

Traffic Impact Study

Proposed 1140 MLK Parkway Mixed-Use Development
City of Athens, Georgia

July 22, 2024

Updated October 3, 2024



in collaboration with

ACAMPORA TRAFFIC, LLC



Traffic Impact Study

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study prepared for:

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Contents

INTRODUCTION	1
EXISTING TRAFFIC CONDITIONS	2
DESCRIPTION OF EXISTING ROADWAYS	2
PEDESTRIAN, BICYCLE, AND TRANSIT ACCESSIBILITY	2
EXISTING TRAFFIC VOLUMES	2
EXISTING INTERSECTION OPERATIONS	4
NO-BUILD TRAFFIC CONDITIONS	6
PROGRAMMED TRANSPORTATION INFRASTRUCTURE IMPROVEMENTS	6
NO-BUILD INTERSECTION OPERATIONS	7
PROJECT TRAFFIC CHARACTERISTICS	8
PROJECT DESCRIPTION	8
TRIP GENERATION	8
TRIP DISTRIBUTION AND ASSIGNMENT	9
FUTURE TRAFFIC CONDITIONS	11
AUXILIARY LANE REQUIREMENTS AT PROJECT ACCESSES	12
FUTURE INTERSECTION OPERATIONS	12
CONCLUSIONS AND RECOMMENDATIONS	14
APPENDIX	

Tables

TABLE 1 – EXISTING INTERSECTION OPERATIONS	5
TABLE 2 – HISTORIC GEORGIA DOT TRAFFIC VOLUME COUNTS AND ANNUAL GROWTH RATES	6
TABLE 3 – NO-BUILD INTERSECTION OPERATIONS	7
TABLE 4 – PROPOSED MIXED-USE DEVELOPMENT TRIP GENERATION	9
TABLE 5 – FUTURE INTERSECTION OPERATIONS	13

Figures

FIGURE 1 – SITE LOCATION MAP	1
FIGURE 2 – TRAFFIC VOLUME COUNT LOCATION MAP	3
FIGURE 3 – ADJUSTED EXISTING WEEKDAY A.M. AND P.M. PEAK HOUR TRAFFIC VOLUMES	4
FIGURE 4 – SITE PLAN FOR PROPOSED MIXED-USE DEVELOPMENT	8
FIGURE 5 – WEEKDAY A.M. AND P.M. PEAK HOUR PROJECT TRIPS AND DISTRIBUTION PERCENTAGES	10
FIGURE 6 – FUTURE WEEKDAY A.M. AND P.M. PEAK HOUR VOLUMES	11

Introduction

This study assesses the traffic impact of a proposed mixed-use development in the City of Athens, Georgia. The site is located in the northeast corner of MLK Parkway at Conrad Drive, as shown in Figure 1. The project will include a 10,000 square foot strip retail center including a convenience market with five gasoline pumps (10 fueling positions). Five residential townhomes will also be developed on the tract. Vehicular access will be provided to the commercial tract at one full-movement access on MLK Parkway. The townhomes will be served by one full-movement access on Conrad Drive. A vehicular connection will be provided between the commercial and townhomes tracts which will allow access to the commercial tract from/to Conrad Drive.

The purpose of this traffic impact study is to determine existing traffic operating conditions in the vicinity of the proposed development, project future traffic volumes, assess the impact of the subject development, then develop conclusions and recommendations to mitigate the project traffic impact and ensure safe and efficient existing and future traffic conditions in the vicinity of the project.



Figure 1 – Site Location Map

Existing Traffic Conditions

Existing traffic operating conditions in the vicinity of the proposed development were assessed. The following is a description of existing transportation facilities, traffic volumes, and intersection operations.

Description of Existing Roadways

Dr Martin Luther King, Jr Parkway (MLK Parkway) is a north/south urban minor arterial that begins at the US 129 ramps (north of which the road changes name to Commerce Road, becomes US 441, and is classified as an urban principal arterial) and continues south into downtown Athens where it changes name at First Street to East Broad Street. The road has one through travel lane in each direction with northbound and southbound left turn lanes at the US 129 westbound and eastbound ramps, respectively. There are no turn lanes on MLK Parkway at Conrad Drive but there is a hatched median and a southbound right turn lane, the combination of which allows through traffic to pass southbound left turn vehicles on MLK Parkway at Conrad Drive. The terrain along MLK Parkway in the vicinity of the proposed development is gently rolling and the posted speed limit is 45 mph. The road has a rural cross-section adjacent to the site, with no shoulder, curb-and-gutter, or sidewalks. In 2023 the Georgia DOT recorded an Annual Average Daily Traffic (AADT) volume of 5,920 vehicles per day (vpd) on MLK Parkway north of Ruth Street (south of the site).

Conrad Drive is a two lane local street that begins at MLK Parkway, runs through the adjacent residential neighborhood, and terminates at Lake Street. There is a pronounced uphill grade eastbound on Conrad Drive beginning at MLK Parkway and running along the subject development frontage. The street is signed for no trucks and the posted speed limit is 30 mph.

Pedestrian, Bicycle, and Transit Accessibility

There are no sidewalks along MLK Parkway or Conrad Drive in the vicinity of the proposed development. There are no crosswalks at the one signalized intersection in this study, at MLK Parkway at the US 129 eastbound ramps, but there are pedestrian crossing signals across the south leg of MLK Parkway at this intersection. There are no dedicated bicycle lanes in the vicinity. There is regularly-scheduled mass transit bus service in this vicinity, but there are no bus routes adjacent to the proposed development.

Existing Traffic Volumes

Existing full turning movement peak hour traffic volume counts were collected at the following intersections in the vicinity of the site:

1. MLK Parkway at Conrad Drive
2. MLK Parkway / Commerce Road (US 441) at US 129 Eastbound Ramps
3. Commerce Road (US 441) at US 129 Westbound Ramps

The count locations are shown in Figure 2. The raw count data is found in Appendix A.



Figure 2 – Traffic Volume Count Location Map

The intersection counts were collected on Tuesday, September 24, 2024 from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. Area schools were in session on the day of the counts. From the intersection turning movement count data, the highest four consecutive 15-minute interval volumes at each intersection, during each time period, were determined. The existing volumes are shown in Figure 3.

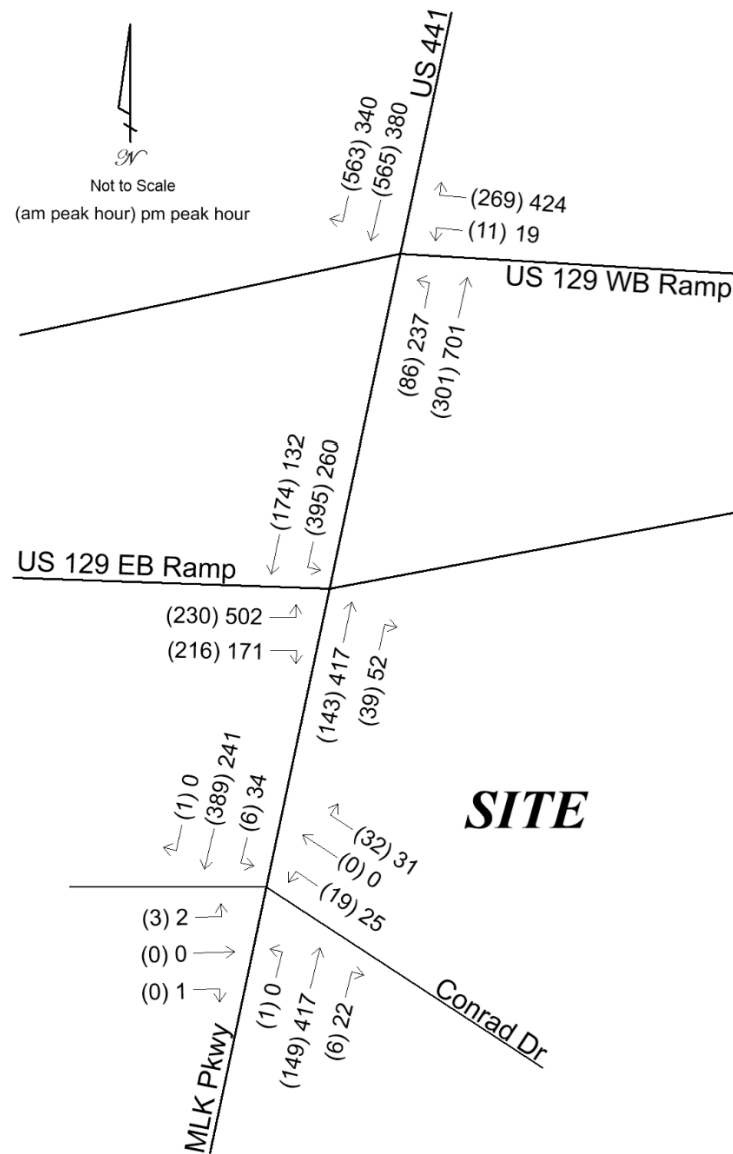


Figure 3 – Existing Weekday A.M. and P.M. Peak Hour Traffic Volumes

Existing Intersection Operations

Existing traffic operations were analyzed at the counted intersections using Synchro software, version 12, in accordance with the methodology presented in the Transportation Research Board's 2022 *Highway Capacity Manual 7th Edition (HCM 7)*. This methodology is presented in Appendix B. The analysis was based on the existing volumes, lanes, and control. The results of the analysis are shown in Table 1. Computer printouts containing detailed results of the existing analysis are located in Appendix C. Levels of service and delays are provided for each overall intersection and for each controlled approach or movement. Locations that operate unacceptably (LOS E or LOS F) are presented in bold type.

Table 1 – Existing Intersection Operations

Intersection / Approach	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Delay (s/veh)	LOS	Delay (s/veh)
1. MLK Pkwy at Conrad Dr / Private Driveway (side street stop)	A	1.4	A	1.8
northbound left turn	A	8.5	A	0.0
southbound left turn	A	7.6	A	8.5
eastbound approach (from driveway)	C	16.2	C	15.5
westbound approach (from Conrad Dr)	B	12.3	C	15.7
2. MLK Pkwy / US 441 at US 129 Eastbound Ramps (signal)	B	15.3	C	30.1
northbound approach	B	15.8	C	29.6
southbound approach	A	8.1	B	15.5
eastbound approach (from ramp)	C	22.3	D	38.7
3. US 441 at US 129 Westbound Ramps (side street stop)	A	3.1	D	32.0
northbound left turn	B	11.6	B	10.9
westbound left turn (from ramp)	C	23.9	F	68.6
westbound right turn (from ramp)	B	13.6	F	137.8

The existing analysis reveals acceptable traffic operations at most study locations. The one location that fails is the westbound off-ramp from US 129 at US 441, which operates at LOS F for both the left and the right turns during the p.m. peak. The high approach delays are not unusual on a side street stop sign controlled approach at a busy thoroughfare such as US 441. Mitigation would require a change in control to a signal or a roundabout. In this circumstance, the westbound left turn volume is very low (11 in the a.m. peak hour and 19 in the p.m. peak hour) and it is the westbound right turn movement that is very heavy (269 in the a.m. peak hour and 424 in the p.m. peak hour). When evaluating volume-based warrants for signalization, the Georgia DOT requires that side street right turn volumes be removed from the analysis. The logic is that side street right turners rely minimally on a signal to make their right turn movement. If the right turns are removed, the remaining westbound volumes are the left turners, just cited, which do not come close to satisfying any volume-based warrants. Therefore, it is unlikely that the Georgia DOT will permit a signal at this intersection. It should be noted that the removal of the side street right turns is a Georgia DOT practice and the Federal Highway Administration's *Manual On Uniform Traffic Control Devices*, which proscribes the national standards for justifying signalization, recommends that engineering judgement be used to determine what percentage, if any, of the side street right turn volumes are removed from the signal warrant analysis. As volumes increase at this intersection, the side street delays will increase such that, at some point in the future, the side street approach delays may become significantly high that the Georgia DOT might consider relaxing the side street right turn reduction to zero practice. However, based on this discussion, no mitigation is identified for the existing condition.

No-Build Traffic Conditions

A 2027 no-build condition was developed. This represents the traffic conditions that will exist in the future at the anticipated date of the build-out of the proposed mixed-use development, but not including the project's trips. The purpose of the analysis of this condition is to isolate the traffic impacts of the proposed development from background growth in volumes that is expected to occur in the area while the project is under construction.

In order to develop no-build volumes, a background growth factor was developed based on a review of historic Georgia DOT AADT traffic counts, as shown in Table 2.

Table 2 – Historic Georgia DOT Traffic Volume Counts and Annual Growth Rates

Year	MLK Parkway N of Ruth St	Annual Growth	US 441 EB off ramp	Annual Growth	US 441 WB on ramp	Annual Growth	US 441 N of Creek Stone Ct	Annual Growth
Station ID	059-0083		059-r033		059-r032		059-0087	
2019	6,660		8,160		6,510		20,100	
2020	6,020	-9.6%	7,390	-9.4%	5,890	-9.5%	18,500	-8.0%
2021	6,450	7.1%	8,160	10.4%	6,520	10.7%	20,100	8.6%
2022	5,870	-9.0%	6,070	-25.6%	5,450	-16.4%	20,300	1.0%
2023	5,920	0.9%	6,440	6.1%	6,270	15.0%	20,900	3.0%
<i>avg growth</i>		-2.3%		-4.6%		-0.7%		0.8%

Growth in the area has been generally negative and moderate. All four Georgia DOT count stations experienced a decrease in volumes between 2019 and 2020 which is considered an anomaly due to the COVID-19 pandemic. There was positive growth at all four locations the following year, which is mostly attributable to a return to pre-pandemic levels and not necessarily new growth. The latest year of data did see positive growth at all locations. Based on the growth trends identified in Table 2, and taking the pandemic and the most recent year of positive growth into consideration, it was decided that a background annual growth rate of positive 3.0% could be expected on the roads in this study while the proposed mixed-use development is built-out. This growth rate was applied for the three years until the anticipated project build-out date of 2027, which equates to an overall increase of 9.3% from existing to 2027.

Programmed Transportation Infrastructure Improvements

No planned (anticipated) or programmed (scheduled and funded) transportation infrastructure projects were identified at the study intersections or the immediately adjacent roadways.

No-Build Intersection Operations

The no-build condition includes the no-build traffic volumes, which are comprised of the existing volumes increased by the background growth factor, as described above. The lanes and control at each study intersection remain unchanged from the existing condition. The no-build volumes were entered into the Synchro 12 model and the 2027 no-build traffic operations were analyzed at each study intersection. The results of the no-build analysis are shown in Table 3. Computer printouts containing detailed results of the no-build analysis are located in Appendix D. Levels of service and delays are provided for each overall intersection and for each controlled approach or movement. Locations that operate unacceptably (LOS E or LOS F) are presented in bold type.

Table 3 – No-Build Intersection Operations

Intersection / Approach	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Delay (s/veh)	LOS	Delay (s/veh)
1. MLK Pkwy at Conrad Dr / Private Driveway (side street stop)	A	1.5	A	1.9
northbound left turn	A	8.6	A	0.0
southbound left turn	A	7.6	A	8.6
eastbound approach (from driveway)	C	17.5	C	16.8
westbound approach (from Conrad Dr)	B	13.0	C	17.3
2. MLK Pkwy / US 441 at US 129 Eastbound Ramps (signal)	B	17.0	D	37.9
northbound approach	B	17.1	D	40.7
southbound approach	B	10.1	C	25.0
eastbound approach (from ramp)	C	24.9	D	43.3
3. US 441 at US 129 Westbound Ramps (side street stop)	A	3.2	F	53.5
northbound left turn	B	13.4	B	11.7
westbound left turn (from ramp)	D	28.4	F	104.7
westbound right turn (from ramp)	B	15.0	F	234.2

The no-build analysis reveals continued acceptable operates at most study locations, with the same location – the westbound ramp of US 129 at US 441 – failing in the no-build p.m. peak. The high side street delays cause the overall intersection to fail at that time. The discussion for mitigation at this intersection in the existing analysis continues to be appropriate for the no-build condition. No other mitigation is identified for the no-build condition.

Project Traffic Characteristics

This section describes the anticipated traffic characteristics of the proposed development, including a site description, how much traffic the project will generate, and where that traffic will travel.

Project Description

The project will include a 10,000 square foot strip retail center including a convenience market with five gasoline pumps (10 fueling positions). Five residential townhomes will also be developed on the tract. Vehicular access will be provided to the commercial tract at one full-movement access on MLK Parkway. The townhomes will be served by one full-movement access on Conrad Drive. A vehicular connection will be provided between the commercial and townhomes tracts which will allow access to the commercial tract from/to Conrad Drive. This will remove some of the project trips from MLK Parkway and the MLK Parkway / Conrad Drive intersection. The site plan is presented in Figure 4.

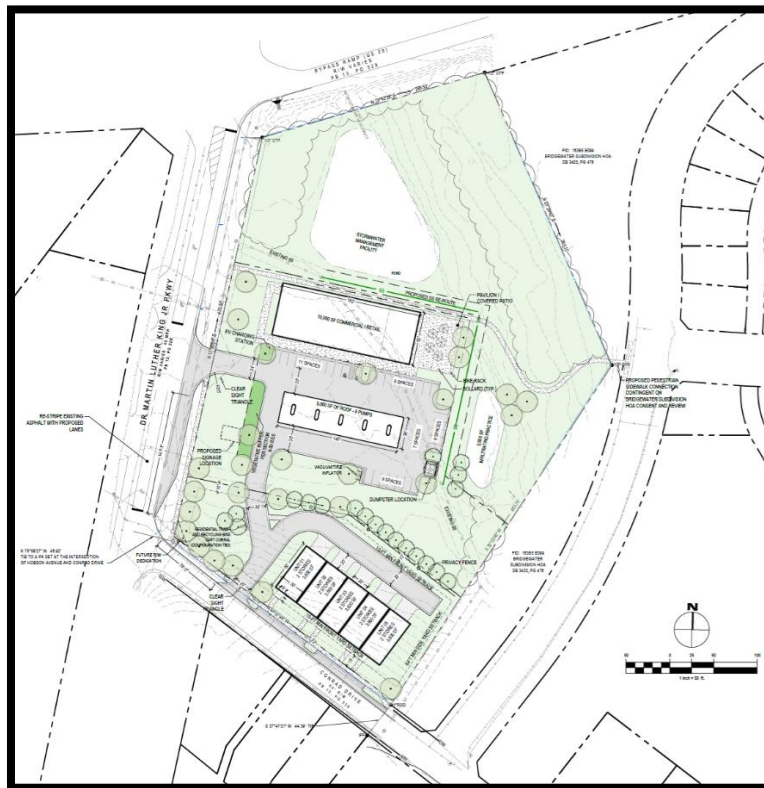


Figure 4 – Site Plan for Proposed Mixed-Use Development

Trip Generation

Trip generation is an estimate of the number of entering and exiting vehicular trips that will be generated by the proposed development. The volume of traffic that will be generated by the project was calculated using the equations and rates in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition (the

current edition). ITE Land Use 945 – Convenience Store / Gas Station with a gross floor area of 5.5 ksf to 10.0 ksf was chosen as representative of the commercial portion of the development while ITE Land Use 215 – Single Family Attached Housing was chosen for the townhomes.

