DEVELOPMENT OF REGIONAL IMPACT
(DRI #3923)

TRAFFIC STUDY
FOR

3970 MATT HIGHWAY DRI 3923
ON SR 369 (MATT HIGHWAY)

FORSYTH COUNTY, GEORGIA

Prepared for:

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August 04, 2023
A & R Project # 23-030

EXECUTIVE SUMMARY

Traffic impacts were evaluated for the proposed 3970 Matt Highway DRI 3923 that will be located to the north of the intersection of SR 369 (Matt Highway) and Gravitt Road in Forsyth County, Georgia. The development will consist of:

- Single-Family Detached Housing: 186 units
- Townhomes: 75 Units
- Strip Retail Plaza: 33,600 sf
- Fast-Food Restaurant with Drive-Through Window: 5,000 sf

The development proposes two full access driveways and one Right-In/Right-Out driveway on SR 369 (Matt Highway) and one full access driveway on access road leading to Forsyth North Transportation Center.

Existing and future traffic operations during the AM peak hour (7:00 AM – 9:00 AM), School Dismissal peak hour (2:00 PM – 4:00 PM at few intersections close to school) and PM peak hour (4:00 PM – 6:00 PM) were analyzed at the following intersections in "Existing", "No-Build" and "Build" conditions as per the methodology meeting conducted on March 14, 2023.

1. SR 369 (Matt Highway) and Gravitt Road/Site Driveway 1 (School Peak Hour)
2. SR 369 (Matt Highway) and Forsyth North Transportation Center Driveway (School Peak Hour)
3. SR 369 (Matt Highway) and Sierra Lake Drive (School Peak Hour)
4. SR 369 (Matt Highway) and Elementary school Exit Only Driveway (School Peak Hour)
5. SR 369 (Matt Highway) and Coal Mountain Drive (School Peak Hour)
6. SR 369 (Matt Highway/Browns Bridge Road) and SR 9 (Dahlonega Highway)
7. SR 369 (Browns Bridge Road) and Settingdown Road
8. SR 369 (Matt Highway) and Site Driveway 2 (RIRO) (School Peak)
9. SR 369 (Matt Highway) and Site Driveway 3 (Western) (School Peak)

Traffic Operations Summary

Table E1 below provides a summary of traffic operations for the "No-Build" and "Build" conditions for the year 2029. As per GRTA requirements, all approaches that do not meet the level-of-service (LOS) standard (considered failing) are highlighted in Table E1. Table E1 for "Build" conditions includes the project's trips and the respective percentage of overall total "Build" condition approach traffic volume for all failing LOS approaches after all improvements are completed.

TABLE E1 – FUTURE INTERSECTION OPERATIONS AT FAILING APPROACHES

	Intersection	*No-Build Condition: LOS (Delay)*		*Build Condition: LOS (Delay)*							
		NO IMPROVEMENTS		NO IMPROVEMENTS		SITE IMPROVEMENTS		SITE VOLUMES AT FAILING APPROACH BUILD WITH IMPROVEMENTS		PERCENT SITE TRIPS OF TOTAL APPROACH TRIPS AT FAILING APPROACHES	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
4	**SR 369 @ Elementary School Exit Only Drwy** -Southbound Approach	E (41.2)	C (17.2)	F (73.4)	C (20.4)	F (73.4)	C (20.4)	1	2	0.3%	11%
5	**SR 369 @ Coal Mountain Dr** -Southbound Approach	(Dismissal Peak) E (42.1)		(Dismissal Peak) F (182.2)		(Dismissal Peak) F (182.2)		(Dismissal Peak) 10		(Dismissal Peak) 12%	
9	**SR 369 @ Site Drwy 3 (W)** -Southbound Approach	-	-	F (176.5)	F (282.5)	F (176.5)	F (282.5)	83	83	100%	100%

* Delay exceeds 300 seconds

The results of future "Build" traffic operations show that the signalized intersection of SR 9 and SR 369 will be operating at satisfactory level-of-service "C" in both AM and PM peak hours. Some stop-controlled approaches at following un-signalized intersections will operate at LOS "F" as detailed below:

SR 369 (Matt Highway) at Gravitt Road / Site Driveway 1 (eastern)

Both the northbound and southbound side street approaches will operate at LOS "F" in all three peak hours with delays exceeding 300 seconds. Delays are caused by heavy left-turns volumes having to wait for gaps in the through traffic. Left-turns volumes seem to meet the warrants for installation of a traffic signal at the intersection. The intersection will operate at a satisfactory LOS "D" or better in all three peak hours if a traffic signal is installed. We recommend an Intersection Control Evaluation Study be conducted and if a traffic signal ranks as # 1 traffic control alternative and if GDOT approves it, a traffic signal be installed.

SR 369 @ Elementary School Exit-Only Driveway

SR 369 @ Coal Mountain Drive

With the addition of just 10 and 3 southbound right-turn trips respectively, the stop-controlled southbound school driveway approaches at above two intersections will operate at a level-of-service "F" in AM and or School Dismissal peak hour in "Build" condition. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop-controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no improvements were recommended at these intersections.

SR 369 @ Full Access Dite Driveway # 3

The stop-controlled southbound site driveway approach will operate at a level of service "F" in the "Build" condition during all three peak hours. Traffic volumes will not warrant installation of a traffic signal. It is not uncommon for the side streets on arterial roadways to experience delays during the peak periods waiting to turn left on to the mainline.

The table below includes 95th percentile Synchro HCM 6 queue length for failing level-of-service approaches for the build condition with improvements that had site generated traffic. Queue length reports are included in the Appendix.

TABLE E2 – FUTURE 95TH PERCENTILE SYNCHRO QUEUES (FT) FOR FAILING APPROACHES

	Intersection	Available Storage (ft)	Queue in feet		
			BUILD with Improvements		
			AM Peak	PM Peak	Dismissal Peak
4	**SR 369 @ Elementary School Exit Only Drwy** -Southbound Approach	-	270'	8'	18'
5	**SR 369 @ Coal Mountain Dr** -Southbound Left -Southbound Right	- -	40' 10'	25' 10'	113' 15'
9	**SR 369 @ Site Drwy 3 (W)** -Southbound Left -Southbound Right	- 75'	138' 3'	165' 3'	355' 5'

As reported in Table E2, the projected "Build" condition 95th percentile approach queues will be accommodated by the existing storage available at all failing approaches.

Recommended Site Access Configuration

- Site Driveway 1: Full access (eastern) driveway on SR 369, aligned with Gravitt Rd
    - A traffic signal as per MUTCD guidelines, when warranted and approved.
    - One entering and two exiting lanes (left-turn lane and a shared through/right-turn lane).
    - Left-turn lane and right-lane for entering traffic.
    - Re-configure existing lane geometry on Gravitt Road to a left-turn lane and a shared through-right lane.

- Site Driveway 2: Right-In/ Right-Out driveway on SR 369 (Matt Highway)
    - One entering and one exiting lane.
    - Stop-sign controlled on the driveway approach with SR 369 (Matt Highway) remaining free flow.
    - Right-turn lane for entering traffic.

- Site Driveway 3: Full access driveway on SR 369 (Matt Highway)
    - One entering and two exiting lanes (left-turn lane and a shared through/right-turn lane).
    - Stop-sign controlled on the driveway approach with SR 369 (Matt Highway) remaining free flow.
    - Left-turn Lane and right-turn lane for entering traffic.
- Site Driveway 4: Full access driveway on access road leading to Forsyth North Transportation Center
    - One entering and one exiting lane.
    - Stop-sign controlled on the driveway approach with access road leading to Forsyth North Transportation Center remaining free flow.

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INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed 3970 Matt Highway DRI 3923 that will be located to the north of the intersection of SR 369 (Matt Highway) and Gravitt Road in Forsyth County, Georgia. The traffic analysis evaluates the current operations and the future conditions with the traffic generated by the development. The development will consist of:

- Single-Family Detached Housing: 186 units
- Townhomes: 75 Units
- Strip Retail Plaza: 33,600 sf
- Fast-Food Restaurant with Drive-Through Window: 5,000 sf

The development proposes access at the following locations:

- Site Driveway 1: Full access (eastern) driveway on SR 369 (Matt Hwy), aligned with Gravitt Road
- Site Driveway 2: Right-In/Right-Out driveway on SR 369 (Matt Highway)
- Site Driveway 3: Full access (western) driveway on SR 369 (Matt Highway)
- Site Driveway 4: Full access driveway on access road (Forsyth North Transportation Center Drwy)

The AM and PM peak hours have been analyzed in this study. Due to the proximity of schools (Coal Mountain Elementary School, North Forsyth Middle School and North Forsyth High School), the following intersections were analyzed for the school dismissal peak hour also. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

1. SR 369 (Matt Highway) at Gravitt Road (School Peak Hour)
2. SR 369 (Matt Highway) at Forsyth North Transportation Center Driveway (School Peak Hour)
3. SR 369 (Matt Highway) at Sierra Lake Drive (School Peak Hour)
4. SR 369 (Matt Highway) at Elementary School Exit Only Driveway (School Peak Hour)
5. SR 369 (Matt Highway) at Coal Mountain Drive (School Peak Hour)
6. SR 369 (Matt Highway/Browns Bridge Road) at SR 9 (Dahlonega Highway)
7. SR 369 (Browns Bridge Road) at Settingdown Road

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

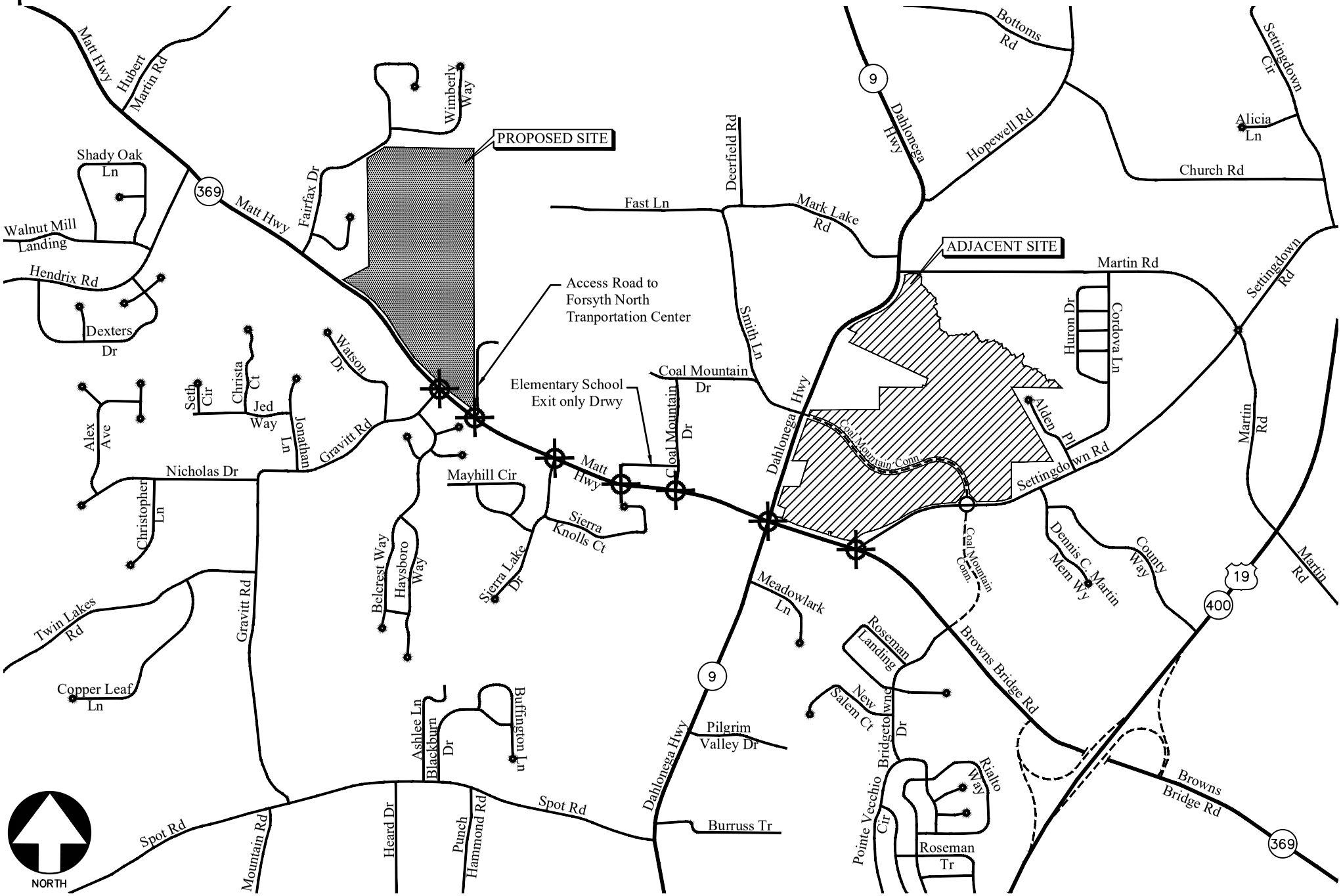
STUDY NETWORK DETERMINATION

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 ARC, GRTA, GDOT and Forsyth County:

1. SR 369 (Matt Highway) at Gravitt Road
2. SR 369 (Matt Highway) at Forsyth North Transportation Center Driveway
3. SR 369 (Matt Highway) at Sierra Lake Drive
4. SR 369 (Matt Highway) at Elementary school exit only Driveway
5. SR 369 (Matt Highway) at Coal Mountain Drive
6. SR 369 (Matt Highway/Browns Bridge Road) at SR 9 (Dahlonega Highway)
7. SR 369 (Browns Bridge Road) at Settingdown Road

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



LOCATION MAP AND STUDY INTERSECTIONS

FIGURE 1

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EXISTING ROADWAY FACILITIES

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

SR 369 (Matt Highway)

SR 369 (Matt Highway) is an east-west, two-lane, undivided roadway with a posted speed limit of 55 mph (35 mph at school zones) in the vicinity of the site. GDOT traffic counts (Station ID 117-0067) indicate that the daily traffic volume on SR 369 (Matt Highway) in 2021 was 14,000 vehicles per day west of Hubert Martin Road. GDOT classifies SR 369 (Matt Highway) as an Urban Minor Arterial roadway.

SR 9 (Dahlonega Highway)

SR 9 (Dahlonega Highway) is a north-south, two-lane, undivided roadway with a posted speed limit of 50 mph (35 mph at curves near Martin Road) in the vicinity of the site. Towards the south from Pilgrim Valley Drive, SR 9 (Dahlonega Highway) is posted with a speed limit of 55 mph. GDOT traffic counts (Station ID's 117-0019, 117-0017 & 117-0015) indicate that the daily traffic volume on SR 9 (Dahlonega Highway) in 2021 was 7,750 vehicles per day south of Tallant Road, 7,780 vehicles per day south of Martin Road and 7,620 vehicles per day north of SR 306 (Keith Bridge Road). GDOT classifies SR 9 (Dahlonega Highway) as an Urban Major Collector roadway near Tallant Road and Martin Road and as an Urban Minor Arterial roadway near SR 306 (Keith Bridge Road).

SR 369 (Browns Bridge Road)

SR 369 (Browns Bridge Road) is an east-west, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID's 117-0069) indicate that the daily traffic volume on SR 369 (Browns Bridge Road) in 2021 was 18,800 vehicles per day west of SR 400. GDOT classifies SR 369 (Browns Bridge Road) as an Urban Minor Arterial roadway.

Gravitt Road

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

Sierra Lake Drive

Sierra Lake Drive is a north-south, two-lane, undivided roadway with a posted speed limit of 25 mph.

Coal Mountain Drive

Coal Mountain Drive is an east-west, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site. On SR 369 (Matt Highway), Coal Mountain Drive is a north-south, four-lane, median-divided roadway.

Settingdown Road

Settingdown Road is a northeast-southwest, two-lane, undivided roadway with a posted speed limit of 40 mph.

Existing Bicycle and Pedestrian Facilities

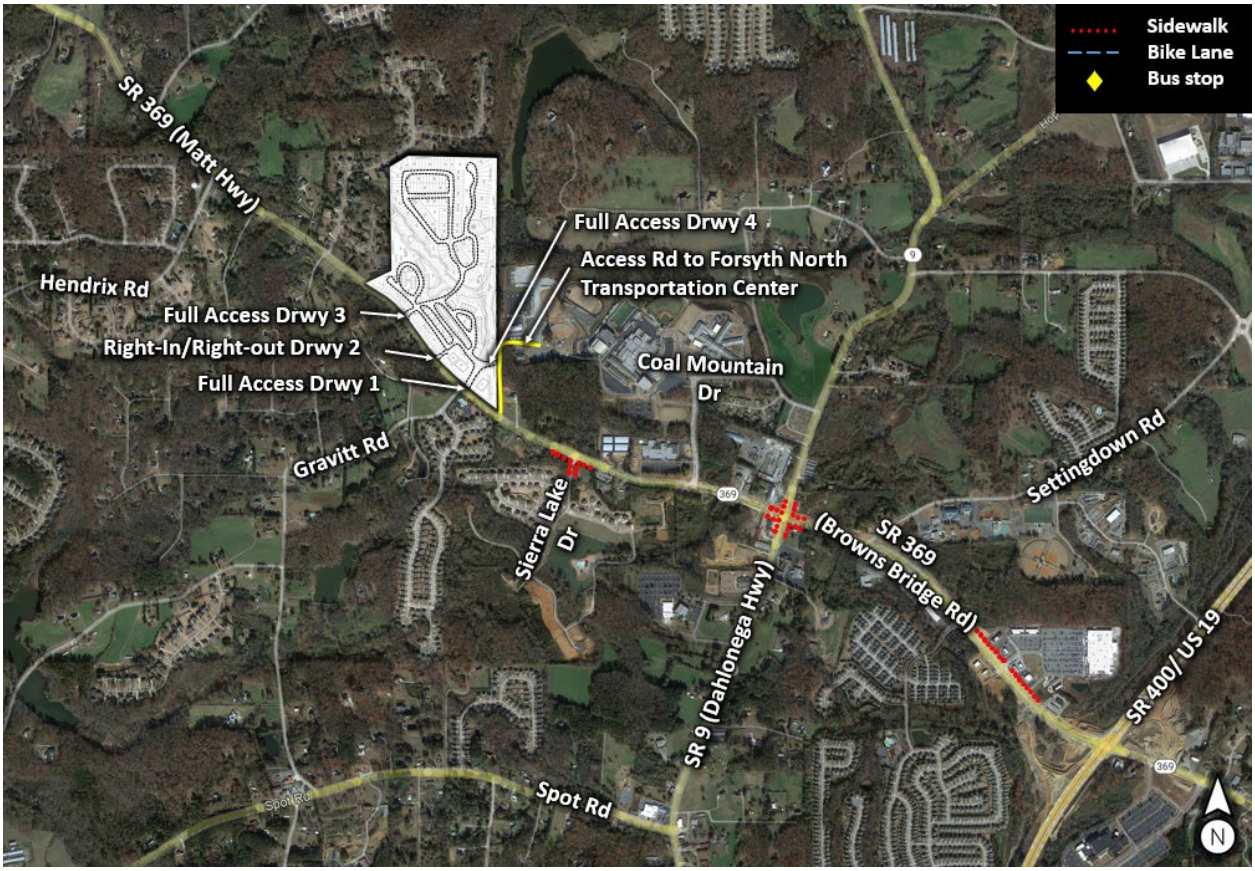
- Sidewalks are present at the intersection of SR 369 (Matt Highway) and Sierra Lake Drive and intersection of SR 369 (Matt Highway) and SR 9 (Dahlonega Highway).
- Crosswalks are present at the signalized intersection of SR 9 (Dahlonega Highway) and SR 369 (Browns Bridge Road)
- Bike paths are not present in the study network.

Alternative Modes of Access

- Existing transit routes were not identified in the study network.
- No high-capacity transit stations were identified in the vicinity of the proposed development.

The graphic below includes the location of existing sidewalks in the study network.

Existing Alternative Transportation Map



STUDY METHODOLOGY

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

Unsignalized Intersections

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

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

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

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

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

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

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

Signalized Intersections

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

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

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

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

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

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

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

EXISTING TRAFFIC ANALYSIS

Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

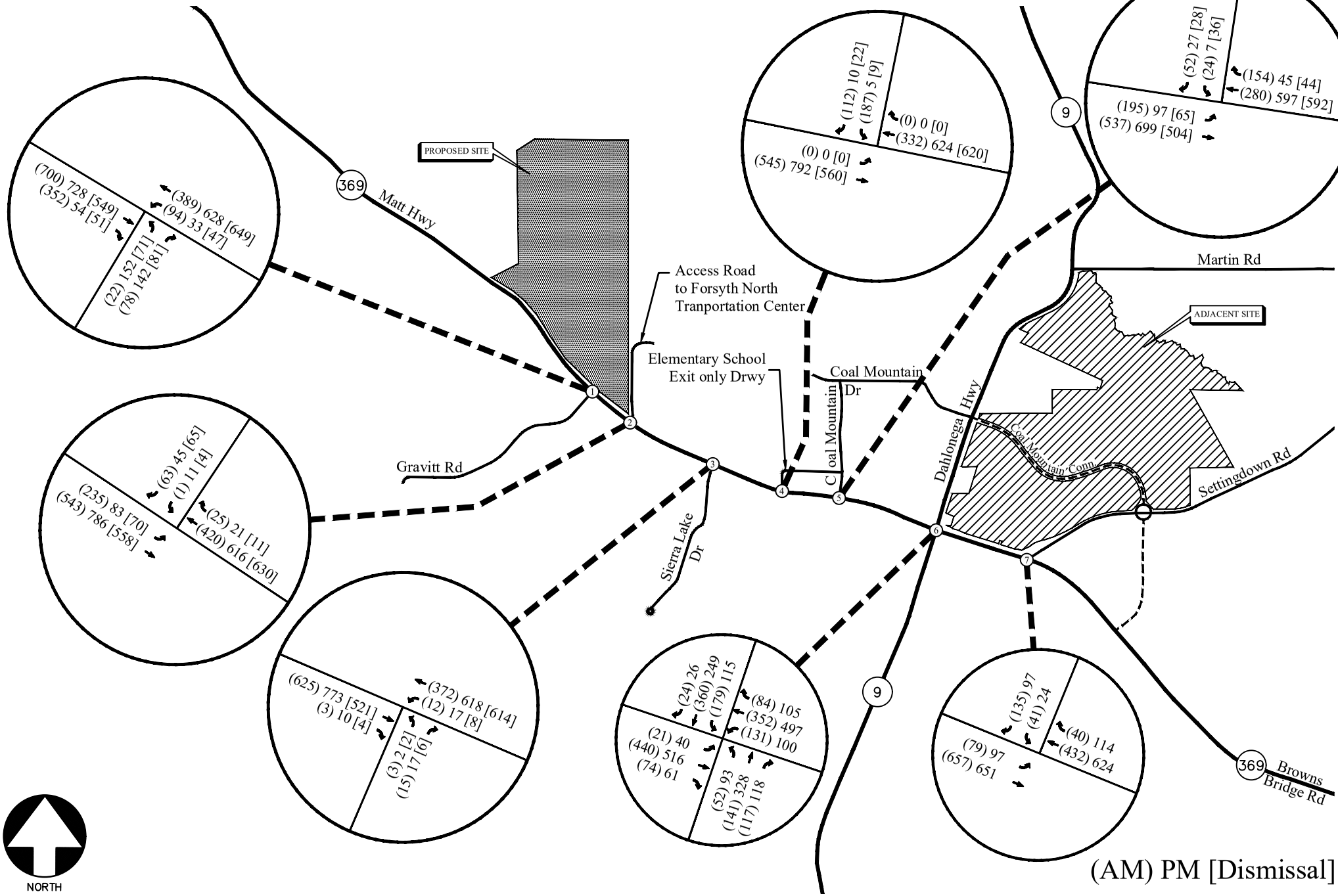
1. SR 369 (Matt Highway) at Gravitt Road
2. SR 369 (Matt Highway) at Forsyth North Transportation Center Driveway
3. SR 369 (Matt Highway) at Sierra Lake Drive
4. SR 369 (Matt Highway) at Elementary school Exit Only Driveway
5. SR 369 (Matt Highway) at Coal Mountain Drive
6. SR 369 (Matt Highway/Browns Bridge Road) at SR 9 (Dahlonega Highway)
7. SR 369 (Browns Bridge Road) at Settingdown Road

Turning movement counts were collected on Wednesday, May 03, 2023. 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.

Coal Mountain Elementary School, North Forsyth Middle School and North Forsyth High School are located near the proposed development to the northwest of the intersection of SR 9 and SR 369. Therefore, school dismissal peak hour (2:00 PM to 4:00 PM) turning movement counts were also collected at the following intersections.

1. SR 369 (Matt Highway) at Gravitt Road
2. SR 369 (Matt Highway) at Forsyth North Transportation Center Driveway
3. SR 369 (Matt Highway) at Sierra Lake Drive
4. SR 369 (Matt Highway) at Elementary school exit only Driveway
5. SR 369 (Matt Highway) at Coal Mountain Drive

The four consecutive 15-minute interval volumes that produced the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.



EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2

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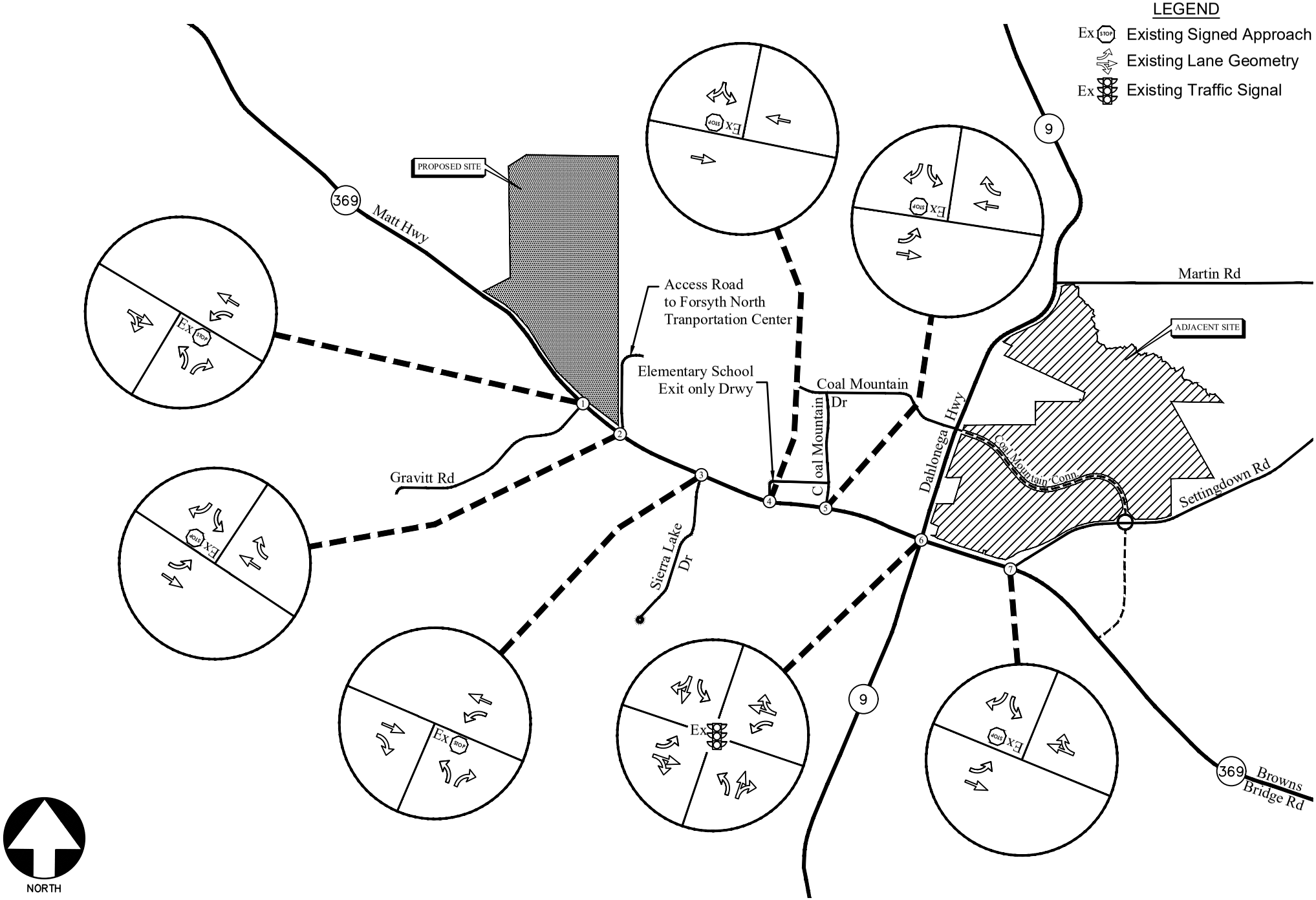

EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

A&R Engineering Inc.

Existing 2023 Traffic Operations

Existing 2023 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	Dismissal Peak	LOS Standard
1	**SR 369 @ Gravitt Road** -Westbound Left -Northbound Approach	Stop Controlled on NB Approach	B (11.6) D (25.3)	A (9.6) F (122.3)	A (9.2) E (42.4)	D/D/D D/E/E
2	**SR 369 @ Forsyth North Transportation Center Driveway** -Eastbound Left -Southbound Approach	Stop Controlled on SB Approach	A (9.3) B (12.4)	A (9.2) C (19.7)	A (9.3) C (15.7)	D/D/D D/D/D
3	**SR 369 @ Sierra Lake Drive** -Westbound Left -Northbound Approach	Stop Controlled on NB Approach	A (9.0) B (14.5)	A (9.4) C (16.6)	A (8.5) B (14.7)	D/D/D D/D/D
4	**SR 369 @ Elementary School Exit Only Driveway** -Southbound Approach	Stop Controlled on SB Approach	C (23.4)	B (14.7)	B (14.4)	D/D/D
5	**SR 369 @ Coal Mountain Drive** -Eastbound Left -Southbound Approach	Stop Controlled on SB Approach	A (8.4) C (17.2)	A (9.2) C (18.5)	A (9.1) D (25.3)	D/D/D D/D/D
6	**SR 9 @ SR 369** -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	**D (36.2)** C (27.7) C (21.3) D (53.9) D (49.7)	**D (40.6)** D (38.1) D (35.3) D (53.6) D (36.2)	Not Evaluated	**D/D** D/D D/D D/D D/D
7	**SR 369 @ Settingdown Road** -Eastbound Left -Southbound Approach	Stop Controlled on SB Approach	A (8.6) C (19.0)	A (9.3) C (22.7)	Not Evaluated	D/D D/D

The results of existing traffic operations analysis indicate that the signalized intersection of SR 9 at SR 369 is operating at an overall levels of service "D" or better in both AM and PM peak hours. The stop-controlled approaches at all other un-signalized study intersections are operating at levels-of-service "D" or better in both the AM, School Dismissal and PM peak hours except the northbound Gravitt Road approach at SR 369 which is operating at LOS "E" and "F" respectively in the School Dismissal peak and PM peak hours. These areas are addressed in the future traffic operations sections.

PROJECT DESCRIPTION

The proposed 3970 Matt Highway DRI 3923 will be located to the north of the intersection of SR 369 (Matt Highway) and Gravitt Road in Forsyth County. The development will consist of:

- Single-Family Detached Housing: 186 units
- Townhomes: 75 Units
- Strip Retail Plaza (<40k): 33,600 sf
- Fast-Food Restaurant with Drive-Through Window: 5,000 sf

The development proposes access at the following locations:

- Site Driveway 1: Full access (eastern) driveway on SR 369 (Matt Hwy), aligned with Gravitt Road
- Site Driveway 2: Right-In/Right-Out driveway on SR 369 (Matt Highway)
- Site Driveway 3: Full access (western) driveway on SR 369 (Matt Highway)
- Site Driveway 4: Full access driveway on access road (Forsyth North Transportation Center Drwy)

Site Plan

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

DRI - PRELIMINARY MASTER PLAN

MATT 3970 DEVELOPMENT

Forsyth County,Georgia

OWNER: MATT 3970, LLC
2300 CHALET TRAIL
KERRVILLE, TX 78208

SITE LOCATION MAP
NOT TO SCALE

GENERAL INFORMATION

DRI NUMBER: 3923
PROJECT NAME: 3970 MATT HWY.

TRAFFIC CONSULTANT: A & R ENGINEERING, INC.
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MARIETTA, GA 30067

CONTACT: ABDUL AMER
P: 770.690.9255
E: AAMER@ARENG.COM

SITE PLANNER: REECE, HOOPES, & FINCHER, INC.
2305 MACY DRIVE
ROSWELL, GA 30076

CONTACT: HOYT T. FINCHER III
P: 770.392.8313 (EXT. 1)
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LEGEND:

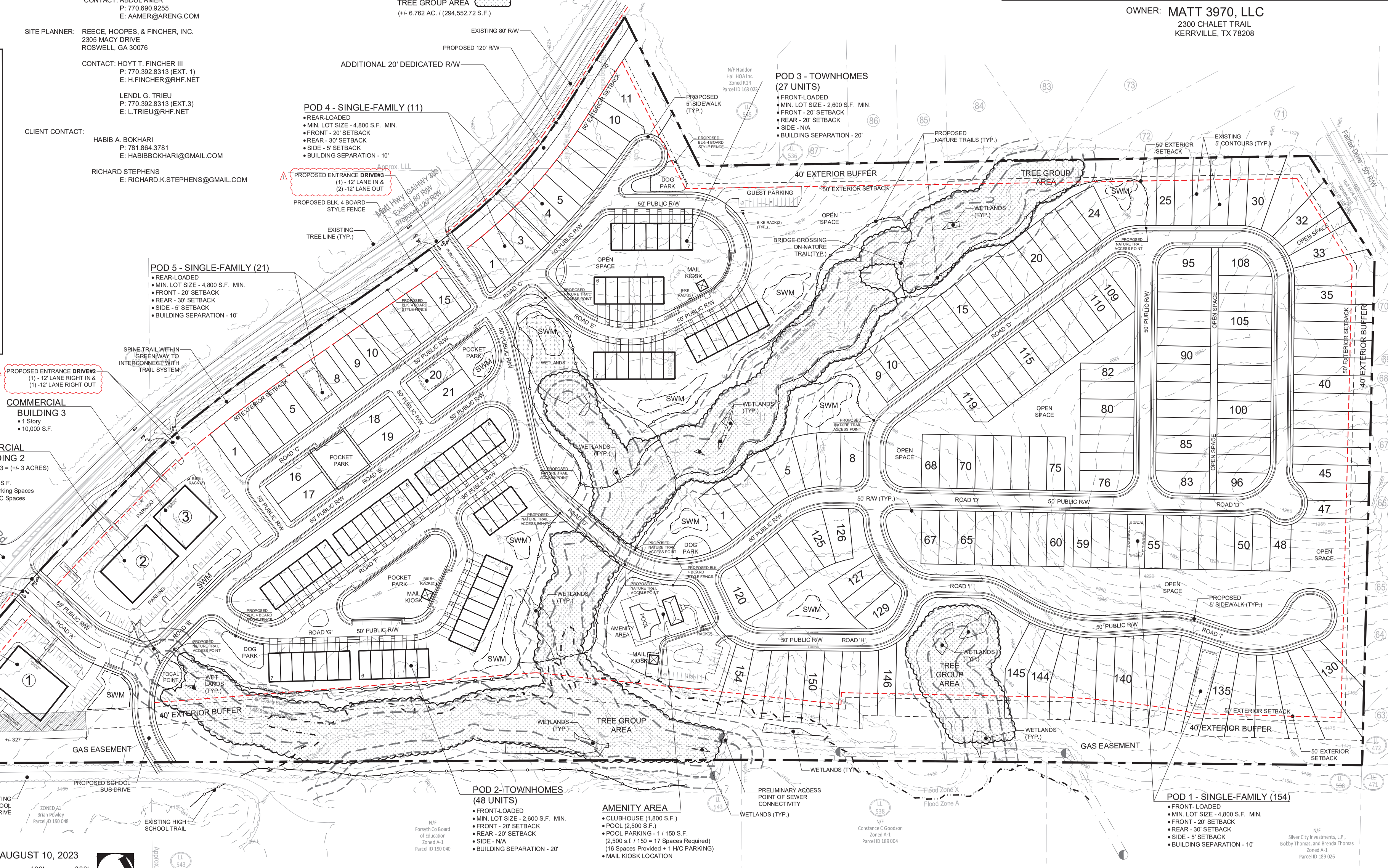
EXISTING TREE LINE
BUFFERS
TRAILS
FLOOD
TREE GROUP AREA
(+/- 6.762 AC. / (294,552.72 S.F.)

SITE DATA

- TOTAL ACRES: 84.521 AC
- CURRENT ZONING: A-1/ RES3
- TAX PARCEL ID: 189-003 & 190-004
- PROPOSED ZONING: MPD
- CURRENT OWNER: MATT 3970, LLC.
- COMMERCIAL ZONE:
  - 8.452 AC REQUIRED (10%)
  - **8.452 AC PROVIDED (10%)**
  - ***38,600*** SF TOTAL COMMERCIAL
  - PARKING - **175 SPACES PROVIDED**
  - *9 TOTAL H/C SPACES*
- OPEN SPACE:
  - 30.427 AC REQUIRED (36%)
  - **30.546 AC PROVIDED (36%)**
  - (NO OPENSPACE INCLUDED IN COMMERCIAL ACREAGE, AMENITY AREA, & STORMWATER MANAGEMENT AREAS)
- TREE GROUPING AREA
  - 6.762 AC REQUIRED
  - **6.762 AC PROVIDED (8%)**
  - (CALCULATED 50' UNDISTURBED STREAM BUFFER. ACTUAL TREE SAVE AREA MAY GROW WHEN GRADING PLAN IS COMPLETED AND FURTHER PLANS ARE PUT INTO PLACE FOR THE CIVIC AREA)
- RESIDENTIAL UNITS:
  - **261 UNITS PROVIDED**
- TOWNHOMES (30% MAX.)
  - 79 UNITS ALLOWED
  - **75 UNITS PROVIDED**
- SINGLE-FAMILY DETACHED
  - **186 UNITS PROVIDED**

TOTAL RES. UNITS PROVIDED: 261

MAX. DENSITY ALLOWED = 3.3 U/A
DENSITY PROVIDED = 3.09 U/A



AUGUST 10, 2023

0' 100' 200'

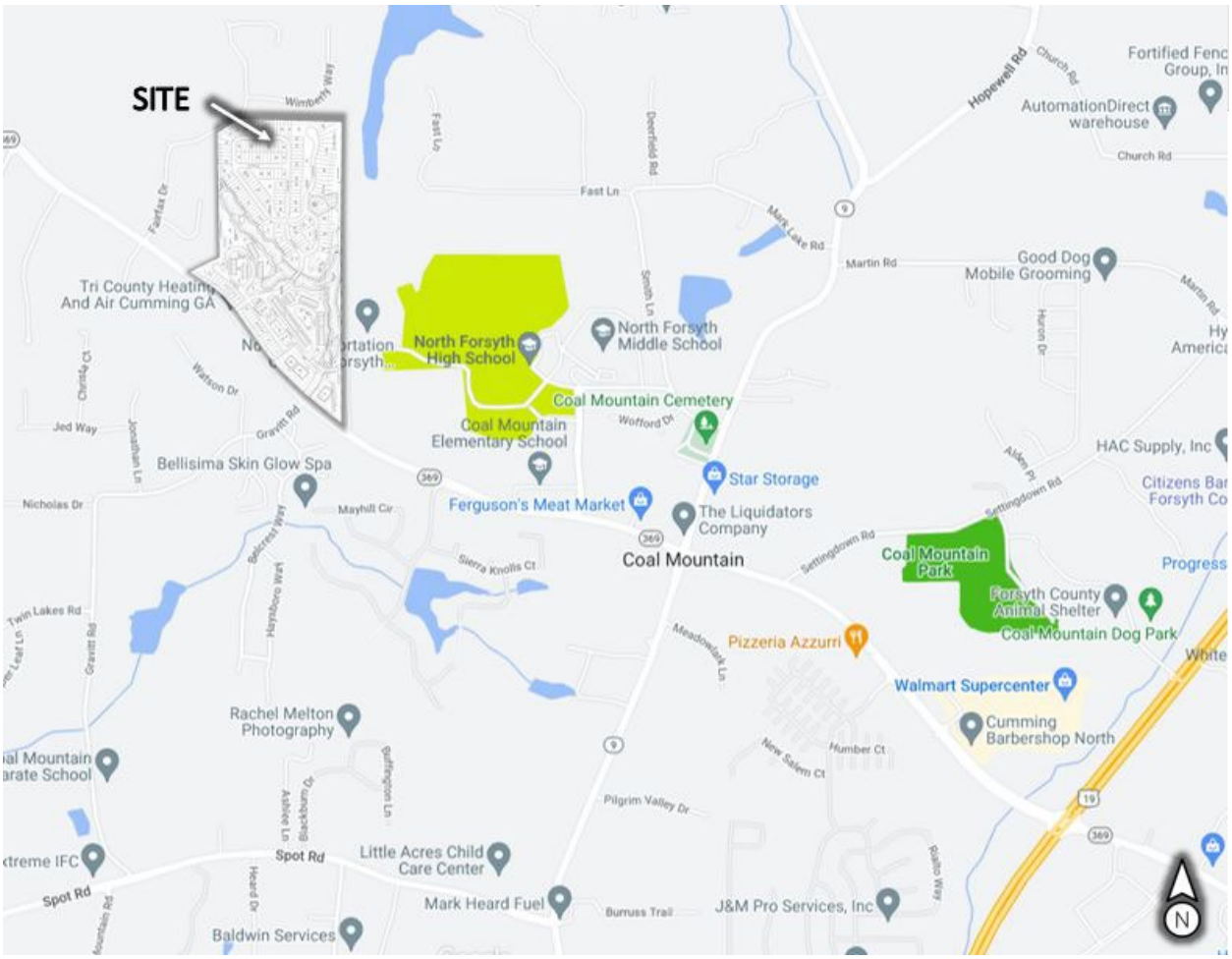
NOTE: IT IS THE RESPONSIBILITY OF THE CIVIL ENGINEER TO DESIGN ALL STORMWATER MANAGEMENT PONDS SHOWN.

Planned Bicycle and Pedestrian Facilities

The 2025 Bicycle & Pedestrian Walkway Plan proposes North Subarea Trails Master Plan. According to this plan, a sidewalk and multi-use path is proposed along SR 369 (Matt Highway) on the entire frontage of proposed development. Sidewalks will be provided along the internal street network.

Potential Pedestrian and Bicycle Destinations

Potential pedestrian and bicycle destinations in the vicinity of the proposed development include Coal Mountain Park, North Forsyth High School Stadium, Walmart, Coal Mountain Dog Park, Coal Mountain Elementary School, North Forsyth Middle School, and North Forsyth High School. Additional potential destinations are shown in the aerial below.



Planned Transit Facilities

There is no existing or planned public transit service near the proposed development.

Consistency with Adopted Comprehensive Plan

The proposed development will include residential and retail land uses. The residential component of the development will include single family detached homes and townhomes. The site is currently zoned as Single-Family Residential District (RES 3) & Agricultural District (A1). The developer is requesting a rezoning Master Plan District (MPD)

Future Land Use Map

Future Land Use Map Zoning	Single Family Residential District (RES 3)
Land Use Vision and Goals for Forsyth County	The vision for the Forsyth County Comprehensive Plan is to focus on establishing and enhancing development along major transportation corridors. The vision for much of the County's land outside of major corridors are defined by its proposed housing type, predominantly suburban living.
Relation to Existing Land Use Plans	The proposed residential development is consistent with the land use vision and goals included by the Forsyth County

Project Phasing

This project has been evaluated for the complete build-out of the development in 2029.

