), s	10.2	34.7	9.0	6.8	6.7	2.0	14.5	11.7
Green Ext Time (p_c), s	0.0	11.5	0.0	0.7	0.0	17.2	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	92	326	497	81	64	102
Future Vol, veh/h	92	326	497	81	64	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	96	340	518	84	67	106

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	602	0	-	0	1050	518
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	532	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	975	-	-	-	252	558
Stage 1	-	-	-	-	598	-
Stage 2	-	-	-	-	589	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	975	-	-	-	222	558
Mov Cap-2 Maneuver	-	-	-	-	222	-
Stage 1	-	-	-	-	526	-
Stage 2	-	-	-	-	589	-

Approach	EB	WB	SB
HCM Control Delay, s	2	0	24.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	975	-	-	-	352
HCM Lane V/C Ratio	0.098	-	-	-	0.491
HCM Control Delay (s)	9.1	0	-	-	24.7
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.3	-	-	-	2.6

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	325	8	50	554	33	86
Future Vol, veh/h	325	8	50	554	33	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	349	9	54	596	35	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	358	0	1058	354
Stage 1	-	-	-	-	354	-
Stage 2	-	-	-	-	704	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1201	-	249	690
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	490	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1201	-	232	690
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	710	-
Stage 2	-	-	-	-	457	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	16.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	446	-	-	1201	-
HCM Lane V/C Ratio	0.287	-	-	0.045	-
HCM Control Delay (s)	16.3	-	-	8.1	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	316	3	3	488	115	4	0	4	95	0	13
Future Vol, veh/h	19	316	3	3	488	115	4	0	4	95	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	20	329	3	3	508	120	4	0	4	99	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	628	0	0	332	0	0	952	1005	331	947	946	568
Stage 1	-	-	-	-	-	-	371	371	-	574	574	-
Stage 2	-	-	-	-	-	-	581	634	-	373	372	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	954	-	-	1227	-	-	239	241	711	241	262	522
Stage 1	-	-	-	-	-	-	649	620	-	504	503	-
Stage 2	-	-	-	-	-	-	499	473	-	648	619	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	954	-	-	1227	-	-	228	234	711	234	254	522
Mov Cap-2 Maneuver	-	-	-	-	-	-	228	234	-	234	254	-
Stage 1	-	-	-	-	-	-	632	604	-	491	501	-
Stage 2	-	-	-	-	-	-	484	471	-	627	603	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.5	0	15.7	30.5
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	345	954	-	-	1227	-	-	251
HCM Lane V/C Ratio	0.024	0.021	-	-	0.003	-	-	0.448
HCM Control Delay (s)	15.7	8.9	0	-	7.9	0	-	30.5
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	2.2

Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	393	36	133	524	63	56	2	85	39	5	8
Future Vol, veh/h	8	393	36	133	524	63	56	2	85	39	5	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	8	414	38	140	552	66	59	2	89	41	5	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	552	0	0	414	0	0	1269	1262	414	1263	1262	552
Stage 1	-	-	-	-	-	-	430	430	-	832	832	-
Stage 2	-	-	-	-	-	-	839	832	-	431	430	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1018	-	-	1145	-	-	145	170	638	147	170	533
Stage 1	-	-	-	-	-	-	603	583	-	363	384	-
Stage 2	-	-	-	-	-	-	360	384	-	603	583	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1018	-	-	1145	-	-	125	148	638	113	148	533
Mov Cap-2 Maneuver	-	-	-	-	-	-	125	148	-	113	148	-
Stage 1	-	-	-	-	-	-	598	578	-	360	337	-
Stage 2	-	-	-	-	-	-	306	337	-	512	578	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	30.4	50.4
HCM LOS			D	F

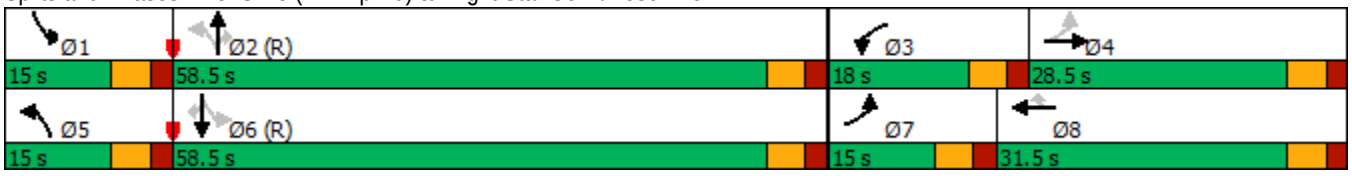
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	126	638	1018	-	-	1145	-	-	132
HCM Lane V/C Ratio	0.485	0.14	0.008	-	-	0.122	-	-	0.415
HCM Control Delay (s)	57.9	11.6	8.6	-	-	8.6	-	-	50.4
HCM Lane LOS	F	B	A	-	-	A	-	-	F
HCM 95th %tile Q(veh)	2.2	0.5	0	-	-	0.4	-	-	1.8

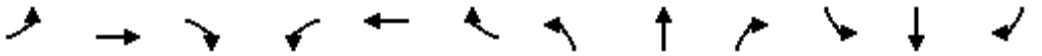
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	27	86	256	94	91	79	609	300	81	433	24
Future Volume (vph)	27	86	256	94	91	79	609	300	81	433	24
Lane Group Flow (vph)	28	160	261	96	93	81	621	306	83	442	24
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	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	28.5	18.0	31.5	31.5	15.0	58.5	58.5	15.0	58.5	58.5
Total Split (%)	12.5%	23.8%	15.0%	26.3%	26.3%	12.5%	48.8%	48.8%	12.5%	48.8%	48.8%
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	0.14	0.51	0.74	0.33	0.27	0.15	0.55	0.29	0.19	0.39	0.02
Control Delay	37.8	34.8	65.7	50.4	5.7	3.9	19.6	8.0	7.8	15.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
Total Delay	37.8	34.8	65.7	50.4	5.7	3.9	20.3	8.0	7.8	15.2	0.0
Queue Length 50th (ft)	17	34	102	70	0	20	350	75	19	178	0
Queue Length 95th (ft)	41	68	#148	124	27	24	612	183	39	282	0
Internal Link Dist (ft)		1365		588			381			1488	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	239	700	364	411	437	572	1124	1069	466	1127	1004
Starvation Cap Reductn	0	0	0	0	0	0	216	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	0.23	0.72	0.23	0.21	0.14	0.68	0.29	0.18	0.39	0.02

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34 (28%), 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: 5: 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)	27	86	71	256	94	91	79	609	300	81	433	24
Future Volume (veh/h)	27	86	71	256	94	91	79	609	300	81	433	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		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	1900	1900	1885	1900	1900	1900	1796	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	28	88	0	261	96	0	81	621	0	83	442	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	1	0	0	0	7	1	0	0	1	0
Cap, veh/h	180	206		319	233		596	1187		496	1187	
Arrive On Green	0.03	0.06	0.00	0.09	0.12	0.00	0.04	0.63	0.00	0.04	0.63	0.00
Sat Flow, veh/h	1810	3705	0	3510	1900	1610	1711	1885	1610	1810	1885	1610
Grp Volume(v), veh/h	28	88	0	261	96	0	81	621	0	83	442	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1900	1610	1711	1885	1610	1810	1885	1610
Q Serve(g_s), s	1.7	2.8	0.0	8.8	5.6	0.0	2.0	21.8	0.0	1.9	13.6	0.0
Cycle Q Clear(g_c), s	1.7	2.8	0.0	8.8	5.6	0.0	2.0	21.8	0.0	1.9	13.6	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	180	206		319	233		596	1187		496	1187	
V/C Ratio(X)	0.16	0.43		0.82	0.41		0.14	0.52		0.17	0.37	
Avail Cap(c_a), veh/h	277	692		366	412		665	1187		568	1187	
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	51.3	54.7	0.0	53.6	48.6	0.0	7.8	12.3	0.0	9.1	10.7	0.0
Incr Delay (d2), s/veh	0.4	1.4	0.0	12.1	1.2	0.0	0.1	1.7	0.0	0.2	0.9	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	1.4	2.3	0.0	7.8	4.9	0.0	1.2	13.5	0.0	1.2	9.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	56.1	0.0	65.7	49.8	0.0	7.9	13.9	0.0	9.3	11.6	0.0
LnGrp LOS	D	E		E	D		A	B		A	B	
Approach Vol, veh/h		116	A		357	A		702	A		525	A
Approach Delay, s/veh		55.0			61.4			13.2			11.3	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	81.1	16.4	12.3	10.2	81.1	8.5	20.2
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	53.0	12.5	23.0	9.5	53.0	9.5	26.0
Max Q Clear Time (g_c+I1), s	3.9	23.8	10.8	4.8	4.0	15.6	3.7	7.6
Green Ext Time (p_c), s	0.1	8.2	0.2	0.3	0.1	5.6	0.0	0.4

Intersection Summary	
HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

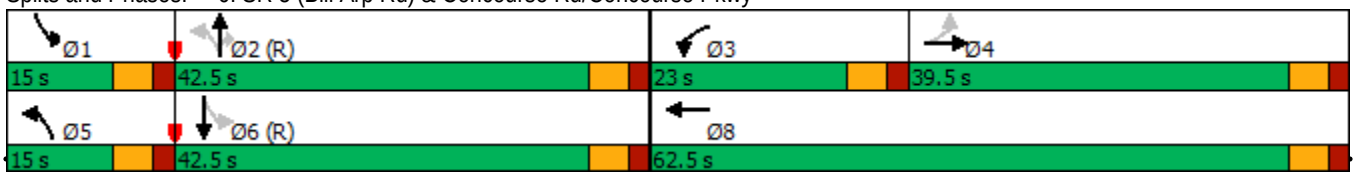
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

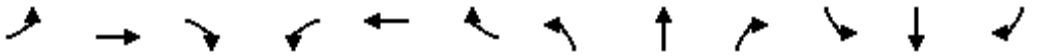
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	7	8	420	13	87	923	454	56	669
Future Volume (vph)	7	8	420	13	87	923	454	56	669
Lane Group Flow (vph)	7	66	438	72	91	961	473	58	706
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	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	23.0	62.5	15.0	42.5	42.5	15.0	42.5
Total Split (%)	32.9%	32.9%	19.2%	52.1%	12.5%	35.4%	35.4%	12.5%	35.4%
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	0.09	0.43	0.87	0.17	0.19	0.45	0.44	0.16	0.35
Control Delay	54.3	25.4	69.4	12.5	9.1	13.2	4.4	9.1	13.9
Queue Delay	0.0	0.0	8.5	0.0	0.0	0.4	0.3	0.0	0.0
Total Delay	54.3	25.4	77.9	12.5	9.1	13.6	4.7	9.1	13.9
Queue Length 50th (ft)	5	6	172	8	19	141	29	9	90
Queue Length 95th (ft)	21	50	#256	44	m33	m226	m69	m32	293
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	382	502	510	823	501	2120	1087	404	2027
Starvation Cap Reductn	0	0	0	0	0	569	208	0	0
Spillback Cap Reductn	0	0	51	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.13	0.95	0.09	0.18	0.62	0.54	0.14	0.35

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 8 (7%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 110
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) & Concourse Rd/Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	8	56	420	13	56	87	923	454	56	669	9
Future Volume (veh/h)	7	8	56	420	13	56	87	923	454	56	669	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900	1900	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	7	8	58	438	14	58	91	961	473	58	697	9
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, %	0	0	0	0	0	0	0	1	0	0	1	0
Cap, veh/h	158	14	104	493	84	347	478	2032	913	338	2040	26
Arrive On Green	0.07	0.07	0.07	0.14	0.26	0.26	0.08	1.00	1.00	0.04	0.56	0.56
Sat Flow, veh/h	1344	197	1426	3510	322	1335	1810	3582	1608	1810	3621	47
Grp Volume(v), veh/h	7	0	66	438	0	72	91	961	473	58	345	361
Grp Sat Flow(s),veh/h/ln	1344	0	1622	1755	0	1658	1810	1791	1608	1810	1791	1877
Q Serve(g_s), s	0.6	0.0	4.7	14.7	0.0	4.0	2.6	0.0	0.0	1.6	12.5	12.5
Cycle Q Clear(g_c), s	0.6	0.0	4.7	14.7	0.0	4.0	2.6	0.0	0.0	1.6	12.5	12.5
Prop In Lane	1.00		0.88	1.00		0.81	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	158	0	119	493	0	430	478	2032	913	338	1009	1057
V/C Ratio(X)	0.04	0.00	0.56	0.89	0.00	0.17	0.19	0.47	0.52	0.17	0.34	0.34
Avail Cap(c_a), veh/h	441	0	460	512	0	787	549	2032	913	417	1009	1057
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.61	0.61	0.61	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	53.7	50.6	0.0	34.4	10.3	0.0	0.0	10.0	14.2	14.2
Incr Delay (d2), s/veh	0.1	0.0	4.0	16.8	0.0	0.2	0.1	0.5	1.3	0.2	0.9	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	0.4	0.0	3.7	12.2	0.0	3.0	1.7	0.2	0.6	1.1	8.9	9.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.9	0.0	57.7	67.4	0.0	34.6	10.4	0.5	1.3	10.2	15.1	15.1
LnGrp LOS	D	A	E	E	A	C	B	A	A	B	B	B
Approach Vol, veh/h		73			510			1525			764	
Approach Delay, s/veh		57.2			62.8			1.3			14.7	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	9.8	73.6	22.4	14.3	10.3	73.1		36.6				
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	37.0	17.5	34.0	9.5	37.0		57.0				
Max Q Clear Time (g_c+I1), s	3.6	2.0	16.7	6.7	4.6	14.5		6.0				
Green Ext Time (p_c), s	0.0	20.7	0.2	0.3	0.1	8.0		0.5				

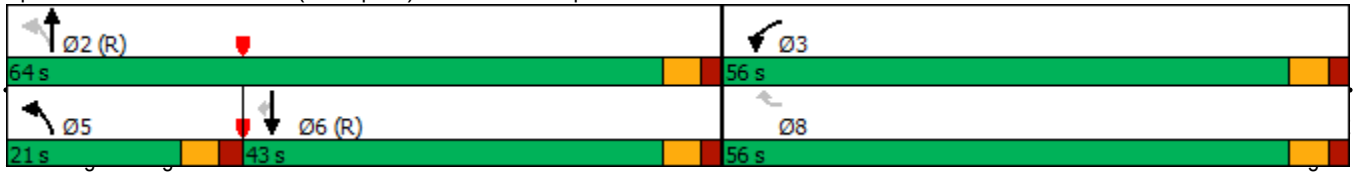
Intersection Summary			
HCM 6th Ctrl Delay		17.2	
HCM 6th LOS		B	

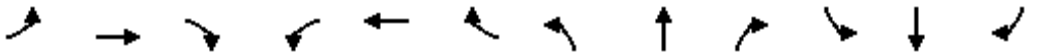
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	925	701	280	802	978	200
Future Volume (vph)	925	701	280	802	978	200
Lane Group Flow (vph)	964	730	292	835	1019	208
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		8	2			6
Detector Phase	3	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	35.5	15.0	21.5	21.5	21.5
Total Split (s)	56.0	56.0	21.0	64.0	43.0	43.0
Total Split (%)	46.7%	46.7%	17.5%	53.3%	35.8%	35.8%
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	0.65	1.01	1.00	0.47	0.91	0.33
Control Delay	30.4	66.7	79.3	18.6	38.6	8.7
Queue Delay	0.7	0.0	0.0	1.0	0.9	0.0
Total Delay	31.1	66.7	79.3	19.6	39.5	8.7
Queue Length 50th (ft)	302	~518	164	215	283	22
Queue Length 95th (ft)	374	#782	#356	317	#501	m79
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		555				375
Base Capacity (vph)	1473	721	293	1759	1116	636
Starvation Cap Reductn	0	0	0	619	19	0
Spillback Cap Reductn	214	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	1.01	1.00	0.73	0.93	0.33

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40 (33%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 100
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: 7: 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	925	0	701	280	802	0	0	978	200
Future Volume (veh/h)	0	0	0	925	0	701	280	802	0	0	978	200
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				1900	0	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				964	0	0	292	835	0	0	1019	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				1081	0		371	2168	0	0	1634	
Arrive On Green				0.31	0.00	0.00	0.03	0.20	0.00	0.00	0.46	0.00
Sat Flow, veh/h				3510	0	1598	1795	3705	0	0	3676	1610
Grp Volume(v), veh/h				964	0	0	292	835	0	0	1019	0
Grp Sat Flow(s),veh/h/ln				1755	0	1598	1795	1805	0	0	1791	1610
Q Serve(g_s), s				31.4	0.0	0.0	9.5	24.1	0.0	0.0	25.9	0.0
Cycle Q Clear(g_c), s				31.4	0.0	0.0	9.5	24.1	0.0	0.0	25.9	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1081	0		371	2168	0	0	1634	
V/C Ratio(X)				0.89	0.00		0.79	0.39	0.00	0.00	0.62	
Avail Cap(c_a), veh/h				1477	0		426	2168	0	0	1634	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	0.00	0.89	0.89	0.00	0.00	0.82	0.00
Uniform Delay (d), s/veh				39.6	0.0	0.0	21.8	28.9	0.0	0.0	24.8	0.0
Incr Delay (d2), s/veh				5.6	0.0	0.0	7.6	0.5	0.0	0.0	1.5	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				19.9	0.0	0.0	8.5	17.1	0.0	0.0	16.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.2	0.0	0.0	29.4	29.3	0.0	0.0	26.3	0.0
LnGrp LOS				D	A		C	C	A	A	C	
Approach Vol, veh/h					964	A		1127			1019	A
Approach Delay, s/veh					45.2			29.3			26.3	
Approach LOS					D			C			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		77.6			17.3	60.2		42.4				
Change Period (Y+Rc), s		5.5			5.5	5.5		5.5				
Max Green Setting (Gmax), s		58.5			15.5	37.5		50.5				
Max Q Clear Time (g_c+I1), s		26.1			11.5	27.9		33.4				
Green Ext Time (p_c), s		12.2			0.3	6.6		3.5				

Intersection Summary		
HCM 6th Ctrl Delay	33.3	
HCM 6th LOS	C	

Notes

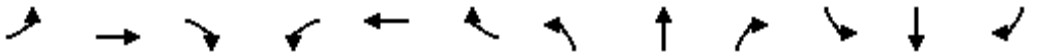
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	130	292	902	616	324	1558
Future Volume (vph)	130	292	902	616	324	1558
Lane Group Flow (vph)	131	295	911	622	327	1574
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)	37.0	37.0	55.0	55.0	28.0	83.0
Total Split (%)	30.8%	30.8%	45.8%	45.8%	23.3%	69.2%
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?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.39	0.82	0.46	0.55	0.68	0.61
Control Delay	44.2	52.7	20.0	5.3	13.8	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.6	1.3
Total Delay	44.2	52.7	20.0	5.3	14.4	15.5
Queue Length 50th (ft)	90	169	203	23	108	427
Queue Length 95th (ft)	137	251	326	100	m171	m722
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	473	471	1960	1129	560	2597
Starvation Cap Reductn	0	0	0	0	58	744
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.63	0.46	0.55	0.65	0.85