An adjustment was made to the retail trips to account for pass-by trips. These are trips that are already passing the site in the existing counts, but will turn into the site for retail shopping or gasoline refueling purposes, then resume their original trip. These are new trips entering and exiting the retail site driveways but are not new to the adjacent intersections. The *ITE Trip Generation Manual* provides pass-by percentages for Land Use 945, as follows: a.m. pass-by percentage: 76%, p.m. pass-by percentage: 75%. Daily was assumed at 75%. These percentages are very high because gasoline stations and convenience markets are highly-discretionary trips and are typically made in conjunction with trips to other destinations. The trip generation for the project is presented in Table 4.

Table 4 – Proposed Mixed-Use Development Trip Generation

Land Use	ITE Code	Size	A.M. Peak Hour			P.M. Peak Hour			24-Hour
			In	Out	Total	In	Out	Total	2-Way
Convenience Store / Gas Station	945	10 fueling pos	158	158	316	135	134	269	3,458
-pass-by trips		76%/75%/75%	<u>-120</u>	<u>-120</u>	<u>-240</u>	<u>-101</u>	<u>-101</u>	<u>-202</u>	<u>-2,593</u>
Retail New Trips			38	38	76	34	33	67	865
Townhomes	215	5 homes	1	1	2	2	1	3	36
<i>Total Project New Trips</i>			<i>39</i>	<i>39</i>	<i>78</i>	<i>36</i>	<i>34</i>	<i>70</i>	<i>901</i>

The proposed mixed-use development will generate 78 new a.m. peak hour trips, 70 new p.m. peak hour trips, and 901 new weekday trips. The retail driveway volumes will be higher because they will also include the pass-by trips which already exist passing the site.

Trip Distribution and Assignment

The trips that will be generated by the proposed mixed-use development were distributed and assigned to the roadway network. The trip distribution percentages indicate what proportion of the project's trips will travel to and from various directions. The new retail trips were distributed based on the locations of residential populations in the area and the distances of those populations to the site, as well as the major routes of travel in the area, most notably US 129. The retail pass-by trips were assigned based on the existing flows of traffic passing the site. The trip distribution percentages for the townhomes were developed based on the locations and proximity of likely trip origins and destinations including regional employment centers, retail and offices in the area, nearby schools, other regional trip attractors, and also considered the major routes of travel in the area including US 129. The trip distribution percentages and the a.m. and p.m. peak hour trips expected to be generated by the proposed development are shown in Figure 5. The traffic volume worksheets in Appendix A show the trips separately for the townhomes and retail uses and the pass-by trips at each study intersection.

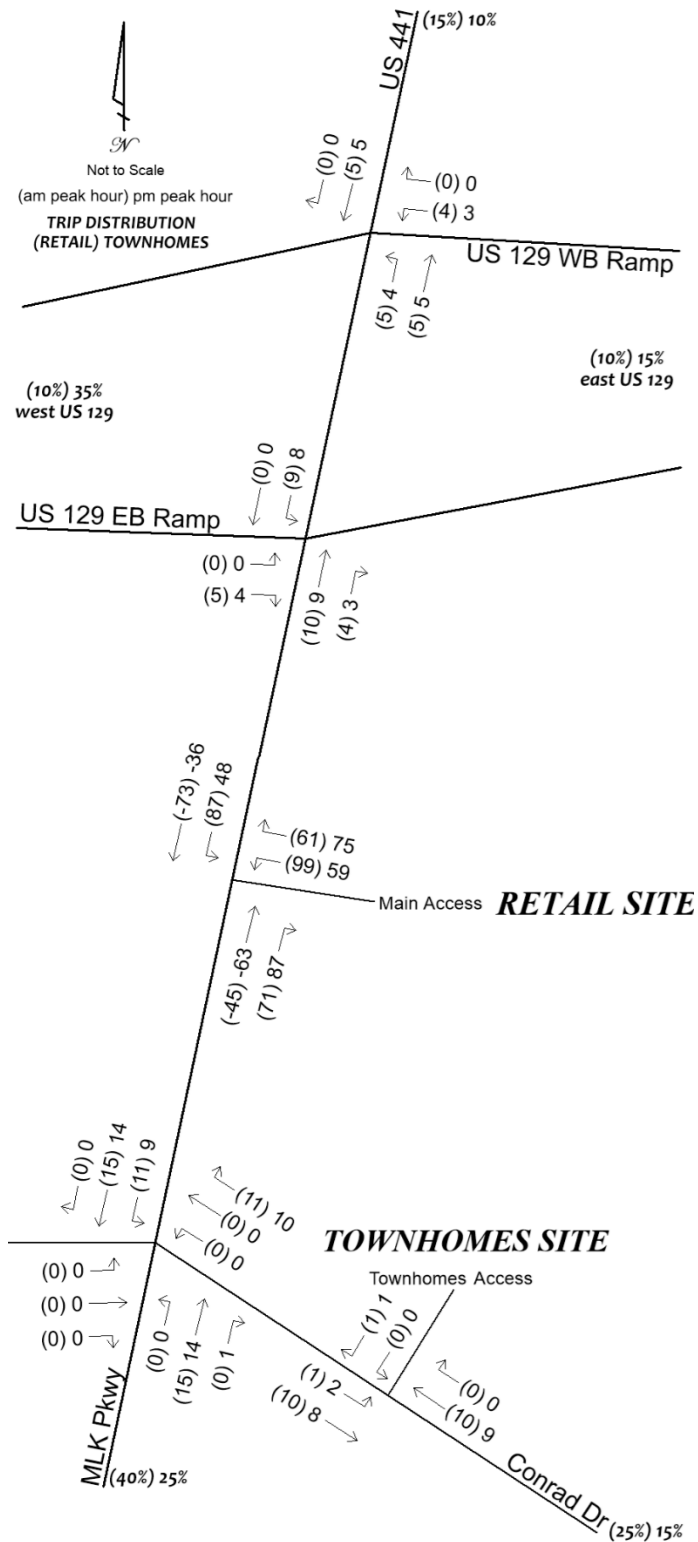


Figure 5 – Weekday A.M. and P.M. Peak Hour Project Trips and Distribution Percentages

Future Traffic Conditions

The future volumes consist of the no-build volumes plus the trips that will be generated by the proposed mixed-use development. The future volumes are shown in Figure 6.

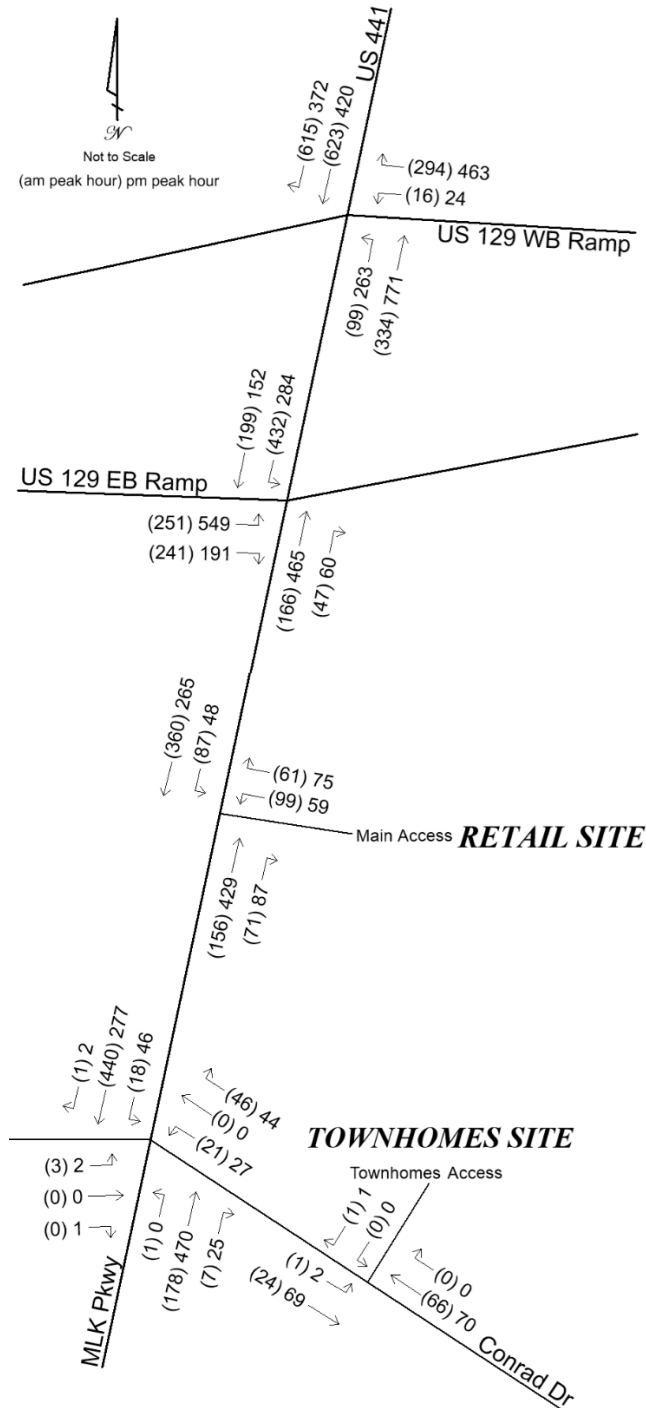


Figure 6 – Future Weekday A.M. and P.M. Peak Hour Volumes

Auxiliary Lane Requirements at Project Accesses

Almost all of the retail portion of the development's trips will enter at the project main access on MLK Parkway (a few will enter via the connection through the townhomes tract from Conrad Drive), with a significant volume of northbound right turns and southbound left turns entering the site at that location. Therefore, it is recommended that a northbound right turn lane and a southbound left turn lane be constructed on MLK Parkway to serve the main project access. It is noted that the project access on MLK Parkway is located in close proximity to Conrad Drive, to the south, and the US 129 eastbound ramps, to the north. There is an existing hatched out median on MLK Parkway which may provide the opportunity to add a southbound left turn lane at the project access, without the need to widen MLK Parkway, and this is proposed in the site plan. A northbound right turn lane is also shown on the site plan on MLK Parkway at the project main access. The volumes entering and exiting the townhomes portion of the development are minimal (even if a few commercial trips enter at that access) and, therefore, no turn lanes are recommended to be added on Conrad Drive at the townhomes access.

It is recommended that the main project access be constructed with one entering lane and at least one exiting lane. Providing a second exiting lane at the main access would allow the easier right turn movement to be made without being blocked by the more challenging left turn movement, so providing that lane should be considered, if feasible. The townhomes access should be built with one entering and one exiting lane. Each exiting approach should be controlled by side street stop sign and accompanying stop bar. The project civil/site engineer should comply with all applicable design standards including sight distances, turn lane storage and taper lengths, turn radii, driveway widths, islands, angles with the adjacent roadways, and grades.

Future Intersection Operations

An operational analysis was performed for the anticipated future project build-out at the study intersections and the project retail access. No analysis was performed for the townhomes access on Conrad Drive because the volumes on Conrad Drive are low and the volumes entering and exiting the townhomes access will be minimal, such that delays at this access will be minimal. The analysis at the retail access assumed the lanes and control recommended above. Table 5 presents the results of the future analysis. Computer printouts containing detailed results of the future analysis are located in Appendix E. Levels of service and delays are provided for each overall intersection and for each controlled approach or movement. Locations that operate unacceptably (LOS E or LOS F) are presented in bold type.

Table 5 – Future Intersection Operations

Intersection / Approach	A.M. Peak Hour		P.M. Peak Hour	
	LOS	Delay (s/veh)	LOS	Delay (s/veh)
1. MLK Pkwy at Conrad Dr / Private Driveway (side street stop)	A	1.8	A	2.2
northbound left turn	A	8.7	A	0.0
southbound left turn	A	7.7	A	8.7
eastbound approach (from driveway)	C	19.4	C	18.1
westbound approach (from Conrad Dr)	B	13.3	C	18.0
2. MLK Pkwy / US 441 at US 129 Eastbound Ramps (signal)	B	17.4	D	39.0
northbound approach	B	17.8	D	41.5
southbound approach	B	10.8	C	25.9
eastbound approach (from ramp)	C	25.1	D	44.9
3. US 441 at US 129 Westbound Ramps (side street stop)	A	3.8	F	54.4
northbound left turn	B	13.5	B	11.8
westbound left turn (from ramp)	D	30.4	F	119.7
westbound right turn (from ramp)	C	16.5	F	238.7
4. MLK Pkwy at Retail Main Access (side street stop)	A	4.8	A	3.0
southbound left turn (entering retail)	A	8.0	A	8.8
westbound approach (exiting retail)	C	22.0	C	18.2

The future analysis with the addition of the proposed development's trips reveals very slight deteriorations in operations at each study intersection. All counted study intersections will continue to operate comparably to the no-build condition, with acceptable operations at all locations except the westbound off-ramp from US 129 at US 441 in the p.m. peak. This is the same location and time period that fails in the existing and no-build analyses and the discussion for potential mitigation provided in the existing analysis continues to be appropriate for the future condition. The retail access is expected to operate well with the recommended lanes and control. As noted previously, the volumes on Conrad Drive are low and the projected volumes entering and exiting the townhomes access will be minimal. Therefore, the townhomes access is expected to operate well. Other than the lanes recommended at the project main access, no mitigation is identified as a consequence of the proposed development.

Conclusions and Recommendations

This study assesses the traffic impact of a proposed mixed-use development in the City of Athens. The site is located in the northeast corner of MLK Parkway at Conrad Drive. The project will include a 10,000 square foot strip retail center including a convenience market with five gasoline pumps (10 fueling positions). Five residential townhomes will also be developed on the tract. Vehicular access will be provided to the commercial tract at one full-movement access on MLK Parkway. The townhomes will be served by one full-movement access on Conrad Drive. A vehicular connection will be provided between the commercial and townhomes tracts which will allow access to the commercial tract from/to Conrad Drive. This will remove some of the project trips from MLK Parkway and the MLK Parkway / Conrad Drive intersection. The following are the findings and recommendations of this study:

1. The existing analysis reveals acceptable traffic operations at all study locations except one – the westbound off-ramp of US 129 at US 441 in the p.m. peak. Mitigation would require signalization. However, it is likely that signalization will not meet warrants according to the Georgia DOT policies. See the text for further discussion. Therefore, no mitigation is identified for the existing condition.
2. Traffic volume growth in this area has had an overall moderate negative trend. However, the most recent year of data has seen a shift to a modest positive direction. Therefore, a modest positive annual growth rate of 3.0% was used in developing no-build and build future volume projections. This equates to an increase of 9.3% in volumes by the anticipated project build-out in three years.
3. The no-build analysis shows continued acceptable operations at all locations except the one failing location and time period from the existing analysis. The same discussion at that location in the existing analysis, continues to be appropriate for the no-build condition and no mitigation is identified.
4. The proposed mixed-use development will generate 78 new a.m. peak hour trips, 70 new p.m. peak hour trips, and 901 new weekday trips. The commercial driveway volumes will be higher because they will also include the pass-by trips which already exist passing the site.
5. The future analysis with the addition of the proposed mixed-use project's trips reveals a very slight deterioration in operations at the study intersections. No mitigation, other than the lanes required at the project main access, is recommended as a consequence of the proposed development.
6. A northbound right turn lane and a southbound left turn lane are recommended on MLK Parkway at the main project access. The southbound left turn lane can likely be accommodated in the existing striped median without the need for widening of MLK Parkway. Both the northbound right turn lane and the southbound left turn lane are shown on the proposed site plan.
7. It is recommended that the main project access be constructed with one entering lane and at least one exiting lane. Providing a second exiting lane at the main access would allow the easier right turn movement to be made without being blocked by the more challenging left turn movement, so providing that lane

should be considered, if feasible. The townhomes access should include one inbound and one outbound lane. The exiting approach at each access should be controlled by side street stop sign and accompanying stop bar.

8. The project civil/site engineer should comply with all applicable design standards including sight distances, turn lane storage and taper lengths, turn radii, driveway widths, islands, angles with the adjacent roadways, and grades.

Appendix A

Traffic Count Data and Volume Worksheets

1140 MLK Parkway Mixed-Use Development Traffic Impact Study
Cty of Athens, Georgia

July 2024, Updated October 2024

Intersection 1: MLK Parkway at Conrad Drive

Weekday A.M. Peak Hour

	Northbound MLK Parkway				Southbound MLK Parkway				Eastbound Plantation Buffet Driveway				Westbound Conrad Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, July 9, 2024 8:00-9:00)	1	139	2	142	9	297	1	307	1	0	4	5	10	0	33	43
seasonal adjustment	1.05	1.05	1.05		1.05	1.05	1.05		1.05	1.05	1.05		1.05	1.05	1.05	
Adjusted, Existing Volumes Used in July Study	1	146	2	149	9	312	1	322	1	0	4	5	11	0	35	45
Counted Volumes (Tuesday, September 24, 2024 7:30-8:30)	1	149	6	156	6	389	1	396	3	0	0	3	19	0	32	51
Total Annual Background Growth	9.3%	9.3%	9.3%		9.3%	9.3%	9.3%		9.3%	9.3%	9.3%		9.3%	9.3%	9.3%	
2027 No-Build Volumes	1	163	7	171	7	425	1	433	3	0	0	3	21	0	35	56
1140 MLK Retail New Trips	0	15	0	15	10	15	0	25	0	0	0	0	0	0	10	10
1140 MLK Retail Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1140 MLK Total Retail Trips	0	15	0	15	10	15	0	25	0	0	0	0	0	0	10	10
1140 MLK Townhomes Trips	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
1140 MLK Total Project Trips	0	15	0	15	11	15	0	26	0	0	0	0	0	0	11	11
2027 Build Volumes	1	178	7	186	18	440	1	459	3	0	0	3	21	0	46	67

Weekday P.M. Peak Hour

	Northbound MLK Parkway				Southbound MLK Parkway				Eastbound Plantation Buffet Driveway				Westbound Conrad Drive			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, July 9, 2024 4:30-5:30)	0	399	19	418	23	208	2	233	1	0	4	5	7	0	20	27
seasonal adjustment	1.05	1.05	1.05		1.05	1.05	1.05		1.05	1.05	1.05		1.05	1.05	1.05	
Adjusted, Existing Volumes Used in July Study	0	419	20	439	24	218	2	245	1	0	4	5	7	0	21	28
Counted Volumes (Tuesday, September 24, 2024 4:30-5:30)	0	417	22	439	34	241	0	275	2	0	1	3	25	0	31	56
Total Annual Background Growth	9.3%	9.3%	9.3%		9.3%	9.3%	9.3%		9.3%	9.3%	9.3%		9.3%	9.3%	9.3%	
2027 No-Build Volumes	0	456	24	480	37	263	0	301	2	0	1	3	27	0	34	61
1140 MLK Retail New Trips	0	14	0	14	8	14	0	22	0	0	0	0	0	0	9	9
1140 MLK Retail Pass-by Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1140 MLK Total Retail Trips	0	14	0	14	8	14	0	22	0	0	0	0	0	0	9	9
1140 MLK Townhomes Trips	0	0	1	1	1	0	0	1	0	0	0	0	0	0	1	1
1140 MLK Total Project Trips	0	14	1	15	9	14	0	23	0	0	0	0	0	0	10	10
2027 Build Volumes	0	470	25	495	46	277	0	324	2	0	1	3	27	0	44	71