Trip Generation

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

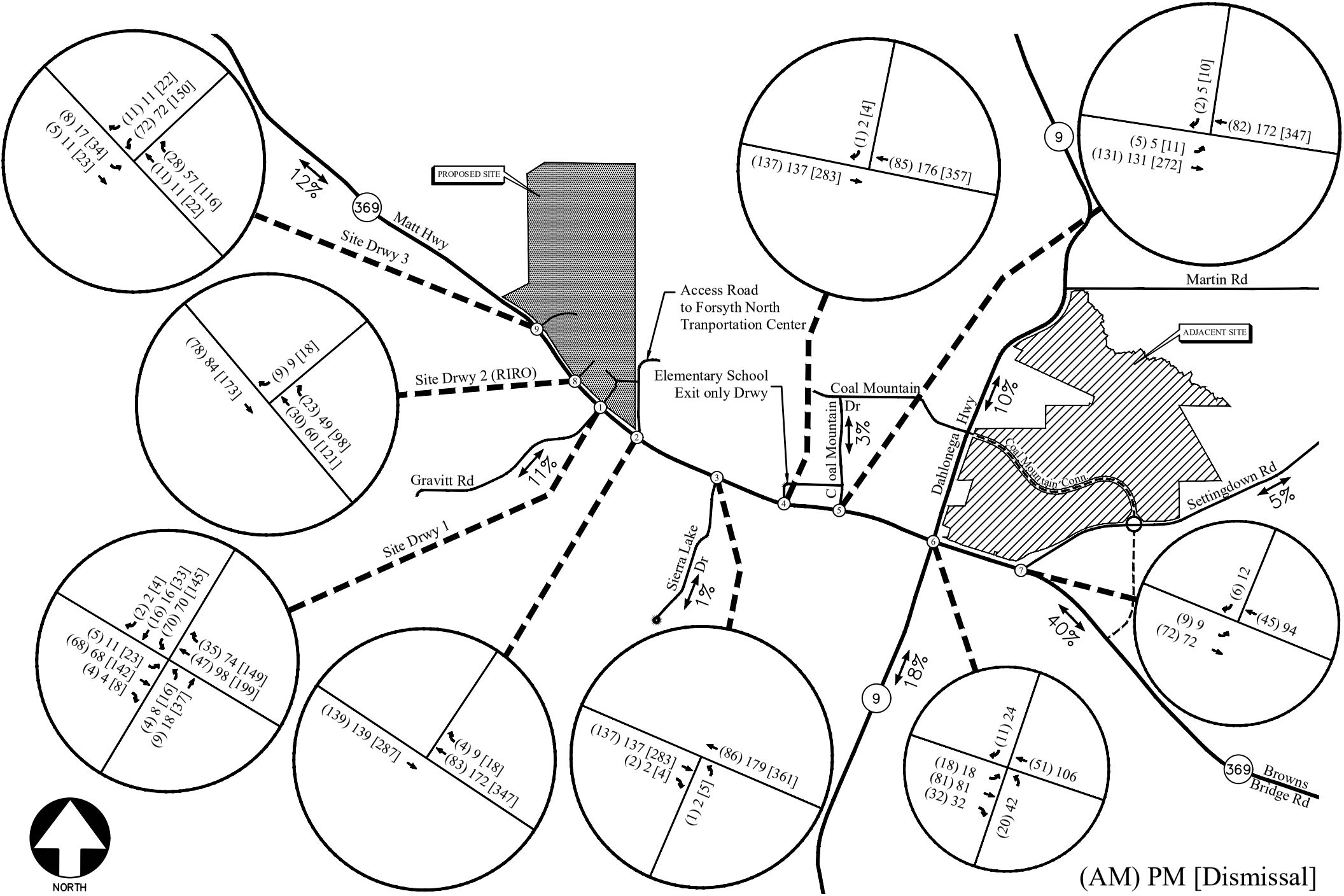
TABLE 4 – TRIP GENERATION (PROPOSED SITE)

Land Use	Size	AM Peak Hour			School Dismissal Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Two-way
210 – Single-Family Detached Housing	186 Units	33	98	131	118	67	185	112	66	178	1,786
Mixed-Use Reduction		-10	-11	-21	-18	-15	-33	-16	-12	-28	-308
215 – Single-Family Attached Housing	75 Units	8	25	33	29	18	47	24	17	41	521
Mixed-Use Reduction		-3	-3	-6	-5	-4	-9	-5	-4	-9	-90
822 - Strip Retail Plaza (<40k)	33,600 sf	38	26	64	240	205	445	92	92	184	1,648
Mixed-Use Reduction		-6	-5	-11	-8	-10	-18	-7	-9	-16	-165
934 - Fast-Food Rest with Drive-Through	5,000 sf	114	109	223	130	125	255	86	79	165	2,337
Mixed-Use Reduction		-8	-8	-16	-11	-13	-24	-9	-12	-21	-233
Pass-by Trips (50%) 55%		-53	-51	-104	0	0	0	-42	-37	-79	-790
Total Trips (Without Reductions)		**193**	**258**	**451**	**517**	**415**	**932**	**314**	**254**	**568**	**6,292**
New External Trips (With Reductions)		**113**	**180**	**293**	**475**	**373**	**848**	**235**	**180**	**415**	**4,706**

*Daily pass-by volume reduction estimated to be ten times the PM pass-by volume

Trip Distribution

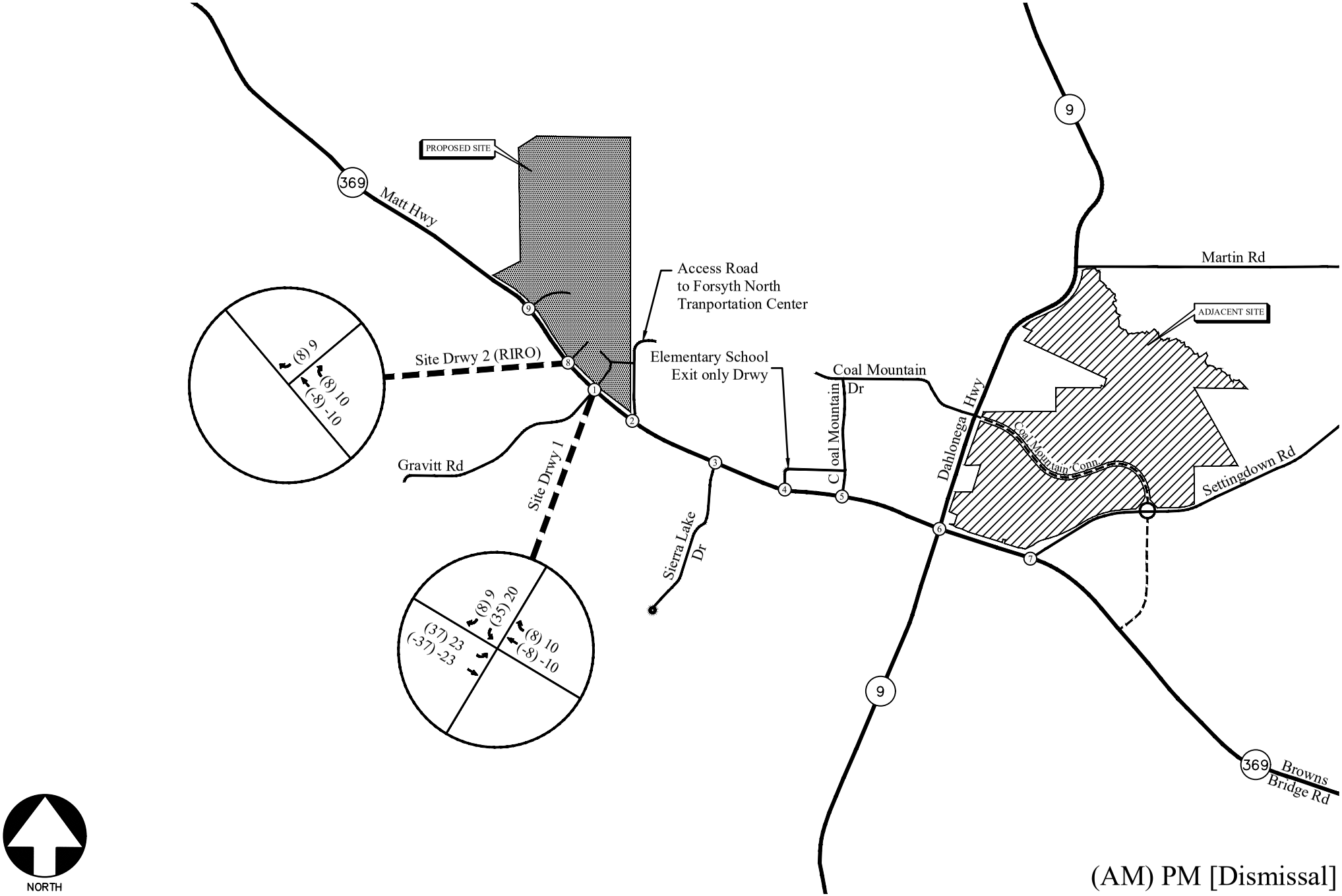
The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of GDOT ADT volumes and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, 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. Pass-by volumes have also been distributed based on existing travel patterns and are shown in Figure 6.



TRIP DISTRIBUTION AND PROPOSED SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 5

A&R Engineering Inc.



PROPOSED SITE PEAK HOUR PASSBY VOLUMES

FIGURE 6

A&R Engineering Inc.

FUTURE 2029 TRAFFIC ANALYSIS

The future 2029 traffic operations are analyzed for the "Build" and "No-Build" conditions. This provides a basis of reference for determining both the contribution of the site to overall traffic conditions and the additional improvements needed to provide sufficient site access and capacity for passing traffic.

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

Future "No-Build" Conditions

The "No-Build" (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future "No-Build" volumes consist of the existing traffic volumes plus increases for annual growth of 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 years (2017-2019) revealed growth of approximately 2.2% in the area. This growth factor was applied to the existing traffic volumes to estimate the future year traffic volumes prior to the addition of site-generated traffic.

Nearby Planned Development – Coal Mountain Town Center – DRI # 3718

Coal Mountain Town Center mixed-use development will be located to the northeast of the intersection of SR 9 (Dahlonega Highway) and SR 369 (Browns Bridge Road) in Forsyth County, Georgia. It includes single-family detached housing, townhomes, multifamily housing, office and retail spaces. The development is planned to be completed in 2028 and proposes several internal driveways along Coal Mountain Connector as well as access at the following locations:

- Site Driveway 1: Right-in/right-out driveway on SR 9 (Dahlonega Highway), south of Coal Mountain Connector
- Site Driveway 2: Right-in/right-out driveway on SR 369 (Browns Bridge Road)
- Site Driveway 3: Full access (western) driveway on Settingdown Road
- Site Driveway 4: Right-in/right-out (eastern) driveway on Settingdown Road
- Site Driveway 5: Full access driveway on Martin Road

This development traffic was included in the No Build analysis as background traffic. A site-overlay of both proposed 3970 Matt Highway DRI # 3923 development and adjacent Coal Mountain Town Center DRI # 3718 development is shown below and site plan is shown in Figure 8

Trip generation estimates for the Coal Mountain mixed use development were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE Land Uses: *210 – Single-Family Detached Housing, 215 – Single-Family Attached Housing, 221 – Multifamily Housing (Mid-Rise) - Not Close to Rail Transit, 710 – General Office Building* and *821 – Shopping Plaza (40-150k) - Supermarket - No.* Due to the nature of the development, mixed-use and pass-by reductions have been applied per ITE standards. A 3% alternate mode reduction was also applied. The trip generation for the adjacent site development is shown in Table 5.

TABLE 5 – TRIP GENERATION (COAL MOUNTAIN DEVELOPMENT)											
Land Use	Size	AM Peak Hour			PM Peak Hour			School Dismissal Peak Hour			24-Hour
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	2-way
ITE 210 – Single-Family Detached Housing	261 units	45	133	178	154	91	245	106	76	182	2,439
Mixed-Use Reduction		-3	-4	-7	-12	-8	-20	-7	-5	-12	-239
ITE 215 – Single-Family Attached Housing	219 units	27	81	108	75	52	127	66	39	105	1,618
Mixed-Use Reduction		-2	-2	-4	-8	-5	-13	-5	-3	-8	-159
ITE 221 – Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	300 units	28	92	120	72	45	117	41	26	67	1,385
Mixed-Use Reduction		-1	-2	-3	-6	-5	-11	-4	-3	-7	-136
ITE 710 – General Office Building	37,600 sf	64	8	72	13	61	74	18	21	39	495
Mixed-Use Reduction		-2	-2	-4	-4	-5	-9	-7	-4	-11	-96
ITE 821 – Shopping Plaza (40-150k) - Supermarket – No	78,300 sf	84	51	135	199	207	406	214	225	439	5,287
Mixed-Use Reduction		-10	-8	-18	-22	-29	-51	-15	-23	-38	-620
Pass-by Trips (0%) 40%		0	0	0	-69	-69	-138	-77	-78	-155	-1,380
Alternate Mode Reduction (3%)		-7	-10	-17	-14	-12	-26	-12	-10	-22	-299
Total Trips (Without Reductions)		248	365	613	513	456	969	445	387	832	11,224
New Trips (with Reductions)		223	337	560	378	323	701	318	261	579	8,295

*Daily pass-by volume reduction estimated to be the lesser of the PM peak hour pass-by rate determined volume or ten times the PM pass-by volume

ITE's 24-hour distribution for 3:00 PM to 4:00 PM hour was used to determine the percentage of traffic that would be generated by the proposed development during the school dismissal peak hour. Traffic from this development is included in the analysis of the future "Build" Conditions. Adjacent site volumes are shown in Figure 9.

Planned and Programmed Improvements in Study Area

The following improvements have been identified in the Regional Transportation Plan (Plan 2040), GDOT GeoPI, and/or the local comprehensive transportation plan. These improvements are within the vicinity of the proposed development.

TABLE 6 – PLANNED AND PROGRAMMED IMPROVEMENTS

Item #	Project Name	From / To Points	Sponsor	GDOT PI #	ARC ID #	Design FY	ROW / UTL FY	CST FY
1	Coal Mountain Connector	New Alignment from Bridgetowne Drive to Coal Mountain Drive (This project will extend Coal Mountain Drive southeastward to Browns Bridge Road)	Forsyth County	-	FT-064	2019	2020	2021
2	Spot Road Connector	New Alignment from intersection of SR 306 and SR 9 to intersection of Spot Road and McCoy Circle	Forsyth County	-	FT-046	2021	-	2040
3	SR 369 (Browns Bridge Road) Widening	Just west of SR 9 (Dahlonega Highway) and slightly east of SR 306 (Keith Bridge Road)	GDOT	0015762	-	2016	2017	2020
4	SR 369 and GA 400 Interchange	SR 369 at GA 400 ramps	GDOT	0013369	-	2019	2020	2020

Table 6, Item #1: SR 369 Widening and Coal Mountain Connector Plans

Coal Mountain Connector

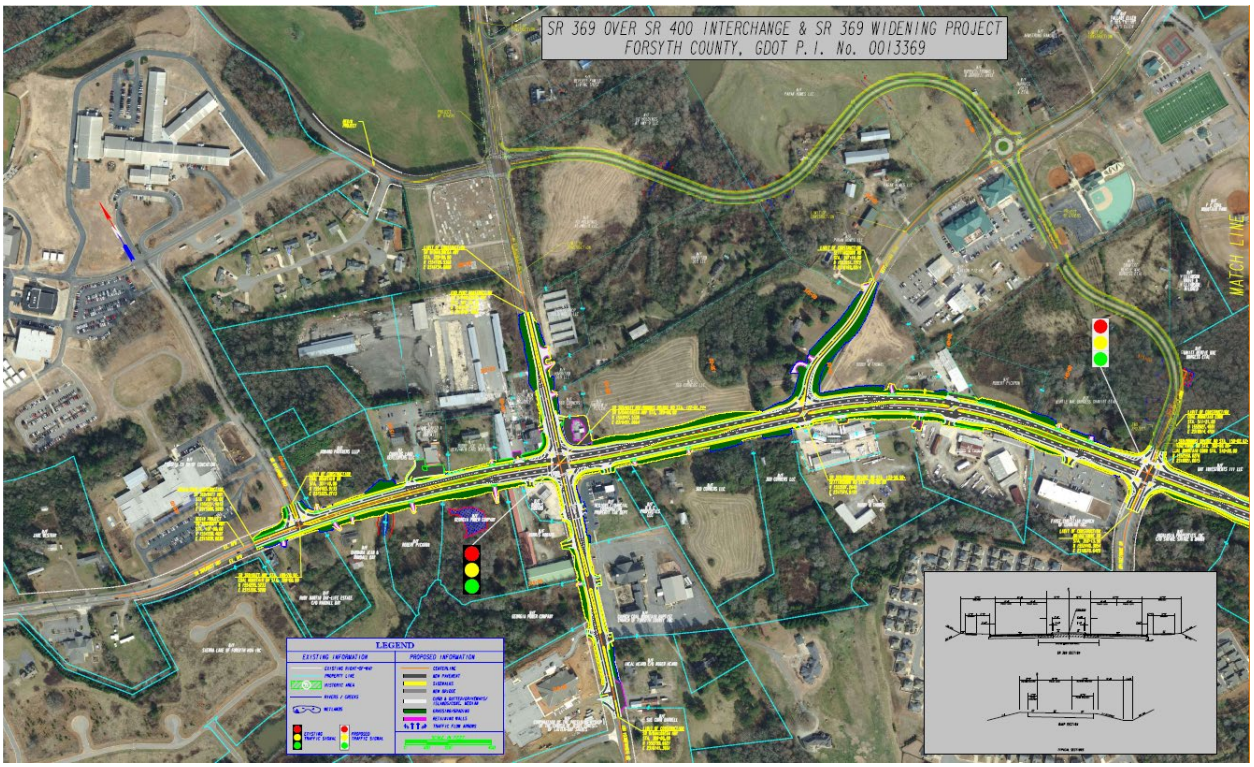
Project PI# 0015762 will construct a new two-lane, median-divided roadway (Coal Mountain Connector) connecting SR 9 at Coal Mountain Drive and SR 369 at Bridgetowne Drive. A roundabout will be built at its intersection with Settingdown Road. This project has been incorporated in both the "No-Build" and "Build" conditions. The connector plans are included in the Appendix.

Shifted Traffic due to Coal Mountain Connector

Because of the construction of Coal Mountain Connector, the following shifts in traffic patterns have been assumed:

- 25% of southbound left turn volumes from the intersection of SR 9 and SR 369 will be shifted to the intersection of SR 9 and Coal Mountain Drive / Coal Mountain Connector.
- 25% of westbound right turn volumes from the intersection of SR 9 and SR 369 will be shifted to the intersection of SR 9 and Coal Mountain Drive / Coal Mountain Connector.

- 50% of southbound right turn volumes from the intersection of SR 369 and Settingdown Road will be shifted to the intersection of SR 9 and Coal Mountain Drive / Coal Mountain Connector.
- 100% of southbound left turn volumes from the intersection of SR 369 and Settingdown Road will be shifted to the intersection of SR 369 and Bridgetowne Drive due to the installation of an RCUT at SR 369 and Settingdown Road intersection.



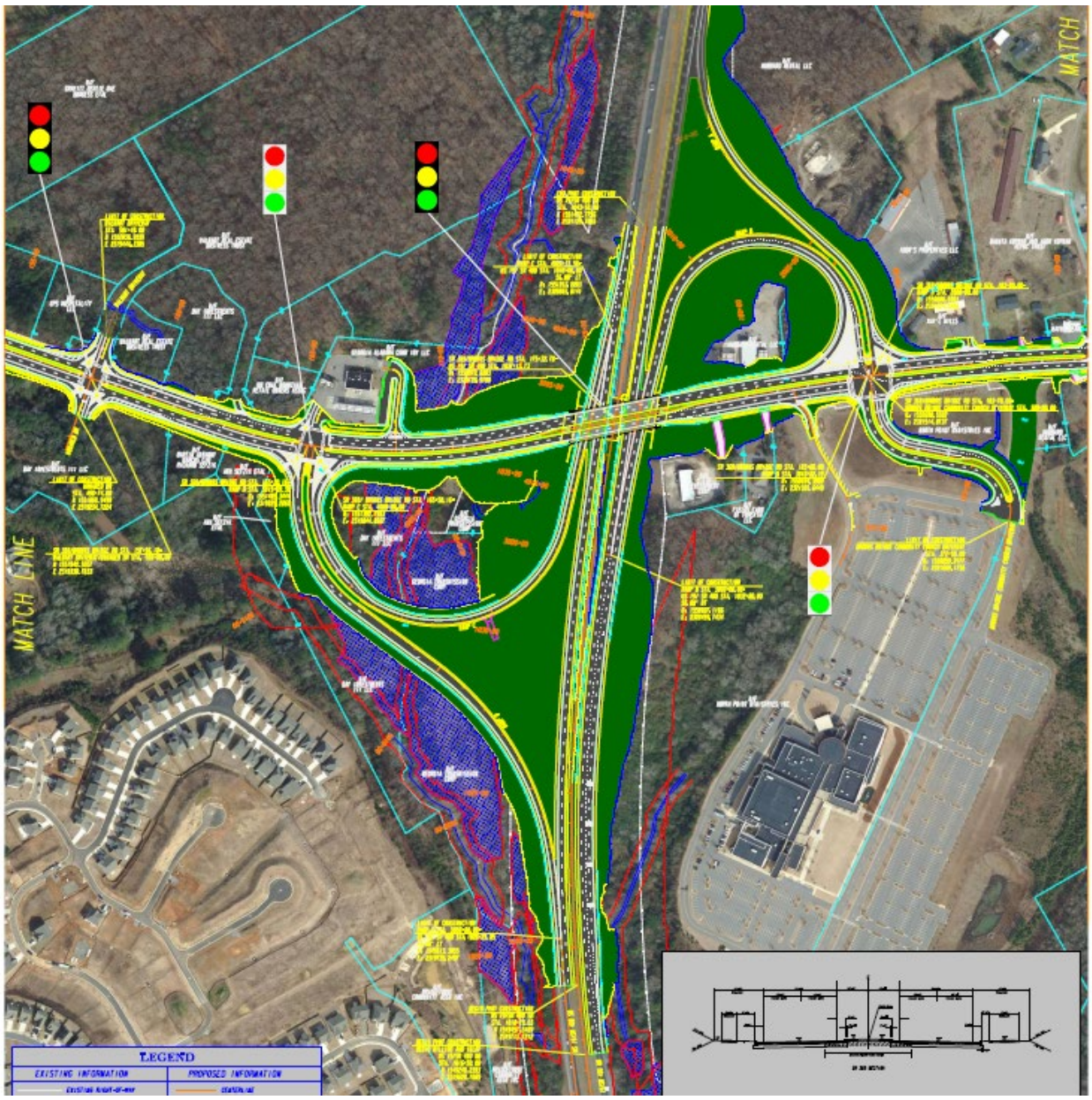
The shifted traffic volumes are shown in Figure 10. The shifted volumes were added to the future year traffic volumes prior to the addition of proposed site-generated traffic. The resulting Future "No-Build" volumes on the roadway are shown in Figure 11.

Table 6, Item #4: Project PI# 00013369/PEI89 (SR 369 and GA 400 Interchange) Design:

SR 369 Widening and GA 400 Interchange

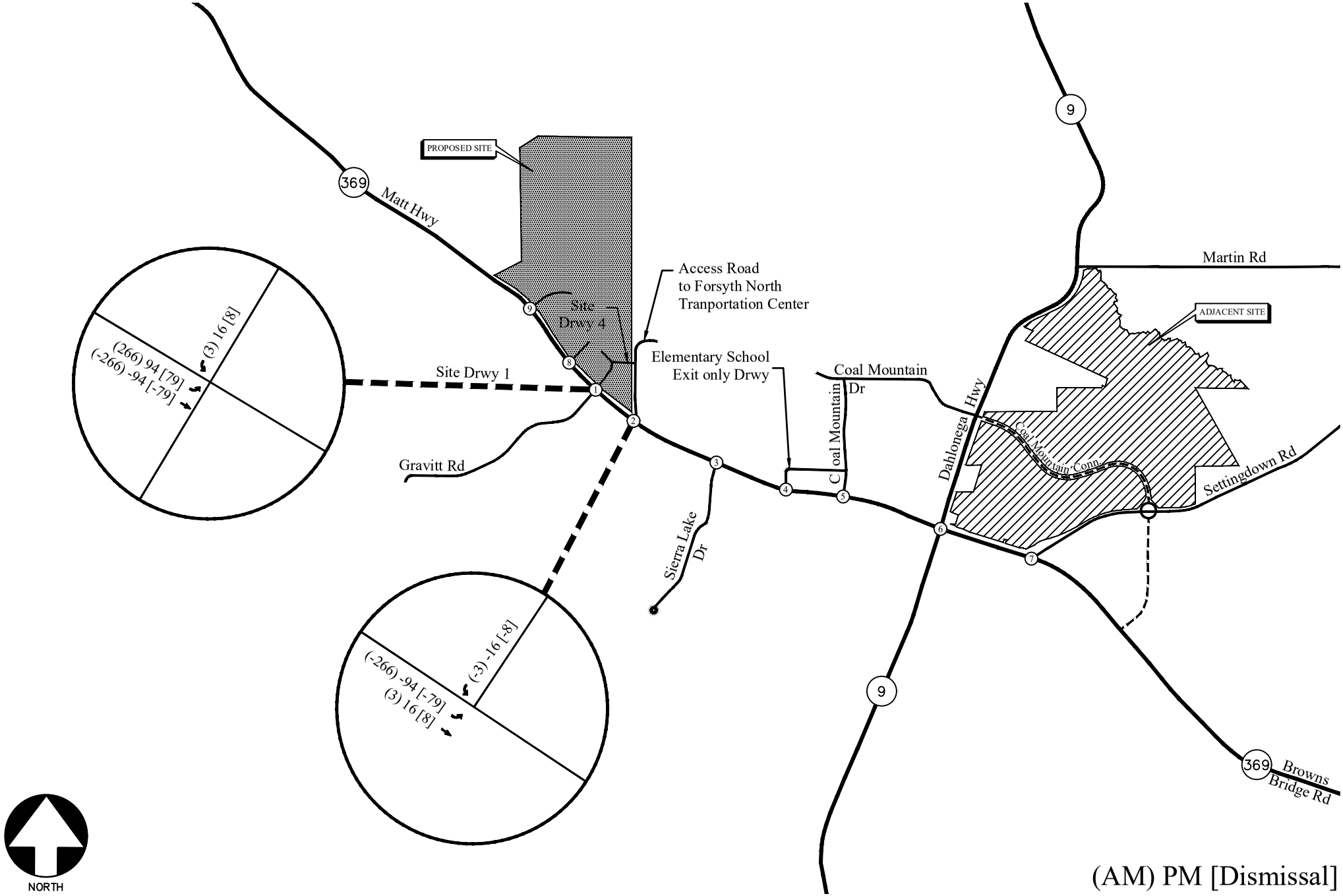
Project PI# 0013165/PEW29 will widen SR 369 (Browns Bridge Road) from two lanes to four lanes with a 20-foot raised median. The road will be widened from just west of SR 9 (Dahlonega Highway) to slightly east of SR 306 (Keith Bridge Road). The project will also include an 8' enhanced sidewalk trail along the south side of SR 369, with a five-foot sidewalk along the north side.

Per Project PI# 00013369/PEI89, there will be a partial cloverleaf interchange at SR 369 and SR 400. Construction of these projects has already started and is expected to be complete in Spring 2023. SR 369 widening project interact with one of the proposed study intersections, the planned project will be considered in the future analysis.



Shifted Left -Turn Traffic at the intersection of SR 369 and Forsyth North Transportation Center Driveway

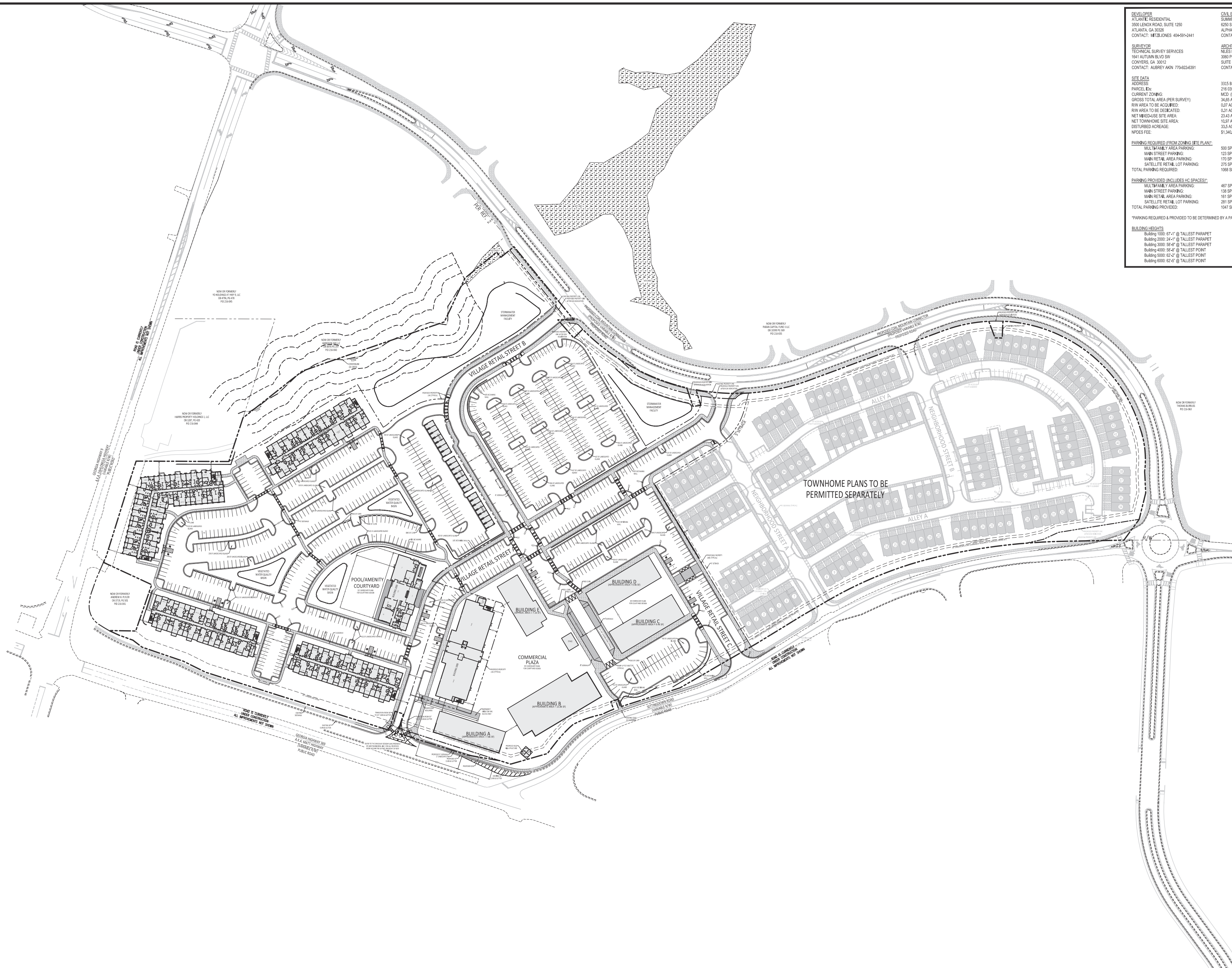
The existing full access driveway of Forsyth North Transportation Center will be converted into a Right-In/ Right-Out driveway. The eastbound and southbound left turn traffic at the intersection of SR 369 and North Transportation Center driveway will be shifted to the intersection of SR 369 at Gravitt Road/ Site Driveway 1 (eastern). The traffic will use the internal roadway via site driveway 4 to access the Forsyth North Transportation Center. The shifted left turn traffic is shown in Figure 7.



SHIFTED LEFT-TURN VOLUMES
(AT PROPOSED SITE)

FIGURE 7

A&R Engineering Inc.



DEVELOPER
ATLANTIC RESIDENTIAL
3500 LENOX ROAD, SUITE 1250
ATLANTA, GA 30326
CONTACT: MITZI JONES 404-591-2441

CIVIL ENGINEER
SUMMIT ENGINEERING CONSULTANTS, INC.
6250 SHILOH ROAD, SUITE 100
ALPHARETTA, GA 30005
CONTACT: CHRIS HARRELL 770-667-0094

SURVEYOR
TECHNICAL SURVEY SERVICES
1641 AUTUMN BLVD SW
CONYERS, GA 30012
CONTACT: AUBREY AKIN 770-922-6391

ARCHITECT
NILES BOLTON ASSOCIATES
3060 PEACHTREE ROAD N.W.
SUITE 600 ATLANTA, GA 30305
CONTACT: JEFF SMITH 404-365-7600

SITE DATA

ADDRESS:	3315 BROWNS BRIDGE ROAD, CUMMING, GA 30028
PARCEL IDs:	216 035, 216 037, 216 043, 216 045, 216 095
CURRENT ZONING:	MCD (MIXED-USE CENTER DISTRICT)
GROSS TOTAL AREA (PER SURVEY):	34.65 ACRES (1,509,180 SF)
R/W AREA TO BE ACQUIRED:	0.07 ACRES (1,146 SF + 731 SF + 918 SF + 303 SF)
R/W AREA TO BE DEDICATED:	0.31 ACRES (2,626 SF + 3,109 SF + 5,841 SF + 2,118 SF)
NET MIXED-USE SITE AREA:	23.43 ACRES (1,020,770 SF)
NET TOWNHOME SITE AREA:	10.97 ACRES (477,814 SF)
DISTURBED ACREAGE:	33.5 ACRES (INCLUDES OFF-SITE WORK)
NPDES FEE:	$1,340.00 ($40 / DISTURBED ACRE)

PARKING REQUIRED (FROM ZONING SITE PLAN)*:

MULTI-FAMILY AREA PARKING:	500 SPACES
MAIN STREET PARKING:	123 SPACES
MAIN RETAIL AREA PARKING:	170 SPACES
SATELLITE RETAIL LOT PARKING:	275 SPACES
TOTAL PARKING REQUIRED:	1068 SPACES

PARKING PROVIDED (INCLUDES HC SPACES)*:

MULTI-FAMILY AREA PARKING:	467 SPACES
MAIN STREET PARKING:	138 SPACES
MAIN RETAIL AREA PARKING:	161 SPACES
SATELLITE RETAIL LOT PARKING:	281 SPACES
TOTAL PARKING PROVIDED:	1047 SPACES

*PARKING REQUIRED & PROVIDED TO BE DETERMINED BY A PARKING ANALYSIS & APPROVED BY THE DIRECTOR

BUILDING HEIGHTS
Building 1000: 67'-1" @ TALLEST PARAPET
Building 2000: 24'-1" @ TALLEST PARAPET
Building 3000: 58'-8" @ TALLEST PARAPET
Building 4000: 58'-8" @ TALLEST POINT
Building 5000: 62'-2" @ TALLEST POINT
Building 6000: 62'-5" @ TALLEST POINT

RETAIL / COMMERCIAL SUMMARY	
BUILDING 1000	17,300 sf
BUILDING A	7,800 sf
BUILDING B	15,800 sf
BUILDING C RETAIL	9,400 sf
BUILDING C & D COMMERCIAL	37,600 sf
BUILDING D RETAIL	9,400 sf
BUILDING E	7,100 sf
POD G	11,500 sf
TOTAL	115,900 sf

CAUTION
THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

GEORGIA 811
Utilities Protection Center, Inc.
Know what's below. Call before you dig.

GRAPHIC SCALE
80 0 40 80 160
(IN FEET)
1 inch = 80 ft.

NORTH

24 HOUR EMERGENCY CONTACT: CHRIS HAWKINS 770-231-2721 / LEVEL I CERTIFICATION #0000018230

ATLANTIC RESIDENTIAL
One Alliance Center, Suite 1250
3500 Lenox Road
Atlanta, GA 30326
404-591-2900

summit
Engineering Consultants, Inc.
6250 Shiloh Road, Suite 100
Alpharetta, GA 30005
770-667-0094

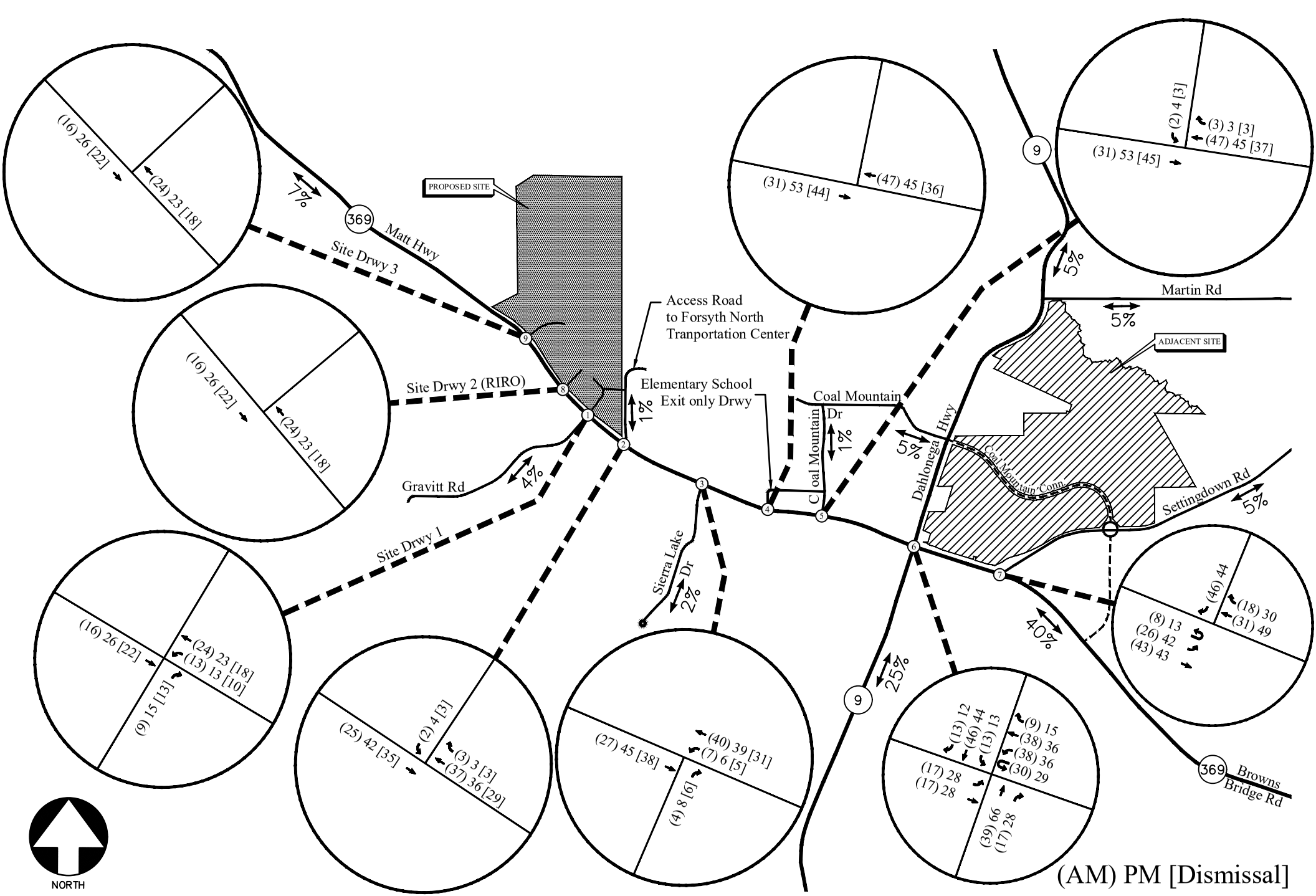
No	Revision Schedule	Date

Project No.	S-23-002
Design By:	CKH
Drawn By:	CNR
Checked By:	CKH
Date:	7/17/23
Scale:	1" = 80'

OVERALL SITE PLAN
VILLAGE CENTER
LAND LOTS 17, 18, 101, & 102 - 14 DISTRICT - 1st SECTION
LAND LOTS 612 & 613 - 3 DISTRICT - 1st SECTION
FORSYTH COUNTY, GEORGIA

Drawing No.
C2.0

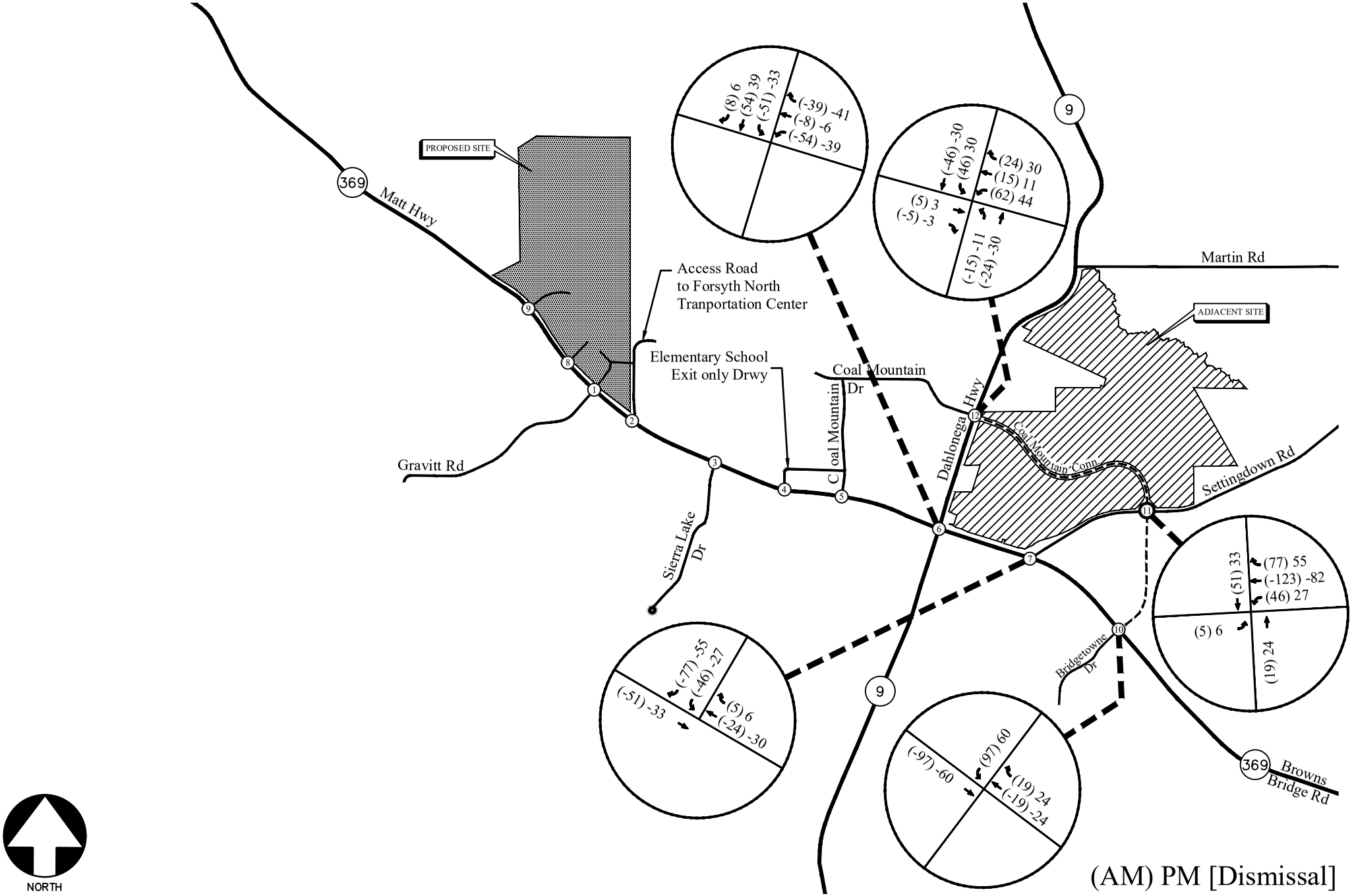
23-002con.dwg



TRIP DISTRIBUTION AND ADJACENT SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 9

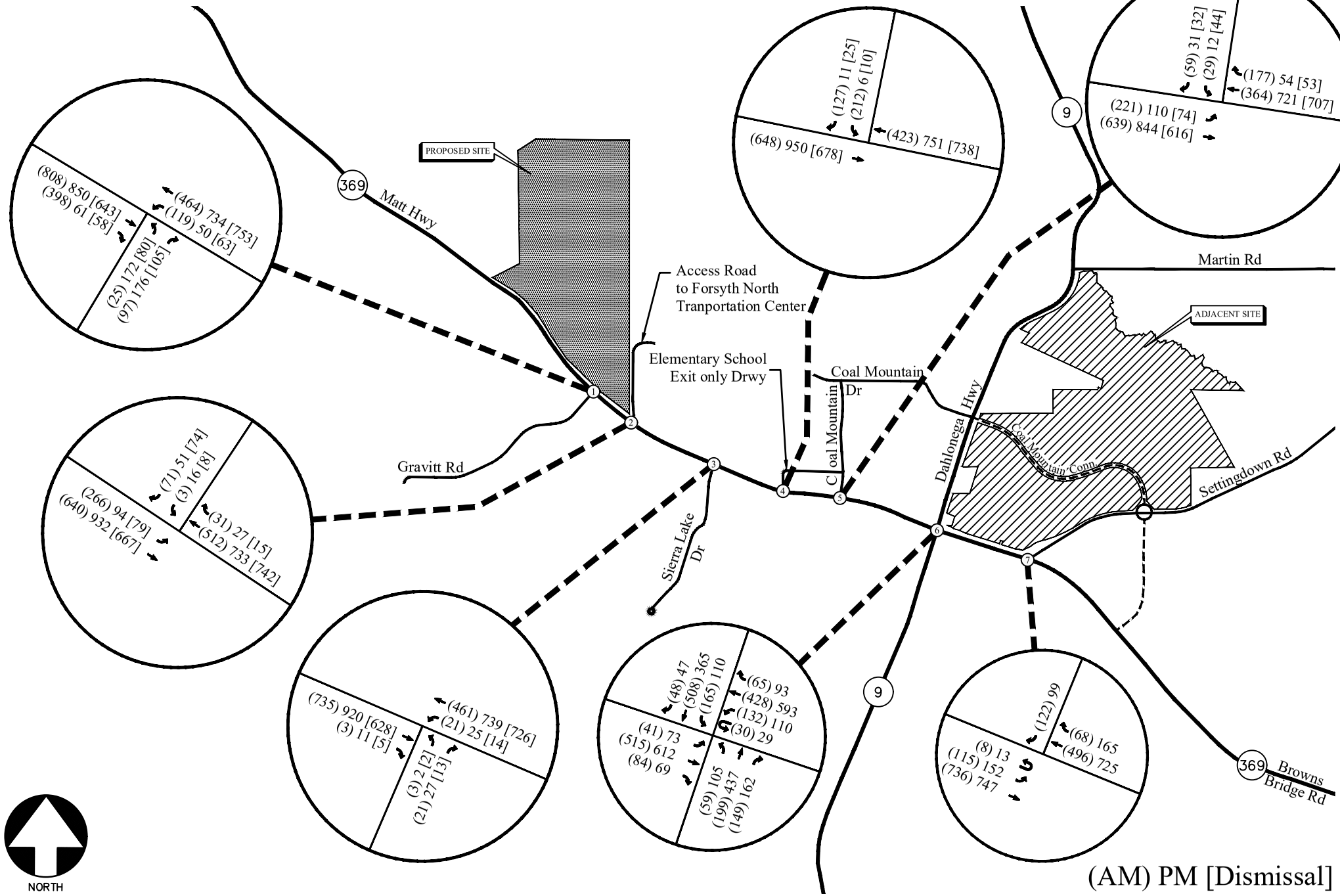
A&R Engineering Inc.



SHIFTED LEFT-TURN VOLUMES DUE TO
COAL MOUNTAIN CONNECTOR PROJECT

FIGURE 10

A&R Engineering Inc.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 11

A&R Engineering Inc.

Future "No-Build" Traffic Operations

The future "No-Build" traffic operations were analyzed using the volumes in Figure 11 and the results are shown in Table 7.

