

Atlanta Falcons New Stadium Project

Traffic Impact Study



Prepared for:

the City of Atlanta, Georgia Department
of Transportation and the Atlanta Falcons



Prepared by:

**PARSONS
BRINCKERHOFF**

March 11, 2014

Table of Contents

Introduction	1
Scope of Traffic Study	1
Study Area.....	1
Existing Conditions Analysis	2
Proposed Changes in Street Network.....	2
Realignment of MLK.....	2
Realignment of Mangum Street	3
Northside Drive Intersections	3
Mitchell/Mangum Intersection	3
Future Conditions Analysis.....	5
Background Growth Rate	5
2017 No-Build and Build Operations Analysis.....	5
2017 Build VISSIM Operational Analysis.....	6
Conclusion.....	7
2017 Build VISSIM Operational Analysis.....	7

Introduction

A new stadium project (NSP) is being constructed to replace the current Georgia Dome in Downtown Atlanta, Georgia. The new stadium will host Atlanta Falcons football games and other large events beginning in 2017. The NSP site will be located south of the existing Georgia Dome stadium, bounded by Northside Drive to the west, Centennial Olympic Parkway to the east, Mitchell Street to the south and the existing Georgia Dome to the north. In order to accommodate the large footprint of the NSP site south of the existing Georgia Dome, several major roadway and intersection improvements need to be made, including realignments of both Martin Luther King Jr. (MLK) Boulevard and Mangum Street, and the reconfiguration of several intersections surrounding the NSP site. This traffic study was conducted to evaluate the impact of the proposed roadway realignments and intersection reconfigurations.

Scope of Traffic Study

This study identifies the roadway and intersection improvements needed to accommodate the proposed NSP. The study evaluated intersection and roadway improvements needed to support current and future weekday commuter peak hour traffic and does not include an evaluation of event management plans and operations. A Traffic Management Plan (TMP) is being prepared separately that will evaluate traffic operations during events at the new stadium and will make additional recommendations for improvements and update management plans as needed.

The traffic analysis was conducted in cooperation with both the City of Atlanta (City) and the Georgia Department of Transportation (GDOT), and the methodology and findings are in accordance with City and GDOT standards and guidelines.

Study Area

The study included all roadways and intersections potentially impacted by the site, including the following intersections:

1. MLK at Tatnall Street (signalized)
2. MLK at Walnut Street (signalized)
3. MLK at Northside Drive (signalized)
4. Mitchell at Northside Drive (signalized)
5. MLK at Centennial Olympic (signalized)
6. MLK at Spring Street (signalized)
7. Mitchell at Spring Street (signalized)
8. Mitchell at Mangum Street (unsignalized)
9. Mitchell at Walnut Street (unsignalized)

Existing traffic counts at these 9 intersections were collected on typical weekday morning (AM) and afternoon (PM) peak period, in the hours between 6:30 AM to 9:00AM and 4:30PM and 6:30PM respectively, during the first two weeks of October 2013. The raw traffic data collected is included in **Appendix A** at the conclusion of this report. The AM and PM existing peak hour intersection volumes for each intersection are summarized in **Figure 1**, attached at the end of the report.

Average Daily Traffic (ADT) counts were also collected at four locations during a four-day period (to capture both a weekday and weekend ADT volume without a football game at the Georgia Dome) during the first week of October 2013 at the following locations in the study area:

- MLK east of Northside Drive
- Mitchell Street east of Mangum Street
- MLK west of Northside Drive
- Mitchell Street west of Northside Drive

The raw ADT counts are included in **Appendix A** and also summarized in **Figure 1**.

Existing Conditions Analysis

Current traffic conditions were analyzed at the 9 study area intersections based on the count data collected, current roadway geometry, and existing traffic signal timings. The intersection analyses were conducted using SYNCHRO traffic analysis software, which uses Highway Capacity Manual (HCM) methodologies and formulas to determine the average delay and intersection LOS rating for each intersection during peak hour conditions. The existing conditions Synchro analysis is included in **Appendix B** and summarized in **Table 1** below.

Table 1: Existing Conditions Intersection Analysis Summary (Synchro v8.01)

Intersection	2013 Existing Conditions	
	AM Peak	PM Peak
MLK at Tatnall Street	0.0 / A	0.0 / A
MLK at Walnut Street	13.9 / B	14.3 / B
MLK at Northside Drive	39.2 / D	26.1 / C
Mitchell at Northside Drive	9.0 / A	5.6 / A
MLK at Centennial Olympic	42.1 / D	34.4 / C
MLK at Spring Street	34.6 / C	43.8 / D
Mitchell at Spring Street	13.9 / B	26.5 / C
Mitchell at Mangum Street	A / A	A / A
Mitchell at Walnut Street	A / A	A / A

Legend: for signalized intersections: 0.0 / X = Average Intersection Delay / LOS;
for unsignalized intersections: X / X = overall / worst movement LOS

In urban areas, the City and GDOT set a standard to achieve an overall intersection LOS grade of LOS C or better in defining acceptable intersection operating conditions during the AM and PM peak hours; however, many intersections operate at LOS D without causing undue congestion and/or warranting geometric or signalization improvements. The 2013 existing conditions analysis shows that all intersections are operating at acceptable LOS grades during the AM and PM peak periods, except the MLK at Northside Drive intersection in the AM peak hour and the MLK at Spring Street intersection in the PM peak hour, when both these intersections operate at LOS D. However, peak hour field observations at these intersections showed no excessive congestion or signal failures to exist at either of these intersections and no improvements are planned or warranted.

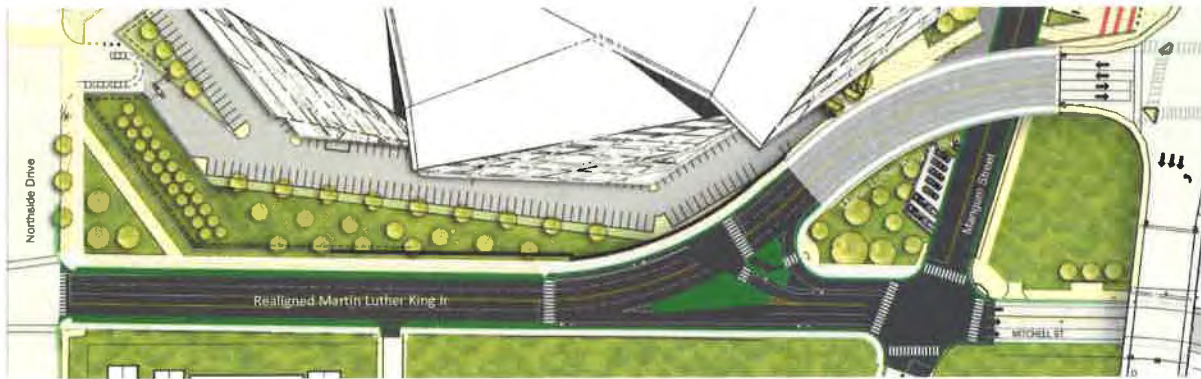
Proposed Changes in Street Network

In order to accommodate the large footprint of the NSP site south of the existing Georgia Dome, several major roadway and intersection improvements needed to be made.

Realignment of MLK

MLK Boulevard must be realigned across the NSP site, beginning at its intersection with Centennial Olympic Parkway west to where it intersects Northside Drive. MLK will be realigned to the south and share an alignment with the current Mitchell Street and form the southern roadway boundary to the NSP site. This relocated "New MLK" will have a total of four lanes (two in each direction) from Centennial Olympic Parkway to Northside Drive. A schematic of the proposed realignment Plan is included in **Figure 2**.

Figure 2: MLK Realignment Concept



Realignment of Mangum Street

The current Mangum Street alignment between Georgia Dome Drive and Mitchell Street will be realigned slightly to the east but maintain its current intersection location at Mitchell Street, just east of where Mitchell Street will intersect New MLK at a signalized T-intersection. In addition, Mangum Street is to become privately owned and part of the stadium site. The intersection of Mangum and Mitchell Street will serve as an important pedestrian and bicycle connection from Mitchell Street to the new stadium plaza, and the intersection design will promote safe pedestrian and bicycle crossings of both New MLK and Mitchell Streets. This intersection also serves as a “gateway” entrance to the stadium area from the east and will be part of the MLK bicycle plan across the NSP site.

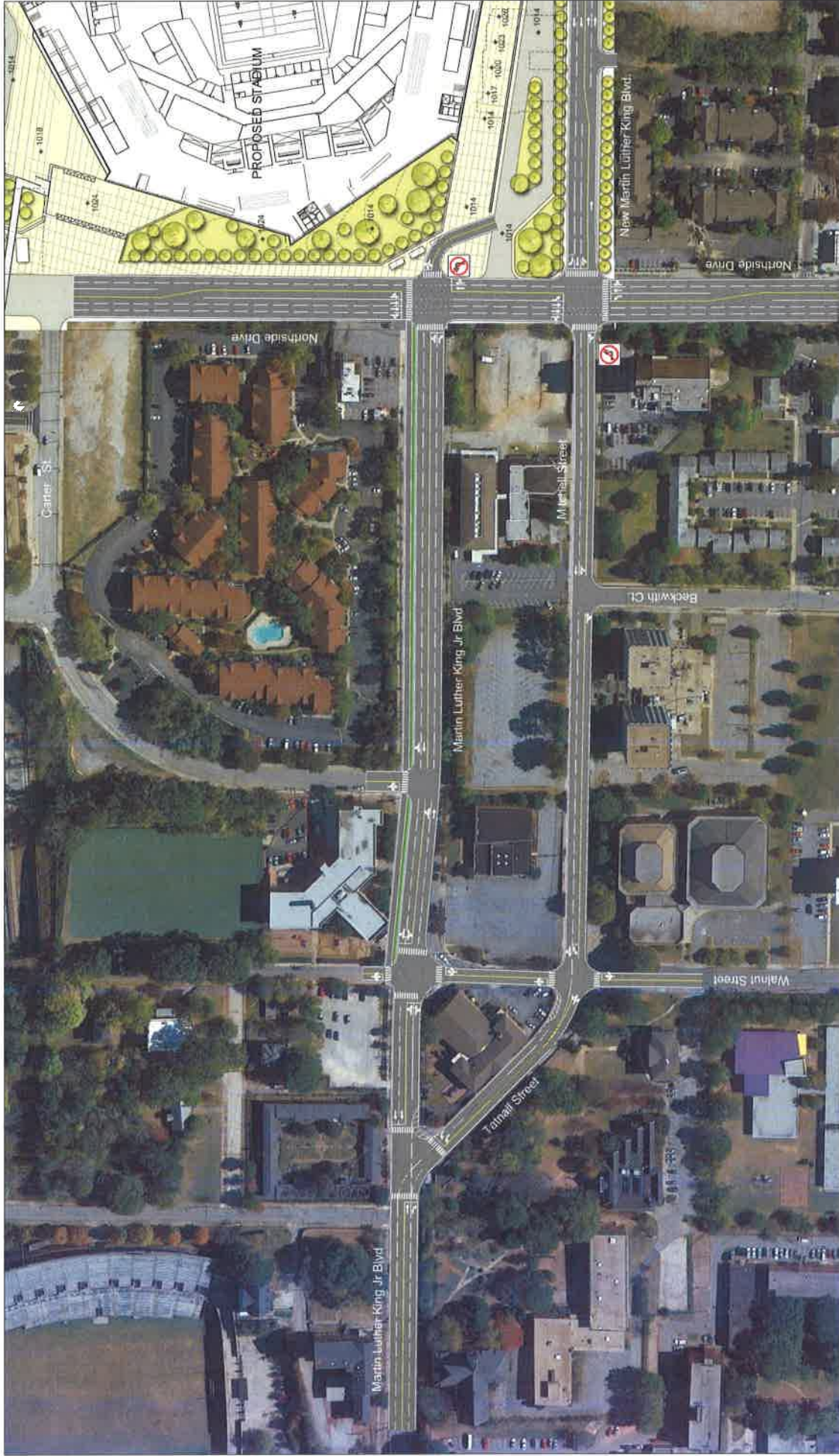
Northside Drive Intersections

The closure of existing MLK east of Northside Drive required a reconfiguration of the Northside Drive intersection with Mitchell Street / New MLK. While the four-lane New MLK approaching Northside Drive is fixed, many alternatives were considered that evaluated how to both maintain east-west traffic flow into and out of downtown and the local connectivity of the Vine City neighborhood using the current or proposed streets west of Northside Drive. A separate document was prepared that detailed the 17 alternatives studied. That document also details the several month study process by which the City and GDOT selected a preferred roadway concept. The preferred alternative, referred to as Alternative 6C, is included as **Figure 3**.

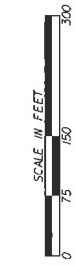
The preferred alternative includes restriping lanes on Mitchell Street west of Northside Drive to align with the proposed New MLK lanes east of Northside Drive. The restriping also includes the conversion of Tatnall Street from a one-way eastbound to a two-way street (one lane in each direction) so that westbound traffic on Mitchell Street can rejoin westbound MLK via Tatnall Street. The six lanes on existing MLK between Northside and Tatnall Street will be reduced to four lanes to accommodate bike lanes and improved pedestrian space. Also, the northbound left turn from Northside Drive destined for existing MLK Boulevard will be directed to turn left at Mitchell Street to then connect to MLK Boulevard west of Tatnall Street. Through traffic on eastbound MLK Boulevard will use Tatnall to Mitchell Street and cross Northside Drive to connect with New MLK; however, eastbound MLK Boulevard traffic destined to turn right or left at Northside Drive will be directed to stay on MLK Boulevard to turn right or left onto Northside Drive.

Mitchell/Mangum Intersection

The intersection of Mitchell Street at Mangum Street currently has two-way (minor street) stop control, where Mangum Street has a stop sign control while Mitchell Street does not stop. Under the MLK Boulevard realignment plan, the intersection geometry at this intersection remains largely unchanged; however, traffic volumes would be slightly higher on Mitchell Street during commuter peak periods.



**PARSONS
BRINCKERHOFF**



**FALCONS STADIUM
ROADWAY IMPROVEMENTS**

FIGURE 3:
Preferred MLK Concept
West of Nortside Drive

1/10/2014

Because of the higher projected volumes on Mitchell Street, a traffic signal warrant analysis was performed at this intersection according to the Manual of Uniform Traffic Control Devices (MUTCD) standards. However, the peak hour volumes are not high enough to meet MUTCD warrant 3 in either current or future conditions. Intersection operating conditions show acceptable delay and the highest LOS grade (LOS A) under current and future conditions.

Some concerns have been expressed about safety for vehicles turning from Magnum Street onto Mitchell Street. Additional studies will be conducted to determine if the crash rate for this intersection meets safety warrants for a signal, and if geometric changes can be made to mitigate any existing crash problems at this intersection.

Future Conditions Analysis

Background Growth Rate

To determine future weekday peak hour intersection operations, a future growth rate was determined based on historic growth rates on the roadways in the vicinity of the NSP site. Historic traffic volumes were collected for the roadways adjacent to the NSP site and the results were compiled in a table included in **Appendix C**. The results show that the ADT volumes on all roadways except Northside Drive north of MLK declined over the past 10 years. However, a continued negative growth rate is not consistent with the redevelopment of the NSP site, and to account for this potential background growth, a growth rate of 2-percent per year was assumed for all roadways surrounding the NSP site. This 2-percent rate was applied to the existing intersection and roadway volumes over a four-year construction period to determine Opening Year (2017) traffic volumes for analysis. The 2017 No-Build AM and PM peak hour intersection volumes for each studied intersection are summarized in **Figure 4**, attached at the end of the report.

2017 No-Build and Build Operations Analysis

The 2017 volumes were analyzed under No-Build conditions, which assume no stadium site and no changes to the existing roadway network, using the same methodology and Synchro analysis used to evaluate existing conditions. The 2017 No-Build conditions Synchro analysis results are included in Appendix B and summarized in **Table 2** below.

Table 2: Opening Year (2017) Build and No-Build Intersection Analysis Summary (Synchro v8.01)

Intersection	Signal Control	2017 No-Build		2017 Build	
		AM Peak	PM Peak	AM Peak	PM Peak
MLK at Tatnall Street	Signalized	0.0 / A	0.0 / A	12.3 / B	21.5 / C
MLK at Walnut Street	Signalized	17.8 / B	15.1 / B	19.3 / B	24.0 / C
MLK at Northside Drive	Signalized	31.7 / C	33.8 / C	13.9 / B	12.2 / B
Mitchell at Northside Drive	Signalized	11.5 / B	6.6 / A	39.8 / D	40.3 / D
Mitchell Street at New MLK	Unsig/Signal	A / A	A / B	6.0 / A	8.0 / A
MLK at Centennial Olympic	Signalized	28.7 / C	43.4 / D	29.6 / C	29.4 / C
MLK at Spring Street	Signalized	30.7 / C	42.2 / D	38.0 / C	33.6 / C
Mitchell at Spring Street	Signalized	13.3 / B	25.5 / C	12.4 / B	26.1 / C
Mitchell at Mangum Street	Unsignalized	A / A	A / A	A / A	A / A
Mitchell at Walnut Street	Unsignalized	A / A	A / A	B / B	B / B

Legend: for signalized intersections: 0.0 / X = Average Intersection Delay / Level of service; for unsignalized intersections: X / X = overall / worst movement LOS

The same 2017 No-Build volumes were reassigned to the roadway network assuming the realigned roadways and reconfigured intersections identified in the preferred Build alternative. In addition, the NSP site will contain a small parking lot (less than 150 spaces) on the south side of the site that will be controlled by gates on a driveway connection to Northside Drive immediately opposite existing MLK Boulevard at the signalized intersection. This parking will serve VIP and business office staff, and trips generated were assumed as new trips to this intersection and included in the intersection volumes for analysis. The 2017 Build AM and PM peak hour intersection volumes for each studied intersection are summarized in **Figure 5**, attached at the end of the report.

The 2017 Build conditions were analyzed using the same methodology and Synchro processes used to evaluate existing and No-Build conditions, and the Synchro analysis results are included in Appendix B and summarized and compared to the 2017 No-Build analysis results in Table 2 below. The analysis results show that 2017 Opening Year operations at the study area intersections will operate with acceptable delay and LOS grade for the AM and PM commuter peak periods.

2017 Build VISSIM Operational Analysis

Because of the closely-spaced MLK and Mitchell Street intersections on Northside Drive (that limits queue storage) and the regional importance of Northside Drive, the design team analyzed 2017 Build operations at both Northside Drive intersections using VISSIM, a microsimulation traffic evaluation software package that is better suited to evaluate queuing, vehicle weaving and closely spaced signal interactions in an urban roadway network. The VISSIM microsimulation analysis was conducted according to GDOT guidelines and submitted for their review and concurrence of the results. The VISSIM analytical results, summarized in a table in **Appendix D**, showed that both the overall intersections and individual intersection approached will operate at LOS D or better under 2017 Opening Year Build conditions. Further VISSIM animation results, illustrated by a screen capture in **Figure 6**, showed that the signals can indeed be coordinated and provide sufficient capacity and queue storage so that no excessive congestion or signal failures were observed over the AM or PM peak hour periods.

Figure 6: Screen Capture of 2017 Build VISSIM Model Animation



Design Horizon Operational Analysis

For analysis of the roadway network and intersection configurations beyond the 2017 opening year, an annual growth rate of 1-percent per year was used to project potential roadway and operating conditions through a 10-year design horizon after the opening of the NSP (2027). No other roadway improvements were assumed in the design horizon analysis, and signal timings were optimized based on future design year volumes. The 2027 design horizon condition was analyzed using the same methodology and Synchro analysis procedures used to evaluate existing, No-Build and Build conditions, and the Synchro analysis results are included in **Appendix B** and summarized in **Table 3** below. The analysis results show that the roadways and intersections will continue to operate at LOS D or better through the 2027 design horizon without the need for additional roadway or intersection improvements.

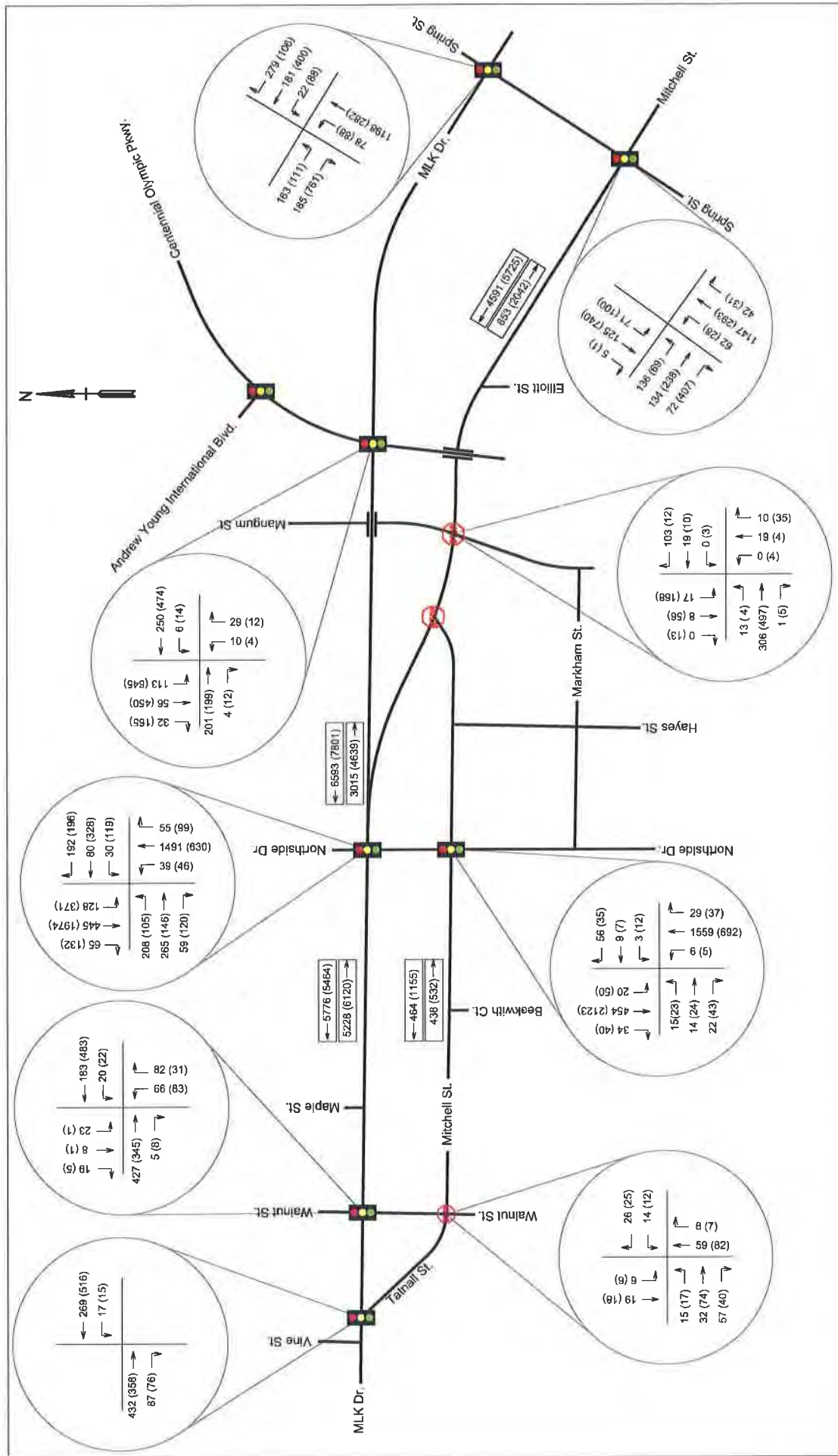
Table 3: 2027 Design Horizon Intersection Analysis Summary (Synchro v8.01)

Intersection	2027 Design Horizon Conditions	
	AM Peak	PM Peak
MLK at Tatnall Street	12.4 / B	23.6 / C
MLK at Walnut Street	19.5 / B	17.9 / B
MLK at Northside Drive	9.9 / A	16.4 / B
Mitchell at Northside Drive	53.8 / D	53.3 / D
Mitchell at New MLK	5.9 / A	8.8 / A
MLK at Centennial Olympic	30.2 / C	28.7 / C
MLK at Spring Street	41.4 / D	39.7 / D
Mitchell at Spring Street	13.6 / B	24.2 / C
Mitchell at Mangum Street	A / A	A / A
Mitchell at Walnut Street	A / A	A / A

Legend: for signalized intersections: 0.0 / X = Average Intersection Delay / LOS;
for unsignalized intersections: X / X = overall / worst movement LOS

Conclusion

Detailed traffic and microsimulation analysis of the proposed Build Alternative roadway realignments and intersection reconfigurations provide adequate AM and PM peak hour roadway and intersection operations to accommodate the proposed NSP site. The intersections on Northside Drive will operate at LOS C or better in the opening year and will operate at LOS D or better through the 2017 design year horizon.





**PARSONS
BRINCKERHOFF**

LEGEND

-  Roadway
-  Grade Separation
-  Signalized Intersection
-  Stop Control Intersection

**NEW FALCONS STADIUM
ROADWAY IMPROVEMENT STUDY**

FIGURE 1

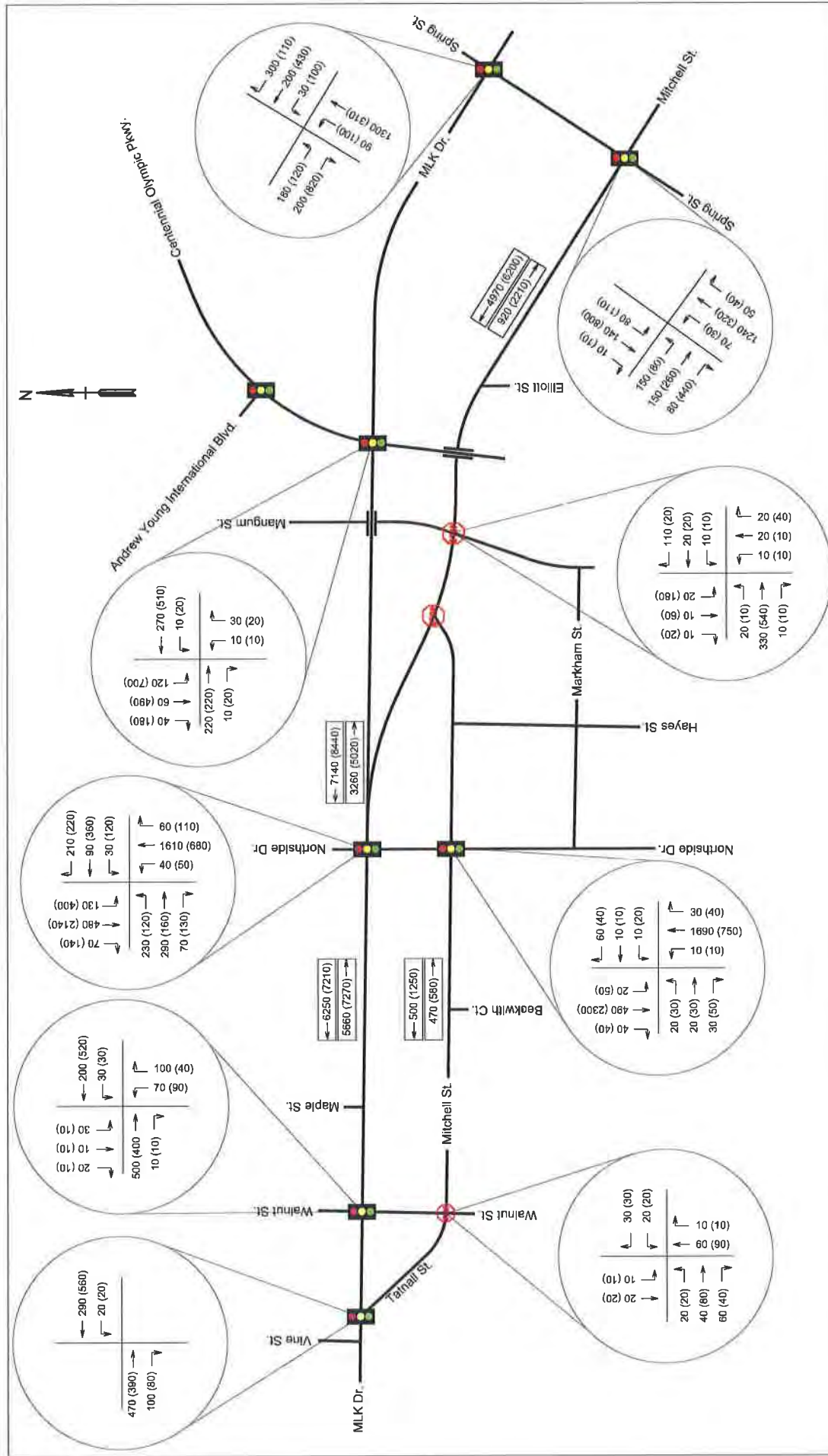
2013 EXISTING CONDITIONS

000(000) = AM (PM) Peak Hour Traffic Volume

000(000) = Weekend (Weekend) Daily Traffic Volume

Date: 10/28/2013

DRAWING NOT TO SCALE





**PARSONS
BRINCKERHOFF**

LEGEND

-  Roadway
-  Grade Separation
-  Signalized Intersection
-  Stop Control Intersection

000(000) = AM (PM) Peak Hour Traffic Volume
 000(000) = Weekend (Weekend) Daily Traffic Volume

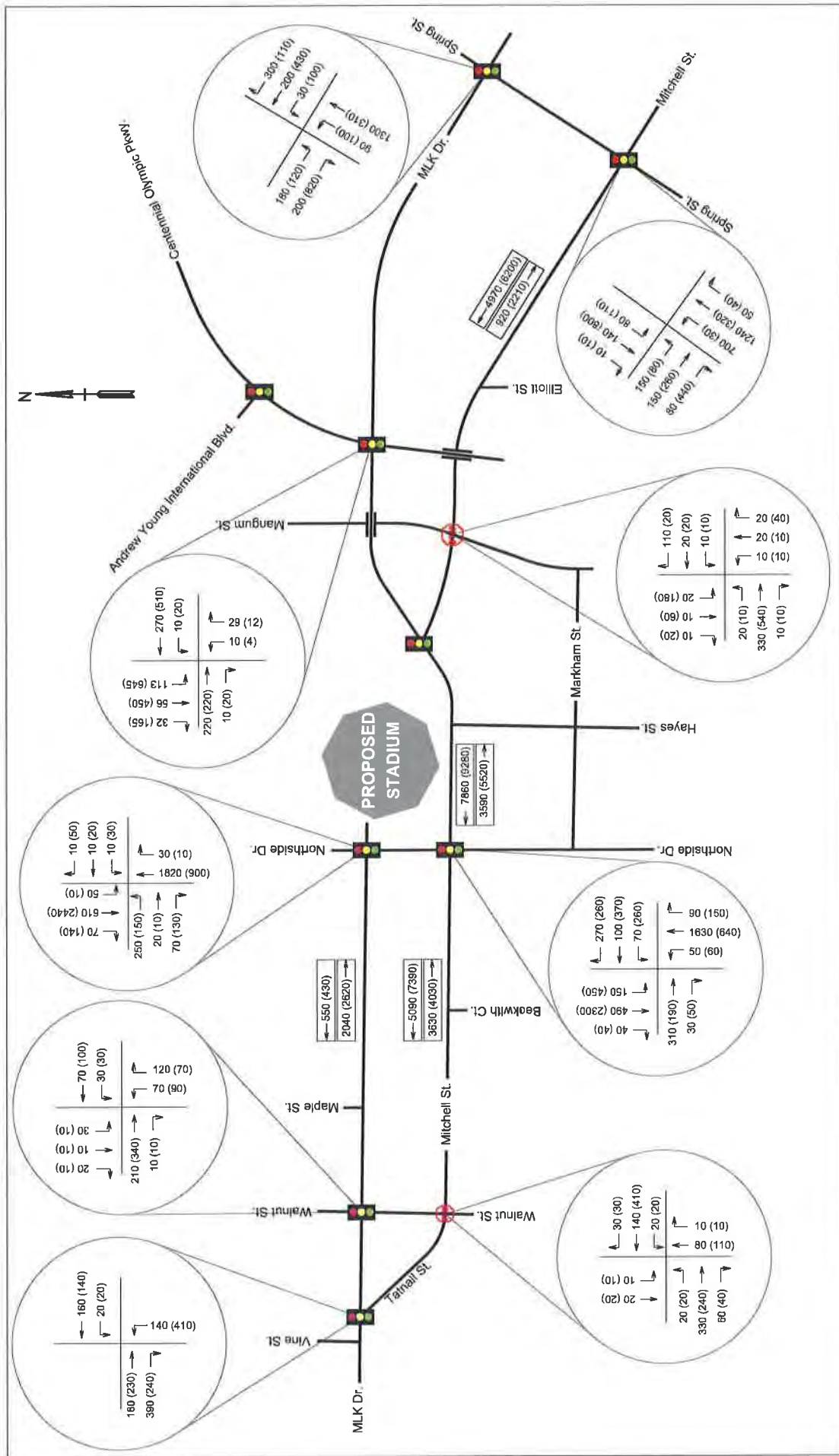
**NEW FALCONS STADIUM
ROADWAY IMPROVEMENT STUDY**

FIGURE 4

2017 NO-BUILD CONDITIONS

Date: 10/28/2013

DRAWING NOT TO SCALE





**PARSONS
BRINCKERHOFF**

LEGEND

-  Roadway
-  Grade Separation
-  Signalized Intersection
-  Stop Control Intersection

**NEW FALCONS STADIUM
ROADWAY IMPROVEMENT STUDY
FIGURE 5
2017 BUILD CONDITIONS**

000(000) = AM (PM) Peak Hour Traffic Volume
000(000) = Weekday (Weekend) Daily Traffic Volume

Date: 10/28/2013
DRAWING NOT TO SCALE

APPENDIX A: TRAFFIC COUNTS

PEAK HOUR TURNING MOVEMENT COUNTS

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #1 NorthsideDr@MLKjrDrAM

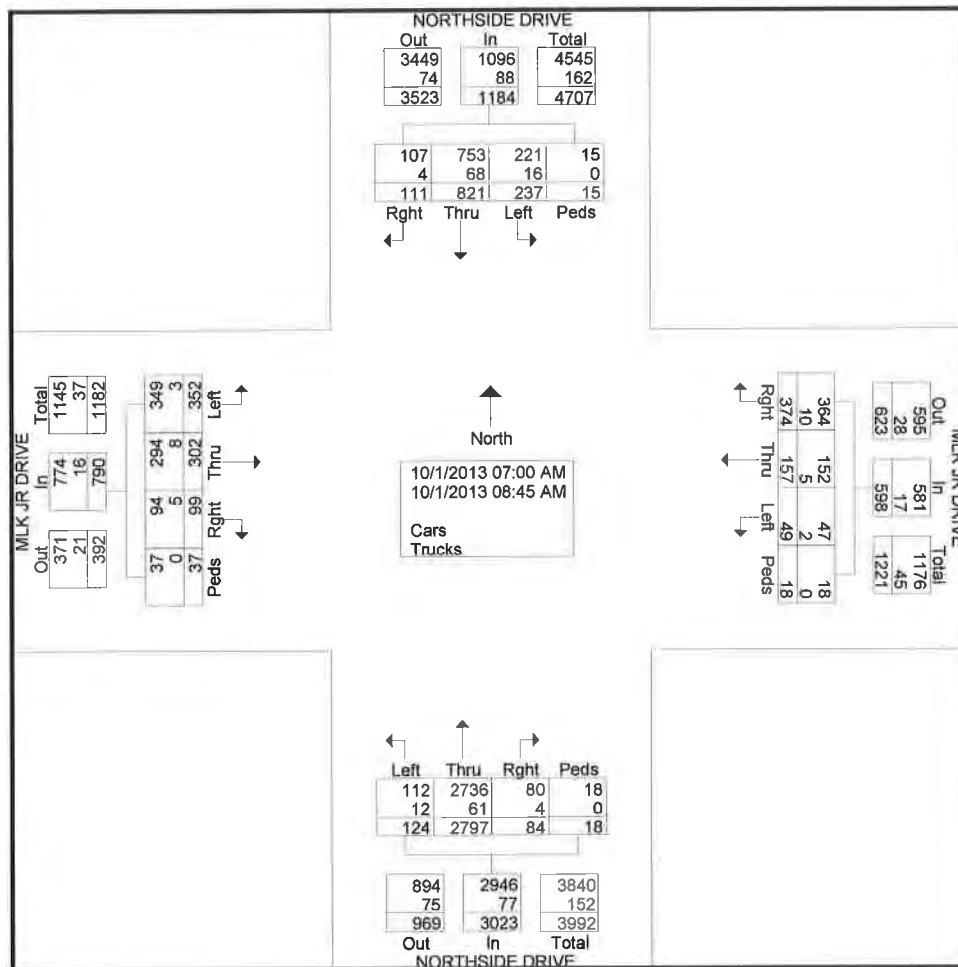
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	NORTHSIDE DRIVE Southbound					MLK JR DRIVE Westbound					NORTHSIDE DRIVE Northbound					MLK JR DRIVE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	17	58	5	0	80	1	12	36	5	54	11	215	4	1	231	23	16	0	1	40	405
07:15 AM	29	70	10	0	109	2	21	52	2	77	11	311	8	1	331	27	24	9	3	63	580
07:30 AM	32	98	11	3	144	7	22	45	2	76	26	399	10	2	437	41	40	14	8	103	760
07:45 AM	36	109	10	2	157	6	17	60	3	86	24	393	9	2	428	62	44	14	8	128	799
Total	114	335	36	5	490	16	72	193	12	293	72	1318	31	6	1427	153	124	37	20	334	2544
08:00 AM	38	101	12	1	152	10	19	50	2	81	16	372	13	3	404	40	40	13	2	95	732
08:15 AM	31	112	19	1	163	7	18	40	1	66	14	385	10	2	411	55	48	19	7	129	769
08:30 AM	23	123	24	5	175	7	26	42	2	77	5	380	11	4	400	53	49	15	3	120	772
08:45 AM	31	150	20	3	204	9	22	49	1	81	17	342	19	3	381	51	41	15	5	112	778
Total	123	486	75	10	694	33	85	181	6	305	52	1479	53	12	1596	199	178	62	17	456	3051
Grand Total	237	821	111	15	1184	49	157	374	18	598	124	2797	84	18	3023	352	302	99	37	790	5595
Apprch %	20	69.3	9.4	1.3		8.2	26.3	62.5	3		4.1	92.5	2.8	0.6		44.6	38.2	12.5	4.7		
Total %	4.2	14.7	2	0.3	21.2	0.9	2.8	6.7	0.3	10.7	2.2	50	1.5	0.3	54	6.3	5.4	1.8	0.7	14.1	
Cars	221	753	107	15	1096	47	152	364	18	581	112	2736	80	18	2946	349	294	94	37	774	5397
% Cars	93.2	91.7	96.4	100	92.6	95.9	96.8	97.3	100	97.2	90.3	97.8	95.2	100	97.5	99.1	97.4	94.9	100	98	96.5
Trucks	16	68	4	0	88	2	5	10	0	17	12	61	4	0	77	3	8	5	0	16	198
% Trucks	6.8	8.3	3.6	0	7.4	4.1	3.2	2.7	0	2.8	9.7	2.2	4.8	0	2.5	0.9	2.6	5.1	0	2	3.5



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

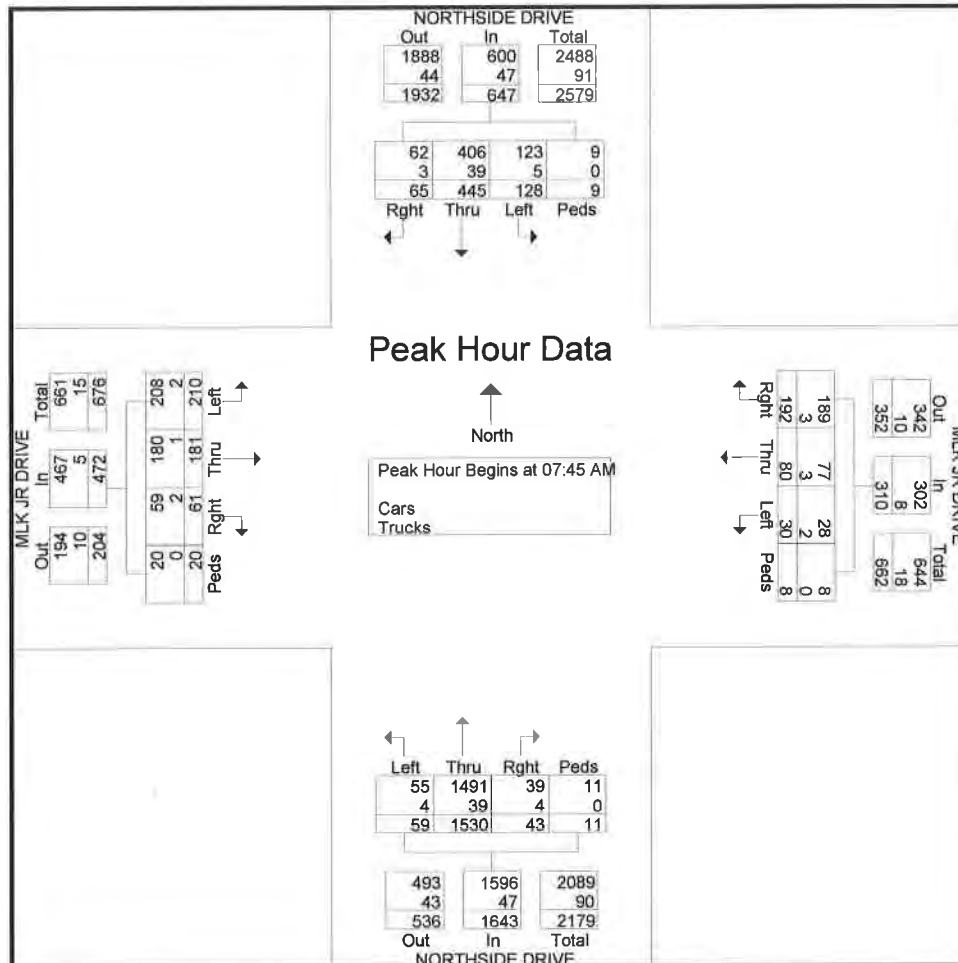
File Name : #1 NorthsideDr@MLKjrDrAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	NORTHSIDE DRIVE Southbound					MLK JR DRIVE Westbound					NORTHSIDE DRIVE Northbound					MLK JR DRIVE Eastbound					
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 07:45 AM																					
07:45 AM	36	109	10	2	157	6	17	60	3	86	24	393	9	2	428	62	44	14	8	128	799
08:00 AM	38	101	12	1	152	10	19	50	2	81	16	372	13	3	404	40	40	13	2	95	732
08:15 AM	31	112	19	1	163	7	18	40	1	66	14	385	10	2	411	55	48	19	7	129	769
08:30 AM	23	123	24	5	175	7	26	42	2	77	5	380	11	4	400	53	49	15	3	120	772
Total Volume	128	445	65	9	647	30	80	192	8	310	59	1530	43	11	1643	210	181	61	20	472	3072
% App. Total	19.8	68.8	10	1.4		9.7	25.8	61.9	2.6		3.6	93.1	2.6	0.7		44.5	38.3	12.9	4.2		
PHF	842	904	677	450	924	750	769	800	667	901	615	873	827	688	960	847	923	803	625	915	961
Cars	123	406	62	9	600	28	77	189	8	302	55	1491									
% Cars	96.1	91.2	95.4	100	92.7	93.3	96.3	98.4	100	97.4	93.2	97.5	90.7	100	97.1	99.0	99.4	96.7	100	98.9	96.5
Trucks	5	39	3	0	47	2	3	3	0	8	4	39	4	0	47	2	1	2	0	5	107
% Trucks	3.9	8.8	4.6	0	7.3	6.7	3.8	1.6	0	2.6	6.8	2.5	9.3	0	2.9	1.0	0.6	3.3	0	1.1	3.5