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 110 (92%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: 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)	130	0	292	0	0	0	0	902	616	324	1558	0
Future Volume (veh/h)	130	0	292	0	0	0	0	902	616	324	1558	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	1900	0	1900				0	1900	1900	1885	1900	0
Adj Flow Rate, veh/h	131	0	0				0	911	0	327	1574	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, %	0	0	0				0	0	0	1	0	0
Cap, veh/h	161	0					0	2545		557	2958	0
Arrive On Green	0.09	0.00	0.00				0.00	0.71	0.00	0.05	0.55	0.00
Sat Flow, veh/h	1810	0	1610				0	3705	1610	1795	3705	0
Grp Volume(v), veh/h	131	0	0				0	911	0	327	1574	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1795	1805	0
Q Serve(g_s), s	8.5	0.0	0.0				0.0	11.9	0.0	5.4	33.3	0.0
Cycle Q Clear(g_c), s	8.5	0.0	0.0				0.0	11.9	0.0	5.4	33.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	161	0					0	2545		557	2958	0
V/C Ratio(X)	0.81	0.00					0.00	0.36		0.59	0.53	0.00
Avail Cap(c_a), veh/h	475	0					0	2545		771	2958	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	0.67	0.67	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.60	0.00	0.52	0.52	0.00
Uniform Delay (d), s/veh	53.7	0.0	0.0				0.0	7.0	0.0	5.1	12.4	0.0
Incr Delay (d2), s/veh	9.4	0.0	0.0				0.0	0.2	0.0	0.5	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
%ile BackOfQ(95%),veh/ln	7.6	0.0	0.0				0.0	6.8	0.0	3.0	19.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.1	0.0	0.0				0.0	7.2	0.0	5.6	12.8	0.0
LnGrp LOS	E	A					A	A		A	B	A
Approach Vol, veh/h		131	A					911	A		1901	
Approach Delay, s/veh		63.1						7.2			11.5	
Approach LOS		E						A			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.7	90.1		16.2		103.8
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	22.5	49.5		31.5		77.5
Max Q Clear Time (g_c+I1), s	7.4	13.9		10.5		35.3
Green Ext Time (p_c), s	0.8	14.2		0.3		30.0

Intersection Summary	
HCM 6th Ctrl Delay	12.5
HCM 6th LOS	B

Notes

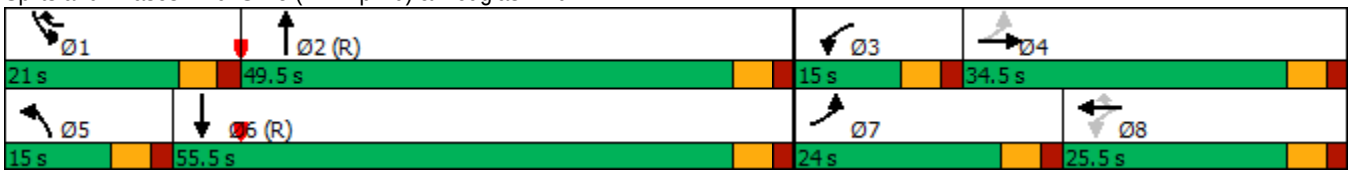
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

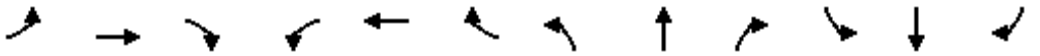
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	273	247	250	161	369	82	890	354	1231
Future Volume (vph)	273	247	250	161	369	82	890	354	1231
Lane Group Flow (vph)	276	328	253	163	373	83	1068	358	1479
Turn Type	pm+pt	NA	pm+pt	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	6.0	5.0	6.0	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	34.5	15.0	21.5	15.0	15.0	30.5	15.0	30.5
Total Split (s)	24.0	34.5	15.0	25.5	21.0	15.0	49.5	21.0	55.5
Total Split (%)	20.0%	28.8%	12.5%	21.3%	17.5%	12.5%	41.3%	17.5%	46.3%
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	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.74	0.46	0.91	0.67	0.73	0.58	0.74	0.76	0.87
Control Delay	44.7	39.6	73.5	63.4	32.3	69.1	34.5	63.7	24.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.7	39.6	73.5	63.4	32.3	69.1	34.5	63.7	24.9
Queue Length 50th (ft)	169	105	152	122	161	62	376	114	624
Queue Length 95th (ft)	237	144	#252	188	262	#125	472	#202	#770
Internal Link Dist (ft)		891		822			1464		861
Turn Bay Length (ft)	195		165			350		420	
Base Capacity (vph)	381	866	277	316	517	153	1444	485	1703
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	0.72	0.38	0.91	0.52	0.72	0.54	0.74	0.74	0.87

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, 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.

Splits and Phases: 9: SR 5 (Bill Arp Rd) & Douglas Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	273	247	78	250	161	369	82	890	167	354	1231	234
Future Volume (veh/h)	273	247	78	250	161	369	82	890	167	354	1231	234
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885
Adj Flow Rate, veh/h	276	249	79	253	163	373	83	899	169	358	1243	236
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	1
Cap, veh/h	391	616	191	360	317	456	105	1193	224	410	1370	258
Arrive On Green	0.14	0.23	0.23	0.08	0.17	0.17	0.06	0.39	0.39	0.23	0.90	0.90
Sat Flow, veh/h	1810	2712	840	1810	1900	1607	1810	3033	570	3510	3031	571
Grp Volume(v), veh/h	276	164	164	253	163	373	83	535	533	358	736	743
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1900	1607	1810	1805	1797	1755	1805	1797
Q Serve(g_s), s	14.6	9.2	9.6	9.5	9.4	20.0	5.4	30.7	30.7	11.8	25.4	27.6
Cycle Q Clear(g_c), s	14.6	9.2	9.6	9.5	9.4	20.0	5.4	30.7	30.7	11.8	25.4	27.6
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.32	1.00		0.32
Lane Grp Cap(c), veh/h	391	410	397	360	317	456	105	710	707	410	816	812
V/C Ratio(X)	0.71	0.40	0.41	0.70	0.51	0.82	0.79	0.75	0.75	0.87	0.90	0.92
Avail Cap(c_a), veh/h	417	436	422	360	317	456	143	710	707	453	816	812
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.72	0.72	0.72
Uniform Delay (d), s/veh	33.2	39.4	39.5	41.2	45.6	40.1	55.8	31.4	31.4	45.1	4.4	4.5
Incr Delay (d2), s/veh	5.0	0.6	0.7	6.0	1.4	11.2	18.1	7.3	7.3	12.0	11.6	12.9
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	11.0	7.3	7.4	4.7	7.9	16.8	5.4	20.7	20.6	8.3	7.8	8.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	40.0	40.2	47.2	47.0	51.3	73.9	38.7	38.7	57.1	15.9	17.4
LnGrp LOS	D	D	D	D	D	D	E	D	D	E	B	B
Approach Vol, veh/h		604			789			1151			1837	
Approach Delay, s/veh		39.3			49.1			41.2			24.5	
Approach LOS		D			D			D			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.5	52.7	15.0	32.8	12.5	59.7	22.3	25.5
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	15.5	44.0	9.5	29.0	9.5	50.0	18.5	20.0
Max Q Clear Time (g_c+I1), s	13.8	32.7	11.5	11.6	7.4	29.6	16.6	22.0
Green Ext Time (p_c), s	0.2	7.7	0.0	1.5	0.0	16.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	35.4
HCM 6th LOS	D

Future “Build” Intersections Analysis

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	361	246	46	142	111
Future Vol, veh/h	46	361	246	46	142	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	53	415	283	53	163	128

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	336	0	-	0	804	283
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1223	-	-	-	352	756
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1223	-	-	-	332	756
Mov Cap-2 Maneuver	-	-	-	-	332	-
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	596	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	27.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1223	-	-	-	440
HCM Lane V/C Ratio	0.043	-	-	-	0.661
HCM Control Delay (s)	8.1	0	-	-	27.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	4.7

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	363	7	71	313	11	46
Future Vol, veh/h	363	7	71	313	11	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	390	8	76	337	12	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	398	0	883	394
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	489	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1161	-	316	655
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	616	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1161	-	290	655
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	566	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	527	-	-	1161	-
HCM Lane V/C Ratio	0.116	-	-	0.066	-
HCM Control Delay (s)	12.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	15	413	5	6	281	64	4	1	6	37	0	4
Future Vol, veh/h	15	413	5	6	281	64	4	1	6	37	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	16	439	5	6	299	68	4	1	6	39	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	367	0	0	444	0	0	821	853	442	822	821	333
Stage 1	-	-	-	-	-	-	474	474	-	345	345	-
Stage 2	-	-	-	-	-	-	347	379	-	477	476	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1192	-	-	1116	-	-	293	296	615	293	309	709
Stage 1	-	-	-	-	-	-	571	558	-	671	636	-
Stage 2	-	-	-	-	-	-	669	615	-	569	557	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1116	-	-	286	289	615	284	301	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	286	289	-	284	301	-
Stage 1	-	-	-	-	-	-	561	548	-	659	632	-
Stage 2	-	-	-	-	-	-	660	611	-	552	547	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	14.2	18.9
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	404	1192	-	-	1116	-	-	302
HCM Lane V/C Ratio	0.029	0.013	-	-	0.006	-	-	0.144
HCM Control Delay (s)	14.2	8.1	0	-	8.2	0	-	18.9
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	448	6	41	395	33	9	0	56	38	1	7
Future Vol, veh/h	3	448	6	41	395	33	9	0	56	38	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	3	467	6	43	411	34	9	0	58	40	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	411	0	0	467	0	0	974	970	467	970	970	411
Stage 1	-	-	-	-	-	-	473	473	-	497	497	-
Stage 2	-	-	-	-	-	-	501	497	-	473	473	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1148	-	-	1094	-	-	231	253	596	233	253	641
Stage 1	-	-	-	-	-	-	572	558	-	555	545	-
Stage 2	-	-	-	-	-	-	552	545	-	572	558	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1148	-	-	1094	-	-	220	242	596	203	242	641
Mov Cap-2 Maneuver	-	-	-	-	-	-	220	242	-	203	242	-
Stage 1	-	-	-	-	-	-	570	556	-	553	524	-
Stage 2	-	-	-	-	-	-	523	524	-	515	556	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	13.1	25.1
HCM LOS			B	D

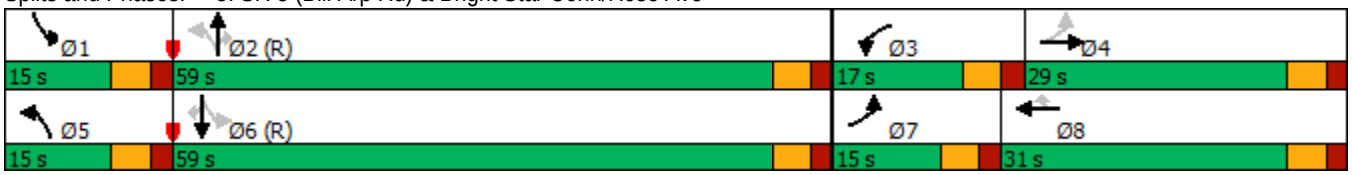
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	220	596	1148	-	-	1094	-	-	227
HCM Lane V/C Ratio	0.043	0.098	0.003	-	-	0.039	-	-	0.211
HCM Control Delay (s)	22.1	11.7	8.1	-	-	8.4	-	-	25.1
HCM Lane LOS	C	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.8

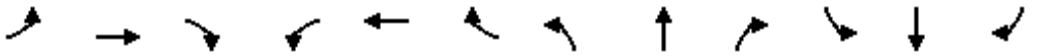
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	30	97	171	40	44	70	388	298	76	447	25
Future Volume (vph)	30	97	171	40	44	70	388	298	76	447	25
Lane Group Flow (vph)	34	172	192	45	49	79	436	335	85	502	28
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	NA	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	17.0	31.0	31.0	15.0	59.0	59.0	15.0	59.0	59.0
Total Split (%)	12.5%	24.2%	14.2%	25.8%	25.8%	12.5%	49.2%	49.2%	12.5%	49.2%	49.2%
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	0.16	0.55	0.62	0.17	0.15	0.15	0.40	0.31	0.14	0.45	0.03
Control Delay	38.1	39.7	61.4	48.6	0.9	1.6	4.9	2.1	7.2	15.9	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	38.1	39.7	61.4	48.6	0.9	1.6	4.9	2.1	7.2	15.9	0.0
Queue Length 50th (ft)	21	43	74	32	0	2	146	57	20	212	0
Queue Length 95th (ft)	47	76	112	67	0	3	15	0	40	325	0
Internal Link Dist (ft)		1365		588			381			1488	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	252	684	335	384	432	571	1092	1088	617	1118	1012
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	0.13	0.25	0.57	0.12	0.11	0.14	0.40	0.31	0.14	0.45	0.03

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 15 (13%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 95
Control Type: Actuated-Coordinated

Splits and Phases: 5: 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)	30	97	56	171	40	44	70	388	298	76	447	25
Future Volume (veh/h)	30	97	56	171	40	44	70	388	298	76	447	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		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	1900	1900	1707	1900	1826	1900	1900	1841	1900	1900	1856	1900
Adj Flow Rate, veh/h	34	109	0	192	45	0	79	436	0	85	502	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	13	0	5	0	0	4	0	0	3	0
Cap, veh/h	192	214		252	187		600	1190		650	1201	
Arrive On Green	0.03	0.06	0.00	0.07	0.10	0.00	0.04	0.65	0.00	0.04	0.65	0.00
Sat Flow, veh/h	1810	3705	0	3510	1826	1610	1810	1841	1610	1810	1856	1610
Grp Volume(v), veh/h	34	109	0	192	45	0	79	436	0	85	502	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1826	1610	1810	1841	1610	1810	1856	1610
Q Serve(g_s), s	2.1	3.5	0.0	6.4	2.7	0.0	1.7	13.2	0.0	1.9	15.7	0.0
Cycle Q Clear(g_c), s	2.1	3.5	0.0	6.4	2.7	0.0	1.7	13.2	0.0	1.9	15.7	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	192	214		252	187		600	1190		650	1201	
V/C Ratio(X)	0.18	0.51		0.76	0.24		0.13	0.37		0.13	0.42	
Avail Cap(c_a), veh/h	284	707		336	388		673	1190		723	1201	
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	50.9	54.8	0.0	54.7	49.5	0.0	7.3	9.8	0.0	7.0	10.2	0.0
Incr Delay (d2), s/veh	0.4	1.9	0.0	7.1	0.7	0.0	0.1	0.9	0.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	2.9	0.0	5.5	2.3	0.0	1.1	8.6	0.0	1.1	10.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	56.6	0.0	61.8	50.2	0.0	7.4	10.7	0.0	7.1	11.3	0.0
LnGrp LOS	D	E		E	D		A	B		A	B	
Approach Vol, veh/h		143	A		237	A		515	A		587	A
Approach Delay, s/veh		55.4			59.6			10.2			10.7	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	83.1	14.1	12.6	10.1	83.2	8.9	17.8
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	53.5	11.5	23.5	9.5	53.5	9.5	25.5
Max Q Clear Time (g_c+I1), s	3.9	15.2	8.4	5.5	3.7	17.7	4.1	4.7
Green Ext Time (p_c), s	0.1	5.6	0.2	0.4	0.1	6.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

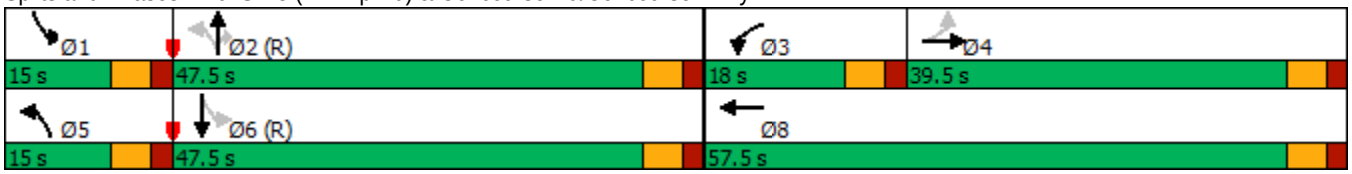
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

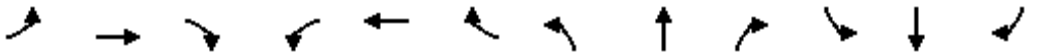
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	1	4	162	0	51	707	234	62	637
Future Volume (vph)	1	4	162	0	51	707	234	62	637
Lane Group Flow (vph)	1	14	184	50	58	803	266	70	724
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	8	5	2		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	18.0	57.5	15.0	47.5	47.5	15.0	47.5
Total Split (%)	32.9%	32.9%	15.0%	47.9%	12.5%	39.6%	39.6%	12.5%	39.6%
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	0.01	0.14	0.58	0.12	0.11	0.33	0.23	0.14	0.30
Control Delay	53.0	37.1	59.8	0.6	2.8	5.4	0.7	4.3	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
Total Delay	53.0	37.1	59.8	0.6	2.8	5.6	0.7	4.3	8.2
Queue Length 50th (ft)	1	4	71	0	4	80	5	6	122
Queue Length 95th (ft)	7	25	106	0	m12	111	4	m24	170
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	538	488	354	827	591	2433	1174	535	2448
Starvation Cap Reductn	0	0	0	0	0	724	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	0.00	0.03	0.52	0.06	0.10	0.47	0.23	0.13	0.30