TABLE 7 – FUTURE "NO-BUILD" INTERSECTION OPERATIONS

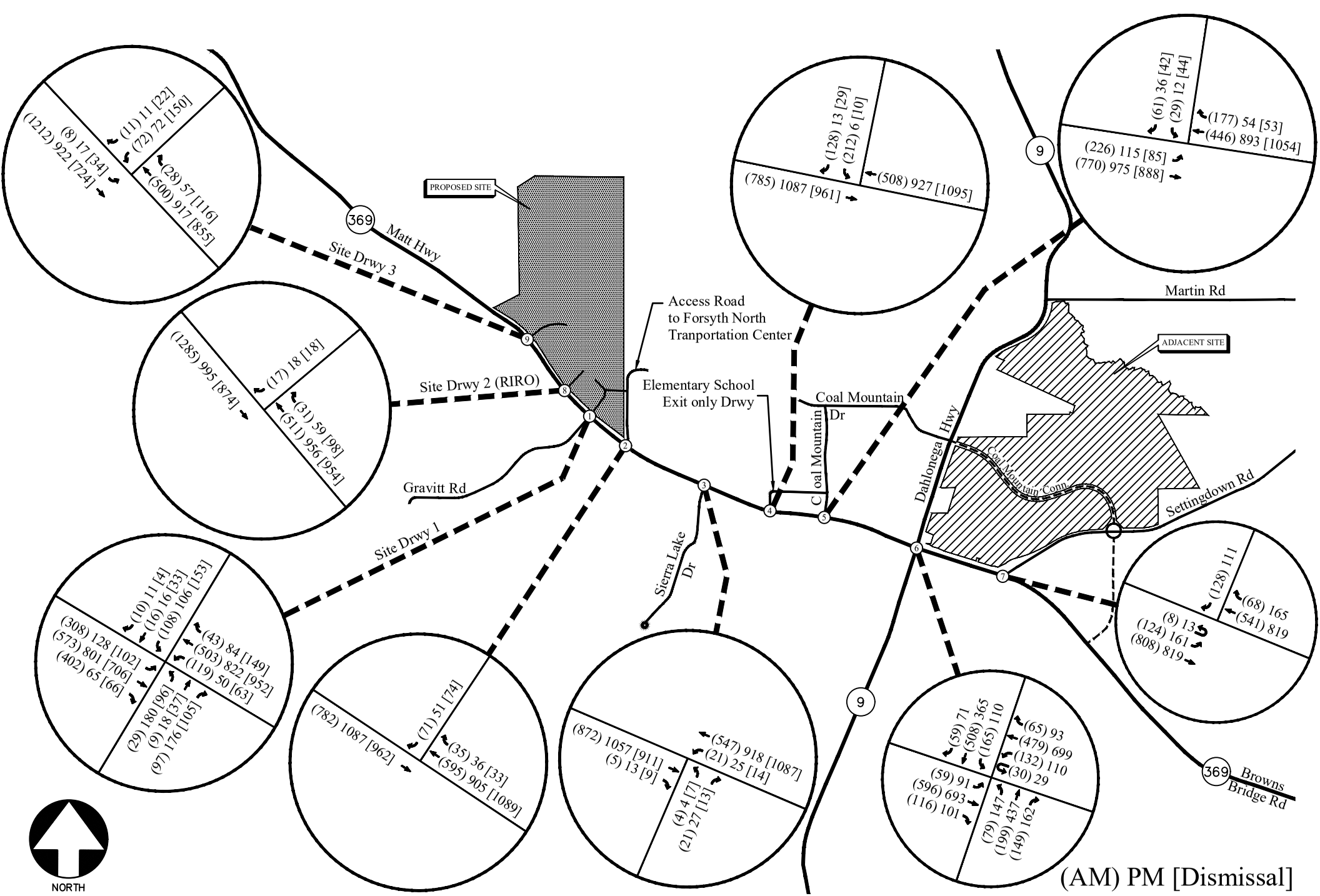
	Intersection	LOS (Delay)		
		AM Peak	PM Peak	Dismissal Peak
1	**SR 369 @ Gravitt Road**			
	-Westbound Left	B (13.2)	B (10.3)	A (9.7)
	-Northbound Approach	E (37.8)	F (*)	F (104.1)
2	**SR 369 @ North Transportation Center Drwy**			
	-Eastbound Left	B (10.1)	A (9.8)	A (9.9)
	-Southbound Approach	C (15.7)	D (30.8)	C (20.2)
3	**SR 369 @ Sierra Lake Drive**			
	-Westbound Left	A (9.4)	B (10.1)	A (8.9)
	-Northbound Approach	C (16.4)	C (19.5)	C (15.4)
4	**SR 369 @ Elementary school Exit Only Drwy**			
	-Southbound Approach	E (41.2)	C (17.2)	C (16.4)
5	**SR 369 @ Coal Mountain Drive**			
	-Eastbound Left	A (8.8)	A (9.8)	A (9.6)
	-Southbound Approach	C (24.5)	D (29.9)	E (42.1)
6	**SR 9 @ SR 369**	**C (34.0)**	**C (33.5)**	
	-Eastbound Approach	C (26.4)	C (24.6)	
	-Westbound Approach	C (21.6)	C (22.1)	Not Evaluated
	-Northbound Approach	D (36.7)	D (51.9)	
	-Southbound Approach	D (50.0)	D (42.8)	
7	**SR 369 @ Settingdown Road**			
	-Eastbound Left	A (9.0)	B (10.2)	Not Evaluated
	-Southbound Approach	B (11.0)	B (12.0)	

* Delay exceeds 300 seconds

The results of future "No-Build" traffic operations show that the northbound stop-controlled approach of Gravitt Rod at the three-legged intersection with SR 369 (Matt Highway) will be operating at LOS "F" in the PM and School Dismissal peak hour. The northbound left-turn volumes on Gravitt Road do not seem to meet the threshold for installing a traffic signal. 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, no system improvements are identified at this intersection.

Future "Build" Conditions

The "Build" or development conditions include the estimated background traffic from the "No-Build" conditions plus the traffic from the proposed and adjacent development. The additional traffic volumes from the site (Figure 5), pass-by volumes (Figure 6), shifted left turn volumes (Figure 7), adjacent site trips (Figure 9) and shifted left turn volumes due to Coal Mountain Connector project (Figure 10) were added to base traffic volumes (Figure 11) to calculate the future traffic volumes after the construction of the development. These total future "Build" traffic volumes are shown in Figure 12.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 12

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 the "Trip Distribution" section. According to the trip distribution, the total 24-hour two-way volume entering and exiting the site is 5,496 vehicles.

Left Turn Lane Analysis

For two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 55 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 150 left-turning vehicles a day. For two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 25 mph, the minimum threshold to warrant a left turn lane is 300 left turning vehicles a day. The projected left-turn volumes per day for each driveway is included in Table 8.

TABLE 8 – GDOT REQUIREMENTS FOR LEFT TURN LANES

Intersection	Left turn traffic. (% total entering)	Left-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants met?
SR 369 (Matt Hwy) @ Site Drwy 1 (E)	4.80% (Eastbound)	**132** (Total trips) ÷ 2 × 0.048 = (5496) ÷ 2 x 0.048 = 132	55 mph / 2-Lane / ≥ 6,000	150	No
SR 369 (Matt Hwy) @ Site Drwy 3 (W)	7.20% (Eastbound)	**198** (Total trips) ÷ 2 × 0.072 = (5496) ÷ 2 x 0.072 = 198	55 mph / 2-Lane / ≥ 6,000	150	Yes
N. Transportation Ctr Access Road @ Site Drwy 4	3.85% (Northbound)	**106** (Total trips) ÷ 2 × 0.0385 = (5496) ÷ 2 x 0.0385 = 106	25 mph / 2-Lane / < 6,000	300	No

Per GDOT standards, a left turn lane is warranted at site driveway 3 (western).

Right-Turn Lane Analysis

For two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 55 mph, the daily site generated traffic right-turn movements threshold to warrant a right-turn lane is 50 right turning vehicles a day. The projected right-turn volumes per day for each driveway is included in Table 9.

TABLE 9 – GDOT REQUIREMENTS FOR RIGHT-TURN LANES

Intersection	Right-turn traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants met?
SR 369 (Matt Hwy) @ Site Drwy 1 (E)	31.35% (Westbound)	**861** (Total trips) ÷ 2 × 0.3135 = (5496) ÷ 2 x 0.3135 = 861	55 mph / 2-Lane / ≥ 6,000	50	Yes
SR 369 (Matt Hwy) @ Site Drwy 2 (M) (RIRO)	20.65% (Westbound)	**567** (Total trips) ÷ 2 × 0.2065 = (5496) ÷ 2 x 0.2065 = 567	55 mph / 2-Lane / ≥ 6,000	50	Yes
SR 369 (Matt Hwy) @ Site Drwy 3 (W)	24.45% (Westbound)	**672** (Total trips) ÷ 2 × 0.2445 = (5496) ÷ 2 x 0.2445 = 672	55 mph / 2-Lane / ≥ 6,000	50	Yes

Right-turn lanes are warranted at all site driveways 1, 2 and 3, per GDOT standards.

Future "Build" Traffic Operations

The future "Build" traffic operations were analyzed using the volumes in Figure 12, and the results are shown in Table 10.

TABLE 10 – FUTURE "BUILD" INTERSECTION OPERATIONS

	Intersection	LOS (Delay)					
		NO IMPROVEMENTS			SITE IMPROVEMENTS		
		AM Peak	PM Peak	Dismissal Peak	AM Peak	PM Peak	Dismissal Peak
1	**SR 369 @ Gravitt Road/ Site Drwy 1 (E)**				**C (28.3)**	**C (32.8)**	**D (45.8)**
	-Eastbound Left	B (10.2)	B (11.0)	B (13.0)	C (29.2)	C (31.3)	C (32.1)
	-Westbound Left	B (11.3)	B (10.1)	B (10.1)	B (17.8)	C (28.8)	D (54.8)
	-Northbound Approach	F (*)	F (*)	F (*)	D (44.8)	D (39.1)	D (38.8)
	-Southbound Approach	F (*)	F (*)	F (*)	D (54.4)	D (54.7)	E (62.0)
2	**SR 369 @ North Transportation Center Driveway (RIRO)**						
	-Southbound Approach	B (14.4)	C (18.7)	D (29.1)	No Improvements Recommended		
3	**SR 369 @ Sierra Lake Drive**						
	-Westbound Left	B (10.1)	B (10.8)	B (10.1)			
	-Northbound Approach	C (20.4)	D (27.6)	E (41.1)	No Improvements Recommended		
4	**SR 369 @ Elementary school Exit Only Driveway**						
	-Southbound Approach	F (73.4)	C (20.6)	D (25.4)	No Improvements Recommended		
5	**SR 369 @ Coal Mountain Drive**						
	-Eastbound Left	A (9.2)	B (10.8)	B (11.6)			
	-Southbound Approach	E (35.1)	E (45.3)	F (182.2)	No Improvements Recommended		
6	**SR 9 @ SR 369**	**C (34.6)**	**C (34.5)**	Not Evaluated	No Improvements Recommended		
	-Eastbound Approach	C (28.3)	C (25.6)				
	-Westbound Approach	C (23.3)	C (23.8)				
	-Northbound Approach	D (36.4)	D (52.1)				
	-Southbound Approach	D (50.7)	D (46.7)				
7	**SR 369 @ Settingdown Road**						
	-Eastbound Left	A (9.3)	B (10.9)	Not			
	-Southbound Approach	B (11.3)	B (12.9)	Evaluated	No Improvements Recommended		
8	**SR 369 @ Site Drwy 2 (RIRO)**						
	-Southbound Approach	B (12.0)	C (18.8)	C (18.8)	No Improvements Recommended		
9	**SR 369 @ Site Drwy 3 (W)**						
	-Eastbound Left	A (8.6)	B (10.6)	B (10.8)			
	-Southbound Approach	F (176.5)	F (282.5)	F (*)	No Improvements Recommended		

* Delay exceeds 300 seconds

The results of future "Build" traffic operations show that the signalized intersection of SR 9 and SR 369 will be operating at satisfactory level-of-service "C" in both AM and PM peak hours. Some stop-controlled approaches at following un-signalized intersections will operate at LOS "F" as detailed below:

SR 369 (Matt Highway) at Gravitt Road / Site Driveway 1 (eastern)

Both the northbound and southbound side street approaches will operate at LOS "F" in all three peak hours with delays exceeding 300 seconds. Delays are caused by heavy left-turns volumes having to wait for gaps in the through traffic. Left-turns volumes seem to meet the warrants for installation of a traffic signal at the intersection. The intersection will operate at a satisfactory LOS "D" or better in all three peak hours if a traffic signal is installed. We recommend an Intersection Control Evaluation Study be conducted and if a traffic signal ranks as # 1 traffic control alternative and if GDOT approves it, a traffic signal be installed.

SR 369 @ Elementary School Exit-Only Driveway

SR 369 @ Coal Mountain Drive

Both southbound approaches of the school driveway will operate at a level-of-service "F" in AM and or School Dismissal peak hour in "Build" condition. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop-controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no more improvements were recommended at these intersections.

SR 369 @ Full Access Dite Driveway # 3

The stop-controlled southbound driveway approach will operate at a level of service "F" in the "Build" condition during all three peak hours. Traffic volumes will not warrant installation of a traffic signal. It is not uncommon for the side streets on arterial roadways to experience delays during the peak periods waiting to turn left on to the mainline.

Recommendations for future traffic control and lane geometry are shown in Figure 10.

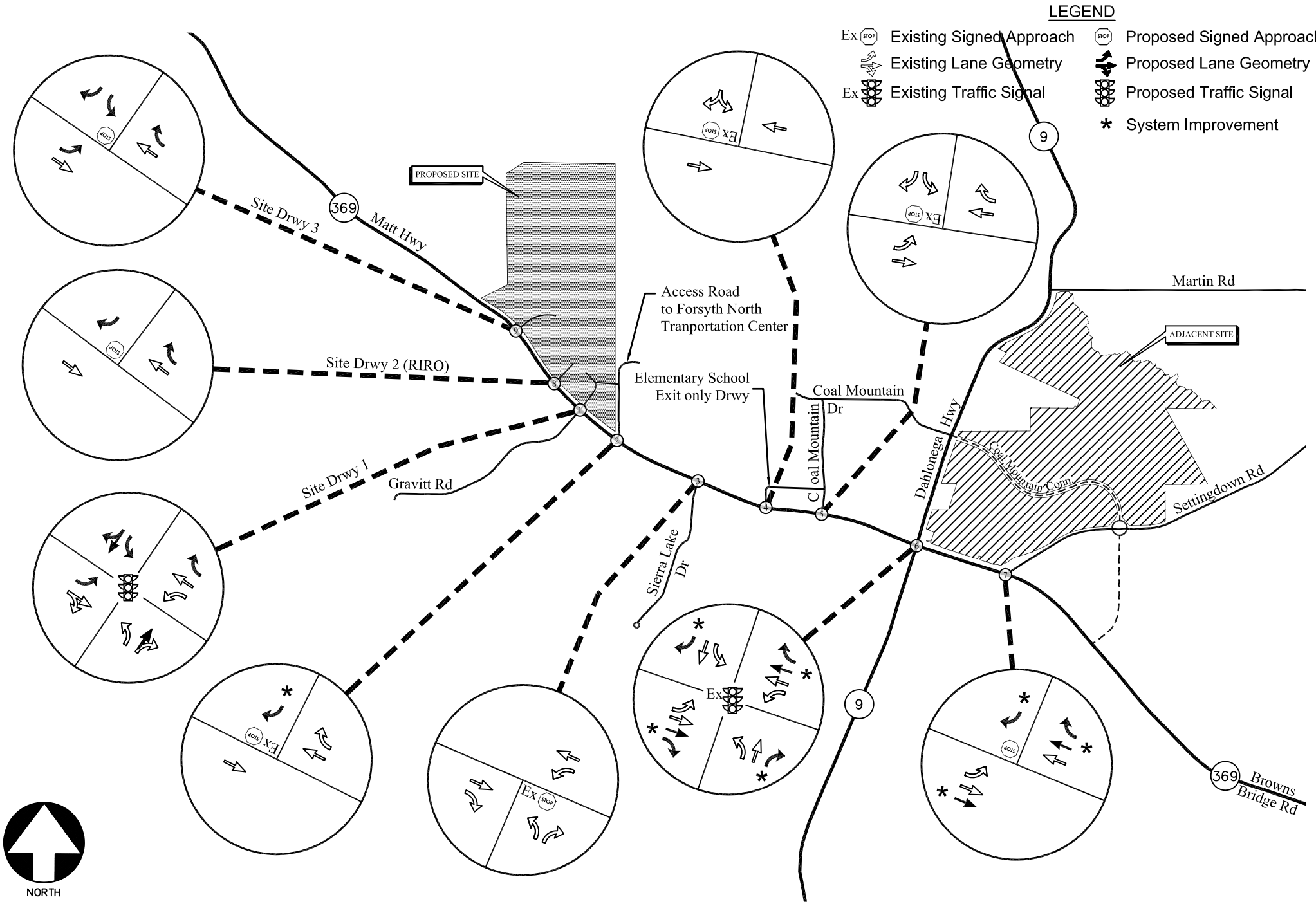
Recommended Site Access Configuration

- Site Driveway 1: Full access (eastern) driveway on SR 369, aligned with Gravitt Rd
    - A traffic signal as per MUTCD guidelines, when warranted and approved.
    - One entering and two exiting lanes (left-turn lane and a shared through/right-turn lane).
    - Left-turn lane and right-lane for entering traffic.
    - Re-configure existing lane geometry on Gravitt Road to a left-turn lane and a shared through-right lane.

- Site Driveway 2: Right-In/ Right-Out driveway on SR 369 (Matt Highway)
    - One entering and one exiting lane.
    - Stop-sign controlled on the driveway approach with SR 369 (Matt Highway) remaining free flow.
    - Right-turn lane for entering traffic.

- Site Driveway 3: Full access driveway on SR 369 (Matt Highway)
    - One entering and two exiting lanes (left-turn lane and a shared through/right-turn lane).
    - Stop-sign controlled on the driveway approach with SR 369 (Matt Highway) remaining free flow.
    - Left-turn Lane and right-turn lane for entering traffic.

- Site Driveway 4: Full access driveway on access road leading to Forsyth North Transportation Center
    - One entering and one exiting lane.
    - Stop-sign controlled on the driveway approach with access road leading to Forsyth North Transportation Center remaining free flow.



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY FIGURE 13

A&R Engineering Inc.

CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed 3970 Matt Highway DRI 3923 located to the north of the intersection of SR 369 (Matt Highway) and Gravitt Road in Forsyth County, Georgia. The development proposes two full access driveways and a right-in/ right-out driveway on SR 369 (Matt Highway) and one full access driveway on access road leading to Forsyth North Transportation Center.

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

1. SR 369 (Matt Highway) at Gravitt Road
2. SR 369 (Matt Highway) at Forsyth North Transportation Center Driveway
3. SR 369 (Matt Highway) at Sierra Lake Drive
4. SR 369 (Matt Highway) at Elementary School Exit Only Driveway
5. SR 369 (Matt Highway) at Coal Mountain Drive
6. SR 369 (Matt Highway/Browns Bridge Road) at SR 9 (Dahlonega Highway)
7. SR 369 (Browns Bridge Road) at Settingdown Road

Coal Mountain Elementary School, North Forsyth Middle School and North Forsyth High School are located near the proposed development to the northwest of the intersection of SR 9 and SR 369. Therefore, school dismissal peak hour (2:00 PM to 4:00 PM) has also been evaluated for the following intersections.

1. SR 369 (Matt Highway) at Gravitt Road
2. SR 369 (Matt Highway) at Forsyth North Transportation Center Driveway
3. SR 369 (Matt Highway) at Sierra Lake Drive
4. SR 369 (Matt Highway) at Elementary school exit only Driveway
5. SR 369 (Matt Highway) at Coal Mountain Drive

The results of future "Build" traffic operations show that the signalized intersection of SR 9 and SR 369 will be operating at satisfactory level-of-service "C" in both AM and PM peak hours. Some stop-controlled approaches at following un-signalized intersections will operate at LOS "F" as detailed below:

SR 369 (Matt Highway) at Gravitt Road / Site Driveway 1 (eastern)

Both the northbound and southbound side street approaches will operate at LOS "F" in all three peak hours with delays exceeding 300 seconds. Delays are caused by heavy left-turns volumes having to wait for gaps in the through traffic. Left-turns volumes seem to meet the warrants for installation of a traffic signal at the intersection. The intersection will operate at a satisfactory LOS "D" or better in all three peak hours if a traffic signal is installed. We recommend an Intersection Control Evaluation Study be conducted and if a traffic signal ranks as # 1 traffic control alternative and if GDOT approves it, a traffic signal be installed.

SR 369 @ Elementary School Exit-Only Driveway
SR 369 @ Coal Mountain Drive

Both southbound approaches of the school driveway will operate at a level-of-service "F" in AM and or School Dismissal peak hour in "Build" condition. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop-controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no more improvements were recommended at these intersections.

SR 369 @ Full Access Dite Driveway # 3

The stop-controlled southbound driveway approach will operate at a level of service "F" in the "Build" condition during all three peak hours. Traffic volumes will not warrant installation of a traffic signal. It is not uncommon for the side streets on arterial roadways to experience delays during the peak periods waiting to turn left on to the mainline.

Recommended Site Mitigation Improvements

- Site Driveway 1: Full access (eastern) driveway on SR 369, aligned with Gravitt Rd
    - A traffic signal as per MUTCD guidelines, when warranted and approved.
    - One entering and two exiting lanes (left-turn lane and a shared through/right-turn lane).
    - Left-turn lane and right-lane for entering traffic.
    - Re-configure existing lane geometry on Gravitt Road to a left-turn lane and a shared through-right lane.

- Site Driveway 2: Right-In/ Right-Out driveway on SR 369 (Matt Highway)
    - One entering and one exiting lane.
    - Stop-sign controlled on the driveway approach with SR 369 (Matt Highway) remaining free flow.
    - Right-turn lane for entering traffic.

- Site Driveway 3: Full access driveway on SR 369 (Matt Highway)
    - One entering and two exiting lanes (left-turn lane and a shared through/right-turn lane).
    - Stop-sign controlled on the driveway approach with SR 369 (Matt Highway) remaining free flow.
    - Left-turn Lane and right-turn lane for entering traffic.

- Site Driveway 4: Full access driveway on access road leading to Forsyth North Transportation Center
    - One entering and one exiting lane.
    - Stop-sign controlled on the driveway approach with access road leading to Forsyth North Transportation Center remaining free flow.

Appendix

Existing Intersection Traffic Counts

A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Gravitt Rd
7am - 7pm

File Name : 20230114
Site Code : 20230114
Start Date : 5/3/2023

Groups Printed- Cars & Buses - Trucks

	Gravitt Rd Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	5	0	20	25	0	0	0	0	0	185	67	252	12	52	0	64	341
07:15 AM	7	0	31	38	0	0	0	0	0	169	96	265	29	57	0	86	389
07:30 AM	3	0	17	20	0	0	0	0	0	128	128	256	29	109	0	138	414
07:45 AM	5	0	15	20	0	0	0	0	0	181	86	267	18	119	0	137	424
Total	20	0	83	103	0	0	0	0	0	663	377	1040	88	337	0	425	1568
08:00 AM	7	0	15	22	0	0	0	0	0	222	42	264	18	104	0	122	408
08:15 AM	7	0	22	29	0	0	0	0	0	161	43	204	11	78	0	89	322
08:30 AM	7	0	16	23	0	0	0	0	0	138	31	169	20	92	0	112	304
08:45 AM	7	0	21	28	0	0	0	0	0	143	30	173	18	118	0	136	337
Total	28	0	74	102	0	0	0	0	0	664	146	810	67	392	0	459	1371
09:00 AM	5	0	9	14	0	0	0	0	0	126	26	152	18	98	0	116	282
09:15 AM	4	0	8	12	0	0	0	0	0	117	15	132	19	108	0	127	271
09:30 AM	2	0	10	12	0	0	0	0	0	113	18	131	13	104	0	117	260
09:45 AM	4	0	6	10	0	0	0	0	0	105	18	123	17	99	0	116	249
Total	15	0	33	48	0	0	0	0	0	461	77	538	67	409	0	476	1062
10:00 AM	4	0	6	10	0	0	0	0	0	111	16	127	9	79	0	88	225
10:15 AM	4	0	10	14	0	0	0	0	0	111	14	125	14	119	0	133	272
10:30 AM	8	0	7	15	0	0	0	0	0	122	17	139	18	153	0	171	325
10:45 AM	5	0	9	14	0	0	0	0	0	130	9	139	16	95	0	111	264
Total	21	0	32	53	0	0	0	0	0	474	56	530	57	446	0	503	1086
11:00 AM	8	0	13	21	0	0	0	0	0	107	15	122	21	124	0	145	288
11:15 AM	8	0	8	16	0	0	0	0	0	109	17	126	13	121	0	134	276
11:30 AM	9	0	6	15	0	0	0	0	0	138	9	147	13	112	0	125	287
11:45 AM	9	0	13	22	0	0	0	0	0	134	9	143	11	112	0	123	288
Total	34	0	40	74	0	0	0	0	0	488	50	538	58	469	0	527	1139
12:00 PM	7	0	6	13	0	0	0	0	0	109	10	119	11	111	0	122	254
12:15 PM	17	0	10	27	0	0	0	0	0	126	6	132	11	129	0	140	299
12:30 PM	8	0	17	25	0	0	0	0	0	135	10	145	8	119	0	127	297
12:45 PM	6	0	13	19	0	0	0	0	0	113	12	125	11	110	0	121	265
Total	38	0	46	84	0	0	0	0	0	483	38	521	41	469	0	510	1115
01:00 PM	13	0	10	23	0	0	0	0	0	133	10	143	10	126	0	136	302
01:15 PM	7	0	15	22	0	0	0	0	0	118	9	127	14	124	0	138	287
01:30 PM	9	0	14	23	0	0	0	0	0	96	5	101	19	116	0	135	259
01:45 PM	5	0	14	19	0	0	0	0	0	112	8	120	13	120	0	133	272
Total	34	0	53	87	0	0	0	0	0	459	32	491	56	486	0	542	1120
02:00 PM	13	0	10	23	0	0	0	0	0	123	18	141	13	116	0	129	293
02:15 PM	14	0	11	25	0	0	0	0	0	141	9	150	18	126	0	144	319
02:30 PM	12	0	19	31	0	0	0	0	0	113	6	119	23	148	0	171	321
02:45 PM	13	0	20	33	0	0	0	0	0	116	14	130	13	139	0	152	315
Total	52	0	60	112	0	0	0	0	0	493	47	540	67	529	0	596	1248
03:00 PM	13	0	14	27	0	0	0	0	0	144	5	149	10	169	0	179	355
03:15 PM	13	0	16	29	0	0	0	0	0	123	10	133	11	159	0	170	332
03:30 PM	16	0	22	38	0	0	0	0	0	118	18	136	16	160	0	176	350
03:45 PM	29	0	29	58	0	0	0	0	0	164	18	182	10	161	0	171	411
Total	71	0	81	152	0	0	0	0	0	549	51	600	47	649	0	696	1448
04:00 PM	23	0	31	54	0	0	0	0	0	141	9	150	22	133	0	155	359

A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Gravitt Rd
7am - 7pm

File Name : 20230114
Site Code : 20230114
Start Date : 5/3/2023
Page No : 2

Groups Printed- Cars & Buses - Trucks

	Gravitt Rd Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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
04:15 PM	24	0	25	49	0	0	0	0	0	146	14	160	28	196	0	224	433
04:30 PM	29	0	29	58	0	0	0	0	0	131	10	141	12	163	0	175	374
04:45 PM	36	0	33	69	0	0	0	0	0	151	13	164	7	149	0	156	389
Total	112	0	118	230	0	0	0	0	0	569	46	615	69	641	0	710	1555
05:00 PM	37	0	37	74	0	0	0	0	0	169	7	176	7	155	0	162	412
05:15 PM	44	0	46	90	0	0	0	0	0	161	14	175	12	174	0	186	451
05:30 PM	39	0	25	64	0	0	0	0	0	184	17	201	8	148	0	156	421
05:45 PM	32	0	34	66	0	0	0	0	0	214	16	230	6	151	0	157	453
Total	152	0	142	294	0	0	0	0	0	728	54	782	33	628	0	661	1737
06:00 PM	33	0	20	53	0	0	0	0	0	202	15	217	23	141	0	164	434
06:15 PM	21	0	11	32	0	0	0	0	0	195	12	207	11	134	0	145	384
06:30 PM	21	0	11	32	0	0	0	0	0	185	17	202	10	124	0	134	368
06:45 PM	16	0	13	29	0	0	0	0	0	175	8	183	12	111	0	123	335
Total	91	0	55	146	0	0	0	0	0	757	52	809	56	510	0	566	1521
Grand Total	668	0	817	1485	0	0	0	0	0	6788	1026	7814	706	5965	0	6671	15970
Apprch %	45	0	55		0	0	0		0	86.9	13.1		10.6	89.4	0		
Total %	4.2	0	5.1	9.3	0	0	0	0	0	42.5	6.4	48.9	4.4	37.4	0	41.8	
Cars & Buses	659	0	807	1466	0	0	0	0	0	6325	1021	7346	701	5567	0	6268	15080
% Cars & Buses	98.7	0	98.8	98.7	0	0	0	0	0	93.2	99.5	94	99.3	93.3	0	94	94.4
Trucks	9	0	10	19	0	0	0	0	0	463	5	468	5	398	0	403	890
% Trucks	1.3	0	1.2	1.3	0	0	0	0	0	6.8	0.5	6	0.7	6.7	0	6	5.6

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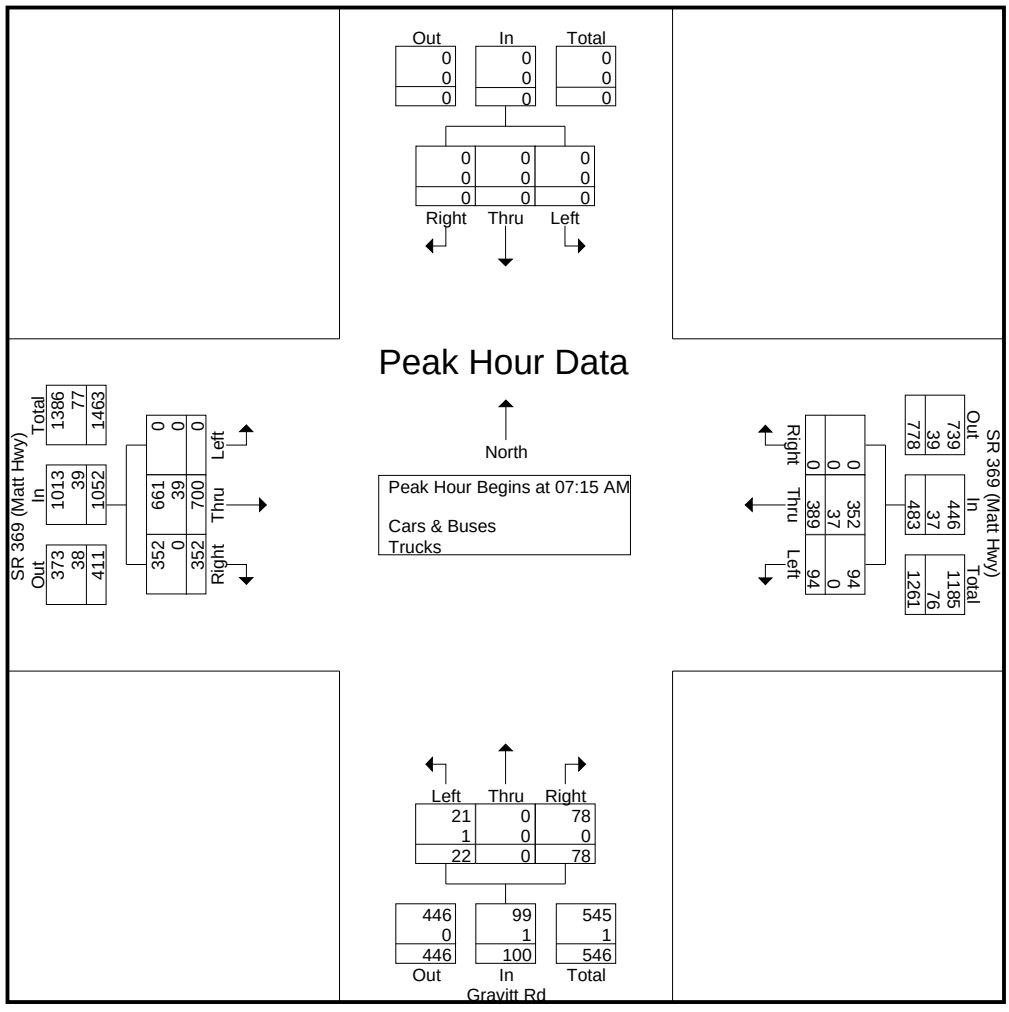
TMC DATA
SR 369 (Matt Hwy) @ Gravitt Rd
7am - 7pm

File Name : 20230114
Site Code : 20230114
Start Date : 5/3/2023
Page No : 3

	Gravitt Rd Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	**7**	0	**31**	**38**	0	0	0	0	0	169	96	265	**29**	57	0	86	389
07:30 AM	3	0	17	20	0	0	0	0	0	128	**128**	256	29	109	0	**138**	414
07:45 AM	5	0	15	20	0	0	0	0	0	181	86	**267**	18	**119**	0	137	**424**
08:00 AM	7	0	15	22	0	0	0	0	0	**222**	42	264	18	104	0	122	408
Total Volume	22	0	78	100	0	0	0	0	0	700	352	1052	94	389	0	483	1635
% App. Total	22	0	78		0	0	0		0	66.5	33.5		19.5	80.5	0		
PHF	.786	.000	.629	.658	.000	.000	.000	.000	.000	.788	.688	.985	.810	.817	.000	.875	.964
Cars & Buses	21	0	78	99	0	0	0	0	0	661	352	1013	94	352	0	446	1558
% Cars & Buses	95.5	0	100	99.0	0	0	0	0	0	94.4	100	96.3	100	90.5	0	92.3	95.3
Trucks	1	0	0	1	0	0	0	0	0	39	0	39	0	37	0	37	77
% Trucks	4.5	0	0	1.0	0	0	0	0	0	5.6	0	3.7	0	9.5	0	7.7	4.7



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2160 Kingston Court Suite 'O'
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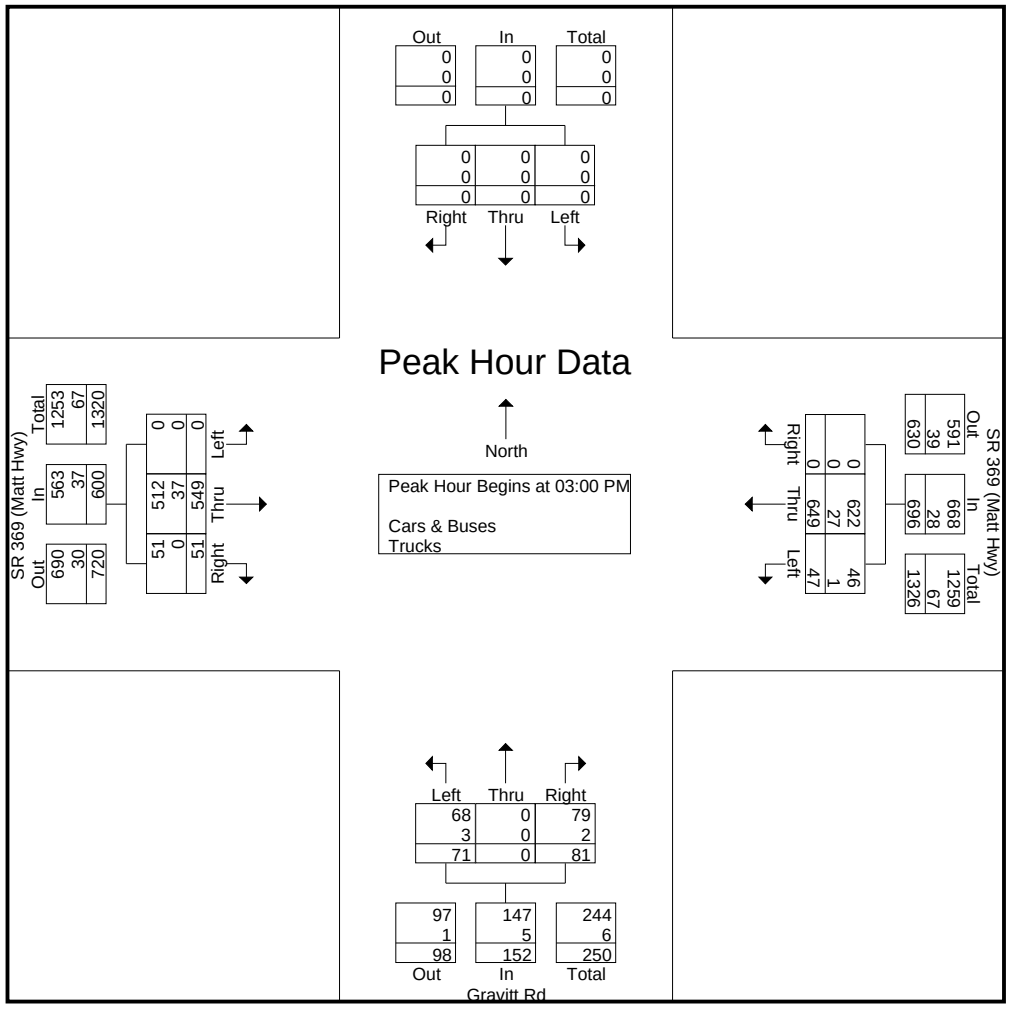
TMC DATA
SR 369 (Matt Hwy) @ Gravitt Rd
7am - 7pm

File Name : 20230114
Site Code : 20230114
Start Date : 5/3/2023

	Gravitt Rd Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	13	0	14	27	0	0	0	0	0	144	5	149	10	**169**	0	**179**	355
03:15 PM	13	0	16	29	0	0	0	0	0	123	10	133	11	159	0	170	332
03:30 PM	16	0	22	38	0	0	0	0	0	118	**18**	136	**16**	160	0	176	350
03:45 PM	**29**	0	**29**	**58**	0	0	0	0	0	**164**	18	**182**	10	161	0	171	**411**
Total Volume	71	0	81	152	0	0	0	0	0	549	51	600	47	649	0	696	1448
% App. Total	46.7	0	53.3		0	0	0		0	91.5	8.5		6.8	93.2	0		
PHF	.612	.000	.698	.655	.000	.000	.000	.000	.000	.837	.708	.824	.734	.960	.000	.972	.881
Cars & Buses	68	0	79	147	0	0	0	0	0	512	51	563	46	622	0	668	1378
% Cars & Buses	95.8	0	97.5	96.7	0	0	0	0	0	93.3	100	93.8	97.9	95.8	0	96.0	95.2
Trucks	3	0	2	5	0	0	0	0	0	37	0	37	1	27	0	28	70
% Trucks	4.2	0	2.5	3.3	0	0	0	0	0	6.7	0	6.2	2.1	4.2	0	4.0	4.8



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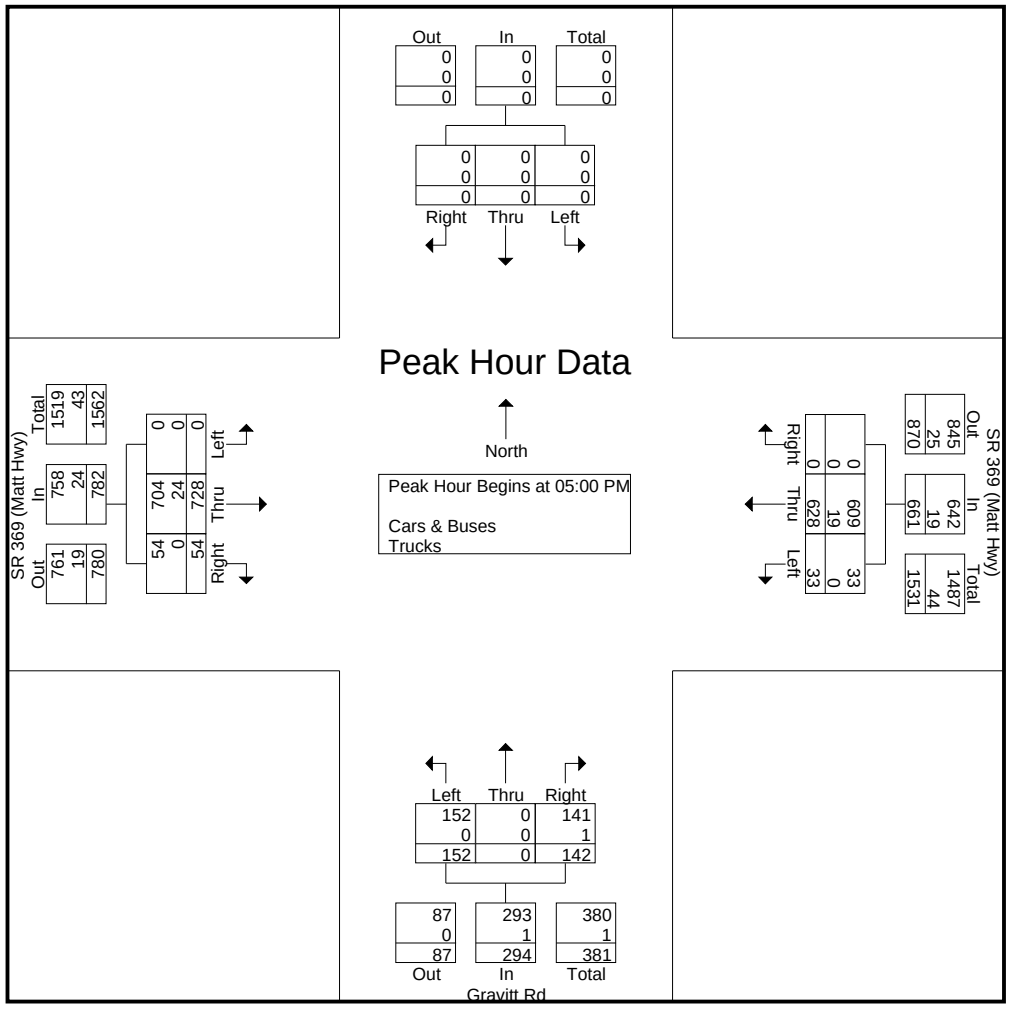
SR 369 (Matt Hwy) @ Gravitt Rd
7am - 7pm

File Name : 20230114
Site Code : 20230114
Start Date : 5/3/2023

	Gravitt Rd Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	37	0	37	74	0	0	0	0	0	169	7	176	7	155	0	162	412
05:15 PM	**44**	0	**46**	**90**	0	0	0	0	0	161	14	175	**12**	**174**	0	**186**	451
05:30 PM	39	0	25	64	0	0	0	0	0	184	**17**	201	8	148	0	156	421
05:45 PM	32	0	34	66	0	0	0	0	0	**214**	16	**230**	6	151	0	157	**453**
Total Volume	152	0	142	294	0	0	0	0	0	728	54	782	33	628	0	661	1737
% App. Total	51.7	0	48.3		0	0	0		0	93.1	6.9		5	95	0		
PHF	.864	.000	.772	.817	.000	.000	.000	.000	.000	.850	.794	.850	.688	.902	.000	.888	.959
Cars & Buses	152	0	141	293	0	0	0	0	0	704	54	758	33	609	0	642	1693
% Cars & Buses	100	0	99.3	99.7	0	0	0	0	0	96.7	100	96.9	100	97.0	0	97.1	97.5
Trucks	0	0	1	1	0	0	0	0	0	24	0	24	0	19	0	19	44
% Trucks	0	0	0.7	0.3	0	0	0	0	0	3.3	0	3.1	0	3.0	0	2.9	2.5



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TMC DATA
SR 369 (Matt Hwy) @ Forsyth North
Transportation Center Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230113
Site Code : 20230113
Start Date : 5/3/2023
Page No : 1

Groups Printed- Cars & Buses - Trucks

	Northbound				Forsyth North Transportation Center Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	0	0	1	1	21	184	0	205	0	63	3	66	272
07:15 AM	0	0	0	0	0	0	8	8	77	123	0	200	0	78	15	93	301
07:30 AM	0	0	0	0	0	0	9	9	49	96	0	145	0	129	5	134	288
07:45 AM	0	0	0	0	0	0	16	16	73	123	0	196	0	121	3	124	336
Total	0	0	0	0	0	0	34	34	220	526	0	746	0	391	26	417	1197
08:00 AM	0	0	0	0	1	0	30	31	36	201	0	237	0	92	2	94	362
08:15 AM	0	0	0	0	0	0	7	7	5	178	0	183	0	82	3	85	275
08:30 AM	0	0	0	0	1	0	14	15	10	144	0	154	0	98	10	108	277
08:45 AM	0	0	0	0	0	0	18	18	13	151	0	164	0	118	13	131	313
Total	0	0	0	0	2	0	69	71	64	674	0	738	0	390	28	418	1227
*** BREAK ***																	
02:00 PM	0	0	0	0	1	0	4	5	4	129	0	133	0	123	2	125	263
02:15 PM	0	0	0	0	1	0	6	7	8	144	0	152	0	138	7	145	304
02:30 PM	0	0	0	0	1	0	5	6	4	128	0	132	0	166	3	169	307
02:45 PM	0	0	0	0	1	0	8	9	15	119	0	134	0	144	2	146	289
Total	0	0	0	0	4	0	23	27	31	520	0	551	0	571	14	585	1163
03:00 PM	0	0	0	0	0	0	10	10	25	133	0	158	0	168	6	174	342
03:15 PM	0	0	0	0	0	0	14	14	10	129	0	139	0	156	2	158	311
03:30 PM	0	0	0	0	2	0	18	20	15	123	0	138	0	158	2	160	318
03:45 PM	0	0	0	0	2	0	23	25	20	173	0	193	0	148	1	149	367
Total	0	0	0	0	4	0	65	69	70	558	0	628	0	630	11	641	1338
04:00 PM	0	0	0	0	0	0	14	14	15	157	0	172	0	141	1	142	328
04:15 PM	0	0	0	0	3	0	49	52	14	157	0	171	0	175	2	177	400
04:30 PM	0	0	0	0	2	0	14	16	9	151	0	160	0	161	0	161	337
04:45 PM	0	0	0	0	2	0	4	6	20	164	0	184	0	152	2	154	344
Total	0	0	0	0	7	0	81	88	58	629	0	687	0	629	5	634	1409
05:00 PM	0	0	0	0	5	0	13	18	23	183	0	206	0	149	10	159	383
05:15 PM	0	0	0	0	2	0	21	23	20	186	0	206	0	165	4	169	398
05:30 PM	0	0	0	0	4	0	6	10	7	202	0	209	0	150	1	151	370
05:45 PM	0	0	0	0	0	0	5	5	33	215	0	248	0	152	6	158	411
Total	0	0	0	0	11	0	45	56	83	786	0	869	0	616	21	637	1562
Grand Total	0	0	0	0	28	0	317	345	526	3693	0	4219	0	3227	105	3332	7896
Apprch %	0	0	0		8.1	0	91.9		12.5	87.5	0		0	96.8	3.2		
Total %	0	0	0	0	0.4	0	4	4.4	6.7	46.8	0	53.4	0	40.9	1.3	42.2	
Cars & Buses	0	0	0	0	28	0	317	345	526	3473	0	3999	0	3042	105	3147	7491
% Cars & Buses	0	0	0	0	100	0	100	100	100	94	0	94.8	0	94.3	100	94.4	94.9
Trucks	0	0	0	0	0	0	0	0	0	220	0	220	0	185	0	185	405
% Trucks	0	0	0	0	0	0	0	0	0	6	0	5.2	0	5.7	0	5.6	5.1