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #1 NorthsideDr@MLKjrDrPM

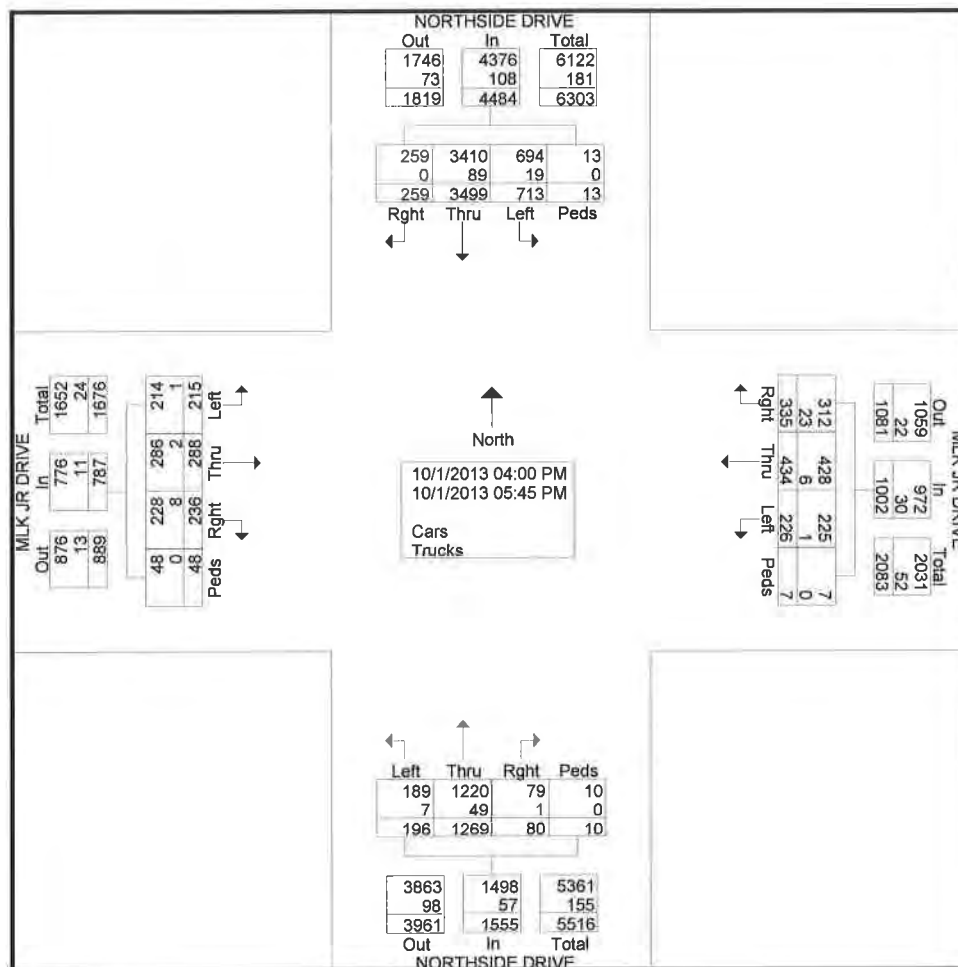
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	NORTHSIDE DRIVE Southbound					MLK JR DRIVE Westbound					NORTHSIDE DRIVE Northbound					MLK JR DRIVE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	80	321	25	5	431	21	37	32	0	90	24	172	9	0	205	18	58	25	3	104	830
04:15 PM	87	355	26	1	469	31	55	31	0	117	20	157	9	1	187	26	30	33	6	95	868
04:30 PM	78	409	39	2	528	17	59	38	0	114	27	144	8	0	179	27	32	34	5	98	919
04:45 PM	101	473	46	1	621	32	45	47	0	124	18	167	14	0	199	29	34	36	7	106	1050
Total	346	1558	136	9	2049	101	196	148	0	445	89	640	40	1	770	100	154	128	21	403	3667
05:00 PM	81	450	25	1	557	27	53	38	0	118	31	167	13	4	215	19	41	28	12	100	990
05:15 PM	90	545	33	0	668	37	71	60	5	173	28	146	14	3	191	30	40	33	1	104	1136
05:30 PM	99	506	28	2	635	23	70	51	1	145	25	177	5	1	208	27	31	23	7	88	1076
05:45 PM	97	440	37	1	575	38	44	38	1	121	23	139	8	1	171	39	22	24	7	92	959
Total	367	1941	123	4	2435	125	238	187	7	557	107	629	40	9	785	115	134	108	27	384	4161
Grand Total	713	3499	259	13	4484	226	434	335	7	1002	196	1269	80	10	1555	215	288	236	48	787	7828
Apprch %	15.9	78	5.8	0.3		22.6	43.3	33.4	0.7		12.6	81.6	5.1	0.6		27.3	36.6	30	6.1		
Total %	9.1	44.7	3.3	0.2	57.3	2.9	5.5	4.3	0.1	12.8	2.5	16.2	1	0.1	19.9	2.7	3.7	3	0.6	10.1	
Cars	694	3410	259	13	4376	225	428	312	7	972	189	1220	79	10	1498	214	286	228	48	776	7622
% Cars	97.3	97.5	100	100	97.6	99.6	98.6	93.1	100	97	96.4	96.1	98.8	100	96.3	99.5	99.3	96.6	100	98.6	97.4
Trucks	19	89	0	0	108	1	6	23	0	30	7	49	1	0	57	1	2	8	0	11	206
% Trucks	2.7	2.5	0	0	2.4	0.4	1.4	6.9	0	3	3.6	3.9	1.2	0	3.7	0.5	0.7	3.4	0	1.4	2.6



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

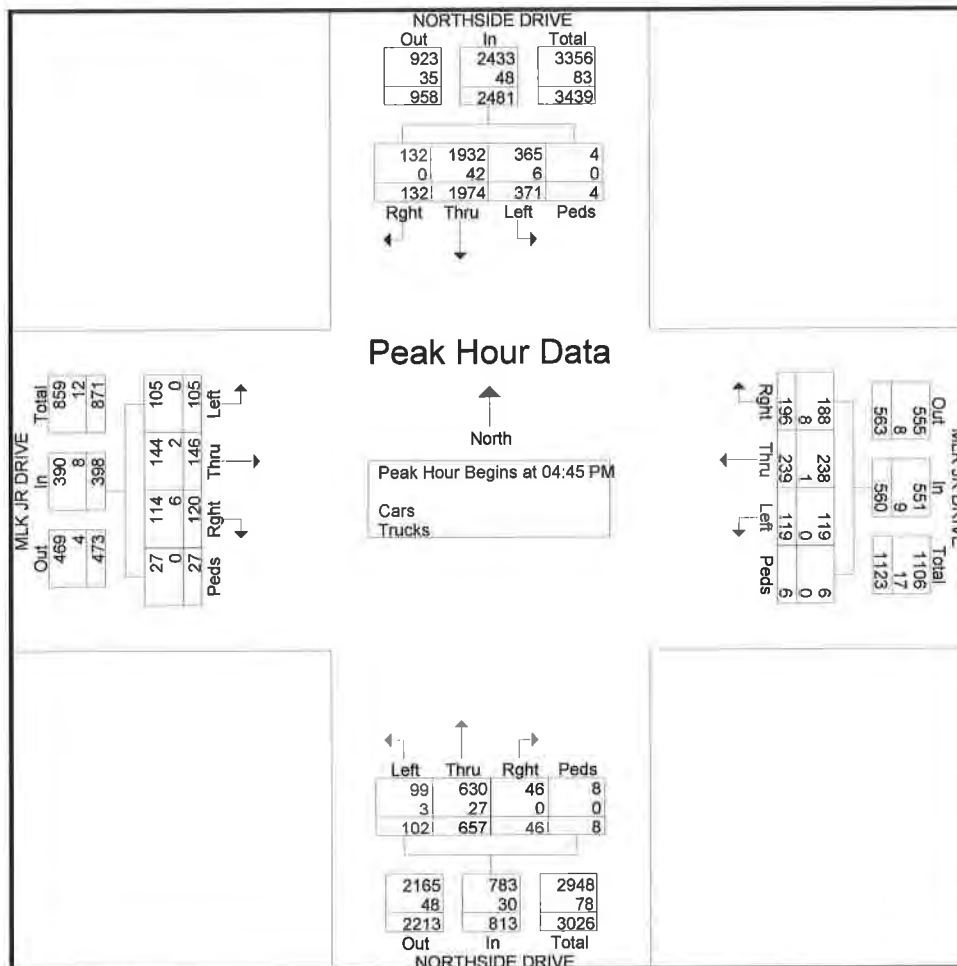
File Name : #1 NorthsideDr@MLKjrDrPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	NORTHSIDE DRIVE Southbound					MLK JR DRIVE Westbound					NORTHSIDE DRIVE Northbound					MLK JR DRIVE Eastbound					
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	101	473	46	1	621	32	45	47	0	124	18	167	14	0	199	29	34	36	7	106	1050
05:00 PM	81	450	25	1	557	27	53	38	0	118	31	167	13	4	215	19	41	28	12	100	990
05:15 PM	90	545	33	0	668	37	71	60	5	173	28	146	14	3	191	30	40	33	1	104	1136
05:30 PM	99	506	28	2	635	23	70	51	1	145	25	177	5	1	208	27	31	23	7	88	1076
Total Volume	371	1974	132	4	2481	119	239	196	6	560	102	657	46	8	813	105	146	120	27	398	4252
% App. Total	15	79.6	5.3	0.2		21.2	42.7	35	1.1		12.5	80.8	5.7	1		26.4	36.7	30.2	6.8		
PHF	.918	.906	.717	.500	.929	.804	.842	.817	.300	.809	.823	.928	.821	.500	.945	.875	.890	.833	.563	.939	.936
Cars	365	1932																			
% Cars	98.4	97.9	100	100	98.1	100	99.6	95.9	100	98.4	97.1	95.9	100	100	96.3	100	98.6	95.0	100	98.0	97.8
Trucks	6	42	0	0	48	0	1	8	0	9	3	27	0	0	30	0	2	6	0	8	95
% Trucks	1.6	2.1	0	0	1.9	0	0.4	4.1	0	1.6	2.9	4.1	0	0	3.7	0	1.4	5.0	0	2.0	2.2



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #2 NorthsideDr@MitchellStAM

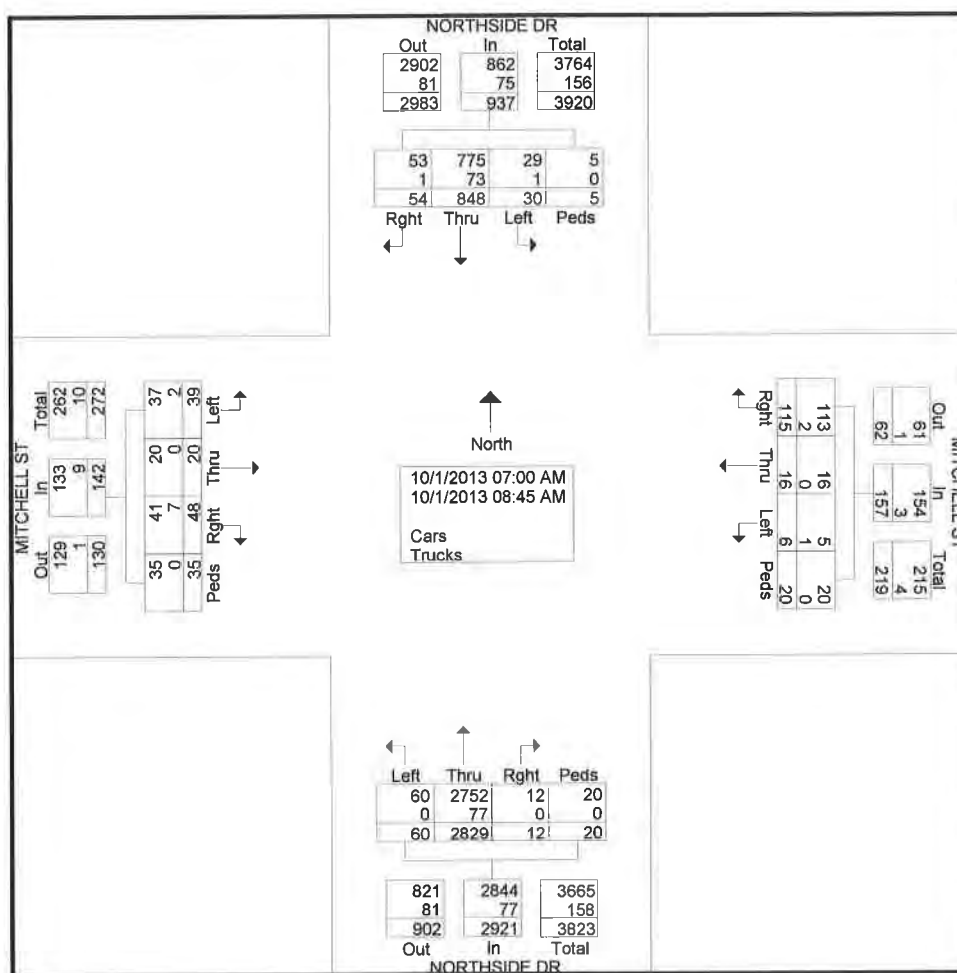
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

	NORTHSIDE DR Southbound					MITCHELL ST Westbound					NORTHSIDE DR Northbound					MITCHELL ST Eastbound					
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	2	63	0	1	66	0	2	6	4	12	5	229	0	1	235	6	1	4	0	11	324
07:15 AM	0	79	6	1	86	1	1	12	0	14	6	308	3	1	318	6	0	4	4	14	432
07:30 AM	3	110	5	2	120	1	1	17	1	20	8	404	2	5	419	4	2	6	12	24	583
07:45 AM	7	114	8	1	130	0	2	18	6	26	7	395	1	3	406	3	5	6	6	20	582
Total	12	366	19	5	402	2	6	53	11	72	26	1336	6	10	1378	19	8	20	22	69	1921
08:00 AM	8	111	9	0	128	1	2	10	1	14	6	406	0	2	414	1	6	5	2	14	570
08:15 AM	2	119	12	0	133	1	4	11	3	19	8	396	3	0	407	7	1	5	3	16	575
08:30 AM	3	113	7	0	123	1	2	21	5	29	11	350	0	7	368	7	4	9	3	23	543
08:45 AM	5	139	7	0	151	1	2	20	0	23	9	341	3	1	354	5	1	9	5	20	548
Total	18	482	35	0	535	4	10	62	9	85	34	1493	6	10	1543	20	12	28	13	73	2236
Grand Total	30	848	54	5	937	6	16	115	20	157	60	2829	12	20	2921	39	20	48	35	142	4157
Apprch %	3.2	90.5	5.8	0.5		3.8	10.2	73.2	12.7		2.1	96.9	0.4	0.7		27.5	14.1	33.8	24.6		
Total %	0.7	20.4	1.3	0.1	22.5	0.1	0.4	2.8	0.5	3.8	1.4	68.1	0.3	0.5	70.3	0.9	0.5	1.2	0.8	3.4	
Cars	29	775	53	5	862	5	16	113	20	154	60	2752	12	20	2844	37	20	41	35	133	3993
% Cars	96.7	91.4	98.1	100	92	83.3	100	98.3	100	98.1	100	97.3	100	100	97.4	94.9	100	85.4	100	93.7	96.1
Trucks	1	73	1	0	75	1	0	2	0	3	0	77	0	0	77	2	0	7	0	9	164
% Trucks	3.3	8.6	1.9	0	8	16.7	0	1.7	0	1.9	0	2.7	0	0	2.6	5.1	0	14.6	0	6.3	3.9



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

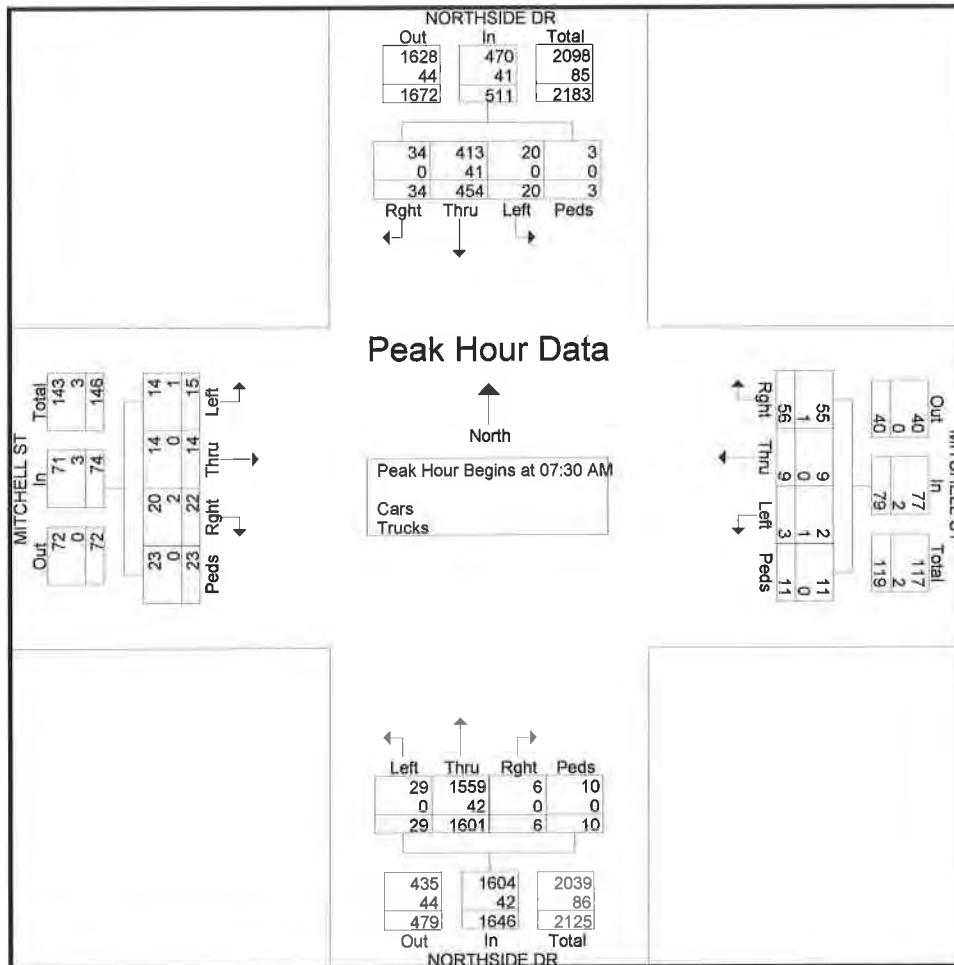
File Name : #2 NorthsideDr@MitchellStAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	NORTHSIDE DR Southbound					MITCHELL ST Westbound					NORTHSIDE DR Northbound					MITCHELL ST Eastbound					
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	3	110	5	2	120	1	1	17	1	20	8	404	2	5	419	4	2	6	12	24	583
07:45 AM	7	114	8	1	130	0	2	18	6	26	7	395	1	3	406	3	5	6	6	20	582
08:00 AM	8	111	9	0	128	1	2	10	1	14	6	406	0	2	414	1	6	5	2	14	570
08:15 AM	2	119	12	0	133	1	4	11	3	19	8	396	3	0	407	7	1	5	3	16	575
Total Volume	20	454	34	3	511	3	9	56	11	79	29	1601	6	10	1646	15	14	22	23	74	2310
% App. Total	3.9	88.8	6.7	0.6		3.8	11.4	70.9	13.9		1.8	97.3	0.4	0.8		20.3	18.9	29.7	31.1		
PHF	.625	.954	.708	.375	.961	.750	.563	.778	.458	.760	.806	.986	.500	.500	.982	.536	.583	.917	.479	.771	.991
Cars	20	413	34	3	470	2	9	55	11	77	29	1559									
% Cars	100	91.0	100	100	92.0	66.7	100	98.2	100	97.5	100	97.4	100	100	97.4	93.3	100	90.9	100	95.9	96.2
Trucks	0	41	0	0	41	1	0	1	0	2	0	42	0	0	42	1	0	2	0	3	88
% Trucks	0	9.0	0	0	8.0	33.3	0	1.8	0	2.5	0	2.6	0	0	2.6	6.7	0	9.1	0	4.1	3.8



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #2 NorthsideDr@MitchellStPM

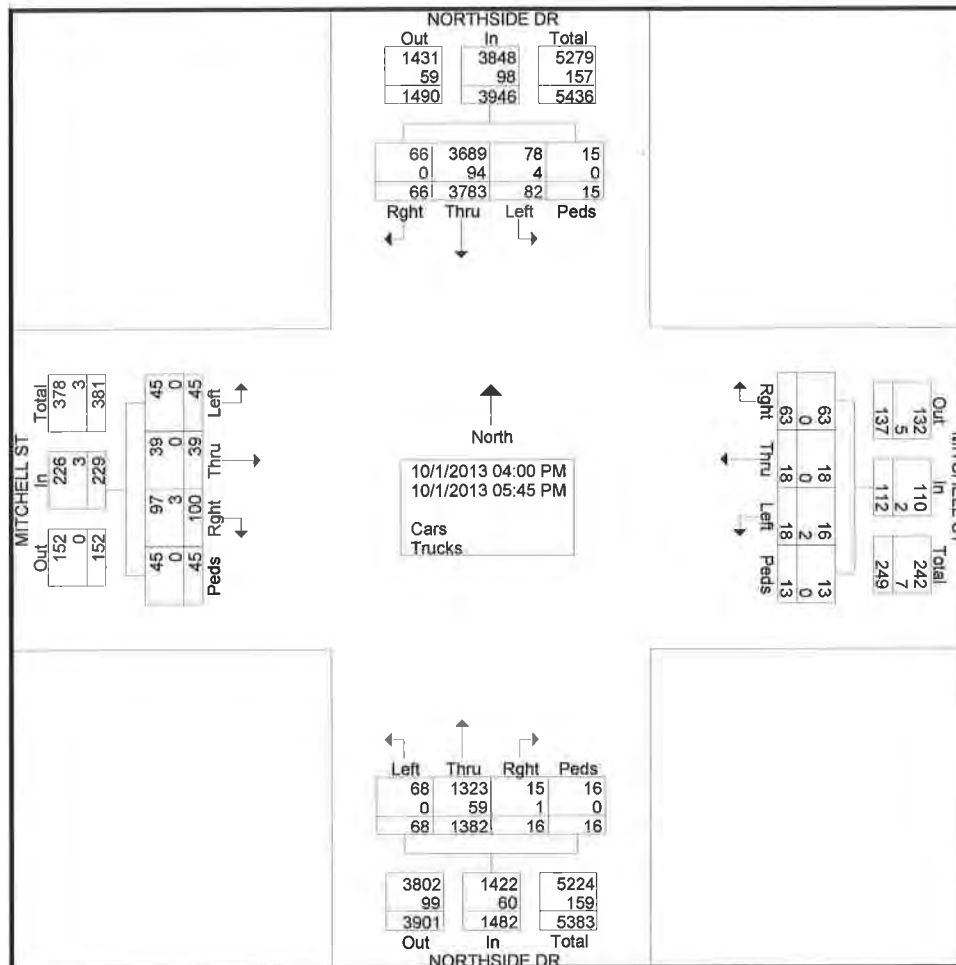
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

	NORTHSIDE DR Southbound					MITCHELL ST Westbound					NORTHSIDE DR Northbound					MITCHELL ST Eastbound					
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
04:00 PM	5	395	8	2	410	0	5	6	1	12	4	172	2	3	181	9	1	15	5	30	633
04:15 PM	8	369	4	3	384	2	0	6	3	11	5	157	4	0	166	6	4	9	5	24	585
04:30 PM	9	466	10	1	486	1	4	6	1	12	8	175	0	2	185	2	1	10	4	17	700
04:45 PM	12	494	5	0	511	1	3	12	1	17	5	162	0	5	172	6	5	10	8	29	729
Total	34	1724	27	6	1791	4	12	30	6	52	22	666	6	10	704	23	11	44	22	100	2647
05:00 PM	8	516	9	2	535	3	1	9	0	13	8	203	2	1	214	3	5	9	11	28	790
05:15 PM	16	545	11	2	574	6	3	6	4	19	14	181	1	0	196	6	6	14	2	28	817
05:30 PM	14	547	15	3	579	4	0	8	2	14	10	176	3	2	191	8	8	10	3	29	813
05:45 PM	10	451	4	2	467	1	2	10	1	14	14	156	4	3	177	5	9	23	7	44	702
Total	48	2059	39	9	2155	14	6	33	7	60	46	716	10	6	778	22	28	56	23	129	3122
Grand Total	82	3783	66	15	3946	18	18	63	13	112	68	1382	16	16	1482	45	39	100	45	229	5769
Apprch %	2.1	95.9	1.7	0.4		16.1	16.1	56.2	11.6		4.6	93.3	1.1	1.1		19.7	17	43.7	19.7		
Total %	1.4	65.6	1.1	0.3	68.4	0.3	0.3	1.1	0.2	1.9	1.2	24	0.3	0.3	25.7	0.8	0.7	1.7	0.8	4	
Cars	78	3689	66	15	3848	16	18	63	13	110	68	1323	15	16	1422	45	39	97	45	226	5606
% Cars	95.1	97.5	100	100	97.5	88.9	100	100	100	98.2	100	95.7	93.8	100	96	100	100	97	100	98.7	97.2
Trucks	4	94	0	0	98	2	0	0	0	2	0	59	1	0	60	0	0	3	0	3	163
% Trucks	4.9	2.5	0	0	2.5	11.1	0	0	0	1.8	0	4.3	6.2	0	4	0	0	3	0	1.3	2.8



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

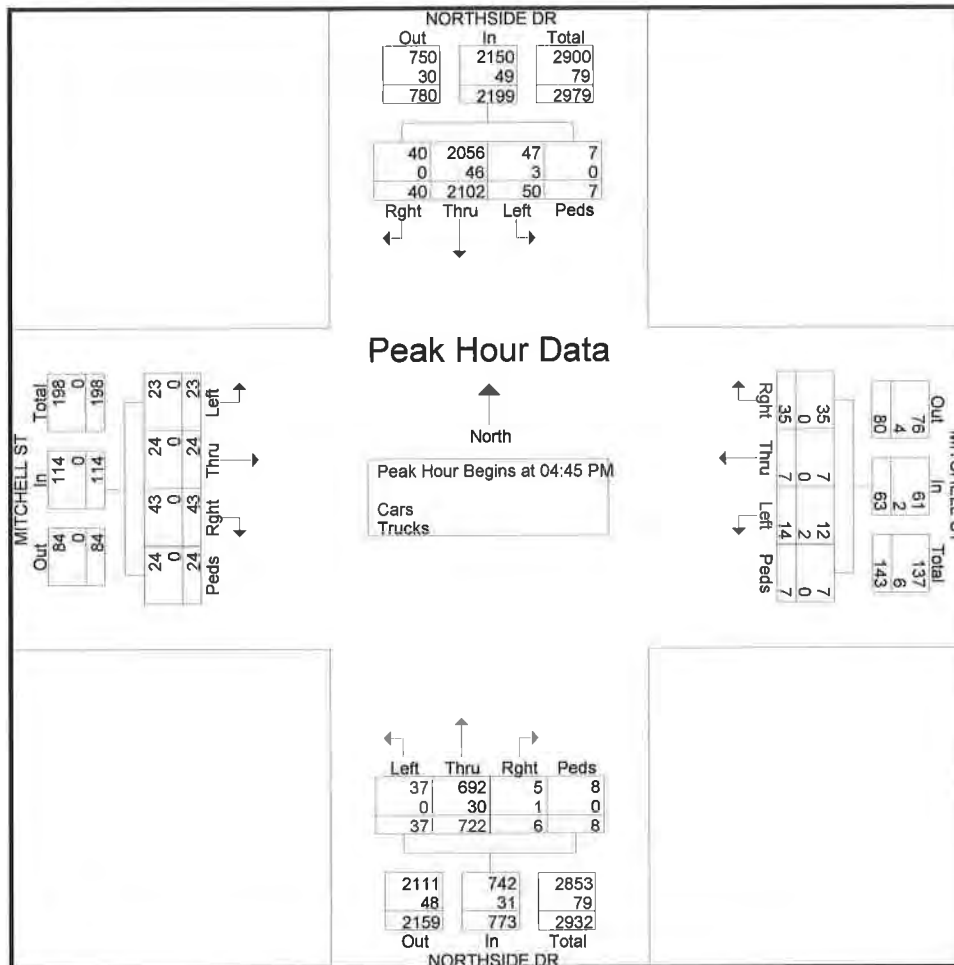
File Name : #2 NorthsideDr@MitchellStPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	NORTHSIDE DR Southbound					MITCHELL ST Westbound					NORTHSIDE DR Northbound					MITCHELL ST Eastbound					
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	12	494	5	0	511	1	3	12	1	17	5	162	0	5	172	6	5	10	8	29	729
05:00 PM	8	516	9	2	535	3	1	9	0	13	8	203	2	1	214	3	5	9	11	28	790
05:15 PM	16	545	11	2	574	6	3	6	4	19	14	181	1	0	196	6	6	14	2	28	817
05:30 PM	14	547	15	3	579	4	0	8	2	14	10	176	3	2	191	8	8	10	3	29	813
Total Volume	50	2102	40	7	2199	14	7	35	7	63	37	722	6	8	773	23	24	43	24	114	3149
% App. Total	2.3	95.6	1.8	0.3		22.2	11.1	55.6	11.1		4.8	93.4	0.8	1		20.2	21.1	37.7	21.1		
PHF	781	961	.667	.583	949	583	.583	.729	.438	829	661	889	500	.400	903	719	.750	.768	.545	.983	964
Cars	47	2056																			
% Cars	94.0	97.8	100	100	97.8	85.7	100	100	100	96.8	100	95.8	83.3	100	96.0	100	100	100	100	100	97.4
Trucks	3	46	0	0	49	2	0	0	0	2	0	30	1	0	31	0	0	0	0	0	82
% Trucks	6.0	2.2	0	0	2.2	14.3	0	0	0	3.2	0	4.2	16.7	0	4.0	0	0	0	0	0	2.6



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #3 MagnumSt@MitchellStAM

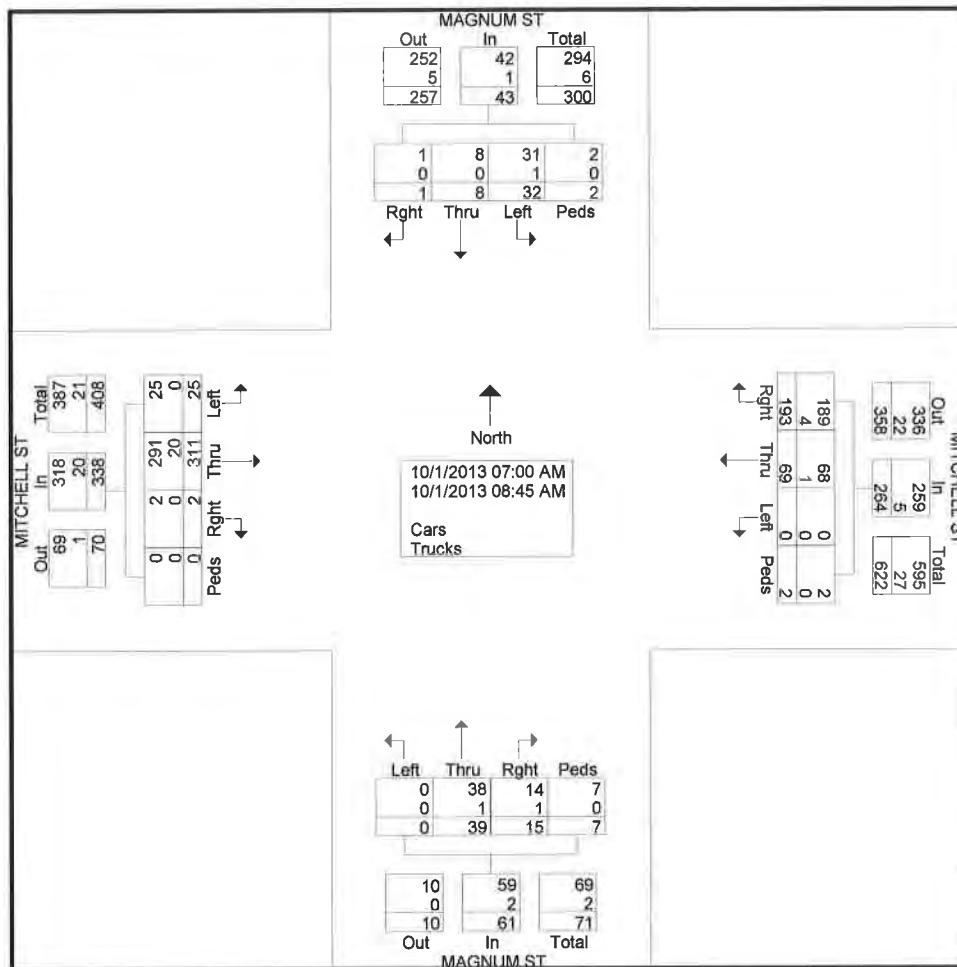
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	MAGNUM ST Southbound					MITCHELL ST Westbound					MAGNUM ST Northbound					MITCHELL ST Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	4	0	0	1	5	0	7	24	0	31	0	2	1	0	3	0	23	0	0	23	62
07:15 AM	7	0	0	0	7	0	8	28	1	37	0	5	2	2	9	2	28	0	0	30	83
07:30 AM	2	3	0	0	5	0	6	28	1	35	0	4	0	0	4	4	43	0	0	47	91
07:45 AM	5	3	0	0	8	0	6	22	0	28	0	5	6	0	11	3	47	0	0	50	97
Total	18	6	0	1	25	0	27	102	2	131	0	16	9	2	27	9	141	0	0	150	333
08:00 AM	5	2	0	1	8	0	11	26	0	37	0	3	4	1	8	1	46	1	0	48	101
08:15 AM	5	0	0	0	5	0	8	27	0	35	0	7	1	3	11	5	46	0	0	51	102
08:30 AM	1	0	1	0	2	0	10	21	0	31	0	8	0	1	9	3	39	0	0	42	84
08:45 AM	3	0	0	0	3	0	13	17	0	30	0	5	1	0	6	7	39	1	0	47	86
Total	14	2	1	1	18	0	42	91	0	133	0	23	6	5	34	16	170	2	0	188	373
Grand Total	32	8	1	2	43	0	69	193	2	264	0	39	15	7	61	25	311	2	0	338	706
Apprch %	74.4	18.6	2.3	4.7		0	26.1	73.1	0.8		0	63.9	24.6	11.5		7.4	92	0.6	0		
Total %	4.5	1.1	0.1	0.3	6.1	0	9.8	27.3	0.3	37.4	0	5.5	2.1	1	8.6	3.5	44.1	0.3	0	47.9	
Cars	31	8	1	2	42	0	68	189	2	259	0	38	14	7	59	25	291	2	0	318	678
% Cars	96.9	100	100	100	97.7	0	98.6	97.9	100	98.1	0	97.4	93.3	100	96.7	100	93.6	100	0	94.1	96
Trucks	1	0	0	0	1	0	1	4	0	5	0	1	1	0	2	0	20	0	0	20	28
% Trucks	3.1	0	0	0	2.3	0	1.4	2.1	0	1.9	0	2.6	6.7	0	3.3	0	6.4	0	0	5.9	4



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

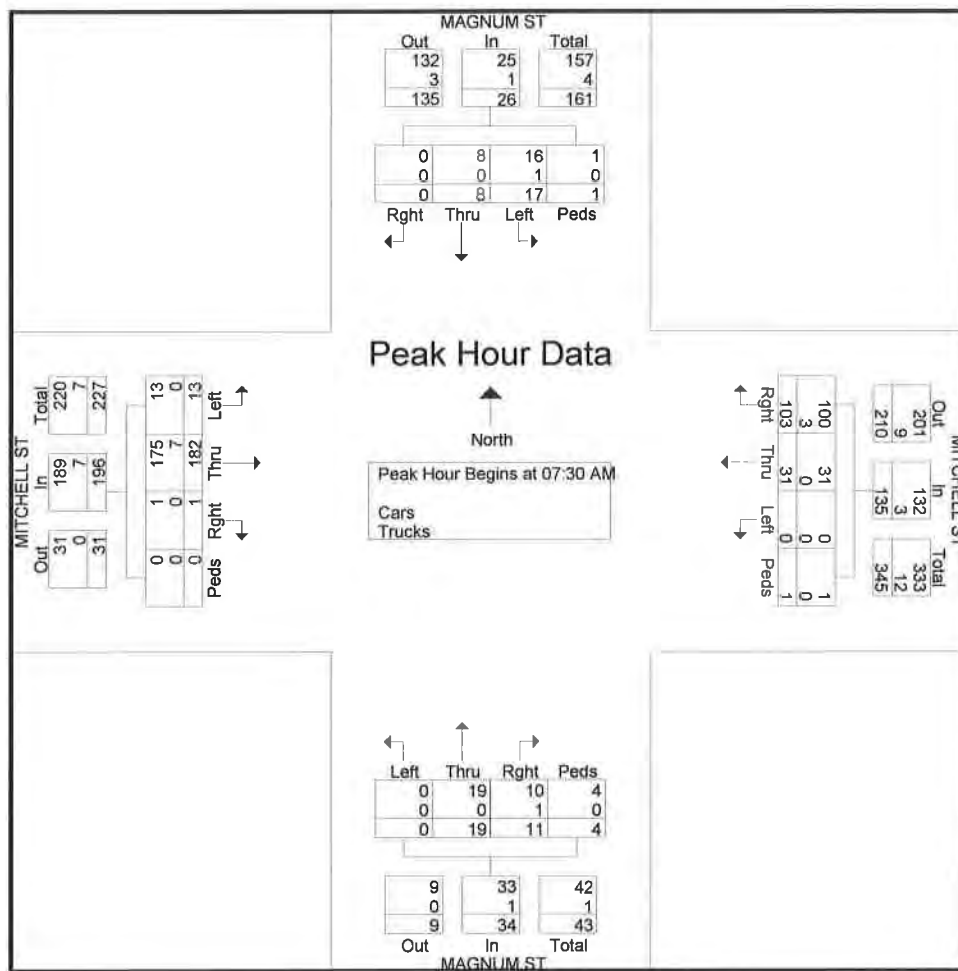
File Name : #3 MagnumSt@MitchellStAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	MAGNUM ST Southbound					MITCHELL ST Westbound					MAGNUM ST Northbound					MITCHELL ST Eastbound					
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	2	3	0	0	5	0	6	28	1	35	0	4	0	0	4	4	43	0	0	47	91
07:45 AM	5	3	0	0	8	0	6	22	0	28	0	5	6	0	11	3	47	0	0	50	97
08:00 AM	5	2	0	1	8	0	11	26	0	37	0	3	4	1	8	1	46	1	0	48	101
08:15 AM	5	0	0	0	5	0	8	27	0	35	0	7	1	3	11	5	46	0	0	51	102
Total Volume	17	8	0	1	26	0	31	103	1	135	0	19	11	4	34	13	182	1	0	196	391
% App. Total	65.4	30.8	0	3.8		0	23	76.3	0.7		0	55.9	32.4	11.8		6.6	92.9	0.5	0		
PHF	.850	.667	.000	.250	.813	.000	.705	.920	.250	.912	.000	.679	.458	.333	.773	.650	.968	.250	.000	.961	.958
Cars	16	8	0	1	25	0	31	100	1	132	0	19	10	4	33	13	175	1	0	189	379
% Cars	94.1	100	0	100	96.2	0	100	97.1	100	97.8	0	100	90.9	100	97.1	100	96.2	100	0	96.4	96.9
Trucks	1	0	0	0	1	0	0	3	0	3	0	0	1	0	1	0	7	0	0	7	12
% Trucks	5.9	0	0	0	3.8	0	0	2.9	0	2.2	0	0	9.1	0	2.9	0	3.8	0	0	3.6	3.1



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #3 MagnumSt@MitchellStPM

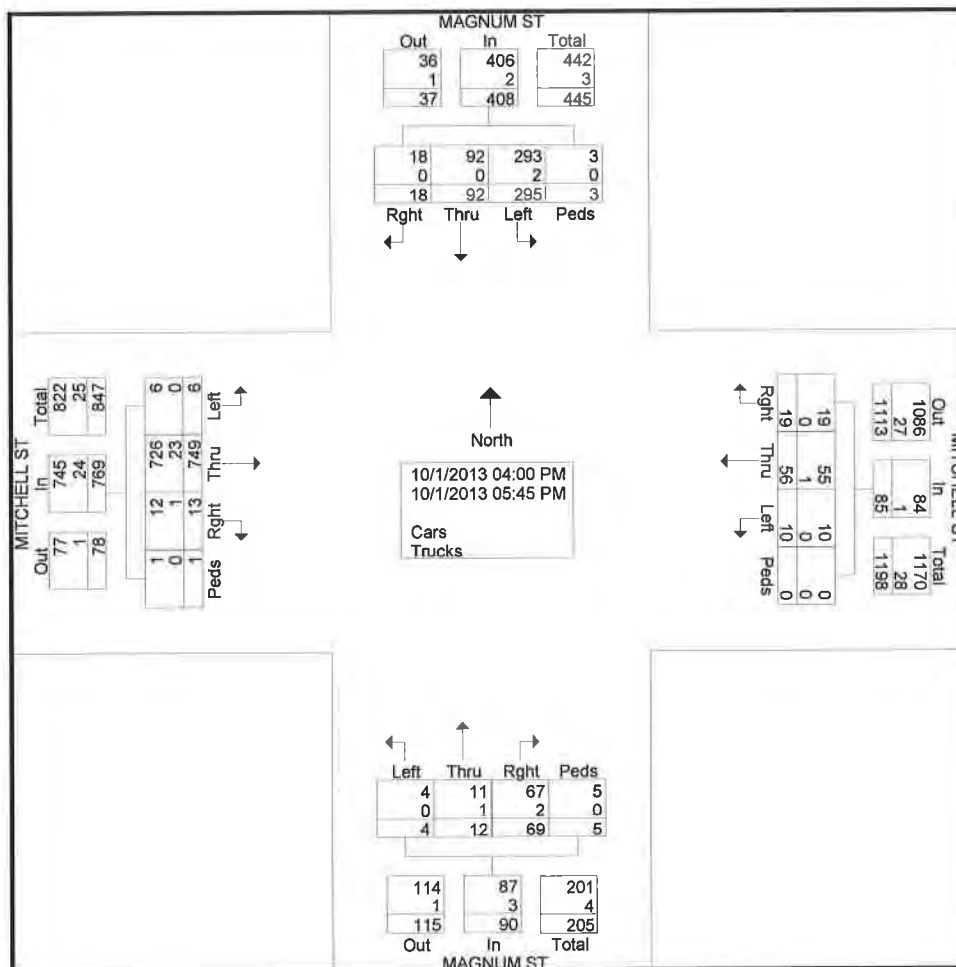
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