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 16 (13%), 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: 6: SR 5 (Bill Arp Rd) & Concourse Rd/Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	4	8	162	0	44	51	707	234	62	637	0
Future Volume (veh/h)	1	4	8	162	0	44	51	707	234	62	637	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	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	1900	1900	1900	1856	1900	1900	1900	1870	1900	1870	1870	1900
Adj Flow Rate, veh/h	1	5	9	184	0	50	58	803	266	70	724	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	3	0	0	0	2	0	2	2	0
Cap, veh/h	132	32	57	243	0	272	547	2330	1055	473	2338	0
Arrive On Green	0.05	0.05	0.05	0.07	0.00	0.17	0.07	1.00	1.00	0.04	0.66	0.00
Sat Flow, veh/h	1369	606	1090	3428	0	1607	1810	3554	1609	1781	3647	0
Grp Volume(v), veh/h	1	0	14	184	0	50	58	803	266	70	724	0
Grp Sat Flow(s),veh/h/ln	1369	0	1696	1714	0	1607	1810	1777	1609	1781	1777	0
Q Serve(g_s), s	0.1	0.0	0.9	6.3	0.0	3.2	1.2	0.0	0.0	1.5	10.5	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.9	6.3	0.0	3.2	1.2	0.0	0.0	1.5	10.5	0.0
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	132	0	89	243	0	272	547	2330	1055	473	2338	0
V/C Ratio(X)	0.01	0.00	0.16	0.76	0.00	0.18	0.11	0.34	0.25	0.15	0.31	0.00
Avail Cap(c_a), veh/h	448	0	481	357	0	697	626	2330	1055	547	2338	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.84	0.84	0.84	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.9	0.0	54.3	54.7	0.0	42.8	6.1	0.0	0.0	5.9	8.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.8	5.2	0.0	0.3	0.1	0.3	0.5	0.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.8	5.3	0.0	2.4	0.8	0.2	0.3	1.0	7.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	0.0	55.2	60.0	0.0	43.1	6.2	0.3	0.5	6.0	9.2	0.0
LnGrp LOS	D	A	E	E	A	D	A	A	A	A	A	A
Approach Vol, veh/h		15			234			1127			794	
Approach Delay, s/veh		55.1			56.4			0.7			8.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	84.2	14.0	11.8	9.8	84.4		25.8				
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	42.0	12.5	34.0	9.5	42.0		52.0				
Max Q Clear Time (g_c+I1), s	3.5	2.0	8.3	2.9	3.2	12.5		5.2				
Green Ext Time (p_c), s	0.1	15.9	0.2	0.0	0.0	10.0		0.3				

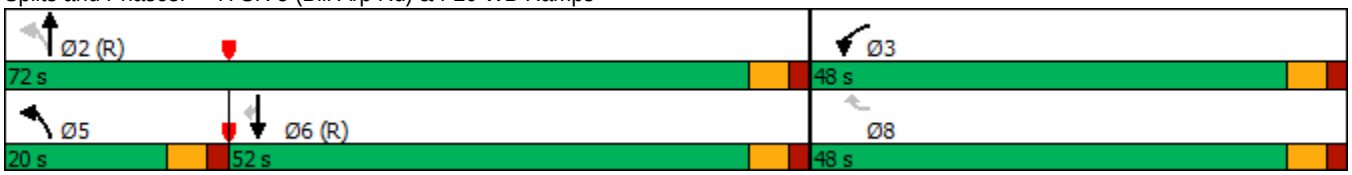
Intersection Summary			
HCM 6th Ctrl Delay		10.1	
HCM 6th LOS		B	

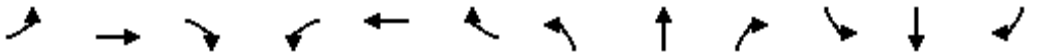
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	434	372	144	664	780	77
Future Volume (vph)	434	372	144	664	780	77
Lane Group Flow (vph)	517	443	171	790	929	92
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		8	2			6
Detector Phase	3	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	35.5	15.0	21.5	21.5	21.5
Total Split (s)	48.0	48.0	20.0	72.0	52.0	52.0
Total Split (%)	40.0%	40.0%	16.7%	60.0%	43.3%	43.3%
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	0.61	0.87	0.45	0.33	0.50	0.11
Control Delay	42.1	43.9	7.0	3.9	16.7	5.7
Queue Delay	0.1	0.0	0.0	0.1	0.2	0.0
Total Delay	42.2	43.9	7.0	4.0	16.9	5.7
Queue Length 50th (ft)	184	217	5	11	180	7
Queue Length 95th (ft)	190	269	47	192	332	25
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		555				375
Base Capacity (vph)	1215	655	425	2361	1873	834
Starvation Cap Reductn	0	0	0	628	327	0
Spillback Cap Reductn	64	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.68	0.40	0.46	0.60	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 35 (29%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 7: 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	434	0	372	144	664	0	0	780	77
Future Volume (veh/h)	0	0	0	434	0	372	144	664	0	0	780	77
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				1870	0	1856	1856	1885	0	0	1870	1781
Adj Flow Rate, veh/h				517	0	0	171	790	0	0	929	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				2	0	3	3	1	0	0	2	8
Cap, veh/h				610	0		528	2622	0	0	2262	
Arrive On Green				0.18	0.00	0.00	0.02	0.24	0.00	0.00	1.00	0.00
Sat Flow, veh/h				3456	0	1572	1767	3676	0	0	3647	1510
Grp Volume(v), veh/h				517	0	0	171	790	0	0	929	0
Grp Sat Flow(s),veh/h/ln				1728	0	1572	1767	1791	0	0	1777	1510
Q Serve(g_s), s				17.4	0.0	0.0	3.7	21.7	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				17.4	0.0	0.0	3.7	21.7	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0		528	2622	0	0	2262	
V/C Ratio(X)				0.85	0.00		0.32	0.30	0.00	0.00	0.41	
Avail Cap(c_a), veh/h				1224	0		654	2622	0	0	2262	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.89	0.89	0.00	0.00	0.94	0.00
Uniform Delay (d), s/veh				47.9	0.0	0.0	6.1	20.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				3.4	0.0	0.0	0.3	0.3	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				12.1	0.0	0.0	2.5	15.4	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.2	0.0	0.0	6.4	20.7	0.0	0.0	0.5	0.0
LnGrp LOS				D	A		A	C	A	A	A	
Approach Vol, veh/h					517	A		961			929	A
Approach Delay, s/veh					51.2			18.1			0.5	
Approach LOS					D			B			A	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	93.3		11.4	81.9		26.7						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	66.5		14.5	46.5		42.5						
Max Q Clear Time (g_c+I1), s	23.7		5.7	2.0		19.4						
Green Ext Time (p_c), s	12.6		0.3	15.9		1.8						

Intersection Summary		
HCM 6th Ctrl Delay	18.4	
HCM 6th LOS	B	

Notes

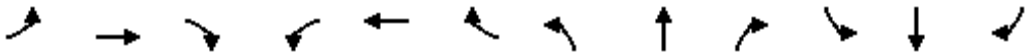
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	173	276	600	824	390	878
Future Volume (vph)	173	276	600	824	390	878
Lane Group Flow (vph)	211	337	732	1005	476	1071
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)	33.5	33.5	62.5	62.5	24.0	86.5
Total Split (%)	27.9%	27.9%	52.1%	52.1%	20.0%	72.1%
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	0.68	0.86	0.39	0.87	0.81	0.41
Control Delay	56.3	48.7	11.9	18.4	30.4	7.8
Queue Delay	0.0	0.0	0.0	1.2	11.0	0.4
Total Delay	56.3	48.7	11.9	19.6	41.4	8.2
Queue Length 50th (ft)	153	157	171	536	153	61
Queue Length 95th (ft)	199	215	166	616	#389	358
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	413	476	1876	1158	588	2615
Starvation Cap Reductn	0	0	0	44	93	950
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.71	0.39	0.90	0.96	0.64

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 117 (98%), 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: 8: 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)	173	0	276	0	0	0	0	600	824	390	878	0
Future Volume (veh/h)	173	0	276	0	0	0	0	600	824	390	878	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	1870	0	1885				0	1885	1885	1856	1885	0
Adj Flow Rate, veh/h	211	0	0				0	732	0	476	1071	0
Peak Hour Factor	0.82	0.82	0.82				0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	0	1				0	1	1	3	1	0
Cap, veh/h	243	0					0	2086		656	2766	0
Arrive On Green	0.14	0.00	0.00				0.00	0.58	0.00	0.29	1.00	0.00
Sat Flow, veh/h	1781	0	1598				0	3676	1598	1767	3676	0
Grp Volume(v), veh/h	211	0	0				0	732	0	476	1071	0
Grp Sat Flow(s),veh/h/ln	1781	0	1598				0	1791	1598	1767	1791	0
Q Serve(g_s), s	13.9	0.0	0.0				0.0	12.9	0.0	15.0	0.0	0.0
Cycle Q Clear(g_c), s	13.9	0.0	0.0				0.0	12.9	0.0	15.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	243	0					0	2086		656	2766	0
V/C Ratio(X)	0.87	0.00					0.00	0.35		0.73	0.39	0.00
Avail Cap(c_a), veh/h	416	0					0	2086		674	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.64	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	50.8	0.0	0.0				0.0	13.2	0.0	6.6	0.0	0.0
Incr Delay (d2), s/veh	9.7	0.0	0.0				0.0	0.3	0.0	3.2	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	10.9	0.0	0.0				0.0	8.0	0.0	6.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	0.0	0.0				0.0	13.4	0.0	9.8	0.3	0.0
LnGrp LOS	E	A					A	B		A	A	A
Approach Vol, veh/h		211	A					732	A		1547	
Approach Delay, s/veh		60.5						13.4			3.2	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.8	75.4		21.8		98.2						
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5						
Max Green Setting (Gmax), s	18.5	57.0		28.0		81.0						
Max Q Clear Time (g_c+I1), s	17.0	14.9		15.9		2.0						
Green Ext Time (p_c), s	0.3	11.4		0.4		22.9						

Intersection Summary			
HCM 6th Ctrl Delay		11.1	
HCM 6th LOS		B	

Notes

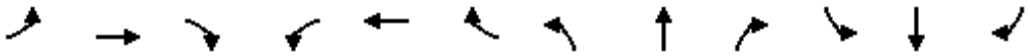
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	193	118	108	75	129	65	1038	219	769
Future Volume (vph)	193	118	108	75	129	65	1038	219	769
Lane Group Flow (vph)	214	155	120	83	143	72	1337	243	1011
Turn Type	pm+pt	NA	pm+pt	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	6.0	5.0	6.0	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	34.5	15.0	21.5	15.0	15.0	30.5	15.0	30.5
Total Split (s)	17.0	34.6	15.0	32.6	15.0	15.0	55.4	15.0	55.4
Total Split (%)	14.2%	28.8%	12.5%	27.2%	12.5%	12.5%	46.2%	12.5%	46.2%
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	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.76	0.41	0.51	0.50	0.39	0.47	0.74	0.59	0.50
Control Delay	59.1	47.7	46.9	61.5	20.1	61.9	26.5	55.6	11.3
Queue Delay	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay	60.1	47.7	46.9	61.5	20.2	61.9	26.5	55.6	11.3
Queue Length 50th (ft)	146	53	77	62	42	54	411	88	185
Queue Length 95th (ft)	#228	85	127	112	92	100	561	m134	209
Internal Link Dist (ft)		891		822			1464		861
Turn Bay Length (ft)	195		165			350		420	
Base Capacity (vph)	282	865	238	429	369	164	1816	415	2006
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	9	0	0	0	16	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.18	0.50	0.19	0.41	0.44	0.74	0.59	0.50

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 88 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 105
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: 9: SR 5 (Bill Arp Rd) & Douglas Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	118	22	108	75	129	65	1038	166	219	769	141
Future Volume (veh/h)	193	118	22	108	75	129	65	1038	166	219	769	141
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		0.99	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	1885	1900	1900	1900	1900	1870	1900	1885	1900	1885	1885	1885
Adj Flow Rate, veh/h	214	131	24	120	83	143	72	1153	184	243	854	157
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	0	0	0	0	2	0	1	0	1	1	1
Cap, veh/h	305	385	69	301	198	289	93	1664	265	276	1709	314
Arrive On Green	0.10	0.13	0.13	0.07	0.10	0.10	0.05	0.54	0.54	0.16	1.00	1.00
Sat Flow, veh/h	1795	3056	547	1810	1900	1576	1810	3095	492	3483	3021	555
Grp Volume(v), veh/h	214	76	79	120	83	143	72	665	672	243	506	505
Grp Sat Flow(s),veh/h/ln	1795	1805	1798	1810	1900	1576	1810	1791	1796	1742	1791	1785
Q Serve(g_s), s	11.5	4.6	4.8	7.0	4.9	9.8	4.7	32.8	33.1	8.2	0.0	0.0
Cycle Q Clear(g_c), s	11.5	4.6	4.8	7.0	4.9	9.8	4.7	32.8	33.1	8.2	0.0	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.27	1.00		0.31
Lane Grp Cap(c), veh/h	305	227	227	301	198	289	93	963	966	276	1013	1010
V/C Ratio(X)	0.70	0.33	0.35	0.40	0.42	0.49	0.78	0.69	0.70	0.88	0.50	0.50
Avail Cap(c_a), veh/h	305	438	436	310	429	481	143	963	966	276	1013	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	44.3	47.9	47.9	43.5	50.4	44.0	56.3	20.4	20.5	49.9	0.0	0.0
Incr Delay (d2), s/veh	7.0	0.9	0.9	0.9	1.4	1.3	13.3	4.1	4.1	23.1	1.5	1.5
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	10.3	3.8	3.9	5.6	4.2	6.9	4.5	20.3	20.5	7.2	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	48.7	48.8	44.3	51.8	45.3	69.5	24.5	24.6	73.1	1.5	1.5
LnGrp LOS	D	D	D	D	D	D	E	C	C	E	A	A
Approach Vol, veh/h		369			346			1409			1254	
Approach Delay, s/veh		50.3			46.5			26.8			15.4	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	70.0	14.4	20.6	11.6	73.4	17.0	18.0
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	49.9	9.5	29.1	9.5	49.9	11.5	27.1
Max Q Clear Time (g_c+I1), s	10.2	35.1	9.0	6.8	6.7	2.0	13.5	11.8
Green Ext Time (p_c), s	0.0	11.4	0.0	0.7	0.0	17.4	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	435	346	68	21	7
Future Vol, veh/h	21	435	346	68	21	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	235	-	-	175	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	473	376	74	23	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	450	0	-	0	895	376
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	519	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1110	-	-	-	311	670
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	597	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1110	-	-	-	304	670
Mov Cap-2 Maneuver	-	-	-	-	304	-
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	597	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1110	-	-	-	304	670
HCM Lane V/C Ratio	0.021	-	-	-	0.075	0.011
HCM Control Delay (s)	8.3	-	-	-	17.8	10.4
HCM Lane LOS	A	-	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	456	412	0	4	1
Future Vol, veh/h	0	456	412	0	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	496	448	0	4	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	944	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	496	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	291	611
Stage 1	0	-	-	0	644	-
Stage 2	0	-	-	0	612	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	291	611
Mov Cap-2 Maneuver	-	-	-	-	291	-
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	612	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	325
HCM Lane V/C Ratio	-	-	0.017
HCM Control Delay (s)	-	-	16.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	71	10	10	41
Future Vol, veh/h	0	3	71	10	10	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	160	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	77	11	11	45

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	144	77	0	0	88	0
Stage 1	77	-	-	-	-	-
Stage 2	67	-	-	-	-	-
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	849	984	-	-	1508	-
Stage 1	946	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	843	984	-	-	1508	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	949	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	984	1508	-
HCM Lane V/C Ratio	-	-	0.003	0.007	-
HCM Control Delay (s)	-	-	8.7	7.4	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	102	402	507	81	64	103
Future Vol, veh/h	102	402	507	81	64	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	106	419	528	84	67	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	612	0	-	0	1159	528
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	631	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	967	-	-	-	216	550
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	530	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	967	-	-	-	185	550
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	530	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	30
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	967	-	-	-	313
HCM Lane V/C Ratio	0.11	-	-	-	0.556
HCM Control Delay (s)	9.2	0	-	-	30
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	3.2

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	344	13	59	557	71	153
Future Vol, veh/h	344	13	59	557	71	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	370	14	63	599	76	165

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	384	0	1102	377
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1174	-	234	670
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1174	-	215	670
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	441	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	26.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	401	-	-	1174	-
HCM Lane V/C Ratio	0.601	-	-	0.054	-
HCM Control Delay (s)	26.6	-	-	8.2	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	3.8	-	-	0.2	-

Intersection	
Int Delay, s/veh	102.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	24	337	3	13	622	140	4	1	5	258	10	70
Future Vol, veh/h	24	337	3	13	622	140	4	1	5	258	10	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	25	351	3	14	648	146	4	1	5	269	10	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	794	0	0	354	0	0	1194	1225	353	1155	1153	721
Stage 1	-	-	-	-	-	-	403	403	-	749	749	-
Stage 2	-	-	-	-	-	-	791	822	-	406	404	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	827	-	-	1205	-	-	163	179	691	~ 174	197	427
Stage 1	-	-	-	-	-	-	624	600	-	404	419	-
Stage 2	-	-	-	-	-	-	383	388	-	622	599	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	827	-	-	1205	-	-	124	169	691	~ 164	186	427
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	169	-	~ 164	186	-
Stage 1	-	-	-	-	-	-	600	577	-	389	410	-
Stage 2	-	-	-	-	-	-	303	380	-	593	576	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	22.2	$ 449.8
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	220	827	-	-	1205	-	-	189
HCM Lane V/C Ratio	0.047	0.03	-	-	0.011	-	-	1.863
HCM Control Delay (s)	22.2	9.5	0	-	8	0	-	$ 449.8
HCM Lane LOS	C	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	25.6

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

Intersection	
Int Delay, s/veh	41.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	1012	46	133	609	63	57	2	85	39	5	9
Future Vol, veh/h	18	1012	46	133	609	63	57	2	85	39	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	19	1065	48	140	641	66	60	2	89	41	5	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	641	0	0	1065	0	0	2031	2024	1065	2025	2024	641
Stage 1	-	-	-	-	-	-	1103	1103	-	921	921	-
Stage 2	-	-	-	-	-	-	928	921	-	1104	1103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	943	-	-	654	-	-	~ 42	58	270	43	58	475
Stage 1	-	-	-	-	-	-	256	287	-	324	349	-
Stage 2	-	-	-	-	-	-	321	349	-	256	287	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	943	-	-	654	-	-	~ 31	45	270	~ 23	45	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	45	-	~ 23	45	-
Stage 1	-	-	-	-	-	-	251	281	-	318	274	-
Stage 2	-	-	-	-	-	-	243	274	-	166	281	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	$ 318.4	$ 725.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	31	270	943	-	-	654	-	-	29
HCM Lane V/C Ratio	2.003	0.331	0.02	-	-	0.214	-	-	1.924
HCM Control Delay (s)	$ 741.4	24.8	8.9	-	-	12	-	-	$ 725.1
HCM Lane LOS	F	C	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	7.1	1.4	0.1	-	-	0.8	-	-	6.5

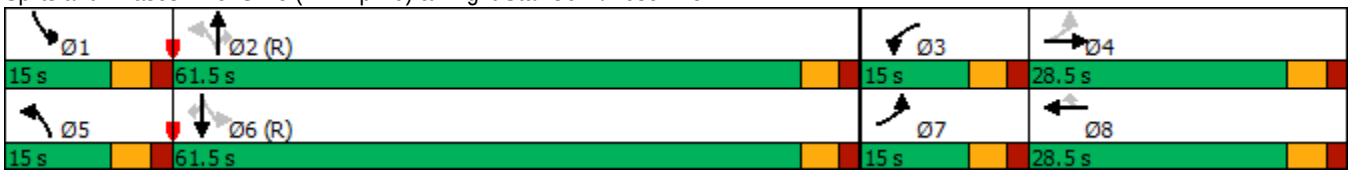
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

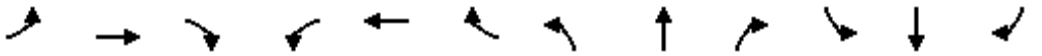
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	31	86	256	94	104	79	677	300	176	928	53
Future Volume (vph)	31	86	256	94	104	79	677	300	176	928	53
Lane Group Flow (vph)	32	160	261	96	106	81	691	306	180	947	54
Turn Type	pm+pt	NA	Prot	NA	Perm	pm+pt	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	28.5	15.0	28.5	28.5	15.0	61.5	61.5	15.0	61.5	61.5
Total Split (%)	12.5%	23.8%	12.5%	23.8%	23.8%	12.5%	51.3%	51.3%	12.5%	51.3%	51.3%
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	0.47	0.94	0.36	0.33	0.40	0.64	0.30	0.45	0.83	0.05
Control Delay	38.4	32.4	96.3	52.6	8.7	23.2	9.0	0.9	10.2	28.3	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	38.4	32.4	96.3	52.6	8.7	23.2	9.0	0.9	10.2	28.3	0.1
Queue Length 50th (ft)	20	34	105	72	0	7	49	1	40	553	0
Queue Length 95th (ft)	45	66	#189	124	40	55	527	0	79	#993	0
Internal Link Dist (ft)		1365		588			381			1488	
Turn Bay Length (ft)	225		300			200			110		330
Base Capacity (vph)	251	700	277	364	401	232	1077	1030	411	1146	1019
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	0.13	0.23	0.94	0.26	0.26	0.35	0.64	0.30	0.44	0.83	0.05

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 119 (99%), 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.