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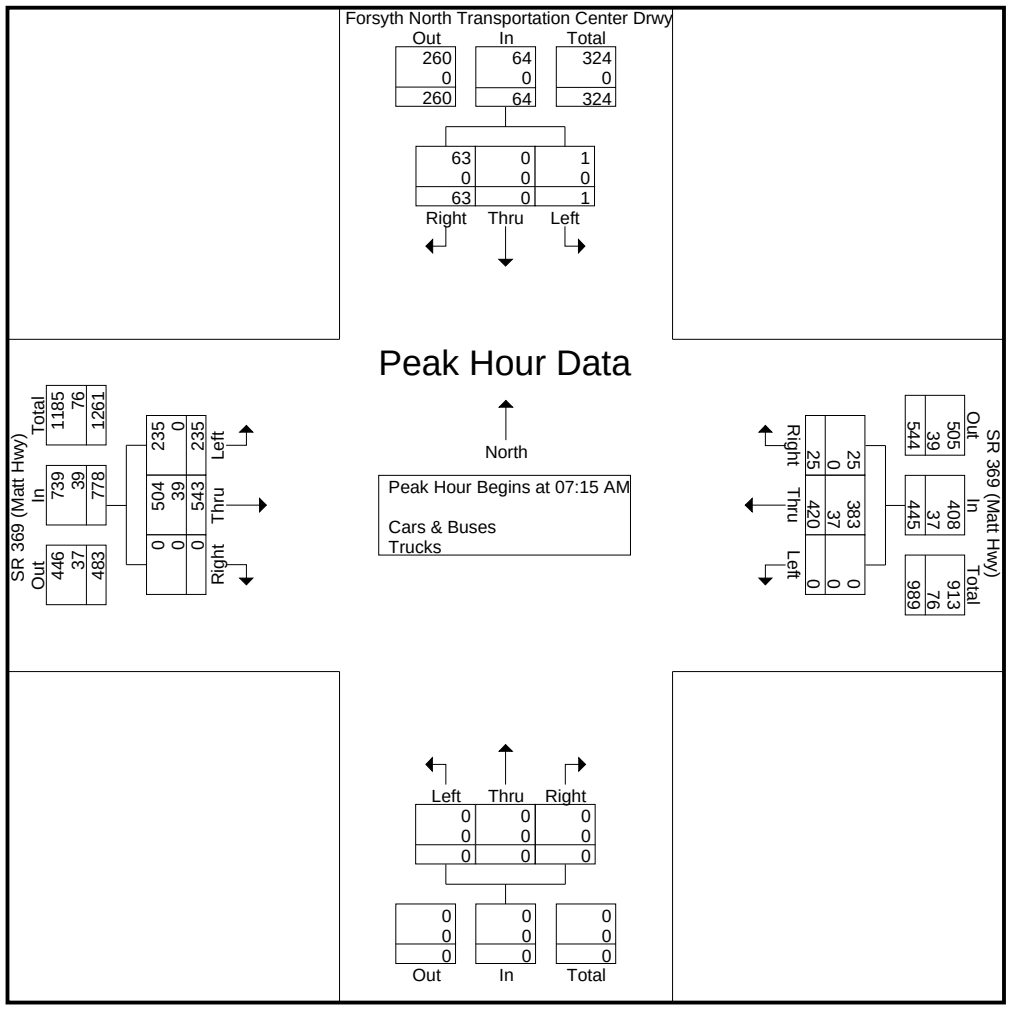
TMC DATA
SR 369 (Matt Hwy) @ Forsyth North
Transportation Center Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230113
Site Code : 20230113
Start Date : 5/3/2023
Page No : 2

	Northbound				Forsyth North Transportation Center Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	0	0	0	0	0	0	8	8	**77**	123	0	200	0	78	**15**	93	301
07:30 AM	0	0	0	0	0	0	9	9	49	96	0	145	0	**129**	5	**134**	288
07:45 AM	0	0	0	0	0	0	16	16	73	123	0	196	0	121	3	124	336
08:00 AM	0	0	0	0	**1**	0	**30**	**31**	36	**201**	0	**237**	0	92	2	94	**362**
Total Volume	0	0	0	0	1	0	63	64	235	543	0	778	0	420	25	445	1287
% App. Total	0	0	0		1.6	0	98.4		30.2	69.8	0		0	94.4	5.6		
PHF	.000	.000	.000	.000	.250	.000	.525	.516	.763	.675	.000	.821	.000	.814	.417	.830	.889
Cars & Buses	0	0	0	0	1	0	63	64	235	504	0	739	0	383	25	408	1211
% Cars & Buses	0	0	0	0	100	0	100	100	100	92.8	0	95.0	0	91.2	100	91.7	94.1
Trucks	0	0	0	0	0	0	0	0	0	39	0	39	0	37	0	37	76
% Trucks	0	0	0	0	0	0	0	0	0	7.2	0	5.0	0	8.8	0	8.3	5.9



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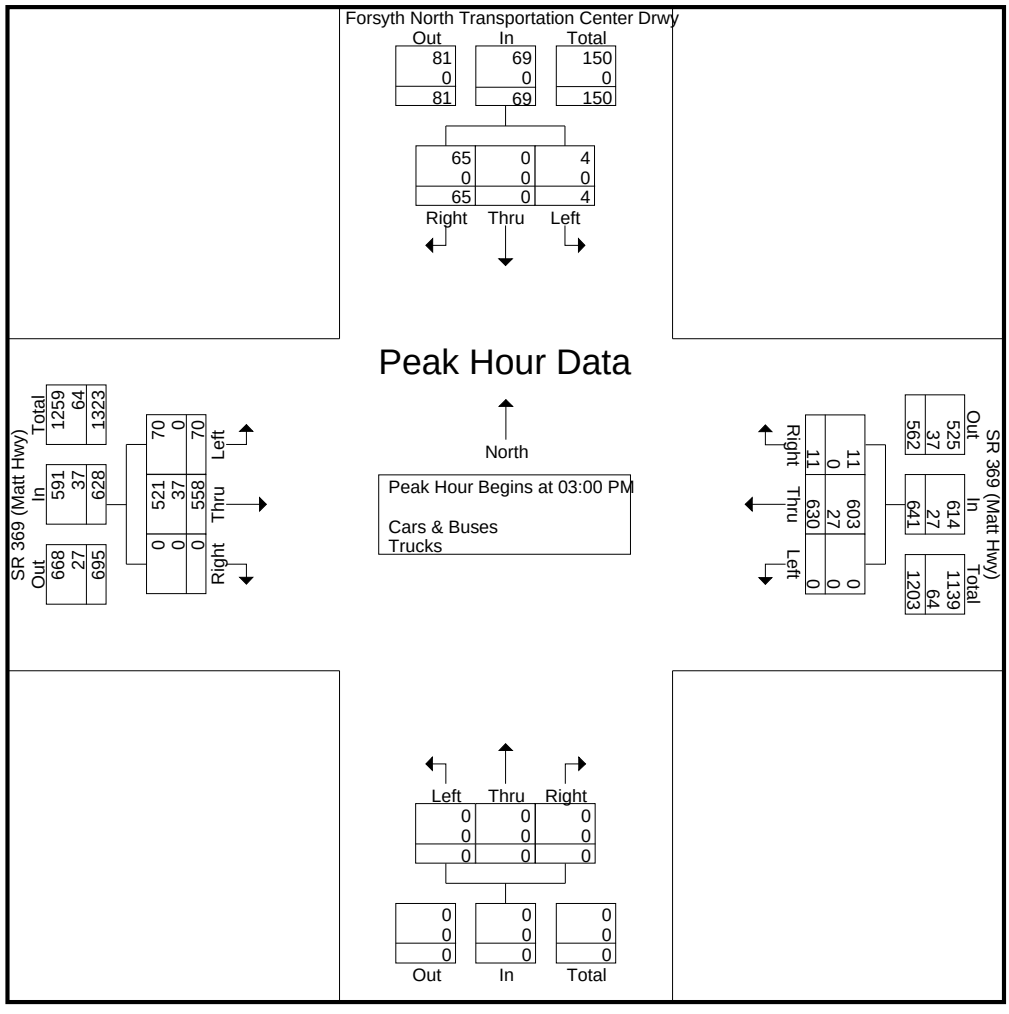
TMC DATA
SR 369 (Matt Hwy) @ Forsyth North
Transportation Center Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230113
Site Code : 20230113
Start Date : 5/3/2023
Page No : 3

	Northbound				Forsyth North Transportation Center Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	0	0	10	10	**25**	133	0	158	0	**168**	**6**	**174**	342
03:15 PM	0	0	0	0	0	0	14	14	10	129	0	139	0	156	2	158	311
03:30 PM	0	0	0	0	**2**	0	18	20	15	123	0	138	0	158	2	160	318
03:45 PM	0	0	0	0	2	0	**23**	**25**	20	**173**	0	**193**	0	148	1	149	**367**
Total Volume	0	0	0	0	4	0	65	69	70	558	0	628	0	630	11	641	1338
% App. Total	0	0	0		5.8	0	94.2		11.1	88.9	0		0	98.3	1.7		
PHF	.000	.000	.000	.000	.500	.000	.707	.690	.700	.806	.000	.813	.000	.938	.458	.921	.911
Cars & Buses	0	0	0	0	4	0	65	69	70	521	0	591	0	603	11	614	1274
% Cars & Buses	0	0	0	0	100	0	100	100	100	93.4	0	94.1	0	95.7	100	95.8	95.2
Trucks	0	0	0	0	0	0	0	0	0	37	0	37	0	27	0	27	64
% Trucks	0	0	0	0	0	0	0	0	0	6.6	0	5.9	0	4.3	0	4.2	4.8



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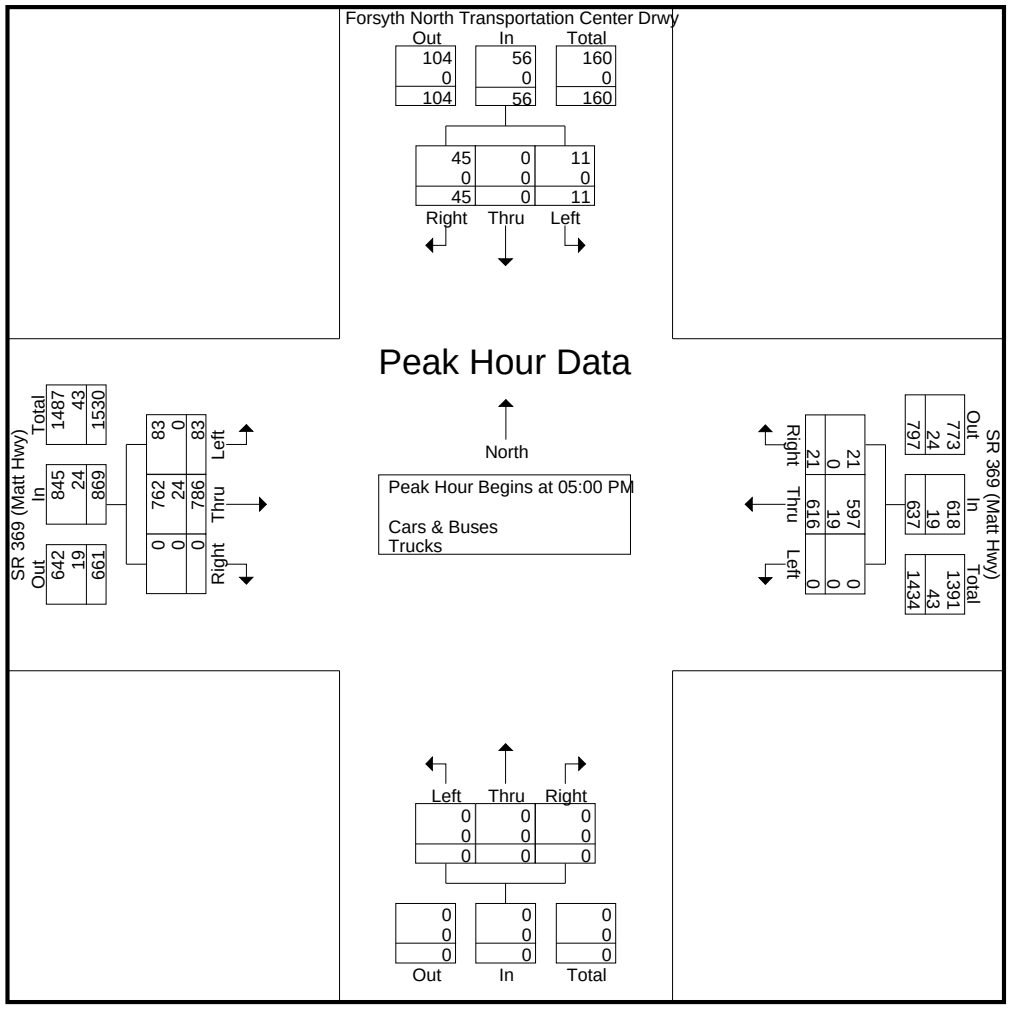
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Forsyth North
Transportation Center Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230113
Site Code : 20230113
Start Date : 5/3/2023
Page No : 4

	Northbound				Forsyth North Transportation Center Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	**5**	0	13	18	23	183	0	206	0	149	**10**	159	383
05:15 PM	0	0	0	0	2	0	**21**	**23**	20	186	0	206	0	**165**	4	**169**	398
05:30 PM	0	0	0	0	4	0	6	10	7	202	0	209	0	150	1	151	370
05:45 PM	0	0	0	0	0	0	5	5	**33**	**215**	0	**248**	0	152	6	158	**411**
Total Volume	0	0	0	0	11	0	45	56	83	786	0	869	0	616	21	637	1562
% App. Total	0	0	0		19.6	0	80.4		9.6	90.4	0		0	96.7	3.3		
PHF	.000	.000	.000	.000	.550	.000	.536	.609	.629	.914	.000	.876	.000	.933	.525	.942	.950
Cars & Buses	0	0	0	0	11	0	45	56	83	762	0	845	0	597	21	618	1519
% Cars & Buses	0	0	0	0	100	0	100	100	100	96.9	0	97.2	0	96.9	100	97.0	97.2
Trucks	0	0	0	0	0	0	0	0	0	24	0	24	0	19	0	19	43
% Trucks	0	0	0	0	0	0	0	0	0	3.1	0	2.8	0	3.1	0	3.0	2.8



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2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Sierra Lake Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230112
Site Code : 20230112
Start Date : 05-03-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Sierra Lake Dr Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	1	0	2	3	0	0	0	0	0	171	1	172	2	55	0	57	232
07:15 AM	0	0	3	3	0	0	0	0	0	116	1	117	2	84	0	86	206
07:30 AM	1	0	3	4	0	0	0	0	0	84	1	85	3	126	0	129	218
07:45 AM	0	0	4	4	0	0	0	0	0	113	0	113	1	113	0	114	231
Total	2	0	12	14	0	0	0	0	0	484	3	487	8	378	0	386	887
08:00 AM	1	0	5	6	0	0	0	0	0	190	0	190	2	83	0	85	281
08:15 AM	1	0	6	7	0	0	0	0	0	164	2	166	1	76	0	77	250
08:30 AM	0	0	4	4	0	0	0	0	0	134	1	135	4	94	0	98	237
08:45 AM	1	0	0	1	0	0	0	0	0	137	0	137	5	119	0	124	262
Total	3	0	15	18	0	0	0	0	0	625	3	628	12	372	0	384	1030
*** BREAK ***																	
02:00 PM	1	0	1	2	0	0	0	0	0	120	1	121	2	113	0	115	238
02:15 PM	1	0	2	3	0	0	0	0	0	135	0	135	1	135	0	136	274
02:30 PM	0	0	1	1	0	0	0	0	0	119	1	120	3	160	0	163	284
02:45 PM	1	0	1	2	0	0	0	0	0	111	1	112	1	137	0	138	252
Total	3	0	5	8	0	0	0	0	0	485	3	488	7	545	0	552	1048
03:00 PM	0	0	2	2	0	0	0	0	0	126	0	126	2	170	0	172	300
03:15 PM	1	0	1	2	0	0	0	0	0	120	1	121	2	151	0	153	276
03:30 PM	0	0	1	1	0	0	0	0	0	116	2	118	3	151	0	154	273
03:45 PM	1	0	2	3	0	0	0	0	0	159	1	160	1	142	0	143	306
Total	2	0	6	8	0	0	0	0	0	521	4	525	8	614	0	622	1155
04:00 PM	1	0	4	5	0	0	0	0	0	147	1	148	2	139	0	141	294
04:15 PM	2	0	3	5	0	0	0	0	0	150	2	152	2	166	0	168	325
04:30 PM	1	0	2	3	0	0	0	0	0	141	1	142	3	154	0	157	302
04:45 PM	1	0	4	5	0	0	0	0	0	157	3	160	4	151	0	155	320
Total	5	0	13	18	0	0	0	0	0	595	7	602	11	610	0	621	1241
05:00 PM	0	0	3	3	0	0	0	0	0	189	1	190	5	157	0	162	355
05:15 PM	1	0	5	6	0	0	0	0	0	180	2	182	4	161	0	165	353
05:30 PM	1	0	4	5	0	0	0	0	0	195	5	200	3	147	0	150	355
05:45 PM	0	0	5	5	0	0	0	0	0	209	2	211	5	153	0	158	374
Total	2	0	17	19	0	0	0	0	0	773	10	783	17	618	0	635	1437
Grand Total	17	0	68	85	0	0	0	0	0	3483	30	3513	63	3137	0	3200	6798
Apprch %	20	0	80		0	0	0		0	99.1	0.9		2	98	0		
Total %	0.3	0	1	1.3	0	0	0	0	0	51.2	0.4	51.7	0.9	46.1	0	47.1	

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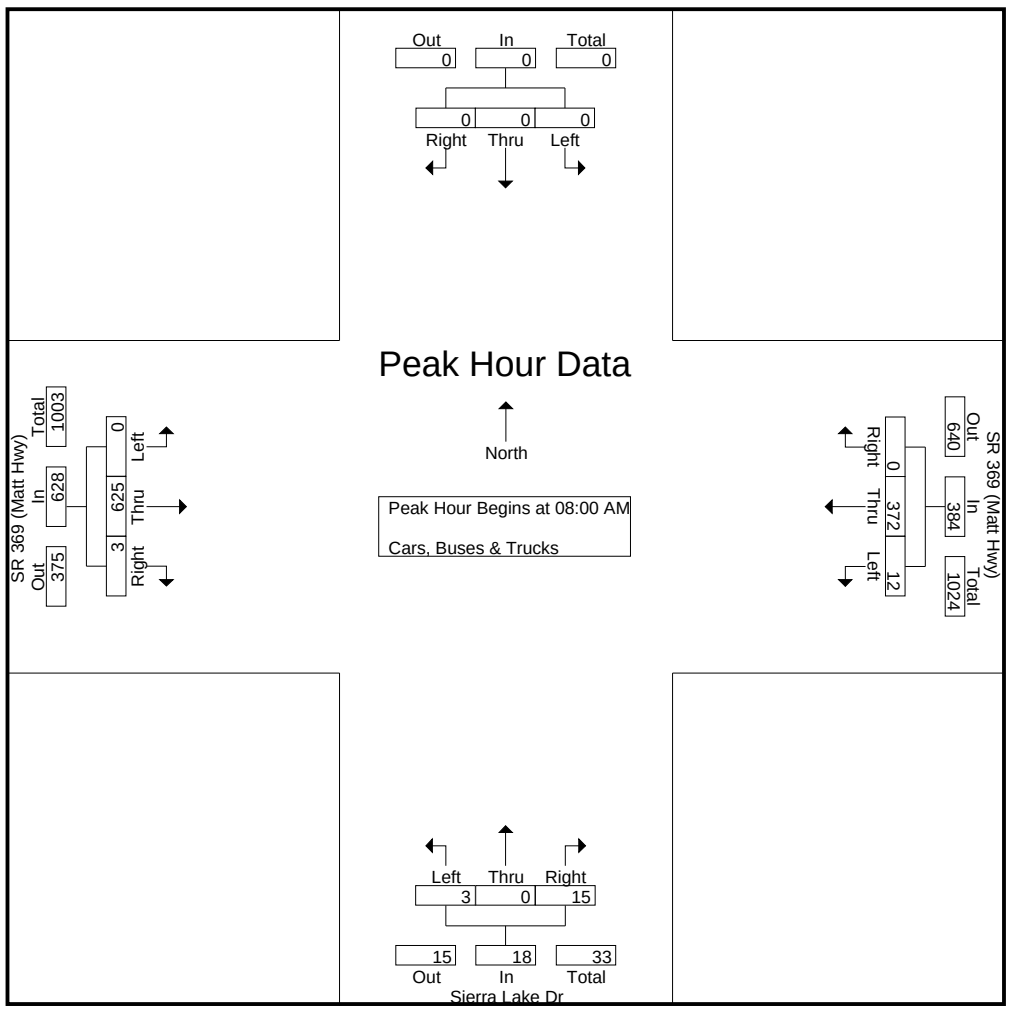
2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Sierra Lake Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230112
Site Code : 20230112
Start Date : 05-03-2023
Page No : 2

	Sierra Lake Dr Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 08:00 AM																	
08:00 AM	**1**	0	5	6	0	0	0	0	0	**190**	0	**190**	2	83	0	85	**281**
08:15 AM	1	0	**6**	**7**	0	0	0	0	0	164	**2**	166	1	76	0	77	250
08:30 AM	0	0	4	4	0	0	0	0	0	134	1	135	4	94	0	98	237
08:45 AM	1	0	0	1	0	0	0	0	0	137	0	137	**5**	**119**	0	**124**	262
Total Volume	3	0	15	18	0	0	0	0	0	625	3	628	12	372	0	384	1030
% App. Total	16.7	0	83.3		0	0	0		0	99.5	0.5		3.1	96.9	0		
PHF	.750	.000	.625	.643	.000	.000	.000	.000	.000	.822	.375	.826	.600	.782	.000	.774	.916



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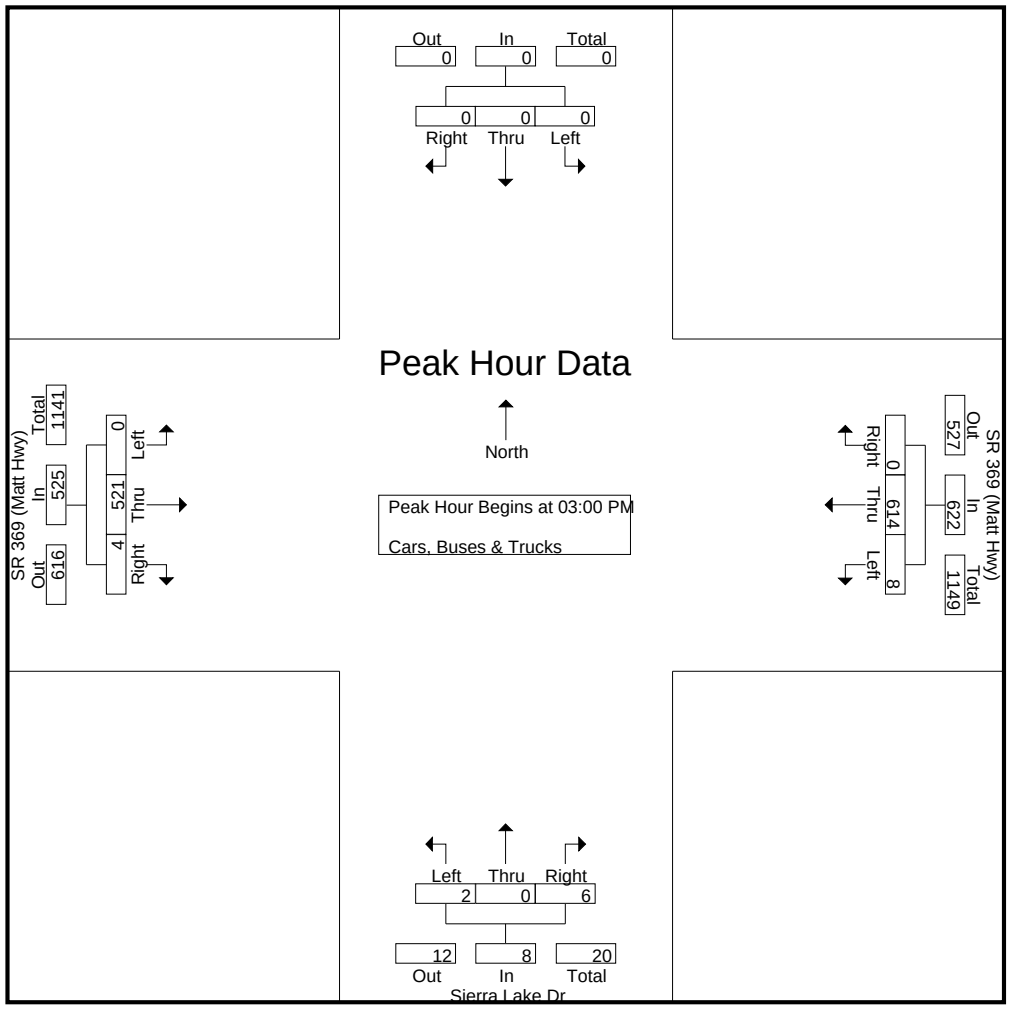
2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Sierra Lake Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230112
Site Code : 20230112
Start Date : 05-03-2023
Page No : 3

	Sierra Lake Dr Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	**2**	2	0	0	0	0	0	126	0	126	2	**170**	0	**172**	300
03:15 PM	**1**	0	1	2	0	0	0	0	0	120	1	121	2	151	0	153	276
03:30 PM	0	0	1	1	0	0	0	0	0	116	**2**	118	**3**	151	0	154	273
03:45 PM	1	0	2	**3**	0	0	0	0	0	**159**	1	**160**	1	142	0	143	**306**
Total Volume	2	0	6	8	0	0	0	0	0	521	4	525	8	614	0	622	1155
% App. Total	25	0	75		0	0	0		0	99.2	0.8		1.3	98.7	0		
PHF	.500	.000	.750	.667	.000	.000	.000	.000	.000	.819	.500	.820	.667	.903	.000	.904	.944



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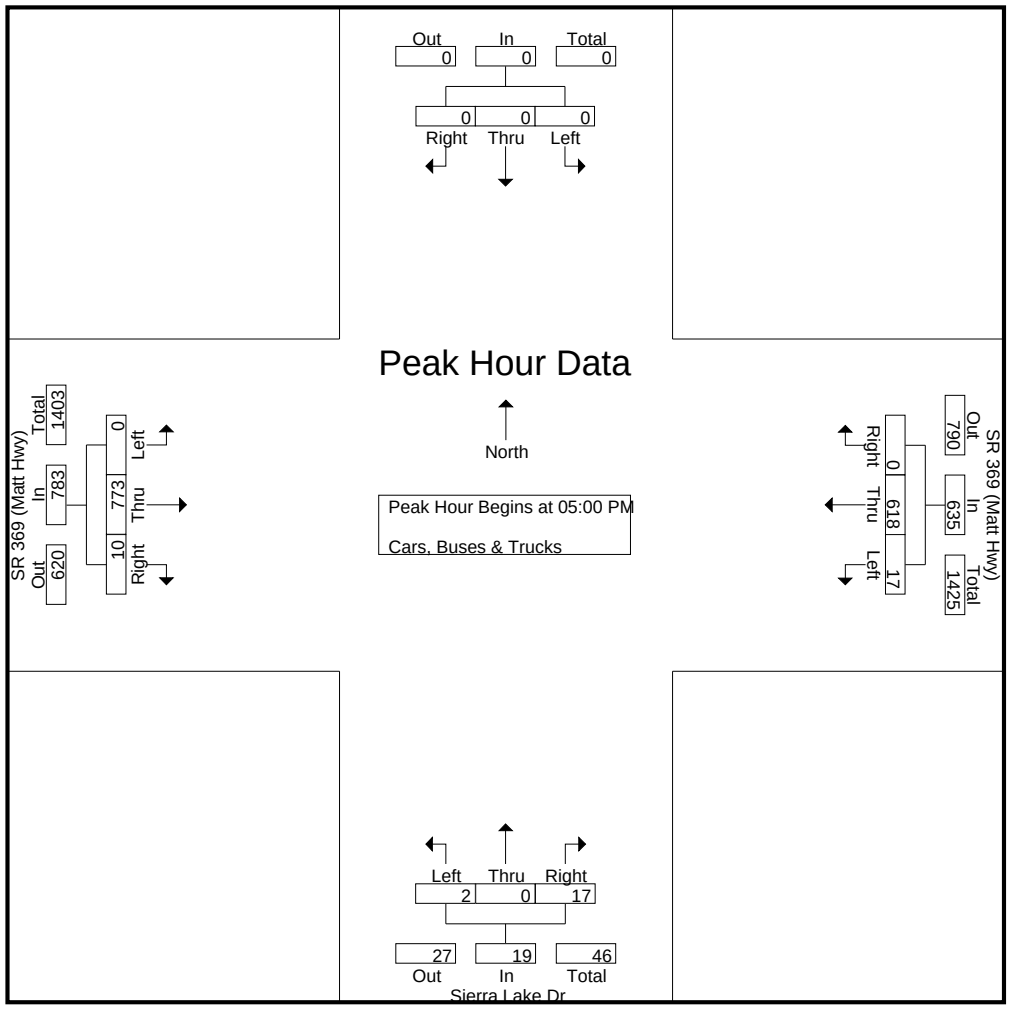
2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Sierra Lake Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230112
Site Code : 20230112
Start Date : 05-03-2023
Page No : 4

	Sierra Lake Dr Northbound				Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	3	3	0	0	0	0	0	189	1	190	**5**	157	0	162	355
05:15 PM	**1**	0	**5**	**6**	0	0	0	0	0	180	2	182	4	**161**	0	**165**	353
05:30 PM	1	0	4	5	0	0	0	0	0	195	**5**	200	3	147	0	150	355
05:45 PM	0	0	5	5	0	0	0	0	0	**209**	2	**211**	5	153	0	158	**374**
Total Volume	2	0	17	19	0	0	0	0	0	773	10	783	17	618	0	635	1437
% App. Total	10.5	0	89.5		0	0	0		0	98.7	1.3		2.7	97.3	0		
PHF	.500	.000	.850	.792	.000	.000	.000	.000	.000	.925	.500	.928	.850	.960	.000	.962	.961



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Elementary School
Exit Only Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230111
Site Code : 20230111
Start Date : 5/3/2023

Groups Printed- Cars & Buses - Trucks

	Northbound				Elementary School Exit Only Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	0	0	1	1	18	168	0	186	0	67	2	69	256
07:15 AM	0	0	0	0	67	0	35	102	0	124	0	124	0	59	0	59	285
07:30 AM	0	0	0	0	77	0	58	135	0	96	0	96	0	76	0	76	307
07:45 AM	0	0	0	0	43	0	18	61	0	122	0	122	0	105	0	105	288
Total	0	0	0	0	187	0	112	299	18	510	0	528	0	307	2	309	1136
08:00 AM	0	0	0	0	0	0	1	1	0	203	0	203	0	92	0	92	296
08:15 AM	0	0	0	0	0	0	1	1	0	177	0	177	0	83	0	83	261
08:30 AM	0	0	0	0	1	0	0	1	0	146	0	146	0	107	0	107	254
08:45 AM	0	0	0	0	0	0	1	1	0	151	0	151	0	131	1	132	284
Total	0	0	0	0	1	0	3	4	0	677	0	677	0	413	1	414	1095
*** BREAK ***																	
02:00 PM	0	0	0	0	0	0	1	1	0	132	0	132	0	124	0	124	257
02:15 PM	0	0	0	0	2	0	5	7	0	146	0	146	0	140	0	140	293
02:30 PM	0	0	0	0	32	0	27	59	0	127	0	127	0	142	0	142	328
02:45 PM	0	0	0	0	10	0	8	18	0	120	0	120	0	140	0	140	278
Total	0	0	0	0	44	0	41	85	0	525	0	525	0	546	0	546	1156
03:00 PM	0	0	0	0	4	0	10	14	0	132	0	132	0	164	0	164	310
03:15 PM	0	0	0	0	1	0	6	7	0	131	0	131	0	154	0	154	292
03:30 PM	0	0	0	0	3	0	2	5	0	124	0	124	0	157	0	157	286
03:45 PM	0	0	0	0	1	0	4	5	0	173	0	173	0	144	1	145	323
Total	0	0	0	0	9	0	22	31	0	560	0	560	0	619	1	620	1211
04:00 PM	0	0	0	0	3	0	5	8	0	157	0	157	0	136	0	136	301
04:15 PM	0	0	0	0	1	0	5	6	1	159	0	160	0	172	0	172	338
04:30 PM	0	0	0	0	1	0	2	3	0	153	0	153	0	158	0	158	314
04:45 PM	0	0	0	0	1	0	3	4	0	165	0	165	0	152	0	152	321
Total	0	0	0	0	6	0	15	21	1	634	0	635	0	618	0	618	1274
05:00 PM	0	0	0	0	2	0	3	5	0	186	0	186	0	153	0	153	344
05:15 PM	0	0	0	0	2	0	2	4	0	188	0	188	0	167	0	167	359
05:30 PM	0	0	0	0	1	0	2	3	1	203	0	204	0	150	0	150	357
05:45 PM	0	0	0	0	0	0	3	3	0	214	0	214	0	154	0	154	371
Total	0	0	0	0	5	0	10	15	1	791	0	792	0	624	0	624	1431
Grand Total	0	0	0	0	252	0	203	455	20	3697	0	3717	0	3127	4	3131	7303
Apprch %	0	0	0		55.4	0	44.6		0.5	99.5	0		0	99.9	0.1		
Total %	0	0	0	0	3.5	0	2.8	6.2	0.3	50.6	0	50.9	0	42.8	0.1	42.9	
Cars & Buses	0	0	0	0	252	0	203	455	20	3470	0	3490	0	2941	4	2945	6890
% Cars & Buses	0	0	0	0	100	0	100	100	100	93.9	0	93.9	0	94.1	100	94.1	94.3
Trucks	0	0	0	0	0	0	0	0	0	227	0	227	0	186	0	186	413
% Trucks	0	0	0	0	0	0	0	0	0	6.1	0	6.1	0	5.9	0	5.9	5.7

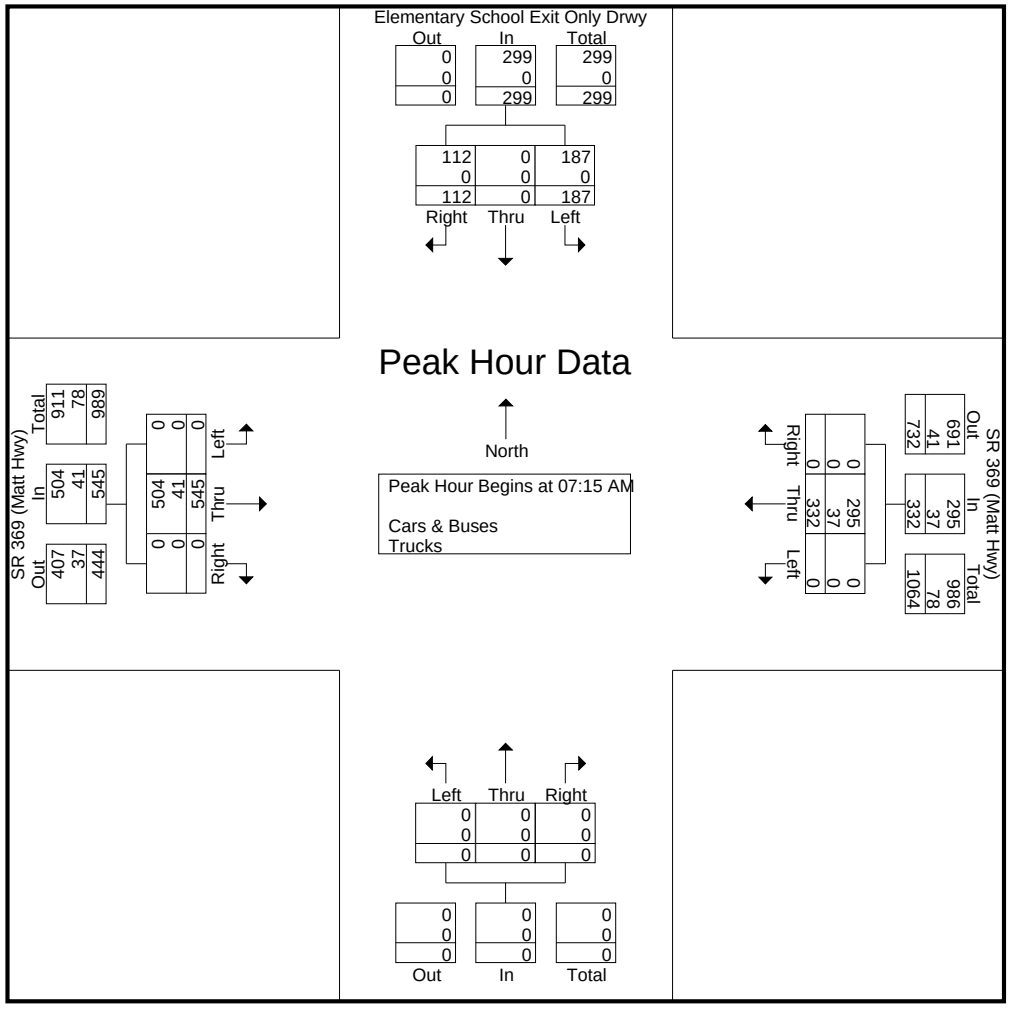
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Elementary School
Exit Only Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230111
Site Code : 20230111
Start Date : 5/3/2023

	Northbound				Elementary School Exit Only Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	0	0	0	0	67	0	35	102	0	124	0	124	0	59	0	59	285
07:30 AM	0	0	0	0	**77**	0	**58**	**135**	0	96	0	96	0	76	0	76	**307**
07:45 AM	0	0	0	0	43	0	18	61	0	122	0	122	0	**105**	0	**105**	288
08:00 AM	0	0	0	0	0	0	1	1	0	**203**	0	**203**	0	92	0	92	296
Total Volume	0	0	0	0	187	0	112	299	0	545	0	545	0	332	0	332	1176
% App. Total	0	0	0		62.5	0	37.5		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.607	.000	.483	.554	.000	.671	.000	.671	.000	.790	.000	.790	.958
Cars & Buses	0	0	0	0	187	0	112	299	0	504	0	504	0	295	0	295	1098
% Cars & Buses	0	0	0	0	100	0	100	100	0	92.5	0	92.5	0	88.9	0	88.9	93.4
Trucks	0	0	0	0	0	0	0	0	0	41	0	41	0	37	0	37	78
% Trucks	0	0	0	0	0	0	0	0	0	7.5	0	7.5	0	11.1	0	11.1	6.6



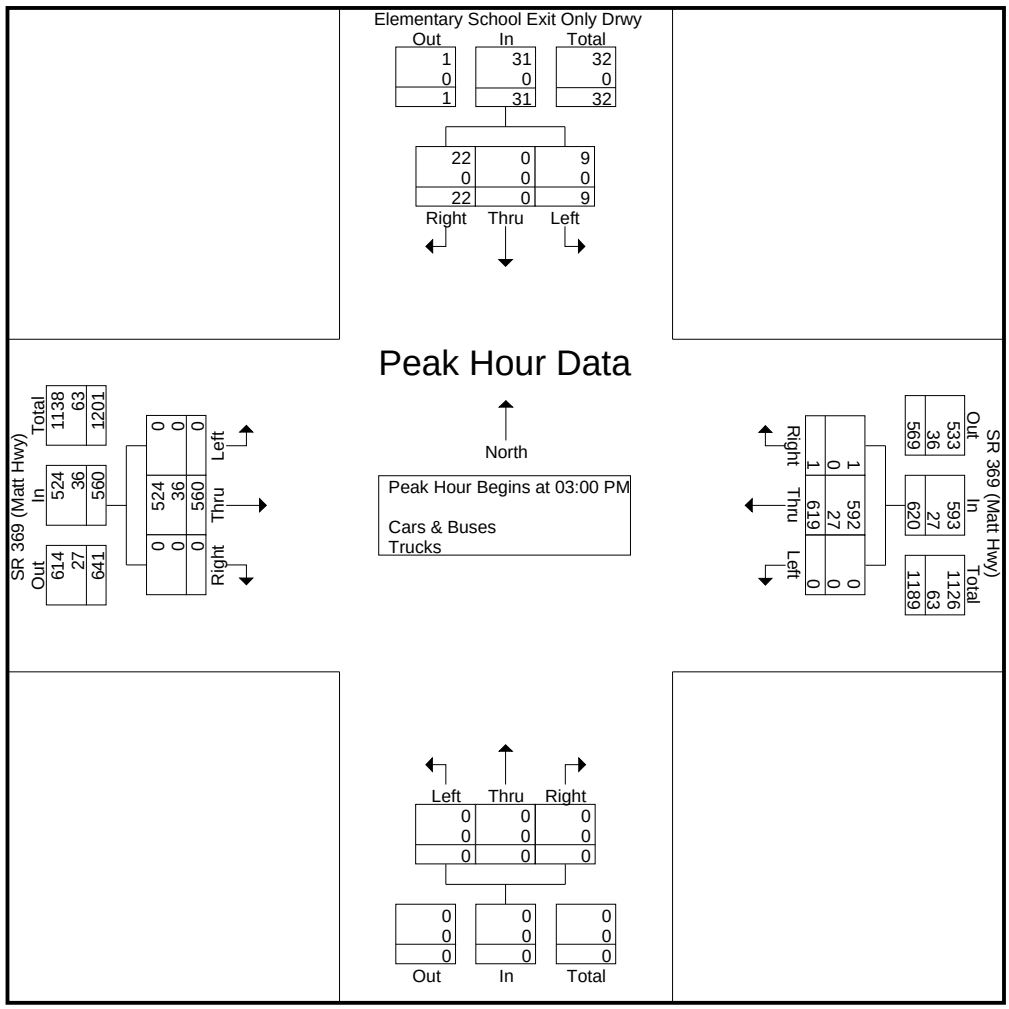
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Elementary School
Exit Only Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230111
Site Code : 20230111
Start Date : 5/3/2023

	Northbound				Elementary School Exit Only Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	**4**	0	**10**	**14**	0	132	0	132	0	**164**	0	**164**	310
03:15 PM	0	0	0	0	1	0	6	7	0	131	0	131	0	154	0	154	292
03:30 PM	0	0	0	0	3	0	2	5	0	124	0	124	0	157	0	157	286
03:45 PM	0	0	0	0	1	0	4	5	0	**173**	0	**173**	0	144	**1**	145	**323**
Total Volume	0	0	0	0	9	0	22	31	0	560	0	560	0	619	1	620	1211
% App. Total	0	0	0		29	0	71		0	100	0		0	99.8	0.2		
PHF	.000	.000	.000	.000	.563	.000	.550	.554	.000	.809	.000	.809	.000	.944	.250	.945	.937
Cars & Buses	0	0	0	0	9	0	22	31	0	524	0	524	0	592	1	593	1148
% Cars & Buses	0	0	0	0	100	0	100	100	0	93.6	0	93.6	0	95.6	100	95.6	94.8
Trucks	0	0	0	0	0	0	0	0	0	36	0	36	0	27	0	27	63
% Trucks	0	0	0	0	0	0	0	0	0	6.4	0	6.4	0	4.4	0	4.4	5.2



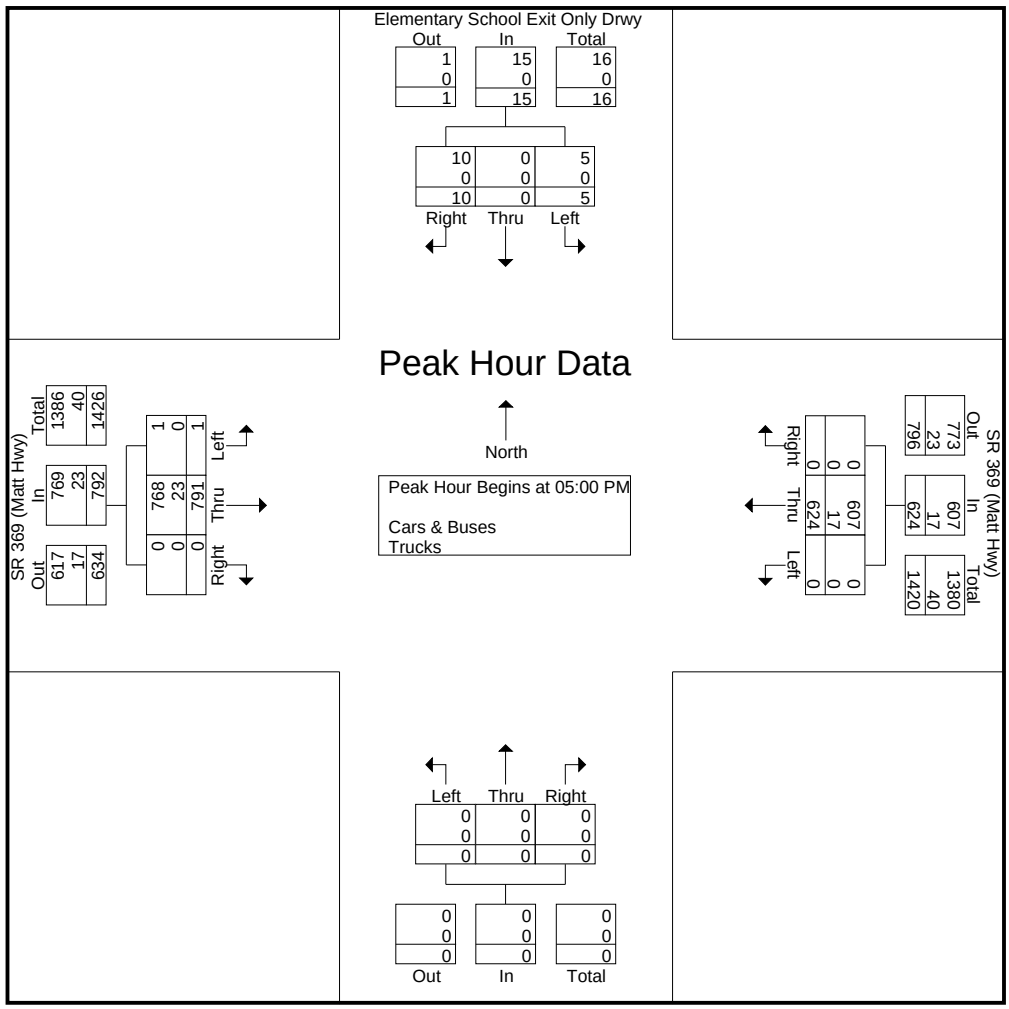
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Elementary School
Exit Only Drwy
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230111
Site Code : 20230111
Start Date : 5/3/2023
Page No : 4