	MAGNUM ST Southbound					MITCHELL ST Westbound					MAGNUM ST Northbound					MITCHELL ST Eastbound					
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
04:00 PM	51	12	0	0	63	3	12	2	0	17	0	2	6	0	8	0	81	5	0	86	174
04:15 PM	18	8	0	2	28	1	5	1	0	7	0	3	8	0	11	0	75	2	0	77	123
04:30 PM	37	12	5	0	54	2	6	3	0	11	0	3	10	0	13	2	70	0	0	72	150
04:45 PM	42	13	4	1	60	1	5	3	0	9	1	1	5	0	7	2	111	2	0	115	191
Total	148	45	9	3	205	7	28	9	0	44	1	9	29	0	39	4	337	9	0	350	638
05:00 PM	54	21	3	0	78	0	6	4	0	10	2	2	12	2	18	1	91	1	0	93	199
05:15 PM	44	14	3	0	61	0	9	1	0	10	0	1	8	1	10	1	106	1	0	108	189
05:30 PM	28	8	3	0	39	2	6	4	0	12	1	0	11	1	13	0	120	1	1	122	186
05:45 PM	21	4	0	0	25	1	7	1	0	9	0	0	9	1	10	0	95	1	0	96	140
Total	147	47	9	0	203	3	28	10	0	41	3	3	40	5	51	2	412	4	1	419	714
Grand Total	295	92	18	3	408	10	56	19	0	85	4	12	69	5	90	6	749	13	1	769	1352
Apprch %	72.3	22.5	4.4	0.7		11.8	65.9	22.4	0		4.4	13.3	76.7	5.6		0.8	97.4	1.7	0.1		
Total %	21.8	6.8	1.3	0.2	30.2	0.7	4.1	1.4	0	6.3	0.3	0.9	5.1	0.4	6.7	0.4	55.4	1	0.1	56.9	
Cars	293	92	18	3	406	10	55	19	0	84	4	11	67	5	87	6	726	12	1	745	1322
% Cars	99.3	100	100	100	99.5	100	98.2	100	0	98.8	100	91.7	97.1	100	96.7	100	96.9	92.3	100	96.9	97.8
Trucks	2	0	0	0	2	0	1	0	0	1	0	1	2	0	3	0	23	1	0	24	30
% Trucks	0.7	0	0	0	0.5	0	1.8	0	0	1.2	0	8.3	2.9	0	3.3	0	3.1	7.7	0	3.1	2.2



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

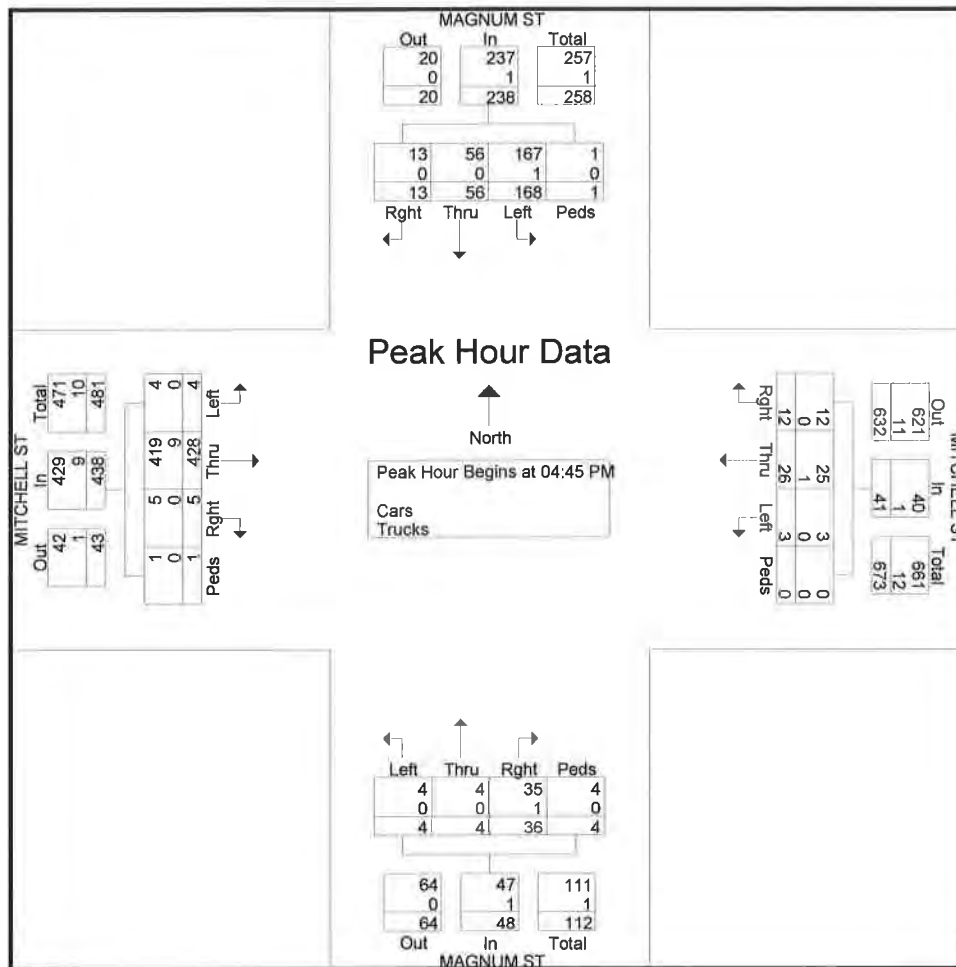
File Name : #3 MagnumSt@MitchellStPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	MAGNUM ST Southbound					MITCHELL ST Westbound					MAGNUM ST Northbound					MITCHELL ST Eastbound					
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	42	13	4	1	60	1	5	3	0	9	1	1	5	0	7	2	111	2	0	115	191
05:00 PM	54	21	3	0	78	0	6	4	0	10	2	2	12	2	18	1	91	1	0	93	199
05:15 PM	44	14	3	0	61	0	9	1	0	10	0	1	8	1	10	1	106	1	0	108	189
05:30 PM	28	8	3	0	39	2	6	4	0	12	1	0	11	1	13	0	120	1	1	122	186
Total Volume	168	56	13	1	238	3	26	12	0	41	4	4	36	4	48	4	428	5	1	438	765
% App. Total	70.6	23.5	5.5	0.4		7.3	63.4	29.3	0		8.3	8.3	75	8.3		0.9	97.7	1.1	0.2		
PHF	.778	.667	.813	.250	.763	.375	.722	.750	.000	.854	.500	.500	.750	.500	.667	.500	.892	.625	.250	.898	.961
Cars	167	56	13	1	237	3	25	12	0	40	4	4	35	4	47	4	419	5	1	429	753
% Cars	99.4	100	100	100	99.6	100	96.2	100	0	97.6	100	100	97.2	100	97.9	100	97.9	100	100	97.9	98.4
Trucks	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	9	0	0	9	12
% Trucks	0.6	0	0	0	0.4	0	3.8	0	0	2.4	0	0	2.8	0	2.1	0	2.1	0	0	2.1	1.6



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #4 SpringSt@MLKjrDrAM

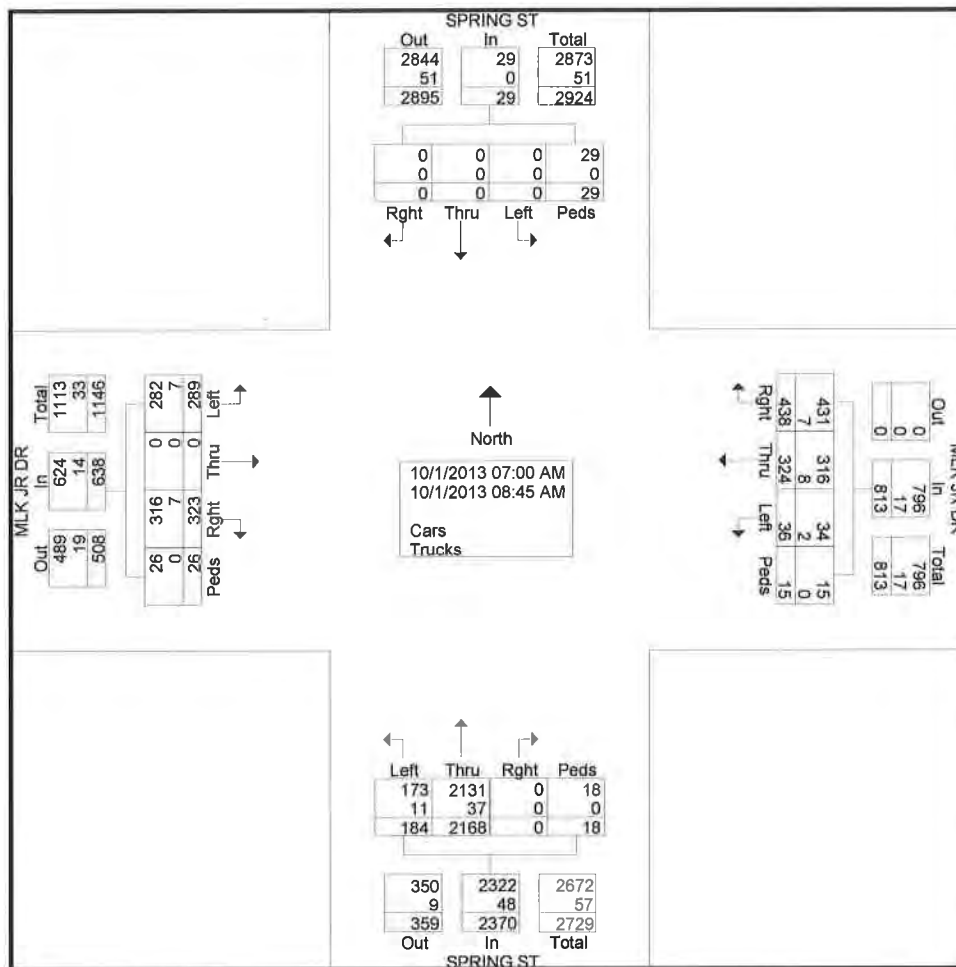
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

	SPRING ST Southbound					MLK JR DR Westbound					SPRING ST Northbound					MLK JR DR Eastbound					
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	0	0	0	0	4	23	26	2	55	20	200	0	0	220	26	0	34	2	62	337
07:15 AM	0	0	0	1	1	3	38	29	2	72	29	208	0	1	238	18	0	30	3	51	362
07:30 AM	0	0	0	1	1	1	40	40	0	81	26	252	0	0	278	38	0	35	2	75	435
07:45 AM	0	0	0	7	7	6	42	64	2	114	27	292	0	4	323	44	0	39	0	83	527
Total	0	0	0	9	9	14	143	159	6	322	102	952	0	5	1059	126	0	138	7	271	1661
08:00 AM	0	0	0	6	6	2	41	63	2	108	25	312	0	0	337	36	0	53	3	92	543
08:15 AM	0	0	0	5	5	8	45	76	2	131	14	318	0	1	333	36	0	49	7	92	561
08:30 AM	0	0	0	5	5	4	46	59	3	112	16	305	0	2	323	40	0	41	5	86	526
08:45 AM	0	0	0	4	4	8	49	81	2	140	27	281	0	10	318	51	0	42	4	97	559
Total	0	0	0	20	20	22	181	279	9	491	82	1216	0	13	1311	163	0	185	19	367	2189
Grand Total	0	0	0	29	29	36	324	438	15	813	184	2168	0	18	2370	289	0	323	26	638	3850
Apprch %	0	0	0	100		4.4	39.9	53.9	1.8		7.8	91.5	0	0.8		45.3	0	50.6	4.1		
Total %	0	0	0	0.8	0.8	0.9	8.4	11.4	0.4	21.1	4.8	56.3	0	0.5	61.6	7.5	0	8.4	0.7	16.6	
Cars	0	0	0	29	29	34	316	431	15	796	173	2131	0	18	2322	282	0	316	26	624	3771
% Cars	0	0	0	100	100	94.4	97.5	98.4	100	97.9	94	98.3	0	100	98	97.6	0	97.8	100	97.8	97.9
Trucks	0	0	0	0	0	2	8	7	0	17	11	37	0	0	48	7	0	7	0	14	79
% Trucks	0	0	0	0	0	5.6	2.5	1.6	0	2.1	6	1.7	0	0	2	2.4	0	2.2	0	2.2	2.1



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

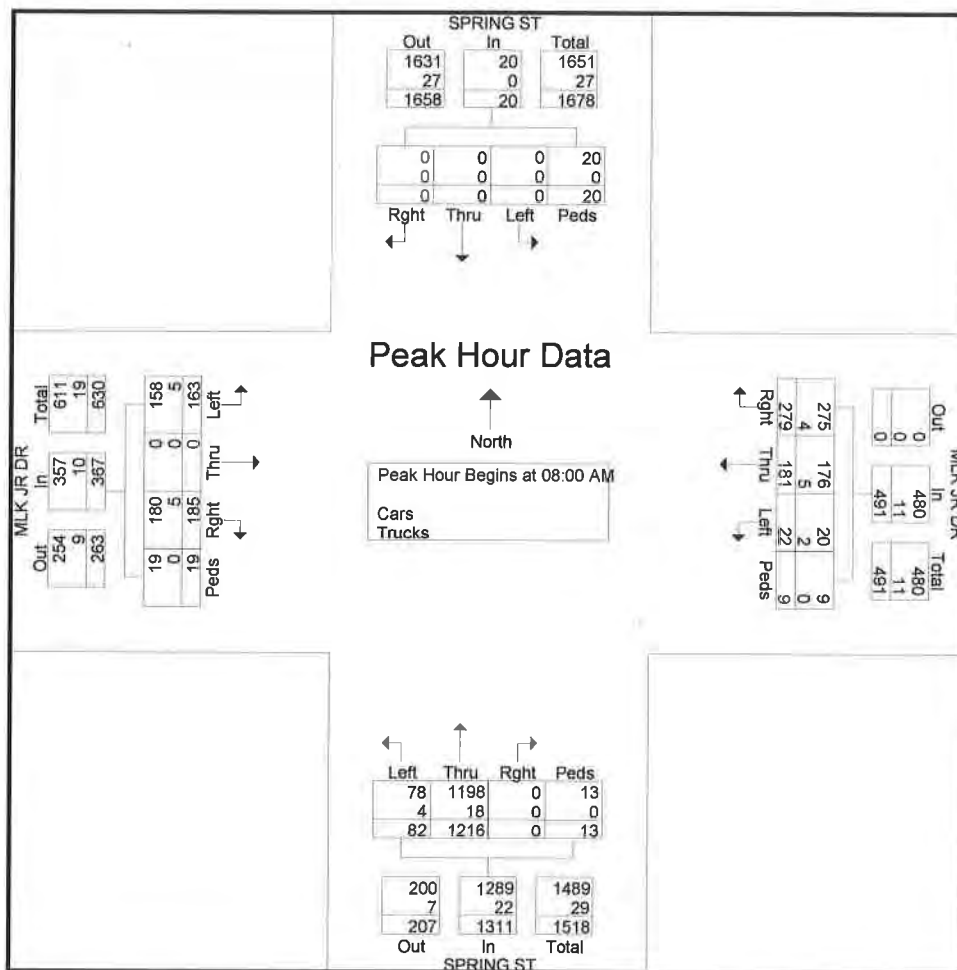
File Name : #4 SpringSt@MLKjrDrAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	SPRING ST Southbound					MLK JR DR Westbound					SPRING ST Northbound					MLK JR DR Eastbound					
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	0	0	6	6	2	41	63	2	108	25	312	0	0	337	36	0	53	3	92	543
08:15 AM	0	0	0	5	5	8	45	76	2	131	14	318	0	1	333	36	0	49	7	92	561
08:30 AM	0	0	0	5	5	4	46	59	3	112	16	305	0	2	323	40	0	41	5	86	526
08:45 AM	0	0	0	4	4	8	49	81	2	140	27	281	0	10	318	51	0	42	4	97	559
Total Volume	0	0	0	20	20	22	181	279	9	491	82	1216	0	13	1311	163	0	185	19	367	2189
% App. Total	0	0	0	100		4.5	36.9	56.8	1.8		6.3	92.8	0	1		44.4	0	50.4	5.2		
PHF	.000	.000	.000	.833	.833	.688	.923	.861	.750	.877	.759	.956	.000	.325	.973	.799	.000	.873	.879	.946	.975
Cars	0	0	0	20	20	20	176	275	9	480	78	1198									
% Cars	0	0	0	100	100	90.9	97.2	98.6	100	97.8	95.1	98.5	0	100	98.3	96.9	0	97.3	100	97.3	98.0
Trucks	0	0	0	0	0	2	5	4	0	11	4	18	0	0	22	5	0	5	0	10	43
% Trucks	0	0	0	0	0	9.1	2.8	1.4	0	2.2	4.9	1.5	0	0	1.7	3.1	0	2.7	0	2.7	2.0



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #4 SpringSt@MLKjrDrPM

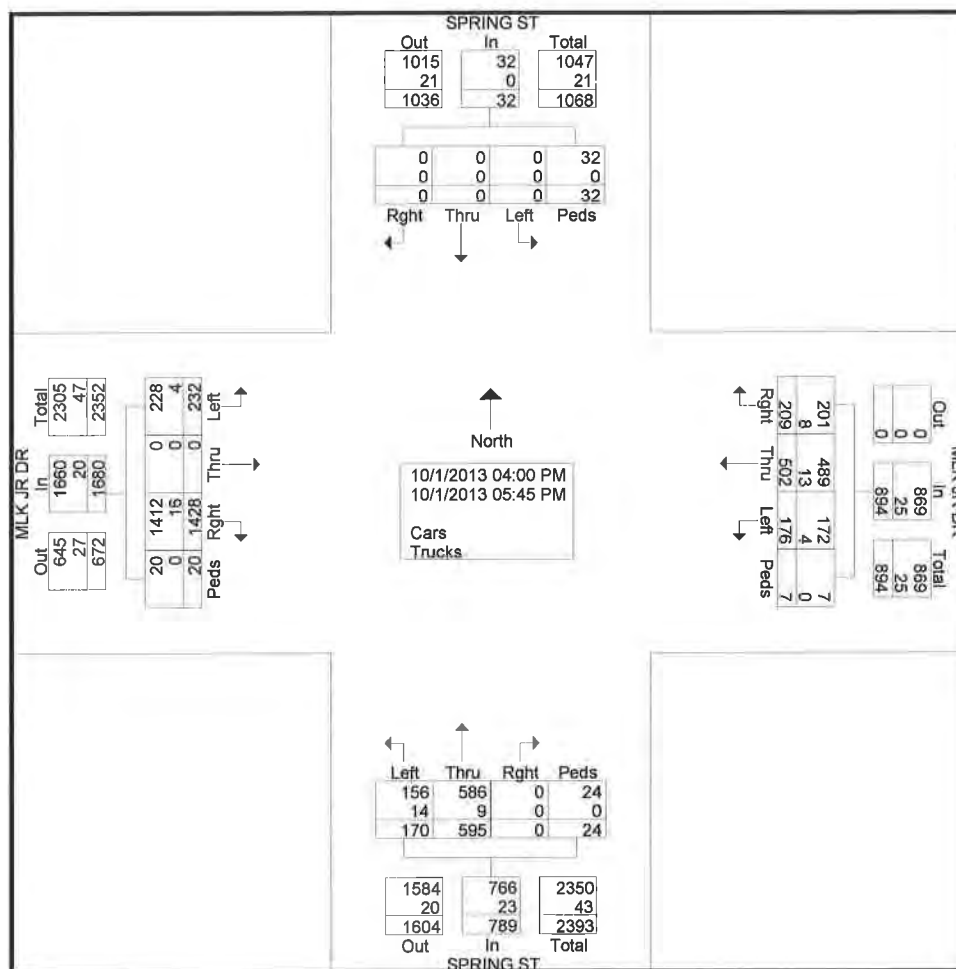
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	SPRING ST Southbound					MLK JR DR Westbound					SPRING ST Northbound					MLK JR DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	0	0	0	0	0	19	44	34	0	97	18	93	0	5	116	25	0	121	7	153	366
04:15 PM	0	0	0	2	2	18	59	27	0	104	24	68	0	4	96	36	0	191	1	228	430
04:30 PM	0	0	0	4	4	31	70	28	2	131	15	82	0	2	99	32	0	170	0	202	436
04:45 PM	0	0	0	10	10	23	55	17	0	95	23	79	0	8	110	33	0	185	3	221	436
Total	0	0	0	16	16	91	228	106	2	427	80	321	0	19	421	126	0	667	11	804	1668
05:00 PM	0	0	0	6	6	17	53	31	1	102	19	59	0	1	79	25	0	201	2	228	415
05:15 PM	0	0	0	3	3	27	86	33	1	147	21	75	0	1	97	29	0	190	3	222	469
05:30 PM	0	0	0	2	2	21	77	25	2	125	30	75	0	0	105	24	0	185	2	211	443
05:45 PM	0	0	0	5	5	20	58	14	1	93	20	64	0	3	87	28	0	185	2	215	400
Total	0	0	0	16	16	85	274	103	5	467	90	273	0	5	368	106	0	761	9	876	1727
Grand Total	0	0	0	32	32	176	502	209	7	894	170	595	0	24	789	232	0	1428	20	1680	3395
Apprch %	0	0	0	100		19.7	56.2	23.4	0.8		21.5	75.4	0	3		13.8	0	85	1.2		
Total %	0	0	0	0.9	0.9	5.2	14.8	6.2	0.2	26.3	5	17.5	0	0.7	23.2	6.8	0	42.1	0.6	49.5	
Cars	0	0	0	32	32	172	489	201	7	869	156	586	0	24	766	228	0	1412	20	1660	3327
% Cars	0	0	0	100	100	97.7	97.4	96.2	100	97.2	91.8	98.5	0	100	97.1	98.3	0	98.9	100	98.8	98
Trucks	0	0	0	0	0	4	13	8	0	25	14	9	0	0	23	4	0	16	0	20	68
% Trucks	0	0	0	0	0	2.3	2.6	3.8	0	2.8	8.2	1.5	0	0	2.9	1.7	0	1.1	0	1.2	2



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

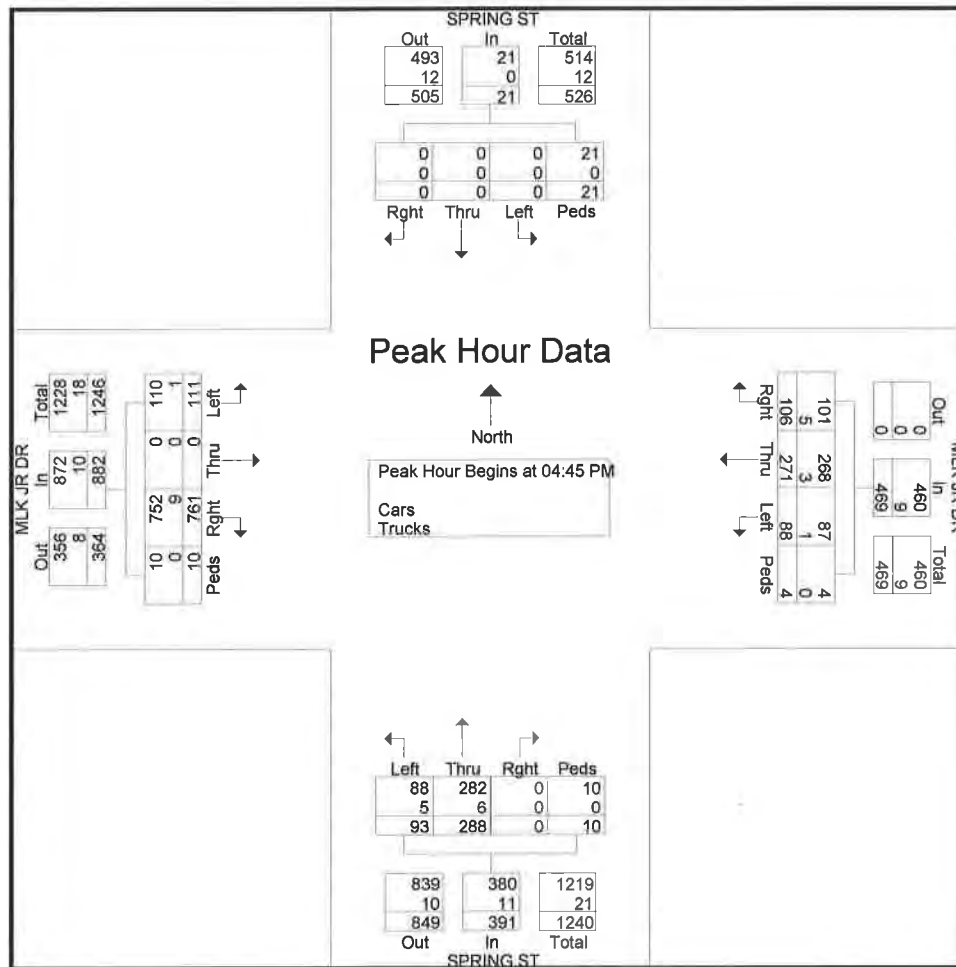
File Name : #4 SpringSt@MLKjrDrPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	SPRING ST Southbound					MLK JR DR Westbound					SPRING ST Northbound					MLK JR DR Eastbound					
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	0	0	10	10	23	55	17	0	95	23	79	0	8	110	33	0	185	3	221	436
05:00 PM	0	0	0	6	6	17	53	31	1	102	19	59	0	1	79	25	0	201	2	228	415
05:15 PM	0	0	0	3	3	27	86	33	1	147	21	75	0	1	97	29	0	190	3	222	469
05:30 PM	0	0	0	2	2	21	77	25	2	125	30	75	0	0	105	24	0	185	2	211	443
Total Volume	0	0	0	21	21	88	271	106	4	469	93	288	0	10	391	111	0	761	10	882	1763
% App. Total	0	0	0	100		18.8	57.8	22.6	0.9		23.8	73.7	0	2.6		12.6	0	86.3	1.1		
PHF	.000	.000	.000	.525	.525	.815	.788	.803	.500	.798	.775	.911	.000	.313	.889	.841	.000	.947	.833	.967	.940
Cars	0	0	0	21	21	87	268	101	4	460	88	282	0	10	380	110	0	752	10	872	1733
% Cars	0	0	0	100	100	98.9	98.9	95.3	100	98.1	94.6	97.9	0	100	97.2	99.1	0	98.8	100	98.9	98.3
Trucks	0	0	0	0	0	1	3	5	0	9	5	6	0	0	11	1	0	9	0	10	30
% Trucks	0	0	0	0	0	1.1	1.1	4.7	0	1.9	5.4	2.1	0	0	2.8	0.9	0	1.2	0	1.1	1.7



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #5 SpringSt@MitchellStAM

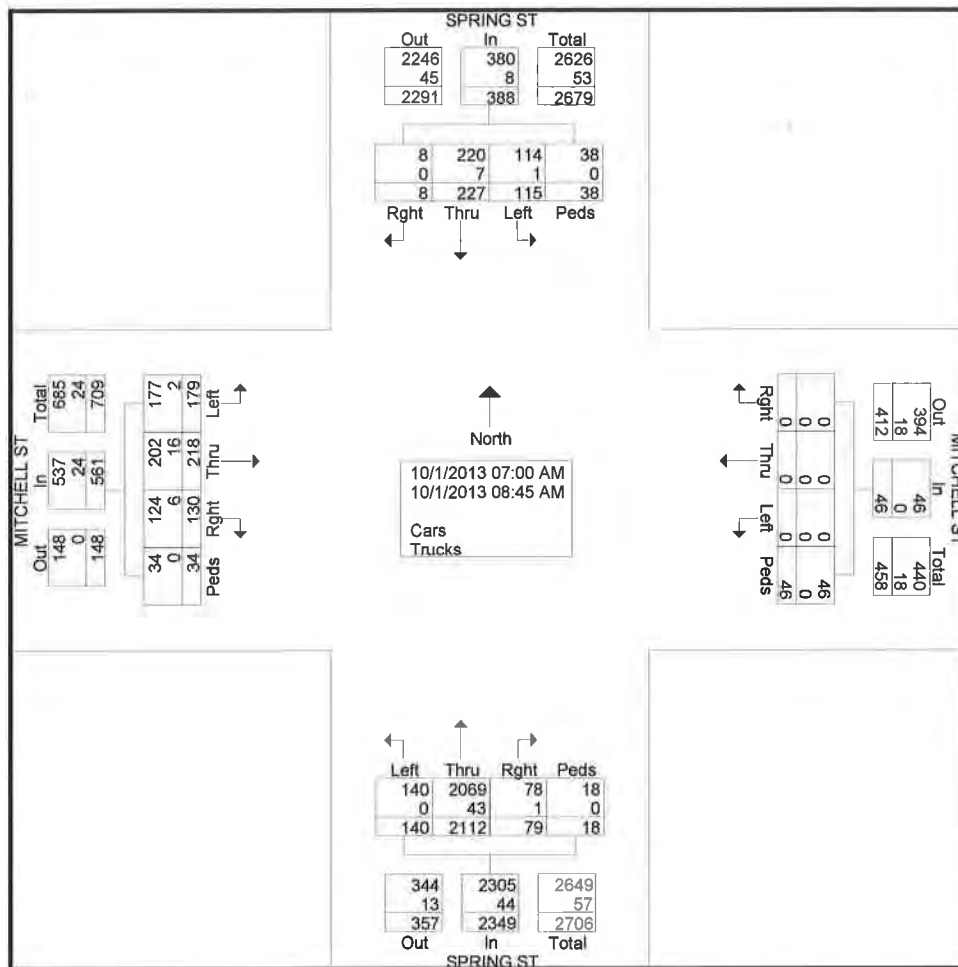
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	SPRING ST Southbound					MITCHELL ST Westbound					SPRING ST Northbound					MITCHELL ST Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	9	33	1	2	45	0	0	0	1	1	26	222	9	1	258	2	22	9	7	40	344
07:15 AM	3	14	0	0	17	0	0	0	2	2	19	162	5	0	186	1	10	10	0	21	226
07:30 AM	9	27	1	1	38	0	0	0	4	4	16	287	7	3	313	9	17	23	5	54	409
07:45 AM	16	35	1	4	56	0	0	0	7	7	12	302	12	4	330	41	32	27	8	108	501
Total	37	109	3	7	156	0	0	0	14	14	73	973	33	8	1087	53	81	69	20	223	1480
08:00 AM	22	32	0	5	59	0	0	0	7	7	15	291	7	2	315	36	36	22	1	95	476
08:15 AM	21	31	3	6	61	0	0	0	5	5	17	293	9	1	320	36	34	18	3	91	477
08:30 AM	12	27	1	10	50	0	0	0	11	11	18	285	15	4	322	23	34	9	4	70	453
08:45 AM	23	28	1	10	62	0	0	0	9	9	17	270	15	3	305	31	33	12	6	82	458
Total	78	118	5	31	232	0	0	0	32	32	67	1139	46	10	1262	126	137	61	14	338	1864
Grand Total	115	227	8	38	388	0	0	0	46	46	140	2112	79	18	2349	179	218	130	34	561	3344
Apprch %	29.6	58.5	2.1	9.8		0	0	0	100		6	89.9	3.4	0.8		31.9	38.9	23.2	6.1		
Total %	3.4	6.8	0.2	1.1	11.6	0	0	0	1.4	1.4	4.2	63.2	2.4	0.5	70.2	5.4	6.5	3.9	1	16.8	
Cars	114	220	8	38	380	0	0	0	46	46	140	2069	78	18	2305	177	202	124	34	537	3268
% Cars	99.1	96.9	100	100	97.9	0	0	0	100	100	100	98	98.7	100	98.1	98.9	92.7	95.4	100	95.7	97.7
Trucks	1	7	0	0	8	0	0	0	0	0	0	43	1	0	44	2	16	6	0	24	76
% Trucks	0.9	3.1	0	0	2.1	0	0	0	0	0	0	2	1.3	0	1.9	1.1	7.3	4.6	0	4.3	2.3



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

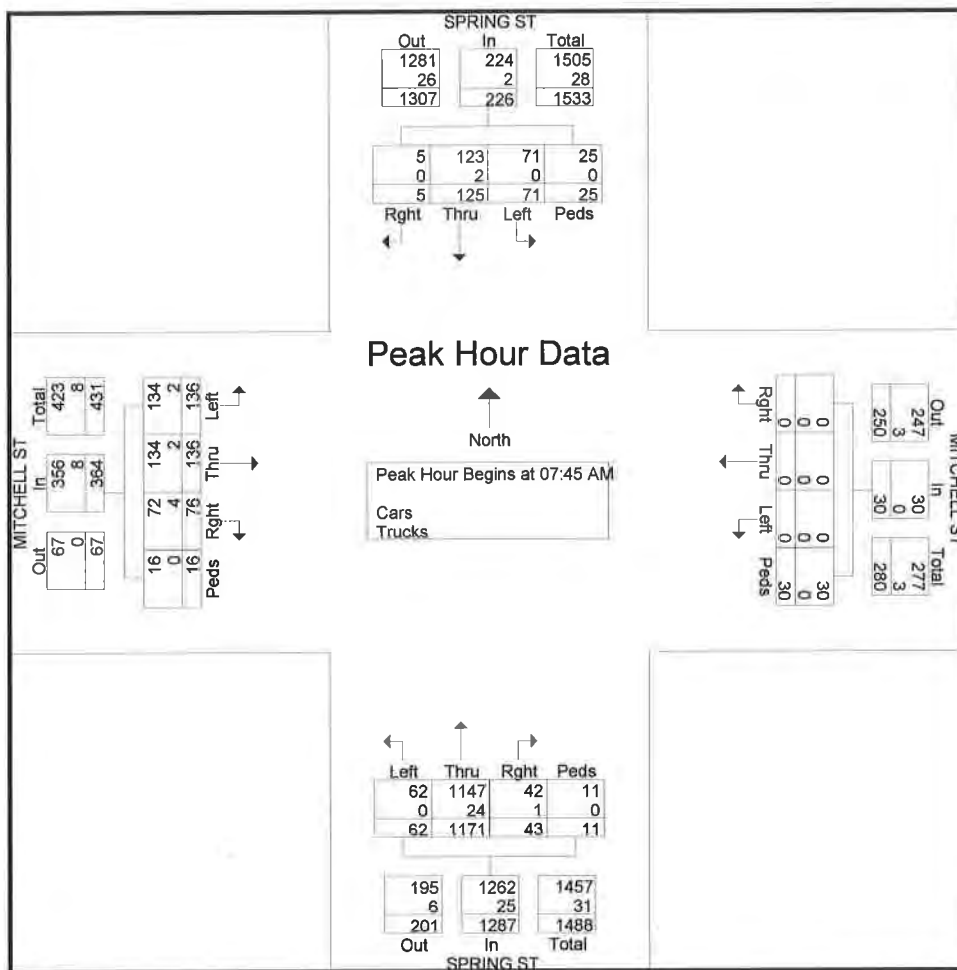
File Name : #5 SpringSt@MitchellStAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	SPRING ST Southbound					MITCHELL ST Westbound					SPRING ST Northbound					MITCHELL ST Eastbound					
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 07:45 AM																					
07:45 AM	16	35	1	4	56	0	0	0	7	7	12	302	12	4	330	41	32	27	8	108	501
08:00 AM	22	32	0	5	59	0	0	0	7	7	15	291	7	2	315	36	36	22	1	95	476
08:15 AM	21	31	3	6	61	0	0	0	5	5	17	293	9	1	320	36	34	18	3	91	477
08:30 AM	12	27	1	10	50	0	0	0	11	11	18	285	15	4	322	23	34	9	4	70	453
Total Volume	71	125	5	25	226	0	0	0	30	30	62	1171	43	11	1287	136	136	76	16	364	1907
% App. Total	31.4	55.3	2.2	11.1		0	0	0	100		4.8	91	3.3	0.9		37.4	37.4	20.9	4.4		
PHF	.807	.893	.417	.625	.926	.000	.000	.000	.682	.682	.861	.969	.717	.688	.975	.829	.944	.704	.500	.843	.952
Cars	71	123	5	25	224	0	0	0	30	30	62	1147				98.5	98.5	94.7	100	97.8	98.2
% Cars	100	98.4	100	100	99.1	0	0	0	100	100	100	98.0	97.7	100	98.1						
Trucks	0	2	0	0	2	0	0	0	0	0	0	24	1	0	25	2	2	4	0	8	35
% Trucks	0	1.6	0	0	0.9	0	0	0	0	0	0	2.0	2.3	0	1.9	1.5	1.5	5.3	0	2.2	1.8



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #5 SpringSt@MitchellStPM

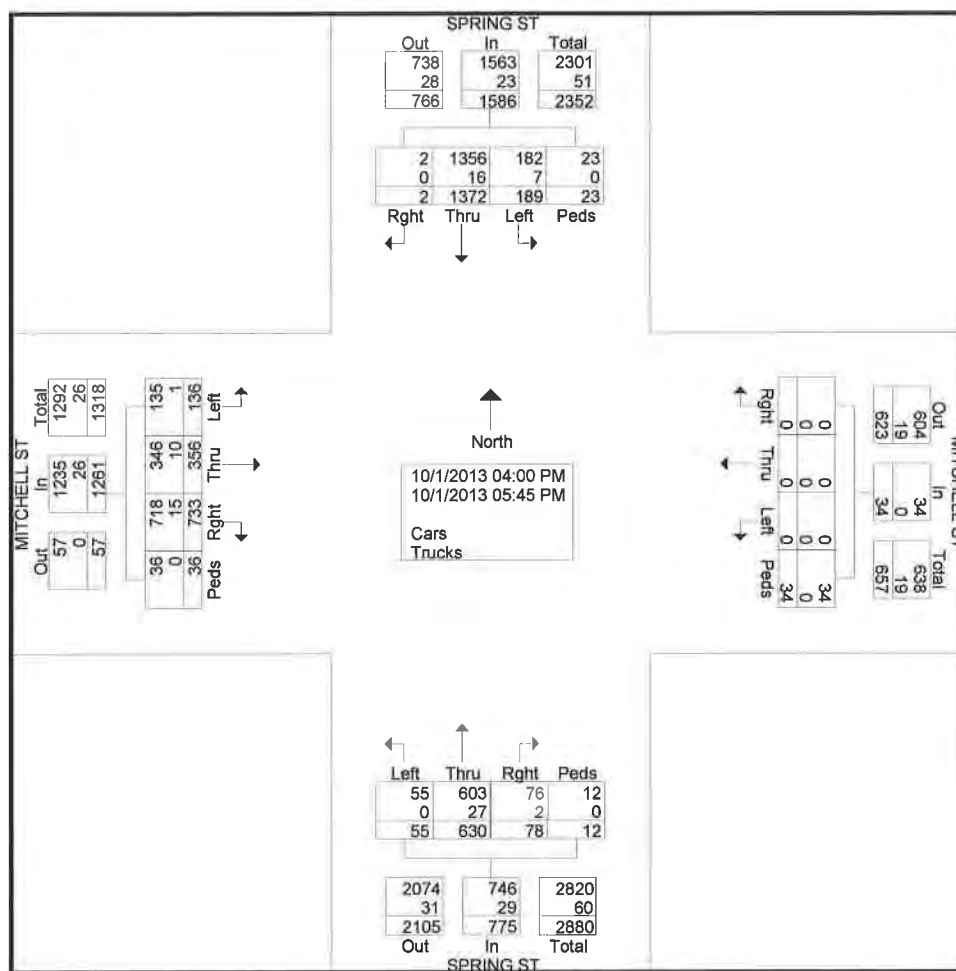
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	SPRING ST Southbound					MITCHELL ST Westbound					SPRING ST Northbound					MITCHELL ST Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	20	145	0	7	172	0	0	0	3	3	12	103	10	1	126	19	30	96	7	152	453
04:15 PM	26	198	0	4	228	0	0	0	8	8	3	69	19	1	92	15	29	85	4	133	461
04:30 PM	24	188	1	5	218	0	0	0	7	7	9	86	7	2	104	16	31	92	6	145	474
04:45 PM	19	101	0	1	121	0	0	0	4	4	3	69	11	1	84	17	28	53	3	101	310
Total	89	632	1	17	739	0	0	0	22	22	27	327	47	5	406	67	118	326	20	531	1698
05:00 PM	22	210	0	0	232	0	0	0	3	3	5	82	9	4	100	18	54	112	5	189	524
05:15 PM	30	166	0	4	200	0	0	0	4	4	9	78	6	1	94	15	81	104	3	203	501
05:30 PM	29	193	0	0	222	0	0	0	4	4	10	85	4	2	101	24	62	101	2	189	516
05:45 PM	19	171	1	2	193	0	0	0	1	1	4	58	12	0	74	12	41	90	6	149	417
Total	100	740	1	6	847	0	0	0	12	12	28	303	31	7	369	69	238	407	16	730	1958
Grand Total	189	1372	2	23	1586	0	0	0	34	34	55	630	78	12	775	136	356	733	36	1261	3656
Apprch %	11.9	86.5	0.1	1.5		0	0	0	100		7.1	81.3	10.1	1.5		10.8	28.2	58.1	2.9		
Total %	5.2	37.5	0.1	0.6	43.4	0	0	0	0.9	0.9	1.5	17.2	2.1	0.3	21.2	3.7	9.7	20	1	34.5	
Cars	182	1356	2	23	1563	0	0	0	34	34	55	603	76	12	746	135	346	718	36	1235	3578
% Cars	96.3	98.8	100	100	98.5	0	0	0	100	100	100	95.7	97.4	100	96.3	99.3	97.2	98	100	97.9	97.9
Trucks	7	16	0	0	23	0	0	0	0	0	0	27	2	0	29	1	10	15	0	26	78
% Trucks	3.7	1.2	0	0	1.5	0	0	0	0	0	0	4.3	2.6	0	3.7	0.7	2.8	2	0	2.1	2.1