Splits and Phases: 5: 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)	31	86	71	256	94	104	79	677	300	176	928	53
Future Volume (veh/h)	31	86	71	256	94	104	79	677	300	176	928	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		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	1900	1900	1885	1900	1900	1900	1796	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	32	88	0	261	96	0	81	691	0	180	947	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	1	0	0	0	7	1	0	0	1	0
Cap, veh/h	184	206		278	207		286	1183		471	1210	
Arrive On Green	0.03	0.06	0.00	0.08	0.11	0.00	0.04	0.63	0.00	0.05	0.64	0.00
Sat Flow, veh/h	1810	3705	0	3510	1900	1610	1711	1885	1610	1810	1885	1610
Grp Volume(v), veh/h	32	88	0	261	96	0	81	691	0	180	947	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1900	1610	1711	1885	1610	1810	1885	1610
Q Serve(g_s), s	2.0	2.8	0.0	8.9	5.7	0.0	2.0	25.9	0.0	4.2	43.4	0.0
Cycle Q Clear(g_c), s	2.0	2.8	0.0	8.9	5.7	0.0	2.0	25.9	0.0	4.2	43.4	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	184	206		278	207		286	1183		471	1210	
V/C Ratio(X)	0.17	0.43		0.94	0.46		0.28	0.58		0.38	0.78	
Avail Cap(c_a), veh/h	277	692		278	364		355	1183		518	1210	
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	51.2	54.7	0.0	55.0	50.2	0.0	15.5	13.1	0.0	10.4	15.5	0.0
Incr Delay (d2), s/veh	0.4	1.4	0.0	37.9	1.6	0.0	0.5	2.1	0.0	0.5	5.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	2.3	0.0	9.1	5.0	0.0	1.4	15.6	0.0	2.7	24.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	56.1	0.0	92.9	51.8	0.0	16.0	15.3	0.0	11.0	20.6	0.0
LnGrp LOS	D	E		F	D		B	B		B	C	
Approach Vol, veh/h		120	A		357	A		772	A		1127	A
Approach Delay, s/veh		54.9			81.8			15.3			19.0	
Approach LOS		D			F			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	80.8	15.0	12.3	10.2	82.5	8.8	18.6
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	56.0	9.5	23.0	9.5	56.0	9.5	23.0
Max Q Clear Time (g_c+I1), s	6.2	27.9	10.9	4.8	4.0	45.4	4.0	7.7
Green Ext Time (p_c), s	0.1	9.4	0.0	0.3	0.1	7.3	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

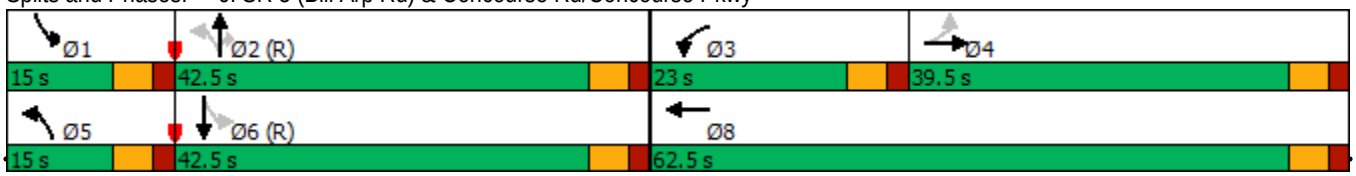
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

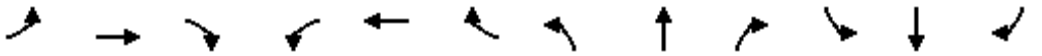
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	8	8	420	13	87	988	454	66	1145
Future Volume (vph)	8	8	420	13	87	988	454	66	1145
Lane Group Flow (vph)	8	66	438	73	91	1029	473	69	1213
Turn Type	Perm	NA	Prot	NA	pm+pt	NA	Perm	pm+pt	NA
Protected Phases		4	3	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	23.0	62.5	15.0	42.5	42.5	15.0	42.5
Total Split (%)	32.9%	32.9%	19.2%	52.1%	12.5%	35.4%	35.4%	12.5%	35.4%
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	0.10	0.43	0.87	0.17	0.33	0.49	0.44	0.20	0.60
Control Delay	54.6	25.4	69.4	12.5	11.9	15.3	6.0	10.0	17.9
Queue Delay	0.0	0.0	69.1	0.0	0.0	0.4	0.3	0.0	0.2
Total Delay	54.6	25.4	138.5	12.5	11.9	15.7	6.4	10.0	18.1
Queue Length 50th (ft)	6	6	172	8	20	166	57	18	207
Queue Length 95th (ft)	22	50	#256	45	m34	m257	m85	m34	m315
Internal Link Dist (ft)		824		844		448			234
Turn Bay Length (ft)	150				335		190	145	
Base Capacity (vph)	381	502	510	824	303	2109	1074	375	2027
Starvation Cap Reductn	0	0	0	0	0	535	203	0	0
Spillback Cap Reductn	0	12	391	0	0	0	0	0	211
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.13	3.68	0.09	0.30	0.65	0.54	0.18	0.67

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 8 (7%), 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: 6: SR 5 (Bill Arp Rd) & Concourse Rd/Concourse Pkwy





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	8	56	420	13	57	87	988	454	66	1145	19
Future Volume (veh/h)	8	8	56	420	13	57	87	988	454	66	1145	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900	1900	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	8	8	58	438	14	59	91	1029	473	69	1193	20
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, %	0	0	0	0	0	0	0	1	0	0	1	0
Cap, veh/h	158	14	104	493	82	348	294	2025	909	328	2030	34
Arrive On Green	0.07	0.07	0.07	0.14	0.26	0.26	0.08	1.00	1.00	0.04	0.56	0.56
Sat Flow, veh/h	1343	197	1426	3510	318	1339	1810	3582	1608	1810	3605	60
Grp Volume(v), veh/h	8	0	66	438	0	73	91	1029	473	69	593	620
Grp Sat Flow(s),veh/h/ln	1343	0	1622	1755	0	1657	1810	1791	1608	1810	1791	1874
Q Serve(g_s), s	0.7	0.0	4.7	14.7	0.0	4.1	2.6	0.0	0.0	1.9	25.9	25.9
Cycle Q Clear(g_c), s	0.7	0.0	4.7	14.7	0.0	4.1	2.6	0.0	0.0	1.9	25.9	25.9
Prop In Lane	1.00		0.88	1.00		0.81	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	158	0	119	493	0	430	294	2025	909	328	1009	1056
V/C Ratio(X)	0.05	0.00	0.56	0.89	0.00	0.17	0.31	0.51	0.52	0.21	0.59	0.59
Avail Cap(c_a), veh/h	441	0	460	512	0	787	366	2025	909	403	1009	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	53.7	50.6	0.0	34.4	12.9	0.0	0.0	9.9	17.1	17.1
Incr Delay (d2), s/veh	0.1	0.0	4.0	16.8	0.0	0.2	0.3	0.5	1.2	0.3	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	3.7	12.2	0.0	3.1	1.7	0.3	0.6	1.4	16.3	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	0.0	57.7	67.4	0.0	34.6	13.2	0.5	1.2	10.3	19.6	19.5
LnGrp LOS	D	A	E	E	A	C	B	A	A	B	B	B
Approach Vol, veh/h		74			511			1593			1282	
Approach Delay, s/veh		57.1			62.7			1.5			19.1	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	10.0	73.4	22.4	14.3	10.3	73.1		36.6				
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	37.0	17.5	34.0	9.5	37.0		57.0				
Max Q Clear Time (g_c+I1), s	3.9	2.0	16.7	6.7	4.6	27.9		6.1				
Green Ext Time (p_c), s	0.1	21.9	0.2	0.4	0.1	7.0		0.5				

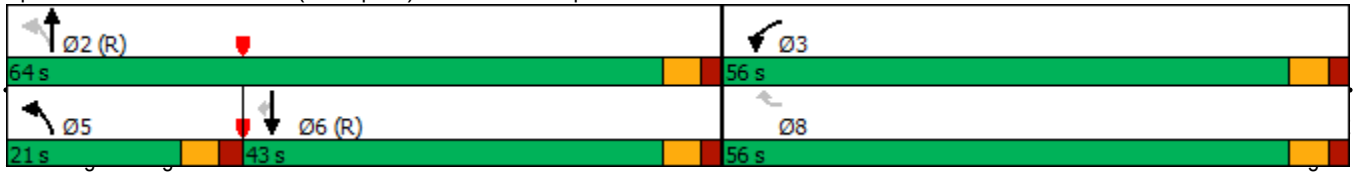
Intersection Summary			
HCM 6th Ctrl Delay		18.2	
HCM 6th LOS		B	

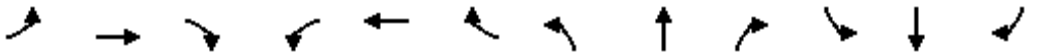
Lane Group	WBL	WBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	925	723	280	845	1359	295
Future Volume (vph)	925	723	280	845	1359	295
Lane Group Flow (vph)	964	753	292	880	1416	307
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	3		5	2	6	
Permitted Phases		8	2			6
Detector Phase	3	8	5	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	6.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.0	35.5	15.0	21.5	21.5	21.5
Total Split (s)	56.0	56.0	21.0	64.0	43.0	43.0
Total Split (%)	46.7%	46.7%	17.5%	53.3%	35.8%	35.8%
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	0.65	1.05	1.00	0.50	1.27	0.44
Control Delay	30.4	79.3	68.0	19.5	156.0	9.7
Queue Delay	0.2	0.0	0.0	1.5	0.5	0.0
Total Delay	30.6	79.3	68.0	21.0	156.5	9.7
Queue Length 50th (ft)	302	~593	173	328	~730	44
Queue Length 95th (ft)	374	#834	#342	385	#856	m117
Internal Link Dist (ft)				415	448	
Turn Bay Length (ft)		555				375
Base Capacity (vph)	1473	714	293	1759	1116	691
Starvation Cap Reductn	0	0	0	646	20	0
Spillback Cap Reductn	76	0	0	0	120	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.69	1.05	1.00	0.79	1.42	0.44

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 40 (33%), 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: 7: 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	925	0	723	280	845	0	0	1359	295
Future Volume (veh/h)	0	0	0	925	0	723	280	845	0	0	1359	295
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				1900	0	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				964	0	0	292	880	0	0	1416	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				1081	0		316	2168	0	0	1524	
Arrive On Green				0.31	0.00	0.00	0.09	0.40	0.00	0.00	0.57	0.00
Sat Flow, veh/h				3510	0	1598	1795	3705	0	0	3676	1610
Grp Volume(v), veh/h				964	0	0	292	880	0	0	1416	0
Grp Sat Flow(s),veh/h/ln				1755	0	1598	1795	1805	0	0	1791	1610
Q Serve(g_s), s				31.4	0.0	0.0	13.7	20.9	0.0	0.0	43.4	0.0
Cycle Q Clear(g_c), s				31.4	0.0	0.0	13.7	20.9	0.0	0.0	43.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1081	0		316	2168	0	0	1524	
V/C Ratio(X)				0.89	0.00		0.92	0.41	0.00	0.00	0.93	
Avail Cap(c_a), veh/h				1477	0		316	2168	0	0	1524	
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.33	1.33
Upstream Filter(I)				1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.69	0.00
Uniform Delay (d), s/veh				39.6	0.0	0.0	36.8	20.6	0.0	0.0	24.4	0.0
Incr Delay (d2), s/veh				5.6	0.0	0.0	25.9	0.4	0.0	0.0	8.4	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
%ile BackOfQ(95%),veh/ln				19.9	0.0	0.0	16.0	13.9	0.0	0.0	22.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.2	0.0	0.0	62.7	21.0	0.0	0.0	32.8	0.0
LnGrp LOS				D	A		E	C	A	A	C	
Approach Vol, veh/h					964	A		1172			1416	A
Approach Delay, s/veh					45.2			31.4			32.8	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	77.6		21.0	56.6		42.4						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	58.5		15.5	37.5		50.5						
Max Q Clear Time (g_c+I1), s	22.9		15.7	45.4		33.4						
Green Ext Time (p_c), s	13.6		0.0	0.0		3.5						

Intersection Summary		
HCM 6th Ctrl Delay	35.7	
HCM 6th LOS	D	

Notes

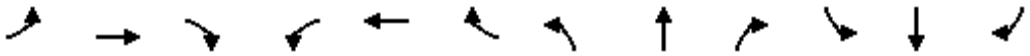
Unsignalized Delay for [WBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	143	292	932	616	486	1777
Future Volume (vph)	143	292	932	616	486	1777
Lane Group Flow (vph)	149	304	941	622	501	1832
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)	37.0	37.0	43.0	43.0	40.0	83.0
Total Split (%)	30.8%	30.8%	35.8%	35.8%	33.3%	69.2%
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?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
v/c Ratio	0.43	0.83	0.65	0.63	0.83	0.71
Control Delay	44.9	53.5	30.6	6.3	18.0	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.9	1.4
Total Delay	45.0	53.5	30.6	6.3	18.9	11.0
Queue Length 50th (ft)	102	176	238	14	146	478
Queue Length 95th (ft)	153	261	388	90	m262	m508
Internal Link Dist (ft)			861			415
Turn Bay Length (ft)		270		320		
Base Capacity (vph)	473	471	1450	987	645	2581
Starvation Cap Reductn	0	0	0	0	31	503
Spillback Cap Reductn	16	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.65	0.65	0.63	0.82	0.88

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 110 (92%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle: 85
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: 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)	143	0	292	0	0	0	0	932	616	486	1777	0
Future Volume (veh/h)	143	0	292	0	0	0	0	932	616	486	1777	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	1900	0	1900				0	1900	1900	1885	1900	0
Adj Flow Rate, veh/h	149	0	0				0	941	0	501	1832	0
Peak Hour Factor	0.96	0.96	0.96				0.99	0.99	0.99	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	1	0	0
Cap, veh/h	182	0					0	2347		556	2915	0
Arrive On Green	0.02	0.00	0.00				0.00	0.52	0.00	0.09	0.65	0.00
Sat Flow, veh/h	1810	0	1610				0	3705	1610	1795	3705	0
Grp Volume(v), veh/h	149	0	0				0	941	0	501	1832	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1795	1805	0
Q Serve(g_s), s	9.8	0.0	0.0				0.0	19.0	0.0	9.8	36.3	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0				0.0	19.0	0.0	9.8	36.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	182	0					0	2347		556	2915	0
V/C Ratio(X)	0.82	0.00					0.00	0.40		0.90	0.63	0.00
Avail Cap(c_a), veh/h	475	0					0	2347		872	2915	0
HCM Platoon Ratio	0.20	1.00	1.00				1.00	0.80	0.80	0.80	0.80	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.58	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	57.7	0.0	0.0				0.0	14.6	0.0	14.1	10.5	0.0
Incr Delay (d2), s/veh	8.6	0.0	0.0				0.0	0.3	0.0	0.9	0.1	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	8.9	0.0	0.0				0.0	11.7	0.0	11.3	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	0.0	0.0				0.0	14.9	0.0	14.9	10.6	0.0
LnGrp LOS	E	A					A	B		B	B	A
Approach Vol, veh/h		149	A					941	A		2333	
Approach Delay, s/veh		66.3						14.9			11.5	
Approach LOS		E						B			B	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.9	83.5		17.6		102.4
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	34.5	37.5		31.5		77.5
Max Q Clear Time (g_c+I1), s	11.8	21.0		11.8		38.3
Green Ext Time (p_c), s	1.6	9.5		0.3		32.5

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

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

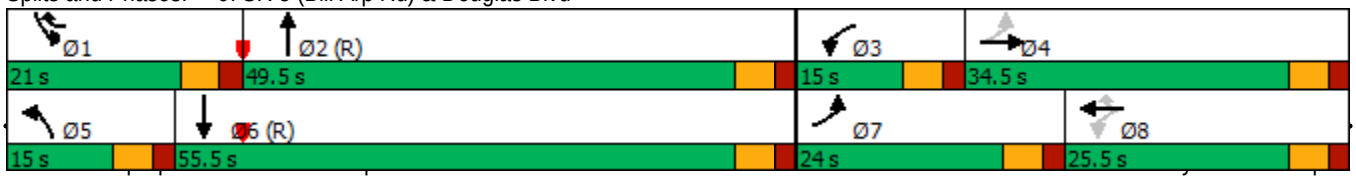
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

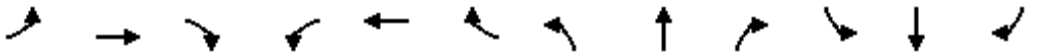
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	274	247	250	161	370	82	917	364	1431
Future Volume (vph)	274	247	250	161	370	82	917	364	1431
Lane Group Flow (vph)	277	328	253	163	374	83	1095	368	1691
Turn Type	pm+pt	NA	pm+pt	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	7	4	3	8	1	5	2	1	6
Permitted Phases	4		8		8				
Detector Phase	7	4	3	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	6.0	5.0	6.0	5.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	34.5	15.0	21.5	15.0	15.0	30.5	15.0	30.5
Total Split (s)	24.0	34.5	15.0	25.5	21.0	15.0	49.5	21.0	55.5
Total Split (%)	20.0%	28.8%	12.5%	21.3%	17.5%	12.5%	41.3%	17.5%	46.3%
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	Lead	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.74	0.46	0.91	0.67	0.73	0.58	0.76	0.77	0.99
Control Delay	44.8	39.6	73.5	63.4	32.2	69.1	35.5	66.6	38.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	39.6	73.5	63.4	32.2	69.1	35.5	66.6	38.7
Queue Length 50th (ft)	169	105	152	122	161	62	392	124	~781
Queue Length 95th (ft)	237	144	#252	188	263	#125	489	#213	#935
Internal Link Dist (ft)		891		822			1464		861
Turn Bay Length (ft)	195		165			350		420	
Base Capacity (vph)	381	866	277	316	519	153	1438	490	1705
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	0.73	0.38	0.91	0.52	0.72	0.54	0.76	0.75	0.99

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 105 (88%), Referenced to phase 2:NBT and 6:SBT, 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.