	Northbound				Elementary School Exit Only Drwy Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	**2**	0	**3**	**5**	0	186	0	186	0	153	0	153	344
05:15 PM	0	0	0	0	2	0	2	4	0	188	0	188	0	**167**	0	**167**	359
05:30 PM	0	0	0	0	1	0	2	3	**1**	203	0	204	0	150	0	150	357
05:45 PM	0	0	0	0	0	0	3	3	0	**214**	0	**214**	0	154	0	154	**371**
Total Volume	0	0	0	0	5	0	10	15	1	791	0	792	0	624	0	624	1431
% App. Total	0	0	0		33.3	0	66.7		0.1	99.9	0		0	100	0		
PHF	.000	.000	.000	.000	.625	.000	.833	.750	.250	.924	.000	.925	.000	.934	.000	.934	.964
Cars & Buses	0	0	0	0	5	0	10	15	1	768	0	769	0	607	0	607	1391
% Cars & Buses	0	0	0	0	100	0	100	100	100	97.1	0	97.1	0	97.3	0	97.3	97.2
Trucks	0	0	0	0	0	0	0	0	0	23	0	23	0	17	0	17	40
% Trucks	0	0	0	0	0	0	0	0	0	2.9	0	2.9	0	2.7	0	2.7	2.8



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
SR 369 (Matt Hwy) @ Coal Mountain Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230110
Site Code : 20230110
Start Date : 05-03-2023
Page No : 1

Groups Printed- Cars & Buses - Trucks

	Northbound				Coal Mountain Dr Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	1	0	2	3	39	129	0	168	0	67	54	121	292
07:15 AM	0	0	0	0	2	0	11	13	53	138	0	191	0	48	49	97	301
07:30 AM	0	0	0	0	3	0	12	15	35	138	0	173	0	64	45	109	297
07:45 AM	0	0	0	0	9	0	13	22	41	124	0	165	0	92	38	130	317
Total	0	0	0	0	15	0	38	53	168	529	0	697	0	271	186	457	1207
08:00 AM	0	0	0	0	10	0	16	26	66	137	0	203	0	76	22	98	327
08:15 AM	0	0	0	0	3	0	17	20	41	136	0	177	0	66	12	78	275
08:30 AM	0	0	0	0	3	0	15	18	27	120	4	151	0	92	14	106	275
08:45 AM	0	0	0	0	3	0	20	23	20	131	0	151	0	112	15	127	301
Total	0	0	0	0	19	0	68	87	154	524	4	682	0	346	63	409	1178
*** BREAK ***																	
02:00 PM	0	0	0	0	3	0	6	9	11	121	0	132	0	118	13	131	272
02:15 PM	0	0	0	0	1	0	7	8	12	136	0	148	0	133	13	146	302
02:30 PM	0	0	0	0	2	0	10	12	19	140	0	159	0	132	14	146	317
02:45 PM	0	0	0	0	4	0	1	5	13	117	0	130	0	139	15	154	289
Total	0	0	0	0	10	0	24	34	55	514	0	569	0	522	55	577	1180
03:00 PM	0	0	0	0	18	0	6	24	6	130	0	136	0	158	12	170	330
03:15 PM	0	0	0	0	3	0	5	8	17	115	0	132	0	149	8	157	297
03:30 PM	0	0	0	0	7	0	10	17	19	108	0	127	0	147	10	157	301
03:45 PM	0	0	0	0	8	0	7	15	23	151	0	174	0	138	14	152	341
Total	0	0	0	0	36	0	28	64	65	504	0	569	0	592	44	636	1269
04:00 PM	0	0	0	0	3	0	11	14	28	132	0	160	0	125	15	140	314
04:15 PM	0	0	0	0	25	0	36	61	27	133	1	161	0	136	21	157	379
04:30 PM	0	0	0	0	12	0	14	26	23	131	0	154	0	144	14	158	338
04:45 PM	0	0	0	0	2	0	5	7	15	151	0	166	0	147	7	154	327
Total	0	0	0	0	42	0	66	108	93	547	1	641	0	552	57	609	1358
05:00 PM	0	0	0	0	4	0	10	14	28	160	0	188	0	143	7	150	352
05:15 PM	0	0	0	0	1	0	6	7	20	170	0	190	0	161	8	169	366
05:30 PM	0	0	0	0	0	0	7	7	27	177	0	204	0	143	12	155	366
05:45 PM	0	0	0	0	2	0	4	6	22	192	0	214	0	150	18	168	388
Total	0	0	0	0	7	0	27	34	97	699	0	796	0	597	45	642	1472
Grand Total	0	0	0	0	129	0	251	380	632	3317	5	3954	0	2880	450	3330	7664
Apprch %	0	0	0		33.9	0	66.1		16	83.9	0.1		0	86.5	13.5		
Total %	0	0	0	0	1.7	0	3.3	5	8.2	43.3	0.1	51.6	0	37.6	5.9	43.4	
Cars & Buses	0	0	0	0	128	0	251	379	632	3090	5	3727	0	2694	447	3141	7247
% Cars & Buses	0	0	0	0	99.2	0	100	99.7	100	93.2	100	94.3	0	93.5	99.3	94.3	94.6
Trucks	0	0	0	0	1	0	0	1	0	227	0	227	0	186	3	189	417
% Trucks	0	0	0	0	0.8	0	0	0.3	0	6.8	0	5.7	0	6.5	0.7	5.7	5.4

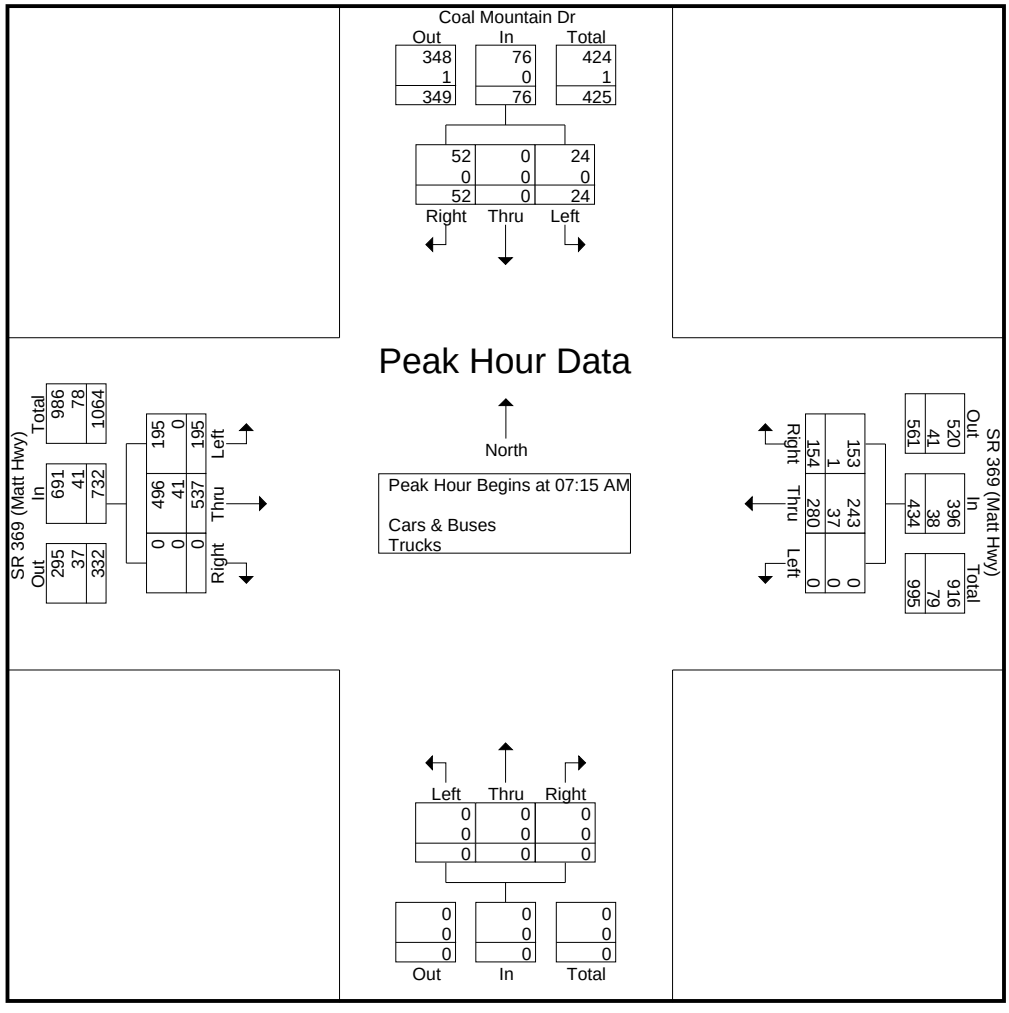
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
SR 369 (Matt Hwy) @ Coal Mountain Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230110
Site Code : 20230110
Start Date : 05-03-2023
Page No : 2

	Northbound				Coal Mountain Dr Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	0	0	0	0	2	0	11	13	53	**138**	0	191	0	48	**49**	97	301
07:30 AM	0	0	0	0	3	0	12	15	35	138	0	173	0	64	45	109	297
07:45 AM	0	0	0	0	9	0	13	22	41	124	0	165	0	**92**	38	**130**	317
08:00 AM	0	0	0	0	**10**	0	**16**	**26**	**66**	137	0	**203**	0	76	22	98	**327**
Total Volume	0	0	0	0	24	0	52	76	195	537	0	732	0	280	154	434	1242
% App. Total	0	0	0		31.6	0	68.4		26.6	73.4	0		0	64.5	35.5		
PHF	.000	.000	.000	.000	.600	.000	.813	.731	.739	.973	.000	.901	.000	.761	.786	.835	.950
Cars & Buses	0	0	0	0	24	0	52	76	195	496	0	691	0	243	153	396	1163
% Cars & Buses	0	0	0	0	100	0	100	100	100	92.4	0	94.4	0	86.8	99.4	91.2	93.6
Trucks	0	0	0	0	0	0	0	0	0	41	0	41	0	37	1	38	79
% Trucks	0	0	0	0	0	0	0	0	0	7.6	0	5.6	0	13.2	0.6	8.8	6.4



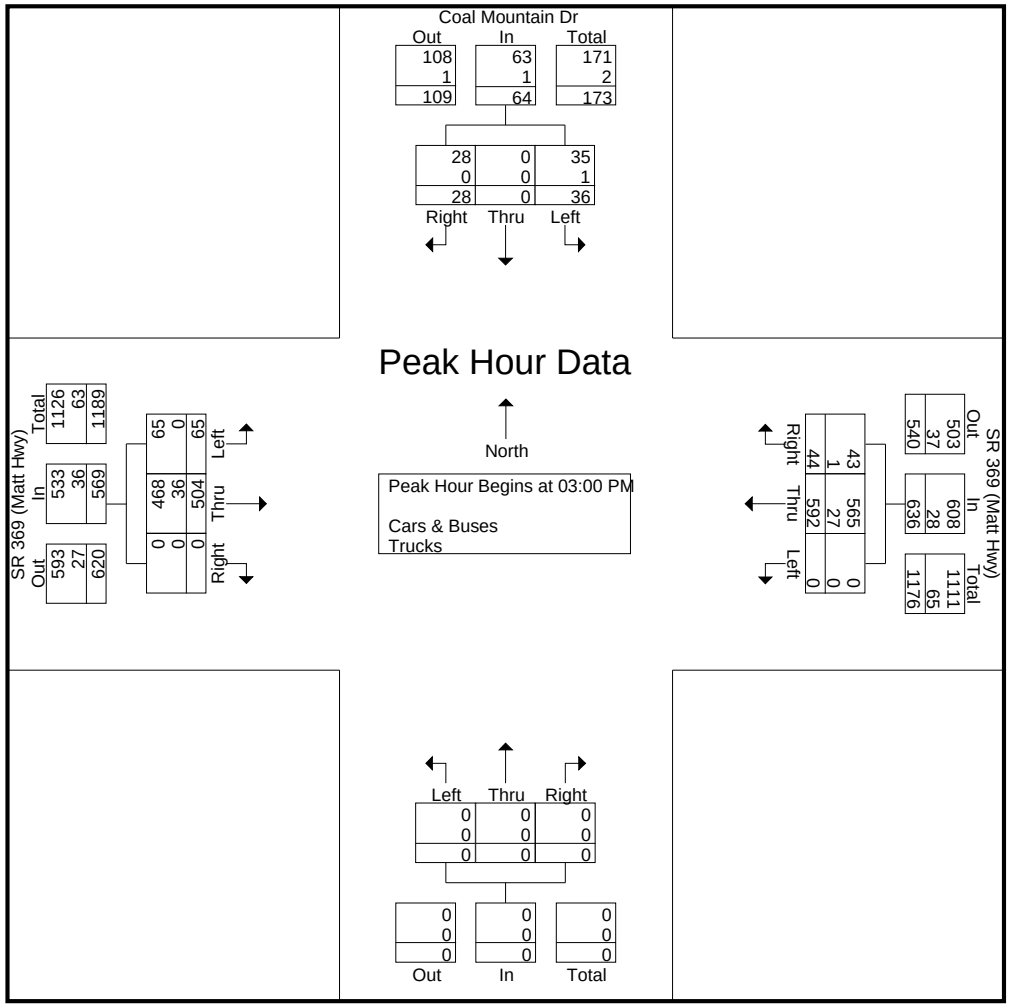
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
SR 369 (Matt Hwy) @ Coal Mountain Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230110
Site Code : 20230110
Start Date : 05-03-2023
Page No : 3

	Northbound				Coal Mountain Dr Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	0	0	0	**18**	0	6	**24**	6	130	0	136	0	**158**	12	**170**	330
03:15 PM	0	0	0	0	3	0	5	8	17	115	0	132	0	149	8	157	297
03:30 PM	0	0	0	0	7	0	**10**	17	19	108	0	127	0	147	10	157	301
03:45 PM	0	0	0	0	8	0	7	15	**23**	**151**	0	**174**	0	138	**14**	152	**341**
Total Volume	0	0	0	0	36	0	28	64	65	504	0	569	0	592	44	636	1269
% App. Total	0	0	0		56.2	0	43.8		11.4	88.6	0		0	93.1	6.9		
PHF	.000	.000	.000	.000	.500	.000	.700	.667	.707	.834	.000	.818	.000	.937	.786	.935	.930
Cars & Buses	0	0	0	0	35	0	28	63	65	468	0	533	0	565	43	608	1204
% Cars & Buses	0	0	0	0	97.2	0	100	98.4	100	92.9	0	93.7	0	95.4	97.7	95.6	94.9
Trucks	0	0	0	0	1	0	0	1	0	36	0	36	0	27	1	28	65
% Trucks	0	0	0	0	2.8	0	0	1.6	0	7.1	0	6.3	0	4.6	2.3	4.4	5.1



A & R Engineering, Inc.

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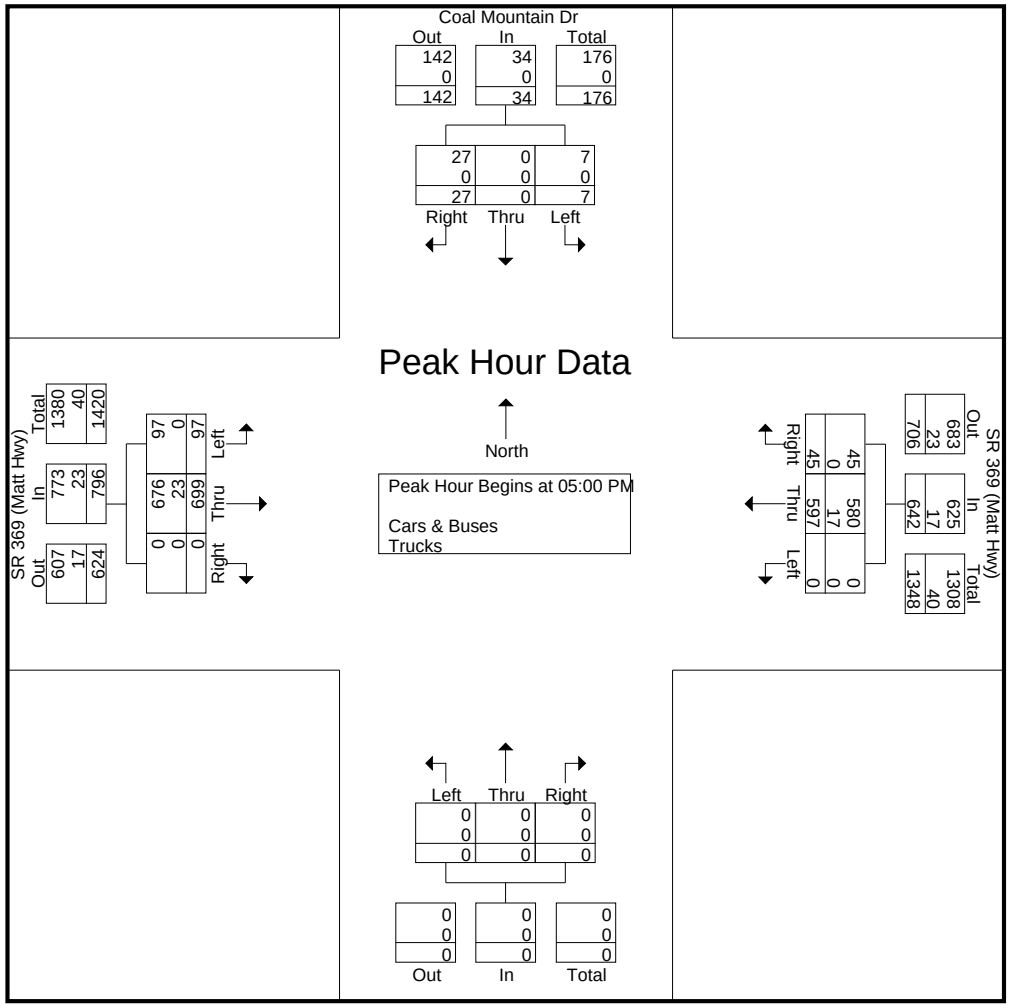
Marietta, GA 30067

TMC Data
SR 369 (Matt Hwy) @ Coal Mountain Dr
7-9 am | 2-4 pm | 4-6 pm

File Name : 20230110
Site Code : 20230110
Start Date : 05-03-2023
Page No : 4

	Northbound				Coal Mountain Dr Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt Hwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	**4**	0	**10**	**14**	**28**	160	0	188	0	143	7	150	352
05:15 PM	0	0	0	0	1	0	6	7	20	170	0	190	0	**161**	8	**169**	366
05:30 PM	0	0	0	0	0	0	7	7	27	177	0	204	0	143	12	155	366
05:45 PM	0	0	0	0	2	0	4	6	22	**192**	0	**214**	0	150	**18**	168	**388**
Total Volume	0	0	0	0	7	0	27	34	97	699	0	796	0	597	45	642	1472
% App. Total	0	0	0		20.6	0	79.4		12.2	87.8	0		0	93	7		
PHF	.000	.000	.000	.000	.438	.000	.675	.607	.866	.910	.000	.930	.000	.927	.625	.950	.948
Cars & Buses	0	0	0	0	7	0	27	34	97	676	0	773	0	580	45	625	1432
% Cars & Buses	0	0	0	0	100	0	100	100	100	96.7	0	97.1	0	97.2	100	97.4	97.3
Trucks	0	0	0	0	0	0	0	0	0	23	0	23	0	17	0	17	40
% Trucks	0	0	0	0	0	0	0	0	0	3.3	0	2.9	0	2.8	0	2.6	2.7



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TMC DATA
SR 369 (Matt Hwy-Brown Bridge Rd) @
SR 9 (Dahlonega Hwy)
7-9 am | 4-6 pm

File Name : 20230109
Site Code : 20230109
Start Date : 5/3/2023
Page No : 1

Groups Printed- Cars & Buses - Trucks

	SR 9 (Dahlonega Hwy) Northbound				SR 9 (Dahlonega Hwy) Southbound				SR 369 (Matt Hwy-Brown Bridge Rd) Eastbound				SR 369 (Matt Hwy-Brown Bridge 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	12	14	23	49	43	93	2	138	2	107	15	124	22	98	12	132	443
07:15 AM	9	23	21	53	51	95	3	149	7	109	19	135	32	93	15	140	477
07:30 AM	12	37	33	82	50	98	3	151	5	111	18	134	36	94	22	152	519
07:45 AM	10	29	25	64	42	96	5	143	6	108	21	135	32	97	13	142	484
Total	43	103	102	248	186	382	13	581	20	435	73	528	122	382	62	566	1923
08:00 AM	19	37	36	92	45	80	12	137	3	113	15	131	21	81	15	117	477
08:15 AM	11	38	23	72	42	86	4	132	7	108	20	135	42	80	34	156	495
08:30 AM	8	34	18	60	41	82	6	129	5	103	18	126	38	81	29	148	463
08:45 AM	14	30	19	63	37	77	10	124	7	94	13	114	34	77	27	138	439
Total	52	139	96	287	165	325	32	522	22	418	66	506	135	319	105	559	1874
*** BREAK ***																	
04:00 PM	12	48	19	79	33	32	7	72	12	128	13	153	27	124	20	171	475
04:15 PM	14	52	15	81	37	46	7	90	5	130	9	144	25	125	18	168	483
04:30 PM	12	56	17	85	42	49	6	97	7	128	10	145	20	130	19	169	496
04:45 PM	15	61	21	97	46	53	6	105	8	137	12	157	27	135	24	186	545
Total	53	217	72	342	158	180	26	364	32	523	44	599	99	514	81	694	1999
05:00 PM	16	73	41	130	29	55	6	90	14	107	17	138	30	111	30	171	529
05:15 PM	37	81	21	139	20	59	4	83	10	152	12	174	27	129	32	188	584
05:30 PM	14	84	31	129	27	56	7	90	12	117	16	145	26	133	19	178	542
05:45 PM	26	90	25	141	39	79	9	127	4	140	16	160	17	124	24	165	593
Total	93	328	118	539	115	249	26	390	40	516	61	617	100	497	105	702	2248
Grand Total	241	787	388	1416	624	1136	97	1857	114	1892	244	2250	456	1712	353	2521	8044
Apprch %	17	55.6	27.4		33.6	61.2	5.2		5.1	84.1	10.8		18.1	67.9	14		
Total %	3	9.8	4.8	17.6	7.8	14.1	1.2	23.1	1.4	23.5	3	28	5.7	21.3	4.4	31.3	
Cars & Buses	234	772	373	1379	608	1126	89	1823	100	1764	235	2099	437	1601	345	2383	7684
% Cars & Buses	97.1	98.1	96.1	97.4	97.4	99.1	91.8	98.2	87.7	93.2	96.3	93.3	95.8	93.5	97.7	94.5	95.5
Trucks	7	15	15	37	16	10	8	34	14	128	9	151	19	111	8	138	360
% Trucks	2.9	1.9	3.9	2.6	2.6	0.9	8.2	1.8	12.3	6.8	3.7	6.7	4.2	6.5	2.3	5.5	4.5

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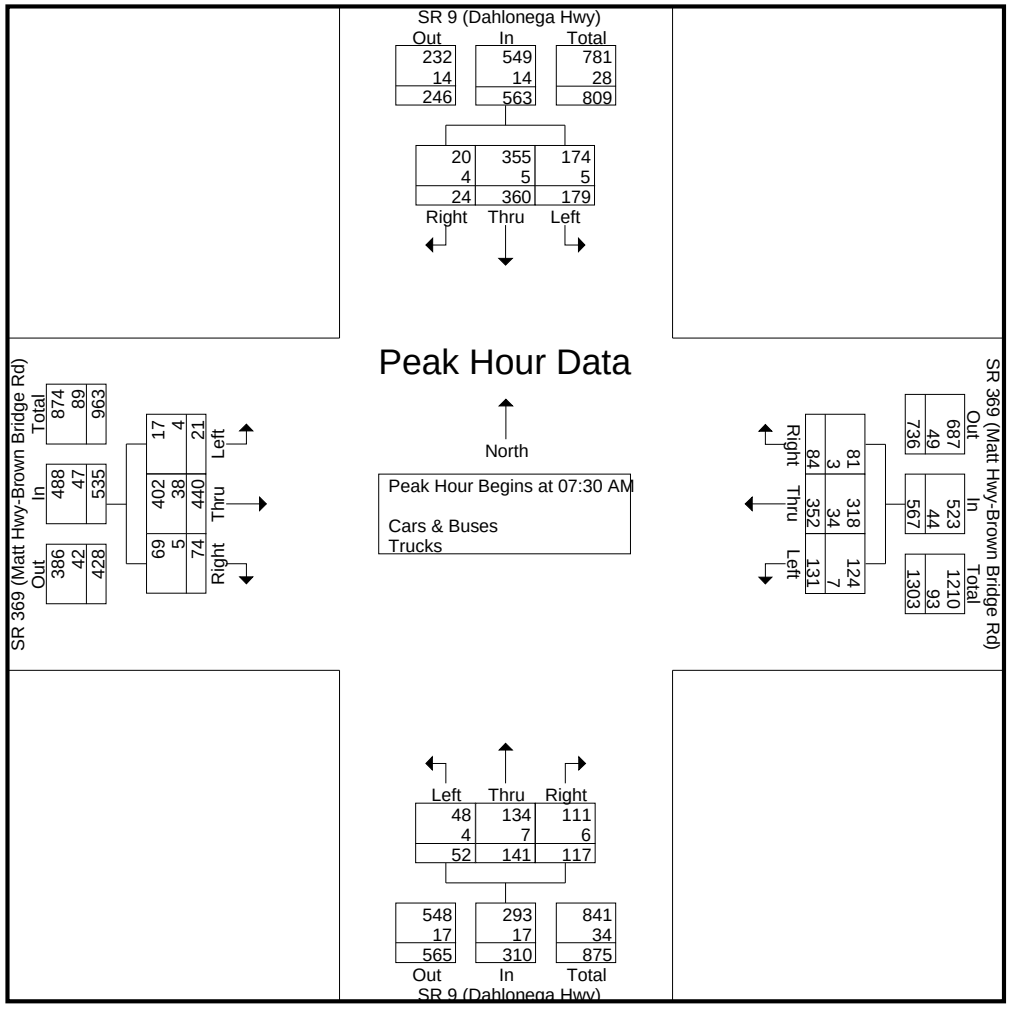
TMC DATA
SR 369 (Matt Hwy-Brown Bridge Rd) @
SR 9 (Dahlonega Hwy)
7-9 am | 4-6 pm

File Name : 20230109
Site Code : 20230109
Start Date : 5/3/2023
Page No : 2

	SR 9 (Dahlonega Hwy) Northbound				SR 9 (Dahlonega Hwy) Southbound				SR 369 (Matt Hwy-Brown Bridge Rd) Eastbound				SR 369 (Matt Hwy-Brown Bridge 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 07:30 AM																	
07:30 AM	12	37	33	82	**50**	**98**	3	**151**	5	111	18	134	36	94	22	152	**519**
07:45 AM	10	29	25	64	42	96	5	143	6	108	**21**	**135**	32	**97**	13	142	484
08:00 AM	**19**	37	**36**	**92**	45	80	**12**	137	3	**113**	15	131	21	81	15	117	477
08:15 AM	11	**38**	23	72	42	86	4	132	**7**	108	20	135	**42**	80	**34**	**156**	495
Total Volume	52	141	117	310	179	360	24	563	21	440	74	535	131	352	84	567	1975
% App. Total	16.8	45.5	37.7		31.8	63.9	4.3		3.9	82.2	13.8		23.1	62.1	14.8		
PHF	.684	.928	.813	.842	.895	.918	.500	.932	.750	.973	.881	.991	.780	.907	.618	.909	.951
Cars & Buses	48	134	111	293	174	355	20	549	17	402	69	488	124	318	81	523	1853
% Cars & Buses	92.3	95.0	94.9	94.5	97.2	98.6	83.3	97.5	81.0	91.4	93.2	91.2	94.7	90.3	96.4	92.2	93.8
Trucks	4	7	6	17	5	5	4	14	4	38	5	47	7	34	3	44	122
% Trucks	7.7	5.0	5.1	5.5	2.8	1.4	16.7	2.5	19.0	8.6	6.8	8.8	5.3	9.7	3.6	7.8	6.2



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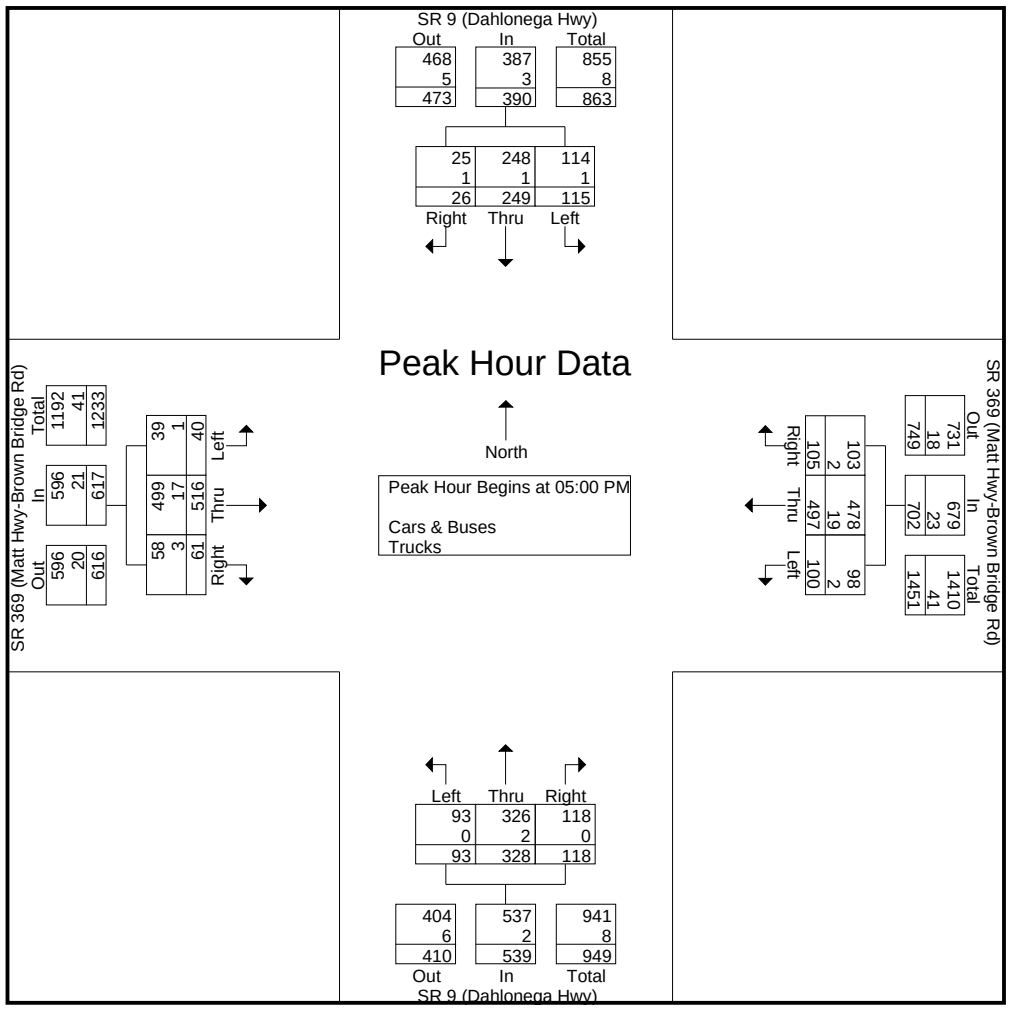
TMC DATA
SR 369 (Matt Hwy-Brown Bridge Rd) @
SR 9 (Dahlonega Hwy)
7-9 am | 4-6 pm

File Name : 20230109
Site Code : 20230109
Start Date : 5/3/2023

	SR 9 (Dahlonega Hwy) Northbound				SR 9 (Dahlonega Hwy) Southbound				SR 369 (Matt Hwy-Brown Bridge Rd) Eastbound				SR 369 (Matt Hwy-Brown Bridge 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	16	73	**41**	130	29	55	6	90	**14**	107	**17**	138	**30**	111	30	171	529
05:15 PM	**37**	81	21	139	20	59	4	83	10	**152**	12	**174**	27	129	**32**	**188**	584
05:30 PM	14	84	31	129	27	56	7	90	12	117	16	145	26	**133**	19	178	542
05:45 PM	26	**90**	25	**141**	**39**	**79**	**9**	**127**	4	140	16	160	17	124	24	165	**593**
Total Volume	93	328	118	539	115	249	26	390	40	516	61	617	100	497	105	702	2248
% App. Total	17.3	60.9	21.9		29.5	63.8	6.7		6.5	83.6	9.9		14.2	70.8	15		
PHF	.628	.911	.720	.956	.737	.788	.722	.768	.714	.849	.897	.886	.833	.934	.820	.934	.948
Cars & Buses	93	326	118	537	114	248	25	387	39	499	58	596	98	478	103	679	2199
% Cars & Buses	100	99.4	100	99.6	99.1	99.6	96.2	99.2	97.5	96.7	95.1	96.6	98.0	96.2	98.1	96.7	97.8
Trucks	0	2	0	2	1	1	1	3	1	17	3	21	2	19	2	23	49
% Trucks	0	0.6	0	0.4	0.9	0.4	3.8	0.8	2.5	3.3	4.9	3.4	2.0	3.8	1.9	3.3	2.2



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2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 369 (Matt Hwy) @ Settingdown Rd
7-9 am | 4-6 pm

File Name : 20230108
Site Code : 20230108
Start Date : 5/3/2023
Page No : 1

Groups Printed- Cars & Buses - Trucks

	Northbound				Settingdown Rd Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	10	0	31	41	13	160	0	173	0	101	6	107	321
07:15 AM	0	0	0	0	5	0	21	26	17	164	0	181	0	119	11	130	337
07:30 AM	0	0	0	0	11	0	39	50	27	167	0	194	0	113	10	123	367
07:45 AM	0	0	0	0	11	0	33	44	18	157	0	175	0	109	11	120	339
Total	0	0	0	0	37	0	124	161	75	648	0	723	0	442	38	480	1364
08:00 AM	0	0	0	0	7	0	26	33	23	171	0	194	0	91	10	101	328
08:15 AM	0	0	0	0	12	0	37	49	11	162	0	173	0	119	9	128	350
08:30 AM	0	0	0	0	3	0	24	27	19	143	0	162	0	124	7	131	320
08:45 AM	0	0	0	0	7	0	19	26	11	138	0	149	0	119	15	134	309
Total	0	0	0	0	29	0	106	135	64	614	0	678	0	453	41	494	1307
*** BREAK ***																	
04:00 PM	0	0	0	0	7	0	34	41	8	172	0	180	0	136	30	166	387
04:15 PM	0	0	0	0	8	0	28	36	11	171	0	182	0	140	30	170	388
04:30 PM	0	0	0	0	5	0	23	28	9	178	0	187	0	146	27	173	388
04:45 PM	0	0	0	0	8	0	19	27	16	188	0	204	0	166	24	190	421
Total	0	0	0	0	28	0	104	132	44	709	0	753	0	588	111	699	1584
05:00 PM	0	0	0	0	4	0	31	35	25	151	0	176	0	140	32	172	383
05:15 PM	0	0	0	0	5	0	18	23	29	164	0	193	0	169	26	195	411
05:30 PM	0	0	0	0	7	0	29	36	27	148	0	175	0	149	32	181	392
05:45 PM	0	0	0	0	5	0	26	31	28	175	0	203	0	139	32	171	405
Total	0	0	0	0	21	0	104	125	109	638	0	747	0	597	122	719	1591
Grand Total	0	0	0	0	115	0	438	553	292	2609	0	2901	0	2080	312	2392	5846
Apprch %	0	0	0		20.8	0	79.2		10.1	89.9	0		0	87	13		
Total %	0	0	0	0	2	0	7.5	9.5	5	44.6	0	49.6	0	35.6	5.3	40.9	
Cars & Buses	0	0	0	0	112	0	429	541	288	2454	0	2742	0	1951	310	2261	5544
% Cars & Buses	0	0	0	0	97.4	0	97.9	97.8	98.6	94.1	0	94.5	0	93.8	99.4	94.5	94.8
Trucks	0	0	0	0	3	0	9	12	4	155	0	159	0	129	2	131	302
% Trucks	0	0	0	0	2.6	0	2.1	2.2	1.4	5.9	0	5.5	0	6.2	0.6	5.5	5.2

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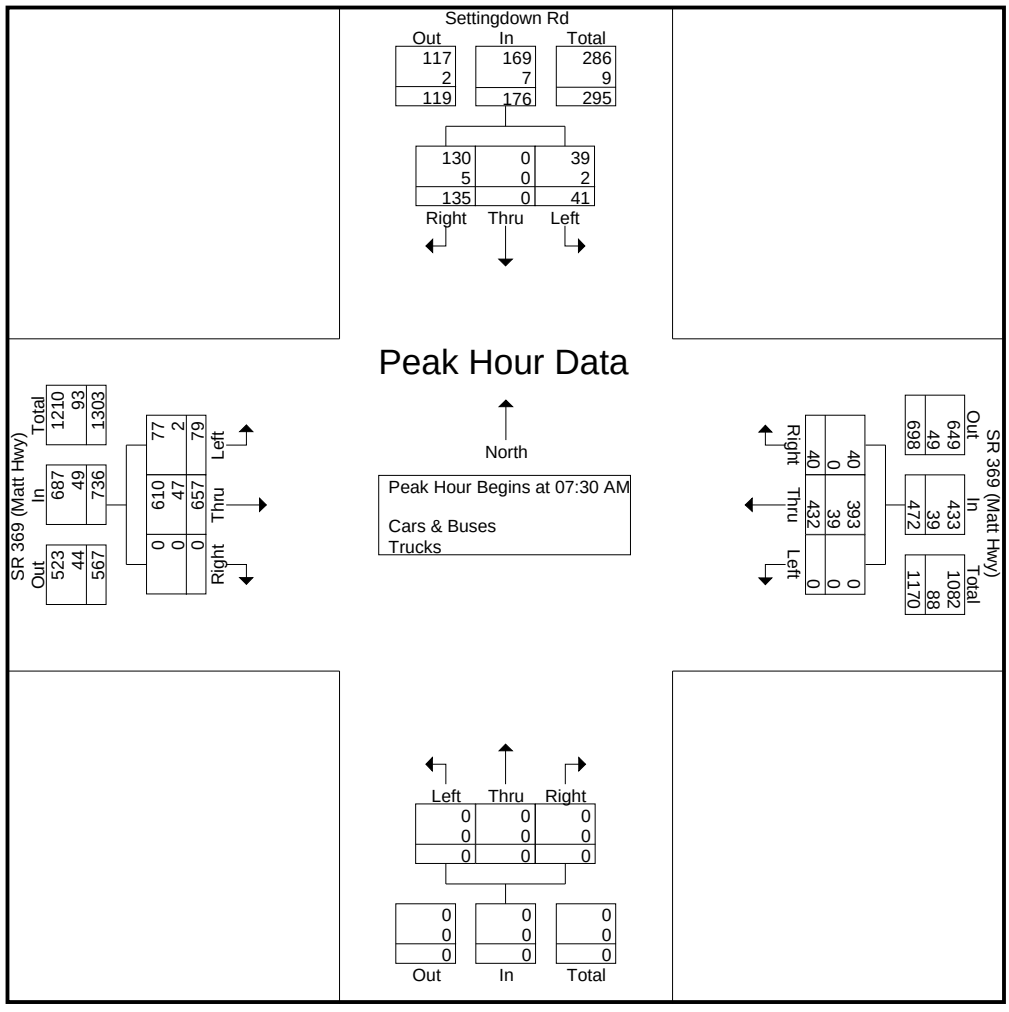
TMC DATA
SR 369 (Matt Hwy) @ Settingdown Rd
7-9 am | 4-6 pm

File Name : 20230108
Site Code : 20230108
Start Date : 5/3/2023
Page No : 2

	Northbound				Settingdown Rd Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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	11	0	**39**	**50**	**27**	167	0	**194**	0	113	10	123	**367**
07:45 AM	0	0	0	0	11	0	33	44	18	157	0	175	0	109	**11**	120	339
08:00 AM	0	0	0	0	7	0	26	33	23	**171**	0	194	0	91	10	101	328
08:15 AM	0	0	0	0	**12**	0	37	49	11	162	0	173	0	**119**	9	**128**	350
Total Volume	0	0	0	0	41	0	135	176	79	657	0	736	0	432	40	472	1384
% App. Total	0	0	0		23.3	0	76.7		10.7	89.3	0		0	91.5	8.5		
PHF	.000	.000	.000	.000	.854	.000	.865	.880	.731	.961	.000	.948	.000	.908	.909	.922	.943
Cars & Buses	0	0	0	0	39	0	130	169	77	610	0	687	0	393	40	433	1289
% Cars & Buses	0	0	0	0	95.1	0	96.3	96.0	97.5	92.8	0	93.3	0	91.0	100	91.7	93.1
Trucks	0	0	0	0	2	0	5	7	2	47	0	49	0	39	0	39	95
% Trucks	0	0	0	0	4.9	0	3.7	4.0	2.5	7.2	0	6.7	0	9.0	0	8.3	6.9



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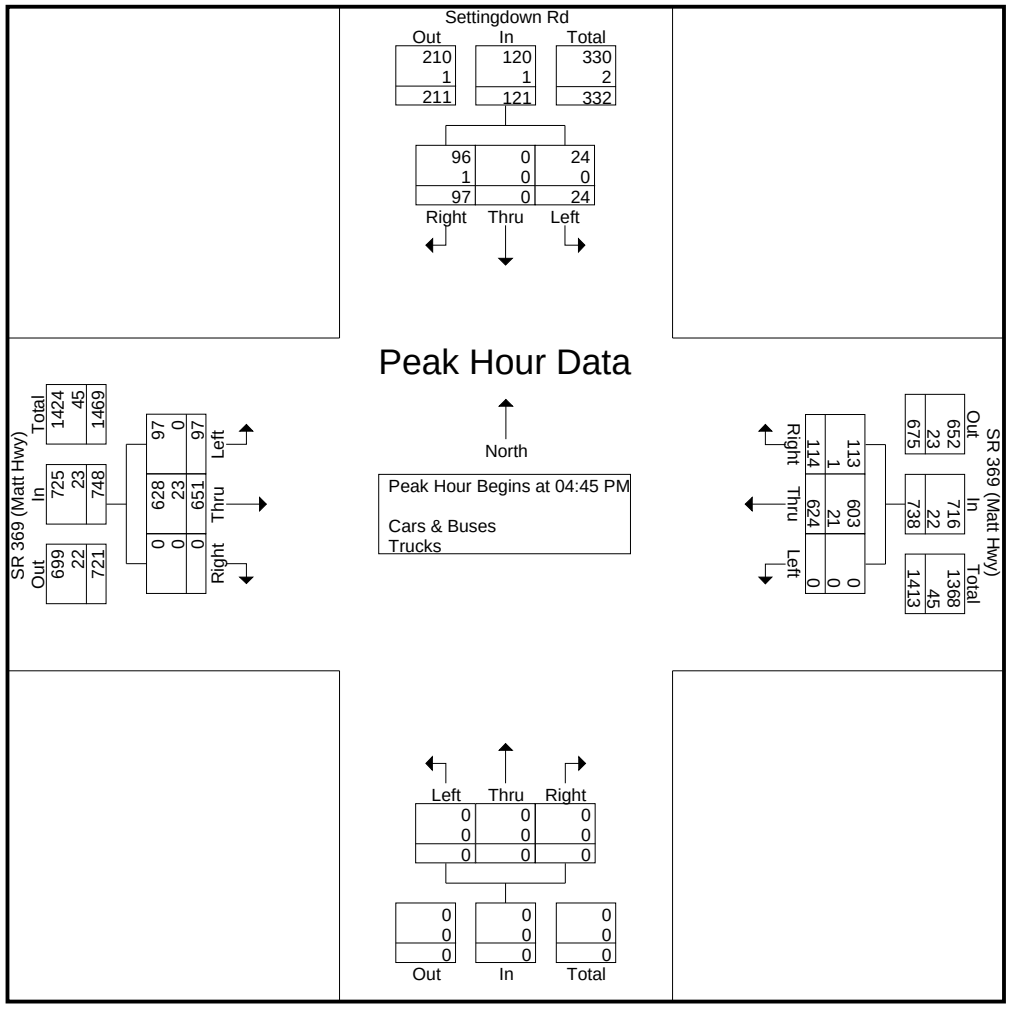
Marietta, GA 30067