1140 MLK Parkway Mixed-Use Development Traffic Impact Study

Cty of Athens, Georgia

July 2024, Updated October 2024

Intersection 2: MLK Parkway / Commerce Road (US 441) at Athens Perimeter (US 129) Eastbound Ramps

Weekday A.M. Peak Hour

	Northbound MLK Parkway			Southbound US 441			Eastbound US 129 Ramp				
	T	R	Tot	L	T	Tot	L	T	R	Tot	
Counted Volumes (Tuesday, July 9, 2024 7:30-8:30)	130	16	146	337	143	480	279	0	171	450	
seasonal adjustment	1.05	1.05		1.05	1.05		1.05	1.05	1.05		
Adjusted, Existing Volumes Used in July Study	137	17	153	354	150	504	293	0	180	473	
Counted Volumes (Tuesday, September 24, 2024 7:15-8:15)	143	39	182	395	174	569	230	0	216	446	
Total Annual Background Growth	9.3%	9.3%		9.3%	9.3%		9.3%	9.3%	9.3%		
2027 No-Build Volumes	156	43	199	432	190	622	251	0	236	487	
1140 MLK Retail New Trips	9	4	13	0	9	9	0	0	4	4	
1140 MLK Retail Pass-by Trips	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
1140 MLK Total Retail Trips	9	4	13	0	9	9	0	0	4	4	
1140 MLK Townhomes Trips	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	
1140 MLK Total Project Trips	10	4	14	0	9	9	0	0	5	5	
2027 Build Volumes	166	47	213	432	199	631	251	0	241	492	

Weekday P.M. Peak Hour

	Northbound MLK Parkway			Southbound US 441			Eastbound US 129 Ramp				
	T	R	Tot	L	T	Tot	L	T	R	Tot	
Counted Volumes (Tuesday, July 9, 2024 4:30-5:30)	380	26	406	263	111	374	560	0	128	688	
seasonal adjustment	1.05	1.05		1.05	1.05		1.05	1.05	1.05		
Adjusted, Existing Volumes Used in July Study	399	27	426	276	117	393	588	0	134	722	
Counted Volumes (Tuesday, September 24, 2024 4:45-5:45)	417	52	469	260	132	392	502	0	171	673	
Total Annual Background Growth	9.3%	9.3%		9.3%	9.3%		9.3%	9.3%	9.3%		
2027 No-Build Volumes	456	57	513	284	144	428	549	0	187	736	
1140 MLK Retail New Trips	8	3	11	0	8	8	0	0	3	3	
1140 MLK Retail Pass-by Trips	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	
1140 MLK Total Retail Trips	8	3	11	0	8	8	0	0	3	3	
1140 MLK Townhomes Trips	<u>1</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>1</u>	
1140 MLK Total Project Trips	9	3	12	0	8	8	0	0	4	4	
2027 Build Volumes	465	60	525	284	152	436	549	0	191	740	

1140 MLK Parkway Mixed-Use Development Traffic Impact Study
Cty of Athens, Georgia

July 2024, Updated October 2024

Intersection 3: Commerce Road (US 441) at Athens Perimeter (US 129) Westbound Ramps

Weekday A.M. Peak Hour	Northbound US 441			Southbound US 441				Westbound US 129 Ramp			
	L	T	Tot	T	R	Tot		L	T	R	Tot
Counted Volumes (Tuesday, July 9, 2024 7:15-8:15)	87	290	377	463	519	982		3	2	276	281
seasonal adjustment	1.05	1.05		1.05	1.05			1.05	1.05	1.05	
Adjusted, Existing Volumes Used in July Study	91	305	396	486	545	1031		3	2	290	295
Counted Volumes (Tuesday, September 24, 2024 7:15-8:15)	86	301	387	565	563	1128		11	0	269	280
Total Annual Background Growth	9.3%	9.3%		9.3%	9.3%			9.3%	9.3%	9.3%	
2027 No-Build Volumes	94	329	423	618	615	1233		12	0	294	306
1140 MLK Retail New Trips	4	5	9	5	0	5		4	0	0	4
1140 MLK Retail Pass-by Trips	0	0	0	0	0	0		0	0	0	0
1140 MLK Total Retail Trips	4	5	9	5	0	5		4	0	0	4
1140 MLK Townhomes Trips	1	0	1	0	0	0		0	0	0	0
1140 MLK Total Project Trips	5	5	10	5	0	5		4	0	0	4
2027 Build Volumes	99	334	433	623	615	1238		16	0	294	310

Weekday P.M. Peak Hour	Northbound US 441			Southbound US 441				Westbound US 129 Ramp			
	L	T	Tot	T	R	Tot		L	T	R	Tot
Counted Volumes (Tuesday, July 9, 2024 4:30-5:30)	244	689	933	353	374	727		10	0	385	395
seasonal adjustment	1.05	1.05		1.05	1.05			1.05	1.05	1.05	
Adjusted, Existing Volumes Used in July Study	256	723	980	371	393	763		11	0	404	415
Counted Volumes (Tuesday, September 24, 2024 4:30-5:30)	237	701	938	380	340	720		19	0	424	443
Total Annual Background Growth	9.3%	9.3%		9.3%	9.3%			9.3%	9.3%	9.3%	
2027 No-Build Volumes	259	766	1025	415	372	787		21	0	463	484
1140 MLK Retail New Trips	3	5	8	5	0	5		3	0	0	3
1140 MLK Retail Pass-by Trips	0	0	0	0	0	0		0	0	0	0
1140 MLK Total Retail Trips	3	5	8	5	0	5		3	0	0	3
1140 MLK Townhomes Trips	1	0	1	0	0	0		0	0	0	0
1140 MLK Total Project Trips	4	5	9	5	0	5		3	0	0	3
2027 Build Volumes	263	771	1034	420	372	792		24	0	463	487

1140 MLK Parkway Mixed-Use Development Traffic Impact Study
Cty of Athens, Georgia

July 2024, Updated October 2024

Intersection 4: MLK Parkway at Retail Main Access

Weekday A.M. Peak Hour	Northbound MLK Parkway			Southbound MLK Parkway				Westbound Retail Main Access		
	T	R	Tot	L	T	R	Tot	L	R	Tot
Counted Volumes (Tuesday, July 9, 2024 8:00-9:00)	173		173		307		307			
seasonal adjustment	1.05				1.05					
Adjusted, Existing Volumes Used in July Study	182		182		322		322			
Counted Volumes (Tuesday, September 24, 2024 8:00-9:00)	184				396					
Total Annual Background Growth	9.3%				9.3%					
2027 No-Build Volumes	201		201		433		433			
1140 MLK Retail New Trips	0	25	25	13	0	0	13	25	13	38
1140 MLK Retail Pass-by Trips	-46	46	0	74	-74	0	0	74	48	122
1140 MLK Total Retail Trips	-46	71	25	87	-74	0	13	99	61	160
1140 MLK Townhomes Trips	1	0	1	0	1	0	1	0	0	0
1140 MLK Total Project Trips	-45	71	26	87	-73	0	14	99	61	160
2027 Build Volumes	156	71	227	87	360	0	447	99	61	160

Weekday P.M. Peak Hour	Northbound MLK Parkway			Southbound MLK Parkway				Westbound Retail Main Access		
	T	R	Tot	L	T	R	Tot	L	R	Tot
Counted Volumes (Tuesday, July 9, 2024 4:30-5:30)	420		420		233		233			
seasonal adjustment	1.05				1.05					
Adjusted, Existing Volumes Used in July Study	441		441		245		245			
Counted Volumes (Tuesday, September 24, 2024 8:00-9:00)	450				275					
Total Annual Background Growth	9.3%				9.3%					
2027 No-Build Volumes	492		492		301		301			
1140 MLK Retail New Trips	0	23	23	11	0	0	11	22	11	33
1140 MLK Retail Pass-by Trips	-64	64	0	37	-37	0	0	37	64	101
1140 MLK Total Retail Trips	-64	87	23	48	-37	0	11	59	75	134
1140 MLK Townhomes Trips	1	0	1	0	1	0	1	0	0	0
1140 MLK Total Project Trips	-63	87	24	48	-36	0	12	59	75	134
2027 Build Volumes	429	87	516	48	265	0	313	59	75	134

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TMC Data
MLK Jr Pkwy @ Conrad Dr
Athens, GA
7-9 AM | 4-6 PM

File Name : 49510001
Site Code : 49510001
Start Date : 9/24/2024
Page No : 1

Groups Printed- Cars, Buses and Trucks

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Private Drwy Eastbound					Conrad Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	14	0	0	14	3	37	1	0	41	0	0	0	0	0	3	0	3	0	6	61
07:15 AM	0	24	0	0	24	2	67	0	0	69	0	0	0	0	0	3	0	10	0	13	106
07:30 AM	1	38	1	0	40	1	89	1	0	91	3	0	0	0	3	9	0	8	0	17	151
07:45 AM	0	34	2	0	36	3	130	0	0	133	0	0	0	0	0	5	0	12	0	17	186
Total	1	110	3	0	114	9	323	2	0	334	3	0	0	0	3	20	0	33	0	53	504
08:00 AM	0	40	1	0	41	0	80	0	0	80	0	0	0	0	0	3	0	2	0	5	126
08:15 AM	0	37	2	0	39	2	90	0	0	92	0	0	0	0	0	2	0	10	0	12	143
08:30 AM	0	42	0	0	42	0	86	0	0	86	0	0	0	0	0	8	0	7	0	15	143
08:45 AM	0	50	1	0	51	4	83	0	0	87	0	0	0	0	0	4	0	8	0	12	150
Total	0	169	4	0	173	6	339	0	0	345	0	0	0	0	0	17	0	27	0	44	562
*** BREAK ***																					
04:00 PM	0	93	5	0	98	11	60	0	0	71	0	0	1	0	1	3	0	6	0	9	179
04:15 PM	0	96	10	0	106	7	65	0	0	72	1	0	1	0	2	3	0	6	0	9	189
04:30 PM	0	106	4	0	110	9	62	0	0	71	1	0	0	0	1	9	0	6	0	15	197
04:45 PM	0	93	6	0	99	9	50	0	0	59	0	0	0	0	0	6	0	11	0	17	175
Total	0	388	25	0	413	36	237	0	0	273	2	0	2	0	4	21	0	29	0	50	740
05:00 PM	0	103	6	0	109	7	63	0	0	70	0	0	0	0	0	6	0	8	0	14	193
05:15 PM	0	115	6	0	121	9	66	0	0	75	1	0	1	0	2	4	0	6	0	10	208
05:30 PM	0	103	6	0	109	8	63	0	0	71	0	1	0	0	1	7	0	6	0	13	194
05:45 PM	0	78	3	0	81	6	60	0	0	66	0	0	0	0	0	3	0	12	0	15	162
Total	0	399	21	0	420	30	252	0	0	282	1	1	1	0	3	20	0	32	0	52	757
Grand Total	1	1066	53	0	1120	81	1151	2	0	1234	6	1	3	0	10	78	0	121	0	199	2563
Apprch %	0.1	95.2	4.7	0		6.6	93.3	0.2	0		60	10	30	0		39.2	0	60.8	0		
Total %	0	41.6	2.1	0	43.7	3.2	44.9	0.1	0	48.1	0.2	0	0.1	0	0.4	3	0	4.7	0	7.8	

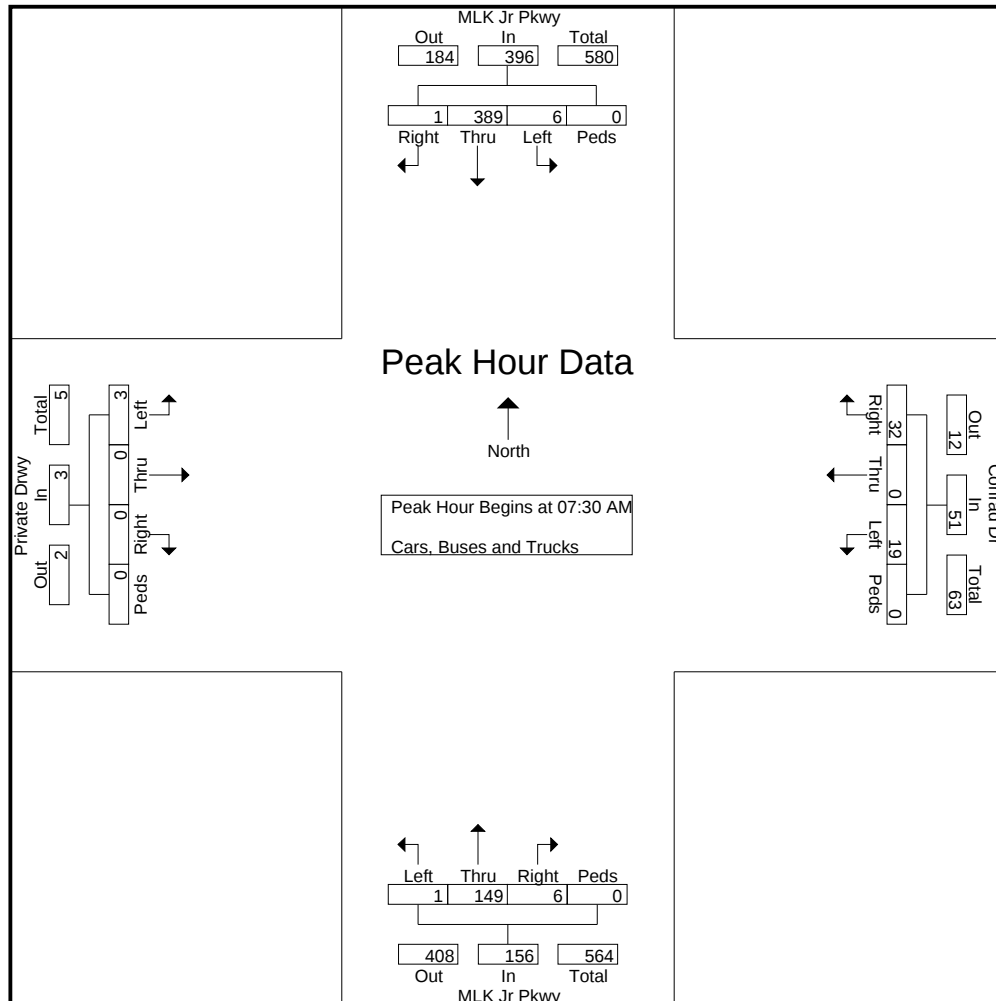
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TMC Data
MLK Jr Pkwy @ Conrad Dr
Athens, GA
7-9 AM | 4-6 PM

File Name : 49510001
Site Code : 49510001
Start Date : 9/24/2024
Page No : 2

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Private Drwy Eastbound					Conrad Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	1	38	1	0	40	1	89	1	0	91	3	0	0	0	3	9	0	8	0	17	151
07:45 AM	0	34	2	0	36	3	130	0	0	133	0	0	0	0	0	5	0	12	0	17	186
08:00 AM	0	40	1	0	41	0	80	0	0	80	0	0	0	0	0	3	0	2	0	5	126
08:15 AM	0	37	2	0	39	2	90	0	0	92	0	0	0	0	0	2	0	10	0	12	143
Total Volume	1	149	6	0	156	6	389	1	0	396	3	0	0	0	3	19	0	32	0	51	606
% App. Total		95.5					98.2									37.3		62.7			
PHF	.250	.931	.750	.000	.951	.500	.748	.250	.000	.744	.250	.000	.000	.000	.250	.528	.000	.667	.000	.750	.815



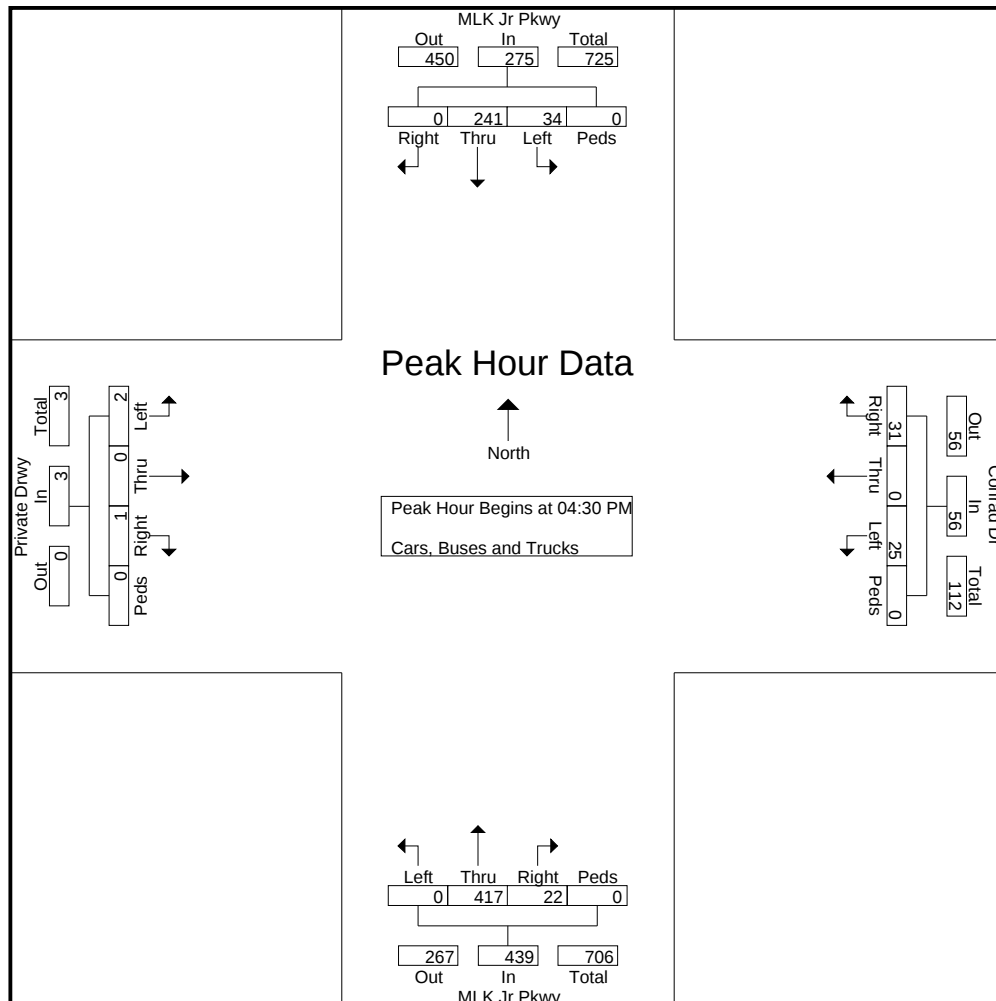
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TMC Data
MLK Jr Pkwy @ Conrad Dr
Athens, GA
7-9 AM | 4-6 PM

File Name : 49510001
Site Code : 49510001
Start Date : 9/24/2024
Page No : 3

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Private Drwy Eastbound					Conrad Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	106	4	0	110	9	62	0	0	71	1	0	0	0	1	9	0	6	0	15	197
04:45 PM	0	93	6	0	99	9	50	0	0	59	0	0	0	0	0	6	0	11	0	17	175
05:00 PM	0	103	6	0	109	7	63	0	0	70	0	0	0	0	0	6	0	8	0	14	193
05:15 PM	0	115	6	0	121	9	66	0	0	75	1	0	1	0	2	4	0	6	0	10	208
Total Volume	0	417	22	0	439	34	241	0	0	275	2	0	1	0	3	25	0	31	0	56	773
% App. Total						12.4	87.6				66.7		33.3			44.6		55.4			
PHF	.000	.907	.917	.000	.907	.944	.913	.000	.000	.917	.500	.000	.250	.000	.375	.694	.000	.705	.000	.824	.929