Splits and Phases: 9: SR 5 (Bill Arp Rd) & Douglas Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	247	78	250	161	370	82	917	167	364	1431	244
Future Volume (veh/h)	274	247	78	250	161	370	82	917	167	364	1431	244
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885
Adj Flow Rate, veh/h	277	249	79	253	163	374	83	926	169	368	1445	246
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	1
Cap, veh/h	392	618	191	361	317	460	105	1190	217	419	1397	234
Arrive On Green	0.14	0.23	0.23	0.08	0.17	0.17	0.06	0.39	0.39	0.24	0.90	0.90
Sat Flow, veh/h	1810	2712	840	1810	1900	1607	1810	3049	556	3510	3093	518
Grp Volume(v), veh/h	277	164	164	253	163	374	83	548	547	368	834	857
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1900	1607	1810	1805	1800	1755	1805	1806
Q Serve(g_s), s	14.7	9.2	9.6	9.5	9.4	20.0	5.4	31.9	31.9	12.1	54.2	54.2
Cycle Q Clear(g_c), s	14.7	9.2	9.6	9.5	9.4	20.0	5.4	31.9	31.9	12.1	54.2	54.2
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.31	1.00		0.29
Lane Grp Cap(c), veh/h	392	411	398	361	317	460	105	705	703	419	815	816
V/C Ratio(X)	0.71	0.40	0.41	0.70	0.51	0.81	0.79	0.78	0.78	0.88	1.02	1.05
Avail Cap(c_a), veh/h	417	436	422	361	317	460	143	705	703	453	815	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	33.2	39.4	39.5	41.1	45.6	39.9	55.8	32.0	32.0	44.8	5.8	5.8
Incr Delay (d2), s/veh	5.1	0.6	0.7	6.0	1.4	10.7	18.1	8.3	8.3	11.1	30.6	39.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.0	7.3	7.4	4.6	7.9	16.7	5.4	21.6	21.5	8.2	13.4	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	40.0	40.2	47.1	47.0	50.5	73.9	40.3	40.3	55.9	36.4	45.1
LnGrp LOS	D	D	D	D	D	D	E	D	D	E	F	F
Approach Vol, veh/h		605			790			1178			2059	
Approach Delay, s/veh		39.3			48.7			42.7			43.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	52.4	15.0	32.8	12.5	59.7	22.3	25.5
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	15.5	44.0	9.5	29.0	9.5	50.0	18.5	20.0
Max Q Clear Time (g_c+I1), s	14.1	33.9	11.5	11.6	7.4	56.2	16.7	22.0
Green Ext Time (p_c), s	0.2	7.1	0.0	1.5	0.0	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	174.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	575	650	82	382	124
Future Vol, veh/h	25	575	650	82	382	124
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	235	-	-	175	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	625	707	89	415	135

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	796	0	-	0	1386	707
Stage 1	-	-	-	-	707	-
Stage 2	-	-	-	-	679	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	826	-	-	-	~ 158	435
Stage 1	-	-	-	-	489	-
Stage 2	-	-	-	-	504	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	826	-	-	-	~ 153	435
Mov Cap-2 Maneuver	-	-	-	-	~ 153	-
Stage 1	-	-	-	-	473	-
Stage 2	-	-	-	-	504	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	$ 634.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	826	-	-	-	153	435
HCM Lane V/C Ratio	0.033	-	-	-	2.714	0.31
HCM Control Delay (s)	9.5	-	-	-	$ 835.4	16.9
HCM Lane LOS	A	-	-	-	F	C
HCM 95th %tile Q(veh)	0.1	-	-	-	37	1.3

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

Intersection	
Int Delay, s/veh	18.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	957	693	0	96	38
Future Vol, veh/h	0	957	693	0	96	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1040	753	0	104	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1793	753
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	1040	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	~ 89	410
Stage 1	0	-	-	0	465	-
Stage 2	0	-	-	0	341	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	~ 89	410
Mov Cap-2 Maneuver	-	-	-	-	~ 89	-
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	341	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	247.6
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	114
HCM Lane V/C Ratio	-	-	1.278
HCM Control Delay (s)	-	-	247.6
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	9.6

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

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	64	154	11	12	327
Future Vol, veh/h	10	64	154	11	12	327
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	160	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	70	167	12	13	355

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	548	167	0	0	179	0
Stage 1	167	-	-	-	-	-
Stage 2	381	-	-	-	-	-
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	497	877	-	-	1397	-
Stage 1	863	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	493	877	-	-	1397	-
Mov Cap-2 Maneuver	493	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	685	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	793	1397	-
HCM Lane V/C Ratio	-	-	0.101	0.009	-
HCM Control Delay (s)	-	-	10.1	7.6	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Future "Build" - With Improvements
Intersections Analysis

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	361	246	46	142	111
Future Vol, veh/h	46	361	246	46	142	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	53	415	283	53	163	128

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	336	0	-	0	804	283
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	521	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1223	-	-	-	352	756
Stage 1	-	-	-	-	765	-
Stage 2	-	-	-	-	596	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1223	-	-	-	332	756
Mov Cap-2 Maneuver	-	-	-	-	332	-
Stage 1	-	-	-	-	722	-
Stage 2	-	-	-	-	596	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	27.7
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1223	-	-	-	440
HCM Lane V/C Ratio	0.043	-	-	-	0.661
HCM Control Delay (s)	8.1	0	-	-	27.7
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	4.7

Intersection	
Int Delay, s/veh	1.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	363	7	71	313	11	46
Future Vol, veh/h	363	7	71	313	11	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	390	8	76	337	12	49

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	398	0	883	394
Stage 1	-	-	-	-	394	-
Stage 2	-	-	-	-	489	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1161	-	316	655
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	616	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1161	-	290	655
Mov Cap-2 Maneuver	-	-	-	-	290	-
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	566	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	12.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	527	-	-	1161	-
HCM Lane V/C Ratio	0.116	-	-	0.066	-
HCM Control Delay (s)	12.7	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↰	↱
Traffic Vol, veh/h	15	413	5	6	281	64	4	1	6	37	0	4
Future Vol, veh/h	15	413	5	6	281	64	4	1	6	37	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
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	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	16	439	5	6	299	68	4	1	6	39	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	367	0	0	444	0	0	819	853	442	822	821	333
Stage 1	-	-	-	-	-	-	474	474	-	345	345	-
Stage 2	-	-	-	-	-	-	345	379	-	477	476	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1192	-	-	1116	-	-	294	296	615	293	309	709
Stage 1	-	-	-	-	-	-	571	558	-	671	636	-
Stage 2	-	-	-	-	-	-	671	615	-	569	557	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1192	-	-	1116	-	-	287	289	615	284	301	709
Mov Cap-2 Maneuver	-	-	-	-	-	-	287	289	-	284	301	-
Stage 1	-	-	-	-	-	-	561	548	-	659	632	-
Stage 2	-	-	-	-	-	-	662	611	-	552	547	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0.1	14.2	18.8
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	405	1192	-	-	1116	-	-	284	709
HCM Lane V/C Ratio	0.029	0.013	-	-	0.006	-	-	0.139	0.006
HCM Control Delay (s)	14.2	8.1	0	-	8.2	0	-	19.7	10.1
HCM Lane LOS	B	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.5	0

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	448	6	41	395	33	9	0	56	38	1	7
Future Vol, veh/h	3	448	6	41	395	33	9	0	56	38	1	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	3	467	6	43	411	34	9	0	58	40	1	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	411	0	0	467	0	0	974	970	467	970	970	411
Stage 1	-	-	-	-	-	-	473	473	-	497	497	-
Stage 2	-	-	-	-	-	-	501	497	-	473	473	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1148	-	-	1094	-	-	231	253	596	233	253	641
Stage 1	-	-	-	-	-	-	572	558	-	555	545	-
Stage 2	-	-	-	-	-	-	552	545	-	572	558	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1148	-	-	1094	-	-	220	242	596	203	242	641
Mov Cap-2 Maneuver	-	-	-	-	-	-	220	242	-	203	242	-
Stage 1	-	-	-	-	-	-	570	556	-	553	524	-
Stage 2	-	-	-	-	-	-	523	524	-	515	556	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.7	13.1	25.1
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	220	596	1148	-	-	1094	-	-	227
HCM Lane V/C Ratio	0.043	0.098	0.003	-	-	0.039	-	-	0.211
HCM Control Delay (s)	22.1	11.7	8.1	-	-	8.4	-	-	25.1
HCM Lane LOS	C	B	A	-	-	A	-	-	D
HCM 95th %tile Q(veh)	0.1	0.3	0	-	-	0.1	-	-	0.8

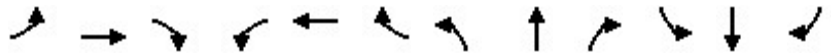
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	30	97	56	171	40	44	70	388	298	76	447	25
Future Volume (veh/h)	30	97	56	171	40	44	70	388	298	76	447	25
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		1.00	1.00		1.00	1.00		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	1900	1900	1707	1900	1826	1900	1900	1841	1900	1900	1856	1900
Adj Flow Rate, veh/h	34	109	0	192	45	0	79	436	0	85	502	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	13	0	5	0	0	4	0	0	3	0
Cap, veh/h	192	214		252	187		600	1190		650	1201	
Arrive On Green	0.03	0.06	0.00	0.07	0.10	0.00	0.04	0.65	0.00	0.04	0.65	0.00
Sat Flow, veh/h	1810	3705	0	3510	1826	1610	1810	1841	1610	1810	1856	1610
Grp Volume(v), veh/h	34	109	0	192	45	0	79	436	0	85	502	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1826	1610	1810	1841	1610	1810	1856	1610
Q Serve(g_s), s	2.1	3.5	0.0	6.4	2.7	0.0	1.7	13.2	0.0	1.9	15.7	0.0
Cycle Q Clear(g_c), s	2.1	3.5	0.0	6.4	2.7	0.0	1.7	13.2	0.0	1.9	15.7	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	192	214		252	187		600	1190		650	1201	
V/C Ratio(X)	0.18	0.51		0.76	0.24		0.13	0.37		0.13	0.42	
Avail Cap(c_a), veh/h	284	707		336	388		673	1190		723	1201	
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	50.9	54.8	0.0	54.7	49.5	0.0	7.3	9.8	0.0	7.0	10.2	0.0
Incr Delay (d2), s/veh	0.4	1.9	0.0	7.1	0.7	0.0	0.1	0.9	0.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	2.9	0.0	5.5	2.3	0.0	1.1	8.6	0.0	1.1	10.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.4	56.6	0.0	61.8	50.2	0.0	7.4	10.7	0.0	7.1	11.3	0.0
LnGrp LOS	D	E		E	D		A	B		A	B	
Approach Vol, veh/h		143	A		237	A		515	A		587	A
Approach Delay, s/veh		55.4			59.6			10.2			10.7	
Approach LOS		E			E			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.2	83.1	14.1	12.6	10.1	83.2	8.9	17.8
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	53.5	11.5	23.5	9.5	53.5	9.5	25.5
Max Q Clear Time (g_c+I1), s	3.9	15.2	8.4	5.5	3.7	17.7	4.1	4.7
Green Ext Time (p_c), s	0.1	5.6	0.2	0.4	0.1	6.6	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	22.7
HCM 6th LOS	C

Notes

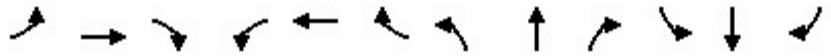
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	4	8	162	0	44	51	707	234	62	637	0
Future Volume (veh/h)	1	4	8	162	0	44	51	707	234	62	637	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.99	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	1900	1900	1900	1856	1900	1900	1900	1870	1900	1870	1870	1900
Adj Flow Rate, veh/h	1	5	9	184	0	50	58	803	266	70	724	0
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	3	0	0	0	2	0	2	2	0
Cap, veh/h	132	32	57	243	0	272	547	2330	1055	473	2338	0
Arrive On Green	0.05	0.05	0.05	0.07	0.00	0.17	0.07	1.00	1.00	0.04	0.66	0.00
Sat Flow, veh/h	1369	606	1090	3428	0	1607	1810	3554	1609	1781	3647	0
Grp Volume(v), veh/h	1	0	14	184	0	50	58	803	266	70	724	0
Grp Sat Flow(s),veh/h/ln	1369	0	1696	1714	0	1607	1810	1777	1609	1781	1777	0
Q Serve(g_s), s	0.1	0.0	0.9	6.3	0.0	3.2	1.2	0.0	0.0	1.5	10.5	0.0
Cycle Q Clear(g_c), s	0.1	0.0	0.9	6.3	0.0	3.2	1.2	0.0	0.0	1.5	10.5	0.0
Prop In Lane	1.00		0.64	1.00		1.00	1.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	132	0	89	243	0	272	547	2330	1055	473	2338	0
V/C Ratio(X)	0.01	0.00	0.16	0.76	0.00	0.18	0.11	0.34	0.25	0.15	0.31	0.00
Avail Cap(c_a), veh/h	448	0	481	357	0	697	626	2330	1055	547	2338	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.84	0.84	0.84	1.00	1.00	0.00
Uniform Delay (d), s/veh	53.9	0.0	54.3	54.7	0.0	42.8	6.1	0.0	0.0	5.9	8.8	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.8	5.2	0.0	0.3	0.1	0.3	0.5	0.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.1	0.0	0.8	5.3	0.0	2.4	0.8	0.2	0.3	1.0	7.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.0	0.0	55.2	60.0	0.0	43.1	6.2	0.3	0.5	6.0	9.2	0.0
LnGrp LOS	D	A	E	E	A	D	A	A	A	A	A	A
Approach Vol, veh/h		15			234			1127			794	
Approach Delay, s/veh		55.1			56.4			0.7			8.9	
Approach LOS		E			E			A			A	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	84.2	14.0	11.8	9.8	84.4		25.8
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5
Max Green Setting (Gmax), s	4.5	42.0	12.5	34.0	9.5	42.0		52.0
Max Q Clear Time (g_c+I1), s	3.5	2.9	8.3	2.9	3.2	12.5		5.2
Green Ext Time (p_c), s	0.1	15.9	0.2	0.0	0.0	10.0		0.3

Intersection Summary	
HCM 6th Ctrl Delay	10.1
HCM 6th LOS	B



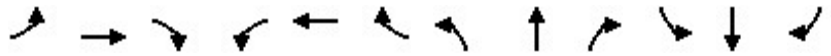
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	434	0	372	144	664	0	0	780	77
Future Volume (veh/h)	0	0	0	434	0	372	144	664	0	0	780	77
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
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				1870	0	1856	1856	1885	0	0	1870	1781
Adj Flow Rate, veh/h				517	0	0	171	790	0	0	929	0
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				2	0	3	3	1	0	0	2	8
Cap, veh/h				610	0		528	2622	0	0	2262	
Arrive On Green				0.18	0.00	0.00	0.02	0.24	0.00	0.00	1.00	0.00
Sat Flow, veh/h				3456	0	1572	1767	3676	0	0	3647	1510
Grp Volume(v), veh/h				517	0	0	171	790	0	0	929	0
Grp Sat Flow(s),veh/h/ln				1728	0	1572	1767	1791	0	0	1777	1510
Q Serve(g_s), s				17.4	0.0	0.0	3.7	21.7	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s				17.4	0.0	0.0	3.7	21.7	0.0	0.0	0.0	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				610	0		528	2622	0	0	2262	
V/C Ratio(X)				0.85	0.00		0.32	0.30	0.00	0.00	0.41	
Avail Cap(c_a), veh/h				1224	0		654	2622	0	0	2262	
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	2.00	2.00
Upstream Filter(I)				1.00	0.00	0.00	0.89	0.89	0.00	0.00	0.94	0.00
Uniform Delay (d), s/veh				47.9	0.0	0.0	6.1	20.4	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh				3.4	0.0	0.0	0.3	0.3	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				12.1	0.0	0.0	2.5	15.4	0.0	0.0	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				51.2	0.0	0.0	6.4	20.7	0.0	0.0	0.5	0.0
LnGrp LOS				D	A		A	C	A	A	A	
Approach Vol, veh/h					517	A		961			929	A
Approach Delay, s/veh					51.2			18.1			0.5	
Approach LOS					D			B			A	

Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	93.3			11.4	81.9		26.7					
Change Period (Y+Rc), s	5.5			5.5	5.5		5.5					
Max Green Setting (Gmax), s	66.5			14.5	46.5		42.5					
Max Q Clear Time (g_c+I1), s	23.7			5.7	2.0		19.4					
Green Ext Time (p_c), s	12.6			0.3	15.9		1.8					