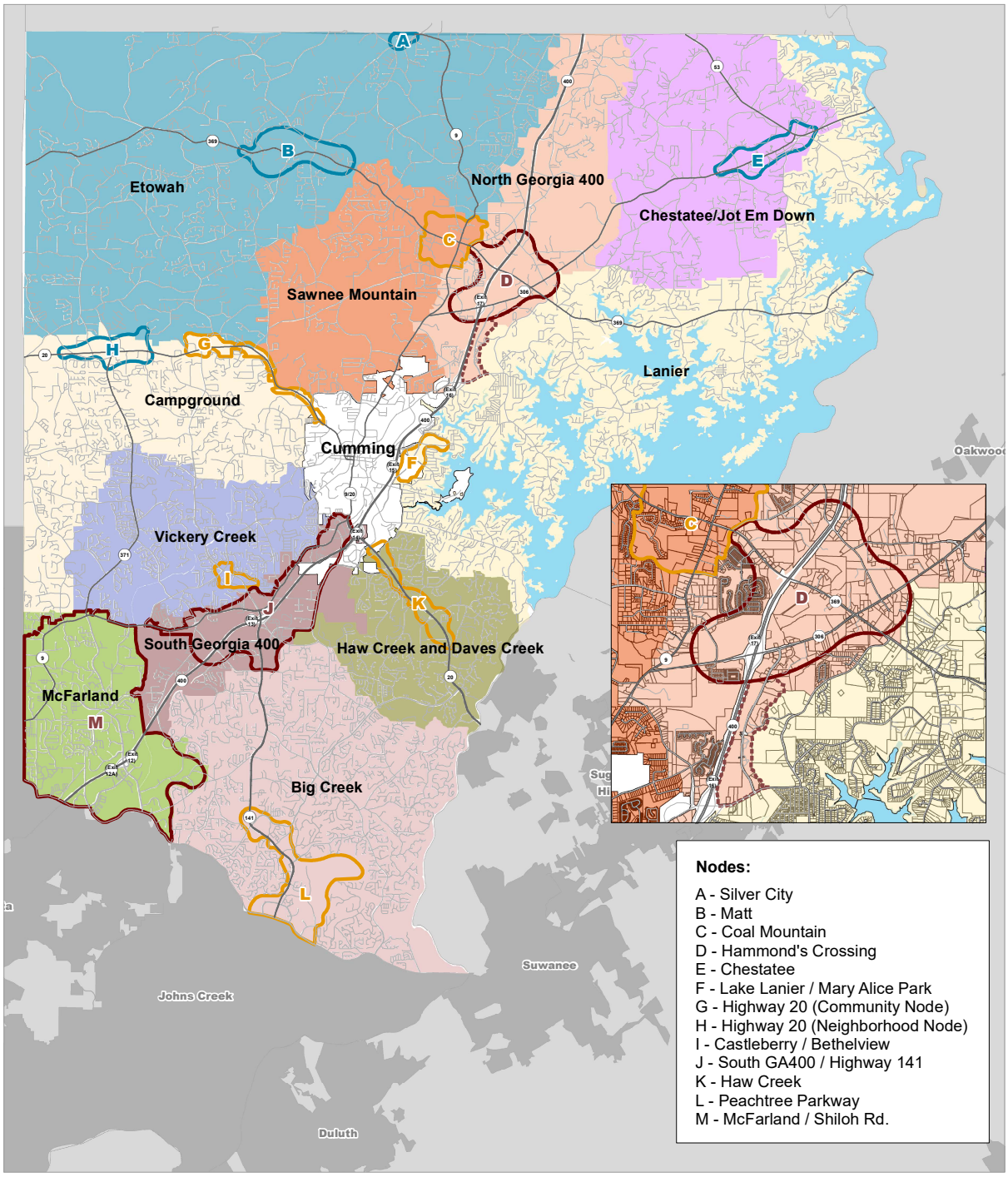
TMC DATA
SR 369 (Matt Hwy) @ Settingdown Rd
7-9 am | 4-6 pm

File Name : 20230108
Site Code : 20230108
Start Date : 5/3/2023
Page No : 3

	Northbound				Settingdown Rd Southbound				SR 369 (Matt Hwy) Eastbound				SR 369 (Matt 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 04:45 PM																	
04:45 PM	0	0	0	0	**8**	0	19	27	16	**188**	0	**204**	0	166	24	190	**421**
05:00 PM	0	0	0	0	4	0	**31**	35	25	151	0	176	0	140	**32**	172	383
05:15 PM	0	0	0	0	5	0	18	23	**29**	164	0	193	0	**169**	26	**195**	411
05:30 PM	0	0	0	0	7	0	29	**36**	27	148	0	175	0	149	32	181	392
Total Volume	0	0	0	0	24	0	97	121	97	651	0	748	0	624	114	738	1607
% App. Total	0	0	0		19.8	0	80.2		13	87	0		0	84.6	15.4		
PHF	.000	.000	.000	.000	.750	.000	.782	.840	.836	.866	.000	.917	.000	.923	.891	.946	.954
Cars & Buses	0	0	0	0	24	0	96	120	97	628	0	725	0	603	113	716	1561
% Cars & Buses	0	0	0	0	100	0	99.0	99.2	100	96.5	0	96.9	0	96.6	99.1	97.0	97.1
Trucks	0	0	0	0	0	0	1	1	0	23	0	23	0	21	1	22	46
% Trucks	0	0	0	0	0	0	1.0	0.8	0	3.5	0	3.1	0	3.4	0.9	3.0	2.9



Character Areas



Character Areas

- Lanier
- Big Creek
- Haw Creek and Daves Creek
- Vickery Creek
- South Georgia 400
- Sawnee Mountain
- Etowah
- Campground
- North Georgia 400
- Chestatee/Jot Em Down
- McFarland

Nodes

- **Community**
- **Neighborhood**
- **Regional**

Proposed Hammond's Crossing Node Expansion

North Georgia 400 Character Area expanded to same area, Lanier Character Area reduced (proposed)

Community Character Map Draft
Forsyth County Georgia
GIS Department

0 2,600 5,200 10,400
Feet

Date created: 9/29/2021

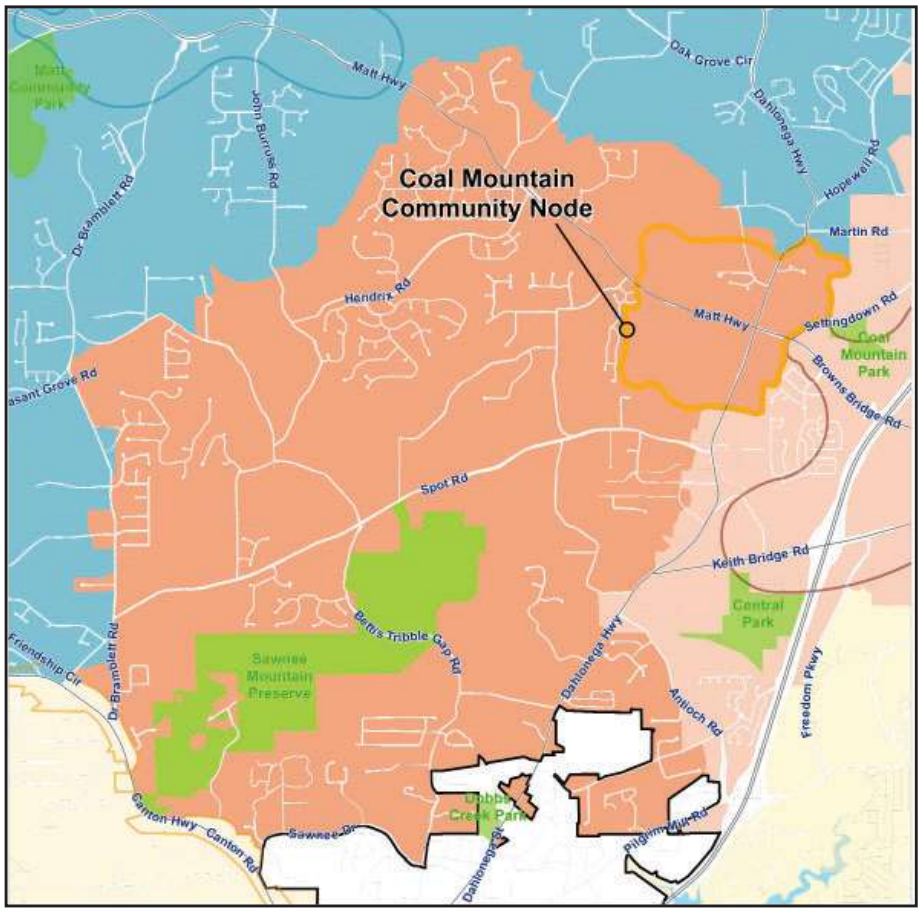
Coordinate System:
State Plane, Georgia West FIPS 1002
Feet - U.S. Survey
Projection:
Transverse Mercator
Datum:
North American Datum of 1983
Major Source: County's GIS Databases
Created in ArcGIS 10.6 using ArcMap
Produced by Forsyth County
Geographic Information Services
COPYRIGHT Forsyth County, GA 2019

11

SAWNEE MOUNTAIN

LOCATION:

The Sawnee Mountain character area includes Sawnee Mountain and the area westward to Dr. Bramblett Road and eastward to Dahlonega Highway.



CHARACTER TODAY:

The Sawnee Mountain character area is mostly park and agricultural land. The developed land in this character area includes mostly detached, single-family properties on large-sized lots.

CHARACTER AREA GOALS:

- Preserve the natural features around Sawnee Mountain.
- Create a community node along Highway 369.
- Encourage low-intensity residential development outside of the node north of Sawnee Mountain.

FUTURE CHARACTER:

The Sawnee Mountain character area is an important natural and cultural node for Forsyth County. The area should be preserved while encouraging commercial development in a village-scale town center. Residential developments without a commercial component should be less intense and use high-quality design and preservation strategies.

APPROPRIATE ZONING CLASSIFICATIONS:

		Sawnee Mountain	
		Ch. Area	Co. Node
Residential	RES1	✓	
	RES2	✓	
	RES3		✓
	RES4		
	RES6		
	MHP		
Commercial	NS		
	UV		
	CBD	✓	✓
	HB	✓	
	HC	✓	✓
Office	BP		
	O&I		✓
	OR	✓	✓
	OCMS		
Industrial	M1	✓	✓
	M2	✓	
	MINE	✓	
Agricultural	A1	✓	✓
	AgRES	✓	✓
Mixed-use	MPD		✓
	MU-C		✓
	MU-R		

M2 and MINE are identified in areas where those uses currently exist. Designation of those classifications within the table is not a recommendation for additional rezonings to those categories.

NON-RESIDENTIAL DESIGN GUIDELINES AND STRATEGIES:

- Future commercial development should primarily be located within identified development nodes or within the Coal Mountain Overlay. Outside of these areas, commercial uses should be limited to designated commercial corridors. Commercial uses along commercial corridors should be located at or adjacent to major intersections or adjacent to other commercial uses and where infrastructure is in place to accommodate higher intensity uses.
- Non-Residential development outside of the Coal Mountain Community Node should be lower in scale and intensity and reflect the architectural quality of the Sawnee Mountain area.

Coal Mountain Community Node

- Architectural design should mimic contemporary mountain village character with the usage of high quality building materials.
- Buildings should be oriented close to the roadway with streetscape amenities for promotion of a high quality, live-play-work experience that has a defined sense of place.
- Encourage retrofitting existing commercial and retail strip development where appropriate in areas that are likely to undergo renovation or potential demolition in the long-range planning period.

NON-RESIDENTIAL INTENSITY SCALES AND VISUAL CHARACTER

Commercial and Town Center

Office and Industry

RESIDENTIAL DESIGN GUIDELINES AND STRATEGIES:

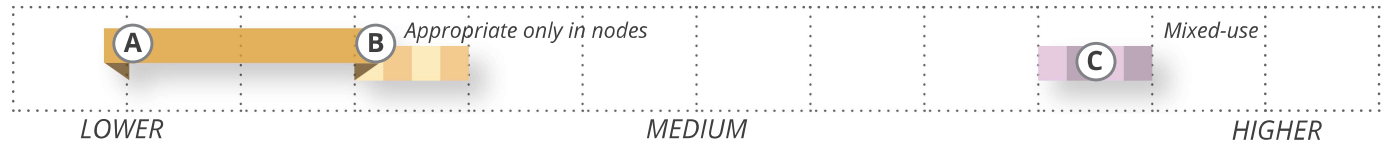
- New residential development should use a variety of techniques to avoid the monotonous appearance of identical homes. In addition, building materials shall be of high quality such as brick, stone, wood or cementious siding.
- Retain low intensity residential community character.
- Support existing and proposed agricultural activities such as equestrian-related commercial usage, farm wineries and landscape nurseries. This includes appropriate accessory uses such as barns, corrals, grazing areas, stables, wine tasting halls, landscape production facilities and similar structures.

Coal Mountain Community Node

- Multi-family residential units are only permitted in mixed-use developments.
- All ground floor residential units and detached or attached single-family residential units must have a stoop or porch with direct sidewalk access and visible frontage to the primary street.

RESIDENTIAL INTENSITY SCALES AND VISUAL CHARACTER

Residential



4.4 SUMMARY ZONING MATRIX

OVERVIEW

A summary table of appropriate zoning districts by character area and development nodes is provided on the following pages. This is the same content provided for within each character area narrative. The summary table is intended to ease day-to-day use of the *Comprehensive Plan* in rezoning decisions.

ZONING MATRIX METHODOLOGY

During the Design Workshops community members provided feedback on multiple exercises regarding the development intensity they felt was appropriate for each of the 11 character areas. That data was directly utilized to create an initial pass at character area intensities. These intensities were cross referenced with existing zoning classifications and with the communities vision to develop the zoning matrix. Development nodes were seen as the center for each character area. Zoning Classifications were crafted for these nodes to help foster appropriate future development within them. Recommendations for additional residential and mixed-use zoning classifications were presented to the Foster Forsyth Steering Committee. Industrial zoning (M1, M2, MINE), Agricultural zoning (A1, Ag RES) and Manufactured Home Park Zoning (MHP) were reviewed and placed in districts were they are permitted today.

RECOMMENDED MIXED-USE DISTRICTS

Two Mixed-Use categories (MU-R: Mixed-Use Regional node and MU-C: Mixed-Use Community node) are recommended as a part of the *Foster Forsyth Comprehensive Plan Update*. These mixed-use categories are intended to encourage both vertical mixed-use and horizontal mixed-use developments within Regional and Community nodes. The details, requirements, and allowable densities will be determined by the County as the MU districts are further defined and developed. Generally Regional nodes should accommodate the most intense uses and Community nodes should be more modest in scale.

MASTER PLANNED DISTRICT (MPD)

Foster Forsyth generally aligns the MPD land use category to development nodes in most character areas. The Planning Team recommends MPD be modified to a residential-only category that includes a mix of lot sizes and product types.

COMMERCIAL CORRIDORS

Future commercial development should primarily be located within identified development nodes. Outside of these nodes, commercial uses should be limited to designated commercial corridors. Commercial uses along commercial corridors should be located at or adjacent to major intersections or adjacent to other commercial uses and where infrastructure is in place to accommodate higher intensity uses. Additional standards or requirements may be applied through overlays. Corridors that are currently designated as commercial corridors include Highway 9, McFarland Parkway, Union Hill Road, Shiloh Road (partial), McGinnis Ferry Road, Mullinax Road (partial), Bethelview Road, Post Road, Ronald Reagan Boulevard, and Peachtree Parkway.

MHP, M2, MINE

In the zoning classification tables within each character area MHP, M2, and MINE are identified in areas where those uses currently exist. Designation of those classifications within the table is not a recommendation for additional rezonings to those categories.

RES3 AND RES4

The Planning Team recommends enhancing the architectural design and site design standards for both RES3 and RES4 zoning classifications. Tree preservation strategies and limits to mass grading should also be reinforced as part of the increased design standards. The County should update the RES3 and RES4 classifications or incorporate these standards prior to new development approvals.

Figure 4.1: Summary Zoning Matrix

		McFarland		South Georgia 400		Big Creek		Haw Creek/Dave's Creek	
		Ch. Area	Reg. Node	Ch. Area	Reg. Node	Ch. Area	Co. Node	Ch. Area	Co. Node
Residential	RES1	✓		✓		✓		✓	
	RES2	✓		✓		✓		✓	
	RES3	✓	✓	✓		✓		✓	
	RES4	✓		✓					
	RES6			✓					
	MHP								
Commercial	NS	✓	✓	✓	✓	✓	✓	✓	✓
	UV	✓		✓		✓	✓	✓	✓
	CBD	✓	✓	✓	✓	✓	✓	✓	✓
	HB	✓				✓		✓	✓
	HC	✓	✓	✓	✓				
Office	BP	✓	✓	✓	✓		✓	✓	✓
	O&I	✓	✓	✓	✓	✓	✓	✓	✓
	OR	✓	✓	✓	✓	✓	✓	✓	✓
	OCMS		✓	✓	✓				
Industrial	M1	✓	✓	✓	✓	✓	✓	✓	✓
	M2	✓	✓			✓		✓	
	MINE					✓			
Agricultural	A1	✓		✓		✓		✓	
	AgRES	✓		✓		✓	✓	✓	✓
Mixed-use	MPD		✓		✓		✓		✓
	MU-C						✓		✓
	MU-R		✓		✓				

ZONING CATEGORIES			
Residential	Res1, Single Family	Office	BP, Business Park
	Res2, Single Family		O&I, Office and Institutional District
	Res3, Single Family		OR, Office Residential District
	Res4, Single Family		OCMS, Office Commercial Multiple Story District
	Res6, Multi-Family	Industrial	M1, Restricted Industrial District
	MHP, Manufactured Home Park		M2, Heavy Industrial District
			MINE, Mining Operations District
Commercial	NS, Neighborhood Shopping District	Agricultural	A1, Agricultural District
	UV, Urban Village District		AgRES, Agricultural Residential District
	CBD, Commercial Business District	Mixed-use	MPD, Master Planned District
	HB, Highway Business District		MU-C Mixed-use Commercial Node
	HC, Heavy Commercial District		MU-R Mixed-use Regional Node

NODE CATEGORIES

Regional Node **Community Node** **Neighborhood Node**

		Lanier		Vickery Creek		Campground		
		Ch. Area	Co. Node	Ch. Area	Co. Node	Ch. Area	Nb. Node	Co. Node
Residential	RES1	✓		✓		✓	✓	
	RES2	✓		✓	✓	✓	✓	✓
	RES3			✓	✓			✓
	RES4		✓		✓			
	RES6		✓		✓			
	MHP							
Commercial	NS	✓	✓	✓	✓		✓	✓
	UV		✓		✓			
	CBD	✓	✓	✓	✓	✓	✓	✓
	HB	✓				✓	✓	✓
	HC	✓	✓		✓	✓	✓	✓
Office	BP		✓		✓			
	O&I		✓	✓	✓		✓	✓
	OR	✓	✓	✓	✓	✓	✓	✓
	OCMS		✓	✓				
Industrial	M1	✓	✓	✓	✓	✓	✓	✓
	M2							
	MINE							
Agricultural	A1	✓		✓		✓	✓	✓
	AgRES	✓	✓	✓	✓	✓	✓	✓
Mixed-use	MPD		✓		✓		✓	✓
	MUC		✓		✓			✓
	MUR							

ZONING CATEGORIES			
Residential	Res1, Single Family	Office	BP, Business Park
	Res2, Single Family		O&I, Office and Institutional District
	Res3, Single Family		OR, Office Residential District
	Res4, Single Family		OCMS, Office Commercial Multiple Story District
	Res6, Multi-Family	Industrial	M1, Restricted Industrial District
	MHP, Manufactured Home Park		M2, Heavy Industrial District
			MINE, Mining Operations District
Commercial	NS, Neighborhood Shopping District	Agricultural	A1, Agricultural District
	UV, Urban Village District		AgRES, Agricultural Residential District
	CBD, Commercial Business District	Mixed-use	MPD, Master Planned District
	HB, Highway Business District		MU-C Mixed-use Commercial Node
	HC, Heavy Commercial District		MU-R Mixed-use Regional Node

NODE CATEGORIES

Regional Node **Community Node** **Neighborhood Node**

		North Georgia 400		Chestatee/J.E.D		Etowah		Sawnee Mountain	
		Ch. Area	Reg. Node	Ch. Area	Nb. Node	Ch. Area	Nb. Node	Ch. Area	Co. Node
Residential	RES1	✓		✓		✓		✓	
	RES2	✓		✓	✓	✓	✓	✓	
	RES3	✓	✓		✓		✓		✓
	RES4		✓						
	RES6		✓						
	MHP			✓		✓			
Commercial	NS	✓	✓				✓		
	UV	✓	✓						
	CBD	✓	✓	✓	✓	✓	✓	✓	✓
	HB			✓	✓	✓	✓	✓	
	HC	✓	✓	✓	✓	✓	✓	✓	✓
Office	BP	✓	✓						
	O&I	✓	✓		✓		✓		✓
	OR	✓	✓	✓	✓	✓	✓	✓	✓
	OCMS		✓						
Industrial	M1	✓	✓		✓	✓	✓	✓	✓
	M2	✓	✓			✓		✓	
	MINE					✓		✓	
Agricultural	A1	✓		✓	✓	✓	✓	✓	✓
	AgRES	✓	✓	✓	✓	✓	✓	✓	✓
Mixed-use	MPD		✓		✓		✓		✓
	MU-C								✓
	MU-R		✓						

ZONING CATEGORIES			
Residential	Res1, Single Family	Office	BP, Business Park
	Res2, Single Family		O&I, Office and Institutional District
	Res3, Single Family		OR, Office Residential District
	Res4, Single Family		OCMS, Office Commercial Multiple Story District
	Res6, Multi-Family	Industrial	M1, Restricted Industrial District
	MHP, Manufactured Home Park		M2, Heavy Industrial District
			MINE, Mining Operations District
Commercial	NS, Neighborhood Shopping District	Agricultural	A1, Agricultural District
	UV, Urban Village District		AgRES, Agricultural Residential District
	CBD, Commercial Business District	Mixed-use	MPD, Master Planned District
	HB, Highway Business District		MU-C Mixed-use Commercial Node
	HC, Heavy Commercial District		MU-R Mixed-use Regional Node

NODE CATEGORIES

Regional Node **Community Node** **Neighborhood Node**

GRTA Letter of Understanding

LETTER OF UNDERSTANDING

April 26, 2023

Habib Bokhari
2300 Chalet Trail
Kerrville, TX 78208

RE: **3970 Matt Highway (#3923)**

Dear Habib Bokhari:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on March 14, 2023 regarding **3970 Matt Highway** Development of Regional Impact (DRI). The *GRTA DRI Review Procedures*, as well as the inputs and parameters documented in this Letter of Understanding and the revised Methodology Meeting Packet, shall be adhered to in preparing the GRTA required Transportation Study.

PROJECT OVERVIEW

- The proposed site is located at 3970 Matt Highway,Cumming, GA 30028 northeast of Matt Highway at the intersection with Gravitt Road.
- The proposed development includes 186 single family detached housing units, 75 single family attached housing units, 33, 600 square feet of strip retail plaza and 5,000 square feet of fast food space with drive through window.
- The projected build-out is one phase to be completed by 2029.
- The proposed development includes (4) site accesses along Matt Highway and the access road to Forsyth North Transportation Center.
- The DRI trigger for this development is a rezoning.
- The vehicular trip generation is estimated to be 4,706 net daily trips based on the *ITE Trip Generation Manual 11th edition.*
- The applicant is applying for approval under GRTA's expedited/non-expedited Traffic Impact Study/Limited Trip Generation/Alternative Study Option review process.

STUDY NETWORK

1. SR 369 (Matt Highway) and Gravitt Road (School Peak Hour)
2. SR 369 (Matt Highway) and Forsyth North Transportation Center Driveway (School Peak Hour)
3. SR 369 (Matt Highway) and Sierra Lake Drive
4. SR 369 (Matt Highway) and Elementary school exit only Driveway (School Peak Hour)
5. SR 369 (Matt Highway) and Coal Mountain Drive (School Peak Hour)
6. SR 369 (Matt Highway/Browns Bridge Road) and SR 9 (Dahlonega Highway)
7. SR 369 (Browns Bridge Road) and Settingdown Road

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 2029

- 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 allowed for this site. Pass-by reductions shall not exceed 15% of a roadway's traffic volume standard established in Appendix 7.2.

- The trip assignment approach in the revised Methodology Meeting Packet shall be utilized for all Study Network intersection movements.

- The applicant shall research TIP, STIP, RTP and GDOT's construction work program, as well as any local government and transit operator plans (SPLOST, CIP, etc.), to determine the open date, sponsor, cost of the project, funding source(s), for future roadway projects in the project vicinity. Programmed transportation projects anticipated to open on or before the Build Out year of the DRI Project shall be modeled as completed in the No-Build and Build conditions unless approved otherwise.

- A 2.2% 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).

- If the *GRTA DRI Review Procedures* requires an Enhanced Focus Area for Heavy Vehicles or an Enhanced Focus Area for Dense Urban Environments, the Transportation Study shall incorporate the inputs and parameters agreed to at the Methodology Meeting and documented in the revised Methodology Meeting Packet. These inputs may include a Heavy Vehicle modeling percentages, a Heavy Vehicle route map, a pedestrian crosswalk delay adjustment and a bus blockage adjustment factor.

ADDITIONAL REQUIREMENTS

All applicable requirements of the *GRTA DRI Review Procedures* must be met for the Transportation Study to be considered complete. The *GRTA DRI Review Procedures* are located on GRTA's DRI website: https://www.srta.ga.gov/programs-projects/dev-of-regional-impact/ Contact GRTA staff if you have any questions on these requirements.

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

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

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

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

DRI REVIEW PACKAGE SUBMITTAL

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

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

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

Sincerely,

December Weir
Transit & Transportation Planner

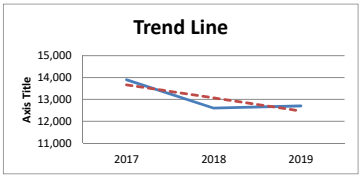
Cc:

Donald Shockey, ARC
Reginald James, ARC
Brett Buchanan, Cherokee County
Leslie Silas, Foryth County
Vanessa Bernstein-Goldman, Foryth County
Charles Stickels, Foryth County
Tim Allen, Foryth County
December Weir, GRTA/ATL
Elizabeth Davis, GRTA/ATL
Jonathan Peevy, GDOT
William Hunter, GDOT
Abdul Amer, A&R Engineering
Ethan Underwood, Miles Hansford & Tallant, LLC
Bryceson Mercer, Miles Hansford & Tallant, LLC

Linear Regression of Daily Traffic

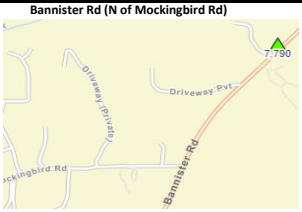
Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019
SR 369 (Matt Hwy) (NW of Hubert Martin Rd	-4.5%	0.69	117-0067	00036900	13,900	12,600	12,700
Bannister Rd (N of Mockingbird Rd)	4.1%	0.93	117-0059	00000000	7,140	7,580	7,740
SR 9 (Dahlonega Hwy) (N of Oak Grove Cir)	0.5%	0.25	117-0021	00000900	4,760	4,710	4,810
SR 369 (Browns Bridge Rd) (E of Settingdown	7.9%	0.75	117-0069	00036900	16,300	16,300	18,900
SR 9 (Dahlonega Hwy) (NE of Keith Bridge Rd	1.3%	0.72	117-0015	00000900	9,250	9,240	9,490
Weighted Average	**2.2%**	0.48	Sum of Count Stations =		51,350	50,430	53,640

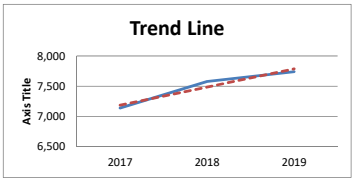
Location	Traffic Counter	RCLINK	2017	2018	2019
SR 369 (Matt Hwy) (NW of Hubert Martin Rd)	117-0067	00036900	13,900	12,600	12,700



Growth Rate	-4.5%	Intercept	1,223,867	Slope	-600.00
Trend Line			13,667	13,067	12,467

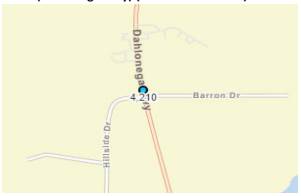
Location	Traffic Counter	RCLINK	2017	2018	2019
Bannister Rd (N of Mockingbird Rd)	117-0059	00000000	7,140	7,580	7,740

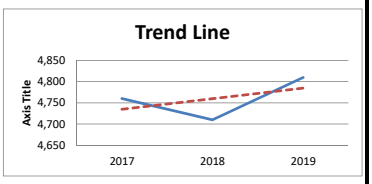




Growth Rate	4.1%	Intercept	-597,913	Slope	300.00
Trend Line			7,187	7,487	7,787

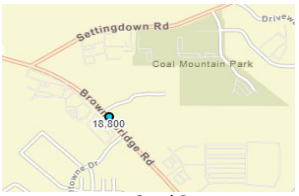
Location	Traffic Counter	RCLINK	2017	2018	2019
SR 9 (Dahlonega Hwy) (N of Oak Grove Cir)	117-0021	00000900	4,760	4,710	4,810

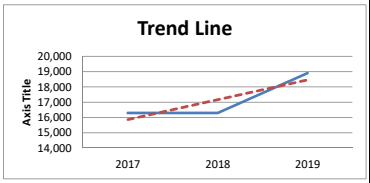




Growth Rate	0.5%	Intercept	-45,690	Slope	25.00
Trend Line			4,735	4,760	4,785

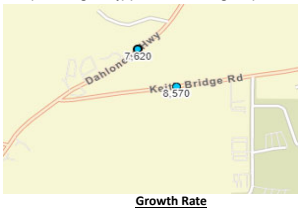
Location	Traffic Counter	RCLINK	2017	2018	2019
SR 369 (Browns Bridge Rd) (E of Settingdown Rd)	117-0069	00036900	16,300	16,300	18,900

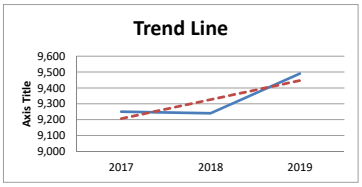




Growth Rate	7.9%	Intercept	-2,606,233	Slope	1,300.00
Trend Line			15,867	17,167	18,467

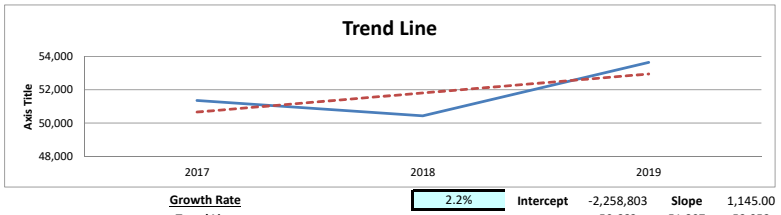
Location	Traffic Counter	RCLINK	2017	2018	2019
SR 9 (Dahlonega Hwy) (NE of Keith Bridge Rd)	117-0015	00000900	9,250	9,240	9,490





Growth Rate	1.3%	Intercept	-232,833	Slope	120.00
Trend Line			9,207	9,327	9,447

Weighted Average	2017	2018	2019
Sum of Count Stations	51,350	50,430	53,640



Growth Rate	2.2%	Intercept	-2,258,803	Slope	1,145.00
Trend Line			50,662	51,807	52,952

Fact Sheets for Planned and Programmed Improvements

FT-046

Atlanta Region's Plan RTP (2020) PROJECT FACT SHEET

Short Title	SPOT ROAD CONNECTOR (NEW ALIGNMENT) FROM INTERSECTION OF SR 306 AND SR 9 TO INTERSECTION OF SPOT ROAD AND MCCOY CIRCLE
GDOT Project No.	N/A
Federal ID No.	N/A
Status	Long Range
Service Type	Roadway / General Purpose Capacity
Sponsor	Forsyth County
Jurisdiction	Forsyth County
Analysis Level	In the Region's Air Quality Conformity Analysis

Existing Thru Lane	0	**LCI**		**Network Year**	2040
Planned Thru Lane	4	**Flex**		**Corridor Length**	2 miles

Detailed Description and Justification

This project would connect Spot Road and SR 9 by way of a new 4 lane road extending from the intersection of Spot Road and McCoy Circle to the intersection of SR 306 and SR 9.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
ALL	Local Jurisdiction/Municipality Funds		LR 2031-2040	**$1,056,700**	$0,000	$0,000	$0,000	$1,056,700
				$1,056,700	**$0,000**	**$0,000**	**$0,000**	**$1,056,700**

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion
UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

? For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.

Report Generated: 4/28/2022

FT-064

Atlanta Region's Plan RTP (2020) PROJECT FACT SHEET

Short Title	COAL MOUNTAIN CONNECTOR - NEW ALIGNMENT FROM BRIDGETOWNE DRIVE TO COAL MOUNTAIN DRIVE
GDOT Project No.	N/A
Federal ID No.	N/A
Status	Programmed
Service Type	Roadway / General Purpose Capacity
Sponsor	Forsyth County
Jurisdiction	Forsyth County
Analysis Level	In the Region's Air Quality Conformity Analysis

Existing Thru Lane	0	**LCI**		**Network Year**	2030
Planned Thru Lane	2	**Flex**		**Corridor Length**	1 miles

Detailed Description and Justification

This project will extend Coal Mountain Drive southeastward to Browns Bridge Road.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	Local Jurisdiction/Municipality Funds	AUTH	2019	**$500,000**	~~$0,000~~	~~$0,000~~	~~$0,000~~	~~$500,000~~
ROW	Local Jurisdiction/Municipality Funds	AUTH	2020	**$2,000,000**	~~$0,000~~	~~$0,000~~	~~$0,000~~	~~$2,000,000~~
CST	Local Jurisdiction/Municipality Funds		2021	**$6,500,000**	$0,000	$0,000	$0,000	$6,500,000
				$9,000,000	**$0,000**	**$0,000**	**$0,000**	**$9,000,000**

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion
UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

? For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.

Report Generated: 4/29/2021

Existing Intersection Analysis

Intersection	
Int Delay, s/veh	2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	700	352	94	389	22	78
Future Vol, veh/h	700	352	94	389	22	78
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	0	0	10	5	0
Mvmt Flow	729	367	98	405	23	81

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1096	0	1514	913
Stage 1	-	-	-	-	913	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	-	-	4.1	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.3
Pot Cap-1 Maneuver	-	-	644	-	130	334
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	542	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	644	-	110	334
Mov Cap-2 Maneuver	-	-	-	-	110	-
Stage 1	-	-	-	-	386	-
Stage 2	-	-	-	-	460	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	25.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	110	334	-	-	644	-
HCM Lane V/C Ratio	0.208	0.243	-	-	0.152	-
HCM Control Delay (s)	46.1	19.2	-	-	11.6	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q(veh)	0.7	0.9	-	-	0.5	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	235	543	420	25	1	63
Future Vol, veh/h	235	543	420	25	1	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	245	-	-	185	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	7	9	0	0	0
Mvmt Flow	264	610	472	28	1	71

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	472	0	-	0	1610	472
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	1138	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1100	-	-	-	116	596
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	308	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1100	-	-	-	88	596
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	308	-

Approach	EB	WB	SB
HCM Control Delay, s	2.8	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1100	-	-	-	88	596
HCM Lane V/C Ratio	0.24	-	-	-	0.013	0.119
HCM Control Delay (s)	9.3	-	-	-	46.4	11.9
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.9	-	-	-	0	0.4

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	625	3	12	372	3	15
Future Vol, veh/h	625	3	12	372	3	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	9	0	0
Mvmt Flow	679	3	13	404	3	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	679	0	1109	679
Stage 1	-	-	-	-	679	-
Stage 2	-	-	-	-	430	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	923	-	234	455
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	660	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	923	-	231	455
Mov Cap-2 Maneuver	-	-	-	-	231	-
Stage 1	-	-	-	-	507	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	231	455	-	-	923	-
HCM Lane V/C Ratio	0.014	0.036	-	-	0.014	-
HCM Control Delay (s)	20.8	13.2	-	-	9	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	545	332	0	187	112
Future Vol, veh/h	0	545	332	0	187	112
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	96	96	96	96	96	96
Heavy Vehicles, %	0	8	11	0	0	0
Mvmt Flow	0	568	346	0	195	117

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	914	346
Stage 1	-	-	-	-	346	-
Stage 2	-	-	-	-	568	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	306	702
Stage 1	0	-	-	0	721	-
Stage 2	0	-	-	0	571	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	306	702
Mov Cap-2 Maneuver	-	-	-	-	427	-
Stage 1	-	-	-	-	721	-
Stage 2	-	-	-	-	571	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	23.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	500
HCM Lane V/C Ratio	-	-	0.623
HCM Control Delay (s)	-	-	23.4
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	4.2

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	195	537	280	154	24	52
Future Vol, veh/h	195	537	280	154	24	52
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	125	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	8	13	0	0	0
Mvmt Flow	205	565	295	162	25	55

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	295	0	-	0	1270	295
Stage 1	-	-	-	-	295	-
Stage 2	-	-	-	-	975	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1278	-	-	0	187	749
Stage 1	-	-	-	0	760	-
Stage 2	-	-	-	0	369	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	1278	-	-	-	157	749
Mov Cap-2 Maneuver	-	-	-	-	157	-
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	369	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	17.2
HCM LOS			C

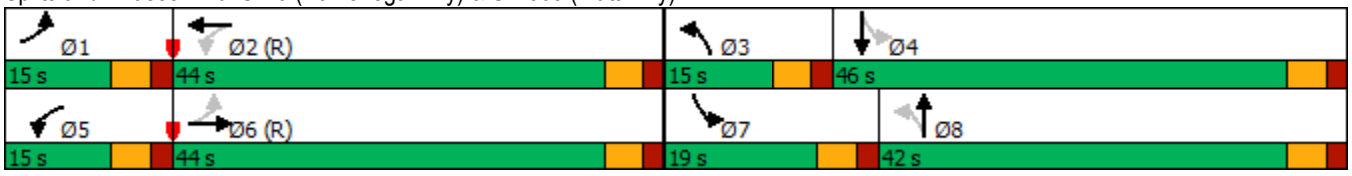
Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	1278	-	-	157	749
HCM Lane V/C Ratio	0.161	-	-	0.161	0.073
HCM Control Delay (s)	8.4	-	-	32.3	10.2
HCM Lane LOS	A	-	-	D	B
HCM 95th %tile Q(veh)	0.6	-	-	0.6	0.2

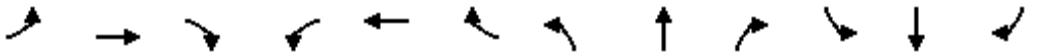
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	440	131	352	52	141	179	360
Future Volume (vph)	21	440	131	352	52	141	179	360
Lane Group Flow (vph)	22	541	138	459	55	271	188	404
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	3	8	7	4
Permitted Phases	6		2		8		4	
Detector Phase	1	6	5	2	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	6.0	5.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	15.0	23.5	15.0	23.5
Total Split (s)	15.0	44.0	15.0	44.0	15.0	42.0	19.0	46.0
Total Split (%)	12.5%	36.7%	12.5%	36.7%	12.5%	35.0%	15.8%	38.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	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	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.07	0.77	0.46	0.57	0.26	0.69	0.58	0.79
Control Delay	17.2	41.0	21.3	29.4	25.2	45.6	32.4	51.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	41.0	21.3	29.4	25.2	45.6	32.4	51.4
Queue Length 50th (ft)	8	361	52	265	27	169	101	293
Queue Length 95th (ft)	25	#643	106	#480	48	235	136	374
Internal Link Dist (ft)		1175		1054		819		518
Turn Bay Length (ft)	60		165		105		60	
Base Capacity (vph)	370	707	307	812	233	537	333	625
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	0.06	0.77	0.45	0.57	0.24	0.50	0.56	0.65

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: SR 9 (Dahlonega Hwy) & SR 369 (Matt Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	440	74	131	352	84	52	141	117	179	360	24
Future Volume (veh/h)	21	440	74	131	352	84	52	141	117	179	360	24
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	1618	1767	1796	1826	1752	1841	1796	1826	1826	1856	1885	1648
Adj Flow Rate, veh/h	22	463	78	138	371	88	55	148	123	188	379	25
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	19	9	7	5	10	4	7	5	5	3	1	17
Cap, veh/h	359	702	118	358	699	166	159	169	141	268	434	29
Arrive On Green	0.02	0.48	0.48	0.06	0.51	0.51	0.04	0.18	0.18	0.10	0.25	0.25
Sat Flow, veh/h	1541	1474	248	1739	1369	325	1711	922	766	1767	1749	115
Grp Volume(v), veh/h	22	0	541	138	0	459	55	0	271	188	0	404
Grp Sat Flow(s),veh/h/ln	1541	0	1722	1739	0	1693	1711	0	1688	1767	0	1864
Q Serve(g_s), s	0.9	0.0	28.8	4.8	0.0	21.8	3.1	0.0	18.7	10.0	0.0	25.0
Cycle Q Clear(g_c), s	0.9	0.0	28.8	4.8	0.0	21.8	3.1	0.0	18.7	10.0	0.0	25.0
Prop In Lane	1.00		0.14	1.00		0.19	1.00		0.45	1.00		0.06
Lane Grp Cap(c), veh/h	359	0	820	358	0	865	159	0	310	268	0	463
V/C Ratio(X)	0.06	0.00	0.66	0.39	0.00	0.53	0.35	0.00	0.87	0.70	0.00	0.87
Avail Cap(c_a), veh/h	448	0	820	397	0	865	233	0	513	289	0	629
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.7	0.0	24.0	18.2	0.0	19.7	39.1	0.0	47.6	35.0	0.0	43.3
Incr Delay (d2), s/veh	0.1	0.0	4.1	0.7	0.0	2.3	1.3	0.0	9.0	6.8	0.0	10.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	12.3	1.9	0.0	8.9	1.3	0.0	8.5	4.7	0.0	12.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.0	28.2	18.9	0.0	22.0	40.3	0.0	56.6	41.8	0.0	53.3
LnGrp LOS	B	A	C	B	A	C	D	A	E	D	A	D
Approach Vol, veh/h		563			597			326			592	
Approach Delay, s/veh		27.7			21.3			53.9			49.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.1	66.8	9.8	35.3	12.3	62.6	17.5	27.5
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	9.5	38.5	9.5	40.5	9.5	38.5	13.5	36.5
Max Q Clear Time (g_c+I1), s	2.9	23.8	5.1	27.0	6.8	30.8	12.0	20.7
Green Ext Time (p_c), s	0.0	4.4	0.0	1.9	0.1	3.3	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	79	657	432	40	41	135
Future Vol, veh/h	79	657	432	40	41	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	50	-	-	-	55	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	7	9	0	5	4
Mvmt Flow	84	699	460	43	44	144

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	460	0	-	0	1349	482
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	867	-
Critical Hdwy	4.13	-	-	-	6.45	6.24
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.336
Pot Cap-1 Maneuver	1096	-	-	-	164	580
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	406	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1096	-	-	-	151	580
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	568	-
Stage 2	-	-	-	-	406	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	19
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1096	-	-	-	151	580
HCM Lane V/C Ratio	0.077	-	-	-	0.289	0.248
HCM Control Delay (s)	8.6	-	-	-	38.2	13.2
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.1	1

Intersection	
Int Delay, s/veh	20.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	728	54	33	628	152	142
Future Vol, veh/h	728	54	33	628	152	142
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	0	3	0	1
Mvmt Flow	758	56	34	654	158	148

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	814	0	1508	786
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	722	-
Critical Hdwy	-	-	4.1	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	822	-	~ 134	394
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	485	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	822	-	~ 129	394
Mov Cap-2 Maneuver	-	-	-	-	~ 129	-
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	465	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	122.3
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	129	394	-	-	822	-
HCM Lane V/C Ratio	1.227	0.375	-	-	0.042	-
HCM Control Delay (s)	218.4	19.5	-	-	9.6	-
HCM Lane LOS	F	C	-	-	A	-
HCM 95th %tile Q(veh)	9.8	1.7	-	-	0.1	-

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

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	83	786	616	21	11	45
Future Vol, veh/h	83	786	616	21	11	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	245	-	-	185	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	87	827	648	22	12	47

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	648	0	-	0	1649	648
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	1001	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	947	-	-	-	110	474
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	358	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	947	-	-	-	100	474
Mov Cap-2 Maneuver	-	-	-	-	100	-
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	358	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	19.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	947	-	-	-	100	474
HCM Lane V/C Ratio	0.092	-	-	-	0.116	0.1
HCM Control Delay (s)	9.2	-	-	-	45.7	13.4
HCM Lane LOS	A	-	-	-	E	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.4	0.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	773	10	17	618	2	17
Future Vol, veh/h	773	10	17	618	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	805	10	18	644	2	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	805	0	1485	805
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	680	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	828	-	139	386
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	507	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	828	-	136	386
Mov Cap-2 Maneuver	-	-	-	-	136	-
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	496	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	136	386	-	-	828	-
HCM Lane V/C Ratio	0.015	0.046	-	-	0.021	-
HCM Control Delay (s)	31.9	14.8	-	-	9.4	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	792	624	0	5	10
Future Vol, veh/h	0	792	624	0	5	10
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	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	0	825	650	0	5	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1475	650
Stage 1	-	-	-	-	650	-
Stage 2	-	-	-	-	825	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	141	473
Stage 1	0	-	-	0	523	-
Stage 2	0	-	-	0	434	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	141	473
Mov Cap-2 Maneuver	-	-	-	-	280	-
Stage 1	-	-	-	-	523	-
Stage 2	-	-	-	-	434	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	385
HCM Lane V/C Ratio	-	-	0.041
HCM Control Delay (s)	-	-	14.7
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	97	699	597	45	7	27
Future Vol, veh/h	97	699	597	45	7	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	125	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	102	736	628	47	7	28

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	628	0	-	0	1568	628
Stage 1	-	-	-	-	628	-
Stage 2	-	-	-	-	940	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	964	-	-	0	123	487
Stage 1	-	-	-	0	536	-
Stage 2	-	-	-	0	383	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	964	-	-	-	110	487
Mov Cap-2 Maneuver	-	-	-	-	110	-
Stage 1	-	-	-	-	479	-
Stage 2	-	-	-	-	383	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	18.5
HCM LOS			C

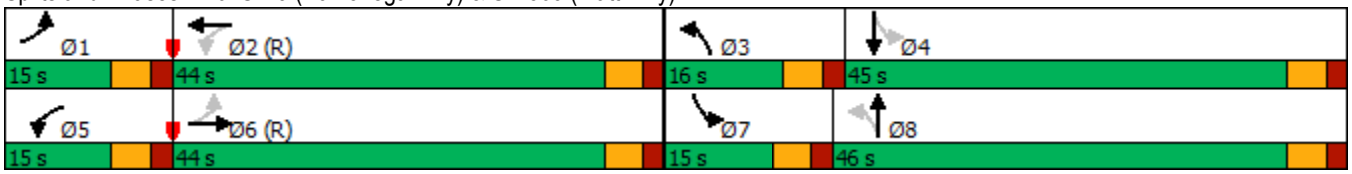
Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	964	-	-	110	487
HCM Lane V/C Ratio	0.106	-	-	0.067	0.058
HCM Control Delay (s)	9.2	-	-	40.1	12.9
HCM Lane LOS	A	-	-	E	B
HCM 95th %tile Q(veh)	0.4	-	-	0.2	0.2