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

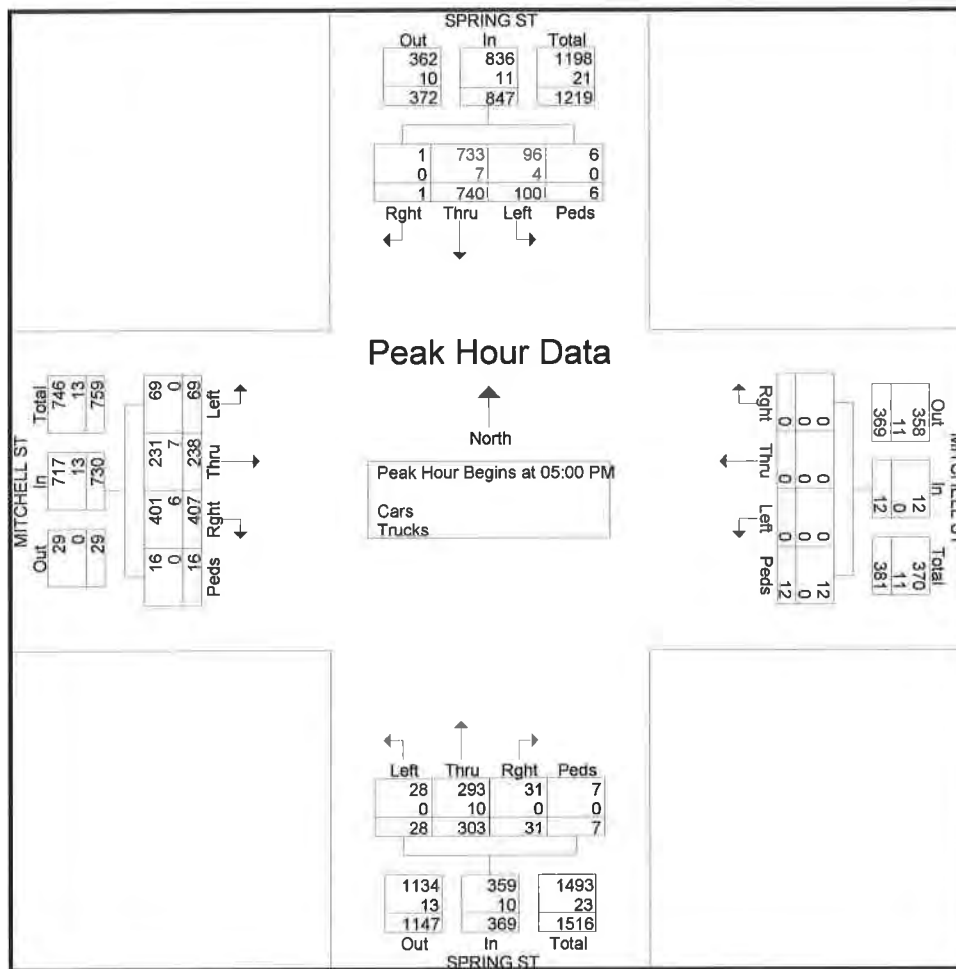
File Name : #5 SpringSt@MitchellStPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	SPRING ST Southbound					MITCHELL ST Westbound					SPRING ST Northbound					MITCHELL ST Eastbound					
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 05:00 PM																					
05:00 PM	22	210	0	0	232	0	0	0	3	3	5	82	9	4	100	18	54	112	5	189	524
05:15 PM	30	166	0	4	200	0	0	0	4	4	9	78	6	1	94	15	81	104	3	203	501
05:30 PM	29	193	0	0	222	0	0	0	4	4	10	85	4	2	101	24	62	101	2	189	516
05:45 PM	19	171	1	2	193	0	0	0	1	1	4	58	12	0	74	12	41	90	6	149	417
Total Volume	100	740	1	6	847	0	0	0	12	12	28	303	31	7	369	69	238	407	16	730	1958
% App. Total	11.8	87.4	0.1	0.7		0	0	0	100		7.6	82.1	8.4	1.9		9.5	32.6	55.8	2.2		
PHF	833	881	250	375	913	000	000	000	760	760	700	881	646	438	813	719	735	908	667	899	934
Cars	96	733	1	6	836	0	0	0	12	12	28	293	31	7	359	69	231	401	16	717	1924
% Cars	96.0	99.1	100	100	98.7	0	0	0	100	100	100	96.7	100	100	97.3	100	97.1	98.5	100	98.2	98.3
Trucks	4	7	0	0	11	0	0	0	0	0	0	10	0	0	10	0	7	6	0	13	34
% Trucks	4.0	0.9	0	0	1.3	0	0	0	0	0	0	3.3	0	0	2.7	0	2.9	1.5	0	1.8	1.7



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #6 WalkerSt@MLKjrDrAM

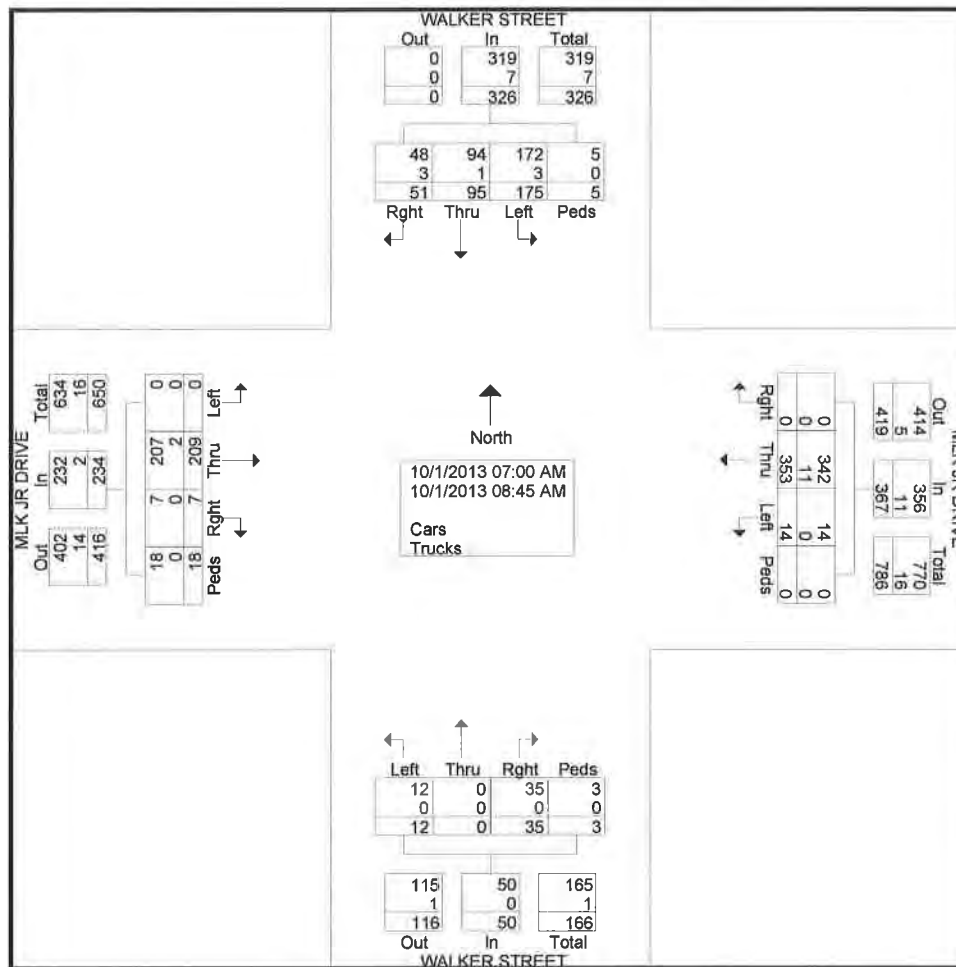
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	WALKER STREET Southbound					MLK JR DRIVE Westbound					WALKER STREET Northbound					MLK JR DRIVE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	16	5	3	0	24	3	11	0	0	14	0	0	0	0	0	0	4	1	0	5	43
07:15 AM	8	7	5	0	20	1	25	0	0	26	0	0	0	0	0	0	16	0	2	18	64
07:30 AM	12	11	4	1	28	2	25	0	0	27	0	0	2	0	2	0	16	0	1	17	74
07:45 AM	26	16	7	0	49	2	42	0	0	44	2	0	4	0	6	0	23	2	3	28	127
Total	62	39	19	1	121	8	103	0	0	111	2	0	6	0	8	0	59	3	6	68	308
08:00 AM	34	18	2	0	54	1	53	0	0	54	1	0	6	1	8	0	17	0	5	22	138
08:15 AM	27	7	9	0	43	4	62	0	0	66	2	0	2	1	5	0	30	1	2	33	147
08:30 AM	23	14	11	2	50	0	60	0	0	60	3	0	11	0	14	0	44	2	0	46	170
08:45 AM	29	17	10	2	58	1	75	0	0	76	4	0	10	1	15	0	59	1	5	65	214
Total	113	56	32	4	205	6	250	0	0	256	10	0	29	3	42	0	150	4	12	166	669
Grand Total	175	95	51	5	326	14	353	0	0	367	12	0	35	3	50	0	209	7	18	234	977
Apprch %	53.7	29.1	15.6	1.5		3.8	96.2	0	0		24	0	70	6		0	89.3	3	7.7		
Total %	17.9	9.7	5.2	0.5	33.4	1.4	36.1	0	0	37.6	1.2	0	3.6	0.3	5.1	0	21.4	0.7	1.8	24	
Cars	172	94	48	5	319	14	342	0	0	356	12	0	35	3	50	0	207	7	18	232	957
% Cars	98.3	98.9	94.1	100	97.9	100	96.9	0	0	97	100	0	100	100	100	0	99	100	100	99.1	98
Trucks	3	1	3	0	7	0	11	0	0	11	0	0	0	0	0	0	2	0	0	2	20
% Trucks	1.7	1.1	5.9	0	2.1	0	3.1	0	0	3	0	0	0	0	0	0	1	0	0	0.9	2



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

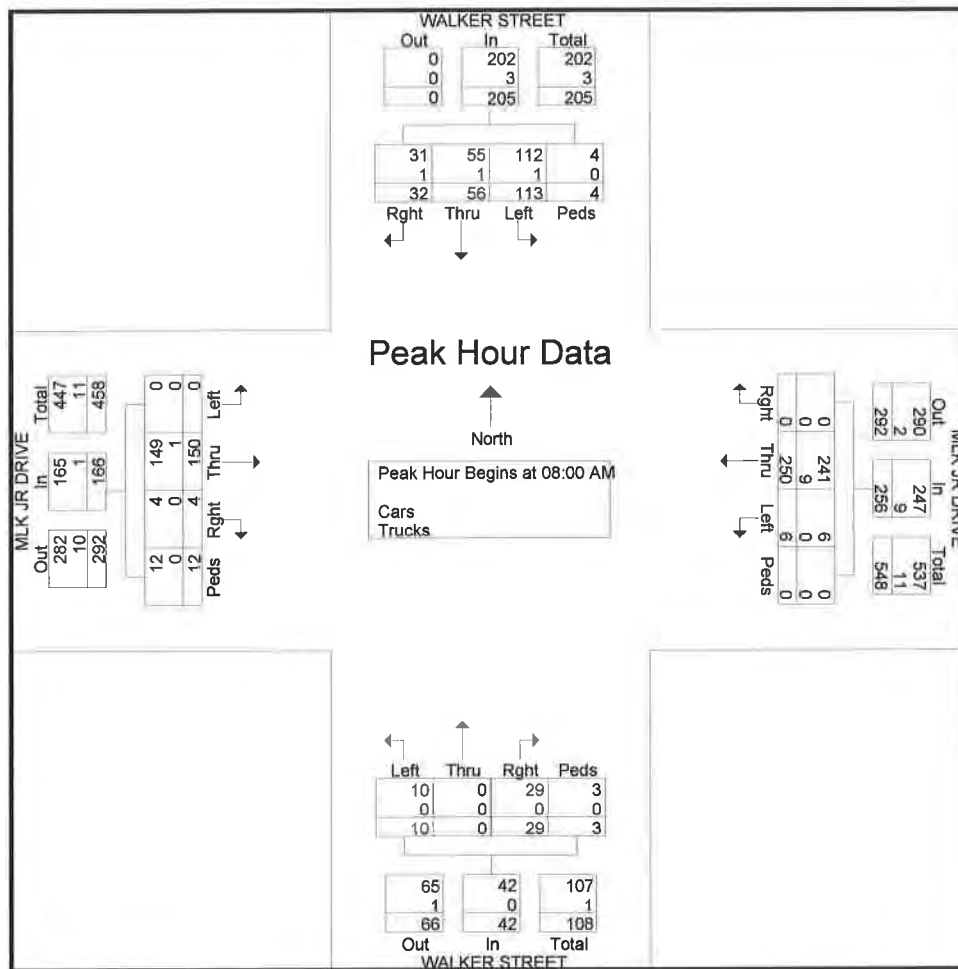
File Name : #6 WalkerSt@MLKjrDrAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	WALKER STREET Southbound					MLK JR DRIVE Westbound					WALKER STREET Northbound					MLK JR DRIVE Eastbound					
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	34	18	2	0	54	1	53	0	0	54	1	0	6	1	8	0	17	0	5	22	138
08:15 AM	27	7	9	0	43	4	62	0	0	66	2	0	2	1	5	0	30	1	2	33	147
08:30 AM	23	14	11	2	50	0	60	0	0	60	3	0	11	0	14	0	44	2	0	46	170
08:45 AM	29	17	10	2	58	1	75	0	0	76	4	0	10	1	15	0	59	1	5	65	214
Total Volume	113	56	32	4	205	6	250	0	0	256	10	0	29	3	42	0	150	4	12	166	669
% App. Total	55.1	27.3	15.6	2		2.3	97.7	0	0		23.8	0	69	7.1		0	90.4	2.4	7.2		
PHF	.831	.778	.727	.500	.884	.375	.833	.000	.000	.842	.625	.000	.659	.750	.700	.000	.636	.500	.600	.638	.782
Cars	112	55	31	4	202	6	241	0	0	247	10	0	29	3	42	0	149	4	12	165	656
% Cars	99.1	98.2	96.9	100	98.5	100	96.4	0	0	96.5	100	0	100	100	100	0	99.3	100	100	99.4	98.1
Trucks	1	1	1	0	3	0	9	0	0	9	0	0	0	0	0	0	1	0	0	1	13
% Trucks	0.9	1.8	3.1	0	1.5	0	3.6	0	0	3.5	0	0	0	0	0	0	0.7	0	0	0.6	1.9



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #6 WalkerSt@MLKjrDrPM

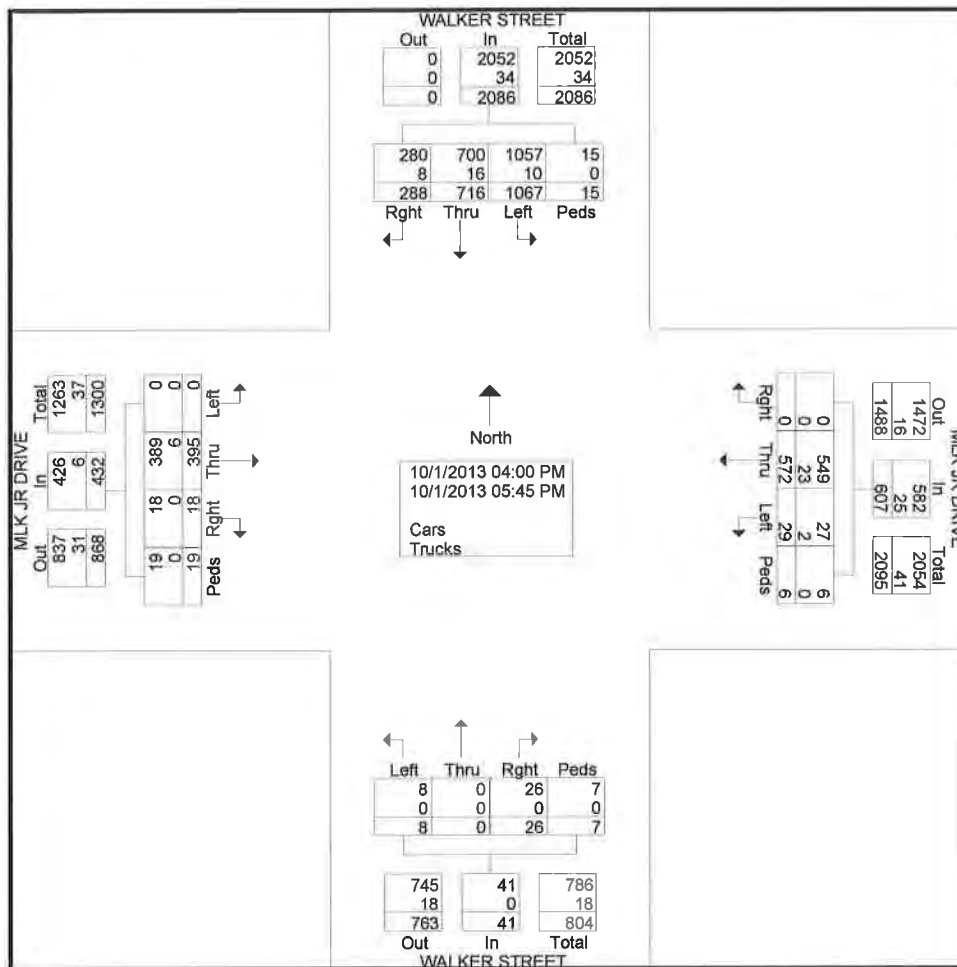
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	WALKER STREET Southbound					MLK JR DRIVE Westbound					WALKER STREET Northbound					MLK JR DRIVE Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	102	62	23	0	187	2	66	0	0	68	0	0	7	0	7	0	44	1	1	46	308
04:15 PM	104	75	31	2	212	6	77	0	0	83	1	0	2	1	4	0	47	2	0	49	348
04:30 PM	119	70	35	1	225	3	62	0	1	66	2	0	5	0	7	0	53	1	3	57	355
04:45 PM	97	59	34	0	190	4	72	0	0	76	1	0	0	0	1	0	52	2	2	56	323
Total	422	266	123	3	814	15	277	0	1	293	4	0	14	1	19	0	196	6	6	208	1334
05:00 PM	139	119	32	1	291	4	59	0	2	65	0	0	5	0	5	0	42	2	2	46	407
05:15 PM	176	102	40	5	323	2	83	0	2	87	1	0	5	0	6	0	51	5	6	62	478
05:30 PM	162	97	41	1	301	5	78	0	0	83	0	0	0	5	5	0	51	1	4	56	445
05:45 PM	168	132	52	5	357	3	75	0	1	79	3	0	2	1	6	0	55	4	1	60	502
Total	645	450	165	12	1272	14	295	0	5	314	4	0	12	6	22	0	199	12	13	224	1832
Grand Total	1067	716	288	15	2086	29	572	0	6	607	8	0	26	7	41	0	395	18	19	432	3166
Apprch %	51.2	34.3	13.8	0.7		4.8	94.2	0	1		19.5	0	63.4	17.1		0	91.4	4.2	4.4		
Total %	33.7	22.6	9.1	0.5	65.9	0.9	18.1	0	0.2	19.2	0.3	0	0.8	0.2	1.3	0	12.5	0.6	0.6	13.6	
Cars	1057	700	280	15	2052	27	549	0	6	582	8	0	26	7	41	0	389	18	19	426	3101
% Cars	99.1	97.8	97.2	100	98.4	93.1	96	0	100	95.9	100	0	100	100	100	0	98.5	100	100	98.6	97.9
Trucks	10	16	8	0	34	2	23	0	0	25	0	0	0	0	0	0	6	0	0	6	65
% Trucks	0.9	2.2	2.8	0	1.6	6.9	4	0	0	4.1	0	0	0	0	0	0	1.5	0	0	1.4	2.1



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

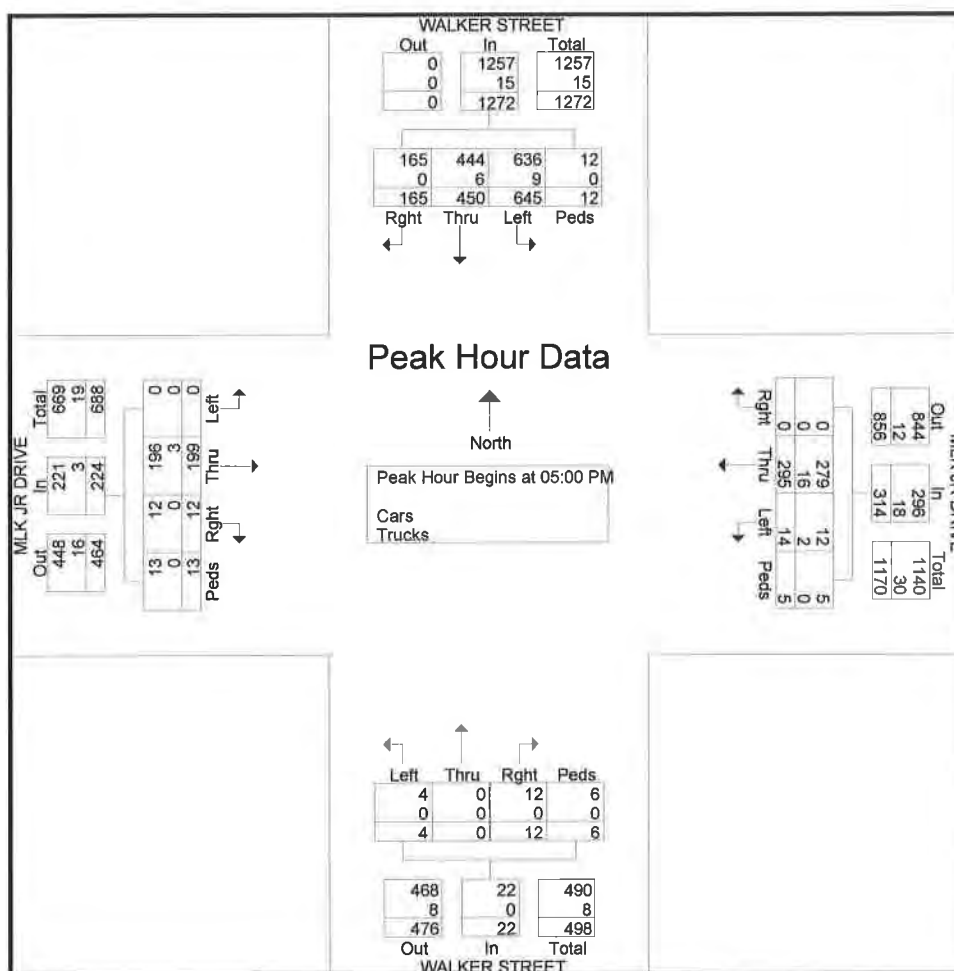
File Name : #6 WalkerSt@MLKjrDrPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	WALKER STREET Southbound					MLK JR DRIVE Westbound					WALKER STREET Northbound					MLK JR DRIVE Eastbound					
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 05:00 PM																					
05:00 PM	139	119	32	1	291	4	59	0	2	65	0	0	5	0	5	0	42	2	2	46	407
05:15 PM	176	102	40	5	323	2	83	0	2	87	1	0	5	0	6	0	51	5	6	62	478
05:30 PM	162	97	41	1	301	5	78	0	0	83	0	0	0	5	5	0	51	1	4	56	445
05:45 PM	168	132	52	5	357	3	75	0	1	79	3	0	2	1	6	0	55	4	1	60	502
Total Volume	645	450	165	12	1272	14	295	0	5	314	4	0	12	6	22	0	199	12	13	224	1832
% App. Total	50.7	35.4	13	0.9		4.5	93.9	0	1.6		18.2	0	54.5	27.3		0	88.8	5.4	5.8		
PHF	916	852	793	600	891	700	889	000	625	902	333	000	600	300	917	000	905	600	542	903	912
Cars	636	444	165	12	1257	12	279	0	5	296	4	0	12	6	22	0	196	12	13	221	1796
% Cars	98.6	98.7	100	100	98.8	85.7	94.6	0	100	94.3	100	0	100	100	100	0	98.5	100	100	98.7	98.0
Trucks	9	6	0	0	15	2	16	0	0	18	0	0	0	0	0	0	3	0	0	3	36
% Trucks	1.4	1.3	0	0	1.2	14.3	5.4	0	0	5.7	0	0	0	0	0	0	1.5	0	0	1.3	2.0



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #7 MitchellSt@MLKjrDrAM

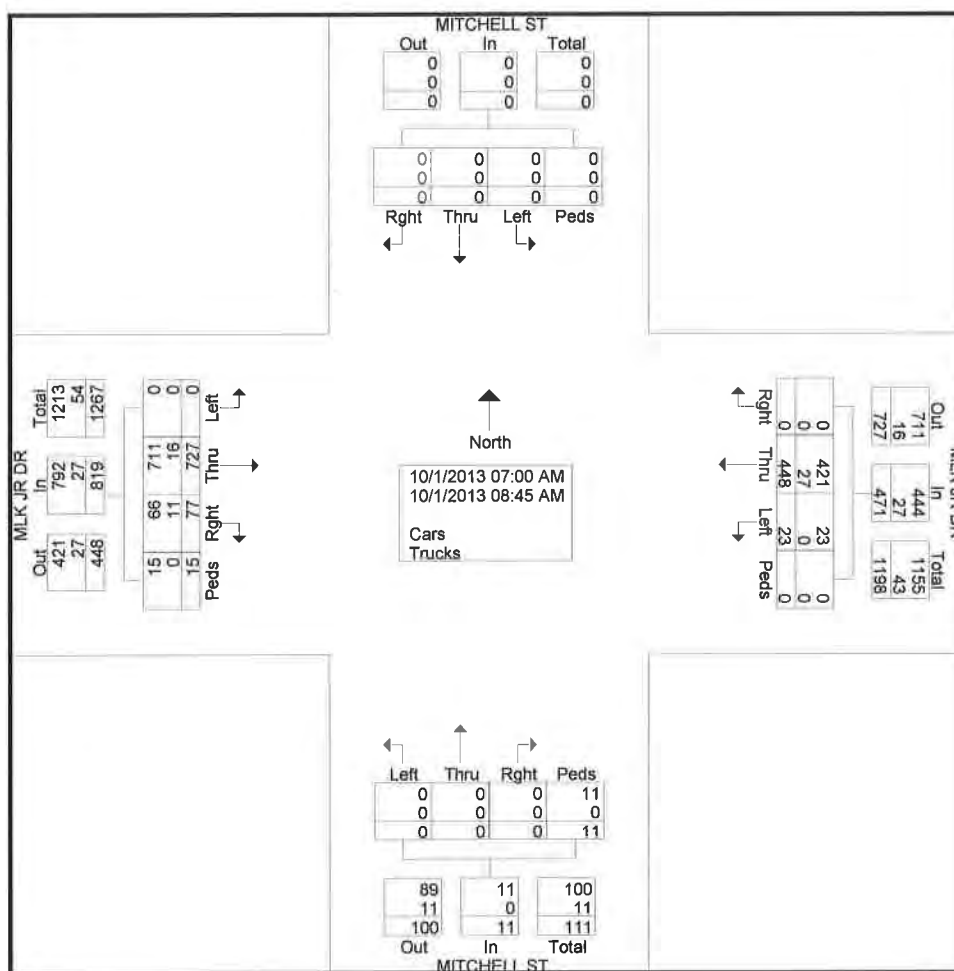
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	MITCHELL ST Southbound					MLK JR DR Westbound					MITCHELL ST Northbound					MLK JR DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	0	0	0	0	2	18	0	0	20	0	0	0	1	1	0	50	4	0	54	75
07:15 AM	0	0	0	0	0	0	31	0	0	31	0	0	0	0	0	0	54	3	0	57	88
07:30 AM	0	0	0	0	0	1	64	0	0	65	0	0	0	0	0	0	91	5	3	99	164
07:45 AM	0	0	0	0	0	3	75	0	0	78	0	0	0	1	1	0	107	15	2	124	203
Total	0	0	0	0	0	6	188	0	0	194	0	0	0	2	2	0	302	27	5	334	530
08:00 AM	0	0	0	0	0	7	64	0	0	71	0	0	0	3	3	0	90	5	4	99	173
08:15 AM	0	0	0	0	0	5	71	0	0	76	0	0	0	2	2	0	111	19	1	131	209
08:30 AM	0	0	0	0	0	2	59	0	0	61	0	0	0	1	1	0	124	16	2	142	204
08:45 AM	0	0	0	0	0	3	66	0	0	69	0	0	0	3	3	0	100	10	3	113	185
Total	0	0	0	0	0	17	260	0	0	277	0	0	0	9	9	0	425	50	10	485	771
Grand Total	0	0	0	0	0	23	448	0	0	471	0	0	0	11	11	0	727	77	15	819	1301
Apprch %	0	0	0	0	0	4.9	95.1	0	0	0	0	0	0	100	0	0	88.8	9.4	1.8	0	0
Total %	0	0	0	0	0	1.8	34.4	0	0	36.2	0	0	0	0.8	0.8	0	55.9	5.9	1.2	63	0
Cars	0	0	0	0	0	23	421	0	0	444	0	0	0	11	11	0	711	66	15	792	1247
% Cars	0	0	0	0	0	100	94	0	0	94.3	0	0	0	100	100	0	97.8	85.7	100	96.7	95.8
Trucks	0	0	0	0	0	0	27	0	0	27	0	0	0	0	0	0	16	11	0	27	54
% Trucks	0	0	0	0	0	0	6	0	0	5.7	0	0	0	0	0	0	2.2	14.3	0	3.3	4.2



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

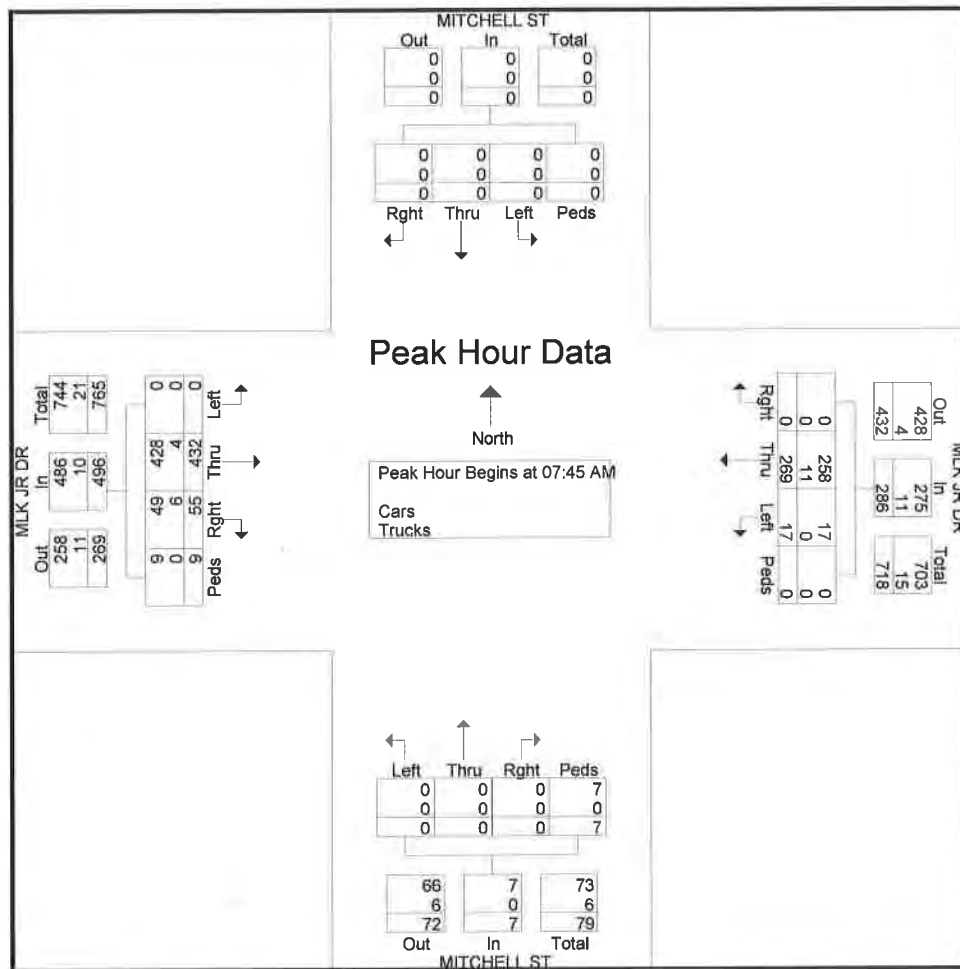
File Name : #7 MitchellSt@MLKjrDrAM

Site Code :

Start Date : 10/1/2013

Page No : 2

	MITCHELL ST Southbound					MLK JR DR Westbound					MITCHELL ST Northbound					MLK JR DR Eastbound					
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 07:45 AM																					
07:45 AM	0	0	0	0	0	3	75	0	0	78	0	0	0	1	1	0	107	15	2	124	203
08:00 AM	0	0	0	0	0	7	64	0	0	71	0	0	0	3	3	0	90	5	4	99	173
08:15 AM	0	0	0	0	0	5	71	0	0	76	0	0	0	2	2	0	111	19	1	131	209
08:30 AM	0	0	0	0	0	2	59	0	0	61	0	0	0	1	1	0	124	16	2	142	204
Total Volume	0	0	0	0	0	17	269	0	0	286	0	0	0	7	7	0	432	55	9	496	789
% App. Total	0	0	0	0	0	5.9	94.1	0	0	0	0	0	0	100	0	0	87.1	11.1	1.8	0	0
PHF	.000	.000	.000	.000	.000	.607	.897	.000	.000	.917	.000	.000	.000	.583	.583	.000	.871	.724	.563	.873	.944
Cars	0	0	0	0	0	17	258	0	0	275	0	0	0	7	7	0	428	49	9	486	768
% Cars	0	0	0	0	0	100	95.9	0	0	96.2	0	0	0	100	100	0	99.1	89.1	100	98.0	97.3
Trucks	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	0	4	6	0	10	21
% Trucks	0	0	0	0	0	0	4.1	0	0	3.8	0	0	0	0	0	0	0.9	10.9	0	2.0	2.7



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #7 MitchellSt@MLKjrDrPM

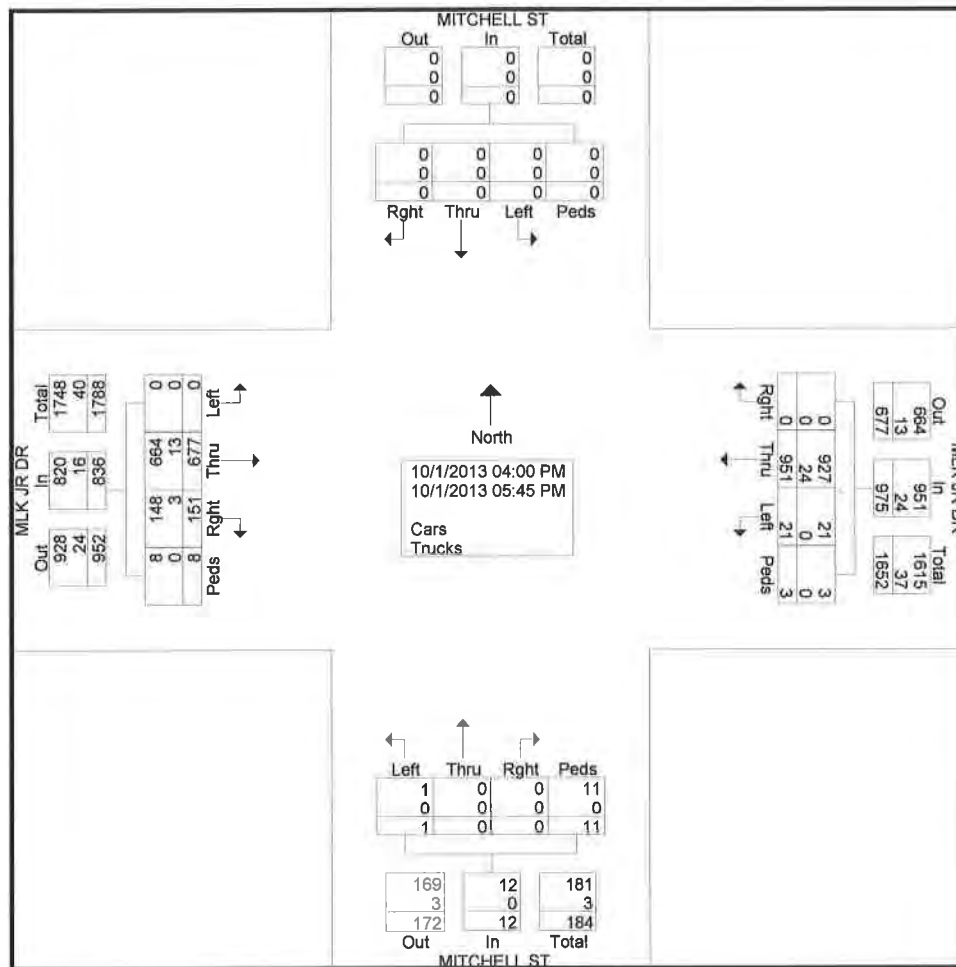
Site Code :

Start Date : 10/1/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	MITCHELL ST Southbound					MLK JR DR Westbound					MITCHELL ST Northbound					MLK JR DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	0	0	0	0	0	2	95	0	0	97	0	0	0	2	2	0	71	10	3	84	183
04:15 PM	0	0	0	0	0	2	102	0	0	104	0	0	0	0	0	0	87	22	0	109	213
04:30 PM	0	0	0	0	0	4	132	0	2	138	0	0	0	0	0	0	79	24	0	103	241
04:45 PM	0	0	0	0	0	4	115	0	0	119	0	0	0	1	1	0	84	17	1	102	222
Total	0	0	0	0	0	12	444	0	2	458	0	0	0	3	3	0	321	73	4	398	859
05:00 PM	0	0	0	0	0	2	123	0	1	126	0	0	0	3	3	0	88	16	1	105	234
05:15 PM	0	0	0	0	0	5	146	0	0	151	1	0	0	2	3	0	107	19	0	126	280
05:30 PM	0	0	0	0	0	1	131	0	0	132	0	0	0	2	2	0	76	17	3	96	230
05:45 PM	0	0	0	0	0	1	107	0	0	108	0	0	0	1	1	0	85	26	0	111	220
Total	0	0	0	0	0	9	507	0	1	517	1	0	0	8	9	0	356	78	4	438	964
Grand Total	0	0	0	0	0	21	951	0	3	975	1	0	0	11	12	0	677	151	8	836	1823
Apprch %	0	0	0	0	0	2.2	97.5	0	0.3	97.8	8.3	0	0	91.7	92.0	0	81	18.1	1	82.9	
Total %	0	0	0	0	0	1.2	52.2	0	0.2	53.5	0.1	0	0	0.6	0.7	0	37.1	8.3	0.4	45.9	
Cars	0	0	0	0	0	21	927	0	3	951	1	0	0	11	12	0	664	148	8	820	1783
% Cars	0	0	0	0	0	100	97.5	0	100	97.5	100	0	0	100	100	0	98.1	98	100	98.1	97.8
Trucks	0	0	0	0	0	0	24	0	0	24	0	0	0	0	0	0	13	3	0	16	40
% Trucks	0	0	0	0	0	0	2.5	0	0	2.5	0	0	0	0	0	0	1.9	2	0	1.9	2.2



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

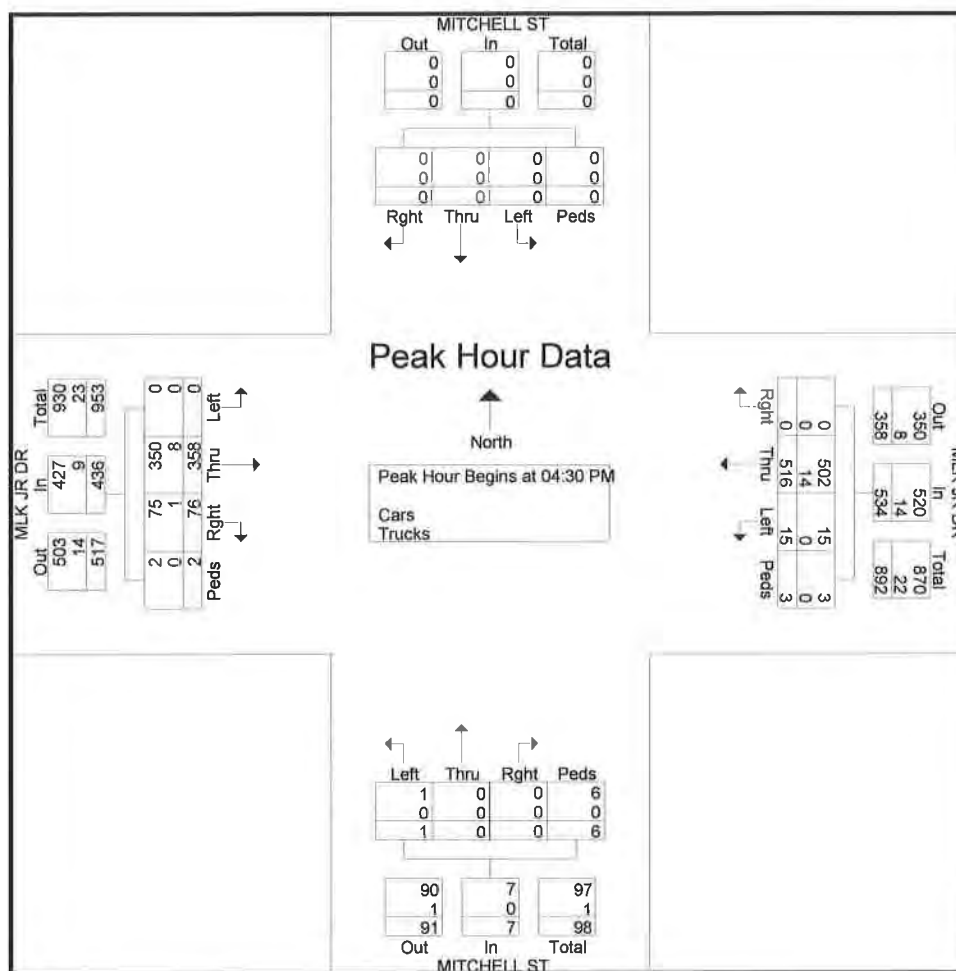
File Name : #7 MitchellSt@MLKjrDrPM

Site Code :

Start Date : 10/1/2013

Page No : 2

	MITCHELL ST Southbound					MLK JR DR Westbound					MITCHELL ST Northbound					MLK JR DR Eastbound					
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	0	0	0	0	4	132	0	2	138	0	0	0	0	0	0	79	24	0	103	241
04:45 PM	0	0	0	0	0	4	115	0	0	119	0	0	0	1	1	0	84	17	1	102	222
05:00 PM	0	0	0	0	0	2	123	0	1	126	0	0	0	3	3	0	88	16	1	105	234
05:15 PM	0	0	0	0	0	5	146	0	0	151	1	0	0	2	3	0	107	19	0	126	280
Total Volume	0	0	0	0	0	15	516	0	3	534	1	0	0	6	7	0	358	76	2	436	977
% App. Total	0	0	0	0	0	2.8	96.6	0	0.6	100	14.3	0	0	85.7	100	0	82.1	17.4	0.5	100	100
PHF	.000	.000	.000	.000	.000	.750	.884	.000	.375	.884	.250	.000	.000	.500	.583	.000	.836	.792	.500	.865	.872
Cars	0	0	0	0	0	15	502	0	3	520	1	0	0	6	7	0	350	75	2	427	954
% Cars	0	0	0	0	0	100	97.3	0	100	97.4	100	0	0	100	100	0	97.8	98.7	100	97.9	97.6
Trucks	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	8	1	0	9	23
% Trucks	0	0	0	0	0	0	2.7	0	0	2.6	0	0	0	0	0	0	2.2	1.3	0	2.1	2.4



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #1 WalnutSt@MartinLutherKingJrDrAM