Intersection Summary	
HCM 6th Ctrl Delay	18.4
HCM 6th LOS	B

Notes

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



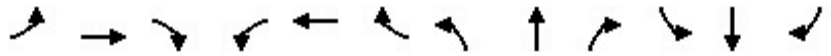
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	173	0	276	0	0	0	0	600	824	390	878	0
Future Volume (veh/h)	173	0	276	0	0	0	0	600	824	390	878	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
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	1870	0	1885				0	1885	1885	1856	1885	0
Adj Flow Rate, veh/h	211	0	0				0	732	0	476	1071	0
Peak Hour Factor	0.82	0.82	0.82				0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	0	1				0	1	1	3	1	0
Cap, veh/h	243	0					0	2086		656	2766	0
Arrive On Green	0.14	0.00	0.00				0.00	0.58	0.00	0.29	1.00	0.00
Sat Flow, veh/h	1781	0	1598				0	3676	1598	1767	3676	0
Grp Volume(v), veh/h	211	0	0				0	732	0	476	1071	0
Grp Sat Flow(s),veh/h/ln	1781	0	1598				0	1791	1598	1767	1791	0
Q Serve(g_s), s	13.9	0.0	0.0				0.0	12.9	0.0	15.0	0.0	0.0
Cycle Q Clear(g_c), s	13.9	0.0	0.0				0.0	12.9	0.0	15.0	0.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	243	0					0	2086		656	2766	0
V/C Ratio(X)	0.87	0.00					0.00	0.35		0.73	0.39	0.00
Avail Cap(c_a), veh/h	416	0					0	2086		674	2766	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.64	0.00	0.83	0.83	0.00
Uniform Delay (d), s/veh	50.8	0.0	0.0				0.0	13.2	0.0	6.6	0.0	0.0
Incr Delay (d2), s/veh	9.7	0.0	0.0				0.0	0.3	0.0	3.2	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	7.9	0.0	0.0				0.0	8.0	0.0	6.0	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	60.5	0.0	0.0				0.0	13.4	0.0	9.8	0.3	0.0
LnGrp LOS	E	A					A	B		A	A	A
Approach Vol, veh/h		211	A					732	A		1547	
Approach Delay, s/veh		60.5						13.4			3.2	
Approach LOS		E						B			A	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	22.8	75.4		21.8		98.2						
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5						
Max Green Setting (Gmax), s	17.5	57.0		28.0		81.0						
Max Q Clear Time (g_c+I1), s	17.9	14.9		15.9		2.0						
Green Ext Time (p_c), s	0.3	11.4		0.4		22.9						

Intersection Summary	
HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

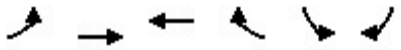
Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	193	118	22	108	75	129	65	1038	166	219	769	141
Future Volume (veh/h)	193	118	22	108	75	129	65	1038	166	219	769	141
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		0.99	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	1885	1900	1900	1900	1900	1870	1900	1885	1900	1885	1885	1885
Adj Flow Rate, veh/h	214	131	24	120	83	143	72	1153	184	243	854	157
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	1	0	0	0	0	2	0	1	0	1	1	1
Cap, veh/h	305	385	69	301	198	289	93	1664	265	276	1709	314
Arrive On Green	0.10	0.13	0.13	0.07	0.10	0.10	0.05	0.54	0.54	0.16	1.00	1.00
Sat Flow, veh/h	1795	3056	547	1810	1900	1576	1810	3095	492	3483	3021	555
Grp Volume(v), veh/h	214	76	79	120	83	143	72	665	672	243	506	505
Grp Sat Flow(s),veh/h/ln	1795	1805	1798	1810	1900	1576	1810	1791	1796	1742	1791	1785
Q Serve(g_s), s	11.5	4.6	4.8	7.0	4.9	9.8	4.7	32.8	33.1	8.2	0.0	0.0
Cycle Q Clear(g_c), s	11.5	4.6	4.8	7.0	4.9	9.8	4.7	32.8	33.1	8.2	0.0	0.0
Prop In Lane	1.00		0.30	1.00		1.00	1.00		0.27	1.00		0.31
Lane Grp Cap(c), veh/h	305	227	227	301	198	289	93	963	966	276	1013	1010
V/C Ratio(X)	0.70	0.33	0.35	0.40	0.42	0.49	0.78	0.69	0.70	0.88	0.50	0.50
Avail Cap(c_a), veh/h	305	438	436	310	429	481	143	963	966	276	1013	1010
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.84	0.84	0.84
Uniform Delay (d), s/veh	44.3	47.9	47.9	43.5	50.4	44.0	56.3	20.4	20.5	49.9	0.0	0.0
Incr Delay (d2), s/veh	7.0	0.9	0.9	0.9	1.4	1.3	13.3	4.1	4.1	23.1	1.5	1.5
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	10.3	3.8	3.9	5.6	4.2	6.9	4.5	20.3	20.5	7.2	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.3	48.7	48.8	44.3	51.8	45.3	69.5	24.5	24.6	73.1	1.5	1.5
LnGrp LOS	D	D	D	D	D	D	E	C	C	E	A	A
Approach Vol, veh/h		369			346			1409			1254	
Approach Delay, s/veh		50.3			46.5			26.8			15.4	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	70.0	14.4	20.6	11.6	73.4	17.0	18.0
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	49.9	9.5	29.1	9.5	49.9	11.5	27.1
Max Q Clear Time (g_c+I1), s	10.2	13.5	9.0	6.8	6.7	2.0	13.5	11.8
Green Ext Time (p_c), s	0.0	11.4	0.0	0.7	0.0	17.4	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	27.2
HCM 6th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	21	435	346	68	21	7
Future Volume (veh/h)	21	435	346	68	21	7
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	23	473	376	74	23	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	603	755	755	640	71	63
Arrive On Green	0.40	0.40	0.40	0.40	0.04	0.04
Sat Flow, veh/h	940	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	23	473	376	74	23	8
Grp Sat Flow(s),veh/h/ln	940	1870	1870	1585	1781	1585
Q Serve(g_s), s	0.4	4.0	3.0	0.6	0.2	0.1
Cycle Q Clear(g_c), s	3.3	4.0	3.0	0.6	0.2	0.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	603	755	755	640	71	63
V/C Ratio(X)	0.04	0.63	0.50	0.12	0.33	0.13
Avail Cap(c_a), veh/h	985	1515	1515	1284	1443	1284
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.6	4.7	4.4	3.7	9.2	9.2
Incr Delay (d2), s/veh	0.0	0.9	0.5	0.1	2.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.3	0.2	0.0	0.2	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.7	5.6	4.9	3.8	11.9	10.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		496	450		31	
Approach Delay, s/veh		5.6	4.7		11.4	
Approach LOS		A	A		B	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		13.5		6.3		13.5
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		16.0		16.0		16.0
Max Q Clear Time (g_c+I1), s		5.9		2.2		6.0
Green Ext Time (p_c), s		1.7		0.0		2.0

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		Y	
Traffic Vol, veh/h	0	456	412	0	4	1
Future Vol, veh/h	0	456	412	0	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,-#		0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	496	448	0	4	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	944	448
Stage 1	-	-	-	-	448	-
Stage 2	-	-	-	-	496	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	291	611
Stage 1	0	-	-	0	644	-
Stage 2	0	-	-	0	612	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	291	611
Mov Cap-2 Maneuver	-	-	-	-	291	-
Stage 1	-	-	-	-	644	-
Stage 2	-	-	-	-	612	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.3
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	325
HCM Lane V/C Ratio	-	-	0.017
HCM Control Delay (s)	-	-	16.3
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.1

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	71	10	10	41
Future Vol, veh/h	0	3	71	10	10	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	3	77	11	11	45

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	144	77	0	0	88	0
Stage 1	77	-	-	-	-	-
Stage 2	67	-	-	-	-	-
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	849	984	-	-	1508	-
Stage 1	946	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	843	984	-	-	1508	-
Mov Cap-2 Maneuver	843	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	949	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	984	1508	-
HCM Lane V/C Ratio	-	-	0.003	0.007	-
HCM Control Delay (s)	-	-	8.7	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	102	402	507	81	64	103
Future Vol, veh/h	102	402	507	81	64	103
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	150	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	8	8	2	2	2
Mvmt Flow	106	419	528	84	67	107

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	612	0	-	0	1159	528
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	631	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	967	-	-	-	216	550
Stage 1	-	-	-	-	592	-
Stage 2	-	-	-	-	530	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	967	-	-	-	185	550
Mov Cap-2 Maneuver	-	-	-	-	185	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	530	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	30
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	967	-	-	-	313
HCM Lane V/C Ratio	0.11	-	-	-	0.556
HCM Control Delay (s)	9.2	0	-	-	30
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.4	-	-	-	3.2

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	344	13	59	557	71	153
Future Vol, veh/h	344	13	59	557	71	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	8	2	2	8	2	2
Mvmt Flow	370	14	63	599	76	165

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	384	0	1102	377
Stage 1	-	-	-	-	377	-
Stage 2	-	-	-	-	725	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1174	-	234	670
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	479	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1174	-	215	670
Mov Cap-2 Maneuver	-	-	-	-	215	-
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	441	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	26.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	401	-	-	1174	-
HCM Lane V/C Ratio	0.601	-	-	0.054	-
HCM Control Delay (s)	26.6	-	-	8.2	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	3.8	-	-	0.2	-

Intersection	
Int Delay, s/veh	70.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↰	↱
Traffic Vol, veh/h	24	337	3	13	622	140	4	1	5	258	10	70
Future Vol, veh/h	24	337	3	13	622	140	4	1	5	258	10	70
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	-	-	-	-	-	-	0
Veh in Median Storage,#	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	25	351	3	14	648	146	4	1	5	269	10	73

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	794	0	0	354	0	0	1157	1225	353	1155	1153	721
Stage 1	-	-	-	-	-	-	403	403	-	749	749	-
Stage 2	-	-	-	-	-	-	754	822	-	406	404	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	827	-	-	1205	-	-	173	179	691	~ 174	197	427
Stage 1	-	-	-	-	-	-	624	600	-	404	419	-
Stage 2	-	-	-	-	-	-	401	388	-	622	599	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	827	-	-	1205	-	-	131	169	691	~ 164	186	427
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	169	-	~ 164	186	-
Stage 1	-	-	-	-	-	-	600	577	-	389	410	-
Stage 2	-	-	-	-	-	-	317	380	-	593	576	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.1	21.5	$ 308.1
HCM LOS			C	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	229	827	-	-	1205	-	-	165	427
HCM Lane V/C Ratio	0.045	0.03	-	-	0.011	-	-	1.692	0.171
HCM Control Delay (s)	21.5	9.5	0	-	8	0	-	$ 384.6	15.2
HCM Lane LOS	C	A	A	-	A	A	-	F	C
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0	-	-	19.6	0.6

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

Intersection	
Int Delay, s/veh	41.4

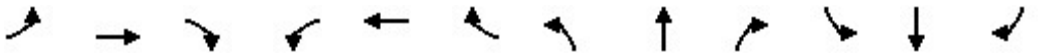
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	1012	46	133	609	63	57	2	85	39	5	9
Future Vol, veh/h	18	1012	46	133	609	63	57	2	85	39	5	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	Yield	-	-	Yield	-	-	None
Storage Length	150	-	165	150	-	120	-	-	90	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	8	2	2	8	2	2	2	2	2	2	2
Mvmt Flow	19	1065	48	140	641	66	60	2	89	41	5	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	641	0	0	1065	0	0	2031	2024	1065	2025	2024	641
Stage 1	-	-	-	-	-	-	1103	1103	-	921	921	-
Stage 2	-	-	-	-	-	-	928	921	-	1104	1103	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	943	-	-	654	-	-	~ 42	58	270	43	58	475
Stage 1	-	-	-	-	-	-	256	287	-	324	349	-
Stage 2	-	-	-	-	-	-	321	349	-	256	287	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	943	-	-	654	-	-	~ 31	45	270	~ 23	45	475
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 31	45	-	~ 23	45	-
Stage 1	-	-	-	-	-	-	251	281	-	318	274	-
Stage 2	-	-	-	-	-	-	243	274	-	166	281	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	$ 318.4	$ 725.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	31	270	943	-	-	654	-	-	29
HCM Lane V/C Ratio	2.003	0.331	0.02	-	-	0.214	-	-	1.924
HCM Control Delay (s)	$ 741.4	24.8	8.9	-	-	12	-	-	$ 725.1
HCM Lane LOS	F	C	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	7.1	1.4	0.1	-	-	0.8	-	-	6.5

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



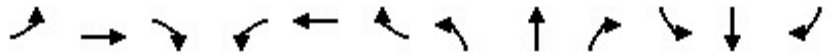
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	86	71	256	94	104	79	677	300	176	928	53
Future Volume (veh/h)	31	86	71	256	94	104	79	677	300	176	928	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		1.00	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	1900	1900	1885	1900	1900	1900	1796	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	32	88	0	261	96	0	81	691	0	180	947	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	1	0	0	0	7	1	0	0	1	0
Cap, veh/h	184	206		278	207		286	1183		471	1210	
Arrive On Green	0.03	0.06	0.00	0.08	0.11	0.00	0.04	0.63	0.00	0.05	0.64	0.00
Sat Flow, veh/h	1810	3705	0	3510	1900	1610	1711	1885	1610	1810	1885	1610
Grp Volume(v), veh/h	32	88	0	261	96	0	81	691	0	180	947	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1900	1610	1711	1885	1610	1810	1885	1610
Q Serve(g_s), s	2.0	2.8	0.0	8.9	5.7	0.0	2.0	25.9	0.0	4.2	43.4	0.0
Cycle Q Clear(g_c), s	2.0	2.8	0.0	8.9	5.7	0.0	2.0	25.9	0.0	4.2	43.4	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	184	206		278	207		286	1183		471	1210	
V/C Ratio(X)	0.17	0.43		0.94	0.46		0.28	0.58		0.38	0.78	
Avail Cap(c_a), veh/h	277	692		278	364		355	1183		518	1210	
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	51.2	54.7	0.0	55.0	50.2	0.0	15.5	13.1	0.0	10.4	15.5	0.0
Incr Delay (d2), s/veh	0.4	1.4	0.0	37.9	1.6	0.0	0.5	2.1	0.0	0.5	5.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	2.3	0.0	9.1	5.0	0.0	1.4	15.6	0.0	2.7	24.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	56.1	0.0	92.9	51.8	0.0	16.0	15.3	0.0	11.0	20.6	0.0
LnGrp LOS	D	E		F	D		B	B		B	C	
Approach Vol, veh/h		120	A		357	A		772	A		1127	A
Approach Delay, s/veh		54.9			81.8			15.3			19.0	
Approach LOS		D			F			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	80.8	15.0	12.3	10.2	82.5	8.8	18.6
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	56.0	9.5	23.0	9.5	56.0	9.5	23.0
Max Q Clear Time (g_c+I1), s	6.2	27.9	10.9	4.8	4.0	45.4	4.0	7.7
Green Ext Time (p_c), s	0.1	9.4	0.0	0.3	0.1	7.3	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

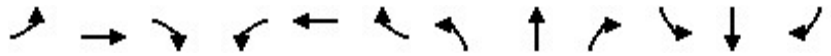
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	8	56	420	13	57	87	988	454	66	1145	19
Future Volume (veh/h)	8	8	56	420	13	57	87	988	454	66	1145	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900	1900	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	8	8	58	438	14	59	91	1029	473	69	1193	20
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, %	0	0	0	0	0	0	0	1	0	0	1	0
Cap, veh/h	158	14	104	493	82	348	294	2025	909	328	2030	34
Arrive On Green	0.07	0.07	0.07	0.14	0.26	0.26	0.08	1.00	1.00	0.04	0.56	0.56
Sat Flow, veh/h	1343	197	1426	3510	318	1339	1810	3582	1608	1810	3605	60
Grp Volume(v), veh/h	8	0	66	438	0	73	91	1029	473	69	593	620
Grp Sat Flow(s),veh/h/ln	1343	0	1622	1755	0	1657	1810	1791	1608	1810	1791	1874
Q Serve(g_s), s	0.7	0.0	4.7	14.7	0.0	4.1	2.6	0.0	0.0	1.9	25.9	25.9
Cycle Q Clear(g_c), s	0.7	0.0	4.7	14.7	0.0	4.1	2.6	0.0	0.0	1.9	25.9	25.9
Prop In Lane	1.00		0.88	1.00		0.81	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	158	0	119	493	0	430	294	2025	909	328	1009	1056
V/C Ratio(X)	0.05	0.00	0.56	0.89	0.00	0.17	0.31	0.51	0.52	0.21	0.59	0.59
Avail Cap(c_a), veh/h	441	0	460	512	0	787	366	2025	909	403	1009	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	57.8	0.0	53.7	50.6	0.0	34.4	12.9	0.0	0.0	9.9	17.1	17.1
Incr Delay (d2), s/veh	0.1	0.0	4.0	16.8	0.0	0.2	0.3	0.5	1.2	0.3	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	3.7	12.2	0.0	3.1	1.7	0.3	0.6	1.4	16.3	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	0.0	57.7	67.4	0.0	34.6	13.2	0.5	1.2	10.3	19.6	19.5
LnGrp LOS	D	A	E	E	A	C	B	A	A	B	B	B
Approach Vol, veh/h		74			511			1593			1282	
Approach Delay, s/veh		57.1			62.7			1.5			19.1	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	73.4	22.4	14.3	10.3	73.1		36.6
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5
Max Green Setting (Gmax), s	4.5	37.0	17.5	34.0	9.5	37.0		57.0
Max Q Clear Time (g_c+I1), s	3.9	2.9	16.7	6.7	4.6	27.9		6.1
Green Ext Time (p_c), s	0.1	21.9	0.2	0.4	0.1	7.0		0.5

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



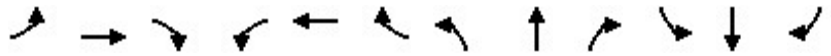
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	925	0	723	280	845	0	0	1359	295
Future Volume (veh/h)	0	0	0	925	0	723	280	845	0	0	1359	295
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
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				1900	0	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				964	0	0	292	880	0	0	1416	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				1081	0		316	2168	0	0	1524	
Arrive On Green				0.31	0.00	0.00	0.09	0.40	0.00	0.00	0.57	0.00
Sat Flow, veh/h				3510	0	1598	1795	3705	0	0	3676	1610
Grp Volume(v), veh/h				964	0	0	292	880	0	0	1416	0
Grp Sat Flow(s),veh/h/ln				1755	0	1598	1795	1805	0	0	1791	1610
Q Serve(g_s), s				31.4	0.0	0.0	13.7	20.9	0.0	0.0	43.4	0.0
Cycle Q Clear(g_c), s				31.4	0.0	0.0	13.7	20.9	0.0	0.0	43.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1081	0		316	2168	0	0	1524	
V/C Ratio(X)				0.89	0.00		0.92	0.41	0.00	0.00	0.93	
Avail Cap(c_a), veh/h				1477	0		316	2168	0	0	1524	
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.33	1.33
Upstream Filter(I)				1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.69	0.00
Uniform Delay (d), s/veh				39.6	0.0	0.0	36.8	20.6	0.0	0.0	24.4	0.0
Incr Delay (d2), s/veh				5.6	0.0	0.0	25.9	0.4	0.0	0.0	8.4	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
%ile BackOfQ(95%),veh/ln				19.9	0.0	0.0	16.0	13.9	0.0	0.0	22.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.2	0.0	0.0	62.7	21.0	0.0	0.0	32.8	0.0
LnGrp LOS				D	A		E	C	A	A	C	
Approach Vol, veh/h					964	A		1172			1416	A
Approach Delay, s/veh					45.2			31.4			32.8	
Approach LOS					D			C			C	