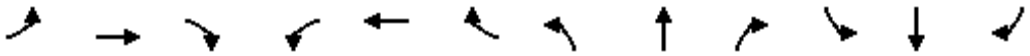
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	40	516	100	497	93	328	115	249
Future Volume (vph)	40	516	100	497	93	328	115	249
Lane Group Flow (vph)	42	607	105	634	98	469	121	289
Turn Type	pm+pt	NA	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	1	6	5	2	3	8	7	4
Permitted Phases	6		2		8		4	
Detector Phase	1	6	5	2	3	8	7	4
Switch Phase								
Minimum Initial (s)	5.0	15.0	5.0	15.0	5.0	6.0	5.0	6.0
Minimum Split (s)	15.0	23.5	15.0	23.5	15.0	23.5	15.0	23.5
Total Split (s)	15.0	44.0	15.0	44.0	16.0	46.0	15.0	45.0
Total Split (%)	12.5%	36.7%	12.5%	36.7%	13.3%	38.3%	12.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	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	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	None	C-Min	None	None	None	None
v/c Ratio	0.21	0.89	0.50	0.84	0.28	0.88	0.57	0.55
Control Delay	20.6	53.3	26.3	45.6	22.7	56.8	32.0	39.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	53.3	26.3	45.6	22.7	56.8	32.0	39.1
Queue Length 50th (ft)	17	446	43	452	46	332	57	184
Queue Length 95th (ft)	40	#740	83	#767	75	442	91	261
Internal Link Dist (ft)		1175		1054		819		518
Turn Bay Length (ft)	60		165		105		60	
Base Capacity (vph)	234	680	224	753	373	624	219	596
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	0.18	0.89	0.47	0.84	0.26	0.75	0.55	0.48

Intersection Summary

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

Splits and Phases: 6: SR 9 (Dahlonega Hwy) & SR 369 (Matt Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	516	61	100	497	105	93	328	118	115	249	26
Future Volume (veh/h)	40	516	61	100	497	105	93	328	118	115	249	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1826	1870	1841	1870	1900	1885	1900	1885	1885	1841	1856
Adj Flow Rate, veh/h	42	543	64	105	523	111	98	345	124	121	262	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	5	2	4	2	0	1	0	1	1	4	3
Cap, veh/h	225	676	80	247	658	140	329	376	135	203	479	49
Arrive On Green	0.03	0.42	0.42	0.05	0.44	0.44	0.05	0.28	0.28	0.06	0.29	0.29
Sat Flow, veh/h	1767	1603	189	1753	1496	317	1795	1334	480	1795	1641	169
Grp Volume(v), veh/h	42	0	607	105	0	634	98	0	469	121	0	289
Grp Sat Flow(s),veh/h/ln	1767	0	1792	1753	0	1813	1795	0	1814	1795	0	1810
Q Serve(g_s), s	1.6	0.0	35.5	4.0	0.0	36.1	4.6	0.0	30.0	5.7	0.0	16.1
Cycle Q Clear(g_c), s	1.6	0.0	35.5	4.0	0.0	36.1	4.6	0.0	30.0	5.7	0.0	16.1
Prop In Lane	1.00		0.11	1.00		0.18	1.00		0.26	1.00		0.09
Lane Grp Cap(c), veh/h	225	0	756	247	0	798	329	0	512	203	0	528
V/C Ratio(X)	0.19	0.00	0.80	0.42	0.00	0.79	0.30	0.00	0.92	0.60	0.00	0.55
Avail Cap(c_a), veh/h	309	0	756	300	0	798	390	0	612	232	0	596
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.4	0.0	30.3	23.9	0.0	28.9	29.0	0.0	41.7	31.9	0.0	35.8
Incr Delay (d2), s/veh	0.4	0.0	8.8	1.2	0.0	8.0	0.5	0.0	16.9	3.2	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	16.7	1.7	0.0	17.0	2.0	0.0	15.4	2.6	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.8	0.0	39.1	25.0	0.0	37.0	29.5	0.0	58.6	35.1	0.0	36.7
LnGrp LOS	C	A	D	C	A	D	C	A	E	D	A	D
Approach Vol, veh/h		649			739			567			410	
Approach Delay, s/veh		38.1			35.3			53.6			36.2	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	58.3	11.9	40.5	11.4	56.1	13.1	39.3
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	38.5	10.5	39.5	9.5	38.5	9.5	40.5
Max Q Clear Time (g_c+I1), s	3.6	38.1	6.6	18.1	6.0	37.5	7.7	32.0
Green Ext Time (p_c), s	0.0	0.2	0.1	1.5	0.1	0.6	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	40.6
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	97	651	624	114	24	97
Future Vol, veh/h	97	651	624	114	24	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	None
Storage Length	50	-	-	-	55	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	4	3	1	0	1
Mvmt Flow	102	685	657	120	25	102

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	657	0	-	0	1606	717
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	889	-
Critical Hdwy	4.1	-	-	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.309
Pot Cap-1 Maneuver	940	-	-	-	117	431
Stage 1	-	-	-	-	487	-
Stage 2	-	-	-	-	405	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	940	-	-	-	104	431
Mov Cap-2 Maneuver	-	-	-	-	104	-
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	405	-

Approach	EB	WB	SB
HCM Control Delay, s	1.2	0	22.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	940	-	-	-	104	431
HCM Lane V/C Ratio	0.109	-	-	-	0.243	0.237
HCM Control Delay (s)	9.3	-	-	-	50.4	15.9
HCM Lane LOS	A	-	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9	0.9

Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	549	51	47	649	71	81
Future Vol, veh/h	549	51	47	649	71	81
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	0	2	4	4	3
Mvmt Flow	624	58	53	738	81	92

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	682	0	1497	653
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	844	-
Critical Hdwy	-	-	4.12	-	6.44	6.23
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.218	-	3.536	3.327
Pot Cap-1 Maneuver	-	-	911	-	134	466
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	418	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	911	-	126	466
Mov Cap-2 Maneuver	-	-	-	-	126	-
Stage 1	-	-	-	-	514	-
Stage 2	-	-	-	-	394	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	42.4
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	126	466	-	-	911	-
HCM Lane V/C Ratio	0.64	0.198	-	-	0.059	-
HCM Control Delay (s)	74.2	14.6	-	-	9.2	-
HCM Lane LOS	F	B	-	-	A	-
HCM 95th %tile Q(veh)	3.4	0.7	-	-	0.2	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	70	558	630	11	4	65
Future Vol, veh/h	70	558	630	11	4	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	245	-	-	185	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	7	4	0	0	0
Mvmt Flow	77	613	692	12	4	71

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	692	0	-	0	1459	692
Stage 1	-	-	-	-	692	-
Stage 2	-	-	-	-	767	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	912	-	-	-	144	447
Stage 1	-	-	-	-	500	-
Stage 2	-	-	-	-	462	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	912	-	-	-	132	447
Mov Cap-2 Maneuver	-	-	-	-	132	-
Stage 1	-	-	-	-	458	-
Stage 2	-	-	-	-	462	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	912	-	-	-	132	447
HCM Lane V/C Ratio	0.084	-	-	-	0.033	0.16
HCM Control Delay (s)	9.3	-	-	-	33.2	14.6
HCM Lane LOS	A	-	-	-	D	B
HCM 95th %tile Q(veh)	0.3	-	-	-	0.1	0.6

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	521	4	8	614	2	6
Future Vol, veh/h	521	4	8	614	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	4	0	0
Mvmt Flow	554	4	9	653	2	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	554	0	1225	554
Stage 1	-	-	-	-	554	-
Stage 2	-	-	-	-	671	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1026	-	199	536
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	512	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1026	-	197	536
Mov Cap-2 Maneuver	-	-	-	-	197	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	507	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	197	536	-	-	1026	-
HCM Lane V/C Ratio	0.011	0.012	-	-	0.008	-
HCM Control Delay (s)	23.5	11.8	-	-	8.5	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	560	620	0	9	22
Future Vol, veh/h	0	560	620	0	9	22
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	94	94	94	94	94	94
Heavy Vehicles, %	0	6	4	0	0	0
Mvmt Flow	0	596	660	0	10	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1256	660
Stage 1	-	-	-	-	660	-
Stage 2	-	-	-	-	596	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	191	467
Stage 1	0	-	-	0	518	-
Stage 2	0	-	-	0	554	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	191	467
Mov Cap-2 Maneuver	-	-	-	-	331	-
Stage 1	-	-	-	-	518	-
Stage 2	-	-	-	-	554	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	417
HCM Lane V/C Ratio	-	-	0.079
HCM Control Delay (s)	-	-	14.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	65	504	592	44	36	28
Future Vol, veh/h	65	504	592	44	36	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	125	-	-	-	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	7	5	0	0	0
Mvmt Flow	70	542	637	47	39	30

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	637	0	-	0	1319	637
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	682	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	956	-	-	0	175	481
Stage 1	-	-	-	0	531	-
Stage 2	-	-	-	0	506	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	956	-	-	-	162	481
Mov Cap-2 Maneuver	-	-	-	-	162	-
Stage 1	-	-	-	-	492	-
Stage 2	-	-	-	-	506	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	24.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	SBLn1	SBLn2
Capacity (veh/h)	956	-	-	162	481
HCM Lane V/C Ratio	0.073	-	-	0.239	0.063
HCM Control Delay (s)	9.1	-	-	34.1	13
HCM Lane LOS	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	0.9	0.2

Future “No-Build” Intersection Analysis

Intersection	
Int Delay, s/veh	3.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	808	398	119	464	25	97
Future Vol, veh/h	808	398	119	464	25	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	6	0	0	10	5	0
Mvmt Flow	842	415	124	483	26	101

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1257	0	1781	1050
Stage 1	-	-	-	-	1050	-
Stage 2	-	-	-	-	731	-
Critical Hdwy	-	-	4.1	-	6.45	6.2
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	-	-	2.2	-	3.545	3.3
Pot Cap-1 Maneuver	-	-	560	-	89	278
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	471	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	560	-	69	278
Mov Cap-2 Maneuver	-	-	-	-	69	-
Stage 1	-	-	-	-	332	-
Stage 2	-	-	-	-	367	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.7	37.6
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	69	278	-	-	560	-
HCM Lane V/C Ratio	0.377	0.363	-	-	0.221	-
HCM Control Delay (s)	85.9	25.2	-	-	13.2	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q(veh)	1.4	1.6	-	-	0.8	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	266	640	512	31	3	71
Future Vol, veh/h	266	640	512	31	3	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	245	-	-	185	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	7	9	0	0	0
Mvmt Flow	299	719	575	35	3	80

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	575	0	-	0	1892	575
Stage 1	-	-	-	-	575	-
Stage 2	-	-	-	-	1317	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1008	-	-	-	78	521
Stage 1	-	-	-	-	567	-
Stage 2	-	-	-	-	253	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1008	-	-	-	55	521
Mov Cap-2 Maneuver	-	-	-	-	55	-
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	253	-

Approach	EB	WB	SB
HCM Control Delay, s	3	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1008	-	-	-	55	521
HCM Lane V/C Ratio	0.297	-	-	-	0.061	0.153
HCM Control Delay (s)	10.1	-	-	-	74.7	13.2
HCM Lane LOS	B	-	-	-	F	B
HCM 95th %tile Q(veh)	1.2	-	-	-	0.2	0.5

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	735	3	21	461	3	21
Future Vol, veh/h	735	3	21	461	3	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	9	0	0
Mvmt Flow	799	3	23	501	3	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	799	0	1346	799
Stage 1	-	-	-	-	799	-
Stage 2	-	-	-	-	547	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	833	-	169	389
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	584	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	833	-	164	389
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	446	-
Stage 2	-	-	-	-	568	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	16.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	164	389	-	-	833	-
HCM Lane V/C Ratio	0.02	0.059	-	-	0.027	-
HCM Control Delay (s)	27.4	14.8	-	-	9.4	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	9.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↾	
Traffic Vol, veh/h	0	648	423	0	212	127
Future Vol, veh/h	0	648	423	0	212	127
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	96	96	96	96	96	96
Heavy Vehicles, %	0	8	11	0	0	0
Mvmt Flow	0	675	441	0	221	132

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1116	441
Stage 1	-	-	-	-	441	-
Stage 2	-	-	-	-	675	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	232	621
Stage 1	0	-	-	0	653	-
Stage 2	0	-	-	0	510	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	232	621
Mov Cap-2 Maneuver	-	-	-	-	365	-
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	510	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	41.2
HCM LOS			E

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	432
HCM Lane V/C Ratio	-	-	0.817
HCM Control Delay (s)	-	-	41.2
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	7.6

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	221	639	364	177	29	59
Future Vol, veh/h	221	639	364	177	29	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	125	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	8	13	0	0	0
Mvmt Flow	233	673	383	186	31	62

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	383	0	-	0	1522	383
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	1139	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1187	-	-	-	132	669
Stage 1	-	-	-	-	694	-
Stage 2	-	-	-	-	308	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1187	-	-	-	106	669
Mov Cap-2 Maneuver	-	-	-	-	106	-
Stage 1	-	-	-	-	558	-
Stage 2	-	-	-	-	308	-

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	24.5
HCM LOS			C

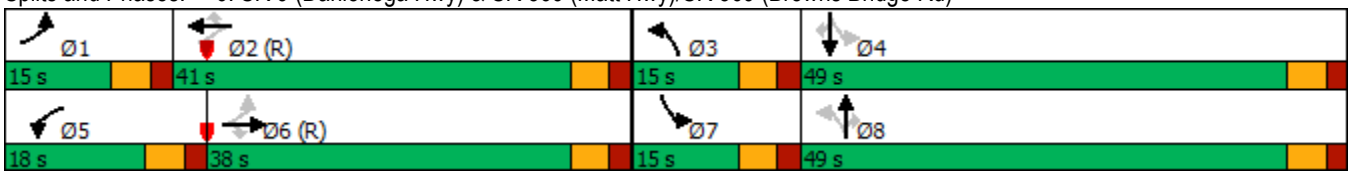
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1187	-	-	-	106	669
HCM Lane V/C Ratio	0.196	-	-	-	0.288	0.093
HCM Control Delay (s)	8.8	-	-	-	52.2	10.9
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.7	-	-	-	1.1	0.3

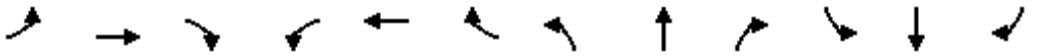
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	515	84	162	428	65	59	199	149	165	508	48
Future Volume (vph)	41	515	84	162	428	65	59	199	149	165	508	48
Lane Group Flow (vph)	43	542	88	171	451	68	62	209	157	174	535	51
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	28.5	28.5	15.0	21.5	21.5	15.0	24.5	24.5	15.0	28.5	28.5
Total Split (s)	15.0	38.0	38.0	18.0	41.0	41.0	15.0	49.0	49.0	15.0	49.0	49.0
Total Split (%)	12.5%	31.7%	31.7%	15.0%	34.2%	34.2%	12.5%	40.8%	40.8%	12.5%	40.8%	40.8%
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	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	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	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	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
v/c Ratio	0.12	0.46	0.14	0.45	0.34	0.10	0.35	0.40	0.28	0.42	0.88	0.10
Control Delay	20.9	34.2	2.8	23.7	29.2	0.5	24.1	34.6	5.3	24.5	55.3	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	34.2	2.8	23.7	29.2	0.5	24.1	34.6	5.3	24.5	55.3	0.4
Queue Length 50th (ft)	18	182	0	78	137	0	27	123	0	81	383	0
Queue Length 95th (ft)	43	253	19	135	201	3	50	180	45	120	509	0
Internal Link Dist (ft)		653			1070			1320			1200	
Turn Bay Length (ft)	250		250	310		220	275		275	300		300
Base Capacity (vph)	392	1175	614	397	1325	700	198	656	657	415	682	579
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.46	0.14	0.43	0.34	0.10	0.31	0.32	0.24	0.42	0.78	0.09

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 9 (Dahlonega Hwy) & SR 369 (Matt Hwy)/SR 369 (Browns Bridge Rd)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	41	515	84	162	428	65	59	199	149	165	508	48
Future Volume (veh/h)	41	515	84	162	428	65	59	199	149	165	508	48
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	1618	1767	1796	1826	1752	1841	1796	1826	1826	1856	1885	1648
Adj Flow Rate, veh/h	43	542	0	171	451	0	62	209	0	174	535	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	19	9	7	5	10	4	7	5	5	3	1	17
Cap, veh/h	395	1335		426	1464		152	485		399	579	
Arrive On Green	0.03	0.40	0.00	0.07	0.44	0.00	0.04	0.27	0.00	0.08	0.31	0.00
Sat Flow, veh/h	1541	3357	1522	1739	3328	1560	1711	1826	1547	1767	1885	1397
Grp Volume(v), veh/h	43	542	0	171	451	0	62	209	0	174	535	0
Grp Sat Flow(s),veh/h/ln	1541	1678	1522	1739	1664	1560	1711	1826	1547	1767	1885	1397
Q Serve(g_s), s	2.0	13.9	0.0	6.7	10.5	0.0	3.1	11.4	0.0	8.4	32.9	0.0
Cycle Q Clear(g_c), s	2.0	13.9	0.0	6.7	10.5	0.0	3.1	11.4	0.0	8.4	32.9	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	395	1335		426	1464		152	485		399	579	
V/C Ratio(X)	0.11	0.41		0.40	0.31		0.41	0.43		0.44	0.92	
Avail Cap(c_a), veh/h	468	1335		479	1464		223	662		399	683	
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	20.2	26.0	0.0	18.9	21.8	0.0	33.7	36.5	0.0	28.3	40.2	0.0
Incr Delay (d2), s/veh	0.1	0.9	0.0	0.6	0.5	0.0	1.8	0.6	0.0	0.8	16.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	5.7	0.0	2.7	4.2	0.0	1.3	5.0	0.0	3.5	17.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.3	26.9	0.0	19.5	22.3	0.0	35.5	37.1	0.0	29.0	56.8	0.0
LnGrp LOS	C	C		B	C		D	D		C	E	
Approach Vol, veh/h		585			622			271			709	
Approach Delay, s/veh		26.4			21.6			36.7			50.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.3	58.3	10.0	42.4	14.4	53.2	15.0	37.4
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	35.5	9.5	43.5	12.5	32.5	9.5	43.5
Max Q Clear Time (g_c+I1), s	4.0	12.5	5.1	34.9	8.7	15.9	10.4	13.4
Green Ext Time (p_c), s	0.0	5.3	0.0	1.9	0.1	5.5	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	123	736	496	68	0	122
Future Vol, veh/h	123	736	496	68	0	122
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	250	-	-	225	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	7	9	0	5	4
Mvmt Flow	131	783	528	72	0	130

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	528	0	-	0	-	264
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	-	-	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	-	3.34
Pot Cap-1 Maneuver	1028	-	-	-	0	728
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1028	-	-	-	-	728
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	11
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1028	-	-	-	728
HCM Lane V/C Ratio	0.127	-	-	-	0.178
HCM Control Delay (s)	9	-	-	-	11
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.4	-	-	-	0.6

Intersection	
Int Delay, s/veh	54.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	850	61	50	734	172	176
Future Vol, veh/h	850	61	50	734	172	176
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	0	3	0	1
Mvmt Flow	885	64	52	765	179	183

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	949	0	1786	917
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	869	-
Critical Hdwy	-	-	4.1	-	6.4	6.21
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.309
Pot Cap-1 Maneuver	-	-	732	-	~ 91	331
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	414	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	732	-	~ 85	331
Mov Cap-2 Maneuver	-	-	-	-	~ 85	-
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	385	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	$ 319.2
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	85	331	-	-	732	-
HCM Lane V/C Ratio	2.108	0.554	-	-	0.071	-
HCM Control Delay (s)	$ 616.5	28.6	-	-	10.3	-
HCM Lane LOS	F	D	-	-	B	-
HCM 95th %tile Q(veh)	16	3.2	-	-	0.2	-

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	94	932	733	27	16	51
Future Vol, veh/h	94	932	733	27	16	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	245	-	-	185	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	99	981	772	28	17	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	772	0	-	0	1951	772
Stage 1	-	-	-	-	772	-
Stage 2	-	-	-	-	1179	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	852	-	-	-	72	403
Stage 1	-	-	-	-	459	-
Stage 2	-	-	-	-	295	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	852	-	-	-	64	403
Mov Cap-2 Maneuver	-	-	-	-	64	-
Stage 1	-	-	-	-	406	-
Stage 2	-	-	-	-	295	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	30.8
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	852	-	-	-	64	403
HCM Lane V/C Ratio	0.116	-	-	-	0.263	0.133
HCM Control Delay (s)	9.8	-	-	-	80.3	15.3
HCM Lane LOS	A	-	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.9	0.5

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	920	11	25	739	2	27
Future Vol, veh/h	920	11	25	739	2	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	958	11	26	770	2	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	958	0	1780	958
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	822	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	726	-	91	315
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	726	-	88	315
Mov Cap-2 Maneuver	-	-	-	-	88	-
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	419	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	19.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	88	315	-	-	726	-
HCM Lane V/C Ratio	0.024	0.089	-	-	0.036	-
HCM Control Delay (s)	46.9	17.5	-	-	10.1	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	950	751	0	6	11
Future Vol, veh/h	0	950	751	0	6	11
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	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	0	990	782	0	6	11

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1772	782
Stage 1	-	-	-	-	782	-
Stage 2	-	-	-	-	990	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	92	397
Stage 1	0	-	-	0	454	-
Stage 2	0	-	-	0	363	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	92	397
Mov Cap-2 Maneuver	-	-	-	-	225	-
Stage 1	-	-	-	-	454	-
Stage 2	-	-	-	-	363	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	313
HCM Lane V/C Ratio	-	-	0.057
HCM Control Delay (s)	-	-	17.2
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	110	844	721	54	12	31
Future Vol, veh/h	110	844	721	54	12	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	125	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	116	888	759	57	13	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	759	0	-	0	1879	759
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	1120	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	862	-	-	-	79	410
Stage 1	-	-	-	-	466	-
Stage 2	-	-	-	-	315	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	862	-	-	-	68	410
Mov Cap-2 Maneuver	-	-	-	-	68	-
Stage 1	-	-	-	-	403	-
Stage 2	-	-	-	-	315	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	29.9
HCM LOS			D

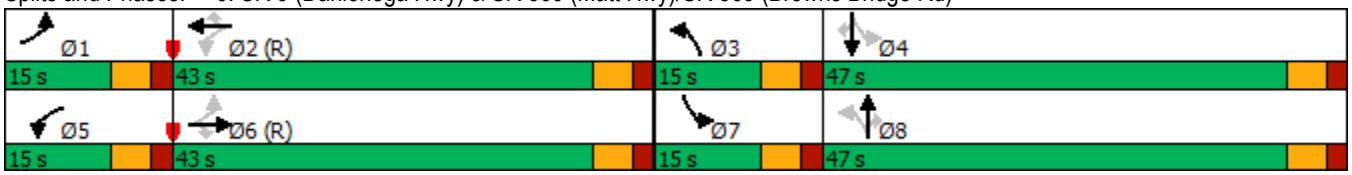
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	862	-	-	-	68	410
HCM Lane V/C Ratio	0.134	-	-	-	0.186	0.08
HCM Control Delay (s)	9.8	-	-	-	69.6	14.5
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.6	0.3

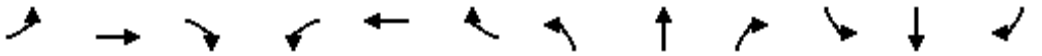
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	612	69	139	593	93	105	437	162	110	365	47
Future Volume (vph)	73	612	69	139	593	93	105	437	162	110	365	47
Lane Group Flow (vph)	77	644	73	146	624	98	111	460	171	116	384	49
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	28.5	28.5	15.0	21.5	21.5	15.0	24.5	24.5	15.0	28.5	28.5
Total Split (s)	15.0	43.0	43.0	15.0	43.0	43.0	15.0	47.0	47.0	15.0	47.0	47.0
Total Split (%)	12.5%	35.8%	35.8%	12.5%	35.8%	35.8%	12.5%	39.2%	39.2%	12.5%	39.2%	39.2%
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	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	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	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	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
v/c Ratio	0.22	0.50	0.11	0.42	0.44	0.13	0.41	0.85	0.30	0.54	0.74	0.09
Control Delay	19.5	32.3	1.1	22.3	29.4	3.2	25.6	54.9	5.5	30.8	46.9	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	32.3	1.1	22.3	29.4	3.2	25.6	54.9	5.5	30.8	46.9	0.3
Queue Length 50th (ft)	31	208	0	61	192	0	52	332	0	55	266	0
Queue Length 95th (ft)	65	284	6	113	272	25	82	429	48	86	351	0
Internal Link Dist (ft)		653			1070			1320			1200	
Turn Bay Length (ft)	250		250	310		220	275		275	300		300
Base Capacity (vph)	374	1283	668	349	1434	728	281	657	664	222	631	622
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.50	0.11	0.42	0.44	0.13	0.40	0.70	0.26	0.52	0.61	0.08

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 9 (Dahlonega Hwy) & SR 369 (Matt Hwy)/SR 369 (Browns Bridge Rd)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	612	69	139	593	93	105	437	162	110	365	47
Future Volume (veh/h)	73	612	69	139	593	93	105	437	162	110	365	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1826	1870	1841	1870	1900	1885	1900	1885	1885	1841	1856
Adj Flow Rate, veh/h	77	644	0	146	624	0	111	460	0	116	384	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	5	2	4	2	0	1	0	1	1	4	3
Cap, veh/h	392	1473		398	1597		244	507		202	495	
Arrive On Green	0.04	0.42	0.00	0.06	0.45	0.00	0.06	0.27	0.00	0.06	0.27	0.00
Sat Flow, veh/h	1767	3469	1585	1753	3554	1610	1795	1900	1598	1795	1841	1572
Grp Volume(v), veh/h	77	644	0	146	624	0	111	460	0	116	384	0
Grp Sat Flow(s),veh/h/ln	1767	1735	1585	1753	1777	1610	1795	1900	1598	1795	1841	1572
Q Serve(g_s), s	2.9	15.7	0.0	5.6	14.1	0.0	5.3	28.1	0.0	5.6	23.1	0.0
Cycle Q Clear(g_c), s	2.9	15.7	0.0	5.6	14.1	0.0	5.3	28.1	0.0	5.6	23.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	392	1473		398	1597		244	507		202	495	
V/C Ratio(X)	0.20	0.44		0.37	0.39		0.45	0.91		0.57	0.78	
Avail Cap(c_a), veh/h	464	1473		426	1597		279	657		233	637	
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	18.6	24.4	0.0	18.4	22.1	0.0	31.5	42.6	0.0	32.7	40.5	0.0
Incr Delay (d2), s/veh	0.2	0.9	0.0	0.6	0.7	0.0	1.3	13.9	0.0	2.6	4.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	6.4	0.0	2.2	5.8	0.0	2.3	14.5	0.0	2.4	10.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.9	25.3	0.0	19.0	22.8	0.0	32.8	56.5	0.0	35.2	45.1	0.0
LnGrp LOS	B	C		B	C		C	E		D	D	
Approach Vol, veh/h		721			770			571			500	
Approach Delay, s/veh		24.6			22.1			51.9			42.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	59.4	12.7	37.8	13.1	56.5	12.9	37.5
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	9.5	37.5	9.5	41.5	9.5	37.5	9.5	41.5
Max Q Clear Time (g_c+I1), s	4.9	16.1	7.3	25.1	7.6	17.7	7.6	30.1
Green Ext Time (p_c), s	0.0	6.9	0.0	1.8	0.1	6.9	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	165	747	725	165	0	99
Future Vol, veh/h	165	747	725	165	0	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	250	-	-	225	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	4	3	1	0	1
Mvmt Flow	174	786	763	174	0	104

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	763	0	-	0	-	382
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	-	-	3.31
Pot Cap-1 Maneuver	859	-	-	-	0	619
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	859	-	-	-	-	619
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	859	-	-	-	619
HCM Lane V/C Ratio	0.202	-	-	-	0.168
HCM Control Delay (s)	10.2	-	-	-	12
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.8	-	-	-	0.6

Intersection	
Int Delay, s/veh	11.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	643	58	63	753	80	105
Future Vol, veh/h	643	58	63	753	80	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	220	-	150	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	7	0	2	4	4	3
Mvmt Flow	731	66	72	856	91	119

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	797	0	1764	764
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	1000	-
Critical Hdwy	-	-	4.12	-	6.44	6.23
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.218	-	3.536	3.327
Pot Cap-1 Maneuver	-	-	825	-	91	402
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	353	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	825	-	~ 83	402
Mov Cap-2 Maneuver	-	-	-	-	~ 83	-
Stage 1	-	-	-	-	456	-
Stage 2	-	-	-	-	322	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.8	104.1
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	83	402	-	-	825	-
HCM Lane V/C Ratio	1.095	0.297	-	-	0.087	-
HCM Control Delay (s)	217.6	17.7	-	-	9.8	-
HCM Lane LOS	F	C	-	-	A	-
HCM 95th %tile Q(veh)	6.4	1.2	-	-	0.3	-

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

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	79	667	742	15	8	74
Future Vol, veh/h	79	667	742	15	8	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	245	-	-	185	0	125
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	7	4	0	0	0
Mvmt Flow	87	733	815	16	9	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	815	0	-	0	1722	815
Stage 1	-	-	-	-	815	-
Stage 2	-	-	-	-	907	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	821	-	-	-	99	381
Stage 1	-	-	-	-	439	-
Stage 2	-	-	-	-	397	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	821	-	-	-	89	381
Mov Cap-2 Maneuver	-	-	-	-	89	-
Stage 1	-	-	-	-	392	-
Stage 2	-	-	-	-	397	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	20.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	821	-	-	-	89	381
HCM Lane V/C Ratio	0.106	-	-	-	0.099	0.213
HCM Control Delay (s)	9.9	-	-	-	49.8	17
HCM Lane LOS	A	-	-	-	E	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.3	0.8

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	628	5	14	726	2	13
Future Vol, veh/h	628	5	14	726	2	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	4	0	0
Mvmt Flow	668	5	15	772	2	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	668	0	1470	668
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	802	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	931	-	142	462
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	445	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	931	-	140	462
Mov Cap-2 Maneuver	-	-	-	-	140	-
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	438	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	140	462	-	-	931	-
HCM Lane V/C Ratio	0.015	0.03	-	-	0.016	-
HCM Control Delay (s)	31.1	13	-	-	8.9	-
HCM Lane LOS	D	B	-	-	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	678	738	0	10	25
Future Vol, veh/h	0	678	738	0	10	25
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	94	94	94	94	94	94
Heavy Vehicles, %	0	6	4	0	0	0
Mvmt Flow	0	721	785	0	11	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1506	785
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	721	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	135	396
Stage 1	0	-	-	0	453	-
Stage 2	0	-	-	0	485	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	135	396
Mov Cap-2 Maneuver	-	-	-	-	275	-
Stage 1	-	-	-	-	453	-
Stage 2	-	-	-	-	485	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	352
HCM Lane V/C Ratio	-	-	0.106
HCM Control Delay (s)	-	-	16.4
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.4

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	74	616	707	53	44	32
Future Vol, veh/h	74	616	707	53	44	32
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	125	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	0	7	5	0	0	0
Mvmt Flow	80	662	760	57	47	34

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	760	0	-	0	1582	760
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	822	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	861	-	-	-	121	409
Stage 1	-	-	-	-	465	-
Stage 2	-	-	-	-	435	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	861	-	-	-	110	409
Mov Cap-2 Maneuver	-	-	-	-	110	-
Stage 1	-	-	-	-	422	-
Stage 2	-	-	-	-	435	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	41.1
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	861	-	-	-	110	409
HCM Lane V/C Ratio	0.092	-	-	-	0.43	0.084
HCM Control Delay (s)	9.6	-	-	-	60.4	14.6
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.3	-	-	-	1.8	0.3

Future “Build” Intersections Analysis

Intersection	
Int Delay, s/veh	421

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	308	573	402	119	503	43	29	9	97	108	16	10
Future Vol, veh/h	308	573	402	119	503	43	29	9	97	108	16	10
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	150	-	-	220	-	250	-	-	0	-	-	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, %	0	6	0	0	10	0	0	5	2	2	2	2
Mvmt Flow	321	597	419	124	524	45	30	9	101	113	17	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	569	0	0	1016	0	0	2257	2266	807	2276	2430	524
Stage 1	-	-	-	-	-	-	1449	1449	-	772	772	-
Stage 2	-	-	-	-	-	-	808	817	-	1504	1658	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.55	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.55	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.55	-	6.12	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.045	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1013	-	-	691	-	-	~ 30	40	381	~ 28	32	553
Stage 1	-	-	-	-	-	-	165	193	-	392	409	-
Stage 2	-	-	-	-	-	-	378	386	-	151	155	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1013	-	-	691	-	-	~ 4	22	381	~ 9	18	553
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 4	22	-	~ 9	18	-
Stage 1	-	-	-	-	-	-	113	132	-	268	336	-
Stage 2	-	-	-	-	-	-	289	317	-	~ 70	106	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	2.4	2	$ 1283.5	$ 5639
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	5	381	1013	-	-	691	-	-	10	553
HCM Lane V/C Ratio	7.917	0.265	0.317	-	-	0.179	-	-	12.917	0.019
HCM Control Delay (s)	$ 4514.4	17.8	10.2	-	-	11.3	-	-	$ 6092.8	11.6
HCM Lane LOS	F	C	B	-	-	B	-	-	F	B
HCM 95th %tile Q(veh)	6.6	1.1	1.4	-	-	0.7	-	-	17.6	0.1

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

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	782	595	35	0	71
Future Vol, veh/h	0	782	595	35	0	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	185	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	7	9	0	0	0
Mvmt Flow	0	879	669	39	0	80

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	669
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	0	461
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	461
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	461
HCM Lane V/C Ratio	-	-	0.173
HCM Control Delay (s)	-	-	14.4
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.6

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	872	5	21	547	4	21
Future Vol, veh/h	872	5	21	547	4	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	7	0	0	9	0	0
Mvmt Flow	948	5	23	595	4	23

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	948	0	1589	948
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	641	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	732	-	120	319
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	528	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	732	-	116	319
Mov Cap-2 Maneuver	-	-	-	-	116	-
Stage 1	-	-	-	-	380	-
Stage 2	-	-	-	-	512	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	116	319	-	-	732	-
HCM Lane V/C Ratio	0.037	0.072	-	-	0.031	-
HCM Control Delay (s)	37.2	17.2	-	-	10.1	-
HCM Lane LOS	E	C	-	-	B	-
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	15.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	785	508	0	212	128
Future Vol, veh/h	0	785	508	0	212	128
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	96	96	96	96	96	96
Heavy Vehicles, %	0	8	11	0	0	0
Mvmt Flow	0	818	529	0	221	133

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	1347	529
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	818	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	~ 168	554
Stage 1	0	-	-	0	595	-
Stage 2	0	-	-	0	437	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	~ 168	554
Mov Cap-2 Maneuver	-	-	-	-	304	-
Stage 1	-	-	-	-	595	-
Stage 2	-	-	-	-	437	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	73.4
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	366
HCM Lane V/C Ratio	-	-	0.968
HCM Control Delay (s)	-	-	73.4
HCM Lane LOS	-	-	F
HCM 95th %tile Q(veh)	-	-	10.8

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

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	226	770	446	177	29	61
Future Vol, veh/h	226	770	446	177	29	61
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	125	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	8	13	0	0	0
Mvmt Flow	238	811	469	186	31	64

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	469	0	-	0	1756	469
Stage 1	-	-	-	-	469	-
Stage 2	-	-	-	-	1287	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1103	-	-	-	95	598
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	262	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1103	-	-	-	74	598
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	497	-
Stage 2	-	-	-	-	262	-

Approach	EB	WB	SB
HCM Control Delay, s	2.1	0	35.1
HCM LOS			E

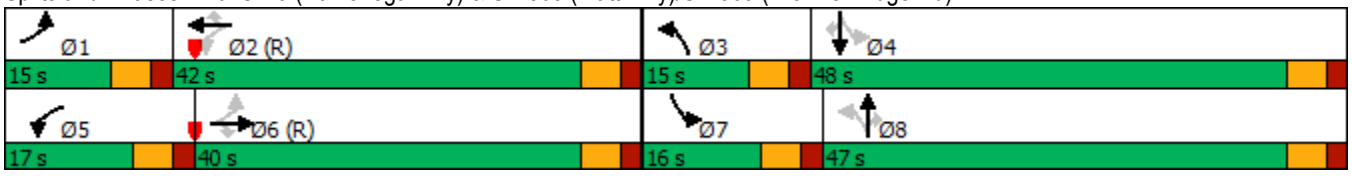
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1103	-	-	-	74	598
HCM Lane V/C Ratio	0.216	-	-	-	0.413	0.107
HCM Control Delay (s)	9.2	-	-	-	84.3	11.7
HCM Lane LOS	A	-	-	-	F	B
HCM 95th %tile Q(veh)	0.8	-	-	-	1.6	0.4

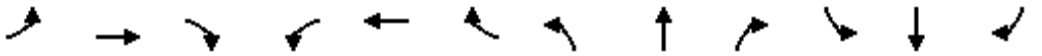
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	596	116	162	479	65	79	199	149	165	508	59
Future Volume (vph)	59	596	116	162	479	65	79	199	149	165	508	59
Lane Group Flow (vph)	62	627	122	171	504	68	83	209	157	174	535	62
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	28.5	28.5	15.0	21.5	21.5	15.0	24.5	24.5	15.0	28.5	28.5
Total Split (s)	15.0	40.0	40.0	17.0	42.0	42.0	15.0	47.0	47.0	16.0	48.0	48.0
Total Split (%)	12.5%	33.3%	33.3%	14.2%	35.0%	35.0%	12.5%	39.2%	39.2%	13.3%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	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	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	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	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
v/c Ratio	0.18	0.53	0.20	0.50	0.39	0.10	0.46	0.41	0.29	0.41	0.89	0.12
Control Delay	21.0	35.0	6.4	25.1	30.2	0.5	27.8	35.5	5.6	24.3	56.9	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.0	35.0	6.4	25.1	30.2	0.5	27.8	35.5	5.6	24.3	56.9	0.5
Queue Length 50th (ft)	27	220	0	79	160	0	36	123	0	80	382	0
Queue Length 95th (ft)	57	290	45	133	223	3	64	185	46	122	#519	0
Internal Link Dist (ft)		653			1070			1320			1200	
Turn Bay Length (ft)	250		250	310		220	275		275	300		300
Base Capacity (vph)	364	1185	618	353	1307	692	194	625	634	421	666	568
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.53	0.20	0.48	0.39	0.10	0.43	0.33	0.25	0.41	0.80	0.11

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 6: SR 9 (Dahlonega Hwy) & SR 369 (Matt Hwy)/SR 369 (Browns Bridge Rd)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	596	116	162	479	65	79	199	149	165	508	59
Future Volume (veh/h)	59	596	116	162	479	65	79	199	149	165	508	59
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	1618	1767	1796	1826	1752	1841	1796	1826	1826	1856	1885	1648
Adj Flow Rate, veh/h	62	627	0	171	504	0	83	209	0	174	535	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	19	9	7	5	10	4	7	5	5	3	1	17
Cap, veh/h	366	1298		382	1416		169	491		415	578	
Arrive On Green	0.04	0.39	0.00	0.07	0.43	0.00	0.05	0.27	0.00	0.09	0.31	0.00
Sat Flow, veh/h	1541	3357	1522	1739	3328	1560	1711	1826	1547	1767	1885	1397
Grp Volume(v), veh/h	62	627	0	171	504	0	83	209	0	174	535	0
Grp Sat Flow(s),veh/h/ln	1541	1678	1522	1739	1664	1560	1711	1826	1547	1767	1885	1397
Q Serve(g_s), s	2.9	16.9	0.0	6.9	12.3	0.0	4.2	11.3	0.0	8.3	33.0	0.0
Cycle Q Clear(g_c), s	2.9	16.9	0.0	6.9	12.3	0.0	4.2	11.3	0.0	8.3	33.0	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	366	1298		382	1416		169	491		415	578	
V/C Ratio(X)	0.17	0.48		0.45	0.36		0.49	0.43		0.42	0.93	
Avail Cap(c_a), veh/h	432	1298		418	1416		222	631		418	668	
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	21.1	27.8	0.0	20.4	23.4	0.0	33.1	36.2	0.0	27.7	40.3	0.0
Incr Delay (d2), s/veh	0.2	1.3	0.0	0.8	0.7	0.0	2.2	0.6	0.0	0.7	17.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	6.9	0.0	2.8	4.9	0.0	1.8	4.9	0.0	3.4	17.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.3	29.0	0.0	21.2	24.1	0.0	35.3	36.8	0.0	28.4	57.9	0.0
LnGrp LOS	C	C		C	C		D	D		C	E	
Approach Vol, veh/h		689			675			292			709	
Approach Delay, s/veh		28.3			23.3			36.4			50.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.9	56.5	11.3	42.3	14.5	51.9	15.8	37.8
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	36.5	9.5	42.5	11.5	34.5	10.5	41.5
Max Q Clear Time (g_c+I1), s	4.9	14.3	6.2	35.0	8.9	18.9	10.3	13.3
Green Ext Time (p_c), s	0.0	5.9	0.0	1.8	0.1	6.2	0.0	1.0

Intersection Summary	
HCM 6th Ctrl Delay	34.6
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	132	808	541	68	0	128
Future Vol, veh/h	132	808	541	68	0	128
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	250	-	-	225	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	7	9	0	5	4
Mvmt Flow	140	860	576	72	0	136

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	576	0	-	0	-	288
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.16	-	-	-	-	6.98
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.23	-	-	-	-	3.34
Pot Cap-1 Maneuver	987	-	-	-	0	703
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	987	-	-	-	-	703
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.3	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	987	-	-	-	703
HCM Lane V/C Ratio	0.142	-	-	-	0.194
HCM Control Delay (s)	9.3	-	-	-	11.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.5	-	-	-	0.7

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	1285	511	31	0	17
Future Vol, veh/h	0	1285	511	31	0	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	250	-	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	1397	555	34	0	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	555
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	0	0	531
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	531
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	531
HCM Lane V/C Ratio	-	-	0.035
HCM Control Delay (s)	-	-	12
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.1

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	1212	500	28	72	11
Future Vol, veh/h	8	1212	500	28	72	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	250	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	9	1317	543	30	78	12

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	573	0	-	0	1878	543			
Stage 1	-	-	-	-	543	-			
Stage 2	-	-	-	-	1335	-			
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	1000	-	-	-	~ 78	540			
Stage 1	-	-	-	-	582	-			
Stage 2	-	-	-	-	245	-			
Platoon blocked, %		-	-	-					
Mov Cap-1 Maneuver	1000	-	-	-	~ 77	540			
Mov Cap-2 Maneuver	-	-	-	-	~ 77	-			
Stage 1	-	-	-	-	577	-			
Stage 2	-	-	-	-	245	-			

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	193.9
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1000	-	-	-	87
HCM Lane V/C Ratio	0.009	-	-	-	1.037
HCM Control Delay (s)	8.6	-	-	-	193.9
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	6

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

Intersection	
Int Delay, s/veh	703.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	128	801	65	50	822	84	180	18	176	106	16	11
Future Vol, veh/h	128	801	65	50	822	84	180	18	176	106	16	11
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	150	-	-	220	-	250	-	-	0	-	-	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, %	0	3	0	0	3	0	0	0	1	2	2	2
Mvmt Flow	133	834	68	52	856	88	188	19	183	110	17	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	944	0	0	902	0	0	2152	2182	868	2195	2128	856
Stage 1	-	-	-	-	-	-	1134	1134	-	960	960	-
Stage 2	-	-	-	-	-	-	1018	1048	-	1235	1168	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.21	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.12	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.309	3.518	4.018	3.318
Pot Cap-1 Maneuver	735	-	-	762	-	-	~ 35	47	353	~ 32	50	357
Stage 1	-	-	-	-	-	-	249	280	-	308	335	-
Stage 2	-	-	-	-	-	-	289	307	-	216	267	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	735	-	-	762	-	-	~ 19	36	353	~ 8	38	357
Mov Cap-2 Maneuver	-	-	-	-	-	-	~ 19	36	-	~ 8	38	-
Stage 1	-	-	-	-	-	-	204	229	-	252	312	-
Stage 2	-	-	-	-	-	-	247	286	-	~ 78	219	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.4	0.5	$ 2429.5	$ 6158.2
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	20	353	735	-	-	762	-	-	9	357
HCM Lane V/C Ratio	10.313	0.519	0.181	-	-	0.068	-	-	14.12	0.032
HCM Control Delay (s)	$ 4566.3	25.7	11	-	-	10.1	-	-	$ 6712.1	15.4
HCM Lane LOS	F	D	B	-	-	B	-	-	F	C
HCM 95th %tile Q(veh)	26.2	2.9	0.7	-	-	0.2	-	-	17.5	0.1

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

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	1087	905	36	0	51
Future Vol, veh/h	0	1087	905	36	0	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	185	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	0	1144	953	38	0	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	953
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	0	317
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	317
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.7
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	317
HCM Lane V/C Ratio	-	-	0.169
HCM Control Delay (s)	-	-	18.7
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.6

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1057	13	25	918	4	27
Future Vol, veh/h	1057	13	25	918	4	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	1101	14	26	956	4	28

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1101	0	2109	1101
Stage 1	-	-	-	-	1101	-
Stage 2	-	-	-	-	1008	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	642	-	57	260
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	356	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	642	-	55	260
Mov Cap-2 Maneuver	-	-	-	-	55	-
Stage 1	-	-	-	-	321	-
Stage 2	-	-	-	-	342	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	27.6
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	55	260	-	-	642	-
HCM Lane V/C Ratio	0.076	0.108	-	-	0.041	-
HCM Control Delay (s)	75.8	20.5	-	-	10.8	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	0.4	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	1087	927	0	6	13
Future Vol, veh/h	0	1087	927	0	6	13
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	96	96	96	96	96	96
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	0	1132	966	0	6	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	2098	966
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	1132	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	58	311
Stage 1	0	-	-	0	372	-
Stage 2	0	-	-	0	311	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	58	311
Mov Cap-2 Maneuver	-	-	-	-	181	-
Stage 1	-	-	-	-	372	-
Stage 2	-	-	-	-	311	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	20.4
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	254
HCM Lane V/C Ratio	-	-	0.078
HCM Control Delay (s)	-	-	20.4
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.3

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	115	975	893	54	12	36
Future Vol, veh/h	115	975	893	54	12	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	125	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	121	1026	940	57	13	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	940	0	-	0	2208	940
Stage 1	-	-	-	-	940	-
Stage 2	-	-	-	-	1268	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	737	-	-	-	49	322
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	267	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	737	-	-	-	41	322
Mov Cap-2 Maneuver	-	-	-	-	41	-
Stage 1	-	-	-	-	320	-
Stage 2	-	-	-	-	267	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	45.3
HCM LOS			E