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TMC Data
MLK Jr Pkwy @ Conrad Dr
Athens
7-9 AM | 4-6 PM

File Name : 49090001
Site Code : 49090001
Start Date : 7/9/2024
Page No : 1

Groups Printed- Cars, Buses and Trucks

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Private Drwy Eastbound					Conrad Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	18	1	0	19	1	43	0	0	44	0	0	0	0	0	1	0	6	0	7	70
07:15 AM	0	37	0	0	37	1	86	0	0	87	0	0	0	0	0	2	0	5	0	7	131
07:30 AM	0	28	2	0	30	2	75	0	0	77	0	0	0	0	0	2	0	5	0	7	114
07:45 AM	0	24	0	0	24	1	67	0	0	68	0	0	0	0	0	1	0	5	0	6	98
Total	0	107	3	0	110	5	271	0	0	276	0	0	0	0	0	6	0	21	0	27	413
08:00 AM	0	35	1	0	36	0	74	0	0	74	0	0	1	0	1	3	0	9	0	12	123
08:15 AM	0	24	0	0	24	3	73	0	0	76	0	0	0	0	0	2	0	9	0	11	111
08:30 AM	1	40	0	0	41	2	71	0	0	73	0	0	0	0	0	3	0	8	0	11	125
08:45 AM	0	40	1	0	41	4	79	1	0	84	1	0	3	0	4	2	0	7	0	9	138
Total	1	139	2	0	142	9	297	1	0	307	1	0	4	0	5	10	0	33	0	43	497
*** BREAK ***																					
04:00 PM	0	80	2	0	82	9	48	1	0	58	1	0	0	0	1	2	0	4	0	6	147
04:15 PM	0	80	3	0	83	5	56	0	0	61	0	0	0	0	0	3	0	1	0	4	148
04:30 PM	0	103	3	0	106	6	50	1	0	57	1	0	1	0	2	0	0	8	0	8	173
04:45 PM	0	92	5	0	97	7	48	0	0	55	0	0	0	0	0	2	0	5	0	7	159
Total	0	355	13	0	368	27	202	2	0	231	2	0	1	0	3	7	0	18	0	25	627
05:00 PM	0	98	6	0	104	6	56	1	0	63	0	0	2	0	2	2	0	2	0	4	173
05:15 PM	0	84	5	0	89	4	54	0	0	58	0	0	1	0	1	3	0	5	0	8	156
05:30 PM	0	76	8	0	84	3	58	0	0	61	0	0	0	0	0	3	0	6	0	9	154
05:45 PM	0	47	5	0	52	6	58	0	0	64	0	0	0	0	0	2	0	6	0	8	124
Total	0	305	24	0	329	19	226	1	0	246	0	0	3	0	3	10	0	19	0	29	607
Grand Total	1	906	42	0	949	60	996	4	0	1060	3	0	8	0	11	33	0	91	0	124	2144
Apprch %	0.1	95.5	4.4	0		5.7	94	0.4	0		27.3	0	72.7	0		26.6	0	73.4	0		
Total %	0	42.3	2	0	44.3	2.8	46.5	0.2	0	49.4	0.1	0	0.4	0	0.5	1.5	0	4.2	0	5.8	

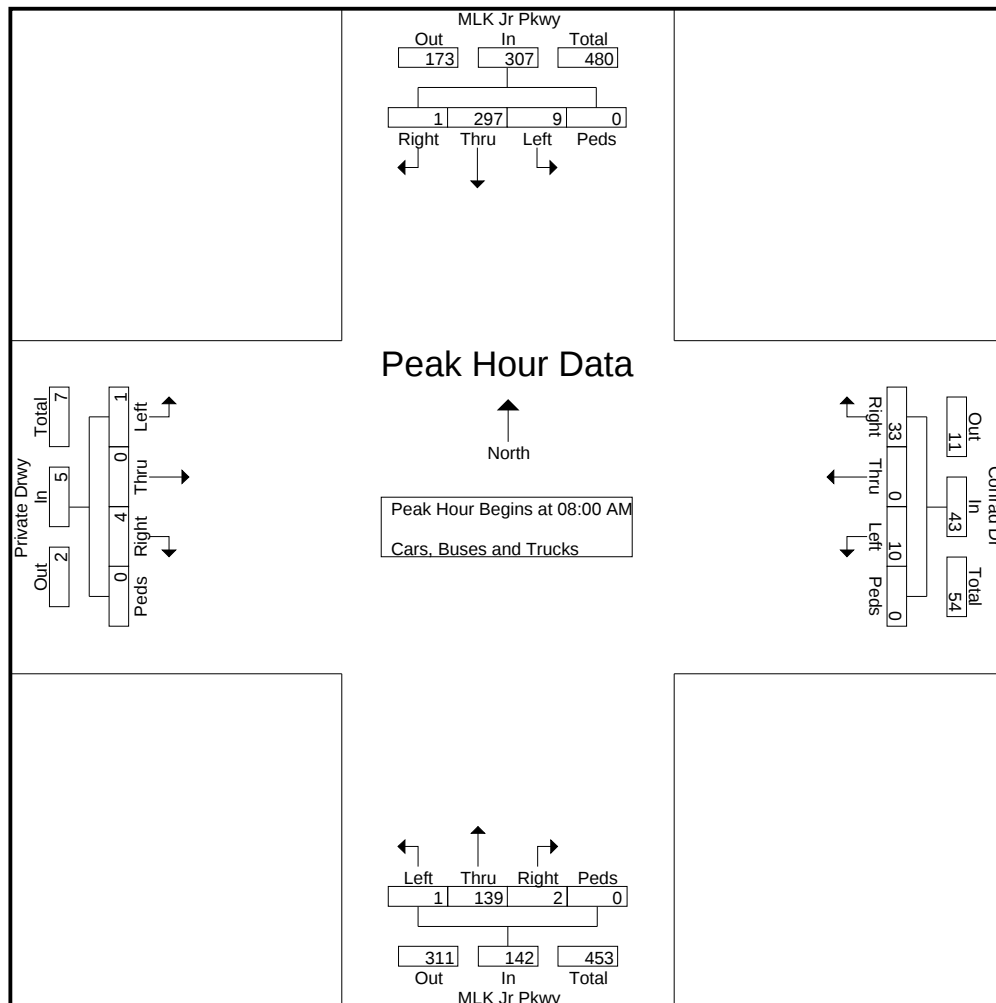
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TMC Data
MLK Jr Pkwy @ Conrad Dr
Athens
7-9 AM | 4-6 PM

File Name : 49090001
Site Code : 49090001
Start Date : 7/9/2024
Page No : 2

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Private Drwy Eastbound					Conrad Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	0	35	1	0	36	0	74	0	0	74	0	0	1	0	1	3	0	9	0	12	123
08:15 AM	0	24	0	0	24	3	73	0	0	76	0	0	0	0	0	2	0	9	0	11	111
08:30 AM	1	40	0	0	41	2	71	0	0	73	0	0	0	0	0	3	0	8	0	11	125
08:45 AM	0	40	1	0	41	4	79	1	0	84	1	0	3	0	4	2	0	7	0	9	138
Total Volume	1	139	2	0	142	9	297	1	0	307	1	0	4	0	5	10	0	33	0	43	497
% App. Total		97.9					96.7						.333		.313	23.3		76.7			
PHF	.250	.869	.500	.000	.866	.563	.940	.250	.000	.914	.250	.000	.333	.000	.313	.833	.000	.917	.000	.896	.900



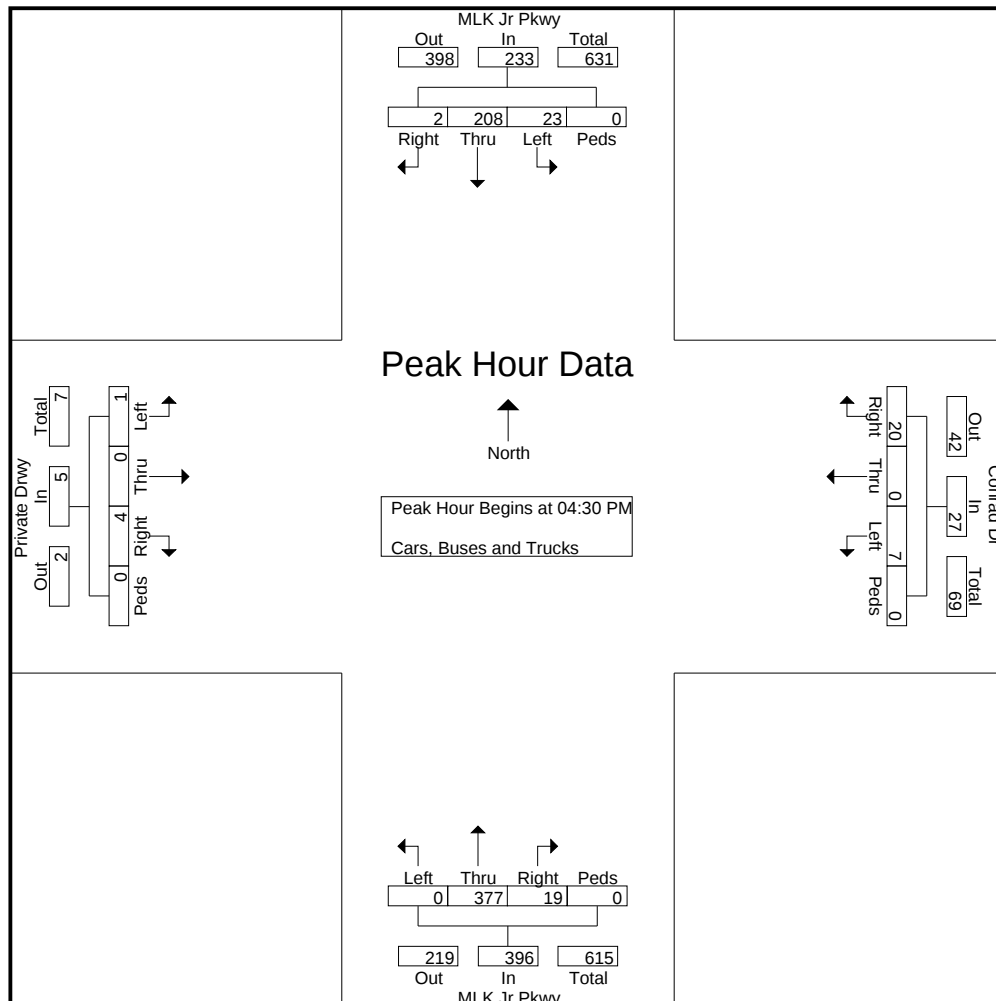
Reliable Traffic Data Services

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TMC Data
MLK Jr Pkwy @ Conrad Dr
Athens
7-9 AM | 4-6 PM

File Name : 49090001
Site Code : 49090001
Start Date : 7/9/2024
Page No : 3

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Private Drwy Eastbound					Conrad Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	103	3	0	106	6	50	1	0	57	1	0	1	0	2	0	0	8	0	8	173
04:45 PM	0	92	5	0	97	7	48	0	0	55	0	0	0	0	0	2	0	5	0	7	159
05:00 PM	0	98	6	0	104	6	56	1	0	63	0	0	2	0	2	2	0	2	0	4	173
05:15 PM	0	84	5	0	89	4	54	0	0	58	0	0	1	0	1	3	0	5	0	8	156
Total Volume	0	377	19	0	396	23	208	2	0	233	1	0	4	0	5	7	0	20	0	27	661
% App. Total		95.2					89.3									25.9		74.1			
PHF	.000	.915	.792	.000	.934	.821	.929	.500	.000	.925	.250	.000	.500	.000	.625	.583	.000	.625	.000	.844	.955



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TMC Data
Athens Perimeter (US129) EB Ramp @
MLK Jr Pkwy, Athens, GA
7-9 AM | 4-6 PM

File Name : 49510002
Site Code : 49510002
Start Date : 9/24/2024
Page No : 1

Groups Printed- Cars, Buses and Trucks

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Athens Perimeter (US129) EB Ramp Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	21	4	0	25	61	23	0	0	84	67	0	24	0	91	0	0	0	0	0	200
07:15 AM	0	29	8	0	37	101	44	0	0	145	58	0	33	0	91	0	0	0	0	0	273
07:30 AM	0	42	13	0	55	122	46	0	0	168	55	0	49	0	104	0	0	0	0	0	327
07:45 AM	0	31	9	0	40	98	49	0	0	147	62	0	82	0	144	0	0	0	0	0	331
Total	0	123	34	0	157	382	162	0	0	544	242	0	188	0	430	0	0	0	0	0	1131
08:00 AM	0	41	9	0	50	74	35	0	0	109	55	0	52	0	107	0	0	0	0	0	266
08:15 AM	0	43	7	0	50	58	46	0	0	104	61	0	45	0	106	0	0	0	0	0	260
08:30 AM	0	38	16	0	54	76	38	0	0	114	60	0	62	0	122	0	0	0	0	0	290
08:45 AM	0	38	14	0	52	52	33	0	0	85	53	0	49	0	102	0	0	0	0	0	239
Total	0	160	46	0	206	260	152	0	0	412	229	0	208	0	437	0	0	0	0	0	1055
*** BREAK ***																					
04:00 PM	0	98	4	0	102	63	32	0	0	95	112	1	40	0	153	0	0	0	0	0	350
04:15 PM	0	106	11	0	117	81	34	0	0	115	114	0	42	0	156	0	0	0	0	0	388
04:30 PM	0	101	6	0	107	48	28	0	0	76	122	1	36	0	159	0	0	0	0	0	342
04:45 PM	0	89	15	0	104	74	30	0	0	104	130	0	44	0	174	0	0	0	0	0	382
Total	0	394	36	0	430	266	124	0	0	390	478	2	162	0	642	0	0	0	0	0	1462
05:00 PM	0	104	15	0	119	60	35	0	0	95	140	0	41	0	181	0	0	0	0	0	395
05:15 PM	0	118	10	0	128	60	32	0	0	92	128	0	54	0	182	0	0	0	0	0	402
05:30 PM	0	106	12	0	118	66	35	0	0	101	104	0	32	0	136	0	0	0	0	0	355
05:45 PM	0	77	8	0	85	57	31	0	0	88	84	2	39	0	125	0	0	0	0	0	298
Total	0	405	45	0	450	243	133	0	0	376	456	2	166	0	624	0	0	0	0	0	1450
Grand Total	0	1082	161	0	1243	1151	571	0	0	1722	1405	4	724	0	2133	0	0	0	0	0	5098
Apprch %	0	87	13	0		66.8	33.2	0	0		65.9	0.2	33.9	0		0	0	0	0		
Total %	0	21.2	3.2	0	24.4	22.6	11.2	0	0	33.8	27.6	0.1	14.2	0	41.8	0	0	0	0	0	

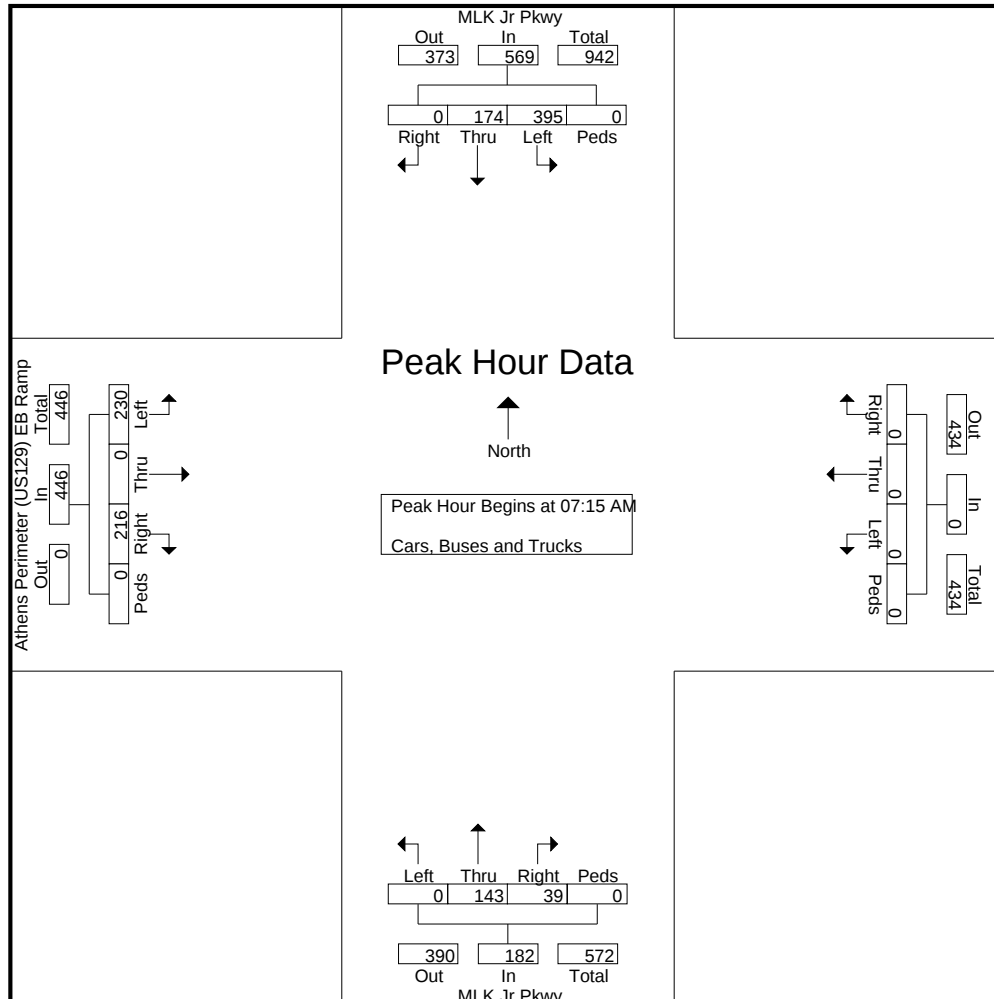
Reliable Traffic Data Services

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TMC Data
Athens Perimeter (US129) EB Ramp @
MLK Jr Pkwy, Athens, GA
7-9 AM | 4-6 PM

File Name : 49510002
Site Code : 49510002
Start Date : 9/24/2024
Page No : 2

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Athens Perimeter (US129) EB Ramp Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	29	8	0	37	101	44	0	0	145	58	0	33	0	91	0	0	0	0	0	273
07:30 AM	0	42	13	0	55	122	46	0	0	168	55	0	49	0	104	0	0	0	0	0	327
07:45 AM	0	31	9	0	40	98	49	0	0	147	62	0	82	0	144	0	0	0	0	0	331
08:00 AM	0	41	9	0	50	74	35	0	0	109	55	0	52	0	107	0	0	0	0	0	266
Total Volume	0	143	39	0	182	395	174	0	0	569	230	0	216	0	446	0	0	0	0	0	1197
% App. Total		78.6	21.4			69.4	30.6				51.6		48.4								
PHF	.000	.851	.750	.000	.827	.809	.888	.000	.000	.847	.927	.000	.659	.000	.774	.000	.000	.000	.000	.000	.904