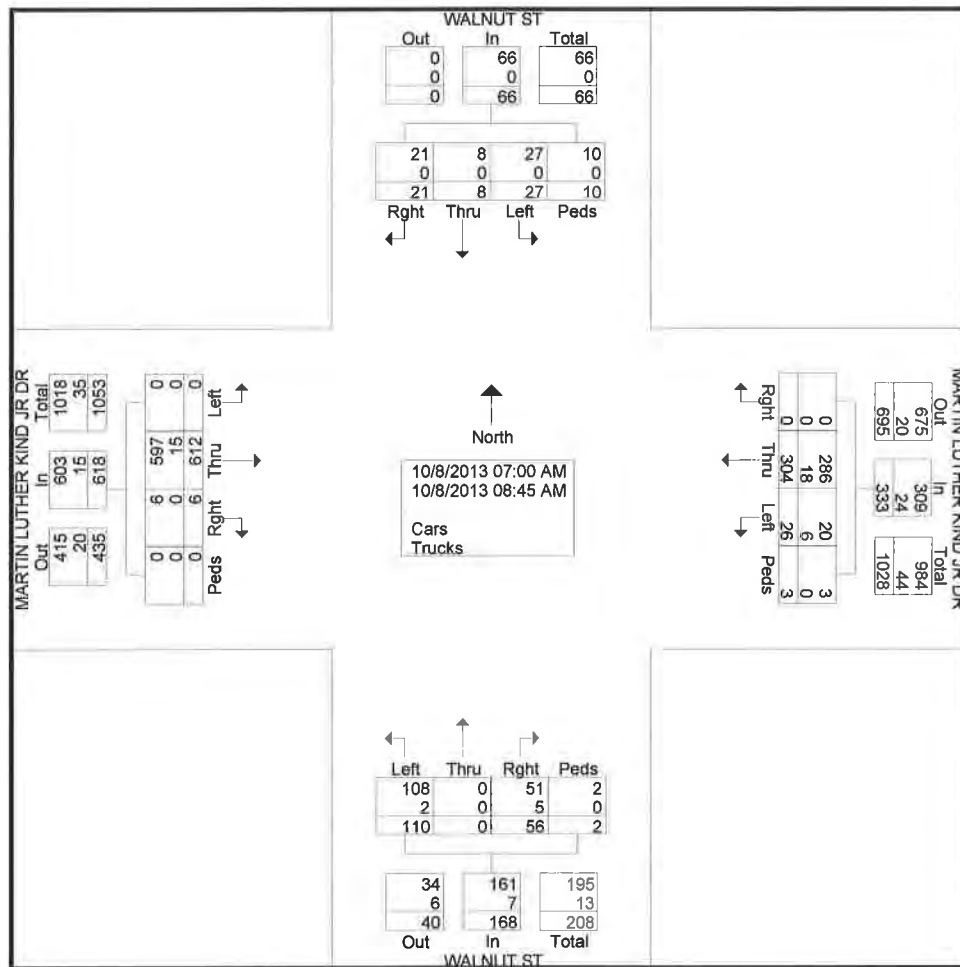
Site Code :

Start Date : 10/8/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	WALNUT ST Southbound					MARTIN LUTHER KING JR DR Westbound					WALNUT ST Northbound					MARTIN LUTHER KING JR DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	1	0	0	0	1	2	26	0	0	28	4	0	1	1	6	0	45	0	0	45	80
07:15 AM	3	0	1	2	6	1	38	0	0	39	2	0	2	0	4	0	61	0	0	61	110
07:30 AM	10	2	6	4	22	6	47	0	1	54	17	0	9	0	26	0	84	2	0	86	188
07:45 AM	10	6	12	1	29	6	41	0	1	48	16	0	4	1	21	0	107	2	0	109	207
Total	24	8	19	7	58	15	152	0	2	169	39	0	16	2	57	0	297	4	0	301	585
08:00 AM	3	0	1	1	5	4	57	0	0	61	22	0	11	0	33	0	92	1	0	93	192
08:15 AM	0	0	0	1	1	4	38	0	0	42	27	0	12	0	39	0	104	0	0	104	186
08:30 AM	0	0	0	1	1	2	28	0	0	30	10	0	9	0	19	0	55	0	0	55	105
08:45 AM	0	0	1	0	1	1	29	0	1	31	12	0	8	0	20	0	64	1	0	65	117
Total	3	0	2	3	8	11	152	0	1	164	71	0	40	0	111	0	315	2	0	317	600
Grand Total	27	8	21	10	66	26	304	0	3	333	110	0	56	2	168	0	612	6	0	618	1185
Apprch %	40.9	12.1	31.8	15.2		7.8	91.3	0	0.9		65.5	0	33.3	1.2		0	99	1	0		
Total %	2.3	0.7	1.8	0.8	5.6	2.2	25.7	0	0.3	28.1	9.3	0	4.7	0.2	14.2	0	51.6	0.5	0	52.2	
Cars	27	8	21	10	66	20	286	0	3	309	108	0	51	2	161	0	597	6	0	603	1139
% Cars	100	100	100	100	100	76.9	94.1	0	100	92.8	98.2	0	91.1	100	95.8	0	97.5	100	0	97.6	96.1
Trucks	0	0	0	0	0	6	18	0	0	24	2	0	5	0	7	0	15	0	0	15	46
% Trucks	0	0	0	0	0	23.1	5.9	0	0	7.2	1.8	0	8.9	0	4.2	0	2.5	0	0	2.4	3.9



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

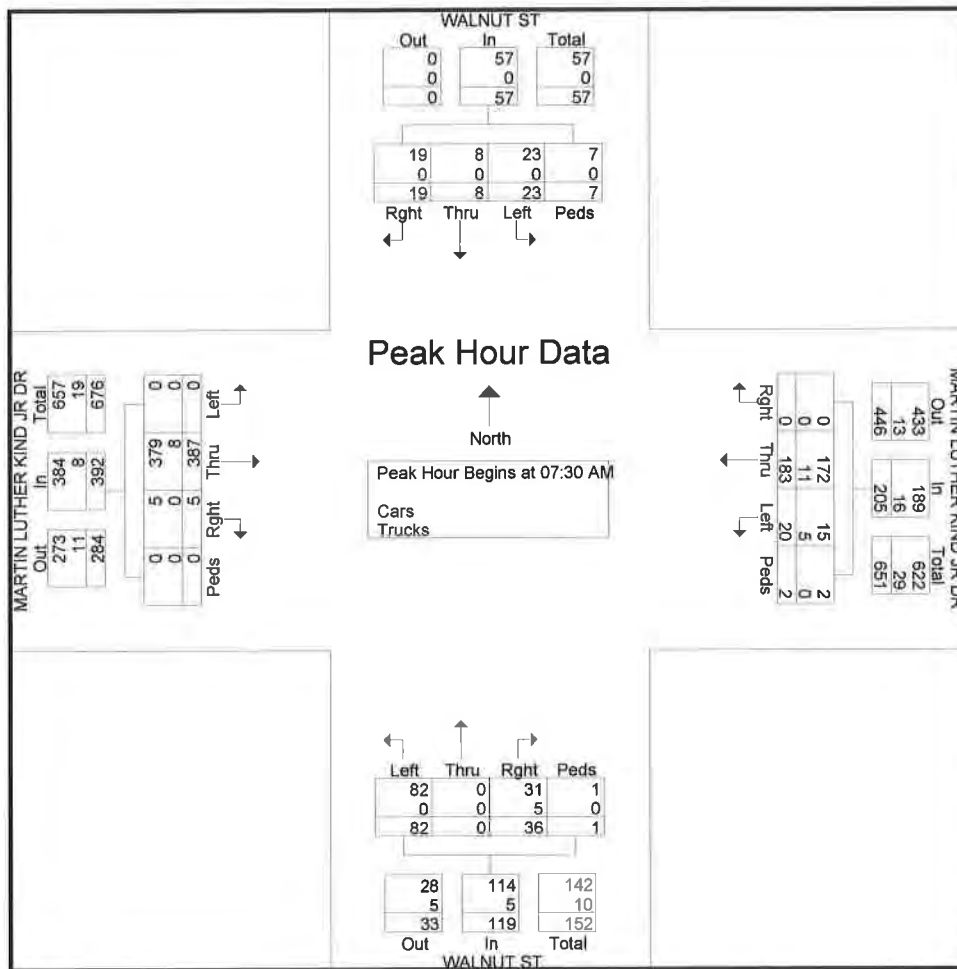
File Name : #1 WalnutSt@MartinLutherKingJrDrAM

Site Code :

Start Date : 10/8/2013

Page No : 2

	WALNUT ST Southbound					MARTIN LUTHER KING JR DR Westbound					WALNUT ST Northbound					MARTIN LUTHER KING JR DR Eastbound					
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	10	2	6	4	22	6	47	0	1	54	17	0	9	0	26	0	84	2	0	86	188
07:45 AM	10	6	12	1	29	6	41	0	1	48	16	0	4	1	21	0	107	2	0	109	207
08:00 AM	3	0	1	1	5	4	57	0	0	61	22	0	11	0	33	0	92	1	0	93	192
08:15 AM	0	0	0	1	1	4	38	0	0	42	27	0	12	0	39	0	104	0	0	104	186
Total Volume	23	8	19	7	57	20	183	0	2	205	82	0	36	1	119	0	387	5	0	392	773
% App. Total	40.4	14	33.3	12.3		9.8	89.3	0	1		68.9	0	30.3	0.8		0	98.7	1.3	0		
PHF	.575	.333	.396	.438	.491	.833	.803	.000	.500	.840	.759	.000	.750	.250	.763	.000	.904	.625	.000	.899	.934
Cars	23	8	19	7	57	15	172	0	2	189	82	0	31	1	114	0	379	5	0	384	744
% Cars	100	100	100	100	100	75.0	94.0	0	100	92.2	100	0	86.1	100	95.8	0	97.9	100	0	98.0	96.2
Trucks	0	0	0	0	0	5	11	0	0	16	0	0	5	0	5	0	8	0	0	8	29
% Trucks	0	0	0	0	0	25.0	6.0	0	0	7.8	0	0	13.9	0	4.2	0	2.1	0	0	2.0	3.8



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #1 WalnutSt@MartinLutherKingJrDrPM

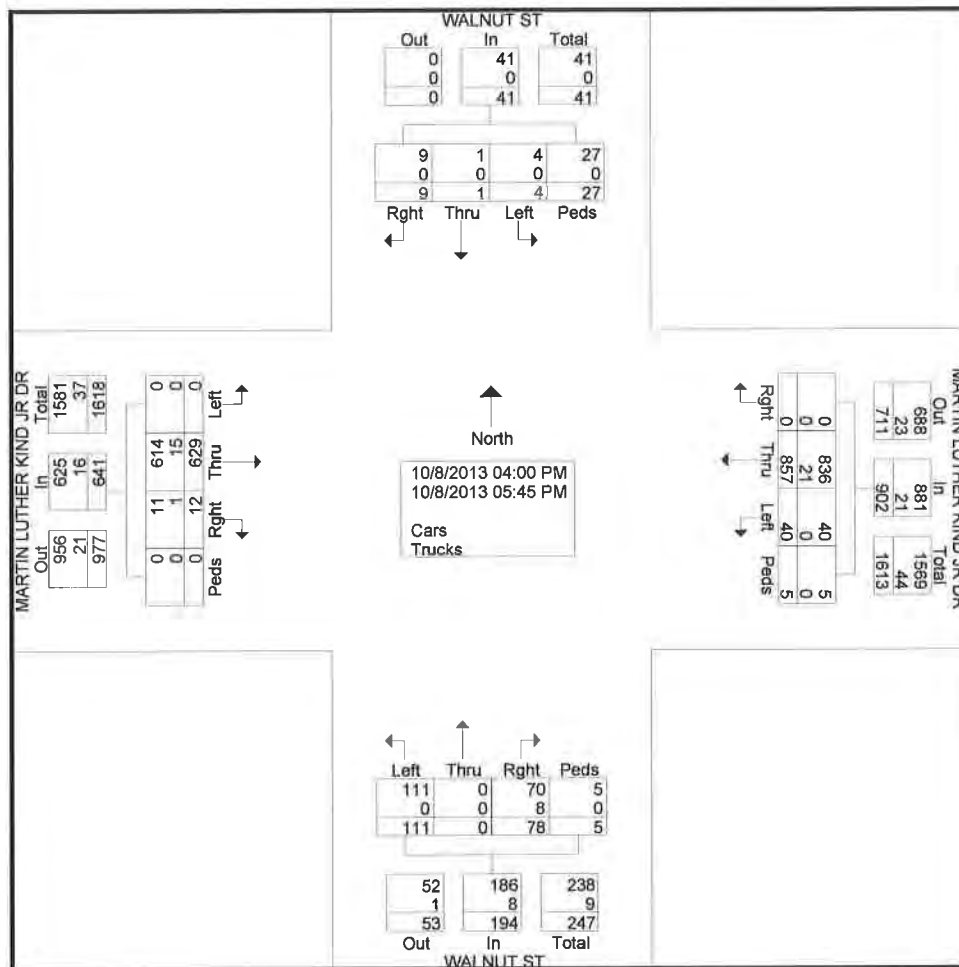
Site Code :

Start Date : 10/8/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	WALNUT ST Southbound					MARTIN LUTHER KIND JR DR Westbound					WALNUT ST Northbound					MARTIN LUTHER KIND JR DR Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	1	0	3	1	5	7	100	0	0	107	14	0	7	0	21	0	59	2	0	61	194
04:15 PM	0	0	0	7	7	4	106	0	1	111	10	0	6	2	18	0	63	1	0	64	200
04:30 PM	0	0	0	2	2	2	100	0	0	102	10	0	12	0	22	0	72	1	0	73	199
04:45 PM	2	0	1	2	5	5	108	0	2	115	11	0	7	1	19	0	76	0	0	76	215
Total	3	0	4	12	19	18	414	0	3	435	45	0	32	3	80	0	270	4	0	274	808
05:00 PM	0	1	3	5	9	7	105	0	0	112	19	0	11	0	30	0	91	2	0	93	244
05:15 PM	1	0	1	5	7	2	117	0	1	120	17	0	14	0	31	0	93	2	0	95	253
05:30 PM	0	0	0	1	1	5	119	0	1	125	9	0	11	2	22	0	86	1	0	87	235
05:45 PM	0	0	1	4	5	8	102	0	0	110	21	0	10	0	31	0	89	3	0	92	238
Total	1	1	5	15	22	22	443	0	2	467	66	0	46	2	114	0	359	8	0	367	970
Grand Total	4	1	9	27	41	40	857	0	5	902	111	0	78	5	194	0	629	12	0	641	1778
Apprch %	9.8	2.4	22	65.9		4.4	95	0	0.6		57.2	0	40.2	2.6		0	98.1	1.9	0		
Total %	0.2	0.1	0.5	1.5	2.3	2.2	48.2	0	0.3	50.7	6.2	0	4.4	0.3	10.9	0	35.4	0.7	0	36.1	
Cars	4	1	9	27	41	40	836	0	5	881	111	0	70	5	186	0	614	11	0	625	1733
% Cars	100	100	100	100	100	100	97.5	0	100	97.7	100	0	89.7	100	95.9	0	97.6	91.7	0	97.5	97.5
Trucks	0	0	0	0	0	0	21	0	0	21	0	0	8	0	8	0	15	1	0	16	45
% Trucks	0	0	0	0	0	0	2.5	0	0	2.3	0	0	10.3	0	4.1	0	2.4	8.3	0	2.5	2.5



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

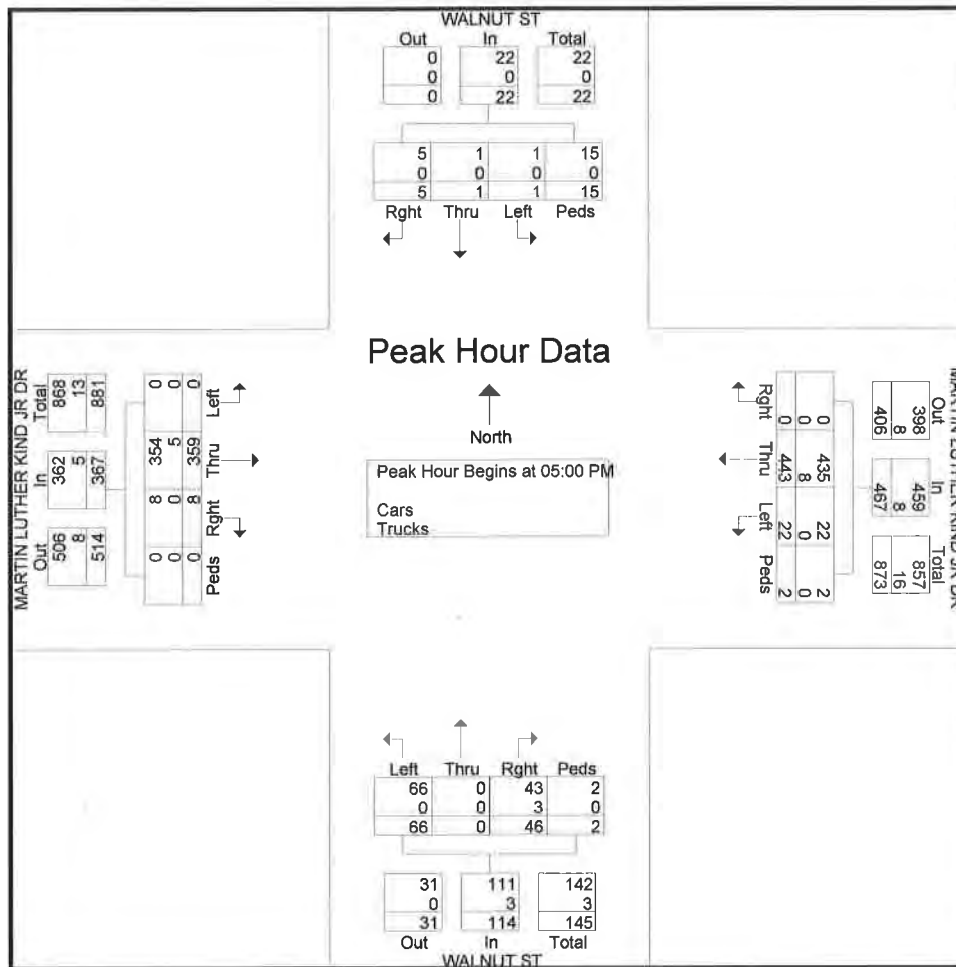
File Name : #1 WalnutSt@MartinLutherKingJrDrPM

Site Code :

Start Date : 10/8/2013

Page No : 2

	WALNUT ST Southbound					MARTIN LUTHER KIND JR DR Westbound					WALNUT ST Northbound					MARTIN LUTHER KIND JR DR Eastbound					
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 05:00 PM																					
05:00 PM	0	1	3	5	9	7	105	0	0	112	19	0	11	0	30	0	91	2	0	93	244
05:15 PM	1	0	1	5	7	2	117	0	1	120	17	0	14	0	31	0	93	2	0	95	253
05:30 PM	0	0	0	1	1	5	119	0	1	125	9	0	11	2	22	0	86	1	0	87	235
05:45 PM	0	0	1	4	5	8	102	0	0	110	21	0	10	0	31	0	89	3	0	92	238
Total Volume	1	1	5	15	22	22	443	0	2	467	66	0	46	2	114	0	359	8	0	367	970
% App. Total	4.5	4.5	22.7	68.2		4.7	94.9	0	0.4		57.9	0	40.4	1.8		0	97.8	2.2	0		
PHF	.250	.250	.417	.750	.611	.688	.931	.000	.500	.934	.786	.000	.821	.250	.919	.000	.965	.667	.000	.966	.958
Cars	1	1	5	15	22	22	435	0	2	459	66	0	43	2	111	0	354	8	0	362	954
% Cars	100	100	100	100	100	100	98.2	0	100	98.3	100	0	93.5	100	97.4	0	98.6	100	0	98.6	98.4
Trucks	0	0	0	0	0	0	8	0	0	8	0	0	3	0	3	0	5	0	0	5	16
% Trucks	0	0	0	0	0	0	1.8	0	0	1.7	0	0	6.5	0	2.6	0	1.4	0	0	1.4	1.6



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #2 WalnutSt@MitchellSt-TatnallStAM

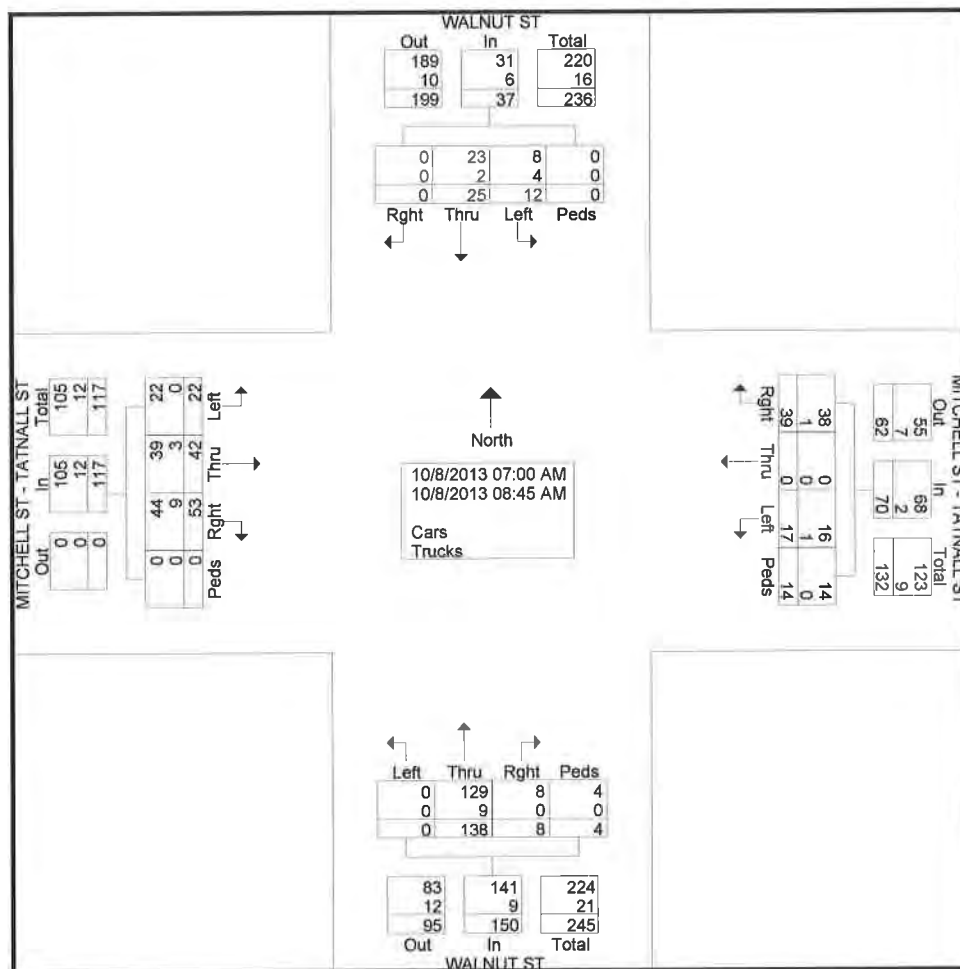
Site Code :

Start Date : 10/8/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	WALNUT ST Southbound					MITCHELL ST - TATNALL ST Westbound					WALNUT ST Northbound					MITCHELL ST - TATNALL ST Eastbound					Intl Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
07:00 AM	0	2	0	0	2	1	0	1	0	2	0	4	0	1	5	0	6	3	0	9	18
07:15 AM	1	0	0	0	1	1	0	0	1	2	0	3	0	0	3	1	1	1	0	3	9
07:30 AM	4	5	0	0	9	1	0	2	2	5	0	22	0	2	24	2	3	3	0	8	46
07:45 AM	2	11	0	0	13	2	0	5	6	13	0	15	1	0	16	1	5	11	0	17	59
Total	7	18	0	0	25	5	0	8	9	22	0	44	1	3	48	4	15	18	0	37	132
08:00 AM	3	2	0	0	5	7	0	8	1	16	0	23	0	1	24	6	5	7	0	18	63
08:15 AM	0	3	0	0	3	2	0	6	1	9	0	31	2	0	33	6	10	11	0	27	72
08:30 AM	1	2	0	0	3	1	0	6	1	8	0	19	4	0	23	4	4	11	0	19	53
08:45 AM	1	0	0	0	1	2	0	11	2	15	0	21	1	0	22	2	8	6	0	16	54
Total	5	7	0	0	12	12	0	31	5	48	0	94	7	1	102	18	27	35	0	80	242
Grand Total	12	25	0	0	37	17	0	39	14	70	0	138	8	4	150	22	42	53	0	117	374
Apprch %	32.4	67.6	0	0		24.3	0	55.7	20		0	92	5.3	2.7		18.8	35.9	45.3	0		
Total %	3.2	6.7	0	0	9.9	4.5	0	10.4	3.7	18.7	0	36.9	2.1	1.1	40.1	5.9	11.2	14.2	0	31.3	
Cars	8	23	0	0	31	16	0	38	14	68	0	129	8	4	141	22	39	44	0	105	345
% Cars	66.7	92	0	0	83.8	94.1	0	97.4	100	97.1	0	93.5	100	100	94	100	92.9	83	0	89.7	92.2
Trucks	4	2	0	0	6	1	0	1	0	2	0	9	0	0	9	0	3	9	0	12	29
% Trucks	33.3	8	0	0	16.2	5.9	0	2.6	0	2.9	0	6.5	0	0	6	0	7.1	17	0	10.3	7.8



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

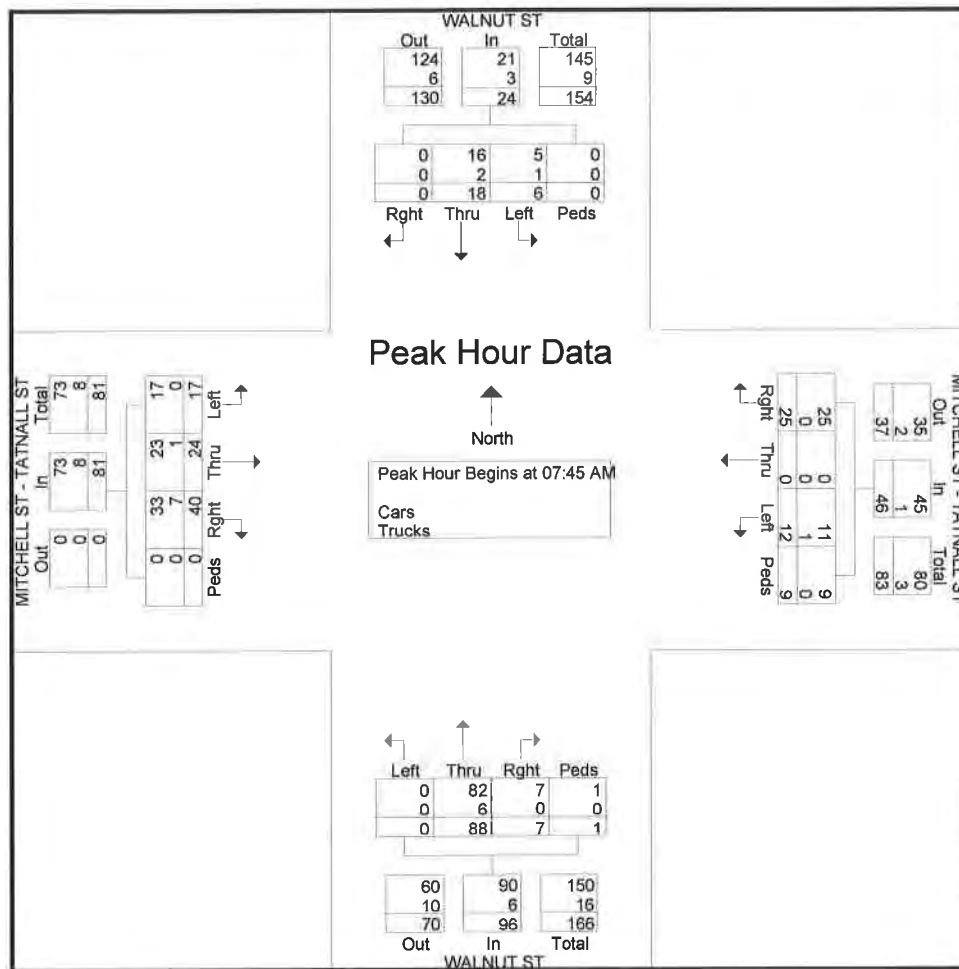
File Name : #2 WalnutSt@MitchellSt-TatnallStAM

Site Code :

Start Date : 10/8/2013

Page No : 2

	WALNUT ST Southbound					MITCHELL ST - TATNALL ST Westbound					WALNUT ST Northbound					MITCHELL ST - TATNALL ST Eastbound					
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 07:45 AM																					
07:45 AM	2	11	0	0	13	2	0	5	6	13	0	15	1	0	16	1	5	11	0	17	59
08:00 AM	3	2	0	0	5	7	0	8	1	16	0	23	0	1	24	6	5	7	0	18	63
08:15 AM	0	3	0	0	3	2	0	6	1	9	0	31	2	0	33	6	10	11	0	27	72
08:30 AM	1	2	0	0	3	1	0	6	1	8	0	19	4	0	23	4	4	11	0	19	53
Total Volume	6	18	0	0	24	12	0	25	9	46	0	88	7	1	96	17	24	40	0	81	247
% App. Total	25	75	0	0		26.1	0	54.3	19.6		0	91.7	7.3	1		21	29.6	49.4	0		
PHF	.500	.409	.000	.000	.462	.429	.000	.781	.375	.719	.000	.710	.438	.250	.727	.708	.600	.909	.000	.750	.858
Cars	5	16	0	0	21	11	0	25	9	45	0	82	7	1	90	17	23	33	0	73	229
% Cars	83.3	88.9	0	0	87.5	91.7	0	100	100	97.8	0	93.2	100	100	93.8	100	95.8	82.5	0	90.1	92.7
Trucks	1	2	0	0	3	1	0	0	0	1	0	6	0	0	6	0	1	7	0	8	18
% Trucks	16.7	11.1	0	0	12.5	8.3	0	0	0	2.2	0	6.8	0	0	6.3	0	4.2	17.5	0	9.9	7.3



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

File Name : #2 WalnutSt@MitchellSt-TatnallStPM

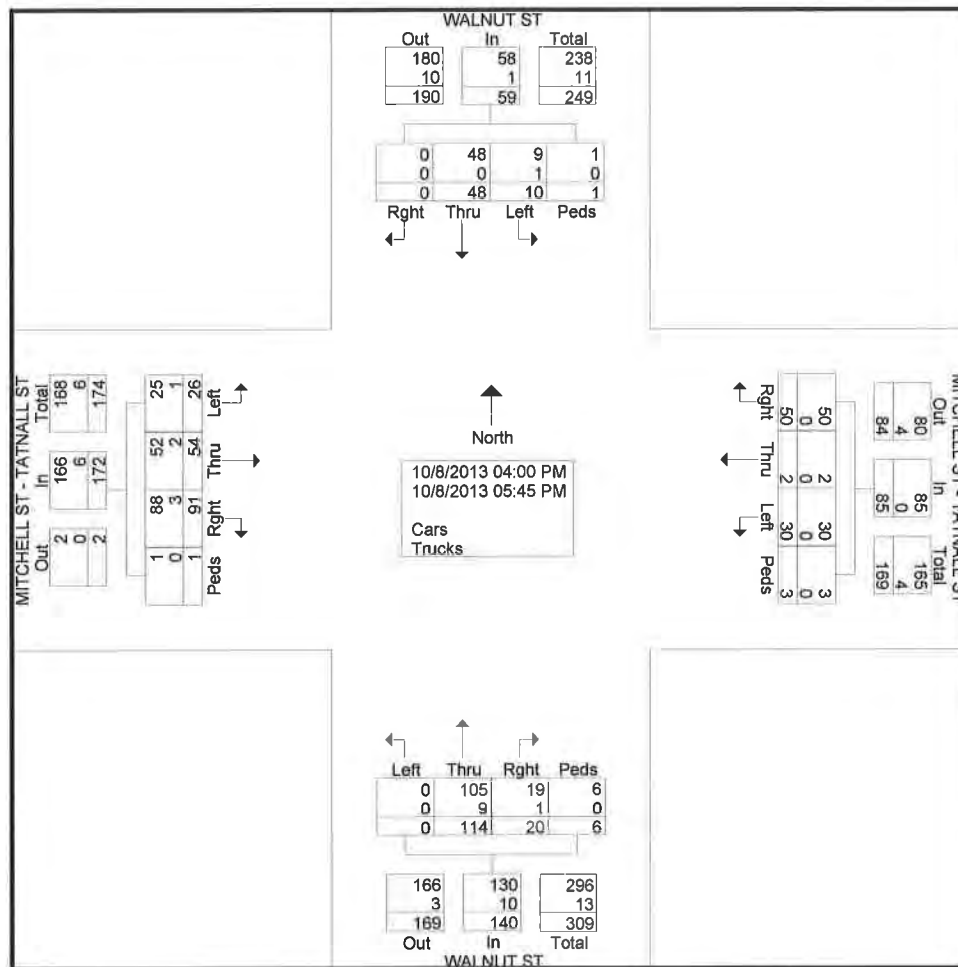
Site Code :

Start Date : 10/8/2013

Page No : 1

Groups Printed- Cars - Trucks

Start Time	WALNUT ST Southbound					MITCHELL ST - TATNALL ST Westbound					WALNUT ST Northbound					MITCHELL ST - TATNALL ST Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	2	8	0	1	11	3	0	5	0	8	0	13	4	1	18	3	5	12	1	21	58
04:15 PM	0	4	0	0	4	4	1	4	1	10	0	9	2	1	12	3	6	7	0	16	42
04:30 PM	2	2	0	0	4	4	0	5	0	9	0	15	2	1	18	5	10	11	0	26	57
04:45 PM	1	4	0	0	5	5	1	6	2	14	0	10	3	3	16	4	6	14	0	24	59
Total	5	18	0	1	24	16	2	20	3	41	0	47	11	6	64	15	27	44	1	87	216
05:00 PM	1	10	0	0	11	3	0	7	0	10	0	20	0	0	20	3	6	16	0	25	66
05:15 PM	2	3	0	0	5	2	0	8	0	10	0	19	4	0	23	3	10	16	0	29	67
05:30 PM	0	7	0	0	7	5	0	5	0	10	0	11	3	0	14	2	5	11	0	18	49
05:45 PM	2	10	0	0	12	4	0	10	0	14	0	17	2	0	19	3	6	4	0	13	58
Total	5	30	0	0	35	14	0	30	0	44	0	67	9	0	76	11	27	47	0	85	240
Grand Total	10	48	0	1	59	30	2	50	3	85	0	114	20	6	140	26	54	91	1	172	456
Apprch %	16.9	81.4	0	1.7		35.3	2.4	58.8	3.5		0	81.4	14.3	4.3		15.1	31.4	52.9	0.6		
Total %	2.2	10.5	0	0.2	12.9	6.6	0.4	11	0.7	18.6	0	25	4.4	1.3	30.7	5.7	11.8	20	0.2	37.7	
Cars	9	48	0	1	58	30	2	50	3	85	0	105	19	6	130	25	52	88	1	166	439
% Cars	90	100	0	100	98.3	100	100	100	100	100	0	92.1	95	100	92.9	96.2	96.3	96.7	100	96.5	96.3
Trucks	1	0	0	0	1	0	0	0	0	0	0	9	1	0	10	1	2	3	0	6	17
% Trucks	10	0	0	0	1.7	0	0	0	0	0	0	7.9	5	0	7.1	3.8	3.7	3.3	0	3.5	3.7



All Traffic Data Services, Inc

1336 Farmer Road
Conyers, Ga 30012
404-374-1283

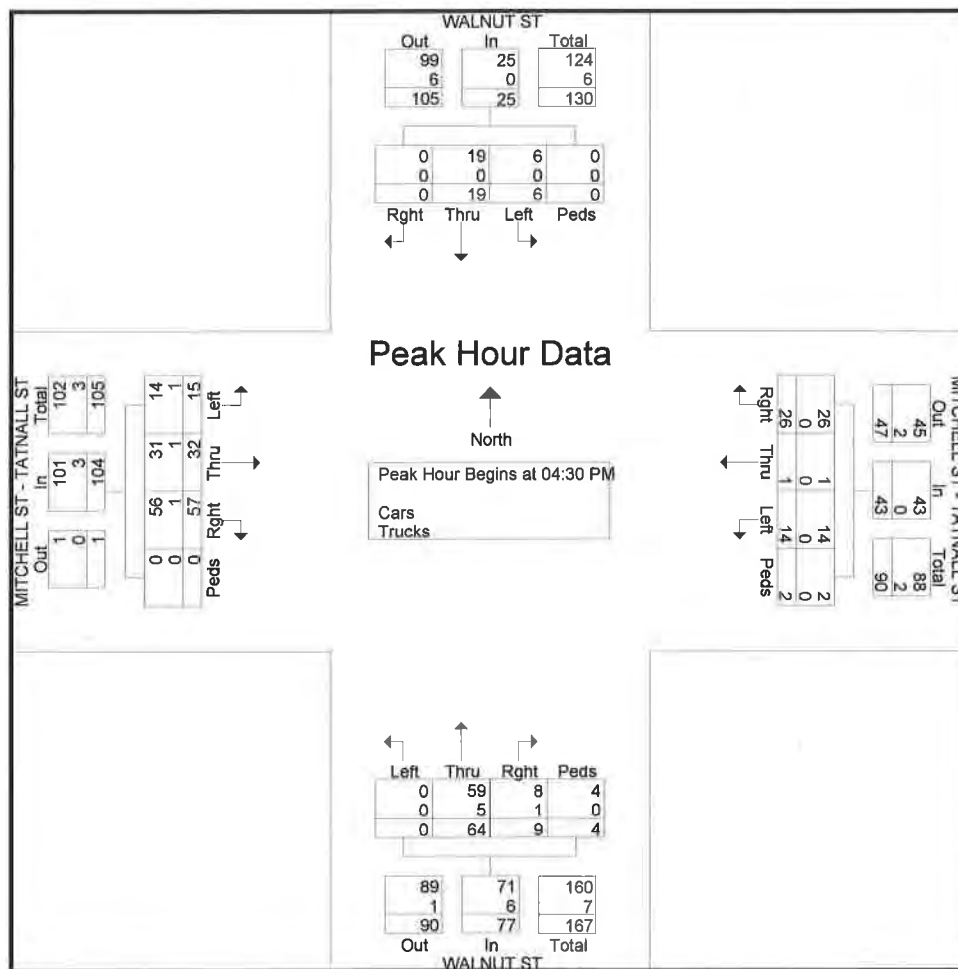
File Name : #2 WalnutSt@MitchellSt-TatnallStPM

Site Code :

Start Date : 10/8/2013

Page No : 2

	WALNUT ST Southbound					MITCHELL ST - TATNALL ST Westbound					WALNUT ST Northbound					MITCHELL ST - TATNALL ST Eastbound					
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	2	2	0	0	4	4	0	5	0	9	0	15	2	1	18	5	10	11	0	26	57
04:45 PM	1	4	0	0	5	5	1	6	2	14	0	10	3	3	16	4	6	14	0	24	59
05:00 PM	1	10	0	0	11	3	0	7	0	10	0	20	0	0	20	3	6	16	0	25	66
05:15 PM	2	3	0	0	5	2	0	8	0	10	0	19	4	0	23	3	10	16	0	29	67
Total Volume	6	19	0	0	25	14	1	26	2	43	0	64	9	4	77	15	32	57	0	104	249
% App. Total	24	76	0	0		32.6	2.3	60.5	4.7		0	83.1	11.7	5.2		14.4	30.8	54.8	0		
PHF	.750	.475	.000	.000	.568	.700	.250	.813	.250	.768	.000	.800	.563	.333	.837	.750	.800	.891	.000	.897	.929
Cars	6	19	0	0	25	14	1	26	2	43	0	59	8	4	71	14	31	56	0	101	240
% Cars	100	100	0	0	100	100	100	100	100	100	0	92.2	88.9	100	92.2	93.3	96.9	98.2	0	97.1	96.4
Trucks	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	1	1	1	0	3	9
% Trucks	0	0	0	0	0	0	0	0	0	0	0	7.8	11.1	0	7.8	6.7	3.1	1.8	0	2.9	3.6



24-HOUR ADT COUNTS

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 10

Station ID: 10

MLK Jr DRIVE WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		14	58			18	75				
12:15		10	74			17	102				
12:30		11	76			15	63				
12:45		9	83	44	291	7	96	57	336	101	627
01:00		5	72			14	104				
01:15		13	88			11	97				
01:30		4	82			10	100				
01:45		5	66	27	308	11	82	46	383	73	691
02:00		9	84			7	89				
02:15		7	92			5	93				
02:30		4	95			7	91				
02:45		1	86	21	357	4	94	23	367	44	724
03:00		3	68			5	100				
03:15		6	81			2	102				
03:30		5	103			3	110				
03:45		1	90	15	342	6	108	16	420	31	762
04:00		4	95			6	122				
04:15		5	100			3	112				
04:30		3	104			7	113				
04:45		5	103	17	402	4	112	20	459	37	861
05:00		8	134			5	123				
05:15		5	105			5	142				
05:30		13	107			8	123				
05:45		9	88	35	434	10	120	28	508	63	942
06:00		18	92			7	93				
06:15		24	70			12	110				
06:30		27	92			21	94				
06:45		31	86	100	340	24	80	64	377	164	717
07:00		48	65			26	80				
07:15		62	58			38	79				
07:30		94	68			56	68				
07:45		115	86	319	277	37	86	157	313	476	590
08:00		107	68			54	63				
08:15		118	64			46	83				
08:30		118	86			34	63				
08:45		86	58	429	276	56	59	190	268	619	544
09:00		66	55			47	56				
09:15		60	53			38	48				
09:30		72	38			54	60				
09:45		60	48	258	194	58	46	197	210	455	404
10:00		50	34			56	31				
10:15		65	27			62	42				
10:30		54	34			50	29				
10:45		54	19	223	114	65	35	233	137	456	251
11:00		48	28			63	31				
11:15		63	34			68	24				
11:30		72	20			75	40				
11:45		60	28	243	110	84	34	290	129	533	239
Total		1731	3445			1321	3907			3052	7352
Percent		33.4%	66.6%			25.3%	74.7%			29.3%	70.7%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 10
Station ID: 10
MLK Jr DRIVE WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		20	70			26	94				
12:15		15	93			16	74				
12:30		20	90			17	80				
12:45		14	90	69	343	20	104	79	352	148	695
01:00		11	102			17	79				
01:15		14	85			20	112				
01:30		10	79			10	89				
01:45		12	101	47	367	18	97	65	377	112	744
02:00		7	84			10	96				
02:15		5	90			8	100				
02:30		7	87			14	108				
02:45		6	90	25	351	16	120	48	424	73	775
03:00		4	94			8	118				
03:15		12	108			5	112				
03:30		4	114			7	119				
03:45		7	104	27	420	7	130	27	479	54	899
04:00		10	116			6	105				
04:15		10	112			4	110				
04:30		8	101			0	108				
04:45		5	106	33	435	10	114	20	437	53	872
05:00		7	100			7	114				
05:15		8	96			7	120				
05:30		12	118			3	114				
05:45		12	106	39	420	6	120	23	468	62	888
06:00		11	90			10	111				
06:15		20	102			12	116				
06:30		31	88			13	100				
06:45		28	74	90	354	25	83	60	410	150	764
07:00		52	83			38	85				
07:15		80	78			41	90				
07:30		82	72			56	74				
07:45		120	86	334	319	41	70	176	319	510	638
08:00		96	76			60	58				
08:15		106	82			48	56				
08:30		116	66			52	60				
08:45		97	58	415	282	56	48	216	222	631	504
09:00		64	65			42	64				
09:15		64	65			70	58				
09:30		70	56			52	68				
09:45		72	45	270	231	70	50	234	240	504	471
10:00		59	50			57	54				
10:15		66	40			53	62				
10:30		41	57			60	56				
10:45		70	50	236	197	70	42	240	214	476	411
11:00		56	28			55	60				
11:15		50	32			62	56				
11:30		68	40			64	35				
11:45		64	30	238	130	91	46	272	197	510	327
Total		1823	3849			1460	4139			3283	7988
Percent		32.1%	67.9%			26.1%	73.9%			29.1%	70.9%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 10