Timer - Assigned Phs	2			5	6		8					
Phs Duration (G+Y+Rc), s	77.6			21.0	56.6		42.4					
Change Period (Y+Rc), s	5.5			5.5	5.5		5.5					
Max Green Setting (Gmax), s	58.5			15.5	37.5		50.5					
Max Q Clear Time (g_c+I1), s	22.9			15.7	45.4		33.4					
Green Ext Time (p_c), s	13.6			0.0	0.0		3.5					

Intersection Summary	
HCM 6th Ctrl Delay	35.7
HCM 6th LOS	D

Notes

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	0	292	0	0	0	0	932	616	486	1777	0
Future Volume (veh/h)	143	0	292	0	0	0	0	932	616	486	1777	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	1900	0	1900				0	1900	1900	1885	1900	0
Adj Flow Rate, veh/h	149	0	0				0	941	0	501	1832	0
Peak Hour Factor	0.96	0.96	0.96				0.99	0.99	0.99	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	1	0	0
Cap, veh/h	182	0					0	2347		556	2915	0
Arrive On Green	0.02	0.00	0.00				0.00	0.52	0.00	0.09	0.65	0.00
Sat Flow, veh/h	1810	0	1610				0	3705	1610	1795	3705	0
Grp Volume(v), veh/h	149	0	0				0	941	0	501	1832	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1795	1805	0
Q Serve(g_s), s	9.8	0.0	0.0				0.0	19.0	0.0	9.8	36.3	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0				0.0	19.0	0.0	9.8	36.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	182	0					0	2347		556	2915	0
V/C Ratio(X)	0.82	0.00					0.00	0.40		0.90	0.63	0.00
Avail Cap(c_a), veh/h	475	0					0	2347		872	2915	0
HCM Platoon Ratio	0.20	1.00	1.00				1.00	0.80	0.80	0.80	0.80	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.58	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	57.7	0.0	0.0				0.0	14.6	0.0	14.1	10.5	0.0
Incr Delay (d2), s/veh	8.6	0.0	0.0				0.0	0.3	0.0	0.9	0.1	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	3.9	0.0	0.0				0.0	11.7	0.0	11.3	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	0.0	0.0				0.0	14.9	0.0	14.9	10.6	0.0
LnGrp LOS	E	A					A	B		B	B	A
Approach Vol, veh/h		149	A					941	A		2333	
Approach Delay, s/veh		66.3						14.9			11.5	
Approach LOS		E						B			B	

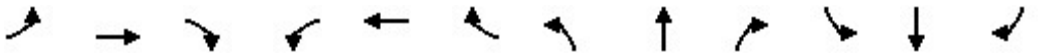
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.9	83.5		17.6		102.4						
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5						
Max Green Setting (Gmax), s	14.5	77.5		31.5		77.5						
Max Q Clear Time (g_c+I1), s	11.8	21.0		11.8		38.3						
Green Ext Time (p_c), s	1.6	9.5		0.3		32.5						

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

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

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



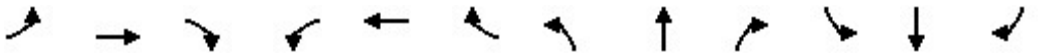
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	86	71	256	94	104	79	677	300	176	928	53
Future Volume (veh/h)	31	86	71	256	94	104	79	677	300	176	928	53
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		1.00	1.00		1.00	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	1900	1900	1885	1900	1900	1900	1796	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	32	88	0	261	96	0	81	691	0	180	947	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	1	0	0	0	7	1	0	0	1	0
Cap, veh/h	184	206		278	207		286	1183		471	1210	
Arrive On Green	0.03	0.06	0.00	0.08	0.11	0.00	0.04	0.63	0.00	0.05	0.64	0.00
Sat Flow, veh/h	1810	3705	0	3510	1900	1610	1711	1885	1610	1810	1885	1610
Grp Volume(v), veh/h	32	88	0	261	96	0	81	691	0	180	947	0
Grp Sat Flow(s),veh/h/ln	1810	1805	0	1755	1900	1610	1711	1885	1610	1810	1885	1610
Q Serve(g_s), s	2.0	2.8	0.0	8.9	5.7	0.0	2.0	25.9	0.0	4.2	43.4	0.0
Cycle Q Clear(g_c), s	2.0	2.8	0.0	8.9	5.7	0.0	2.0	25.9	0.0	4.2	43.4	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	184	206		278	207		286	1183		471	1210	
V/C Ratio(X)	0.17	0.43		0.94	0.46		0.28	0.58		0.38	0.78	
Avail Cap(c_a), veh/h	277	692		278	364		355	1183		518	1210	
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	51.2	54.7	0.0	55.0	50.2	0.0	15.5	13.1	0.0	10.4	15.5	0.0
Incr Delay (d2), s/veh	0.4	1.4	0.0	37.9	1.6	0.0	0.5	2.1	0.0	0.5	5.1	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	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	2.3	0.0	9.1	5.0	0.0	1.4	15.6	0.0	2.7	24.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.7	56.1	0.0	92.9	51.8	0.0	16.0	15.3	0.0	11.0	20.6	0.0
LnGrp LOS	D	E		F	D		B	B		B	C	
Approach Vol, veh/h		120	A		357	A		772	A		1127	A
Approach Delay, s/veh		54.9			81.8			15.3			19.0	
Approach LOS		D			F			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.9	80.8	15.0	12.3	10.2	82.5	8.8	18.6
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	56.0	9.5	23.0	9.5	56.0	9.5	23.0
Max Q Clear Time (g_c+I1), s	6.2	27.9	10.9	4.8	4.0	45.4	4.0	7.7
Green Ext Time (p_c), s	0.1	9.4	0.0	0.3	0.1	7.3	0.0	0.3

Intersection Summary	
HCM 6th Ctrl Delay	29.1
HCM 6th LOS	C

Notes

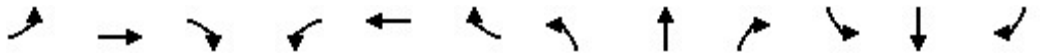
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	8	56	420	13	57	87	988	454	66	1145	19
Future Volume (veh/h)	8	8	56	420	13	57	87	988	454	66	1145	19
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		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	1900	1900	1900	1900	1900	1900	1900	1885	1900	1900	1885	1900
Adj Flow Rate, veh/h	8	8	58	438	14	59	91	1029	473	69	1193	20
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, %	0	0	0	0	0	0	0	1	0	0	1	0
Cap, veh/h	158	14	104	493	82	348	294	2025	909	328	2030	34
Arrive On Green	0.07	0.07	0.07	0.14	0.26	0.26	0.08	1.00	1.00	0.04	0.56	0.56
Sat Flow, veh/h	1343	197	1426	3510	318	1339	1810	3582	1608	1810	3605	60
Grp Volume(v), veh/h	8	0	66	438	0	73	91	1029	473	69	593	620
Grp Sat Flow(s),veh/h/ln	1343	0	1622	1755	0	1657	1810	1791	1608	1810	1791	1874
Q Serve(g_s), s	0.7	0.0	4.7	14.7	0.0	4.1	2.6	0.0	0.0	1.9	25.9	25.9
Cycle Q Clear(g_c), s	0.7	0.0	4.7	14.7	0.0	4.1	2.6	0.0	0.0	1.9	25.9	25.9
Prop In Lane	1.00		0.88	1.00		0.81	1.00		1.00	1.00		0.03
Lane Grp Cap(c), veh/h	158	0	119	493	0	430	294	2025	909	328	1009	1056
V/C Ratio(X)	0.05	0.00	0.56	0.89	0.00	0.17	0.31	0.51	0.52	0.21	0.59	0.59
Avail Cap(c_a), veh/h	441	0	460	512	0	787	366	2025	909	403	1009	1056
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.57	0.57	1.00	1.00	1.00
Uniform Delay (d), s/veh	51.8	0.0	53.7	50.6	0.0	34.4	12.9	0.0	0.0	9.9	17.1	17.1
Incr Delay (d2), s/veh	0.1	0.0	4.0	16.8	0.0	0.2	0.3	0.5	1.2	0.3	2.5	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.4	0.0	3.7	12.2	0.0	3.1	1.7	0.3	0.6	1.4	16.3	16.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	0.0	57.7	67.4	0.0	34.6	13.2	0.5	1.2	10.3	19.6	19.5
LnGrp LOS	D	A	E	E	A	C	B	A	A	B	B	B
Approach Vol, veh/h		74			511			1593			1282	
Approach Delay, s/veh		57.1			62.7			1.5			19.1	
Approach LOS		E			E			A			B	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	10.0	73.4	22.4	14.3	10.3	73.1		36.6
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	37.0	17.5	34.0	9.5	37.0		57.0
Max Q Clear Time (g_c+I1), s	3.9	2.0	16.7	6.7	4.6	27.9		6.1
Green Ext Time (p_c), s	0.1	21.9	0.2	0.4	0.1	7.0		0.5

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	925	0	723	280	845	0	0	1359	295
Future Volume (veh/h)	0	0	0	925	0	723	280	845	0	0	1359	295
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				1900	0	1885	1885	1900	0	0	1885	1900
Adj Flow Rate, veh/h				964	0	0	292	880	0	0	1416	0
Peak Hour Factor				0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %				0	0	1	1	0	0	0	1	0
Cap, veh/h				1081	0		316	2168	0	0	1524	
Arrive On Green				0.31	0.00	0.00	0.09	0.40	0.00	0.00	0.57	0.00
Sat Flow, veh/h				3510	0	1598	1795	3705	0	0	3676	1610
Grp Volume(v), veh/h				964	0	0	292	880	0	0	1416	0
Grp Sat Flow(s),veh/h/ln				1755	0	1598	1795	1805	0	0	1791	1610
Q Serve(g_s), s				31.4	0.0	0.0	13.7	20.9	0.0	0.0	43.4	0.0
Cycle Q Clear(g_c), s				31.4	0.0	0.0	13.7	20.9	0.0	0.0	43.4	0.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1081	0		316	2168	0	0	1524	
V/C Ratio(X)				0.89	0.00		0.92	0.41	0.00	0.00	0.93	
Avail Cap(c_a), veh/h				1477	0		316	2168	0	0	1524	
HCM Platoon Ratio				1.00	1.00	1.00	0.67	0.67	1.00	1.00	1.33	1.33
Upstream Filter(I)				1.00	0.00	0.00	0.75	0.75	0.00	0.00	0.69	0.00
Uniform Delay (d), s/veh				39.6	0.0	0.0	36.8	20.6	0.0	0.0	24.4	0.0
Incr Delay (d2), s/veh				5.6	0.0	0.0	25.9	0.4	0.0	0.0	8.4	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
%ile BackOfQ(95%),veh/ln				19.9	0.0	0.0	16.0	13.9	0.0	0.0	22.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				45.2	0.0	0.0	62.7	21.0	0.0	0.0	32.8	0.0
LnGrp LOS				D	A		E	C	A	A	C	
Approach Vol, veh/h					964	A		1172			1416	A
Approach Delay, s/veh					45.2			31.4			32.8	
Approach LOS					D			C			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	77.6		21.0	56.6		42.4						
Change Period (Y+Rc), s	5.5		5.5	5.5		5.5						
Max Green Setting (Gmax), s	58.5		15.5	37.5		50.5						
Max Q Clear Time (g_c+I1), s	22.9		15.7	45.4		33.4						
Green Ext Time (p_c), s	13.6		0.0	0.0		3.5						

Intersection Summary		
HCM 6th Ctrl Delay	35.7	
HCM 6th LOS	D	

Notes

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	143	0	292	0	0	0	0	932	616	486	1777	0
Future Volume (veh/h)	143	0	292	0	0	0	0	932	616	486	1777	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	1900	0	1900				0	1900	1900	1885	1900	0
Adj Flow Rate, veh/h	149	0	0				0	941	0	501	1832	0
Peak Hour Factor	0.96	0.96	0.96				0.99	0.99	0.99	0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0				0	0	0	1	0	0
Cap, veh/h	182	0					0	2347		556	2915	0
Arrive On Green	0.02	0.00	0.00				0.00	0.52	0.00	0.09	0.65	0.00
Sat Flow, veh/h	1810	0	1610				0	3705	1610	1795	3705	0
Grp Volume(v), veh/h	149	0	0				0	941	0	501	1832	0
Grp Sat Flow(s),veh/h/ln	1810	0	1610				0	1805	1610	1795	1805	0
Q Serve(g_s), s	9.8	0.0	0.0				0.0	19.0	0.0	9.8	36.3	0.0
Cycle Q Clear(g_c), s	9.8	0.0	0.0				0.0	19.0	0.0	9.8	36.3	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	182	0					0	2347		556	2915	0
V/C Ratio(X)	0.82	0.00					0.00	0.40		0.90	0.63	0.00
Avail Cap(c_a), veh/h	475	0					0	2347		872	2915	0
HCM Platoon Ratio	0.20	1.00	1.00				1.00	0.80	0.80	0.80	0.80	1.00
Upstream Filter(I)	1.00	0.00	0.00				0.00	0.58	0.00	0.09	0.09	0.00
Uniform Delay (d), s/veh	57.7	0.0	0.0				0.0	14.6	0.0	14.1	10.5	0.0
Incr Delay (d2), s/veh	8.6	0.0	0.0				0.0	0.3	0.0	0.9	0.1	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	8.9	0.0	0.0				0.0	11.7	0.0	11.3	16.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.3	0.0	0.0				0.0	14.9	0.0	14.9	10.6	0.0
LnGrp LOS	E	A					A	B		B	B	A
Approach Vol, veh/h		149	A					941	A		2333	
Approach Delay, s/veh		66.3						14.9			11.5	
Approach LOS		E						B			B	

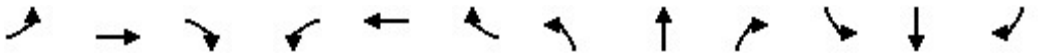
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.9	83.5		17.6		102.4
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5
Max Green Setting (Gmax), s	13.5	37.5		31.5		77.5
Max Q Clear Time (g_c+I1), s	11.8	21.0		11.8		38.3
Green Ext Time (p_c), s	1.6	9.5		0.3		32.5

Intersection Summary	
HCM 6th Ctrl Delay	14.9
HCM 6th LOS	B

Notes

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

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



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	247	78	250	161	370	82	917	167	364	1431	244
Future Volume (veh/h)	274	247	78	250	161	370	82	917	167	364	1431	244
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885
Adj Flow Rate, veh/h	277	249	79	253	163	374	83	926	169	368	1445	246
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	1
Cap, veh/h	392	618	191	361	317	460	105	1190	217	419	1397	234
Arrive On Green	0.14	0.23	0.23	0.08	0.17	0.17	0.06	0.39	0.39	0.24	0.90	0.90
Sat Flow, veh/h	1810	2712	840	1810	1900	1607	1810	3049	556	3510	3093	518
Grp Volume(v), veh/h	277	164	164	253	163	374	83	548	547	368	834	857
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1900	1607	1810	1805	1800	1755	1805	1806
Q Serve(g_s), s	14.7	9.2	9.6	9.5	9.4	20.0	5.4	31.9	31.9	12.1	54.2	54.2
Cycle Q Clear(g_c), s	14.7	9.2	9.6	9.5	9.4	20.0	5.4	31.9	31.9	12.1	54.2	54.2
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.31	1.00		0.29
Lane Grp Cap(c), veh/h	392	411	398	361	317	460	105	705	703	419	815	816
V/C Ratio(X)	0.71	0.40	0.41	0.70	0.51	0.81	0.79	0.78	0.78	0.88	1.02	1.05
Avail Cap(c_a), veh/h	417	436	422	361	317	460	143	705	703	453	815	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	33.2	39.4	39.5	41.1	45.6	39.9	55.8	32.0	32.0	44.8	5.8	5.8
Incr Delay (d2), s/veh	5.1	0.6	0.7	6.0	1.4	10.7	18.1	8.3	8.3	11.1	30.6	39.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	11.0	7.3	7.4	4.6	7.9	16.7	5.4	21.6	21.5	8.2	13.4	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	40.0	40.2	47.1	47.0	50.5	73.9	40.3	40.3	55.9	36.4	45.1
LnGrp LOS	D	D	D	D	D	D	E	D	D	E	F	F
Approach Vol, veh/h		605			790			1178			2059	
Approach Delay, s/veh		39.3			48.7			42.7			43.5	
Approach LOS		D			D			D			D	

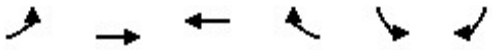
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	19.8	52.4	15.0	32.8	12.5	59.7	22.3	25.5
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	15.5	44.0	9.5	29.0	9.5	50.0	18.5	20.0
Max Q Clear Time (g_c+I1), s	14.1	33.9	11.5	11.6	7.4	56.2	16.7	22.0
Green Ext Time (p_c), s	0.2	7.1	0.0	1.5	0.0	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	274	247	78	250	161	370	82	917	167	364	1431	244
Future Volume (veh/h)	274	247	78	250	161	370	82	917	167	364	1431	244
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	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1885
Adj Flow Rate, veh/h	277	249	79	253	163	374	83	926	169	368	1445	246
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	1
Cap, veh/h	392	618	191	361	317	460	105	1190	217	419	1397	234
Arrive On Green	0.14	0.23	0.23	0.08	0.17	0.17	0.06	0.39	0.39	0.24	0.90	0.90
Sat Flow, veh/h	1810	2712	840	1810	1900	1607	1810	3049	556	3510	3093	518
Grp Volume(v), veh/h	277	164	164	253	163	374	83	548	547	368	834	857
Grp Sat Flow(s),veh/h/ln	1810	1805	1747	1810	1900	1607	1810	1805	1800	1755	1805	1806
Q Serve(g_s), s	14.7	9.2	9.6	9.5	9.4	20.0	5.4	31.9	31.9	12.1	54.2	54.2
Cycle Q Clear(g_c), s	14.7	9.2	9.6	9.5	9.4	20.0	5.4	31.9	31.9	12.1	54.2	54.2
Prop In Lane	1.00		0.48	1.00		1.00	1.00		0.31	1.00		0.29
Lane Grp Cap(c), veh/h	392	411	398	361	317	460	105	705	703	419	815	816
V/C Ratio(X)	0.71	0.40	0.41	0.70	0.51	0.81	0.79	0.78	0.78	0.88	1.02	1.05
Avail Cap(c_a), veh/h	417	436	422	361	317	460	143	705	703	453	815	816
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.61	0.61	0.61
Uniform Delay (d), s/veh	37.2	39.4	39.5	41.1	45.6	39.9	55.8	32.0	32.0	44.8	5.8	5.8
Incr Delay (d2), s/veh	5.1	0.6	0.7	6.0	1.4	10.7	18.1	8.3	8.3	11.1	30.6	39.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	7.3	7.4	4.6	7.9	16.7	5.4	21.6	21.5	8.2	13.4	16.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	40.0	40.2	47.1	47.0	50.5	73.9	40.3	40.3	55.9	36.4	45.1
LnGrp LOS	D	D	D	D	D	D	E	D	D	E	F	F
Approach Vol, veh/h		605			790			1178			2059	
Approach Delay, s/veh		39.3			48.7			42.7			43.5	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.8	52.4	15.0	32.8	12.5	59.7	22.3	25.5
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	13.5	44.0	9.5	29.0	9.5	50.0	18.5	20.0
Max Q Clear Time (g_c+I1), s	11.4	33.9	11.5	11.6	7.4	56.2	16.7	22.0
Green Ext Time (p_c), s	0.2	7.1	0.0	1.5	0.0	0.0	0.2	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.6
HCM 6th LOS	D