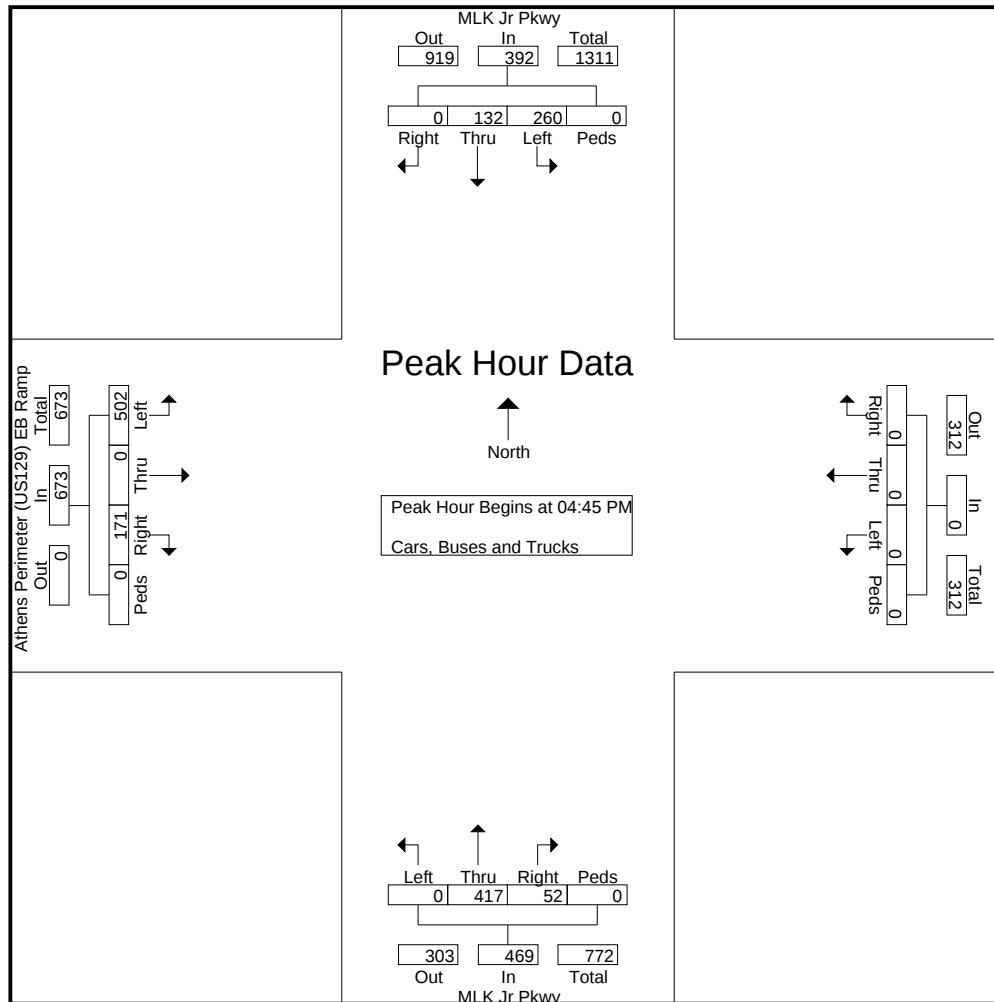
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TMC Data
Athens Perimeter (US129) EB Ramp @
MLK Jr Pkwy, Athens, GA
7-9 AM | 4-6 PM

File Name : 49510002
Site Code : 49510002
Start Date : 9/24/2024
Page No : 3

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Athens Perimeter (US129) EB Ramp Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	89	15	0	104	74	30	0	0	104	130	0	44	0	174	0	0	0	0	0	382
05:00 PM	0	104	15	0	119	60	35	0	0	95	140	0	41	0	181	0	0	0	0	0	395
05:15 PM	0	118	10	0	128	60	32	0	0	92	128	0	54	0	182	0	0	0	0	0	402
05:30 PM	0	106	12	0	118	66	35	0	0	101	104	0	32	0	136	0	0	0	0	0	355
Total Volume	0	417	52	0	469	260	132	0	0	392	502	0	171	0	673	0	0	0	0	0	1534
% App. Total		88.9	11.1			66.3	33.7				74.6		25.4								
PHF	.000	.883	.867	.000	.916	.878	.943	.000	.000	.942	.896	.000	.792	.000	.924	.000	.000	.000	.000	.000	.954



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TMC Data
Athens Perimeter (US129) EB Ramp @
MLK Jr Pkwy, Athens
7-9 AM | 4-6 PM

File Name : 49090002
Site Code : 49090002
Start Date : 7/9/2024
Page No : 1

Groups Printed- Cars, Buses and Trucks

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Athens Perimeter (US129) EB Ramp Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	18	1	0	19	67	28	0	0	95	40	0	19	0	59	0	0	0	0	0	173
07:15 AM	0	44	3	0	47	75	43	0	0	118	48	0	42	0	90	0	0	0	0	0	255
07:30 AM	0	30	2	0	32	96	37	0	0	133	56	0	48	0	104	0	0	0	0	0	269
07:45 AM	0	33	4	0	37	76	39	0	0	115	81	0	36	0	117	0	0	0	0	0	269
Total	0	125	10	0	135	314	147	0	0	461	225	0	145	0	370	0	0	0	0	0	966
08:00 AM	0	37	6	0	43	80	30	0	0	110	71	0	41	0	112	0	0	0	0	0	265
08:15 AM	0	30	4	0	34	85	37	0	0	122	71	0	46	0	117	0	0	0	0	0	273
08:30 AM	0	39	7	0	46	55	35	0	0	90	64	0	43	0	107	0	0	0	0	0	243
08:45 AM	0	49	7	0	56	72	39	0	0	111	73	0	46	0	119	0	0	0	0	0	286
Total	0	155	24	0	179	292	141	0	0	433	279	0	176	0	455	0	0	0	0	0	1067
*** BREAK ***																					
04:00 PM	0	84	4	0	88	69	36	0	0	105	113	0	34	0	147	0	0	0	0	0	340
04:15 PM	0	87	3	0	90	73	23	0	0	96	113	0	36	0	149	0	0	0	0	0	335
04:30 PM	0	92	7	0	99	61	28	0	0	89	144	0	26	0	170	0	0	0	0	0	358
04:45 PM	0	99	7	0	106	71	25	0	0	96	142	0	31	0	173	0	0	0	0	0	375
Total	0	362	21	0	383	274	112	0	0	386	512	0	127	0	639	0	0	0	0	0	1408
05:00 PM	0	96	6	0	102	64	33	0	0	97	139	0	37	0	176	0	0	0	0	0	375
05:15 PM	0	93	6	0	99	67	25	0	0	92	135	0	34	0	169	0	0	0	0	0	360
05:30 PM	0	74	4	0	78	45	37	0	0	82	157	0	33	0	190	0	0	0	0	0	350
05:45 PM	0	59	3	0	62	58	30	0	0	88	120	0	27	0	147	0	0	0	0	0	297
Total	0	322	19	0	341	234	125	0	0	359	551	0	131	0	682	0	0	0	0	0	1382
Grand Total	0	964	74	0	1038	1114	525	0	0	1639	1567	0	579	0	2146	0	0	0	0	0	4823
Apprch %	0	92.9	7.1	0		68	32	0	0		73	0	27	0		0	0	0	0		
Total %	0	20	1.5	0	21.5	23.1	10.9	0	0	34	32.5	0	12	0	44.5	0	0	0	0	0	

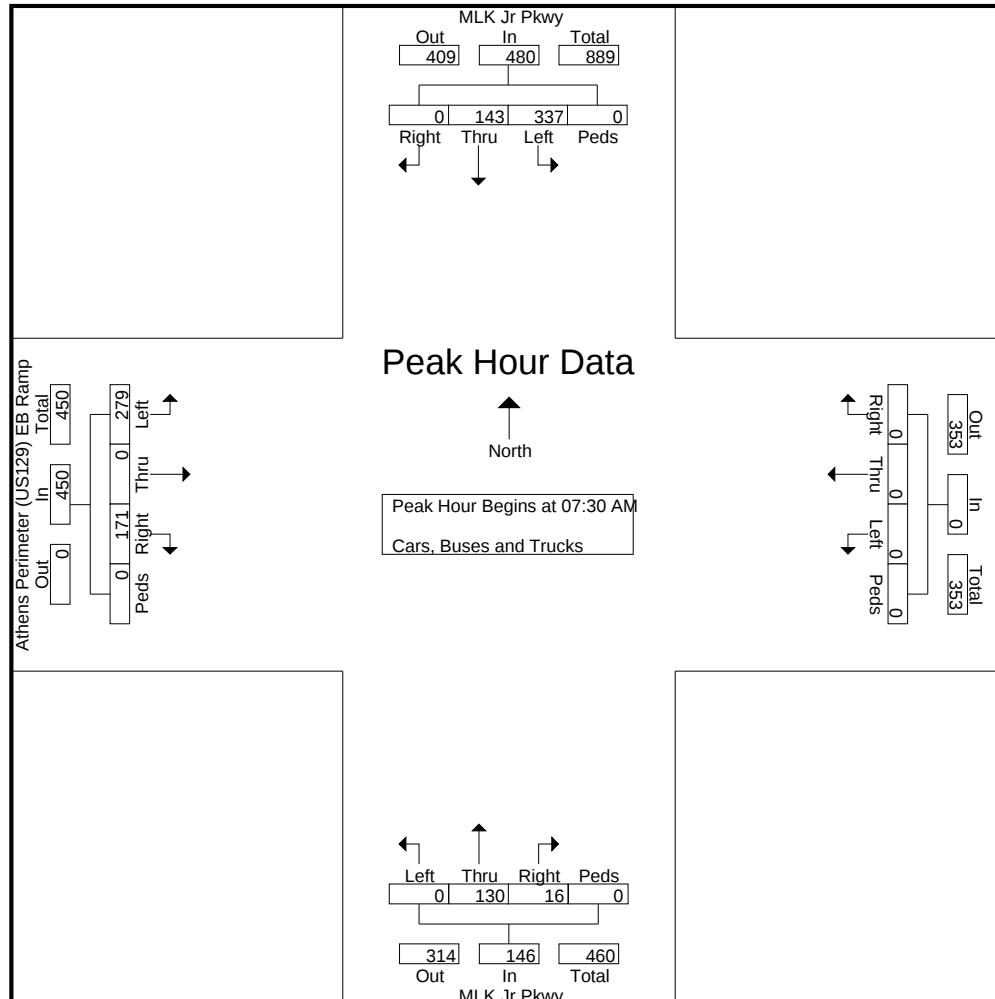
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TMC Data
Athens Perimeter (US129) EB Ramp @
MLK Jr Pkwy, Athens
7-9 AM | 4-6 PM

File Name : 49090002
Site Code : 49090002
Start Date : 7/9/2024
Page No : 2

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Athens Perimeter (US129) EB Ramp Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	30	2	0	32	96	37	0	0	133	56	0	48	0	104	0	0	0	0	0	269
07:45 AM	0	33	4	0	37	76	39	0	0	115	81	0	36	0	117	0	0	0	0	0	269
08:00 AM	0	37	6	0	43	80	30	0	0	110	71	0	41	0	112	0	0	0	0	0	265
08:15 AM	0	30	4	0	34	85	37	0	0	122	71	0	46	0	117	0	0	0	0	0	273
Total Volume	0	130	16	0	146	337	143	0	0	480	279	0	171	0	450	0	0	0	0	0	1076
% App. Total						70.2	29.8														
PHF	.000	.878	.667	.000	.849	.878	.917	.000	.000	.902	.861	.000	.891	.000	.962	.000	.000	.000	.000	.000	.985



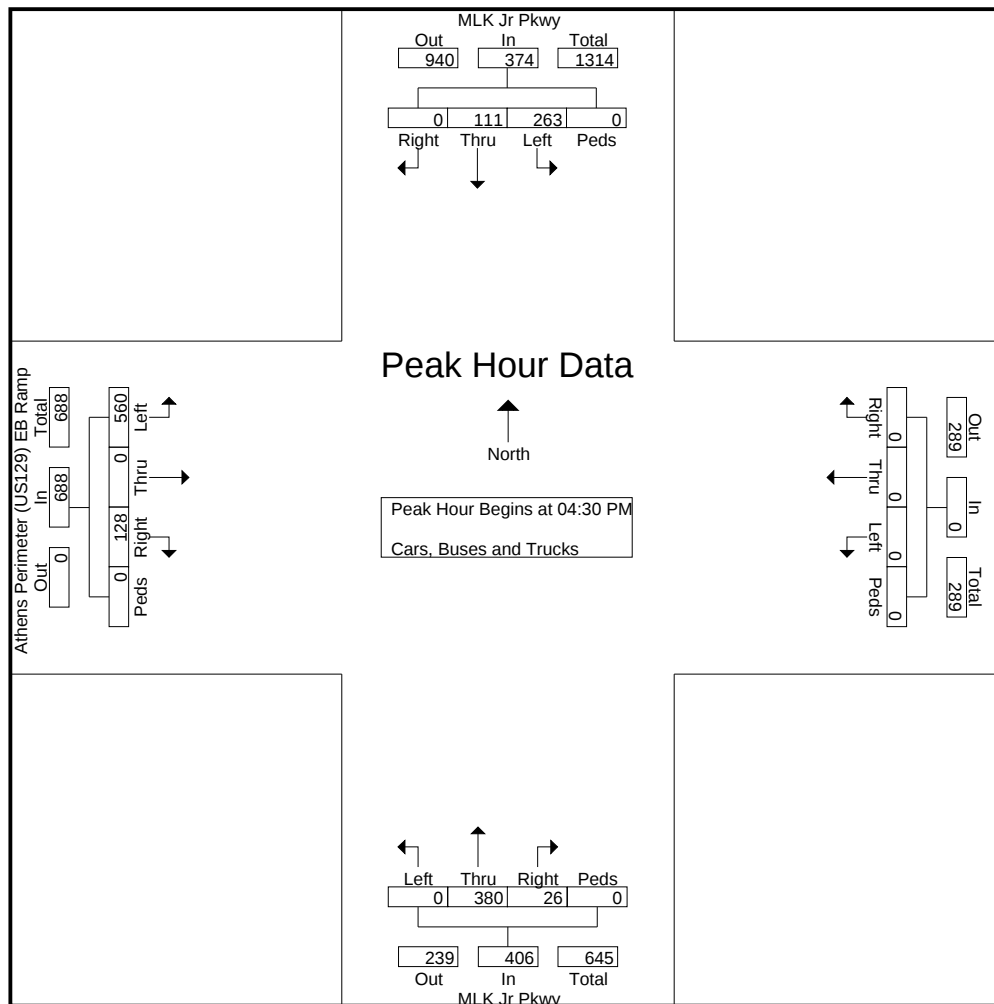
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TMC Data
Athens Perimeter (US129) EB Ramp @
MLK Jr Pkwy, Athens
7-9 AM | 4-6 PM

File Name : 49090002
Site Code : 49090002
Start Date : 7/9/2024
Page No : 3

	MLK Jr Pkwy Northbound					MLK Jr Pkwy Southbound					Athens Perimeter (US129) EB Ramp Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	92	7	0	99	61	28	0	0	89	144	0	26	0	170	0	0	0	0	0	358
04:45 PM	0	99	7	0	106	71	25	0	0	96	142	0	31	0	173	0	0	0	0	0	375
05:00 PM	0	96	6	0	102	64	33	0	0	97	139	0	37	0	176	0	0	0	0	0	375
05:15 PM	0	93	6	0	99	67	25	0	0	92	135	0	34	0	169	0	0	0	0	0	360
Total Volume	0	380	26	0	406	263	111	0	0	374	560	0	128	0	688	0	0	0	0	0	1468
% App. Total		93.6				70.3	29.7				81.4		18.6								
PHF	.000	.960	.929	.000	.958	.926	.841	.000	.000	.964	.972	.000	.865	.000	.977	.000	.000	.000	.000	.000	.979



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TMC Data
Athens Perimeter (US129) WB Ramp @
Commerce Rd (US441), Athens, GA
7-9 AM | 4-6 PM

File Name : 49510003
Site Code : 49510003
Start Date : 9/24/2024
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Commerce Rd (US441) Northbound					Commerce Rd (US441) Southbound					Eastbound					Athens Perimeter (US129) WB Ramp Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	9	72	0	0	81	0	92	107	0	199	0	0	0	0	0	2	1	52	0	55	335
07:15 AM	18	74	0	0	92	0	147	111	0	258	0	0	0	0	0	1	0	80	0	81	431
07:30 AM	23	78	0	0	101	0	159	114	0	273	0	0	0	0	0	3	0	68	0	71	445
07:45 AM	24	76	0	0	100	0	152	118	0	270	0	0	0	0	0	2	0	64	0	66	436
Total	74	300	0	0	374	0	550	450	0	1000	0	0	0	0	0	8	1	264	0	273	1647
08:00 AM	21	73	0	0	94	0	107	120	0	227	0	0	0	0	0	5	0	57	0	62	383
08:15 AM	27	74	0	0	101	0	106	118	0	224	0	0	0	0	0	3	0	71	0	74	399
08:30 AM	24	79	0	0	103	0	115	115	0	230	0	0	0	0	0	4	0	57	0	61	394
08:45 AM	24	74	0	0	98	0	84	98	0	182	0	0	0	0	0	3	0	47	0	50	330
Total	96	300	0	0	396	0	412	451	0	863	0	0	0	0	0	15	0	232	0	247	1506
*** BREAK ***																					
04:00 PM	52	153	0	0	205	0	98	98	0	196	0	0	0	0	0	4	0	101	0	105	506
04:15 PM	62	162	0	0	224	0	110	93	0	203	0	0	0	0	0	9	1	83	0	93	520
04:30 PM	62	168	0	0	230	0	94	90	0	184	0	0	0	0	0	4	0	101	0	105	519
04:45 PM	45	184	0	0	229	0	97	89	0	186	0	0	0	0	0	5	0	95	0	100	515
Total	221	667	0	0	888	0	399	370	0	769	0	0	0	0	0	22	1	380	0	403	2060
05:00 PM	56	173	0	0	229	0	104	82	0	186	0	0	0	0	0	5	0	124	0	129	544
05:15 PM	74	176	0	0	250	0	85	79	0	164	0	0	0	0	0	5	0	104	0	109	523
05:30 PM	64	165	0	0	229	0	94	98	0	192	0	0	0	0	0	2	0	88	0	90	511
05:45 PM	45	119	0	0	164	0	90	79	0	169	0	0	0	0	0	4	0	83	0	87	420
Total	239	633	0	0	872	0	373	338	0	711	0	0	0	0	0	16	0	399	0	415	1998
Grand Total	630	1900	0	0	2530	0	1734	1609	0	3343	0	0	0	0	0	61	2	1275	0	1338	7211
Apprch %	24.9	75.1	0	0		0	51.9	48.1	0		0	0	0	0		4.6	0.1	95.3	0		
Total %	8.7	26.3	0	0	35.1	0	24	22.3	0	46.4	0	0	0	0	0	0.8	0	17.7	0	18.6	