Station ID: 10

MLK Jr DRIVE WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		36	67			38	81				
12:15		41	74			50	76				
12:30		26	95			30	84				
12:45		33	90	136	326	39	86	157	327	293	653
01:00		33	82			42	102				
01:15		21	122			26	99				
01:30		16	102			24	124				
01:45		18	86	88	392	22	119	114	444	202	836
02:00		22	92			21	104				
02:15		27	117			26	114				
02:30		14	106			30	112				
02:45		16	100	79	415	22	92	99	422	178	837
03:00		14	98			22	104				
03:15		15	114			17	118				
03:30		14	97			28	91				
03:45		14	98	57	407	18	102	85	415	142	822
04:00		12	108			14	114				
04:15		6	101			14	115				
04:30		13	100			20	84				
04:45		8	96	39	405	20	94	68	407	107	812
05:00		8	86			8	88				
05:15		3	100			5	110				
05:30		5	82			12	78				
05:45		12	77	28	345	11	104	36	380	64	725
06:00		9	89			11	112				
06:15		15	106			9	116				
06:30		14	82			11	116				
06:45		13	78	51	355	18	126	49	470	100	825
07:00		13	86			15	88				
07:15		18	100			9	118				
07:30		21	110			17	142				
07:45		24	117	76	413	19	152	60	500	136	913
08:00		19	90			19	134				
08:15		33	86			36	96				
08:30		47	68			44	76				
08:45		62	52	161	296	41	88	140	394	301	690
09:00		37	74			40	70				
09:15		44	76			27	64				
09:30		38	59			50	66				
09:45		78	60	197	269	61	68	178	268	375	537
10:00		72	69			78	72				
10:15		80	47			70	69				
10:30		66	52			78	50				
10:45		46	47	264	215	91	66	317	257	581	472
11:00		68	42			84	46				
11:15		68	44			76	41				
11:30		70	42			109	55				
11:45		68	48	274	176	74	48	343	190	617	366
Total		1450	4014			1646	4474			3096	8488
Percent		26.5%	73.5%			26.9%	73.1%			26.7%	73.3%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 10
Station ID: 10
MLK Jr DRIVE WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	EB		Hour Totals		WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		48	45			44	61				
12:15		36	51			39	54				
12:30		26	62			46	61				
12:45		33	59	143	217	38	58	167	234	310	451
01:00		21	92			40	63				
01:15		25	78			35	70				
01:30		18	68			25	91				
01:45		24	59	88	297	21	78	121	302	209	599
02:00		21	74			30	67				
02:15		17	74			21	80				
02:30		16	54			22	61				
02:45		15	76	69	278	27	62	100	270	169	548
03:00		15	70			25	80				
03:15		11	74			22	58				
03:30		13	58			25	65				
03:45		18	34	57	236	17	66	89	269	146	505
04:00		12	42			11	63				
04:15		8	51			12	82				
04:30		5	48			12	65				
04:45		7	48	32	189	10	59	45	269	77	458
05:00		6	62			10	78				
05:15		3	60			11	65				
05:30		13	56			5	62				
05:45		2	53	24	231	9	71	35	276	59	507
06:00		5	65			9	56				
06:15		6	68			5	76				
06:30		11	52			9	70				
06:45		7	64	29	249	7	68	30	270	59	519
07:00		13	47			13	54				
07:15		5	38			7	46				
07:30		15	47			10	50				
07:45		18	38	51	170	7	44	37	194	88	364
08:00		5	44			14	40				
08:15		18	46			13	42				
08:30		17	36			19	42				
08:45		24	33	64	159	20	42	66	166	130	325
09:00		19	37			34	40				
09:15		26	30			18	36				
09:30		27	48			29	32				
09:45		42	36	114	151	41	31	122	139	236	290
10:00		36	35			52	33				
10:15		30	25			53	28				
10:30		34	35			41	27				
10:45		35	20	135	115	42	27	188	115	323	230
11:00		35	19			42	24				
11:15		35	9			40	27				
11:30		41	19			39	19				
11:45		36	14	147	61	41	15	162	85	309	146
Total		953	2353			1162	2589			2115	4942
Percent		28.8%	71.2%			31.0%	69.0%			30.0%	70.0%
Grand Total		5957	13661			5589	15109			11546	28770
Percent		30.4%	69.6%			27.0%	73.0%			28.6%	71.4%

ADT

ADT 10,079

AADT 10,079

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 11.5

Station ID: 11.5

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	Morning	WB	Afternoon	Morning	Hour Totals	Afternoon
12:00			1	10			
12:15			0	7			
12:30			0	8			
12:45			0	12	1		37
01:00			0	4			
01:15			0	10			
01:30			0	8			
01:45			0	13	0		35
02:00			0	12			
02:15			1	6			
02:30			2	8			
02:45			0	9	3		35
03:00			0	7			
03:15			0	10			
03:30			0	8			
03:45			0	8	0		33
04:00			0	8			
04:15			0	10			
04:30			0	10			
04:45			0	8	0		36
05:00			0	8			
05:15			0	8			
05:30			0	13			
05:45			1	10	1		39
06:00			1	10			
06:15			2	16			
06:30			2	17			
06:45			0	8	5		51
07:00			3	6			
07:15			1	3			
07:30			2	5			
07:45			12	8	18		22
08:00			15	3			
08:15			9	3			
08:30			6	4			
08:45			15	6	45		16
09:00			5	1			
09:15			8	2			
09:30			6	0			
09:45			8	1	27		4
10:00			6	3			
10:15			2	2			
10:30			5	2			
10:45			2	5	15		12
11:00			6	3			
11:15			6	1			
11:30			4	4			
11:45			4	1	20		9
Total			135	329			
Percent			29.1%	70.9%			

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 11.5

Station ID: 11.5

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		1	5		
12:15		2	5		
12:30		2	8		
12:45		5	8	10	26
01:00		1	8		
01:15		2	8		
01:30		1	6		
01:45		0	12	4	34
02:00		1	9		
02:15		1	5		
02:30		0	11		
02:45		1	10	3	35
03:00		1	5		
03:15		3	5		
03:30		1	14		
03:45		0	7	5	31
04:00		0	12		
04:15		0	5		
04:30		2	12		
04:45		0	9	2	38
05:00		2	14		
05:15		0	9		
05:30		1	12		
05:45		0	9	3	44
06:00		1	11		
06:15		3	11		
06:30		4	7		
06:45		2	7	10	36
07:00		5	7		
07:15		4	4		
07:30		11	4		
07:45		9	5	29	20
08:00		13	5		
08:15		8	6		
08:30		8	3		
08:45		5	5	34	19
09:00		6	4		
09:15		10	1		
09:30		4	8		
09:45		7	2	27	15
10:00		5	4		
10:15		5	2		
10:30		4	4		
10:45		11	1	25	11
11:00		6	2		
11:15		5	4		
11:30		4	1		
11:45		8	3	23	10
Total		175	319		
Percent		35.4%	64.6%		

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 11.5

Station ID: 11.5

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		1	8		
12:15		2	17		
12:30		2	16		
12:45		3	16	8	57
01:00		2	23		
01:15		0	26		
01:30		1	19		
01:45		3	18	6	86
02:00		0	19		
02:15		1	54		
02:30		1	46		
02:45		1	63	3	182
03:00		0	48		
03:15		2	48		
03:30		1	38		
03:45		0	17	3	151
04:00		1	21		
04:15		2	13		
04:30		1	18		
04:45		0	6	4	58
05:00		0	14		
05:15		0	8		
05:30		0	10		
05:45		1	17	1	49
06:00		1	16		
06:15		2	16		
06:30		1	18		
06:45		1	24	5	74
07:00		1	40		
07:15		0	60		
07:30		0	43		
07:45		1	37	2	180
08:00		2	18		
08:15		6	18		
08:30		3	18		
08:45		4	5	15	59
09:00		7	17		
09:15		7	3		
09:30		3	11		
09:45		12	11	29	42
10:00		7	13		
10:15		3	9		
10:30		6	12		
10:45		9	14	25	48
11:00		9	6		
11:15		14	3		
11:30		11	9		
11:45		11	5	45	23
Total		146	1009		
Percent		12.6%	87.4%		

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 11.5

Station ID: 11.5

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		5	4		
12:15		2	8		
12:30		5	20		
12:45		2	17	14	49
01:00		9	19		
01:15		3	8		
01:30		2	7		
01:45		3	5	17	39
02:00		0	5		
02:15		0	5		
02:30		1	4		
02:45		3	2	4	16
03:00		0	6		
03:15		4	0		
03:30		1	4		
03:45		0	1	5	11
04:00		3	6		
04:15		1	2		
04:30		2	8		
04:45		0	5	6	21
05:00		0	3		
05:15		1	3		
05:30		0	4		
05:45		0	5	1	15
06:00		0	5		
06:15		2	5		
06:30		1	4		
06:45		0	4	3	18
07:00		0	1		
07:15		0	1		
07:30		0	2		
07:45		0	3	0	7
08:00		1	0		
08:15		2	6		
08:30		4	2		
08:45		4	2	11	10
09:00		4	2		
09:15		0	2		
09:30		3	2		
09:45		4	4	11	10
10:00		10	3		
10:15		7	0		
10:30		5	0		
10:45		7	0	29	3
11:00		4	2		
11:15		3	0		
11:30		2	1		
11:45		4	0	13	3
Total		114	202		
Percent		36.1%	63.9%		
Grand Total		570	1859		
Percent		23.5%	76.5%		
ADT		ADT 607		AADT 607	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 11

Station ID: 11

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	Morning	EB	Afternoon	Morning	Hour Totals	Afternoon
12:00			0	11			
12:15			0	5			
12:30			0	8			
12:45			2	9	2		33
01:00			0	4			
01:15			0	9			
01:30			0	5			
01:45			1	5	1		23
02:00			0	7			
02:15			1	5			
02:30			1	2			
02:45			0	2	2		16
03:00			0	6			
03:15			0	7			
03:30			0	18			
03:45			0	11	0		42
04:00			0	10			
04:15			0	8			
04:30			0	16			
04:45			0	8	0		42
05:00			0	15			
05:15			1	16			
05:30			0	8			
05:45			1	18	2		57
06:00			1	16			
06:15			1	6			
06:30			0	9			
06:45			0	7	2		38
07:00			0	4			
07:15			0	6			
07:30			2	6			
07:45			4	12	6		28
08:00			2	5			
08:15			7	4			
08:30			8	7			
08:45			5	6	22		22
09:00			15	4			
09:15			11	4			
09:30			12	1			
09:45			3	4	41		13
10:00			3	3			
10:15			3	1			
10:30			6	1			
10:45			3	3	15		8
11:00			6	4			
11:15			3	0			
11:30			4	2			
11:45			4	0	17		6
Total			110	328			
Percent			25.1%	74.9%			

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 11

Station ID: 11

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	EB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		2	7		
12:15		2	8		
12:30		2	6		
12:45		1	8	7	29
01:00		2	6		
01:15		1	8		
01:30		0	4		
01:45		1	10	4	28
02:00		0	5		
02:15		0	8		
02:30		0	7		
02:45		1	5	1	25
03:00		0	6		
03:15		0	3		
03:30		1	15		
03:45		0	13	1	37
04:00		0	8		
04:15		0	6		
04:30		1	9		
04:45		0	14	1	37
05:00		2	8		
05:15		0	20		
05:30		1	11		
05:45		0	16	3	55
06:00		1	11		
06:15		0	5		
06:30		0	8		
06:45		4	11	5	35
07:00		3	5		
07:15		6	4		
07:30		8	5		
07:45		5	2	22	16
08:00		10	4		
08:15		13	6		
08:30		10	7		
08:45		10	3	43	20
09:00		2	6		
09:15		5	6		
09:30		3	3		
09:45		2	2	12	17
10:00		4	3		
10:15		1	2		
10:30		9	3		
10:45		5	4	19	12
11:00		3	6		
11:15		4	1		
11:30		4	4		
11:45		5	5	16	16
Total		134	327		
Percent		29.1%	70.9%		

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 11

Station ID: 11

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	Morning	EB	Afternoon	Morning	Hour Totals	Afternoon
12:00			1	5			
12:15			1	4			
12:30			5	8			
12:45			0	6	7		23
01:00			2	4			
01:15			1	9			
01:30			0	8			
01:45			0	4	3		25
02:00			0	6			
02:15			0	9			
02:30			1	5			
02:45			3	7	4		27
03:00			1	17			
03:15			0	24			
03:30			0	20			
03:45			2	21	3		82
04:00			1	20			
04:15			1	18			
04:30			0	4			
04:45			1	9	3		51
05:00			0	10			
05:15			1	11			
05:30			0	6			
05:45			0	4	1		31
06:00			0	14			
06:15			1	13			
06:30			0	19			
06:45			1	10	2		56
07:00			0	12			
07:15			0	13			
07:30			6	20			
07:45			1	18	7		63
08:00			0	13			
08:15			2	10			
08:30			3	6			
08:45			2	14	7		43
09:00			3	5			
09:15			3	7			
09:30			2	3			
09:45			2	4	10		19
10:00			2	3			
10:15			3	7			
10:30			4	4			
10:45			1	4	10		18
11:00			5	3			
11:15			8	4			
11:30			6	3			
11:45			4	4	23		14
Total			80	452			
Percent			15.0%	85.0%			

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 11

Station ID: 11

MITCHELL STREET WEST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	EB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		3	3		
12:15		0	4		
12:30		2	7		
12:45		2	9	7	23
01:00		3	3		
01:15		0	4		
01:30		4	7		
01:45		1	4	8	18
02:00		1	1		
02:15		2	6		
02:30		0	10		
02:45		2	3	5	20
03:00		2	2		
03:15		0	4		
03:30		2	5		
03:45		0	7	4	18
04:00		2	6		
04:15		2	4		
04:30		1	4		
04:45		0	3	5	17
05:00		1	5		
05:15		1	2		
05:30		0	6		
05:45		0	3	2	16
06:00		0	3		
06:15		1	9		
06:30		1	3		
06:45		0	4	2	19
07:00		1	1		
07:15		0	1		
07:30		0	2		
07:45		0	3	1	7
08:00		2	1		
08:15		1	2		
08:30		2	6		
08:45		7	6	12	15
09:00		2	2		
09:15		2	0		
09:30		9	2		
09:45		3	2	16	6
10:00		6	0		
10:15		2	0		
10:30		4	1		
10:45		4	0	16	1
11:00		6	0		
11:15		2	1		
11:30		5	0		
11:45		7	1	20	2
Total		98	162		
Percent		37.7%	62.3%		
Grand Total		422	1269		
Percent		25.0%	75.0%		
ADT		ADT 423		AADT 423	

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 8

Station ID: 8

MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	LANE 1 EB		Hour Totals		LANE 2 EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	13			4	29				
12:15		5	16			4	26				
12:30		3	18			5	30				
12:45		4	24	18	71	4	24	17	109	35	180
01:00		1	17			1	28				
01:15		1	26			3	34				
01:30		0	21			2	28				
01:45		4	14	6	78	3	18	9	108	15	186
02:00		2	18			2	40				
02:15		0	20			3	32				
02:30		0	22			0	30				
02:45		2	22	4	82	2	22	7	124	11	206
03:00		3	14			3	32				
03:15		2	22			1	24				
03:30		0	32			2	31				
03:45		0	24	5	92	4	34	10	121	15	213
04:00		1	26			1	26				
04:15		0	22			3	28				
04:30		0	26			0	26				
04:45		1	30	2	104	3	28	7	108	9	212
05:00		1	36			1	44				
05:15		2	28			4	28				
05:30		2	21			4	34				
05:45		6	26	11	111	4	28	13	134	24	245
06:00		1	32			11	25				
06:15		5	20			16	26				
06:30		2	33			12	26				
06:45		10	24	18	109	14	30	53	107	71	216
07:00		6	20			12	24				
07:15		7	16			24	19				
07:30		20	18			32	21				
07:45		23	20	56	74	36	28	104	92	160	166
08:00		16	26			35	29				
08:15		24	16			36	26				
08:30		24	22			36	26				
08:45		14	12	78	76	32	19	139	100	217	176
09:00		20	8			21	9				
09:15		10	9			28	10				
09:30		16	11			15	14				
09:45		6	4	52	32	24	14	88	47	140	79
10:00		16	5			18	13				
10:15		14	7			18	10				
10:30		18	10			14	16				
10:45		11	6	59	28	29	9	79	48	138	76
11:00		10	9			28	12				
11:15		24	10			20	10				
11:30		18	4			22	12				
11:45		10	6	62	29	24	6	94	40	156	69
Total		371	886			620	1138			991	2024
Percent		29.5%	70.5%			35.3%	64.7%			32.9%	67.1%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 8
Station ID: 8
MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	LANE 1 EB		Hour Totals		LANE 2 EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		6	13			14	30				
12:15		4	18			8	30				
12:30		3	14			6	36				
12:45		5	24	18	69	4	35	32	131	50	200
01:00		0	24			5	29				
01:15		4	17			4	28				
01:30		3	14			4	28				
01:45		1	18	8	73	4	23	17	108	25	181
02:00		2	20			2	28				
02:15		1	25			1	35				
02:30		0	26			4	36				
02:45		1	28	4	99	1	22	8	121	12	220
03:00		1	36			3	30				
03:15		4	26			6	32				
03:30		2	30			2	40				
03:45		2	34	9	126	0	34	11	136	20	262
04:00		0	30			0	22				
04:15		1	34			2	36				
04:30		0	34			2	41				
04:45		0	36	1	134	4	32	8	131	9	265
05:00		2	36			0	30				
05:15		0	32			3	21				
05:30		3	33			4	28				
05:45		4	27	9	128	7	41	14	120	23	248
06:00		5	26			2	30				
06:15		6	30			9	20				
06:30		3	20			9	26				
06:45		6	14	20	90	12	22	32	98	52	188
07:00		7	20			17	32				
07:15		7	20			28	18				
07:30		12	13			22	16				
07:45		14	18	40	71	34	22	101	88	141	159
08:00		12	14			39	26				
08:15		16	15			34	13				
08:30		26	10			40	27				
08:45		15	13	69	52	42	13	155	79	224	131
09:00		12	14			22	16				
09:15		16	13			24	12				
09:30		21	8			25	18				
09:45		22	7	71	42	28	12	99	58	170	100
10:00		11	5			10	11				
10:15		14	9			10	10				
10:30		12	11			14	10				
10:45		10	9	47	34	16	18	50	49	97	83
11:00		17	8			21	2				
11:15		19	10			18	10				
11:30		15	12			24	11				
11:45		10	9	61	39	20	18	83	41	144	80
Total		357	957			610	1160			967	2117
Percent		27.2%	72.8%			34.5%	65.5%			31.4%	68.6%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 8

Station ID: 8

MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	LANE 1 EB		Hour Totals		LANE 2 EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		14	28			12	26				
12:15		8	46			15	22				
12:30		9	12			15	32				
12:45		8	27	39	113	12	25	54	105	93	218
01:00		5	26			16	38				
01:15		5	31			6	44				
01:30		7	21			2	32				
01:45		8	21	25	99	4	32	28	146	53	245
02:00		4	30			6	45				
02:15		4	32			2	46				
02:30		4	26			4	36				
02:45		3	23	15	111	9	26	21	153	36	264
03:00		1	23			3	38				
03:15		6	32			4	50				
03:30		5	28			6	40				
03:45		2	24	14	107	6	39	19	167	33	274
04:00		4	22			2	50				
04:15		2	29			3	39				
04:30		4	20			4	39				
04:45		1	16	11	87	0	32	9	160	20	247
05:00		2	23			0	46				
05:15		2	21			2	38				
05:30		0	33			2	58				
05:45		3	36	7	113	7	46	11	188	18	301
06:00		3	40			2	36				
06:15		2	56			6	60				
06:30		2	61			3	49				
06:45		6	55	13	212	6	64	17	209	30	421
07:00		2	47			7	30				
07:15		3	70			5	46				
07:30		8	84			6	46				
07:45		6	72	19	273	6	54	24	176	43	449
08:00		4	67			8	46				
08:15		7	58			9	68				
08:30		8	51			9	34				
08:45		8	46	27	222	8	48	34	196	61	418
09:00		8	50			13	44				
09:15		11	42			34	37				
09:30		18	44			20	35				
09:45		24	42	61	178	28	32	95	148	156	326
10:00		29	36			22	38				
10:15		26	35			30	37				
10:30		21	32			30	36				
10:45		34	26	110	129	24	36	106	147	216	276
11:00		26	27			20	38				
11:15		14	31			22	34				
11:30		24	31			20	36				
11:45		15	27	79	116	30	46	92	154	171	270
Total		420	1760			510	1949			930	3709
Percent		19.3%	80.7%			20.7%	79.3%			20.0%	80.0%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 8

Station ID: 8

MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	LANE 1 EB		Hour Totals		LANE 2 EB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		25	6			44	10				
12:15		31	6			42	19				
12:30		30	12			28	18				
12:45		21	15	107	39	35	18	149	65	256	104
01:00		18	30			32	28				
01:15		19	17			15	28				
01:30		15	18			8	21				
01:45		6	9	58	74	16	24	71	101	129	175
02:00		8	16			14	26				
02:15		10	13			11	26				
02:30		1	9			4	19				
02:45		4	14	23	52	9	18	38	89	61	141
03:00		9	10			8	16				
03:15		6	7			6	14				
03:30		8	13			6	25				
03:45		6	7	29	37	5	14	25	69	54	106
04:00		3	9			6	18				
04:15		4	12			5	20				
04:30		0	6			3	14				
04:45		2	14	9	41	0	15	14	67	23	108
05:00		1	11			4	22				
05:15		1	15			1	20				
05:30		2	18			2	10				
05:45		1	10	5	54	1	14	8	66	13	120
06:00		3	8			4	25				
06:15		4	12			3	16				
06:30		4	11			5	17				
06:45		2	15	13	46	2	16	14	74	27	120
07:00		7	14			6	14				
07:15		2	14			5	6				
07:30		5	5			2	10				
07:45		2	8	16	41	3	12	16	42	32	83
08:00		4	12			6	9				
08:15		4	10			6	6				
08:30		3	10			4	10				
08:45		5	6	16	38	6	8	22	33	38	71
09:00		5	7			1	11				
09:15		8	10			10	6				
09:30		5	17			8	5				
09:45		10	6	28	40	12	8	31	30	59	70
10:00		10	7			5	16				
10:15		7	6			6	9				
10:30		4	6			11	12				
10:45		8	4	29	23	9	6	31	43	60	66
11:00		10	1			8	6				
11:15		12	2			11	6				
11:30		6	5			12	3				
11:45		3	4	31	12	8	2	39	17	70	29
Total		364	497			458	696			822	1193
Percent		42.3%	57.7%			39.7%	60.3%			40.8%	59.2%
Grand Total		1512	4100			2198	4943			3710	9043
Percent		26.9%	73.1%			30.8%	69.2%			29.1%	70.9%

ADT

ADT 3,188

AADT 3,188

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 8.5
Station ID: 8.5
MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	LANE 1 WB		Hour Totals		LANE 2 WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	35			14	48				
12:15		4	58			8	38				
12:30		5	54			12	48				
12:45		5	58	22	205	8	38	42	172	64	377
01:00		4	48			10	50				
01:15		3	30			10	74				
01:30		4	28			6	69				
01:45		3	35	14	141	5	75	31	268	45	409
02:00		2	26			2	67				
02:15		1	17			4	87				
02:30		3	16			5	71				
02:45		2	25	8	84	6	80	17	305	25	389
03:00		0	22			3	77				
03:15		2	41			2	80				
03:30		2	34			6	68				
03:45		2	55	6	152	5	55	16	280	22	432
04:00		4	60			0	78				
04:15		3	53			0	67				
04:30		4	62			4	76				
04:45		4	72	15	247	7	86	11	307	26	554
05:00		4	60			7	64				
05:15		7	78			3	104				
05:30		4	76			8	80				
05:45		12	78	27	292	8	64	26	312	53	604
06:00		20	52			7	70				
06:15		18	57			8	64				
06:30		22	56			15	66				
06:45		49	36	109	201	20	40	50	240	159	441
07:00		44	42			16	40				
07:15		36	33			18	50				
07:30		56	25			17	36				
07:45		64	24	200	124	20	36	71	162	271	286
08:00		54	34			30	31				
08:15		55	30			34	40				
08:30		55	18			31	34				
08:45		57	24	221	106	36	31	131	136	352	242
09:00		51	16			56	32				
09:15		41	16			74	25				
09:30		35	13			74	20				
09:45		37	16	164	61	90	26	294	103	458	164
10:00		33	13			79	26				
10:15		34	14			88	22				
10:30		45	8			66	20				
10:45		40	16	152	51	69	20	302	88	454	139
11:00		60	12			66	19				
11:15		38	16			80	22				
11:30		58	13			65	19				
11:45		45	20	201	61	80	14	291	74	492	135
Total		1139	1725			1282	2447			2421	4172
Percent		39.8%	60.2%			34.4%	65.6%			36.7%	63.3%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 8.5
Station ID: 8.5
MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	LANE 1 WB		Hour Totals		LANE 2 WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		10	37			16	61				
12:15		13	36			14	67				
12:30		13	38			8	65				
12:45		12	18	48	129	14	82	52	275	100	404
01:00		7	39			16	74				
01:15		5	68			8	58				
01:30		8	50			11	46				
01:45		2	66	22	223	12	63	47	241	69	464
02:00		2	50			8	64				
02:15		3	68			9	56				
02:30		5	58			7	52				
02:45		5	66	15	242	7	66	31	238	46	480
03:00		5	68			14	49				
03:15		2	54			4	66				
03:30		2	56			2	52				
03:45		2	70	11	248	3	66	23	233	34	481
04:00		4	62			0	70				
04:15		1	61			5	71				
04:30		6	61			2	73				
04:45		6	61	17	245	3	75	10	289	27	534
05:00		7	58			3	66				
05:15		10	62			8	94				
05:30		10	68			4	74				
05:45		12	52	39	240	4	64	19	298	58	538
06:00		9	50			10	57				
06:15		11	52			11	46				
06:30		23	30			15	48				
06:45		30	37	73	169	16	40	52	191	125	360
07:00		34	45			30	47				
07:15		46	24			27	44				
07:30		46	32			30	32				
07:45		66	26	192	127	22	35	109	158	301	285
08:00		47	26			38	28				
08:15		48	34			36	29				
08:30		54	29			34	26				
08:45		54	18	203	107	42	28	150	111	353	218
09:00		66	21			38	26				
09:15		57	28			74	19				
09:30		42	22			42	27				
09:45		26	26	191	97	62	28	216	100	407	197
10:00		32	25			55	32				
10:15		28	34			42	36				
10:30		42	22			69	42				
10:45		28	28	130	109	62	24	228	134	358	243
11:00		35	32			52	29				
11:15		22	24			58	29				
11:30		18	18			57	15				
11:45		36	11	111	85	56	21	223	94	334	179
Total		1052	2021			1160	2362			2212	4383
Percent		34.2%	65.8%			32.9%	67.1%			33.5%	66.5%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 8.5
Station ID: 8.5
MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	LANE 1 WB		Hour Totals		LANE 2 WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		14	90			25	50				
12:15		14	92			28	94				
12:30		11	92			17	46				
12:45		7	77	46	351	16	40	86	230	132	581
01:00		7	100			17	62				
01:15		8	106			13	91				
01:30		10	114			15	69				
01:45		5	103	30	423	14	130	59	352	89	775
02:00		15	95			12	84				
02:15		10	105			9	137				
02:30		11	92			19	122				
02:45		12	61	48	353	13	132	53	475	101	828
03:00		9	87			15	127				
03:15		6	82			11	136				
03:30		3	129			11	168				
03:45		3	108	21	406	9	86	46	517	67	923
04:00		7	114			10	80				
04:15		5	104			7	92				
04:30		2	93			8	38				
04:45		3	87	17	398	8	42	33	252	50	650
05:00		4	75			12	49				
05:15		4	79			6	62				
05:30		5	58			4	44				
05:45		11	58	24	270	7	46	29	201	53	471
06:00		6	68			4	104				
06:15		20	80			6	138				
06:30		14	76			8	114				
06:45		16	95	56	319	12	146	30	502	86	821
07:00		12	96			10	158				
07:15		36	93			8	196				
07:30		34	51			17	121				
07:45		46	104	128	344	22	164	57	639	185	983
08:00		33	100			16	122				
08:15		42	57			22	71				
08:30		68	90			46	87				
08:45		66	58	209	305	32	55	116	335	325	640
09:00		68	52			45	63				
09:15		42	55			22	78				
09:30		90	52			36	74				
09:45		131	44	331	203	102	73	205	288	536	491
10:00		118	37			188	51				
10:15		121	42			150	60				
10:30		114	41			142	52				
10:45		89	46	442	166	164	42	644	205	1086	371
11:00		88	30			102	32				
11:15		143	25			116	36				
11:30		103	36			82	47				
11:45		101	33	435	124	62	28	362	143	797	267
Total		1787	3662			1720	4139			3507	7801
Percent		32.8%	67.2%			29.4%	70.6%			31.0%	69.0%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 8.5
Station ID: 8.5
MLK Jr DRIVE EAST OF NORTHSIDE DRIVE

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	LANE 1 WB		Hour Totals		LANE 2 WB		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		40	26			38	27				
12:15		23	23			28	28				
12:30		22	28			44	32				
12:45		25	25	110	102	31	27	141	114	251	216
01:00		26	29			21	32				
01:15		9	24			31	36				
01:30		16	22			31	30				
01:45		11	38	62	113	10	48	93	146	155	259
02:00		11	18			15	40				
02:15		4	34			16	28				
02:30		10	23			14	24				
02:45		12	34	37	109	20	30	65	122	102	231
03:00		6	32			15	33				
03:15		10	25			20	38				
03:30		12	31			15	31				
03:45		8	26	36	114	14	36	64	138	100	252
04:00		3	34			7	41				
04:15		6	23			8	29				
04:30		10	31			10	32				
04:45		3	23	22	111	3	34	28	136	50	247
05:00		1	26			4	32				
05:15		3	30			7	48				
05:30		6	23			5	29				
05:45		4	21	14	100	2	34	18	143	32	243
06:00		4	29			6	27				
06:15		3	30			4	29				
06:30		8	22			7	30				
06:45		6	22	21	103	8	34	25	120	46	223
07:00		11	16			11	32				
07:15		17	16			10	21				
07:30		26	27			12	25				
07:45		30	17	84	76	12	18	45	96	129	172
08:00		38	15			14	24				
08:15		28	17			10	16				
08:30		24	9			15	21				
08:45		31	12	121	53	24	14	63	75	184	128
09:00		25	12			26	19				
09:15		26	4			20	11				
09:30		30	9			14	15				
09:45		32	10	113	35	30	12	90	57	203	92
10:00		38	12			36	15				
10:15		42	11			35	12				
10:30		40	21			32	15				
10:45		42	5	162	49	24	12	127	54	289	103
11:00		42	14			25	14				
11:15		48	11			28	10				
11:30		34	4			23	14				
11:45		28	6	152	35	14	9	90	47	242	82
Total		934	1000			849	1248			1783	2248
Percent		48.3%	51.7%			40.5%	59.5%			44.2%	55.8%
Grand Total		4912	8408			5011	10196			9923	18604
Percent		36.9%	63.1%			33.0%	67.0%			34.8%	65.2%

ADT

ADT 7,132

AADT 7,132

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 9

Station ID: 9

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	LANE 1		Hour Totals		LANE 2		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		18	36			1	22				
12:15		6	28			2	10				
12:30		6	30			0	12				
12:45		5	28	35	122	2	16	5	60	40	182
01:00		5	39			1	11				
01:15		3	34			1	16				
01:30		2	55			1	22				
01:45		4	40	14	168	1	18	4	67	18	235
02:00		6	40			2	10				
02:15		2	42			0	29				
02:30		1	50			0	20				
02:45		4	56	13	188	2	19	4	78	17	266
03:00		5	68			0	8				
03:15		2	82			2	25				
03:30		3	86			0	20				
03:45		1	98	11	334	1	28	3	81	14	415
04:00		5	104			0	22				
04:15		3	106			0	24				
04:30		5	107			2	14				
04:45		2	108	15	425	2	20	4	80	19	505
05:00		6	97			0	30				
05:15		5	112			0	48				
05:30		7	96			0	24				
05:45		7	87	25	392	0	29	0	131	25	523
06:00		11	100			4	39				
06:15		9	109			4	48				
06:30		14	70			6	39				
06:45		16	54	50	333	5	24	19	150	69	483
07:00		10	66			4	30				
07:15		32	56			4	26				
07:30		50	37			7	24				
07:45		50	65	142	224	18	35	33	115	175	339
08:00		33	66			16	50				
08:15		38	48			9	34				
08:30		40	64			11	20				
08:45		24	44	135	222	12	8	48	112	183	334
09:00		28	24			15	8				
09:15		32	18			6	5				
09:30		29	38			11	14				
09:45		30	20	119	100	10	8	42	35	161	135
10:00		30	30			6	4				
10:15		18	12			9	2				
10:30		28	16			8	8				
10:45		15	12	91	70	10	0	33	14	124	84
11:00		39	14			11	2				
11:15		27	18			9	2				
11:30		32	16			18	1				
11:45		28	12	126	60	10	6	48	11	174	71
Total		776	2638			243	934			1019	3572
Percent		22.7%	77.3%			20.6%	79.4%			22.2%	77.8%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 9

Station ID: 9

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	LANE 1		Hour Totals		LANE 2		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	34			2	10				
12:15		5	24			2	21				
12:30		4	26			3	23				
12:45		10	28	27	112	1	12	8	66	35	178
01:00		8	34			1	22				
01:15		6	32			1	30				
01:30		1	40			4	35				
01:45		4	46	19	152	0	33	6	120	25	272
02:00		4	37			0	24				
02:15		6	42			1	34				
02:30		3	41			1	39				
02:45		2	48	15	168	2	34	4	131	19	299
03:00		3	54			1	34				
03:15		4	76			0	53				
03:30		3	72			0	53				
03:45		5	68	15	270	2	50	3	190	18	460
04:00		6	81			1	55				
04:15		6	90			6	58				
04:30		2	92			0	66				
04:45		8	94	22	357	0	43	7	222	29	579
05:00		1	79			1	41				
05:15		6	114			2	26				
05:30		4	110			1	32				
05:45		4	98	15	401	2	36	6	135	21	536
06:00		12	70			2	70				
06:15		10	106			3	28				
06:30		20	88			5	31				
06:45		14	50	56	314	4	21	14	150	70	464
07:00		25	58			6	13				
07:15		24	52			6	12				
07:30		41	42			10	4				
07:45		43	30	133	182	10	20	32	49	165	231
08:00		40	26			15	6				
08:15		26	27			13	8				
08:30		33	30			12	10				
08:45		32	11	131	94	16	11	56	35	187	129
09:00		30	26			13	3				
09:15		25	18			10	8				
09:30		22	28			14	7				
09:45		26	24	103	96	5	14	42	32	145	128
10:00		26	18			7	6				
10:15		35	18			8	4				
10:30		19	22			14	4				
10:45		20	16	100	74	25	7	54	21	154	95
11:00		10	26			30	3				
11:15		26	16			15	4				
11:30		36	20			15	10				
11:45		31	12	103	74	38	8	98	25	201	99
Total		739	2294			330	1176			1069	3470
Percent		24.4%	75.6%			21.9%	78.1%			23.6%	76.4%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 9

Station ID: 9

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	LANE 1		Hour Totals		LANE 2		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		14	35			6	26				
12:15		12	32			4	20				
12:30		10	38			2	25				
12:45		15	28	51	133	0	24	12	95	63	228
01:00		6	27			1	12				
01:15		10	40			1	20				
01:30		4	36			0	32				
01:45		4	38	24	141	1	24	3	88	27	229
02:00		8	39			2	20				
02:15		9	40			2	40				
02:30		7	36			1	24				
02:45		5	40	29	155	1	28	6	112	35	267
03:00		7	50			1	29				
03:15		5	42			0	32				
03:30		9	45			1	36				
03:45		3	49	24	186	0	46	2	143	26	329
04:00		2	46			1	42				
04:15		7	49			0	50				
04:30		1	44			4	39				
04:45		4	41	14	180	0	24	5	155	19	335
05:00		6	54			1	22				
05:15		2	40			2	24				
05:30		4	58			0	32				
05:45		9	73	21	225	1	34	4	112	25	337
06:00		6	48			5	36				
06:15		4	32			2	32				
06:30		12	41			1	22				
06:45		11	48	33	169	5	42	13	132	46	301
07:00		8	48			0	45				
07:15		6	104			3	86				
07:30		13	98			6	94				
07:45		14	107	41	357	8	74	17	299	58	656
08:00		12	50			3	114				
08:15		20	102			8	104				
08:30		14	99			6	38				
08:45		13	78	59	329	9	16	26	272	85	601
09:00		16	62			4	22				
09:15		22	63			4	34				
09:30		19	70			7	18				
09:45		42	76	99	271	14	16	29	90	128	361
10:00		24	88			12	20				
10:15		30	144			14	56				
10:30		48	126			12	53				
10:45		28	99	130	457	14	30	52	159	182	616
11:00		19	109			22	30				
11:15		38	76			26	58				
11:30		25	80			14	57				
11:45		38	102	120	367	10	67	72	212	192	579
Total		645	2970			241	1869			886	4839
Percent		17.8%	82.2%			11.4%	88.6%			15.5%	84.5%

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 9

Station ID: 9

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	LANE 1		Hour Totals		LANE 2		Hour Totals		Combined Totals	
		Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		48	15			78	14				
12:15		61	18			56	16				
12:30		42	26			60	20				
12:45		43	24	194	83	39	26	233	76	427	159
01:00		35	32			34	26				
01:15		34	32			46	44				
01:30		24	26			12	38				
01:45		15	30	108	120	7	24	99	132	207	252
02:00		16	29			2	16				
02:15		12	21			4	20				
02:30		8	24			1	26				
02:45		6	12	42	86	2	13	9	75	51	161
03:00		4	24			2	13				
03:15		3	18			2	36				
03:30		8	22			4	25				
03:45		6	9	21	73	1	21	9	95	30	168
04:00		4	18			0	27				
04:15		6	10			2	14				
04:30		4	10			0	16				
04:45		2	15	16	53	0	29	2	86	18	139
05:00		0	14			1	12				
05:15		3	16			1	18				
05:30		1	8			2	12				
05:45		2	9	6	47	2	13	6	55	12	102
06:00		4	16			0	16				
06:15		4	28			2	12				
06:30		6	18			0	7				
06:45		10	18	24	80	2	8	4	43	28	123
07:00		12	12			4	10				
07:15		8	16			0	6				
07:30		12	14			0	6				
07:45		11	13	43	55	2	2	6	24	49	79
08:00		6	18			0	3				
08:15		6	7			4	3				
08:30		6	17			2	0				
08:45		12	10	30	52	2	1	8	7	38	59
09:00		10	6			2	4				
09:15		12	10			4	1				
09:30		13	24			2	4				
09:45		21	9	56	49	6	4	14	13	70	62
10:00		34	6			6	1				
10:15		10	11			4	3				
10:30		24	3			4	2				
10:45		17	4	85	24	6	2	20	8	105	32
11:00		20	5			6	0				
11:15		27	14			9	1				
11:30		6	22			4	0				
11:45		14	12	67	53	14	2	33	3	100	56
Total		692	775			443	617			1135	1392
Percent		47.2%	52.8%			41.8%	58.2%			44.9%	55.1%
Grand Total		2852	8677			1257	4596			4109	13273
Percent		24.7%	75.3%			21.5%	78.5%			23.6%	76.4%
ADT		ADT 4,346		AADT 4,346							

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 1

Site Code: 9.5

Station ID: 9.5

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	03-Oct-13 Thu	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		2	10		
12:15		0	12		
12:30		6	10		
12:45		1	12	9	44
01:00		1	9		
01:15		0	17		
01:30		0	14		
01:45		0	15	1	55
02:00		0	10		
02:15		0	14		
02:30		0	12		
02:45		1	14	1	50
03:00		1	6		
03:15		0	10		
03:30		3	8		
03:45		1	8	5	32
04:00		2	8		
04:15		5	10		
04:30		0	4		
04:45		2	13	9	35
05:00		1	6		
05:15		8	8		
05:30		6	6		
05:45		10	10	25	30
06:00		14	11		
06:15		20	12		
06:30		19	14		
06:45		16	3	69	40
07:00		24	11		
07:15		27	13		
07:30		21	6		
07:45		33	7	105	37
08:00		19	6		
08:15		24	4		
08:30		33	7		
08:45		22	0	98	17
09:00		20	2		
09:15		15	2		
09:30		11	4		
09:45		19	11	65	19
10:00		14	2		
10:15		6	1		
10:30		9	10		
10:45		8	8	37	21
11:00		4	6		
11:15		4	5		
11:30		11	1		
11:45		14	4	33	16
Total		457	396		
Percent		53.6%	46.4%		

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 2

Site Code: 9.5

Station ID: 9.5

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	04-Oct-13 Fri	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		1	10		
12:15		2	3		
12:30		1	10		
12:45		1	12	5	35
01:00		0	8		
01:15		0	14		
01:30		1	5		
01:45		0	12	1	39
02:00		2	10		
02:15		1	12		
02:30		1	12		
02:45		1	11	5	45
03:00		2	3		
03:15		1	10		
03:30		1	7		
03:45		4	8	8	28
04:00		2	9		
04:15		1	8		
04:30		1	6		
04:45		4	11	8	34
05:00		0	8		
05:15		4	6		
05:30		8	12		
05:45		12	6	24	32
06:00		11	10		
06:15		22	3		
06:30		26	9		
06:45		24	10	83	32
07:00		34	9		
07:15		28	11		
07:30		32	4		
07:45		36	2	130	26
08:00		16	6		
08:15		26	6		
08:30		24	5		
08:45		25	5	91	22
09:00		21	6		
09:15		18	4		
09:30		16	10		
09:45		9	7	64	27
10:00		8	2		
10:15		9	3		
10:30		14	8		
10:45		5	8	36	21
11:00		11	10		
11:15		4	2		
11:30		6	3		
11:45		6	5	27	20
Total		482	361		
Percent		57.2%	42.8%		