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	25	575	650	82	382	124
Future Volume (veh/h)	25	575	650	82	382	124
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	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	625	707	89	415	135
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	260	873	873	740	506	450
Arrive On Green	0.47	0.47	0.47	0.47	0.28	0.28
Sat Flow, veh/h	682	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	27	625	707	89	415	135
Grp Sat Flow(s),veh/h/ln	682	1870	1870	1585	1781	1585
Q Serve(g_s), s	1.6	11.8	14.3	1.4	9.6	2.9
Cycle Q Clear(g_c), s	15.9	11.8	14.3	1.4	9.6	2.9
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	260	873	873	740	506	450
V/C Ratio(X)	0.10	0.72	0.81	0.12	0.82	0.30
Avail Cap(c_a), veh/h	362	1153	1153	977	678	603
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	9.4	10.1	6.7	14.7	12.4
Incr Delay (d2), s/veh	0.2	1.5	3.3	0.1	5.9	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	0.4	5.7	7.5	0.5	7.4	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.1	10.9	13.4	6.7	20.7	12.7
LnGrp LOS	B	B	B	A	C	B
Approach Vol, veh/h		652	796		550	
Approach Delay, s/veh		11.1	12.7		18.7	
Approach LOS		B	B		B	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	26.1		18.0		26.1
Change Period (Y+Rc), s	5.5		5.5		5.5
Max Green Setting (Gmax), s	27.2		16.8		27.2
Max Q Clear Time (g_c+I1), s	16.3		11.6		17.9
Green Ext Time (p_c), s	3.5		1.0		2.7

Intersection Summary	
HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Intersection	
Int Delay, s/veh	18.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	957	693	0	96	38
Future Vol, veh/h	0	957	693	0	96	38
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage,-#		0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1040	753	0	104	41

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1793	753
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	1040	-
Critical Hdwy	-	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	0	-	-	0	~ 89	410
Stage 1	0	-	-	0	465	-
Stage 2	0	-	-	0	341	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	~ 89	410
Mov Cap-2 Maneuver	-	-	-	-	~ 89	-
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	341	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	247.6
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	114
HCM Lane V/C Ratio	-	-	1.278
HCM Control Delay (s)	-	-	247.6
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	9.6

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

Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	64	154	11	12	327
Future Vol, veh/h	10	64	154	11	12	327
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	100	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	70	167	12	13	355

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	548	167	0	0	179	0
Stage 1	167	-	-	-	-	-
Stage 2	381	-	-	-	-	-
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	497	877	-	-	1397	-
Stage 1	863	-	-	-	-	-
Stage 2	691	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	491	877	-	-	1397	-
Mov Cap-2 Maneuver	491	-	-	-	-	-
Stage 1	863	-	-	-	-	-
Stage 2	683	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	793	1397	-
HCM Lane V/C Ratio	-	-	0.101	0.009	-
HCM Control Delay (s)	-	-	10.1	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Traffic Volume Worksheets

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville

Traffic Volumes

A&R Engineering
January 2022

1. SR 8 @ Cedar Mtn Rd

A.M. Peak Hour

	- Northbound					Cedar Mountain Road 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 2021 Volumes:	0	0	0	0	0	0	139	0	108	247	0	45	351	0	396	0	0	232	45	277
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	0	0	0	0	142	0	110	252	0	46	358	0	404	0	0	237	46	283
Total New Trips:	0	0	0	0	0	0	0	0	1	1	0	0	3	0	3	0	0	9	0	9
Future 2023 Traffic Volumes:	0	0	0	0	0	0	142	0	111	253	0	46	361	0	407	0	0	246	46	292

P.M. Peak Hour

	- Northbound					Cedar Mountain Road 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 2021 Volumes:	0	0	0	0	0	0	63	0	100	163	0	90	320	0	410	0	0	487	79	566
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	0	0	0	0	64	0	102	166	0	92	326	0	418	0	0	497	81	578
Total New Trips:	0	0	0	0	0	0	0	0	1	1	0	10	76	0	86	0	0	10	0	10
Future 2023 Traffic Volumes:	0	0	0	0	0	0	64	0	103	167	0	102	402	0	504	0	0	507	81	588

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville
Traffic Volumes

A&R Engineering
January 2022

2. SR 8 @ Gurley Rd

A.M. Peak Hour

	Gurley Road Northbound					- 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 2021 Volumes:	0	10	0	42	52	0	0	0	0	0	0	0	355	3	358	0	62	305	0	367
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	10	0	43	53	0	0	0	0	0	0	0	362	3	365	0	63	311	0	374
Total New Trips:	0	1	0	3	4	0	0	0	0	0	0	0	1	4	5	0	8	2	0	10
Future 2023 Traffic Volumes:	0	11	0	46	57	0	0	0	0	0	0	0	363	7	370	0	71	313	0	384

P.M. Peak Hour

	Gurley Road Northbound					- 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 2021 Volumes:	0	32	0	84	116	0	0	0	0	0	0	0	319	8	327	0	49	543	0	592
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	33	0	86	119	0	0	0	0	0	0	0	325	8	333	0	50	554	0	604
Total New Trips:	0	38	0	67	105	0	0	0	0	0	0	0	19	5	24	0	9	3	0	12
Future 2023 Traffic Volumes:	0	71	0	153	224	0	0	0	0	0	0	0	344	13	357	0	59	557	0	616

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville

Traffic Volumes

A&R Engineering
January 2022

3. SR 5 @ Gurley Rd

A.M. Peak Hour

	Gurley Road **Northbound**					Gurley Road **Southbound**					SR 5 (Bill Arp Road) **Eastbound**					SR 5 (Bill Arp Road) **Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	4	0	5	9	0	34	0	4	38	0	11	387	5	403	0	6	269	58	333
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	4	0	5	9	0	35	0	4	39	0	11	395	5	411	0	6	274	59	339
Total New Trips:	0	0	1	1	2	0	2	0	0	2	0	4	18	0	22	0	0	7	5	12
Future 2023 Traffic Volumes:	0	4	1	6	11	0	37	0	4	41	0	15	413	5	433	0	6	281	64	351

P.M. Peak Hour

	Gurley Road **Northbound**					Gurley Road **Southbound**					SR 5 (Bill Arp Road) **Eastbound**					SR 5 (Bill Arp Road) **Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	4	0	4	8	0	93	0	13	106	0	19	310	3	332	0	3	478	113	594
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	4	0	4	8	0	95	0	13	108	0	19	316	3	338	0	3	488	115	606
Total New Trips:	0	0	1	1	2	0	163	10	57	230	0	5	21	0	26	0	10	134	25	169
Future 2023 Traffic Volumes:	0	4	1	5	10	0	258	10	70	338	0	24	337	3	364	0	13	622	140	775

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville

Traffic Volumes

A&R Engineering
January 2022

4. SR 5 @ Rocky Ridge Blvd

A.M. Peak Hour

	Rocky Ridge Boulevard **Northbound**					Arbor Vista Drive **Southbound**					SR 5 (Bill Arp Road) **Eastbound**					SR 5 (Bill Arp Road) **Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	8	0	55	63	0	37	1	6	44	0	3	417	6	426	0	40	319	32	391
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	8	0	56	64	0	38	1	6	45	0	3	425	6	434	0	41	325	33	399
Total New Trips:	0	1	0	0	1	0	0	0	1	1	0	0	23	0	23	0	0	70	0	70
Future 2023 Traffic Volumes:	0	9	0	56	65	0	38	1	7	46	0	3	448	6	457	0	41	395	33	469

P.M. Peak Hour

	Rocky Ridge Boulevard **Northbound**					Arbor Vista Drive **Southbound**					SR 5 (Bill Arp Road) **Eastbound**					SR 5 (Bill Arp Road) **Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	55	2	83	140	0	38	5	8	51	0	8	385	35	428	0	130	514	62	706
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	56	2	85	143	0	39	5	8	52	0	8	393	36	437	0	133	524	63	720
Total New Trips:	0	1	0	0	1	0	0	0	1	1	0	10	619	10	639	0	0	85	0	85
Future 2023 Traffic Volumes:	0	57	2	85	144	0	39	5	9	53	0	18	1012	46	1076	0	133	609	63	805

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville

Traffic Volumes

A&R Engineering
January 2022

5. SR 5 @ Bright Star Conn

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 2021 Volumes:	3	66	325	292	686	0	71	420	24	515	0	26	95	55	176	0	168	39	32	239
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	3	67	332	298	700	0	72	428	24	524	0	27	97	56	180	0	171	40	33	244
Total New Trips:	0	0	56	0	56	0	4	19	1	24	0	3	0	0	3	0	0	0	11	11
Future 2023 Traffic Volumes:	3	67	388	298	756	0	76	447	25	548	0	30	97	56	183	0	171	40	44	255

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 2021 Volumes:	5	73	597	294	969	0	79	424	24	527	0	26	84	70	180	0	251	92	89	432
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	5	74	609	300	988	0	81	433	24	538	0	27	86	71	184	0	256	94	91	441
Total New Trips:	0	0	68	0	68	0	95	495	29	619	0	4	0	0	4	0	0	0	13	13
Future 2023 Traffic Volumes:	5	74	677	300	1056	0	176	928	53	1157	0	31	86	71	188	0	256	94	104	454

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville
Traffic Volumes

A&R Engineering
January 2022

6. SR 5 @ Concourse Pkwy

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Concourse Road 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 2021 Volumes:	29	21	640	229	919	3	58	607	0	668	0	0	4	8	12	0	159	0	42	201
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	30	21	653	234	938	3	59	619	0	681	0	0	4	8	12	0	162	0	43	205
Total New Trips:	0	0	54	0	54	0	0	18	0	18	0	1	0	0	1	0	0	0	1	1
Future 2023 Traffic Volumes:	30	21	707	234	992	3	59	637	0	699	0	1	4	8	13	0	162	0	44	206

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Concourse Road 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 2021 Volumes:	44	41	905	445	1435	1	54	656	9	720	0	7	8	55	70	0	412	13	55	480
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	45	42	923	454	1464	1	55	669	9	734	0	7	8	56	71	0	420	13	56	489
Total New Trips:	0	0	65	0	65	0	10	476	10	496	0	1	0	0	1	0	0	0	1	1
Future 2023 Traffic Volumes:	45	42	988	454	1529	1	65	1145	19	1230	0	8	8	56	72	0	420	13	57	490

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville **A&R Engineering**
Traffic Volumes **January 2022**

7. SR 5 @ 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 2021 Volumes:	0	141	616	0	757	1	0	751	72	824	0	0	0	0	0	0	425	0	347	772
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	144	628	0	772	1	0	766	73	840	0	0	0	0	0	0	434	0	354	788
Total New Trips:	0	0	36	0	36	0	0	14	4	18	0	0	0	0	0	0	0	0	18	18
Future 2023 Traffic Volumes:	0	144	664	0	808	1	0	780	77	858	0	0	0	0	0	0	434	0	372	806

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 2021 Volumes:	2	273	786	0	1061	0	0	959	196	1155	0	0	0	0	0	0	907	0	687	1594
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	2	278	802	0	1082	0	0	978	200	1178	0	0	0	0	0	0	925	0	701	1626
Total New Trips:	0	0	43	0	43	0	0	381	95	476	0	0	0	0	0	0	0	0	22	22
Future 2023 Traffic Volumes:	2	278	845	0	1125	0	0	1359	295	1654	0	0	0	0	0	0	925	0	723	1648

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville
Traffic Volumes

A&R Engineering
January 2022

8. SR 5 @ 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 2021 Volumes:	0	0	564	808	1372	0	376	853	0	1229	0	159	0	271	430	0	0	0	0	0
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	575	824	1399	0	384	870	0	1254	0	162	0	276	438	0	0	0	0	0
Total New Trips:	0	0	25	0	25	0	6	8	0	14	0	11	0	0	11	0	0	0	0	0
Future 2023 Traffic Volumes:	0	0	600	824	1424	0	390	878	0	1268	0	173	0	276	449	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 2021 Volumes:	0	0	884	604	1488	1	317	1527	0	1845	0	127	0	286	413	0	0	0	0	0
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	902	616	1518	1	323	1558	0	1882	0	130	0	292	422	0	0	0	0	0
Total New Trips:	0	0	30	0	30	0	162	219	0	381	0	13	0	0	13	0	0	0	0	0
Future 2023 Traffic Volumes:	0	0	932	616	1548	1	485	1777	0	2263	0	143	0	292	435	0	0	0	0	0

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville

Traffic Volumes

A&R Engineering
January 2022

9. SR 5 @ Douglas Blvd

A.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Douglas Boulevard Eastbound					Douglas Boulevard Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	64	995	163	1222	1	214	746	138	1099	0	188	116	22	326	0	106	74	125	305
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	65	1015	166	1246	1	218	761	141	1121	0	192	118	22	332	0	108	75	128	311
Total New Trips:	0	0	23	0	23	0	0	8	0	8	0	1	0	0	1	0	0	0	1	1
Future 2023 Traffic Volumes:	0	65	1038	166	1269	1	218	769	141	1129	0	193	118	22	333	0	108	75	129	312

P.M. Peak Hour

	SR 5 (Bill Arp Road) Northbound					SR 5 (Bill Arp Road) Southbound					Douglas Boulevard Eastbound					Douglas Boulevard Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	2	78	872	164	1116	2	345	1207	229	1783	0	268	242	76	586	0	245	158	362	765
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	2	80	890	167	1139	2	352	1231	234	1819	0	273	247	78	598	0	250	161	369	780
Total New Trips:	0	0	27	0	27	0	10	200	10	220	0	1	0	0	1	0	0	0	1	1
Future 2023 Traffic Volumes:	2	80	917	167	1166	2	362	1431	244	2039	0	274	247	78	599	0	250	161	370	781

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville
Traffic Volumes

A&R Engineering
January 2022

10. SR 5 @ Drwy 1 (W. Main)

A.M. Peak Hour

	- Northbound					Site Driveway 1 (Western, Main) Southbound					SR 5 (Bill Arp Road) Eastbound					SR 5 (Bill Arp Road) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	426	0	426	0	0	333	0	333
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	435	0	435	0	0	340	0	340
Total New Trips:	0	0	0	0	0	0	21	0	7	28	0	21	0	0	21	0	0	6	68	74
Future 2023 Traffic Volumes:	0	0	0	0	0	0	21	0	7	28	0	21	435	0	456	0	0	346	68	414

P.M. Peak Hour

	- Northbound					Site Driveway 1 (Western, Main) Southbound					SR 5 (Bill Arp Road) Eastbound					SR 5 (Bill Arp Road) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	407	0	407	0	0	594	0	594
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	415	0	415	0	0	606	0	606
Total New Trips:	0	0	0	0	0	0	382	0	124	506	0	25	160	0	185	0	0	44	82	126
Future 2023 Traffic Volumes:	0	0	0	0	0	0	382	0	124	506	0	25	575	0	600	0	0	650	82	732

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville
Traffic Volumes

A&R Engineering
January 2022

11. SR 5 @ Drwy 2 (E. Exit)

A.M. Peak Hour

	- Northbound					Site Driveway 2 (Eastern, Exit Only) Southbound					SR 5 (Bill Arp Road) Eastbound					SR 5 (Bill Arp Road) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	426	0	426	0	0	333	0	333
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	435	0	435	0	0	340	0	340
Total New Trips:	0	0	0	0	0	0	4	0	1	5	0	0	21	0	21	0	0	72	0	72
Future 2023 Traffic Volumes:	0	0	0	0	0	0	4	0	1	5	0	0	456	0	456	0	0	412	0	412

P.M. Peak Hour

	- Northbound					Site Driveway 2 (Eastern, Exit Only) Southbound					SR 5 (Bill Arp Road) Eastbound					SR 5 (Bill Arp Road) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	407	0	407	0	0	594	0	594
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	415	0	415	0	0	606	0	606
Total New Trips:	0	0	0	0	0	0	96	0	38	134	0	0	542	0	542	0	0	87	0	87
Future 2023 Traffic Volumes:	0	0	0	0	0	0	96	0	38	134	0	0	957	0	957	0	0	693	0	693

21-147 Multipurpose Arena for Douglas County Schools on Bill Arp Road, City of Douglasville — **A&R Engineering**
Traffic Volumes — **January 2022**

12. Gurley Rd @ Drwy 3

A.M. Peak Hour

	Gurley Road Northbound					Gurley Road Southbound					- Eastbound					Site Driveway 3 Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	0	69	0	69	0	0	38	0	38	0	0	0	0	0	0	0	0	0	0
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	70	0	70	0	0	39	0	39	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	1	10	11	0	10	2	0	12	0	0	0	0	0	0	0	0	3	3
Future 2023 Traffic Volumes:	0	0	71	10	81	0	10	41	0	51	0	0	0	0	0	0	0	0	3	3

P.M. Peak Hour

	Gurley Road Northbound					Gurley Road Southbound					- Eastbound					Site Driveway 3 Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2021 Volumes:	0	0	132	0	132	0	0	106	0	106	0	0	0	0	0	0	0	0	0	0
Growth Factor (%):	1	1	1	1		1	1	1	1		1	1	1	1		1	1	1	1	
No-Build 2023 Volumes:	0	0	135	0	135	0	0	108	0	108	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	19	11	30	0	12	219	0	231	0	0	0	0	0	0	10	0	64	74
Future 2023 Traffic Volumes:	0	0	154	11	165	0	12	327	0	339	0	0	0	0	0	0	10	0	64	74