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TMC Data

Athens Perimeter (US129) WB Ramp @
Commerce Rd (US441), Athens, GA
7-9 AM | 4-6 PM

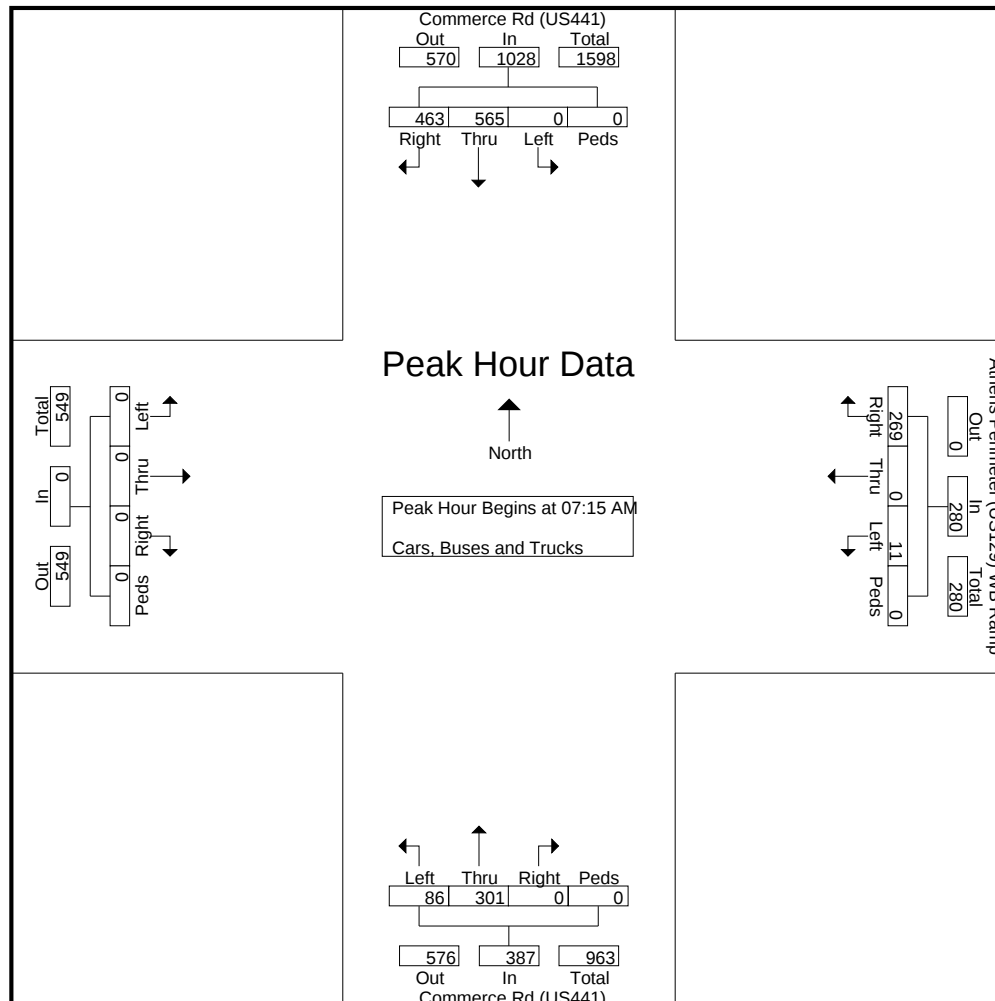
File Name : 49510003

Site Code : 49510003

Start Date : 9/24/2024

Page No : 2

	Commerce Rd (US441) Northbound					Commerce Rd (US441) Southbound					Eastbound					Athens Perimeter (US129) WB Ramp Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	18	74	0	0	92	0	147	111	0	258	0	0	0	0	0	1	0	80	0	81	431
07:30 AM	23	78	0	0	101	0	159	114	0	273	0	0	0	0	0	3	0	68	0	71	445
07:45 AM	24	76	0	0	100	0	152	118	0	270	0	0	0	0	0	2	0	64	0	66	436
08:00 AM	21	73	0	0	94	0	107	120	0	227	0	0	0	0	0	5	0	57	0	62	383
Total Volume	86	301	0	0	387	0	565	463	0	1028	0	0	0	0	0	11	0	269	0	280	1695
% App. Total	22.2	77.8																96.1			
PHF	.896	.965	.000	.000	.958	.000	.888	.965	.000	.941	.000	.000	.000	.000	.000	.550	.000	.841	.000	.864	.952



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TMC Data

Athens Perimeter (US129) WB Ramp @

Commerce Rd (US441), Athens, GA

7-9 AM | 4-6 PM

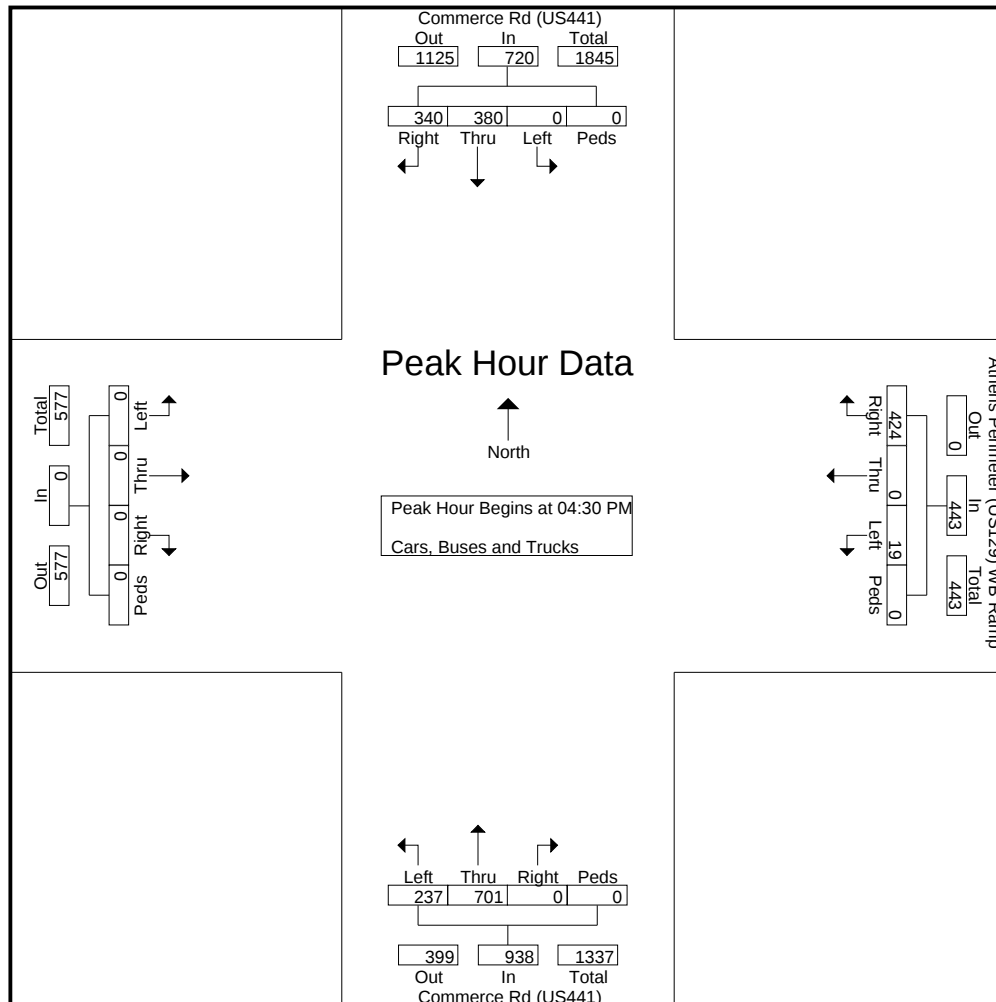
File Name : 49510003

Site Code : 49510003

Start Date : 9/24/2024

Page No : 3

	Commerce Rd (US441) Northbound					Commerce Rd (US441) Southbound					Eastbound					Athens Perimeter (US129) WB Ramp Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	62	168	0	0	230	0	94	90	0	184	0	0	0	0	0	4	0	101	0	105	519
04:45 PM	45	184	0	0	229	0	97	89	0	186	0	0	0	0	0	5	0	95	0	100	515
05:00 PM	56	173	0	0	229	0	104	82	0	186	0	0	0	0	0	5	0	124	0	129	544
05:15 PM	74	176	0	0	250	0	85	79	0	164	0	0	0	0	0	5	0	104	0	109	523
Total Volume	237	701	0	0	938	0	380	340	0	720	0	0	0	0	0	19	0	424	0	443	2101
% App. Total	25.3	74.7					52.8	47.2										95.7			
PHF	.801	.952	.000	.000	.938	.000	.913	.944	.000	.968	.000	.000	.000	.000	.000	.950	.000	.855	.000	.859	.966



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TMC Data
Athens Perimeter (US129) WB Ramp @
Commerce Rd (US441), Athens
7-9 AM | 4-6 PM

File Name : 49090003
Site Code : 49090003
Start Date : 7/9/2024
Page No : 1

Groups Printed- Cars, Buses and Trucks

	Commerce Rd (US441) Northbound					Commerce Rd (US441) Southbound					Eastbound					Athens Perimeter (US129) WB Ramp Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	20	64	0	0	84	0	116	123	0	239	0	0	0	0	0	1	0	43	0	44	367
07:15 AM	21	67	0	0	88	0	121	129	0	250	0	0	0	0	0	0	1	71	0	72	410
07:30 AM	20	66	0	0	86	0	127	133	0	260	0	0	0	0	0	0	1	79	0	80	426
07:45 AM	22	78	0	0	100	0	107	128	0	235	0	0	0	0	0	2	0	70	0	72	407
Total	83	275	0	0	358	0	471	513	0	984	0	0	0	0	0	3	2	263	0	268	1610
08:00 AM	24	79	0	0	103	0	108	129	0	237	0	0	0	0	0	1	0	56	0	57	397
08:15 AM	26	82	0	0	108	0	111	105	0	216	0	0	0	0	0	2	0	59	0	61	385
08:30 AM	24	85	0	0	109	0	97	107	0	204	0	0	0	0	0	2	1	48	0	51	364
08:45 AM	23	89	0	0	112	0	95	100	0	195	0	0	0	0	0	5	0	68	0	73	380
Total	97	335	0	0	432	0	411	441	0	852	0	0	0	0	0	10	1	231	0	242	1526
*** BREAK ***																					
04:00 PM	48	147	0	0	195	0	107	87	0	194	0	0	0	0	0	2	0	90	0	92	481
04:15 PM	57	152	0	0	209	0	89	93	0	182	0	0	0	0	0	3	0	83	0	86	477
04:30 PM	66	159	0	0	225	0	80	97	0	177	0	0	0	0	0	0	0	97	0	97	499
04:45 PM	65	174	0	0	239	0	86	91	0	177	0	0	0	0	0	3	0	73	0	76	492
Total	236	632	0	0	868	0	362	368	0	730	0	0	0	0	0	8	0	343	0	351	1949
05:00 PM	58	177	0	0	235	0	96	92	0	188	0	0	0	0	0	4	0	89	0	93	516
05:15 PM	55	179	0	0	234	0	91	94	0	185	0	0	0	0	0	3	0	126	0	129	548
05:30 PM	52	186	0	0	238	0	86	84	0	170	0	0	0	0	0	3	0	87	0	90	498
05:45 PM	36	142	0	0	178	0	89	84	0	173	0	0	0	0	0	3	1	59	0	63	414
Total	201	684	0	0	885	0	362	354	0	716	0	0	0	0	0	13	1	361	0	375	1976
Grand Total	617	1926	0	0	2543	0	1606	1676	0	3282	0	0	0	0	0	34	4	1198	0	1236	7061
Apprch %	24.3	75.7	0	0		0	48.9	51.1	0		0	0	0	0		2.8	0.3	96.9	0		
Total %	8.7	27.3	0	0	36	0	22.7	23.7	0	46.5	0	0	0	0	0	0.5	0.1	17	0	17.5	

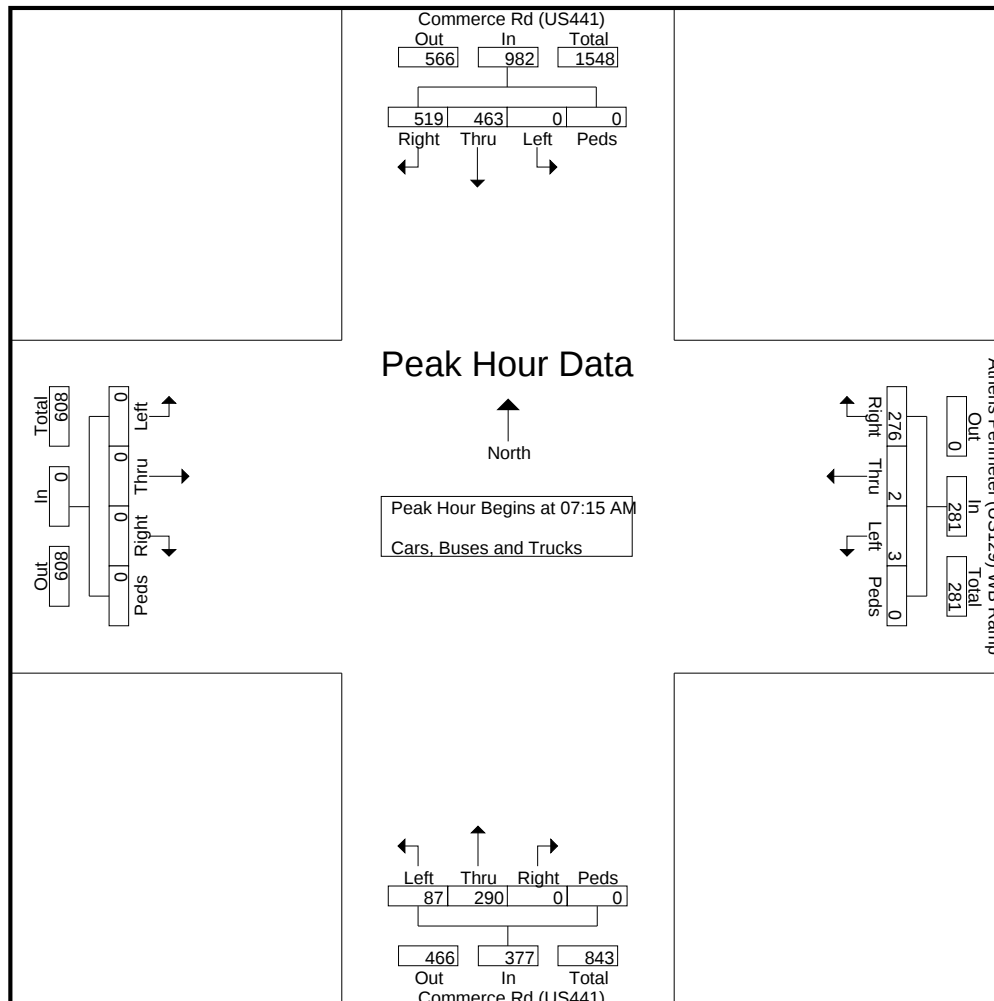
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TMC Data
Athens Perimeter (US129) WB Ramp @
Commerce Rd (US441), Athens
7-9 AM | 4-6 PM

File Name : 49090003
Site Code : 49090003
Start Date : 7/9/2024
Page No : 2

	Commerce Rd (US441) Northbound					Commerce Rd (US441) Southbound					Eastbound					Athens Perimeter (US129) WB Ramp Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	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	21	67	0	0	88	0	121	129	0	250	0	0	0	0	0	0	1	71	0	72	410
07:30 AM	20	66	0	0	86	0	127	133	0	260	0	0	0	0	0	0	1	79	0	80	426
07:45 AM	22	78	0	0	100	0	107	128	0	235	0	0	0	0	0	2	0	70	0	72	407
08:00 AM	24	79	0	0	103	0	108	129	0	237	0	0	0	0	0	1	0	56	0	57	397
Total Volume	87	290	0	0	377	0	463	519	0	982	0	0	0	0	0	3	2	276	0	281	1640
% App. Total	23.1	76.9				47.1	52.9									98.2					
PHF	.906	.918	.000	.000	.915	.000	.911	.976	.000	.944	.000	.000	.000	.000	.000	.375	.500	.873	.000	.878	.962



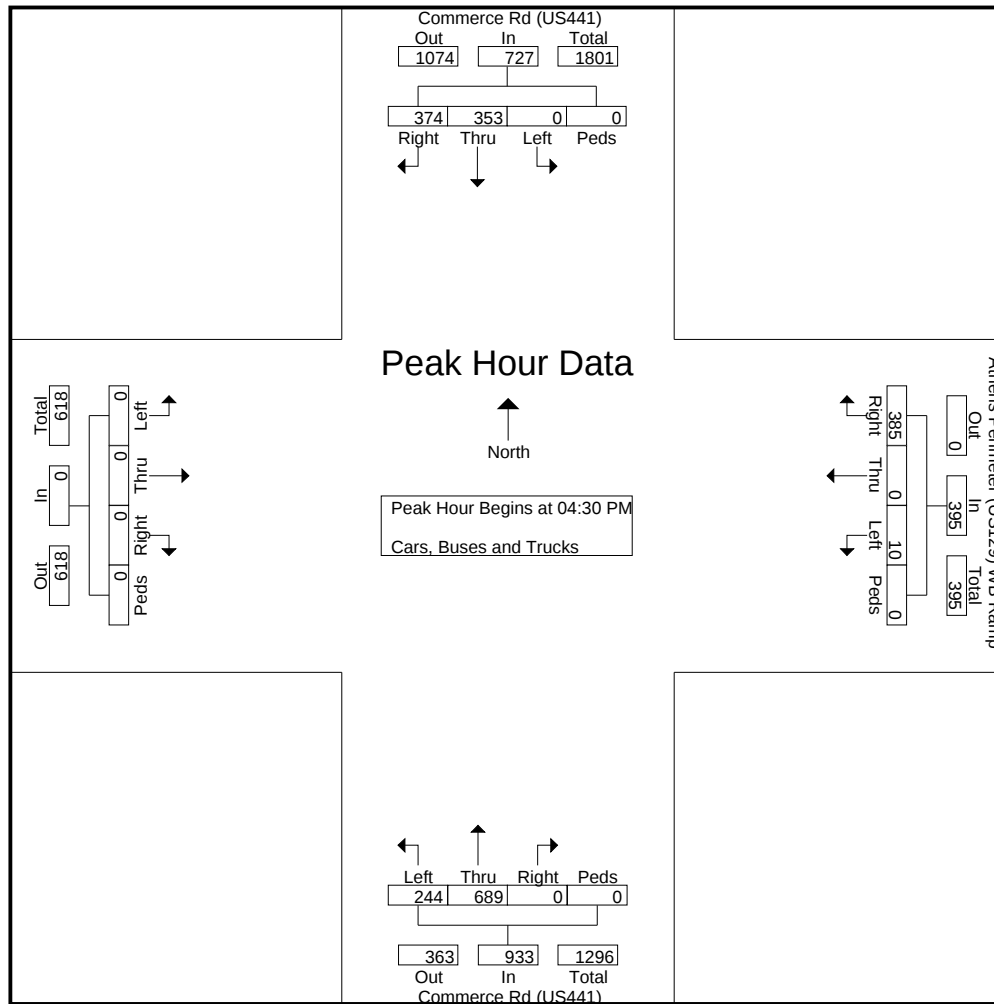
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TMC Data
Athens Perimeter (US129) WB Ramp @
Commerce Rd (US441), Athens
7-9 AM | 4-6 PM

File Name : 49090003
Site Code : 49090003
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Page No : 3

	Commerce Rd (US441) Northbound					Commerce Rd (US441) Southbound					Eastbound					Athens Perimeter (US129) WB Ramp Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	66	159	0	0	225	0	80	97	0	177	0	0	0	0	0	0	0	97	0	97	499
04:45 PM	65	174	0	0	239	0	86	91	0	177	0	0	0	0	0	3	0	73	0	76	492
05:00 PM	58	177	0	0	235	0	96	92	0	188	0	0	0	0	0	4	0	89	0	93	516
05:15 PM	55	179	0	0	234	0	91	94	0	185	0	0	0	0	0	3	0	126	0	129	548
Total Volume	244	689	0	0	933	0	353	374	0	727	0	0	0	0	0	10	0	385	0	395	2055
% App. Total	26.2	73.8					48.6	51.4										97.5			
PHF	.924	.962	.000	.000	.976	.000	.919	.964	.000	.967	.000	.000	.000	.000	.000	.625	.000	.764	.000	.766	.938



Appendix B

Intersection Analysis Methodology

Intersection Analysis Methodology

The methodology used for evaluating traffic operations at intersections is presented in the Transportation Research Board's 2022 *Highway Capacity Manual*, 7th Edition (HCM 7). Synchro 12 software, which emulates the HCM 7 methodology, was used for all analyses. The following is an overview of the methodology employed for the analysis of signalized intersections and roundabouts and stop-sign controlled (unsignalized) intersections. Levels of service (LOS) are assigned letters A through F. LOS A indicates operations with very low control delay while LOS F describes operations with high control delay. LOS F is considered to be unacceptable by most drivers, while LOS E is typically considered to be the limit of acceptable delay.