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 3

Site Code: 9.5

Station ID: 9.5

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	05-Oct-13 Sat	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		1	7		
12:15		6	24		
12:30		3	8		
12:45		1	14	11	53
01:00		4	32		
01:15		1	16		
01:30		0	22		
01:45		4	34	9	104
02:00		4	38		
02:15		4	60		
02:30		4	26		
02:45		3	66	15	190
03:00		1	68		
03:15		3	42		
03:30		3	32		
03:45		1	26	8	168
04:00		2	34		
04:15		2	20		
04:30		4	30		
04:45		2	24	10	108
05:00		1	20		
05:15		1	16		
05:30		7	17		
05:45		6	4	15	57
06:00		4	10		
06:15		9	10		
06:30		16	15		
06:45		14	16	43	51
07:00		18	4		
07:15		13	7		
07:30		18	8		
07:45		26	24	75	43
08:00		11	42		
08:15		20	40		
08:30		20	48		
08:45		16	53	67	183
09:00		32	49		
09:15		16	53		
09:30		36	49		
09:45		40	48	124	199
10:00		27	39		
10:15		34	48		
10:30		38	22		
10:45		46	34	145	143
11:00		62	20		
11:15		39	13		
11:30		18	31		
11:45		13	25	132	89
Total		654	1388		
Percent		32.0%	68.0%		

All Traffic Data Services, Inc

1336 Farmer Road
Conyers, GA 30012
alltrafficdata.net

Page 4

Site Code: 9.5

Station ID: 9.5

MITCHELL STREET EAST OF MAGNUM STREET

Latitude: 0' 0.0000 Undefined

Start Time	06-Oct-13 Sun	WB		Hour Totals	
		Morning	Afternoon	Morning	Afternoon
12:00		26	2		
12:15		25	4		
12:30		21	4		
12:45		22	8	94	18
01:00		22	2		
01:15		12	7		
01:30		7	4		
01:45		5	5	46	18
02:00		3	6		
02:15		0	12		
02:30		1	5		
02:45		4	8	8	31
03:00		1	5		
03:15		2	4		
03:30		1	4		
03:45		0	9	4	22
04:00		2	8		
04:15		2	10		
04:30		4	8		
04:45		2	4	10	30
05:00		0	1		
05:15		0	6		
05:30		4	2		
05:45		2	4	6	13
06:00		2	2		
06:15		7	2		
06:30		12	6		
06:45		11	2	32	12
07:00		8	3		
07:15		8	4		
07:30		16	2		
07:45		10	6	42	15
08:00		9	1		
08:15		9	0		
08:30		14	3		
08:45		14	3	46	7
09:00		6	2		
09:15		10	3		
09:30		19	2		
09:45		20	2	55	9
10:00		9	4		
10:15		12	1		
10:30		9	1		
10:45		10	1	40	7
11:00		8	5		
11:15		3	0		
11:30		4	2		
11:45		2	2	17	9
Total		400	191		
Percent		67.7%	32.3%		
Grand Total		1993	2336		
Percent		46.0%	54.0%		

ADT

ADT 1,082

AADT 1,082

HCM Signalized Intersection Capacity Analysis

1: Tatnall Street & Martin Luther King Drive

3/10/2014
2013 Existing AM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑		
Volume (vph)	432	87	17	269	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0		
Lane Util. Factor	0.95			0.95		
Frt	0.97			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3450			3529		
Flt Permitted	1.00			0.91		
Satd. Flow (perm)	3450			3224		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	470	95	18	292	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	565	0	0	310	0	0
Turn Type	NA		pm+pt	NA		
Protected Phases	4		3	8		
Permitted Phases			8			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3450			3224		
v/s Ratio Prot	c0.16					
v/s Ratio Perm				0.10		
v/c Ratio	0.16			0.10		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.0			0.0		
Delay (s)	0.0			0.0		
Level of Service	A			A		
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	
Intersection Summary						
HCM 2000 Control Delay		0.0		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.18				
Actuated Cycle Length (s)		120.0		Sum of lost time (s)		12.0
Intersection Capacity Utilization		25.2%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 2: Walnut Street & Martin Luther King Drive

3/10/2014
2013 Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	427	5	20	183	0	66	0	82	23	8	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00	1.00	1.00	
Frt		1.00		1.00	1.00		1.00		0.85	1.00	0.90	
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3534		1770	3539		1770		1583	1770	1667	
Flt Permitted		1.00		0.42	1.00		0.74		1.00	0.95	1.00	
Satd. Flow (perm)		3534		786	3539		1374		1583	1770	1667	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	464	5	22	199	0	72	0	89	25	9	21
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	64	0	15	0
Lane Group Flow (vph)	0	469	0	22	199	0	72	0	25	25	15	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		4	8	8	
Actuated Green, G (s)		64.1		74.0	74.0		34.0		34.0	34.0	34.0	
Effective Green, g (s)		64.1		74.0	74.0		34.0		34.0	34.0	34.0	
Actuated g/C Ratio		0.53		0.62	0.62		0.28		0.28	0.28	0.28	
Clearance Time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1887		516	2182		389		448	501	472	
v/s Ratio Prot		c0.13		0.00	c0.06							
v/s Ratio Perm				0.02			c0.05		0.02	0.01	0.01	
v/c Ratio		0.25		0.04	0.09		0.19		0.06	0.05	0.03	
Uniform Delay, d1		15.0		9.3	9.3		32.5		31.3	31.3	31.1	
Progression Factor		1.00		0.85	0.90		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.3		0.0	0.1		1.0		0.2	0.2	0.1	
Delay (s)		15.3		7.9	8.5		33.6		31.6	31.4	31.2	
Level of Service		B		A	A		C		C	C	C	
Approach Delay (s)		15.3			8.5			32.5			31.3	
Approach LOS		B			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			17.7			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			35.4%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/10/2014
2013 Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	208	265	59	30	80	192	39	1491	55	128	445	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.97		1.00	0.89		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3443		1770	4547		1770	3520		1770	4988	
Flt Permitted	0.37	1.00		0.54	1.00		0.43	1.00		0.06	1.00	
Satd. Flow (perm)	691	3443		1008	4547		808	3520		110	4988	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	226	288	64	33	87	209	42	1621	60	139	484	71
RTOR Reduction (vph)	0	16	0	0	62	0	0	2	0	0	16	0
Lane Group Flow (vph)	226	336	0	33	234	0	42	1679	0	139	539	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	29.9	21.5		16.3	13.9		67.1	62.6		77.1	67.6	
Effective Green, g (s)	29.9	21.5		16.3	13.9		67.1	62.6		77.1	67.6	
Actuated g/C Ratio	0.25	0.18		0.14	0.12		0.56	0.52		0.64	0.56	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	262	616		152	526		487	1836		202	2809	
v/s Ratio Prot	c0.07	0.10		0.00	0.05		0.00	c0.48		c0.05	0.11	
v/s Ratio Perm	c0.14			0.03			0.04			0.39		
v/c Ratio	0.86	0.55		0.22	0.97dr		0.09	0.91		0.69	0.19	
Uniform Delay, d1	40.8	44.8		45.7	49.5		11.9	26.2		29.9	12.8	
Progression Factor	0.77	0.79		0.56	0.40		0.77	0.78		1.00	1.00	
Incremental Delay, d2	23.8	1.0		0.7	0.6		0.1	7.2		9.4	0.2	
Delay (s)	55.4	36.2		26.3	20.1		9.3	27.6		39.3	13.0	
Level of Service	E	D		C	C		A	C		D	B	
Approach Delay (s)		43.7			20.8			27.2			18.2	
Approach LOS		D			C			C			B	

Intersection Summary

HCM 2000 Control Delay	27.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Northside Drive & Mitchell Street

3/10/2014
2013 Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	↕
Volume (vph)	15	14	22	3	9	56	6	1559	29	20	454	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.91	
Frt		0.94			0.89		1.00	1.00		1.00	0.99	
Flt Protected		0.99			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1728			1652		1770	3529		1770	5032	
Flt Permitted		0.87			0.99		0.44	1.00		0.10	1.00	
Satd. Flow (perm)		1516			1635		829	3529		192	5032	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	15	24	3	10	61	7	1695	32	22	493	37
RTOR Reduction (vph)	0	23	0	0	57	0	0	1	0	0	5	0
Lane Group Flow (vph)	0	32	0	0	17	0	7	1726	0	22	525	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.0			7.0		91.2	90.8		98.8	94.6	
Effective Green, g (s)		7.0			7.0		91.2	90.8		98.8	94.6	
Actuated g/C Ratio		0.06			0.06		0.76	0.76		0.82	0.79	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		88			95		633	2670		213	3966	
v/s Ratio Prot							0.00	c0.49		c0.00	0.10	
v/s Ratio Perm		c0.02			0.01		0.01			0.08		
v/c Ratio		0.37			0.17		0.01	0.65		0.10	0.13	
Uniform Delay, d1		54.4			53.8		3.5	7.0		9.2	3.0	
Progression Factor		1.00			1.00		1.00	1.00		0.97	0.67	
Incremental Delay, d2		2.6			0.9		0.0	1.2		0.2	0.1	
Delay (s)		57.0			54.6		3.5	8.2		9.2	2.1	
Level of Service		E			D		A	A		A	A	
Approach Delay (s)		57.0			54.6			8.2			2.4	
Approach LOS		E			D			A			A	
Intersection Summary												
HCM 2000 Control Delay		9.4										
HCM 2000 Volume to Capacity ratio		0.60										
Actuated Cycle Length (s)		120.0								18.0		
Intersection Capacity Utilization		63.0%								B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 8: Centennial Olympic Parkway & Martin Luther King Drive

3/10/2014
2013 Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↑		↑	↑↑	↑↑↑	
Volume (vph)	0	201	4	6	250	0	10	0	29	113	56	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Frt		1.00			1.00		1.00		0.85	1.00	0.95	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3530			3535		1770		1583	3433	4807	
Flt Permitted		1.00			0.95		0.25		1.00	0.95	1.00	
Satd. Flow (perm)		3530			3356		466		1583	3433	4807	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	218	4	7	272	0	11	0	32	123	61	35
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	28	0	32	0
Lane Group Flow (vph)	0	221	0	0	279	0	11	0	4	123	64	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		2		1	6				3	4	4	
Permitted Phases				6			3					
Actuated Green, G (s)		76.3			76.3		16.0		16.0	9.7	9.7	
Effective Green, g (s)		76.3			76.3		16.0		16.0	9.7	9.7	
Actuated g/C Ratio		0.64			0.64		0.13		0.13	0.08	0.08	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		2244			2133		62		211	277	388	
v/s Ratio Prot		0.06							0.00	c0.04	0.01	
v/s Ratio Perm					c0.08		c0.02					
v/c Ratio		0.10			0.13		0.18		0.02	0.44	0.16	
Uniform Delay, d1		8.5			8.7		46.2		45.2	52.6	51.4	
Progression Factor		0.73			1.79		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.1			0.0		6.2		0.2	1.1	0.2	
Delay (s)		6.3			15.5		52.3		45.4	53.7	51.6	
Level of Service		A			B		D		D	D	D	
Approach Delay (s)		6.3			15.5			47.1			52.8	
Approach LOS		A			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			25.3			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			31.1%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/10/2014
2013 Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	0	185	22	181	279	78	1198	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.91			1.00				
Flt Protected	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (prot)	1770		1583	1770	3218			3528				
Flt Permitted	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (perm)	1770		1583	1770	3218			3528				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	0	201	24	197	303	85	1302	0	0	0	0
RTOR Reduction (vph)	0	0	28	0	66	0	0	0	0	0	0	0
Lane Group Flow (vph)	177	0	173	24	434	0	0	1387	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		2 4	3	8		2	2				
Permitted Phases					8							
Actuated Green, G (s)	20.0		103.1	4.9	22.7			59.3				
Effective Green, g (s)	20.0		103.1	4.9	22.7			59.3				
Actuated g/C Ratio	0.17		0.86	0.04	0.19			0.49				
Clearance Time (s)	6.0			6.0	6.0			6.0				
Vehicle Extension (s)	3.0			3.0	3.0			3.0				
Lane Grp Cap (vph)	295		1360	72	608			1743				
v/s Ratio Prot	c0.10		0.11	0.01	c0.13			c0.39				
v/s Ratio Perm												
v/c Ratio	0.60		0.13	0.33	0.91dr			0.80				
Uniform Delay, d1	46.3		1.3	56.0	45.6			25.3				
Progression Factor	0.97		0.71	1.00	1.00			0.74				
Incremental Delay, d2	8.7		0.0	2.7	4.0			3.3				
Delay (s)	53.7		1.0	58.7	49.6			22.1				
Level of Service	D		A	E	D			C				
Approach Delay (s)		25.7			50.0			22.1			0.0	
Approach LOS		C			D			C			A	

Intersection Summary

HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis 11: Spring Street & Mitchell Street

3/10/2014
2013 Existing AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	136	134	72	0	0	0	62	1147	42	71	125	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.97						0.99			1.00	
Flt Protected		0.98						1.00			0.98	
Satd. Flow (prot)		3361						3513			3466	
Flt Permitted		0.98						0.92			0.56	
Satd. Flow (perm)		3361						3236			1988	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	148	146	78	0	0	0	67	1247	46	77	136	5
RTOR Reduction (vph)	0	21	0	0	0	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	351	0	0	0	0	0	1359	0	0	217	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		17.8						90.2			90.2	
Effective Green, g (s)		17.8						90.2			90.2	
Actuated g/C Ratio		0.15						0.75			0.75	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		498						2432			1494	
v/s Ratio Prot		c0.10										
v/s Ratio Perm								c0.42			0.11	
v/c Ratio		0.70						0.56			0.15	
Uniform Delay, d1		48.6						6.4			4.2	
Progression Factor		0.69						1.00			0.99	
Incremental Delay, d2		4.2						0.3			0.0	
Delay (s)		37.9						6.7			4.2	
Level of Service		D						A			A	
Approach Delay (s)		37.9			0.0			6.7			4.2	
Approach LOS		D			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.3										
HCM 2000 Volume to Capacity ratio		0.62										
Actuated Cycle Length (s)		120.0								18.0		
Intersection Capacity Utilization		65.5%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

1: Tatnall Street & Martin Luther King Drive

3/10/2014
2013 Existing PM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑		
Volume (vph)	358	76	15	516	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0		
Lane Util. Factor	0.95			0.95		
Frt	0.97			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3446			3534		
Flt Permitted	1.00			0.94		
Satd. Flow (perm)	3446			3310		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	389	83	16	561	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	472	0	0	577	0	0
Turn Type	NA		pm+pt	NA		
Protected Phases	4		3	8		
Permitted Phases			8			
Actuated Green, G (s)	140.0			140.0		
Effective Green, g (s)	140.0			140.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3446			3310		
v/s Ratio Prot	0.14					
v/s Ratio Perm				c0.17		
v/c Ratio	0.14			0.17		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.0			0.0		
Delay (s)	0.0			0.0		
Level of Service	A			A		
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	
Intersection Summary						
HCM 2000 Control Delay		0.0		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.19				
Actuated Cycle Length (s)		140.0		Sum of lost time (s)		12.0
Intersection Capacity Utilization		30.1%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 2: Walnut Street & Martin Luther King Drive

3/10/2014
2013 Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑		↑		↑	↑	↑	
Volume (vph)	0	345	8	22	483	0	83	0	31	1	1	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00	1.00	1.00	
Frt		1.00		1.00	1.00		1.00		0.85	1.00	0.88	
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3527		1770	3539		1770		1583	1770	1630	
Flt Permitted		1.00		0.50	1.00		0.75		1.00	0.95	1.00	
Satd. Flow (perm)		3527		933	3539		1404		1583	1770	1630	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	375	9	24	525	0	90	0	34	1	1	5
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	18	0	3	0
Lane Group Flow (vph)	0	383	0	24	525	0	90	0	16	1	3	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		2	8	8	
Actuated Green, G (s)		66.6		81.0	81.0		47.0		66.6	47.0	47.0	
Effective Green, g (s)		66.6		81.0	81.0		47.0		66.6	47.0	47.0	
Actuated g/C Ratio		0.48		0.58	0.58		0.34		0.48	0.34	0.34	
Clearance Time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1677		590	2047		471		753	594	547	
v/s Ratio Prot		0.11		0.00	c0.15							
v/s Ratio Perm				0.02			c0.06		0.01	0.00	0.00	
v/c Ratio		0.23		0.04	0.26		0.19		0.02	0.00	0.00	
Uniform Delay, d1		21.6		14.2	14.6		33.0		19.4	30.9	30.9	
Progression Factor		1.00		0.52	0.55		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.3		0.0	0.2		0.9		0.1	0.0	0.0	
Delay (s)		21.9		7.4	8.2		33.9		19.5	30.9	31.0	
Level of Service		C		A	A		C		B	C	C	
Approach Delay (s)		21.9			8.1			30.0			30.9	
Approach LOS		C			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			15.8			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.24									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			37.7%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/10/2014
2013 Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	146	120	119	328	196	46	630	99	371	1974	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.93		1.00	0.94		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3300		1770	4800		1770	3467		1770	5038	
Flt Permitted	0.21	1.00		0.43	1.00		0.07	1.00		0.21	1.00	
Satd. Flow (perm)	384	3300		804	4800		129	3467		399	5038	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	114	159	130	129	357	213	50	685	108	403	2146	143
RTOR Reduction (vph)	0	110	0	0	79	0	0	8	0	0	5	0
Lane Group Flow (vph)	114	179	0	129	491	0	50	785	0	403	2284	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	31.1	19.4		30.3	19.0		62.6	57.6		91.3	80.3	
Effective Green, g (s)	31.1	19.4		30.3	19.0		62.6	57.6		91.3	80.3	
Actuated g/C Ratio	0.22	0.14		0.22	0.14		0.45	0.41		0.65	0.57	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	201	457		251	651		116	1426		531	2889	
v/s Ratio Prot	c0.05	0.05		0.04	c0.10		0.02	0.23		c0.15	c0.45	
v/s Ratio Perm	0.08			0.07			0.18			0.34		
v/c Ratio	0.57	0.39		0.51	0.75		0.43	0.55		0.76	0.79	
Uniform Delay, d1	45.7	54.9		46.4	58.3		24.5	31.4		17.0	23.3	
Progression Factor	0.60	0.40		0.56	0.54		1.47	0.87		1.00	1.00	
Incremental Delay, d2	3.6	0.5		1.7	4.8		2.5	1.5		6.2	2.3	
Delay (s)	30.9	22.6		27.9	36.0		38.6	28.7		23.2	25.6	
Level of Service	C	C		C	D		D	C		C	C	
Approach Delay (s)		24.9			34.5			29.3			25.2	
Approach LOS		C			C			C			C	

Intersection Summary

HCM 2000 Control Delay	27.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

4: Northside Drive & Mitchell Street

3/10/2014
2013 Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	24	43	12	7	35	5	692	37	50	2123	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.91	
Frt		0.94			0.91		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1720			1682		1770	3512		1770	5071	
Flt Permitted		0.91			0.84		0.05	1.00		0.33	1.00	
Satd. Flow (perm)		1578			1435		95	3512		623	5071	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	26	47	13	8	38	5	752	40	54	2308	43
RTOR Reduction (vph)	0	26	0	0	35	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	72	0	0	24	0	5	790	0	54	2350	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.6			11.6		103.1	102.3		116.4	109.6	
Effective Green, g (s)		11.6			11.6		103.1	102.3		116.4	109.6	
Actuated g/C Ratio		0.08			0.08		0.74	0.73		0.83	0.78	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		130			118		79	2566		584	3969	
v/s Ratio Prot							0.00	0.22		c0.01	c0.46	
v/s Ratio Perm		c0.05			0.02		0.05			0.07		
v/c Ratio		0.56			0.20		0.06	0.31		0.09	0.59	
Uniform Delay, d1		61.7			59.9		12.9	6.5		3.3	6.2	
Progression Factor		1.00			1.00		1.00	1.00		0.24	0.18	
Incremental Delay, d2		5.1			0.9		0.3	0.3		0.0	0.4	
Delay (s)		66.8			60.8		13.2	6.9		0.8	1.5	
Level of Service		E			E		B	A		A	A	
Approach Delay (s)		66.8			60.8			6.9			1.5	
Approach LOS		E			E			A			A	
Intersection Summary												
HCM 2000 Control Delay		5.7										
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		140.0								18.0		
Intersection Capacity Utilization		59.2%								B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

8: Centennial Olympic Parkway & Martin Luther King Drive

3/10/2014
2013 Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↑		↑	↑↑	↑↑↑	
Volume (vph)	0	199	12	14	474	0	4	0	12	645	450	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Frt		0.99			1.00		1.00		0.85	1.00	0.96	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3509			3534		1770		1583	3433	4881	
Flt Permitted		1.00			0.94		0.19		1.00	0.95	1.00	
Satd. Flow (perm)		3509			3335		355		1583	3433	4881	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	216	13	15	515	0	4	0	13	701	489	179
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	11	0	55	0
Lane Group Flow (vph)	0	227	0	0	530	0	4	0	2	701	613	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		2		1	6				3	4	4	
Permitted Phases				6			3					
Actuated Green, G (s)		60.2			60.2		21.0		21.0	40.8	40.8	
Effective Green, g (s)		60.2			60.2		21.0		21.0	40.8	40.8	
Actuated g/C Ratio		0.43			0.43		0.15		0.15	0.29	0.29	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1508			1434		53		237	1000	1422	
v/s Ratio Prot		0.06							0.00	c0.20	0.13	
v/s Ratio Perm					c0.16		c0.01					
v/c Ratio		0.15			0.37		0.08		0.01	0.70	0.43	
Uniform Delay, d1		24.3			27.0		51.2		50.6	44.2	40.2	
Progression Factor		0.72			0.45		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.1		2.8		0.1	2.2	0.2	
Delay (s)		17.7			12.2		53.9		50.7	46.4	40.4	
Level of Service		B			B		D		D	D	D	
Approach Delay (s)		17.7			12.2			51.5			43.5	
Approach LOS		B			B			D			D	
Intersection Summary												
HCM 2000 Control Delay		33.1				HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		140.0				Sum of lost time (s)			24.0			
Intersection Capacity Utilization		53.9%				ICU Level of Service			A			
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/10/2014
2013 Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	0	761	88	400	106	88	282	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Flt	1.00		0.85	1.00	0.97			1.00				
Flt Protected	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (prot)	1770		1583	1770	3428			3498				
Flt Permitted	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (perm)	1770		1583	1770	3428			3498				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	0	827	96	435	115	96	307	0	0	0	0
RTOR Reduction (vph)	0	0	74	0	17	0	0	0	0	0	0	0
Lane Group Flow (vph)	121	0	753	96	533	0	0	403	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		2 4	3	8		2	2				
Permitted Phases					8							
Actuated Green, G (s)	19.0		115.1	12.9	37.0			66.0				
Effective Green, g (s)	19.0		115.1	12.9	37.0			66.0				
Actuated g/C Ratio	0.14		0.82	0.09	0.26			0.47				
Clearance Time (s)	6.0			6.0	6.0			6.0				
Vehicle Extension (s)	3.0			3.0	3.0			3.0				
Lane Grp Cap (vph)	240		1301	163	905			1649				
v/s Ratio Prot	c0.07		c0.48	0.05	0.16			0.12				
v/s Ratio Perm												
v/c Ratio	0.50		0.58	0.59	0.59			0.24				
Uniform Delay, d1	56.1		4.2	61.0	44.9			22.1				
Progression Factor	0.83		12.07	1.00	1.00			0.83				
Incremental Delay, d2	6.8		1.7	5.4	2.8			0.3				
Delay (s)	53.3		52.8	66.4	47.7			18.6				
Level of Service	D		D	E	D			B				
Approach Delay (s)		52.8			50.5			18.6			0.0	
Approach LOS		D			D			B			A	
Intersection Summary												
HCM 2000 Control Delay			45.2			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			62.0%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Spring Street & Mitchell Street

3/10/2014
2013 Existing PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						LT			LT	
Volume (vph)	69	238	407	0	0	0	28	293	31	100	740	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Flt		0.91						0.99			1.00	
Flt Protected		1.00						1.00			0.99	
Satd. Flow (prot)		3221						3478			3518	
Flt Permitted		1.00						0.83			0.82	
Satd. Flow (perm)		3221						2893			2909	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	259	442	0	0	0	30	318	34	109	804	1
RTOR Reduction (vph)	0	110	0	0	0	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	666	0	0	0	0	0	378	0	0	914	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		35.9						92.1			92.1	
Effective Green, g (s)		35.9						92.1			92.1	
Actuated g/C Ratio		0.26						0.66			0.66	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		825						1903			1913	
v/s Ratio Prot		c0.21										
v/s Ratio Perm								0.13			c0.31	
v/c Ratio		0.81						0.20			0.48	
Uniform Delay, d1		48.8						9.4			12.0	
Progression Factor		0.91						1.00			1.47	
Incremental Delay, d2		5.7						0.1			0.2	
Delay (s)		50.0						9.5			17.7	
Level of Service		D						A			B	
Approach Delay (s)		50.0			0.0			9.5			17.7	
Approach LOS		D			A			A			B	
Intersection Summary												
HCM 2000 Control Delay		28.3										
HCM 2000 Volume to Capacity ratio		0.60										
Actuated Cycle Length (s)		140.0								18.0		
Intersection Capacity Utilization		70.0%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
1: Tatnall Street & Martin Luther King Drive

3/10/2014
2017 No Build AM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑		
Volume (vph)	470	100	20	290	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0		
Lane Util. Factor	0.95			0.95		
Frt	0.97			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3446			3528		
Flt Permitted	1.00			0.90		
Satd. Flow (perm)	3446			3172		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	511	109	22	315	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	620	0	0	337	0	0
Turn Type	NA		pm+pt	NA		
Protected Phases	4		3	8		
Permitted Phases			8			
Actuated Green, G (s)	120.0			120.0		
Effective Green, g (s)	120.0			120.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3446			3172		
v/s Ratio Prot	c0.18					
v/s Ratio Perm				0.11		
v/c Ratio	0.18			0.11		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.0			0.0		
Delay (s)	0.0			0.0		
Level of Service	A			A		
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	
Intersection Summary						
HCM 2000 Control Delay		0.0		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.20				
Actuated Cycle Length (s)		120.0		Sum of lost time (s)		12.0
Intersection Capacity Utilization		28.1%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

2: Walnut Street & Martin Luther King Drive

3/10/2014
2017 No Build AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↔	↑↑		↔		↔	↔	↑	
Volume (vph)	0	500	10	30	200	0	70	0	100	30	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00	1.00	1.00	
Frt		1.00		1.00	1.00		1.00		0.85	1.00	0.90	
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3529		1770	3539		1770		1583	1770	1676	
Flt Permitted		1.00		0.41	1.00		0.74		1.00	0.95	1.00	
Satd. Flow (perm)		3529		764	3539		1370		1583	1770	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	543	11	33	217	0	76	0	109	33	11	22
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	53	0	16	0
Lane Group Flow (vph)	0	553	0	33	217	0	76	0	56	33	17	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		2	8	8	
Actuated Green, G (s)		61.8		75.0	75.0		33.0		61.8	33.0	33.0	
Effective Green, g (s)		61.8		75.0	75.0		33.0		61.8	33.0	33.0	
Actuated g/C Ratio		0.51		0.62	0.62		0.28		0.51	0.28	0.28	
Clearance Time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1817		537	2211		376		815	486	460	
v/s Ratio Prot		c0.16		0.00	c0.06							
v/s Ratio Perm				0.03			c0.06		0.04	0.02	0.01	
v/c Ratio		0.30		0.06	0.10		0.20		0.07	0.07	0.04	
Uniform Delay, d1		16.7		11.0	9.0		33.4		14.6	32.1	31.9	
Progression Factor		1.00		1.23	1.23		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.4		0.0	0.1		1.2		0.2	0.3	0.2	
Delay (s)		17.2		13.5	11.1		34.6		14.8	32.4	32.0	
Level of Service		B		B	B		C		B	C	C	
Approach Delay (s)		17.2			11.4			22.9			32.2	
Approach LOS		B			B			C			C	
Intersection Summary												
HCM 2000 Control Delay			17.8			HCM 2000 Level of Service			B			
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			41.4%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/10/2014
2017 No Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	230	290	70	30	90	210	40	1610	60	130	480	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.97		1.00	0.90		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3436		1770	4552		1770	3520		1770	4988	
Flt Permitted	0.34	1.00		0.52	1.00		0.36	1.00		0.07	1.00	
Satd. Flow (perm)	631	3436		970	4552		676	3520		127	4988	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	315	76	33	98	228	43	1750	65	141	522	76
RTOR Reduction (vph)	0	18	0	0	116	0	0	2	0	0	16	0
Lane Group Flow (vph)	250	373	0	33	210	0	43	1813	0	141	582	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	30.8	22.4		16.2	13.8		62.9	62.9		66.8	66.8	
Effective Green, g (s)	30.8	22.4		16.2	13.8		62.9	62.9		66.8	66.8	
Actuated g/C Ratio	0.26	0.19		0.13	0.12		0.52	0.52		0.56	0.56	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	266	641		146	523		394	1845		184	2776	
v/s Ratio Prot	c0.09	0.11		0.00	0.05		0.00	c0.51		c0.05	0.12	
v/s Ratio Perm	c0.15			0.03			0.05			0.37		
v/c Ratio	0.94	0.58		0.23	0.85dr		0.11	0.98		0.77	0.21	
Uniform Delay, d1	41.1	44.5		45.7	49.3		14.2	28.0		48.5	13.4	
Progression Factor	0.67	0.68		0.55	0.26		0.65	0.71		1.00	1.00	
Incremental Delay, d2	38.2	1.3		0.8	0.5		0.1	14.3		17.2	0.2	
Delay (s)	65.7	31.5		25.8	13.2		9.2	34.3		65.7	13.5	
Level of Service	E	C		C	B		A	C		E	B	
Approach Delay (s)		44.8			14.3			33.7			23.5	
Approach LOS		D			B			C			C	

Intersection Summary

HCM 2000 Control Delay	31.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	92.8%	ICU Level of Service	F
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

4: Northside Drive & Mitchell Street

3/10/2014
2017 No Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	30	10	10	60	10	1690	30	20	490	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.91	
Frt		0.94			0.90		1.00	1.00		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1730			1664		1770	3530		1770	5028	
Flt Permitted		0.83			0.94		0.40	1.00		0.08	1.00	
Satd. Flow (perm)		1465			1577		737	3530		157	5028	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	33	11	11	65	11	1837	33	22	533	43
RTOR Reduction (vph)	0	24	0	0	60	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	53	0	0	27	0	11	1869	0	22	570	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.5			9.5		88.3	88.3		91.7	91.7	
Effective Green, g (s)		9.5			9.5		88.3	88.3		91.7	91.7	
Actuated g/C Ratio		0.08			0.08		0.74	0.74		0.76	0.76	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		115			124		549	2597		176	3842	
v/s Ratio Prot							0.00	c0.53		0.00	c0.11	
v/s Ratio Perm		c0.04			0.02		0.01			0.09		
v/c Ratio		0.46			0.22		0.02	0.72		0.12	0.15	
Uniform Delay, d1		52.8			51.8		4.4	8.9		13.4	3.8	
Progression Factor		1.00			1.00		1.00	1.00		0.70	0.57	
Incremental Delay, d2		2.9			0.9		0.0	1.8		0.3	0.1	
Delay (s)		55.7			52.7		4.4	10.7		9.6	2.2	
Level of Service		E			D		A	B		A	A	
Approach Delay (s)		55.7			52.7			10.6			2.5	
Approach LOS		E			D			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.5										
HCM 2000 Volume to Capacity ratio		0.68										
Actuated Cycle Length (s)		120.0								18.0		
Intersection Capacity Utilization		65.3%								C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 8: Centennial Olympic Parkway & Martin Luther King Drive

3/10/2014
2017 No Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 					  	  	
Volume (vph)	0	220	10	10	270	0	10	0	30	122	62	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Flt		0.99			1.00		1.00		0.85	1.00	0.95	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3516			3533		1770		1583	3433	4809	
Flt Permitted		1.00			0.94		0.11		1.00	0.95	1.00	
Satd. Flow (perm)		3516			3332		207		1583	3433	4809	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	239	11	11	293	0	11	0	33	133	67	38
RTOR Reduction (vph)	0	2	0	0	0	0	0	0	23	0	35	0
Lane Group Flow (vph)	0	248	0	0	304	0	11	0	10	133	70	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		2		1	6				3	4	4	
Permitted Phases				6			3					
Actuated Green, G (s)		56.0			56.0		36.0		36.0	10.0	10.0	
Effective Green, g (s)		56.0			56.0		36.0		36.0	10.0	10.0	
Actuated g/C Ratio		0.47			0.47		0.30		0.30	0.08	0.08	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1640			1554		62		474	286	400	
v/s Ratio Prot		0.07							0.01	c0.04	0.01	
v/s Ratio Perm					c0.09		c0.05					
v/c Ratio		0.15			0.20		0.18		0.02	0.47	0.18	
Uniform Delay, d1		18.4			18.8		31.1		29.6	52.4	51.2	
Progression Factor		0.87			1.06		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.0		6.2		0.1	1.2	0.2	
Delay (s)		16.1			20.0		37.2		29.7	53.6	51.4	
Level of Service		B			B		D		C	D	D	
Approach Delay (s)		16.1			20.0			31.6			52.6	
Approach LOS		B			B			C			D	
Intersection Summary												
HCM 2000 Control Delay			28.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.23									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				24.0		
Intersection Capacity Utilization			34.9%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

10: Spring Street & Martin Luther King Drive

3/10/2014
2017 No Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	0	200	30	200	300	90	1300	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.91			1.00				
Flt Protected	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (prot)	1770		1583	1770	3220			3528				
Flt Permitted	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (perm)	1770		1583	1770	3220			3528				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	0	217	33	217	326	98	1413	0	0	0	0
RTOR Reduction (vph)	0	0	61	0	56	0	0	0	0	0	0	0
Lane Group Flow (vph)	196	0	156	33	487	0	0	1511	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		2 4	3	8		2	2				
Permitted Phases					8							
Actuated Green, G (s)	19.0		86.2	21.8	23.8			59.2				
Effective Green, g (s)	19.0		86.2	21.8	23.8			59.2				
Actuated g/C Ratio	0.16		0.72	0.18	0.20			0.49				
Clearance Time (s)	6.0			6.0	6.0			6.0				
Vehicle Extension (s)	3.0			3.0	3.0			3.0				
Lane Grp Cap (vph)	280		1137	321	638			1740				
v/s Ratio Prot	c0.11		0.10	0.02	c0.15			c0.43				
v/s Ratio Perm												
v/c Ratio	0.70		0.14	0.10	0.96dr			0.87				
Uniform Delay, d1	47.8		5.3	40.9	45.4			26.9				
Progression Factor	0.75		0.67	1.00	1.00			0.74				
Incremental Delay, d2	13.6		0.1	0.1	5.4			4.9				
Delay (s)	49.4		3.6	41.1	50.8			24.8				
Level of Service	D		A	D	D			C				
Approach Delay (s)		25.3			50.3			24.8			0.0	
Approach LOS		C			D			C			A	

Intersection Summary

HCM 2000 Control Delay	30.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
dr Defacto Right Lane. Recode with 1 though lane as a right lane.			
c Critical Lane Group			

11: Spring Street & Mitchell Street

2017 No Build AM Peak Hour

[illegible]

HCM Signalized Intersection Capacity Analysis 1: Tatnall Street & Martin Luther King Drive

3/10/2014
2017 No Build PM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑		
Volume (vph)	390	80	20	560	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0		
Lane Util. Factor	0.95			0.95		
Frt	0.97			1.00		
Flt Protected	1.00			1.00		
Satd. Flow (prot)	3449			3533		
Flt Permitted	1.00			0.92		
Satd. Flow (perm)	3449			3270		
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	424	87	22	609	0	0
RTOR Reduction (vph)	0	0	0	0	0	0
Lane Group Flow (vph)	511	0	0	631	0	0
Turn Type	NA		pm+pt	NA		
Protected Phases	4		3	8		
Permitted Phases			8			
Actuated Green, G (s)	140.0			140.0		
Effective Green, g (s)	140.0			140.0		
Actuated g/C Ratio	1.00			1.00		
Clearance Time (s)	6.0			6.0		
Vehicle Extension (s)	3.0			3.0		
Lane Grp Cap (vph)	3449			3270		
v/s Ratio Prot	0.15					
v/s Ratio Perm				c0.19		
v/c Ratio	0.15			0.19		
Uniform Delay, d1	0.0			0.0		
Progression Factor	1.00			1.00		
Incremental Delay, d2	0.0			0.0		
Delay (s)	0.0			0.0		
Level of Service	A			A		
Approach Delay (s)	0.0			0.0	0.0	
Approach LOS	A			A	A	
Intersection Summary						
HCM 2000 Control Delay			0.0	HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio			0.21			
Actuated Cycle Length (s)			140.0	Sum of lost time (s)		12.0
Intersection Capacity Utilization			35.0%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 2: Walnut Street & Martin Luther King Drive

3/10/2014
2017 No Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑	↑↑		↑		↑	↑	↑	
Volume (vph)	0	400	10	30	520	0	90	0	40	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95		1.00	0.95		1.00		1.00	1.00	1.00	
Frt		1.00		1.00	1.00		1.00		0.85	1.00	0.93	
Flt Protected		1.00		0.95	1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3526		1770	3539		1770		1583	1770	1723	
Flt Permitted		1.00		0.43	1.00		0.74		1.00	0.95	1.00	
Satd. Flow (perm)		3526		799	3539		1384		1583	1770	1723	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	435	11	33	565	0	98	0	43	11	11	11
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	21	0	7	0
Lane Group Flow (vph)	0	445	0	33	565	0	98	0	22	11	15	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		2	8	8	
Actuated Green, G (s)		71.7		82.0	82.0		46.0		71.7	46.0	46.0	
Effective Green, g (s)		71.7		82.0	82.0		46.0		71.7	46.0	46.0	
Actuated g/C Ratio		0.51		0.59	0.59		0.33		0.51	0.33	0.33	
Clearance Time (s)		6.0		6.0	6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1805		497	2072		454		810	581	566	
v/s Ratio Prot		0.13		0.00	c0.16							
v/s Ratio Perm				0.04			c0.07		0.01	0.01	0.01	
v/c Ratio		0.25		0.07	0.27		0.22		0.03	0.02	0.03	
Uniform Delay, d1		19.1		12.6	14.3		34.0		16.9	31.8	31.8	
Progression Factor		1.00		0.51	0.51		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.3		0.0	0.2		1.1		0.1	0.1	0.1	
Delay (s)		19.4		6.5	7.5		35.1		17.0	31.8	31.9	
Level of Service		B		A	A		D		B	C	C	
Approach Delay (s)		19.4			7.5			29.5			31.9	
Approach LOS		B			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			15.1			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.26									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			39.7%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/10/2014
2017 No Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	160	130	120	360	220	50	680	110	400	2140	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	0.95		1.00	0.91		1.00	0.95		1.00	0.91	
Frt	1.00	0.93		1.00	0.94		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3302		1770	4796		1770	3465		1770	5039	
Flt Permitted	0.19	1.00		0.41	1.00		0.08	1.00		0.17	1.00	
Satd. Flow (perm)	362	3302		760	4796		141	3465		309	5039	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	174	141	130	391	239	54	739	120	435	2326	152
RTOR Reduction (vph)	0	86	0	0	80	0	0	8	0	0	5	0
Lane Group Flow (vph)	130	229	0	130	550	0	54	851	0	435	2473	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	32.6	20.6		31.2	19.9		56.4	52.8		90.1	80.5	
Effective Green, g (s)	32.6	20.6		31.2	19.9		56.4	52.8		90.1	80.5	
Actuated g/C Ratio	0.23	0.15		0.22	0.14		0.40	0.38		0.64	0.58	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	204	485		250	681		98	1306		525	2897	
v/s Ratio Prot	c0.05	0.07		0.04	c0.11		0.01	0.25		c0.19	c0.49	
v/s Ratio Perm	0.09			0.07			0.21			0.35		
v/c Ratio	0.64	0.47		0.52	0.81		0.55	0.65		0.83	0.85	
Uniform Delay, d1	45.1	54.7		45.7	58.2		28.9	36.0		28.2	24.8	
Progression Factor	1.36	0.56		0.53	0.66		1.40	0.90		1.00	1.00	
Incremental Delay, d2	6.3	0.7		1.8	6.6		6.3	2.4		10.4	3.4	
Delay (s)	67.8	31.4		25.9	45.1		46.7	35.0		38.6	28.3	
Level of Service	E	C		C	D		D	D		D	C	
Approach Delay (s)		42.0			41.8			35.7			29.8	
Approach LOS		D			D			D			C	
Intersection Summary												
HCM 2000 Control Delay		33.8			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.85										
Actuated Cycle Length (s)		140.0			Sum of lost time (s)			24.0				
Intersection Capacity Utilization		86.3%			ICU Level of Service			E				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 4: Northside Drive & Mitchell Street

3/10/2014
2017 No Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕↕↕	
Volume (vph)	30	30	50	20	10	40	10	750	40	50	2300	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.91	
Frt		0.94			0.92		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1726			1696		1770	3513		1770	5072	
Flt Permitted		0.87			0.76		0.04	1.00		0.31	1.00	
Satd. Flow (perm)		1515			1310		73	3513		577	5072	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	54	22	11	43	11	815	43	54	2500	43
RTOR Reduction (vph)	0	23	0	0	35	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	97	0	0	41	0	11	856	0	54	2542	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.9			13.9		103.7	102.5		112.5	106.9	
Effective Green, g (s)		13.9			13.9		103.7	102.5		112.5	106.9	
Actuated g/C Ratio		0.10			0.10		0.74	0.73		0.80	0.76	
Clearance Time (s)		6.0			6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		150			130		68	2572		511	3872	
v/s Ratio Prot							0.00	0.24		c0.00	c0.50	
v/s Ratio Perm		c0.06			0.03		0.12			0.08		
v/c Ratio		0.65			0.31		0.16	0.33		0.11	0.66	
Uniform Delay, d1		60.7			58.6		17.3	6.6		4.5	7.8	
Progression Factor		1.00			1.00		1.00	1.00		0.31	0.19	
Incremental Delay, d2		9.3			1.4		1.1	0.3		0.1	0.5	
Delay (s)		70.0			60.0		18.5	7.0		1.5	2.0	
Level of Service		E			E		B	A		A	A	
Approach Delay (s)		70.0			60.0			7.1			2.0	
Approach LOS		E			E			A			A	
Intersection Summary												
HCM 2000 Control Delay		6.6										
HCM 2000 Volume to Capacity ratio		0.65										
Actuated Cycle Length (s)		140.0								18.0		
Intersection Capacity Utilization		63.6%								B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