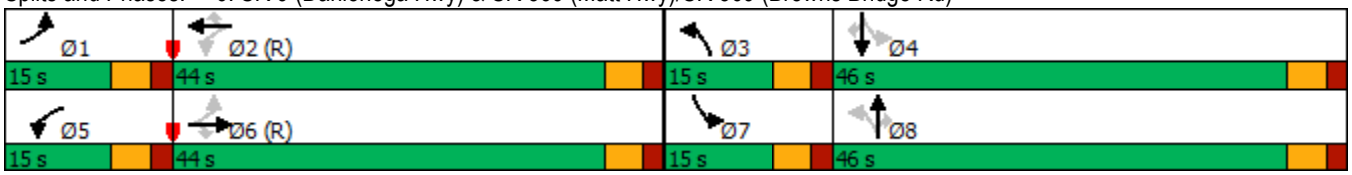
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	737	-	-	-	41	322
HCM Lane V/C Ratio	0.164	-	-	-	0.308	0.118
HCM Control Delay (s)	10.8	-	-	-	127.9	17.7
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.6	-	-	-	1	0.4

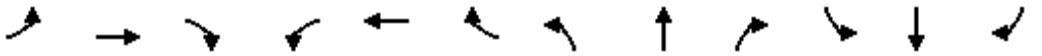
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	693	101	139	699	93	147	437	162	110	365	71
Future Volume (vph)	91	693	101	139	699	93	147	437	162	110	365	71
Lane Group Flow (vph)	96	729	106	146	736	98	155	460	171	116	384	75
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases	6		6	2		2	8		8	4		4
Detector Phase	1	6	6	5	2	2	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	5.0	15.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	5.0	6.0	6.0
Minimum Split (s)	15.0	28.5	28.5	15.0	21.5	21.5	15.0	24.5	24.5	15.0	28.5	28.5
Total Split (s)	15.0	44.0	44.0	15.0	44.0	44.0	15.0	46.0	46.0	15.0	46.0	46.0
Total Split (%)	12.5%	36.7%	36.7%	12.5%	36.7%	36.7%	12.5%	38.3%	38.3%	12.5%	38.3%	38.3%
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	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	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	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	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None	None
v/c Ratio	0.31	0.56	0.16	0.47	0.54	0.14	0.57	0.86	0.30	0.55	0.75	0.14
Control Delay	20.5	33.1	4.2	23.2	32.0	3.2	30.9	55.9	5.6	31.4	48.3	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.5	33.1	4.2	23.2	32.0	3.2	30.9	55.9	5.6	31.4	48.3	1.5
Queue Length 50th (ft)	39	242	0	61	237	0	75	332	0	55	266	0
Queue Length 95th (ft)	77	324	30	112	324	24	113	435	48	87	356	8
Internal Link Dist (ft)		653			1070			1320			1200	
Turn Bay Length (ft)	250		250	310		220	275		275	300		300
Base Capacity (vph)	320	1295	673	321	1360	696	273	641	652	219	616	610
Starvation Cap Reductn	0	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	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.56	0.16	0.45	0.54	0.14	0.57	0.72	0.26	0.53	0.62	0.12

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 9 (Dahlonega Hwy) & SR 369 (Matt Hwy)/SR 369 (Browns Bridge Rd)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	693	101	139	699	93	147	437	162	110	365	71
Future Volume (veh/h)	91	693	101	139	699	93	147	437	162	110	365	71
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	1856	1826	1870	1841	1870	1900	1885	1900	1885	1885	1841	1856
Adj Flow Rate, veh/h	96	729	0	146	736	0	155	460	0	116	384	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	3	5	2	4	2	0	1	0	1	1	4	3
Cap, veh/h	353	1472		365	1570		255	506		203	460	
Arrive On Green	0.05	0.42	0.00	0.06	0.44	0.00	0.08	0.27	0.00	0.06	0.25	0.00
Sat Flow, veh/h	1767	3469	1585	1753	3554	1610	1795	1900	1598	1795	1841	1572
Grp Volume(v), veh/h	96	729	0	146	736	0	155	460	0	116	384	0
Grp Sat Flow(s),veh/h/ln	1767	1735	1585	1753	1777	1610	1795	1900	1598	1795	1841	1572
Q Serve(g_s), s	3.7	18.4	0.0	5.6	17.5	0.0	7.6	28.1	0.0	5.7	23.7	0.0
Cycle Q Clear(g_c), s	3.7	18.4	0.0	5.6	17.5	0.0	7.6	28.1	0.0	5.7	23.7	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	353	1472		365	1570		255	506		203	460	
V/C Ratio(X)	0.27	0.50		0.40	0.47		0.61	0.91		0.57	0.83	
Avail Cap(c_a), veh/h	412	1472		393	1570		255	641		232	621	
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	19.0	25.2	0.0	19.0	23.6	0.0	32.3	42.6	0.0	33.5	42.6	0.0
Incr Delay (d2), s/veh	0.4	1.2	0.0	0.7	1.0	0.0	4.1	14.7	0.0	2.5	7.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	7.5	0.0	2.2	7.2	0.0	3.4	14.6	0.0	2.5	11.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	19.4	26.4	0.0	19.7	24.6	0.0	36.5	57.3	0.0	36.1	49.9	0.0
LnGrp LOS	B	C		B	C		D	E		D	D	
Approach Vol, veh/h		825			882			615			500	
Approach Delay, s/veh		25.6			23.8			52.1			46.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.0	58.5	15.0	35.5	13.1	56.4	13.1	37.4
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Max Green Setting (Gmax), s	9.5	38.5	9.5	40.5	9.5	38.5	9.5	40.5
Max Q Clear Time (g_c+I1), s	5.7	19.5	9.6	25.7	7.6	20.4	7.7	30.1
Green Ext Time (p_c), s	0.1	7.8	0.0	1.7	0.1	7.5	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	34.5
HCM 6th LOS	C

Notes

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

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	174	819	819	165	0	111
Future Vol, veh/h	174	819	819	165	0	111
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	250	-	-	225	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	4	3	1	0	1
Mvmt Flow	183	862	862	174	0	117

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	862	0	-	0	-	431
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.1	-	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.2	-	-	-	-	3.31
Pot Cap-1 Maneuver	789	-	-	-	0	575
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	789	-	-	-	-	575
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	789	-	-	-	575
HCM Lane V/C Ratio	0.232	-	-	-	0.203
HCM Control Delay (s)	10.9	-	-	-	12.9
HCM Lane LOS	B	-	-	-	B
HCM 95th %tile Q(veh)	0.9	-	-	-	0.8

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	995	956	59	0	18
Future Vol, veh/h	0	995	956	59	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	250	-	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	1082	1039	64	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1039
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	0	0	280
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	280
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	280
HCM Lane V/C Ratio	-	-	0.07
HCM Control Delay (s)	-	-	18.8
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	13.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	922	917	57	72	11
Future Vol, veh/h	17	922	917	57	72	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	250	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	18	1002	997	62	78	12

Major/Minor	Major1			Major2		
Conflicting Flow All	1059	0	-	0	2035	997
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	1038	-
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	658	-	-	-	~ 63	296
Stage 1	-	-	-	-	357	-
Stage 2	-	-	-	-	341	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	658	-	-	-	~ 61	296
Mov Cap-2 Maneuver	-	-	-	-	~ 61	-
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	341	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	$ 323.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	658	-	-	-	68
HCM Lane V/C Ratio	0.028	-	-	-	1.327
HCM Control Delay (s)	10.6	-	-	-	-$ 323.8
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	7.4

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

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	102	706	66	63	952	149	96	37	105	153	33	4
Future Vol, veh/h	102	706	66	63	952	149	96	37	105	153	33	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	150	-	-	220	-	250	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	7	0	0	4	0	0	4	3	2	2	2
Mvmt Flow	116	802	75	72	1082	169	109	42	119	174	38	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1251	0	0	877	0	0	2404	2467	840	2378	2335	1082
Stage 1	-	-	-	-	-	-	1072	1072	-	1226	1226	-
Stage 2	-	-	-	-	-	-	1332	1395	-	1152	1109	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.54	6.23	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.12	5.52	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.036	3.327	3.518	4.018	3.318
Pot Cap-1 Maneuver	563	-	-	779	-	-	~ 23	~ 30	364	~ 24	~ 37	264
Stage 1	-	-	-	-	-	-	269	294	-	218	251	-
Stage 2	-	-	-	-	-	-	192	206	-	241	285	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	563	-	-	779	-	-	-	~ 22	364	-	~ 27	264
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	~ 22	-	-	~ 27	-
Stage 1	-	-	-	-	-	-	214	233	-	~ 173	228	-
Stage 2	-	-	-	-	-	-	143	187	-	~ 105	226	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	1.5	0.5		
HCM LOS			-	-

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	-	364	563	-	-	779	-	-	-	264
HCM Lane V/C Ratio	-	0.328	0.206	-	-	0.092	-	-	-	0.017
HCM Control Delay (s)	-	19.6	13	-	-	10.1	-	-	-	18.9
HCM Lane LOS	-	C	B	-	-	B	-	-	-	C
HCM 95th %tile Q(veh)	-	1.4	0.8	-	-	0.3	-	-	-	0.1

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

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	962	1089	33	0	74
Future Vol, veh/h	0	962	1089	33	0	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	185	-	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	7	4	0	0	0
Mvmt Flow	0	1057	1197	36	0	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1197
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.3
Pot Cap-1 Maneuver	0	-	-	0	0	229
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	229
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	29.1
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	229
HCM Lane V/C Ratio	-	-	0.355
HCM Control Delay (s)	-	-	29.1
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	1.5

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	911	9	14	1087	7	13
Future Vol, veh/h	911	9	14	1087	7	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	-	215	200	-	0	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	0	0	4	0	0
Mvmt Flow	969	10	15	1156	7	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	969	0	2155	969
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	1186	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	719	-	53	310
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	293	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	719	-	52	310
Mov Cap-2 Maneuver	-	-	-	-	52	-
Stage 1	-	-	-	-	371	-
Stage 2	-	-	-	-	287	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	41.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	52	310	-	-	719	-
HCM Lane V/C Ratio	0.143	0.045	-	-	0.021	-
HCM Control Delay (s)	85.5	17.2	-	-	10.1	-
HCM Lane LOS	F	C	-	-	B	-
HCM 95th %tile Q(veh)	0.5	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↱	
Traffic Vol, veh/h	0	961	1095	0	10	29
Future Vol, veh/h	0	961	1095	0	10	29
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	94	94	94	94	94	94
Heavy Vehicles, %	0	6	4	0	0	0
Mvmt Flow	0	1022	1165	0	11	31

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	2187	1165
Stage 1	-	-	-	-	1165	-
Stage 2	-	-	-	-	1022	-
Critical Hdwy	-	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	0	-	-	0	51	239
Stage 1	0	-	-	0	299	-
Stage 2	0	-	-	0	350	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	51	239
Mov Cap-2 Maneuver	-	-	-	-	170	-
Stage 1	-	-	-	-	299	-
Stage 2	-	-	-	-	350	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	25.6
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	216
HCM Lane V/C Ratio	-	-	0.192
HCM Control Delay (s)	-	-	25.6
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	0.7

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	85	888	1054	53	44	42
Future Vol, veh/h	85	888	1054	53	44	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	125	-	-	0	0	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	7	5	0	0	0
Mvmt Flow	89	935	1109	56	46	44

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1109	0	-	0	2222	1109
Stage 1	-	-	-	-	1109	-
Stage 2	-	-	-	-	1113	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	637	-	-	-	48	257
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	317	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	637	-	-	-	~ 41	257
Mov Cap-2 Maneuver	-	-	-	-	~ 41	-
Stage 1	-	-	-	-	273	-
Stage 2	-	-	-	-	317	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	182.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	637	-	-	-	41	257
HCM Lane V/C Ratio	0.14	-	-	-	1.13	0.172
HCM Control Delay (s)	11.6	-	-	-	$ 335.3	21.9
HCM Lane LOS	B	-	-	-	F	C
HCM 95th %tile Q(veh)	0.5	-	-	-	4.5	0.6

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

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	0	0	0
Future Vol, veh/h	0	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Yield	-	Yield
Storage Length	250	-	-	225	-	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	0	0	0	0	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1	0	-	0	-	1
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	3.32
Pot Cap-1 Maneuver	1620	-	-	-	0	1083
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1620	-	-	-	-	1083
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	0
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1620	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	-	0
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↱		↱
Traffic Vol, veh/h	0	874	954	98	0	18
Future Vol, veh/h	0	874	954	98	0	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	Free	-	Yield
Storage Length	-	-	-	250	-	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	950	1037	107	0	20

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1037
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	0	0	281
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	-	281
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.8
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	SBLn1
Capacity (veh/h)	-	-	281
HCM Lane V/C Ratio	-	-	0.07
HCM Control Delay (s)	-	-	18.8
HCM Lane LOS	-	-	C
HCM 95th %tile Q(veh)	-	-	0.2

Intersection	
Int Delay, s/veh	51.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	34	724	855	116	150	22
Future Vol, veh/h	34	724	855	116	150	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	310	-	-	250	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	37	787	929	126	163	24

Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	1055	0	-	0	1790	929			
Stage 1	-	-	-	-	929	-			
Stage 2	-	-	-	-	861	-			
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	660	-	-	-	~ 89	324			
Stage 1	-	-	-	-	385	-			
Stage 2	-	-	-	-	414	-			
Platoon blocked, %		-	-	-					
Mov Cap-1 Maneuver	660	-	-	-	~ 84	324			
Mov Cap-2 Maneuver	-	-	-	-	~ 84	-			
Stage 1	-	-	-	-	363	-			
Stage 2	-	-	-	-	414	-			

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	$ 565.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	660	-	-	-	93
HCM Lane V/C Ratio	0.056	-	-	-	2.01
HCM Control Delay (s)	10.8	-	-	-	-$ 565.5
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0.2	-	-	-	16.1

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

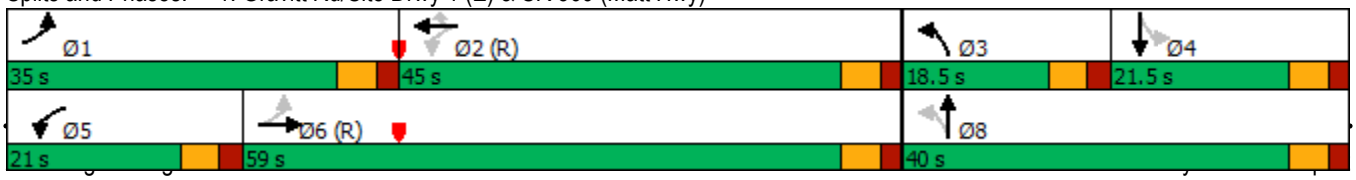
Future “Build” Intersections Analysis with Improvements

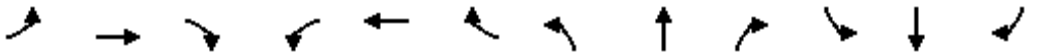
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	308	573	119	503	43	29	9	108	16
Future Volume (vph)	308	573	119	503	43	29	9	108	16
Lane Group Flow (vph)	321	1016	124	524	45	30	110	113	27
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	NA
Protected Phases	1	6	5	2		3	8		4
Permitted Phases	6		2		2	8		4	
Detector Phase	1	6	5	2	2	3	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	6.0
Minimum Split (s)	15.0	21.5	15.0	21.5	21.5	15.0	21.5	21.5	21.5
Total Split (s)	35.0	59.0	21.0	45.0	45.0	18.5	40.0	21.5	21.5
Total Split (%)	29.2%	49.2%	17.5%	37.5%	37.5%	15.4%	33.3%	17.9%	17.9%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Min	None	C-Min	C-Min	None	None	None	None
v/c Ratio	0.55	0.99	0.61	0.61	0.05	0.12	0.28	0.68	0.11
Control Delay	11.4	51.3	35.2	31.5	1.0	35.1	9.5	69.3	32.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	51.3	35.2	31.5	1.0	35.1	9.5	69.3	32.3
Queue Length 50th (ft)	91	~843	24	372	0	18	5	84	12
Queue Length 95th (ft)	157	#1233	82	#594	7	41	48	144	38
Internal Link Dist (ft)		495		528			367		216
Turn Bay Length (ft)	310		220		250	150			
Base Capacity (vph)	693	1030	298	866	896	293	532	186	267
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	0.46	0.99	0.42	0.61	0.05	0.10	0.21	0.61	0.10

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 130
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: 1: Gravitt Rd/Site Drwy 1 (E) & SR 369 (Matt Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	573	402	119	503	43	29	9	97	108	16	10
Future Volume (veh/h)	308	573	402	119	503	43	29	9	97	108	16	10
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	1811	1900	1900	1752	1900	1900	1826	1870	1870	1900	1870
Adj Flow Rate, veh/h	321	597	419	124	524	45	30	9	101	112	17	10
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	6	0	0	10	0	0	5	2	2	0	2
Cap, veh/h	585	637	447	197	1048	964	234	23	253	193	116	68
Arrive On Green	0.09	0.64	0.64	0.04	0.60	0.60	0.03	0.18	0.18	0.10	0.10	0.10
Sat Flow, veh/h	1810	991	695	1810	1752	1610	1810	128	1439	1283	1122	660
Grp Volume(v), veh/h	321	0	1016	124	524	45	30	0	110	112	0	27
Grp Sat Flow(s),veh/h/ln	1810	0	1686	1810	1752	1610	1810	0	1567	1283	0	1781
Q Serve(g_s), s	7.7	0.0	65.0	3.2	20.6	1.4	1.7	0.0	7.5	10.3	0.0	1.7
Cycle Q Clear(g_c), s	7.7	0.0	65.0	3.2	20.6	1.4	1.7	0.0	7.5	10.3	0.0	1.7
Prop In Lane	1.00		0.41	1.00		1.00	1.00		0.92	1.00		0.37
Lane Grp Cap(c), veh/h	585	0	1084	197	1048	964	234	0	275	193	0	184
V/C Ratio(X)	0.55	0.00	0.94	0.63	0.50	0.05	0.13	0.00	0.40	0.58	0.00	0.15
Avail Cap(c_a), veh/h	870	0	1084	351	1048	964	382	0	450	231	0	238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.8	0.0	19.3	26.9	13.8	10.0	44.5	0.0	43.9	52.8	0.0	49.0
Incr Delay (d2), s/veh	0.8	0.0	15.9	3.3	1.7	0.1	0.2	0.0	0.9	2.8	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.0	0.0	35.8	4.1	12.9	0.9	1.4	0.0	5.3	6.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.6	0.0	35.1	30.2	15.5	10.0	44.7	0.0	44.8	55.6	0.0	49.3
LnGrp LOS	B	A	D	C	B	B	D	A	D	E	A	D
Approach Vol, veh/h		1337			693			140			139	
Approach Delay, s/veh		29.2			17.8			44.8			54.4	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	16.1	77.3	8.7	17.9	10.8	82.7		26.6				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	29.5	39.5	13.0	16.0	15.5	53.5		34.5				
Max Q Clear Time (g_c+I1), s	9.7	22.6	3.7	12.3	5.2	67.0		9.5				
Green Ext Time (p_c), s	0.9	5.8	0.0	0.1	0.2	0.0		0.6				

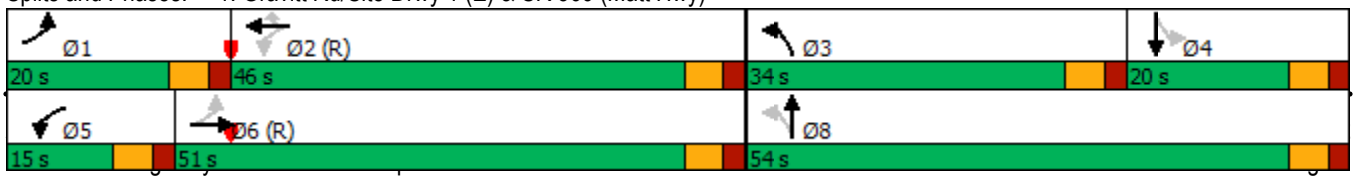
Intersection Summary												
HCM 6th Ctrl Delay			28.3									
HCM 6th LOS			C									

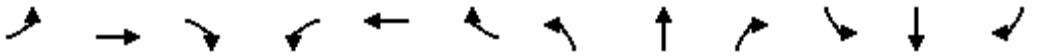
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	128	801	50	822	84	180	18	106	16
Future Volume (vph)	128	801	50	822	84	180	18	106	16
Lane Group Flow (vph)	133	902	52	856	88	188	202	110	28
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	NA
Protected Phases	1	6	5	2		3	8		4
Permitted Phases	6		2		2	8		4	
Detector Phase	1	6	5	2	2	3	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	6.0
Minimum Split (s)	15.0	21.5	15.0	21.5	21.5	15.0	21.5	21.5	21.5
Total Split (s)	20.0	51.0	15.0	46.0	46.0	34.0	54.0	20.0	20.0
Total Split (%)	16.7%	42.5%	12.5%	38.3%	38.3%	28.3%	45.0%	16.7%	16.7%
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	Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Min	None	C-Min	C-Min	None	None	None	None
v/c Ratio	0.61	0.97	0.31	1.01	0.11	0.44	0.32	0.65	0.10
Control Delay	32.7	54.7	14.4	71.1	9.9	33.3	6.2	64.8	29.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	54.7	14.4	71.1	9.9	33.3	6.2	64.8	29.9
Queue Length 50th (ft)	48	~706	20	~712	18	110	10	81	11
Queue Length 95th (ft)	120	#1137	m46	#1152	59	153	56	137	37
Internal Link Dist (ft)		495		528			367		216
Turn Bay Length (ft)	310		220		250	150			
Base Capacity (vph)	279	929	206	851	811	514	766	178	279
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	0.48	0.97	0.25	1.01	0.11	0.37	0.26	0.62	0.10

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 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: 1: Gravitt Rd/Site Drwy 1 (E) & SR 369 (Matt Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	128	801	65	50	822	84	180	18	176	106	16	11
Future Volume (veh/h)	128	801	65	50	822	84	180	18	176	106	16	11
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	1856	1900	1900	1856	1900	1900	1900	1885	1870	1900	1870
Adj Flow Rate, veh/h	133	834	68	52	856	88	188	19	183	110	17	11
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	3	0	0	3	0	0	0	1	2	0	2
Cap, veh/h	257	956	78	211	1020	885	390	40	390	188	117	76
Arrive On Green	0.05	0.56	0.56	0.03	0.55	0.55	0.11	0.26	0.26	0.11	0.11	0.11
Sat Flow, veh/h	1810	1693	138	1810	1856	1610	1810	154	1480	1180	1077	697
Grp Volume(v), veh/h	133	0	902	52	856	88	188	0	202	110	0	28
Grp Sat Flow(s),veh/h/ln	1810	0	1831	1810	1856	1610	1810	0	1634	1180	0	1775
Q Serve(g_s), s	3.8	0.0	50.7	1.5	46.3	3.1	10.7	0.0	12.5	11.0	0.0	1.7
Cycle Q Clear(g_c), s	3.8	0.0	50.7	1.5	46.3	3.1	10.7	0.0	12.5	11.0	0.0	1.7
Prop In Lane	1.00		0.08	1.00		1.00	1.00		0.91	1.00		0.39
Lane Grp Cap(c), veh/h	257	0	1034	211	1020	885	390	0	430	188	0	193
V/C Ratio(X)	0.52	0.00	0.87	0.25	0.84	0.10	0.48	0.00	0.47	0.58	0.00	0.15
Avail Cap(c_a), veh/h	386	0	1034	292	1020	885	622	0	660	203	0	214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	22.4	21.6	22.6	12.9	39.3	0.0	37.1	52.6	0.0	48.4
Incr Delay (d2), s/veh	1.6	0.0	10.1	0.6	8.3	0.2	0.9	0.0	0.8	3.7	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.0	0.0	30.1	1.1	28.0	2.1	8.4	0.0	8.7	6.3	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	23.2	0.0	32.5	22.2	30.9	13.1	40.2	0.0	37.9	56.3	0.0	48.8
LnGrp LOS	C	A	C	C	C	B	D	A	D	E	A	D
Approach Vol, veh/h		1035			996			390			138	
Approach Delay, s/veh		31.3			28.8			39.1			54.7	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6		8
Phs Duration (G+Y+Rc), s	11.4	71.5	18.6	18.6	9.6	73.3		37.1
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5
Max Green Setting (Gmax), s	14.5	40.5	28.5	14.5	9.5	45.5		48.5
Max Q Clear Time (g_c+I1), s	5.8	48.3	12.7	13.0	3.5	52.7		14.5
Green Ext Time (p_c), s	0.2	0.0	0.4	0.1	0.0	0.0		1.3

Intersection Summary	
HCM 6th Ctrl Delay	32.8
HCM 6th LOS	C

Notes

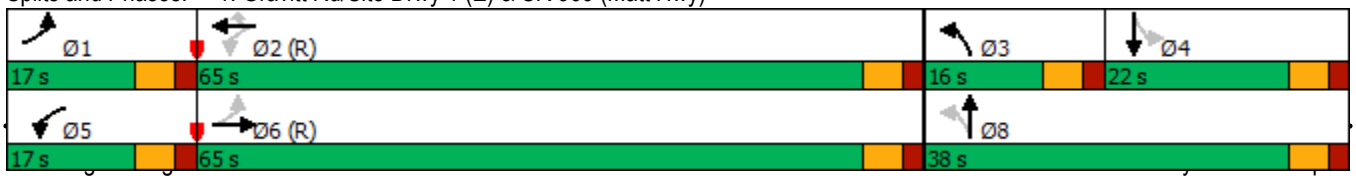
User approved pedestrian interval to be less than phase max green.

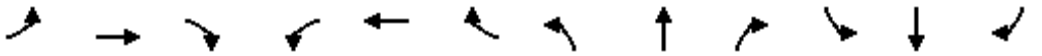
Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	102	706	63	952	149	96	37	153	33
Future Volume (vph)	102	706	63	952	149	96	37	153	33
Lane Group Flow (vph)	116	877	72	1082	169	109	161	174	43
Turn Type	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	NA
Protected Phases	1	6	5	2		3	8		4
Permitted Phases	6		2		2	8		4	
Detector Phase	1	6	5	2	2	3	8	4	4
Switch Phase									
Minimum Initial (s)	5.0	15.0	5.0	15.0	15.0	5.0	6.0	6.0	6.0
Minimum Split (s)	15.0	21.5	15.0	21.5	21.5	15.0	21.5	21.5	21.5
Total Split (s)	17.0	65.0	17.0	65.0	65.0	16.0	38.0	22.0	22.0
Total Split (%)	14.2%	54.2%	14.2%	54.2%	54.2%	13.3%	31.7%	18.3%	18.3%
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	Lag	Lead		Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes
Recall Mode	None	C-Min	None	C-Min	C-Min	None	None	None	None
v/c Ratio	0.58	0.91	0.35	1.15	0.19	0.32	0.30	0.99	0.16
Control Delay	30.3	39.8	13.5	107.7	5.7	36.8	12.7	117.4	43.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.3	39.8	13.5	107.7	5.7	36.8	12.7	117.4	43.1
Queue Length 50th (ft)	34	606	20	~981	17	66	26	~145	26
Queue Length 95th (ft)	93	#897	36	#1225	53	112	77	#281	60
Internal Link Dist (ft)		495		528			367		216
Turn Bay Length (ft)	310		220		250	150			
Base Capacity (vph)	235	968	267	943	893	350	528	176	273
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	0.49	0.91	0.27	1.15	0.19	0.31	0.30	0.99	0.16

Intersection Summary

Cycle Length: 120
Actuated Cycle Length: 120
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green
Natural Cycle: 150
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: 1: Gravitt Rd/Site Drwy 1 (E) & SR 369 (Matt Hwy)





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	706	66	63	952	149	96	37	105	153	33	4
Future Volume (veh/h)	102	706	66	63	952	149	96	37	105	153	33	4
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	1796	1900	1900	1841	1900	1900	1841	1856	1870	1900	1870
Adj Flow Rate, veh/h	116	802	75	72	1082	169	109	42	119	174	38	5
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	7	0	0	4	0	0	4	3	2	0	2
Cap, veh/h	144	932	87	231	1044	913	340	105	299	228	226	30
Arrive On Green	0.05	0.58	0.58	0.04	0.57	0.57	0.07	0.25	0.25	0.14	0.14	0.14
Sat Flow, veh/h	1810	1618	151	1810	1841	1610	1810	424	1201	1225	1645	216
Grp Volume(v), veh/h	116	0	877	72	1082	169	109	0	161	174	0	43
Grp Sat Flow(s),veh/h/ln	1810	0	1769	1810	1841	1610	1810	0	1625	1225	0	1861
Q Serve(g_s), s	3.6	0.0	50.0	2.0	68.1	6.1	6.0	0.0	9.9	16.5	0.0	2.4
Cycle Q Clear(g_c), s	3.6	0.0	50.0	2.0	68.1	6.1	6.0	0.0	9.9	16.5	0.0	2.4
Prop In Lane	1.00		0.09	1.00		1.00	1.00		0.74	1.00		0.12
Lane Grp Cap(c), veh/h	144	0	1019	231	1044	913	340	0	404	228	0	256
V/C Ratio(X)	0.80	0.00	0.86	0.31	1.04	0.19	0.32	0.00	0.40	0.76	0.00	0.17
Avail Cap(c_a), veh/h	233	0	1019	336	1044	913	381	0	440	228	0	256
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	31.4	0.0	21.4	21.0	26.0	12.6	39.0	0.0	37.6	52.0	0.0	45.7
Incr Delay (d2), s/veh	10.0	0.0	9.5	0.8	37.6	0.4	0.5	0.0	0.6	14.0	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.9	0.0	28.6	1.6	48.6	4.0	4.9	0.0	7.2	10.2	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.3	0.0	30.9	21.8	63.6	13.0	39.5	0.0	38.2	66.0	0.0	46.0
LnGrp LOS	D	A	C	C	F	B	D	A	D	E	A	D
Approach Vol, veh/h		993			1323			270			217	
Approach Delay, s/veh		32.1			54.8			38.8			62.0	
Approach LOS		C			D			D			E	

Timer - Assigned Phs	1	2	3	4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	73.6	13.3	22.0	10.0	74.6		35.3				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5		5.5				
Max Green Setting (Gmax), s	11.5	59.5	10.5	16.5	11.5	59.5		32.5				
Max Q Clear Time (g_c+I1), s	5.6	70.1	8.0	18.5	4.0	52.0		11.9				
Green Ext Time (p_c), s	0.1	0.0	0.1	0.0	0.1	5.1		0.8				

Intersection Summary			
HCM 6th Ctrl Delay		45.8	
HCM 6th LOS		D	

Notes

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

Traffic Volume Worksheets

23-030 - 3970 Matt Highway Mixed-Use Dev - Forsyth County, GA
Traffic Volumes

A&R Engineering
August 2023

1. SR 369 @ Gravitt Rd-Drwy 1 E

A.M. Peak Hour

	Gravitt Road Northbound					Site Driveway 1 (Eastern, Full Access) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	22	0	78	100	0	0	0	0	0	0	0	700	352	1052	0	94	389	0	483
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	9	9	0	0	0	0	0	0	0	16	0	16	0	13	24	0	37
No-Build 2029 Volumes:	0	25	0	97	122	0	0	0	0	0	0	0	808	398	1206	0	119	464	0	583
Shifted Left Turns:	0	0	0	0	0	0	3	0	0	3	0	266	-266	0	0	0	0	0	0	0
Total New Trips:	0	4	9	0	13	0	70	16	2	88	0	5	68	4	77	0	0	47	35	82
Pass-by Trips:	0	0	0	0	0	0	35	0	8	43	0	37	-37	0	0	0	0	-8	8	0
Future 2029 Traffic Volumes:	0	29	9	97	135	0	108	16	10	134	0	308	573	402	1283	0	119	503	43	665

P.M. Peak Hour

	Gravitt Road Northbound					Site Driveway 1 (Eastern, Full Access) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	152	0	142	294	0	0	0	0	0	0	0	728	54	782	0	33	628	0	661
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	15	15	0	0	0	0	0	0	0	26	0	26	0	13	23	0	36
No-Build 2029 Volumes:	0	172	0	176	348	0	0	0	0	0	0	0	850	61	911	0	50	734	0	784
Shifted Left Turns:	0	0	0	0	0	0	16	0	0	16	0	94	-94	0	0	0	0	0	0	0
Total New Trips:	0	8	18	0	26	0	70	16	2	88	0	11	68	4	83	0	0	98	74	172
Pass-by Trips:	0	0	0	0	0	0	20	0	9	29	0	23	-23	0	0	0	0	-10	10	0
Future 2029 Traffic Volumes:	0	180	18	176	374	0	106	16	11	133	0	128	801	65	994	0	50	822	84	956

School Dismissal Peak Hour

	Gravitt Road Northbound					Site Driveway 1 (Eastern, Full Access) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	71	0	81	152	0	0	0	0	0	0	0	549	51	600	0	47	649	0	696
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	13	13	0	0	0	0	0	0	0	22	0	22	0	10	18	0	28
No-Build 2029 Volumes:	0	80	0	105	185	0	0	0	0	0	0	0	643	58	701	0	63	753	0	816
Shifted Left Turns:	0	0	0	0	0	0	8	0	0	8	0	79	-79	0	0	0	0	0	0	0
Total New Trips:	0	16	37	0	53	0	145	33	4	182	0	23	142	8	173	0	0	199	149	348
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	96	37	105	238	0	153	33	4	190	0	102	706	66	874	0	63	952	149	1164

23-030 - 3970 Matt Highway Mixed-Use Dev - Forsyth County, GA
Traffic Volumes

A&R Engineering
August 2023

2. SR 369 @ Tranportation Ctr

A.M. Peak Hour

	-					N. Transportation Center Driveway					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	1	0	63	64	0	235	543	0	778	0	0	420	25	445
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	2	0	0	2	0	0	25	0	25	0	0	37	3	40
No-Build 2029 Volumes:	0	0	0	0	0	0	3	0	71	74	0	266	640	0	906	0	0	512	31	543
Shifted Left Turns:	0	0	0	0	0	0	-3	0	0	-3	0	-266	3	0	-263	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	139	0	139	0	0	83	4	87
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	71	71	0	0	782	0	782	0	0	595	35	630

P.M. Peak Hour

	-					N. Transportation Center Driveway					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	11	0	45	56	0	83	786	0	869	0	0	616	21	637
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	4	0	0	4	0	0	42	0	42	0	0	36	3	39
No-Build 2029 Volumes:	0	0	0	0	0	0	16	0	51	67	0	94	932	0	1026	0	0	733	27	760
Shifted Left Turns:	0	0	0	0	0	0	-16	0	0	-16	0	-94	16	0	-78	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	139	0	139	0	0	172	9	181
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	51	51	0	0	1087	0	1087	0	0	905	36	941

School Dismissal Peak Hour

	-					N. Transportation Center Driveway					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	4	0	65	69	0	70	558	0	628	0	0	630	11	641
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	3	0	0	3	0	0	35	0	35	0	0	29	3	32
No-Build 2029 Volumes:	0	0	0	0	0	0	8	0	74	82	0	79	667	0	746	0	0	742	15	757
Shifted Left Turns:	0	0	0	0	0	0	-8	0	0	-8	0	-79	8	0	-71	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	0	0	0	0	287	0	287	0	0	347	18	365
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	74	74	0	0	962	0	962	0	0	1089	33	1122

23-030 - 3970 Matt Highway Mixed-Use Dev - Forsyth County, GA
Traffic Volumes

A&R Engineering
August 2023

3. SR 369 @ Sierra Lake Dr

A.M. Peak Hour

	Sierra Lake Drive					-					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	3	0	15	18	0	0	0	0	0	0	0	625	3	628	0	12	372	0	384
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	4	4	0	0	0	0	0	0	0	27	0	27	0	7	40	0	47
No-Build 2029 Volumes:	0	3	0	21	24	0	0	0	0	0	0	0	735	3	738	0	21	461	0	482
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	1	0	0	1	0	0	0	0	0	0	0	137	2	139	0	0	86	0	86
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	4	0	21	25	0	0	0	0	0	0	0	872	5	877	0	21	547	0	568

P.M. Peak Hour

	Sierra Lake Drive					-					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	2	0	17	19	0	0	0	0	0	0	0	773	10	783	0	17	618	0	635
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	8	8	0	0	0	0	0	0	0	45	0	45	0	6	39	0	45
No-Build 2029 Volumes:	0	2	0	27	29	0	0	0	0	0	0	0	920	11	931	0	25	739	0	764
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	2	0	0	2	0	0	0	0	0	0	0	137	2	139	0	0	179	0	179
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	4	0	27	31	0	0	0	0	0	0	0	1057	13	1070	0	25	918	0	943

School Dismissal Peak Hour

	Sierra Lake Drive					-					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	2	0	6	8	0	0	0	0	0	0	0	521	4	525	0	8	614	0	622
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	6	6	0	0	0	0	0	0	0	38	0	38	0	5	31	0	36
No-Build 2029 Volumes:	0	2	0	13	15	0	0	0	0	0	0	0	628	5	633	0	14	726	0	740
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	5	0	0	5	0	0	0	0	0	0	0	283	4	287	0	0	361	0	361
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	7	0	13	20	0	0	0	0	0	0	0	911	9	920	0	14	1087	0	1101

23-030 - 3970 Matt Highway Mixed-Use Dev - Forsyth County, GA
Traffic Volumes

A&R Engineering
August 2023

4. SR 369 @ Elem Sch Exit Drwy

A.M. Peak Hour

	-					Elementary School Exit Only Driveway					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	187	0	112	299	0	0	545	0	545	0	0	332	0	332
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	31	0	31	0	0	47	0	47
No-Build 2029 Volumes:	0	0	0	0	0	0	212	0	127	339	0	0	648	0	648	0	0	423	0	423
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	1	1	0	0	137	0	137	0	0	85	0	85
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	212	0	128	340	0	0	785	0	785	0	0	508	0	508

P.M. Peak Hour

	-					Elementary School Exit Only Driveway					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	5	0	10	15	0	0	792	0	792	0	0	624	0	624
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	53	0	53	0	0	45	0	45
No-Build 2029 Volumes:	0	0	0	0	0	0	6	0	11	17	0	0	950	0	950	0	0	751	0	751
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	2	2	0	0	137	0	137	0	0	176	0	176
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	6	0	13	19	0	0	1087	0	1087	0	0	927	0	927

School Dismissal Peak Hour

	-					Elementary School Exit Only Driveway					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	9	0	22	31	0	0	560	0	560	0	0	620	0	620
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	44	0	44	0	0	36	0	36
No-Build 2029 Volumes:	0	0	0	0	0	0	10	0	25	35	0	0	678	0	678	0	0	738	0	738
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	4	4	0	0	283	0	283	0	0	357	0	357
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	10	0	29	39	0	0	961	0	961	0	0	1095	0	1095

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Traffic Volumes

A&R Engineering
August 2023

5. SR 369 @ Coal Mountain Dr

A.M. Peak Hour

	-					Coal Moutain Drive					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	24	0	52	76	0	195	537	0	732	0	0	280	154	434
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	2	0	0	2	0	0	31	0	31	0	0	47	3	50
No-Build 2029 Volumes:	0	0	0	0	0	0	29	0	59	88	0	221	639	0	860	0	0	364	177	541
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	2	2	0	5	131	0	136	0	0	82	0	82
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	29	0	61	90	0	226	770	0	996	0	0	446	177	623

P.M. Peak Hour

	-					Coal Moutain Drive					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	7	0	27	34	0	97	699	0	796	0	0	597	45	642
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	4	0	0	4	0	0	53	0	53	0	0	45	3	48
No-Build 2029 Volumes:	0	0	0	0	0	0	12	0	31	43	0	110	844	0	954	0	0	721	54	775
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	5	5	0	5	131	0	136	0	0	172	0	172
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	12	0	36	48	0	115	975	0	1090	0	0	893	54	947

School Dismissal Peak Hour

	-					Coal Moutain Drive					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	36	0	28	64	0	65	504	0	569	0	0	592	44	636
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	3	0	0	3	0	0	45	0	45	0	0	37	3	40
No-Build 2029 Volumes:	0	0	0	0	0	0	44	0	32	76	0	74	616	0	690	0	0	707	53	760
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	10	10	0	11	272	0	283	0	0	347	0	347
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	44	0	42	86	0	85	888	0	973	0	0	1054	53	1107

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Traffic Volumes

A&R Engineering
August 2023

6. SR 369 @ SR 9

A.M. Peak Hour

	SR 9 (Dahlonega Highway) Northbound					SR 9 (Dahlonega Highway) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	52	141	117	310	0	179	360	24	563	0	21	440	74	535	0	131	352	84	567
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	-51	54	8	11	0	0	0	0	0	0	-54	-8	-39	-101
Adjacent DRI Trips:	0	0	39	17	56	0	13	46	13	72	0	17	17	0	34	30	38	38	9	115
No-Build 2029 Volumes:	0	59	199	149	407	0	165	508	48	721	0	41	515	84	640	30	132	428	65	655
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	20	0	0	20	0	0	0	11	11	0	18	81	32	131	0	0	51	0	51
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	79	199	149	427	0	165	508	59	732	0	59	596	116	771	30	132	479	65	706

P.M. Peak Hour

	SR 9 (Dahlonega Highway) Northbound					SR 9 (Dahlonega Highway) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	93	328	118	539	0	115	249	26	390	0	40	516	61	617	0	100	497	105	702
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	-33	39	6	12	0	0	0	0	0	0	-39	-6	-41	-86
Adjacent DRI Trips:	0	0	66	28	94	0	13	44	12	69	0	28	28	0	56	29	36	36	15	116
No-Build 2029 Volumes:	0	105	437	162	704	0	110	365	47	522	0	73	612	69	754	29	110	593	93	825
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	42	0	0	42	0	0	0	24	24	0	18	81	32	131	0	0	106	0	106
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	147	437	162	746	0	110	365	71	546	0	91	693	101	885	29	110	699	93	931

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Traffic Volumes

A&R Engineering
August 2023

7. SR 369 @ Settingdown Rd

A.M. Peak Hour

	-					Settingdown Road					SR 369 (Browns Bridge Road)					SR 369 (Browns Bridge Road)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	41	0	135	176	0	79	657	0	736	0	0	432	40	472
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	-46	0	-77	-123	0	0	-51	0	-51	0	0	-24	5	-19
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	46	46	8	26	43	0	77	0	0	31	18	49
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	122	122	8	115	736	0	859	0	0	496	68	564
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	6	6	0	9	72	0	81	0	0	45	0	45
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	128	128	8	124	808	0	940	0	0	541	68	609

P.M. Peak Hour

	-					Settingdown Road					SR 369 (Browns Bridge Road)					SR 369 (Browns Bridge Road)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	24	0	97	121	0	97	651	0	748	0	0	624	114	738
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	-27	0	-55	-82	0	0	-33	0	-33	0	0	-30	6	-24
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	44	44	13	42	43	0	98	0	0	49	30	79
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	99	99	13	152	747	0	912	0	0	725	165	890
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	12	12	0	9	72	0	81	0	0	94	0	94
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	111	111	13	161	819	0	993	0	0	819	165	984

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Traffic Volumes

A&R Engineering
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8. SR 369 @ Drwy 2 (RIRO)

A.M. Peak Hour

	-					Site Driveway 2 (Middle, RIRO)					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	0	1052	0	1052	0	0	411	0	411
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	0	0	24	0	24
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	1207	0	1207	0	0	489	0	489
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	9	9	0	0	78	0	78	0	0	30	23	53
Pass-by Trips:	0	0	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	-8	8	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	17	17	0	0	1285	0	1285	0	0	511	31	542

P.M. Peak Hour

	-					Site Driveway 2 (Middle, RIRO)					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	0	782	0	782	0	0	780	0	780
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	26	0	26	0	0	23	0	23
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	911	0	911	0	0	906	0	906
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	9	9	0	0	84	0	84	0	0	60	49	109
Pass-by Trips:	0	0	0	0	0	0	0	0	9	9	0	0	0	0	0	0	0	-10	10	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	18	18	0	0	995	0	995	0	0	956	59	1015

School Dismissal Peak Hour

	-					Site Driveway 2 (Middle, RIRO)					SR 369 (Matt Highway)					SR 369 (Matt Highway)				
	Northbound					**Southbound**					**Eastbound**					**Westbound**				
Condition	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	0	600	0	600	0	0	720	0	720
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	22	0	22	0	0	18	0	18
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	701	0	701	0	0	833	0	833
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	0	0	18	18	0	0	173	0	173	0	0	121	98	219
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	0	0	18	18	0	0	874	0	874	0	0	954	98	1052

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Traffic Volumes

A&R Engineering
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9. SR 369 @ Drwy 3

A.M. Peak Hour

Condition	- Northbound					Site Driveway 3 (Western, Full Access) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	0	1052	0	1052	0	0	411	0	411
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	16	0	16	0	0	24	0	24
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	1207	0	1207	0	0	489	0	489
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	72	0	11	83	0	8	5	0	13	0	0	11	28	39
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	72	0	11	83	0	8	1212	0	1220	0	0	500	28	528

P.M. Peak Hour

Condition	- Northbound					Site Driveway 3 (Western, Full Access) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	0	782	0	782	0	0	780	0	780
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	26	0	26	0	0	23	0	23
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	911	0	911	0	0	906	0	906
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	72	0	11	83	0	17	11	0	28	0	0	11	57	68
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	72	0	11	83	0	17	922	0	939	0	0	917	57	974

School Dismissal Peak Hour

Condition	- Northbound					Site Driveway 3 (Western, Full Access) Southbound					SR 369 (Matt Highway) Eastbound					SR 369 (Matt Highway) Westbound				
	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot	U	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	0	600	0	600	0	0	720	0	720
Growth Factor (%):	2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2		2.2	2.2	2.2	2.2	
Shifted Traffic CC Project:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Adjacent DRI Trips:	0	0	0	0	0	0	0	0	0	0	0	0	22	0	22	0	0	18	0	18
No-Build 2029 Volumes:	0	0	0	0	0	0	0	0	0	0	0	0	701	0	701	0	0	833	0	833
Shifted Left Turns:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total New Trips:	0	0	0	0	0	0	150	0	22	172	0	34	23	0	57	0	0	22	116	138
Pass-by Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2029 Traffic Volumes:	0	0	0	0	0	0	150	0	22	172	0	34	724	0	758	0	0	855	116	971