Signalized Intersections and Roundabouts – Level of service for a signalized intersection and a roundabout is defined in terms of control delay per vehicle. For signalized intersections and roundabouts, a composite intersection level of service is determined. The thresholds for each level of service are higher for signalized intersections and roundabouts than for unsignalized intersections. This is attributable to a variety of factors including expectation and acceptance of higher delays at signals/roundabouts, and the fact that drivers can relax when waiting at a signal as opposed to having to remain attentive as they proceed through the unsignalized intersection. The level of service criteria for signalized intersections and roundabouts are shown in Table A.

Table A – Level of Service Criteria for Signalized Intersections and Roundabouts

Control Delay (s/veh)	LOS
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

Source: Highway Capacity Manual 7

Unsignalized Intersections – Level of service for an unsignalized intersection is defined in terms of control delay per vehicle. Control delay is that portion of delay attributable to the control device and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The delays at unsignalized intersections are based on gap acceptance theory, factoring in availability of gaps, usefulness of the gaps, and the priority of right-of-way given to each traffic stream. The level of service criteria for unsignalized intersections are presented in Table B.

Table B – Level of Service Criteria for Unsignalized Intersections

Control Delay (s/veh)	LOS
0 – 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

Source: Highway Capacity Manual 7

Appendix C

Existing Intersection Operational Analysis

1140 MLK Parkway Mixed-Use Athens October 2024 Update

1: MLK Pkwy & Plantation Buffet Driveway/Conrad Dr

existing a.m.

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↙	↗	
Traffic Vol, veh/h	3	0	0	19	0	32	1	149	6	6	389	1
Future Vol, veh/h	3	0	0	19	0	32	1	149	6	6	389	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	75	75	75	95	95	95	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	12	0	0	25	0	43	1	157	6	8	526	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	702	708	526	704	705	160	527	0	0	163	0	0
Stage 1	543	543	-	162	162	-	-	-	-	-	-	-
Stage 2	159	165	-	542	543	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	353	360	552	352	361	885	1040	-	-	1415	-	-
Stage 1	524	520	-	840	764	-	-	-	-	-	-	-
Stage 2	843	762	-	525	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	334	357	552	349	358	885	1040	-	-	1415	-	-
Mov Cap-2 Maneuver	334	357	-	349	358	-	-	-	-	-	-	-
Stage 1	521	517	-	839	763	-	-	-	-	-	-	-
Stage 2	802	761	-	522	517	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v16.19			12.27		0.05		0.11					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	11	-	-	334	563	1415	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.036	0.121	0.006	-	-				
HCM Control Delay (s/veh)	8.5	0	-	16.2	12.3	7.6	-	-				
HCM Lane LOS	A	A	-	C	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.4	0	-	-				

1140 MLK Parkway Mixed-Use Athens October 2024 Update

2: MLK Pkwy/Commerce Rd & US 129 EB Off-Ramp/US 129 EB On-Ramp

existing a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	230	0	216	0	0	0	0	143	39	395	174	0
Future Volume (veh/h)	230	0	216	0	0	0	0	143	39	395	174	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1767	1870	1870	1767	0
Adj Flow Rate, veh/h	299	0	281				0	172	47	465	205	0
Peak Hour Factor	0.77	0.77	0.77				0.92	0.83	0.83	0.85	0.85	0.92
Percent Heavy Veh, %	2	0	2				0	9	2	2	9	0
Cap, veh/h	402	0	358				0	446	122	748	1075	0
Arrive On Green	0.23	0.00	0.23				0.00	0.33	0.33	0.19	0.61	0.00
Sat Flow, veh/h	1781	0	1585				0	1336	365	1781	1767	0
Grp Volume(v), veh/h	299	0	281				0	0	219	465	205	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	0	1701	1781	1767	0
Q Serve(g_s), s	8.5	0.0	9.1				0.0	0.0	5.3	8.4	2.8	0.0
Cycle Q Clear(g_c), s	8.5	0.0	9.1				0.0	0.0	5.3	8.4	2.8	0.0
Prop In Lane	1.00		1.00				0.00		0.21	1.00		0.00
Lane Grp Cap(c), veh/h	402	0	358				0	0	567	748	1075	0
V/C Ratio(X)	0.74	0.00	0.79				0.00	0.00	0.39	0.62	0.19	0.00
Avail Cap(c_a), veh/h	591	0	526				0	0	567	751	1075	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.5	0.0	19.8				0.0	0.0	13.8	7.9	4.7	0.0
Incr Delay (d2), s/veh	2.9	0.0	4.7				0.0	0.0	2.0	1.6	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	3.4				0.0	0.0	2.1	2.5	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	22.4	0.0	24.5				0.0	0.0	15.8	9.4	5.1	0.0
LnGrp LOS	C		C						B	A	A	
Approach Vol, veh/h	580						219			670		
Approach Delay, s/veh	23.4						15.8			8.1		
Approach LOS	C						B			A		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	14.9	22.6	16.7		37.5							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	10.5	18.0	18.0		33.0							
Max Q Clear Time (g_c+l1), s	10.4	7.3	11.1		4.8							
Green Ext Time (p_c), s	0.0	0.8	1.2		1.1							
Intersection Summary												
HCM 7th Control Delay, s/veh	15.3											
HCM 7th LOS	B											

1140 MLK Parkway Mixed-Use Athens October 2024 Update
3: Commerce Rd & US 129 WB On-Ramp/US 129 WB Off-Ramp

existing a.m.

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	11	0	269	86	301	0	0	565	463
Future Vol, veh/h	0	0	0	11	0	269	86	301	0	0	565	463
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	175	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	86	86	86	96	96	92	92	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	13	0	313	90	314	0	0	601	493
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				1094	-	314	1094	0	-	-	-	0
Stage 1				493	-	-	-	-	-	-	-	-
Stage 2				601	-	-	-	-	-	-	-	-
Critical Hdwy				6.42	-	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	-	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				237	0	727	638	-	0	0	-	-
Stage 1				614	0	-	-	-	0	0	-	-
Stage 2				547	0	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				204	0	727	638	-	-	-	-	-
Mov Cap-2 Maneuver				204	0	-	-	-	-	-	-	-
Stage 1				528	0	-	-	-	-	-	-	-
Stage 2				547	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				14.04		2.57		0				
HCM LOS				B								
Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR						
Capacity (veh/h)	638	-	204	727	-	-						
HCM Lane V/C Ratio	0.14	-	0.063	0.43	-	-						
HCM Control Delay (s/veh)	11.6	-	23.9	13.6	-	-						
HCM Lane LOS	B	-	C	B	-	-						
HCM 95th %tile Q(veh)	0.5	-	0.2	2.2	-	-						

1140 MLK Parkway Mixed-Use Athens October 2024 Update

1: MLK Pkwy & Plantation Buffet Driveway/Conrad Dr

existing p.m.

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↗	↘	
Traffic Vol, veh/h	2	0	1	25	0	31	0	417	22	34	241	0
Future Vol, veh/h	2	0	1	25	0	31	0	417	22	34	241	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	82	82	82	91	91	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	5	0	3	30	0	38	0	458	24	37	262	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	794	818	262	806	806	470	262	0	0	482	0	0
Stage 1	336	336	-	470	470	-	-	-	-	-	-	-
Stage 2	458	482	-	336	336	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	306	310	777	300	316	593	1302	-	-	1080	-	-
Stage 1	678	642	-	574	560	-	-	-	-	-	-	-
Stage 2	583	553	-	678	642	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	277	300	777	289	305	593	1302	-	-	1080	-	-
Mov Cap-2 Maneuver	277	300	-	289	305	-	-	-	-	-	-	-
Stage 1	655	620	-	574	560	-	-	-	-	-	-	-
Stage 2	545	553	-	653	620	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v15.46			15.73		0		1.04					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1302	-	-	352	404	1080	-	-				
HCM Lane V/C Ratio	-	-	-	0.022	0.169	0.034	-	-				
HCM Control Delay (s/veh)	0	-	-	15.5	15.7	8.5	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0.1	-	-				

1140 MLK Parkway Mixed-Use Athens October 2024 Update

2: MLK Pkwy/Commerce Rd & US 129 EB Off-Ramp/US 129 EB On-Ramp

existing p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	502	0	171	0	0	0	0	417	52	260	132	0
Future Volume (veh/h)	502	0	171	0	0	0	0	417	52	260	132	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No				No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1767	1870	1870	1767	0
Adj Flow Rate, veh/h	546	0	186				0	453	57	277	140	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.94	0.94	0.92
Percent Heavy Veh, %	2	0	2				0	9	2	2	9	0
Cap, veh/h	588	0	524				0	588	74	408	980	0
Arrive On Green	0.33	0.00	0.33				0.00	0.38	0.38	0.11	0.55	0.00
Sat Flow, veh/h	1781	0	1585				0	1538	194	1781	1767	0
Grp Volume(v), veh/h	546	0	186				0	0	510	277	140	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	0	1732	1781	1767	0
Q Serve(g_s), s	23.2	0.0	7.0				0.0	0.0	20.2	6.9	3.0	0.0
Cycle Q Clear(g_c), s	23.2	0.0	7.0				0.0	0.0	20.2	6.9	3.0	0.0
Prop In Lane	1.00		1.00				0.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	588	0	524				0	0	663	408	980	0
V/C Ratio(X)	0.93	0.00	0.36				0.00	0.00	0.77	0.68	0.14	0.00
Avail Cap(c_a), veh/h	625	0	556				0	0	663	441	980	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	25.3	0.0	19.9				0.0	0.0	21.2	15.1	8.4	0.0
Incr Delay (d2), s/veh	19.7	0.0	0.4				0.0	0.0	8.4	3.8	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.2	0.0	2.5				0.0	0.0	9.0	2.8	1.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.0	0.0	20.3				0.0	0.0	29.6	18.9	8.7	0.0
LnGrp LOS	D		C						C	B	A	
Approach Vol, veh/h	732						510			417		
Approach Delay, s/veh	38.7						29.6			15.5		
Approach LOS	D						C			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	13.5	34.5		30.4			48.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	10.5	28.5		27.5			43.5					
Max Q Clear Time (g_c+I1), s	8.9	22.2		25.2			5.0					
Green Ext Time (p_c), s	0.1	1.7		0.7			0.8					
Intersection Summary												
HCM 7th Control Delay, s/veh				30.1								
HCM 7th LOS				C								

1140 MLK Parkway Mixed-Use Athens October 2024 Update
3: Commerce Rd & US 129 WB On-Ramp/US 129 WB Off-Ramp

existing p.m.

Intersection												
Int Delay, s/veh	32											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	19	0	424	237	701	0	0	380	340
Future Vol, veh/h	0	0	0	19	0	424	237	701	0	0	380	340
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	175	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	86	86	86	94	94	92	92	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	0	0	0	22	0	493	252	746	0	0	392	351

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1642	- 746 742	0 - - 0
Stage 1	1250	- - -	- - - -
Stage 2	392	- - -	- - - -
Critical Hdwy	6.42	- 6.22 4.12	- - - -
Critical Hdwy Stg 1	5.42	- - -	- - - -
Critical Hdwy Stg 2	5.42	- - -	- - - -
Follow-up Hdwy	3.518	- 3.318 2.218	- - - -
Pot Cap-1 Maneuver	110	0 ~ 414 865	- 0 0 - -
Stage 1	270	0 - -	- 0 0 - -
Stage 2	683	0 - -	- 0 0 - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	78	0 ~ 414 865	- - - -
Mov Cap-2 Maneuver	78	0 - -	- - - -
Stage 1	191	0 - -	- - - -
Stage 2	683	0 - -	- - - -

Approach	WB	NB	SB
HCM Control Delay, s/v	134.79	2.75	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	865	- 78 414	- -	-
HCM Lane V/C Ratio	0.292	- 0.284 1.192	- -	-
HCM Control Delay (s/veh)	10.9	- 68.6 137.8	- -	-
HCM Lane LOS	B	- F F	- -	-
HCM 95th %tile Q(veh)	1.2	- 1 19.4	- -	-

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

Appendix D

No-Build Intersection Operational Analysis

1140 MLK Parkway Mixed-Use Athens October 2024 Update

1: MLK Pkwy & Plantation Buffet Driveway/Conrad Dr

no-build a.m.

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↕	↕	
Traffic Vol, veh/h	3	0	0	21	0	35	1	163	7	7	425	1
Future Vol, veh/h	3	0	0	21	0	35	1	163	7	7	425	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	75	75	75	95	95	95	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	12	0	0	28	0	47	1	172	7	9	574	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	768	775	575	771	772	175	576	0	0	179	0	0
Stage 1	594	594	-	177	177	-	-	-	-	-	-	-
Stage 2	174	181	-	593	595	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	319	329	518	317	330	868	998	-	-	1397	-	-
Stage 1	491	493	-	824	752	-	-	-	-	-	-	-
Stage 2	828	750	-	492	493	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	299	326	518	315	328	868	998	-	-	1397	-	-
Mov Cap-2 Maneuver	299	326	-	315	328	-	-	-	-	-	-	-
Stage 1	488	490	-	823	752	-	-	-	-	-	-	-
Stage 2	783	749	-	489	489	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v17.53		13.02	0.05	0.12
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	10	-	-	299	523	1397	-
HCM Lane V/C Ratio	0.001	-	-	0.04	0.143	0.007	-
HCM Control Delay (s/veh)	8.6	0	-	17.5	13	7.6	-
HCM Lane LOS	A	A	-	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0	-

1140 MLK Parkway Mixed-Use Athens October 2024 Update

2: MLK Pkwy/Commerce Rd & US 129 EB Off-Ramp/US 129 EB On-Ramp

no-build a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	0	236	0	0	0	0	156	43	432	190	0
Future Volume (veh/h)	251	0	236	0	0	0	0	156	43	432	190	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1767	1870	1870	1767	0
Adj Flow Rate, veh/h	326	0	306				0	188	52	508	224	0
Peak Hour Factor	0.77	0.77	0.77				0.92	0.83	0.83	0.85	0.85	0.92
Percent Heavy Veh, %	2	0	2				0	9	2	2	9	0
Cap, veh/h	427	0	380				0	434	120	714	1055	0
Arrive On Green	0.24	0.00	0.24				0.00	0.33	0.33	0.19	0.60	0.00
Sat Flow, veh/h	1781	0	1585				0	1332	368	1781	1767	0
Grp Volume(v), veh/h	326	0	306				0	0	240	508	224	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	0	1700	1781	1767	0
Q Serve(g_s), s	9.4	0.0	10.0				0.0	0.0	6.1	9.9	3.2	0.0
Cycle Q Clear(g_c), s	9.4	0.0	10.0				0.0	0.0	6.1	9.9	3.2	0.0
Prop In Lane	1.00		1.00				0.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	427	0	380				0	0	554	714	1055	0
V/C Ratio(X)	0.76	0.00	0.80				0.00	0.00	0.43	0.71	0.21	0.00
Avail Cap(c_a), veh/h	580	0	516				0	0	554	714	1055	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.5	0.0	19.8				0.0	0.0	14.6	8.8	5.1	0.0
Incr Delay (d2), s/veh	4.1	0.0	6.6				0.0	0.0	2.5	3.3	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	3.9				0.0	0.0	2.4	3.3	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.6	0.0	26.3				0.0	0.0	17.1	12.2	5.6	0.0
LnGrp LOS	C		C						B	B	A	
Approach Vol, veh/h	632						240			732		
Approach Delay, s/veh	24.9						17.1			10.1		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	15.0	22.5		17.8			37.5					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	10.5	18.0		18.0			33.0					
Max Q Clear Time (g_c+l1), s	11.9	8.1		12.0			5.2					
Green Ext Time (p_c), s	0.0	0.9		1.2			1.3					
Intersection Summary												
HCM 7th Control Delay, s/veh				17.0								
HCM 7th LOS				B								

1140 MLK Parkway Mixed-Use Athens October 2024 Update
3: Commerce Rd & US 129 WB On-Ramp/US 129 WB Off-Ramp

no-build a.m.

Intersection												
Int Delay, s/veh	3.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	12	0	294	94	329	0	0	618	615
Future Vol, veh/h	0	0	0	12	0	294	94	329	0	0	618	615
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	175	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	86	86	86	96	96	92	92	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	14	0	342	98	343	0	0	657	654

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1196	- 343 1312	0 - - - 0
Stage 1	539	- - -	- - - - -
Stage 2	657	- - -	- - - - -
Critical Hdwy	6.42	- 6.22 4.12	- - - - -
Critical Hdwy Stg 1	5.42	- - -	- - - - -
Critical Hdwy Stg 2	5.42	- - -	- - - - -
Follow-up Hdwy	3.518	- 3.318 2.218	- - - - -
Pot Cap-1 Maneuver	206	0 700 527	- 0 0 - -
Stage 1	585	0 - -	- 0 0 - -
Stage 2	515	0 - -	- 0 0 - -
Platoon blocked, %			- - - - -
Mov Cap-1 Maneuver	167	0 700 527	- - - - -
Mov Cap-2 Maneuver	167	0 - -	- - - - -
Stage 1	476	0 - -	- - - - -
Stage 2	515	0 - -	- - - - -

Approach	WB	NB	SB
HCM Control Delay, s/v	15.48	2.97	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBTWBLn1WBLn2	SBT	SBR
Capacity (veh/h)	527	- 167 700	- -	-
HCM Lane V/C Ratio	0.186	- 0.083 0.488	- -	-
HCM Control Delay (s/veh)	13.4	- 28.4 15	- -	-
HCM Lane LOS	B	- D B	- -	-
HCM 95th %tile Q(veh)	0.7	- 0.3 2.7	- -	-

1140 MLK Parkway Mixed-Use Athens October 2024 Update

1: MLK Pkwy & Plantation Buffet Driveway/Conrad Dr

no-build p.m.

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	1	27	0	34	0	456	24	37	263	0
Future Vol, veh/h	2	0	1	27	0	34	0	456	24	37	263	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	82	82	82	91	91	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	5	0	3	33	0	41	0	501	26	40	286	0
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	867	894	286	881	881	514	286	0	0	527	0	0
Stage 1	366	366	-	514	514	-	-	-	-	-	-	-
Stage 2	501	527	-	366	366	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	273	281	753	267	286	560	1276	-	-	1040	-	-
Stage 1	653	622	-	543	535	-	-	-	-	-	-	-
Stage 2	552	528	-	653	622	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	243	270	753	256	275	560	1276	-	-	1040	-	-
Mov Cap-2 Maneuver	243	270	-	256	275	-	-	-	-	-	-	-
Stage 1	628	598	-	543	535	-	-	-	-	-	-	-
Stage 2	511	528	-	626	598	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v16.77			17.27		0		1.06					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1276	-	-	314	367	1040	-	-				
HCM Lane V/C Ratio	-	-	-	0.025	0.203	0.039	-	-				
HCM Control Delay (s/veh)	0	-	-	16.8	17.3	8.6	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.7	0.1	-	-				

1140 MLK Parkway Mixed-Use Athens October 2024 Update

2: MLK Pkwy/Commerce Rd & US 129 EB Off-Ramp/US 129 EB On-Ramp

no-build p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	549	0	187	0	0	0	0	456	57	284	144	0
Future Volume (veh/h)	549	0	187	0	0	0	0	456	57	284	144	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No				No	
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1767	1870	1870	1767	0
Adj Flow Rate, veh/h	597	0	203				0	496	62	302	153	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.94	0.94	0.92
Percent Heavy Veh, %	2	0	2				0	9	2	2	9	0
Cap, veh/h	631	0	561				0	572	71	362	962	0
Arrive On Green	0.35	0.00	0.35				0.00	0.37	0.37	0.12	0.54	0.00
Sat Flow, veh/h	1781	0	1585				0	1540	192	1781	1767	0
Grp Volume(v), veh/h	597	0	203				0	0	558	302	153	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	0	1732	1781	1767	0
Q Serve(g_s), s	29.0	0.0	8.4				0.0	0.0	26.6	8.8	3.8	0.0
Cycle Q Clear(g_c), s	29.0	0.0	8.4				0.0	0.0	26.6	8.8	3.8	0.0
Prop In Lane	1.00		1.00				0.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	631	0	561				0	0	643	362	962	0
V/C Ratio(X)	0.95	0.00	0.36				0.00	0.00	0.87	0.84	0.16	0.00
Avail Cap(c_a), veh/h	650	0	579				0	0	643	393	962	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.9	0.0	21.3				0.0	0.0	26.0	18.8	10.1	0.0
Incr Delay (d2), s/veh	22.7	0.0	0.4				0.0	0.0	14.7	13.6	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	15.5	0.0	3.1				0.0	0.0	12.9	4.6	1.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.6	0.0	21.7				0.0	0.0	40.7	32.4	10.5	0.0
LnGrp LOS	D		C						D	C	B	
Approach Vol, veh/h	800						558			455		
Approach Delay, s/veh	43.3						40.7			25.0		
Approach LOS	D						D			C		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	15.4	37.6		36.0			53.0					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	12.5	31.5		32.5			48.5					
Max Q Clear Time (g_c+I1), s	10.8	28.6		31.0			5.8					
Green Ext Time (p_c), s	0.2	1.0		0.5			0.9					
Intersection Summary												
HCM 7th Control Delay, s/veh				37.9								
HCM 7th LOS				D								

1140 MLK Parkway Mixed-Use Athens October 2024 Update
3: Commerce Rd & US 129 WB On-Ramp/US 129 WB Off-Ramp

no-build p.m.

Intersection												
Int Delay, s/veh	53.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	21	0	463	259	766	0	0	415	372
Future Vol, veh/h	0	0	0	21	0	463	259	766	0	0	415	372
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	175	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	86	86	86	94	94	92	92	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	0	0	0	24	0	538	276	815	0	0	428	384
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				1794	-	815	811	0	-	-	-	0
Stage 1				1366	-	-	-	-	-	-	-	-
Stage 2				428	-	-	-	-	-	-	-	-
Critical Hdwy				6.42	-	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	-	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				89	0	~ 377	815	-	0	0	-	-
Stage 1				237	0	-	-	-	0	0	-	-
Stage 2				657	0	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				59	0	~ 377	815	-	-	-	-	-
Mov Cap-2 Maneuver				59	0	-	-	-	-	-	-	-
Stage 1				157	0	-	-	-	-	-	-	-
Stage 2				657	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				228.59		2.95		0				
HCM LOS				F								
Minor Lane/Major Mvmt		NBL	NBT	WBLn1	WBLn2	SBT	SBR					
Capacity (veh/h)		815	-	59	377	-	-					
HCM Lane V/C Ratio		0.338	-	0.417	1.426	-	-					
HCM Control Delay (s/veh)		11.7	-	104.7	234.2	-	-					
HCM Lane LOS		B	-	F	F	-	-					
HCM 95th %tile Q(veh)		1.5	-	1.6	27.5	-	-					
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s				+: Computation Not Defined			*: All major volume in platoon			

Appendix E

Future Intersection Operational Analysis

1140 MLK Parkway Mixed-Use Athens October 2024 Update

1: MLK Pkwy & Plantation Buffet Driveway/Conrad Dr

future a.m.

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	0	21	0	46	1	178	7	18	440	1
Future Vol, veh/h	3	0	0	21	0	46	1	178	7	18	440	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	25	25	25	75	75	75	95	95	95	74	74	74
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	12	0	0	28	0	61	1	187	7	24	595	1
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	833	841	595	836	838	191	596	0	0	195	0	0
Stage 1	644	644	-	193	193	-	-	-	-	-	-	-
Stage 2	189	197	-	643	645	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	288	301	504	286	302	851	980	-	-	1378	-	-
Stage 1	461	468	-	809	741	-	-	-	-	-	-	-
Stage 2	812	738	-	462	468	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	262	296	504	281	297	851	980	-	-	1378	-	-
Mov Cap-2 Maneuver	262	296	-	281	297	-	-	-	-	-	-	-
Stage 1	453	460	-	808	740	-	-	-	-	-	-	-
Stage 2	753	737	-	454	459	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s/v	19.4		13.35		0.05		0.3					
HCM LOS	C		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	10	-	-	262	520	1378	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.046	0.172	0.018	-	-				
HCM Control Delay (s/veh)	8.7	0	-	19.4	13.3	7.7	-	-				
HCM Lane LOS	A	A	-	C	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.6	0.1	-	-				

1140 MLK Parkway Mixed-Use Athens October 2024 Update

2: MLK Pkwy/Commerce Rd & US 129 EB Off-Ramp/US 129 EB On-Ramp

future a.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	251	0	241	0	0	0	0	166	47	432	199	0
Future Volume (veh/h)	251	0	241	0	0	0	0	166	47	432	199	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1767	1870	1870	1767	0
Adj Flow Rate, veh/h	326	0	313				0	200	57	508	234	0
Peak Hour Factor	0.77	0.77	0.77				0.92	0.83	0.83	0.85	0.85	0.92
Percent Heavy Veh, %	2	0	2				0	9	2	2	9	0
Cap, veh/h	434	0	386				0	429	122	695	1050	0
Arrive On Green	0.24	0.00	0.24				0.00	0.32	0.32	0.19	0.59	0.00
Sat Flow, veh/h	1781	0	1585				0	1322	377	1781	1767	0
Grp Volume(v), veh/h	326	0	313				0	0	257	508	234	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	0	1699	1781	1767	0
Q Serve(g_s), s	9.4	0.0	10.3				0.0	0.0	6.7	10.0	3.4	0.0
Cycle Q Clear(g_c), s	9.4	0.0	10.3				0.0	0.0	6.7	10.0	3.4	0.0
Prop In Lane	1.00		1.00				0.00		0.22	1.00		0.00
Lane Grp Cap(c), veh/h	434	0	386				0	0	551	695	1050	0
V/C Ratio(X)	0.75	0.00	0.81				0.00	0.00	0.47	0.73	0.22	0.00
Avail Cap(c_a), veh/h	578	0	514				0	0	551	695	1050	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	19.4	0.0	19.8				0.0	0.0	14.9	9.1	5.3	0.0
Incr Delay (d2), s/veh	3.9	0.0	7.1				0.0	0.0	2.8	3.9	0.5	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	4.1				0.0	0.0	2.7	3.5	1.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	23.3	0.0	26.9				0.0	0.0	17.8	13.1	5.8	0.0
LnGrp LOS	C		C						B		A	
Approach Vol, veh/h	639						257			742		
Approach Delay, s/veh	25.1						17.8			10.8		
Approach LOS	C						B			B		
Timer - Assigned Phs	1	2	4		6							
Phs Duration (G+Y+Rc), s	15.0	22.5	18.0		37.5							
Change Period (Y+Rc), s	4.5	4.5	4.5		4.5							
Max Green Setting (Gmax), s	10.5	18.0	18.0		33.0							
Max Q Clear Time (g_c+I1), s	12.0	8.7	12.3		5.4							
Green Ext Time (p_c), s	0.0	0.9	1.2		1.3							
Intersection Summary												
HCM 7th Control Delay, s/veh	17.4											
HCM 7th LOS	B											

1140 MLK Parkway Mixed-Use Athens October 2024 Update
3: Commerce Rd & US 129 WB On-Ramp/US 129 WB Off-Ramp

future a.m.

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	16	0	294	99	334	0	0	623	615
Future Vol, veh/h	0	0	0	16	0	294	99	334	0	0	623	615
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	175	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	86	86	76	96	96	92	92	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	19	0	387	103	348	0	0	663	654
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				1217	-	348	1317	0	-	-	-	0
Stage 1				554	-	-	-	-	-	-	-	-
Stage 2				663	-	-	-	-	-	-	-	-
Critical Hdwy				6.42	-	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	-	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				200	0	695	525	-	0	0	-	-
Stage 1				575	0	-	-	-	0	0	-	-
Stage 2				513	0	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				160	0	695	525	-	-	-	-	-
Mov Cap-2 Maneuver				160	0	-	-	-	-	-	-	-
Stage 1				462	0	-	-	-	-	-	-	-
Stage 2				513	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				17.11		3.09		0				
HCM LOS				C								
Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR						
Capacity (veh/h)	525	-	160	695	-	-						
HCM Lane V/C Ratio	0.196	-	0.116	0.556	-	-						
HCM Control Delay (s/veh)	13.5	-	30.4	16.5	-	-						
HCM Lane LOS	B	-	D	C	-	-						
HCM 95th %tile Q(veh)	0.7	-	0.4	3.5	-	-						

4: MLK Pkwy & Main Access

Intersection

Int Delay, s/veh 4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	99	61	156	71	87	360
Future Vol, veh/h	99	61	156	71	87	360
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	95	95	74	74
Heavy Vehicles, %	2	2	9	2	2	9
Mvmt Flow	110	68	164	75	118	486

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	886	164	0
Stage 1	164	-	-
Stage 2	722	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	315	880	-
Stage 1	865	-	-
Stage 2	481	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	287	880	-
Mov Cap-2 Maneuver	287	-	-
Stage 1	865	-	-
Stage 2	439	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v22.01		0	1.55
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	386	1328
HCM Lane V/C Ratio	-	-	0.46	0.089
HCM Control Delay (s/veh)	-	-	22	8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	2.3	0.3

1140 MLK Parkway Mixed-Use Athens October 2024 Update

1: MLK Pkwy & Plantation Buffet Driveway/Conrad Dr

future p.m.

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕		↗	↗	
Traffic Vol, veh/h	2	0	1	27	0	44	0	470	25	46	277	0
Future Vol, veh/h	2	0	1	27	0	44	0	470	25	46	277	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	38	38	38	82	82	82	91	91	91	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	5	0	3	33	0	54	0	516	27	50	301	0
Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	918	945	301	931	931	530	301	0	0	544	0	0
Stage 1	401	401	-	530	530	-	-	-	-	-	-	-
Stage 2	516	544	-	401	401	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	252	262	739	247	267	549	1260	-	-	1025	-	-
Stage 1	625	601	-	532	526	-	-	-	-	-	-	-
Stage 2	542	519	-	625	601	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	217	249	739	234	254	549	1260	-	-	1025	-	-
Mov Cap-2 Maneuver	217	249	-	234	254	-	-	-	-	-	-	-
Stage 1	595	572	-	532	526	-	-	-	-	-	-	-
Stage 2	489	519	-	593	572	-	-	-	-	-	-	-
Approach	EB		WB		NB			SB				
HCM Control Delay, s/v18.07			17.99		0			1.24				
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1260	-	-	283	363	1025	-	-				
HCM Lane V/C Ratio	-	-	-	0.028	0.238	0.049	-	-				
HCM Control Delay (s/veh)	0	-	-	18.1	18	8.7	-	-				
HCM Lane LOS	A	-	-	C	C	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.9	0.2	-	-				

1140 MLK Parkway Mixed-Use Athens October 2024 Update

2: MLK Pkwy/Commerce Rd & US 129 EB Off-Ramp/US 129 EB On-Ramp

future p.m.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	549	0	191	0	0	0	0	465	60	284	152	0
Future Volume (veh/h)	549	0	191	0	0	0	0	465	60	284	152	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No						No			No		
Adj Sat Flow, veh/h/ln	1870	0	1870				0	1767	1870	1870	1767	0
Adj Flow Rate, veh/h	597	0	208				0	505	65	302	162	0
Peak Hour Factor	0.92	0.92	0.92				0.92	0.92	0.92	0.94	0.94	0.92
Percent Heavy Veh, %	2	0	2				0	9	2	2	9	0
Cap, veh/h	626	0	557				0	576	74	356	968	0
Arrive On Green	0.35	0.00	0.35				0.00	0.38	0.38	0.12	0.55	0.00
Sat Flow, veh/h	1781	0	1585				0	1534	197	1781	1767	0
Grp Volume(v), veh/h	597	0	208				0	0	570	302	162	0
Grp Sat Flow(s),veh/h/ln	1781	0	1585				0	0	1731	1781	1767	0
Q Serve(g_s), s	29.3	0.0	8.8				0.0	0.0	27.5	8.8	4.1	0.0
Cycle Q Clear(g_c), s	29.3	0.0	8.8				0.0	0.0	27.5	8.8	4.1	0.0
Prop In Lane	1.00		1.00				0.00		0.11	1.00		0.00
Lane Grp Cap(c), veh/h	626	0	557				0	0	650	356	968	0
V/C Ratio(X)	0.95	0.00	0.37				0.00	0.00	0.88	0.85	0.17	0.00
Avail Cap(c_a), veh/h	634	0	564				0	0	650	387	968	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	28.3	0.0	21.7				0.0	0.0	26.1	18.9	10.1	0.0
Incr Delay (d2), s/veh	24.5	0.0	0.4				0.0	0.0	15.4	15.2	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.0	0.0	3.2				0.0	0.0	13.3	4.7	1.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.8	0.0	22.1				0.0	0.0	41.5	34.1	10.5	0.0
LnGrp LOS	D		C						D	C	B	
Approach Vol, veh/h	805						570			464		
Approach Delay, s/veh	44.9						41.5			25.9		
Approach LOS	D						D			C		
Timer - Assigned Phs	1	2		4			6					
Phs Duration (G+Y+Rc), s	15.4	38.2		36.0			53.6					
Change Period (Y+Rc), s	4.5	4.5		4.5			4.5					
Max Green Setting (Gmax), s	12.5	32.1		31.9			49.1					
Max Q Clear Time (g_c+I1), s	10.8	29.5		31.3			6.1					
Green Ext Time (p_c), s	0.2	0.9		0.2			0.9					
Intersection Summary												
HCM 7th Control Delay, s/veh				39.0								
HCM 7th LOS				D								

1140 MLK Parkway Mixed-Use Athens October 2024 Update
3: Commerce Rd & US 129 WB On-Ramp/US 129 WB Off-Ramp

future p.m.

Intersection												
Int Delay, s/veh	54.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	24	0	463	263	771	0	0	420	372
Future Vol, veh/h	0	0	0	24	0	463	263	771	0	0	420	372
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	-	-	-	0	-	0	175	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	86	86	86	94	94	92	92	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	9	2	2	9	2
Mvmt Flow	0	0	0	28	0	538	280	820	0	0	433	384
Major/Minor				Minor1		Major1		Major2				
Conflicting Flow All				1813	-	820	816	0	-	-	-	0
Stage 1				1380	-	-	-	-	-	-	-	-
Stage 2				433	-	-	-	-	-	-	-	-
Critical Hdwy				6.42	-	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1				5.42	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2				5.42	-	-	-	-	-	-	-	-
Follow-up Hdwy				3.518	-	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver				86	0	~ 375	811	-	0	0	-	-
Stage 1				233	0	-	-	-	0	0	-	-
Stage 2				654	0	-	-	-	0	0	-	-
Platoon blocked, %								-			-	-
Mov Cap-1 Maneuver				56	0	~ 375	811	-	-	-	-	-
Mov Cap-2 Maneuver				56	0	-	-	-	-	-	-	-
Stage 1				153	0	-	-	-	-	-	-	-
Stage 2				654	0	-	-	-	-	-	-	-
Approach				WB		NB		SB				
HCM Control Delay, s/v				232.8		2.99		0				
HCM LOS				F								
Minor Lane/Major Mvmt		NBL	NBTWBLn1	WBLn2	SBT	SBR						
Capacity (veh/h)		811	-	56	375	-	-					
HCM Lane V/C Ratio		0.345	-	0.494	1.436	-	-					
HCM Control Delay (s/veh)		11.8	-	119.7	238.7	-	-					
HCM Lane LOS		B	-	F	F	-	-					
HCM 95th %tile Q(veh)		1.5	-	1.9	27.7	-	-					
Notes												
~: Volume exceeds capacity		\$: Delay exceeds 300s		+: Computation Not Defined				*: All major volume in platoon				

4: MLK Pkwy & Main Access

Intersection

Int Delay, s/veh 3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	59	75	429	87	48	265
Future Vol, veh/h	59	75	429	87	48	265
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	150	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	91	91	92	92
Heavy Vehicles, %	2	2	9	2	2	9
Mvmt Flow	66	83	471	96	52	288

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	864	471	0
Stage 1	471	-	-
Stage 2	392	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	325	592	-
Stage 1	628	-	-
Stage 2	682	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	308	592	-
Mov Cap-2 Maneuver	308	-	-
Stage 1	628	-	-
Stage 2	647	-	-

Approach	WB	NB	SB
HCM Control Delay, s/v18.16		0	1.35
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	421	1005
HCM Lane V/C Ratio	-	-	0.354	0.052
HCM Control Delay (s/veh)	-	-	18.2	8.8
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.6	0.2