8: Centennial Olympic Parkway & Martin Luther King Drive

3/10/2014
2017 No Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	220	20	20	510	0	10	0	20	700	490	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Fr't		0.99			1.00		1.00		0.85	1.00	0.96	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3494			3532		1770		1583	3433	4880	
Flt Permitted		1.00			0.93		0.20		1.00	0.95	1.00	
Satd. Flow (perm)		3494			3302		373		1583	3433	4880	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	239	22	22	554	0	11	0	22	761	533	196
RTOR Reduction (vph)	0	4	0	0	0	0	0	0	19	0	53	0
Lane Group Flow (vph)	0	257	0	0	576	0	11	0	3	761	676	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		2		1	6				3	4	4	
Permitted Phases				6			3					
Actuated Green, G (s)		57.7			57.7		20.0		20.0	44.3	44.3	
Effective Green, g (s)		57.7			57.7		20.0		20.0	44.3	44.3	
Actuated g/C Ratio		0.41			0.41		0.14		0.14	0.32	0.32	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1440			1360		53		226	1086	1544	
v/s Ratio Prot		0.07							0.00	c0.22	0.14	
v/s Ratio Perm					c0.17		c0.03					
v/c Ratio		0.18			0.42		0.21		0.01	0.70	0.44	
Uniform Delay, d1		26.1			29.3		53.0		51.5	42.0	38.0	
Progression Factor		0.80			1.99		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.2		8.7		0.1	2.1	0.2	
Delay (s)		21.2			58.5		61.7		51.6	44.1	38.2	
Level of Service		C			E		E		D	D	D	
Approach Delay (s)		21.2			58.5			55.0			41.2	
Approach LOS		C			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			43.4			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.51									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			58.2%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/10/2014
2017 No Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	0	820	100	430	110	100	310	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.97			1.00				
Flt Protected	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (prot)	1770		1583	1770	3431			3496				
Flt Permitted	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (perm)	1770		1583	1770	3431			3496				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	0	891	109	467	120	109	337	0	0	0	0
RTOR Reduction (vph)	0	0	57	0	17	0	0	0	0	0	0	0
Lane Group Flow (vph)	130	0	834	109	570	0	0	446	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		2 4	3	8		2	2				
Permitted Phases					8							
Actuated Green, G (s)	18.0		114.8	13.2	27.9			76.1				
Effective Green, g (s)	18.0		114.8	13.2	27.9			76.1				
Actuated g/C Ratio	0.13		0.82	0.09	0.20			0.54				
Clearance Time (s)	6.0			6.0	6.0			6.0				
Vehicle Extension (s)	3.0			3.0	3.0			3.0				
Lane Grp Cap (vph)	227		1298	166	683			1900				
v/s Ratio Prot	c0.07		c0.53	0.06	c0.17			0.13				
v/s Ratio Perm												
v/c Ratio	0.57		0.64	0.66	0.83			0.23				
Uniform Delay, d1	57.4		4.8	61.2	53.8			16.7				
Progression Factor	0.67		6.63	1.00	1.00			1.54				
Incremental Delay, d2	9.1		1.0	9.0	8.7			0.3				
Delay (s)	47.5		32.8	70.2	62.5			25.9				
Level of Service	D		C	E	E			C				
Approach Delay (s)		34.7			63.7			25.9			0.0	
Approach LOS		C			E			C			A	
Intersection Summary												
HCM 2000 Control Delay			42.2			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			66.3%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

11: Spring Street & Mitchell Street

3/10/2014
2017 No Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		TT						TT			TT	
Volume (vph)	80	260	440	0	0	0	30	320	40	110	800	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.92						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3223						3472			3512	
Flt Permitted		0.99						0.81			0.80	
Satd. Flow (perm)		3223						2824			2833	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	283	478	0	0	0	33	348	43	120	870	11
RTOR Reduction (vph)	0	89	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	759	0	0	0	0	0	419	0	0	1001	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		39.9						88.1			88.1	
Effective Green, g (s)		39.9						88.1			88.1	
Actuated g/C Ratio		0.28						0.63			0.63	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		918						1777			1782	
v/s Ratio Prot		c0.24										
v/s Ratio Perm								0.15			c0.35	
v/c Ratio		0.87dr						0.24			0.56	
Uniform Delay, d1		46.8						11.3			14.9	
Progression Factor		0.92						1.00			0.75	
Incremental Delay, d2		6.0						0.1			0.3	
Delay (s)		49.3						11.4			11.4	
Level of Service		D						B			B	
Approach Delay (s)		49.3			0.0			11.4			11.4	
Approach LOS		D			A			B			B	

Intersection Summary

HCM 2000 Control Delay	25.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis 1: Tatnall Street & Martin Luther King Drive

3/10/2014
2017 Build AM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑↑	
Volume (vph)	180	390	20	160	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	0.90			1.00	1.00	
Flt Protected	1.00			0.99	0.95	
Satd. Flow (prot)	3176			3519	3433	
Flt Permitted	1.00			0.86	0.95	
Satd. Flow (perm)	3176			3055	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	424	22	174	152	0
RTOR Reduction (vph)	148	0	0	0	0	0
Lane Group Flow (vph)	472	0	0	196	152	0
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Actuated Green, G (s)	78.0			78.0	30.0	
Effective Green, g (s)	78.0			78.0	30.0	
Actuated g/C Ratio	0.65			0.65	0.25	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2064			1985	858	
v/s Ratio Prot	c0.15				c0.04	
v/s Ratio Perm				0.06		
v/c Ratio	0.23			0.10	0.18	
Uniform Delay, d1	8.6			7.9	35.3	
Progression Factor	1.00			0.60	1.00	
Incremental Delay, d2	0.3			0.0	0.5	
Delay (s)	8.9			4.7	35.8	
Level of Service	A			A	D	
Approach Delay (s)	8.9			4.7	35.8	
Approach LOS	A			A	D	
Intersection Summary						
HCM 2000 Control Delay			12.3		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.23			
Actuated Cycle Length (s)			120.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			34.1%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

2: Walnut Street & Martin Luther King Drive

3/10/2014
2017 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 				 		 	
Volume (vph)	0	210	10	30	70	0	70	0	120	30	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	1.00	1.00	
Frt		0.99			1.00		1.00		0.85	1.00	0.90	
Flt Protected		1.00			0.99		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3515			3486		1770		1583	1770	1676	
Flt Permitted		1.00			0.83		0.74		1.00	0.95	1.00	
Satd. Flow (perm)		3515			2925		1370		1583	1770	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	228	11	33	76	0	76	0	130	33	11	22
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	73	0	12	0
Lane Group Flow (vph)	0	236	0	0	109	0	76	0	57	33	21	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		4	8	8	
Actuated Green, G (s)		55.0			55.0		53.0		53.0	53.0	53.0	
Effective Green, g (s)		55.0			55.0		53.0		53.0	53.0	53.0	
Actuated g/C Ratio		0.46			0.46		0.44		0.44	0.44	0.44	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1611			1340		605		699	781	740	
v/s Ratio Prot		c0.07										
v/s Ratio Perm					0.04		c0.06		0.04	0.02	0.01	
v/c Ratio		0.15			0.08		0.13		0.08	0.04	0.03	
Uniform Delay, d1		18.9			18.3		19.8		19.4	19.1	18.9	
Progression Factor		0.90			1.25		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.0		0.4		0.2	0.1	0.1	
Delay (s)		17.3			22.8		20.2		19.6	19.2	19.0	
Level of Service		B			C		C		B	B	B	
Approach Delay (s)		17.3			22.8			19.9			19.1	
Approach LOS		B			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			19.3			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.14									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			33.3%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/10/2014
2017 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	20	70	10	10	10	0	1820	30	50	610	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.86	
Frt	1.00	1.00	0.85		1.00	0.85		1.00			0.99	
Flt Protected	0.95	0.96	1.00		0.98	1.00		1.00			1.00	
Satd. Flow (prot)	1681	1697	1583		1817	1583		3531			6294	
Flt Permitted	0.36	0.34	1.00		0.76	1.00		1.00			0.75	
Satd. Flow (perm)	643	597	1583		1422	1583		3531			4712	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	272	22	76	11	11	11	0	1978	33	54	663	76
RTOR Reduction (vph)	0	0	63	0	0	11	0	1	0	0	12	0
Lane Group Flow (vph)	147	147	13	0	22	0	0	2010	0	0	781	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8				6		
Actuated Green, G (s)	20.8	20.8	20.8		5.0	5.0		87.2			87.2	
Effective Green, g (s)	20.8	20.8	20.8		5.0	5.0		87.2			87.2	
Actuated g/C Ratio	0.17	0.17	0.17		0.04	0.04		0.73			0.73	
Clearance Time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	196	193	274		59	65		2565			3424	
v/s Ratio Prot	0.06	c0.06						c0.57				
v/s Ratio Perm	0.07	c0.07	0.01		0.02	0.00					0.17	
v/c Ratio	0.75	0.76	0.05		0.37	0.01		0.78			0.23	
Uniform Delay, d1	45.1	47.2	41.3		56.0	55.1		10.4			5.4	
Progression Factor	0.78	0.78	5.43		1.00	1.00		0.19			1.00	
Incremental Delay, d2	14.8	16.1	0.1		3.9	0.0		1.1			0.0	
Delay (s)	50.0	53.0	224.5		59.9	55.2		3.0			5.4	
Level of Service	D	D	F		E	E		A			A	
Approach Delay (s)		87.0			58.3			3.0			5.4	
Approach LOS		F			E			A			A	
Intersection Summary												
HCM 2000 Control Delay			13.9									B
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			120.0								24.0	
Intersection Capacity Utilization			77.0%								D	
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

4: Northside Drive & Mitchell Street

3/10/2014
2017 Build AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻		↻	↻↻		↻	↻↻		↻	↻↻↻	
Volume (vph)	0	310	30	70	100	270	50	1630	90	150	490	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00		1.00	0.95		1.00	0.95		1.00	0.91	
Frt		0.99		1.00	0.89		1.00	0.99		1.00	0.99	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1840		1770	3152		1770	3511		1770	5028	
Flt Permitted		1.00		0.17	1.00		0.42	1.00		0.06	1.00	
Satd. Flow (perm)		1840		323	3152		788	3511		104	5028	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	337	33	76	109	293	54	1772	98	163	533	43
RTOR Reduction (vph)	0	3	0	0	47	0	0	3	0	0	7	0
Lane Group Flow (vph)	0	367	0	76	355	0	54	1867	0	163	569	0
Turn Type		NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases				8			2			6		
Actuated Green, G (s)		26.7		26.7	26.7		67.9	65.5		81.3	72.9	
Effective Green, g (s)		26.7		26.7	26.7		67.9	65.5		81.3	72.9	
Actuated g/C Ratio		0.22		0.22	0.22		0.57	0.55		0.68	0.61	
Clearance Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		409		71	701		465	1916		206	3054	
v/s Ratio Prot		0.20			0.11		0.00	c0.53		c0.06	0.11	
v/s Ratio Perm				c0.24			0.06			0.47		
v/c Ratio		0.90		1.07	0.51		0.12	0.97		0.79	0.19	
Uniform Delay, d1		45.3		46.6	40.9		12.3	26.4		47.0	10.4	
Progression Factor		1.00		0.67	0.58		1.00	1.00		0.96	0.68	
Incremental Delay, d2		21.6		127.4	0.6		0.1	15.3		18.2	0.1	
Delay (s)		66.9		158.8	24.2		12.4	41.8		63.3	7.2	
Level of Service		E		F	C		B	D		E	A	
Approach Delay (s)		66.9			45.6			40.9			19.6	
Approach LOS		E			D			D			B	
Intersection Summary												
HCM 2000 Control Delay			39.8			HCM 2000 Level of Service			D			
HCM 2000 Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			98.2%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Mitchell Street & Martin Luther King Drive

3/10/2014
2017 Build AM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Volume (vph)	230	360	0	315	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	1.00		0.95	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	391	0	342	43	11
RTOR Reduction (vph)	0	63	0	0	0	10
Lane Group Flow (vph)	250	328	0	342	43	1
Turn Type	NA	Perm		NA	NA	Perm
Protected Phases	2				4	
Permitted Phases		2		6		4
Actuated Green, G (s)	100.7	100.7		100.7	7.3	7.3
Effective Green, g (s)	100.7	100.7		100.7	7.3	7.3
Actuated g/C Ratio	0.84	0.84		0.84	0.06	0.06
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	2969	1328		2969	107	96
v/s Ratio Prot	0.07				c0.02	
v/s Ratio Perm		c0.21		0.10		0.00
v/c Ratio	0.08	0.25		0.12	0.40	0.01
Uniform Delay, d1	1.7	2.0		1.7	54.2	52.9
Progression Factor	0.85	3.02		0.41	1.06	1.13
Incremental Delay, d2	0.0	0.2		0.1	2.5	0.0
Delay (s)	1.5	6.2		0.8	59.7	59.7
Level of Service	A	A		A	E	E
Approach Delay (s)	4.3			0.8	59.7	
Approach LOS	A			A	E	
Intersection Summary						
HCM 2000 Control Delay		6.0		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.26				
Actuated Cycle Length (s)		120.0		Sum of lost time (s)	12.0	
Intersection Capacity Utilization		27.3%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

8: Centennial Olympic Parkway & Martin Luther King Drive

3/10/2014
2017 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↑		↑	↑↑	↑↑↑	
Volume (vph)	0	220	10	10	270	0	10	0	29	122	61	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Frt		0.99			1.00		1.00		0.85	1.00	0.95	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3516			3533		1770		1583	3433	4807	
Flt Permitted		1.00			0.95		0.95		1.00	0.95	1.00	
Satd. Flow (perm)		3516			3357		1770		1583	3433	4807	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	239	11	11	293	0	11	0	32	133	66	38
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	26	0	30	0
Lane Group Flow (vph)	0	247	0	0	304	0	11	0	6	133	74	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		6		5	2		3		3	4	4	
Permitted Phases				2			3		3			
Actuated Green, G (s)		33.0			55.0		22.0		22.0	25.0	25.0	
Effective Green, g (s)		33.0			55.0		22.0		22.0	25.0	25.0	
Actuated g/C Ratio		0.28			0.46		0.18		0.18	0.21	0.21	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		966			1562		324		290	715	1001	
v/s Ratio Prot		c0.07			c0.03		c0.01		0.00	c0.04	0.02	
v/s Ratio Perm					0.06							
v/c Ratio		0.26			0.19		0.03		0.02	0.19	0.07	
Uniform Delay, d1		33.9			19.3		40.3		40.2	39.1	38.2	
Progression Factor		1.16			0.62		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.6			0.2		0.2		0.1	0.6	0.1	
Delay (s)		40.0			12.1		40.5		40.3	39.7	38.3	
Level of Service		D			B		D		D	D	D	
Approach Delay (s)		40.0			12.1			40.3			39.1	
Approach LOS		D			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			29.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.18									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			34.9%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/10/2014
2017 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	0	200	30	200	300	90	1300	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.91			1.00				
Flt Protected	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (prot)	1770		1583	1770	3220			3528				
Flt Permitted	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (perm)	1770		1583	1770	3220			3528				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	0	217	33	217	326	98	1413	0	0	0	0
RTOR Reduction (vph)	0	0	175	0	56	0	0	0	0	0	0	0
Lane Group Flow (vph)	196	0	42	33	487	0	0	1511	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		4	3	8		2	2				
Permitted Phases			4		8							
Actuated Green, G (s)	19.0		23.4	19.4	23.8			59.2				
Effective Green, g (s)	19.0		23.4	19.4	23.8			59.2				
Actuated g/C Ratio	0.16		0.19	0.16	0.20			0.49				
Clearance Time (s)	6.0		6.0	6.0	6.0			6.0				
Vehicle Extension (s)	3.0		3.0	3.0	3.0			3.0				
Lane Grp Cap (vph)	280		308	286	638			1740				
v/s Ratio Prot	c0.11		0.03	0.02	c0.15			c0.43				
v/s Ratio Perm												
v/c Ratio	0.70		0.14	0.12	0.96dr			0.87				
Uniform Delay, d1	47.8		40.0	43.0	45.4			26.9				
Progression Factor	0.59		2.35	1.00	1.00			0.73				
Incremental Delay, d2	13.5		0.2	0.2	5.4			4.9				
Delay (s)	41.5		94.1	43.2	50.8			24.7				
Level of Service	D		F	D	D			C				
Approach Delay (s)		69.2			50.4			24.7			0.0	
Approach LOS		E			D			C			A	

Intersection Summary												
HCM 2000 Control Delay		38.0		HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio		0.81										
Actuated Cycle Length (s)		120.0		Sum of lost time (s)				18.0				
Intersection Capacity Utilization		77.0%		ICU Level of Service				D				
Analysis Period (min)		15										
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 11: Spring Street & Mitchell Street

3/10/2014
2017 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						LT			LT	
Volume (vph)	150	150	80	0	0	0	70	1240	50	80	140	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.97						0.99			0.99	
Flt Protected		0.98						1.00			0.98	
Satd. Flow (prot)		3361						3511			3456	
Flt Permitted		0.98						0.91			0.54	
Satd. Flow (perm)		3361						3212			1887	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	163	87	0	0	0	76	1348	54	87	152	11
RTOR Reduction (vph)	0	21	0	0	0	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	392	0	0	0	0	0	1476	0	0	248	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		18.9						89.1			89.1	
Effective Green, g (s)		18.9						89.1			89.1	
Actuated g/C Ratio		0.16						0.74			0.74	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		529						2384			1401	
v/s Ratio Prot		c0.12										
v/s Ratio Perm								c0.46			0.13	
v/c Ratio		0.74						0.62			0.18	
Uniform Delay, d1		48.2						7.4			4.6	
Progression Factor		0.58						1.00			0.93	
Incremental Delay, d2		5.4						0.5			0.1	
Delay (s)		33.6						7.9			4.3	
Level of Service		C						A			A	
Approach Delay (s)		33.6			0.0			7.9			4.3	
Approach LOS		C			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		12.4										
HCM 2000 Volume to Capacity ratio		0.68										
Actuated Cycle Length (s)		120.0								18.0		
Intersection Capacity Utilization		70.5%								C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
1: Tatnall Street & Martin Luther King Drive

3/10/2014
2017 Build PM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↑↑	
Volume (vph)	230	240	20	140	410	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	0.92			1.00	1.00	
Flt Protected	1.00			0.99	0.95	
Satd. Flow (prot)	3268			3517	3433	
Flt Permitted	1.00			0.86	0.95	
Satd. Flow (perm)	3268			3046	3433	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	250	261	22	152	446	0
RTOR Reduction (vph)	117	0	0	0	0	0
Lane Group Flow (vph)	394	0	0	174	446	0
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Actuated Green, G (s)	71.0			71.0	57.0	
Effective Green, g (s)	71.0			71.0	57.0	
Actuated g/C Ratio	0.51			0.51	0.41	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1657			1544	1397	
v/s Ratio Prot	c0.12				c0.13	
v/s Ratio Perm				0.06		
v/c Ratio	0.24			0.11	0.32	
Uniform Delay, d1	19.3			18.0	28.3	
Progression Factor	1.00			0.44	1.00	
Incremental Delay, d2	0.3			0.0	0.6	
Delay (s)	19.7			7.9	28.9	
Level of Service	B			A	C	
Approach Delay (s)	19.7			7.9	28.9	
Approach LOS	B			A	C	
Intersection Summary						
HCM 2000 Control Delay		21.5		HCM 2000 Level of Service		C
HCM 2000 Volume to Capacity ratio		0.29				
Actuated Cycle Length (s)		140.0		Sum of lost time (s)	18.0	
Intersection Capacity Utilization		41.2%		ICU Level of Service	A	
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 2: Walnut Street & Martin Luther King Drive

3/10/2014
2017 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 						 	
Volume (vph)	0	340	10	30	100	0	90	0	70	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	1.00	1.00	
Frt		1.00			1.00		1.00		0.85	1.00	0.93	
Flt Protected		1.00			0.99		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3524			3499		1770		1583	1770	1723	
Flt Permitted		1.00			0.81		0.74		1.00	0.95	1.00	
Satd. Flow (perm)		3524			2881		1384		1583	1770	1723	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	370	11	33	109	0	98	0	76	11	11	11
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	46	0	7	0
Lane Group Flow (vph)	0	380	0	0	142	0	98	0	30	11	15	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		4	8	8	
Actuated Green, G (s)		73.0			73.0		55.0		55.0	55.0	55.0	
Effective Green, g (s)		73.0			73.0		55.0		55.0	55.0	55.0	
Actuated g/C Ratio		0.52			0.52		0.39		0.39	0.39	0.39	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1837			1502		543		621	695	676	
v/s Ratio Prot		c0.11										
v/s Ratio Perm					0.05		c0.07		0.02	0.01	0.01	
v/c Ratio		0.21			0.09		0.18		0.05	0.02	0.02	
Uniform Delay, d1		18.0			16.9		27.8		26.3	26.0	26.0	
Progression Factor		1.28			1.27		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.3			0.0		0.7		0.1	0.0	0.1	
Delay (s)		23.2			21.5		28.5		26.4	26.0	26.1	
Level of Service		C			C		C		C	C	C	
Approach Delay (s)		23.2			21.5		27.6				26.1	
Approach LOS		C			C		C				C	
Intersection Summary												
HCM 2000 Control Delay			24.0			HCM 2000 Level of Service			C			
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			38.3%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 3: Northside Drive & Martin Luther King Drive

3/10/2014
2017 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	10	130	30	20	50	0	900	10	400	2140	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.86	
Frt	1.00	1.00	0.85		1.00	0.85		1.00			0.99	
Flt Protected	0.95	0.96	1.00		0.97	1.00		1.00			0.99	
Satd. Flow (prot)	1681	1695	1583		1808	1583		3533			6311	
Flt Permitted	0.44	0.44	1.00		0.76	1.00		1.00			0.72	
Satd. Flow (perm)	782	774	1583		1421	1583		3533			4585	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	11	141	33	22	54	0	978	11	435	2326	152
RTOR Reduction (vph)	0	0	100	0	0	50	0	0	0	0	5	0
Lane Group Flow (vph)	86	88	41	0	55	4	0	989	0	0	2908	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8				6		
Actuated Green, G (s)	20.4	20.4	20.4		9.5	9.5		107.6			107.6	
Effective Green, g (s)	20.4	20.4	20.4		9.5	9.5		107.6			107.6	
Actuated g/C Ratio	0.15	0.15	0.15		0.07	0.07		0.77			0.77	
Clearance Time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	145	145	230		96	107		2715			3523	
v/s Ratio Prot	0.02	c0.02						0.28				
v/s Ratio Perm	0.07	c0.07	0.03		0.04	0.00					c0.63	
v/c Ratio	0.59	0.61	0.18		0.57	0.03		0.36			1.10dl	
Uniform Delay, d1	55.4	56.0	52.5		63.3	61.0		5.2			10.3	
Progression Factor	0.56	0.57	0.04		1.00	1.00		0.71			1.00	
Incremental Delay, d2	6.3	6.9	0.4		8.0	0.1		0.3			1.7	
Delay (s)	37.5	38.8	2.7		71.3	61.1		3.9			11.9	
Level of Service	D	D	A		E	E		A			B	
Approach Delay (s)		22.3			66.2			3.9			11.9	
Approach LOS		C			E			A			B	

Intersection Summary

HCM 2000 Control Delay	12.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

4: Northside Drive & Mitchell Street

3/10/2014
2017 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	190	50	260	370	260	60	640	150	450	2300	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00		1.00	0.95		1.00	0.95		1.00	0.91	
Frt		0.97		1.00	0.94		1.00	0.97		1.00	1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1811		1770	3320		1770	3438		1770	5072	
Flt Permitted		1.00		0.47	1.00		0.09	1.00		0.15	1.00	
Satd. Flow (perm)		1811		876	3320		174	3438		278	5072	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	207	54	283	402	283	65	696	163	489	2500	43
RTOR Reduction (vph)	0	7	0	0	92	0	0	15	0	0	1	0
Lane Group Flow (vph)	0	254	0	283	593	0	65	844	0	489	2542	0
Turn Type		NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases				8			2			6		
Actuated Green, G (s)		46.3		46.3	46.3		45.7	42.7		81.7	72.7	
Effective Green, g (s)		46.3		46.3	46.3		45.7	42.7		81.7	72.7	
Actuated g/C Ratio		0.33		0.33	0.33		0.33	0.31		0.58	0.52	
Clearance Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		598		289	1097		90	1048		513	2633	
v/s Ratio Prot		0.14			0.18		0.02	0.25		c0.22	c0.50	
v/s Ratio Perm				c0.32			0.22			0.33		
v/c Ratio		0.43		0.98	0.54		0.72	0.81		0.95	0.97	
Uniform Delay, d1		36.5		46.4	38.2		65.2	44.8		41.1	32.4	
Progression Factor		1.00		0.51	0.42		1.00	1.00		0.85	0.80	
Incremental Delay, d2		0.5		46.4	0.5		24.7	6.6		23.5	9.1	
Delay (s)		37.0		70.2	16.4		89.8	51.5		58.4	35.2	
Level of Service		D		E	B		F	D		E	D	
Approach Delay (s)		37.0			32.2			54.1			38.9	
Approach LOS		D			C			D			D	
Intersection Summary												
HCM 2000 Control Delay			40.3			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			1.00									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			96.1%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Mitchell Street & Martin Luther King Drive

3/10/2014
2017 Build PM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Volume (vph)	240	550	0	700	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	1.00		0.95	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	598	0	761	43	11
RTOR Reduction (vph)	0	84	0	0	0	10
Lane Group Flow (vph)	261	514	0	761	43	1
Turn Type	NA	Perm		NA	NA	Perm
Protected Phases	2				4	
Permitted Phases		2		6		4
Actuated Green, G (s)	120.3	120.3		120.3	7.7	7.7
Effective Green, g (s)	120.3	120.3		120.3	7.7	7.7
Actuated g/C Ratio	0.86	0.86		0.86	0.06	0.06
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	3041	1360		3041	97	87
v/s Ratio Prot	0.07				c0.02	
v/s Ratio Perm		c0.32		0.22		0.00
v/c Ratio	0.09	0.38		0.25	0.44	0.01
Uniform Delay, d1	1.5	2.1		1.8	64.1	62.5
Progression Factor	0.90	7.28		0.21	0.95	0.94
Incremental Delay, d2	0.0	0.5		0.2	3.2	0.0
Delay (s)	1.4	15.4		0.6	63.8	58.7
Level of Service	A	B		A	E	E
Approach Delay (s)	11.1			0.6	62.8	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay		8.0		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.38				
Actuated Cycle Length (s)		140.0		Sum of lost time (s)		12.0
Intersection Capacity Utilization		39.1%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 8: Centennial Olympic Parkway & Martin Luther King Drive

3/10/2014
2017 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↱		↲	↱↱	↑↑↑	
Volume (vph)	0	220	20	20	510	0	10	0	20	700	490	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Frt		0.99			1.00		1.00		0.85	1.00	0.96	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3494			3532		1770		1583	3433	4880	
Flt Permitted		1.00			0.94		0.95		1.00	0.95	1.00	
Satd. Flow (perm)		3494			3323		1770		1583	3433	4880	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	239	22	22	554	0	11	0	22	761	533	196
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	19	0	47	0
Lane Group Flow (vph)	0	256	0	0	576	0	11	0	3	761	682	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		6		5	2		3		3	4	4	
Permitted Phases				2			3		3			
Actuated Green, G (s)		27.0			49.0		18.0		18.0	55.0	55.0	
Effective Green, g (s)		27.0			49.0		18.0		18.0	55.0	55.0	
Actuated g/C Ratio		0.19			0.35		0.13		0.13	0.39	0.39	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		673			1186		227		203	1348	1917	
v/s Ratio Prot		0.07			c0.06		c0.01		0.00	c0.22	0.14	
v/s Ratio Perm					c0.11							
v/c Ratio		0.38			0.49		0.05		0.01	0.56	0.36	
Uniform Delay, d1		49.2			35.6		53.5		53.3	33.2	30.0	
Progression Factor		0.67			0.44		1.00		1.00	1.00	1.00	
Incremental Delay, d2		1.6			1.4		0.4		0.1	1.7	0.5	
Delay (s)		34.7			17.1		53.9		53.4	34.9	30.5	
Level of Service		C			B		D		D	C	C	
Approach Delay (s)		34.7			17.1			53.5			32.7	
Approach LOS		C			B			D			C	
Intersection Summary												
HCM 2000 Control Delay			29.4			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.48									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			58.2%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/10/2014
2017 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	0	820	100	430	110	100	310	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.97			1.00				
Flt Protected	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (prot)	1770		1583	1770	3431			3496				
Flt Permitted	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (perm)	1770		1583	1770	3431			3496				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	0	891	109	467	120	109	337	0	0	0	0
RTOR Reduction (vph)	0	0	57	0	24	0	0	0	0	0	0	0
Lane Group Flow (vph)	130	0	834	109	563	0	0	446	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		2 4	3	8		2	2				
Permitted Phases					8							
Actuated Green, G (s)	18.0		114.8	13.2	43.8			60.2				
Effective Green, g (s)	18.0		114.8	13.2	43.8			60.2				
Actuated g/C Ratio	0.13		0.82	0.09	0.31			0.43				
Clearance Time (s)	6.0			6.0	6.0			6.0				
Vehicle Extension (s)	3.0			3.0	3.0			3.0				
Lane Grp Cap (vph)	227		1298	166	1073			1503				
v/s Ratio Prot	c0.07		c0.53	0.06	0.16			0.13				
v/s Ratio Perm												
v/c Ratio	0.57		0.64	0.66	0.52			0.30				
Uniform Delay, d1	57.4		4.8	61.2	39.5			26.1				
Progression Factor	1.28		4.83	1.00	1.00			0.78				
Incremental Delay, d2	8.9		1.0	9.0	0.5			0.5				
Delay (s)	82.4		24.1	70.2	40.0			20.8				
Level of Service	F		C	E	D			C				
Approach Delay (s)		31.5			44.7			20.8			0.0	
Approach LOS		C			D			C			A	
Intersection Summary												
HCM 2000 Control Delay			33.6			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.68									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			66.3%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 11: Spring Street & Mitchell Street

3/10/2014
2017 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		EBT						NBT			EBT	
Volume (vph)	80	260	440	0	0	0	30	320	40	110	800	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.92						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3223						3472			3512	
Flt Permitted		0.99						0.81			0.80	
Satd. Flow (perm)		3223						2825			2842	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	283	478	0	0	0	33	348	43	120	870	11
RTOR Reduction (vph)	0	129	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	719	0	0	0	0	0	419	0	0	1001	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		37.7						90.3			90.3	
Effective Green, g (s)		37.7						90.3			90.3	
Actuated g/C Ratio		0.27						0.64			0.64	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		867						1822			1833	
v/s Ratio Prot		c0.22										
v/s Ratio Perm								0.15			c0.35	
v/c Ratio		0.83						0.23			0.55	
Uniform Delay, d1		48.1						10.4			13.6	
Progression Factor		0.75						1.00			1.37	
Incremental Delay, d2		6.5						0.1			0.3	
Delay (s)		42.6						10.4			18.9	
Level of Service		D						B			B	
Approach Delay (s)		42.6			0.0			10.4			18.9	
Approach LOS		D			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		26.1						HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio		0.66										
Actuated Cycle Length (s)		140.0						Sum of lost time (s)		18.0		
Intersection Capacity Utilization		75.3%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
1: Tatnall Street & Martin Luther King Drive

3/11/2014
2027 Build AM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↖↗	
Volume (vph)	180	390	20	160	140	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	0.90			1.00	1.00	
Flt Protected	1.00			0.99	0.95	
Satd. Flow (prot)	3176			3520	3433	
Flt Permitted	1.00			0.86	0.95	
Satd. Flow (perm)	3176			3034	3433	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	210	456	23	187	164	0
RTOR Reduction (vph)	160	0	0	0	0	0
Lane Group Flow (vph)	506	0	0	210	164	0
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Actuated Green, G (s)	78.0			78.0	30.0	
Effective Green, g (s)	78.0			78.0	30.0	
Actuated g/C Ratio	0.65			0.65	0.25	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2064			1972	858	
v/s Ratio Prot	c0.16				c0.05	
v/s Ratio Perm				0.07		
v/c Ratio	0.25			0.11	0.19	
Uniform Delay, d1	8.7			7.9	35.4	
Progression Factor	1.00			0.60	1.00	
Incremental Delay, d2	0.3			0.0	0.5	
Delay (s)	9.0			4.7	35.9	
Level of Service	A			A	D	
Approach Delay (s)	9.0			4.7	35.9	
Approach LOS	A			A	D	
Intersection Summary						
HCM 2000 Control Delay			12.4	HCM 2000 Level of Service		B
HCM 2000 Volume to Capacity ratio			0.24			
Actuated Cycle Length (s)			120.0	Sum of lost time (s)		18.0
Intersection Capacity Utilization			36.7%	ICU Level of Service		A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 2: Walnut Street & Martin Luther King Drive

3/11/2014
2027 Build AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↑		↑	↑	↑	
Volume (vph)	0	210	10	30	70	0	70	0	120	30	10	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	1.00	1.00	
Frt		0.99			1.00		1.00		0.85	1.00	0.90	
Flt Protected		1.00			0.99		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3514			3487		1770		1583	1770	1679	
Flt Permitted		1.00			0.82		0.73		1.00	0.95	1.00	
Satd. Flow (perm)		3514			2903		1368		1583	1770	1679	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	0	245	12	35	82	0	82	0	140	35	12	23
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	78	0	13	0
Lane Group Flow (vph)	0	254	0	0	117	0	82	0	62	35	22	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		4	8	8	
Actuated Green, G (s)		55.0			55.0		53.0		53.0	53.0	53.0	
Effective Green, g (s)		55.0			55.0		53.0		53.0	53.0	53.0	
Actuated g/C Ratio		0.46			0.46		0.44		0.44	0.44	0.44	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1610			1330		604		699	781	741	
v/s Ratio Prot		c0.07										
v/s Ratio Perm					0.04		c0.06		0.04	0.02	0.01	
v/c Ratio		0.16			0.09		0.14		0.09	0.04	0.03	
Uniform Delay, d1		19.0			18.3		19.9		19.5	19.1	19.0	
Progression Factor		0.91			1.29		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.2			0.0		0.5		0.2	0.1	0.1	
Delay (s)		17.4			23.6		20.4		19.7	19.2	19.0	
Level of Service		B			C		C		B	B	B	
Approach Delay (s)		17.4			23.6			20.0			19.1	
Approach LOS		B			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			19.5			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.16									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			34.4%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/11/2014
2027 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	250	20	70	10	10	10	0	1820	30	50	610	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.86	
Frt	1.00	1.00	0.85		1.00	0.85		1.00			0.99	
Flt Protected	0.95	0.96	1.00		0.98	1.00		1.00			1.00	
Satd. Flow (prot)	1681	1697	1583		1817	1583		3531			6294	
Flt Permitted	0.36	0.34	1.00		0.76	1.00		1.00			0.73	
Satd. Flow (perm)	638	602	1583		1412	1583		3531			4634	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	292	23	82	12	12	12	0	2127	35	58	713	82
RTOR Reduction (vph)	0	0	66	0	0	11	0	1	0	0	13	0
Lane Group Flow (vph)	158	157	16	0	24	1	0	2161	0	0	840	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8				6		
Actuated Green, G (s)	22.9	22.9	22.9		5.1	5.1		85.1			85.1	
Effective Green, g (s)	22.9	22.9	22.9		5.1	5.1		85.1			85.1	
Actuated g/C Ratio	0.19	0.19	0.19		0.04	0.04		0.71			0.71	
Clearance Time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	224	222	302		60	67		2504			3286	
v/s Ratio Prot	c0.07	0.07						c0.61				
v/s Ratio Perm	0.07	c0.07	0.01		0.02	0.00					0.18	
v/c Ratio	0.71	0.71	0.05		0.40	0.01		0.86			0.26	
Uniform Delay, d1	43.5	45.4	39.7		56.0	55.0		13.1			6.2	
Progression Factor	0.77	0.77	0.64		1.00	1.00		0.27			1.00	
Incremental Delay, d2	9.6	9.8	0.1		4.3	0.0		1.4			0.0	
Delay (s)	43.4	45.0	25.4		60.3	55.1		4.9			6.2	
Level of Service	D	D	C		E	E		A			A	
Approach Delay (s)		40.3			58.6			4.9			6.2	
Approach LOS		D			E			A			A	

Intersection Summary

HCM 2000 Control Delay	9.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

4: Northside Drive & Mitchell Street

3/11/2014
2027 Build AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗		↖	↗		↖	↗	↖
Volume (vph)	0	310	30	70	100	270	50	1630	90	150	490	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00		1.00	0.95		1.00	0.95		1.00	0.91	
Frt		0.99		1.00	0.89		1.00	0.99		1.00	0.99	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1841		1770	3152		1770	3511		1770	5027	
Flt Permitted		1.00		0.15	1.00		0.40	1.00		0.06	1.00	
Satd. Flow (perm)		1841		276	3152		744	3511		105	5027	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	0	362	35	82	117	315	58	1905	105	175	573	47
RTOR Reduction (vph)	0	3	0	0	66	0	0	3	0	0	8	0
Lane Group Flow (vph)	0	394	0	82	366	0	58	2007	0	175	612	0
Turn Type		NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases				8			2			6		
Actuated Green, G (s)		27.0		27.0	27.0		69.8	65.8		80.2	71.0	
Effective Green, g (s)		27.0		27.0	27.0		69.8	65.8		80.2	71.0	
Actuated g/C Ratio		0.22		0.22	0.22		0.58	0.55		0.67	0.59	
Clearance Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		414		62	709		466	1925		197	2974	
v/s Ratio Prot		0.21			0.12		0.00	c0.57		c0.07	0.12	
v/s Ratio Perm				c0.30			0.07			0.52		
v/c Ratio		0.95		1.32	0.52		0.12	1.04		0.89	0.21	
Uniform Delay, d1		45.9		46.5	40.8		11.9	27.1		50.9	11.4	
Progression Factor		1.00		0.70	0.58		1.00	1.00		1.05	0.67	
Incremental Delay, d2		31.9		222.6	0.6		0.1	32.6		34.3	0.2	
Delay (s)		77.7		255.1	24.3		12.0	59.7		87.8	7.8	
Level of Service		E		F	C		B	E		F	A	
Approach Delay (s)		77.7			61.2			58.4			25.4	
Approach LOS		E			E			E			C	
Intersection Summary												
HCM 2000 Control Delay			53.8			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			1.10									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			106.9%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
5: Mitchell Street & Martin Luther King Drive

3/11/2014
2027 Build AM Peak Hour

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑	↖	↗
Volume (vph)	230	360	0	315	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	1.00		0.95	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	269	421	0	368	47	12
RTOR Reduction (vph)	0	68	0	0	0	11
Lane Group Flow (vph)	269	353	0	368	47	1
Turn Type	NA	Perm		NA	NA	Perm
Protected Phases	2				4	
Permitted Phases		2		6		4
Actuated Green, G (s)	100.5	100.5		100.5	7.5	7.5
Effective Green, g (s)	100.5	100.5		100.5	7.5	7.5
Actuated g/C Ratio	0.84	0.84		0.84	0.06	0.06
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	2963	1325		2963	110	98
v/s Ratio Prot	0.08				c0.03	
v/s Ratio Perm		c0.22		0.10		0.00
v/c Ratio	0.09	0.27		0.12	0.43	0.01
Uniform Delay, d1	1.7	2.0		1.8	54.2	52.8
Progression Factor	0.75	2.66		0.51	1.06	1.11
Incremental Delay, d2	0.0	0.2		0.1	2.6	0.0
Delay (s)	1.3	5.6		1.0	59.9	58.8
Level of Service	A	A		A	E	E
Approach Delay (s)	3.9			1.0	59.7	
Approach LOS	A			A	E	
Intersection Summary						
HCM 2000 Control Delay		5.9		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.28				
Actuated Cycle Length (s)		120.0		Sum of lost time (s)	12.0	
Intersection Capacity Utilization		29.7%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis 8: Centennial Olympic Parkway & Martin Luther King Drive

3/11/2014
2027 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↑		↑	↑↑	↑↑↑	
Volume (vph)	0	220	10	10	270	0	10	0	29	122	61	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Frt		0.99			1.00		1.00		0.85	1.00	0.95	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3516			3533		1770		1583	3433	4806	
Flt Permitted		1.00			0.95		0.95		1.00	0.95	1.00	
Satd. Flow (perm)		3516			3353		1770		1583	3433	4806	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	0	257	12	12	315	0	12	0	34	143	71	41
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	28	0	32	0
Lane Group Flow (vph)	0	266	0	0	327	0	12	0	6	143	80	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		6		5	2		3		3	4	4	
Permitted Phases				2			3		3			
Actuated Green, G (s)		33.0			55.0		22.0		22.0	25.0	25.0	
Effective Green, g (s)		33.0			55.0		22.0		22.0	25.0	25.0	
Actuated g/C Ratio		0.28			0.46		0.18		0.18	0.21	0.21	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		966			1560		324		290	715	1001	
v/s Ratio Prot		c0.08			c0.03		c0.01		0.00	c0.04	0.02	
v/s Ratio Perm					0.07							
v/c Ratio		0.28			0.21		0.04		0.02	0.20	0.08	
Uniform Delay, d1		34.1			19.5		40.3		40.2	39.2	38.2	
Progression Factor		1.26			0.54		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.7			0.1		0.2		0.1	0.6	0.2	
Delay (s)		43.7			10.6		40.5		40.3	39.9	38.4	
Level of Service		D			B		D		D	D	D	
Approach Delay (s)		43.7			10.6		40.4				39.2	
Approach LOS		D			B		D				D	
Intersection Summary												
HCM 2000 Control Delay			30.2			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.20									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				24.0		
Intersection Capacity Utilization			36.9%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/11/2014
2027 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	180	0	200	30	200	300	90	1300	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.91			1.00				
Flt Protected	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (prot)	1770		1583	1770	3221			3528				
Flt Permitted	0.95		1.00	0.95	1.00			1.00				
Satd. Flow (perm)	1770		1583	1770	3221			3528				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	210	0	234	35	234	351	105	1519	0	0	0	0
RTOR Reduction (vph)	0	0	187	0	43	0	0	0	0	0	0	0
Lane Group Flow (vph)	210	0	47	35	542	0	0	1624	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		4	3	8		2	2				
Permitted Phases			4		8							
Actuated Green, G (s)	18.0		24.1	18.7	24.8			59.2				
Effective Green, g (s)	18.0		24.1	18.7	24.8			59.2				
Actuated g/C Ratio	0.15		0.20	0.16	0.21			0.49				
Clearance Time (s)	6.0		6.0	6.0	6.0			6.0				
Vehicle Extension (s)	3.0		3.0	3.0	3.0			3.0				
Lane Grp Cap (vph)	265		317	275	665			1740				
v/s Ratio Prot	c0.12		0.03	0.02	c0.17			c0.46				
v/s Ratio Perm												
v/c Ratio	0.79		0.15	0.13	1.04dr			0.93				
Uniform Delay, d1	49.2		39.5	43.6	45.4			28.5				
Progression Factor	0.52		2.30	1.00	1.00			0.74				
Incremental Delay, d2	20.9		0.2	0.2	7.6			8.3				
Delay (s)	46.4		91.0	43.8	53.0			29.4				
Level of Service	D		F	D	D			C				
Approach Delay (s)		69.9			52.5			29.4			0.0	
Approach LOS		E			D			C			A	
Intersection Summary												
HCM 2000 Control Delay			41.4			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			84.0%			ICU Level of Service			E			
Analysis Period (min)			15									
dr Defacto Right Lane. Recode with 1 though lane as a right lane.												
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 11: Spring Street & Mitchell Street

3/11/2014
2027 Build AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		LT						LT			LT	
Volume (vph)	150	150	80	0	0	0	70	1240	50	80	140	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.97						0.99			0.99	
Flt Protected		0.98						1.00			0.98	
Satd. Flow (prot)		3361						3511			3456	
Flt Permitted		0.98						0.91			0.52	
Satd. Flow (perm)		3361						3200			1829	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	175	175	93	0	0	0	82	1449	58	93	164	12
RTOR Reduction (vph)	0	20	0	0	0	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	423	0	0	0	0	0	1587	0	0	267	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		19.5						88.5			88.5	
Effective Green, g (s)		19.5						88.5			88.5	
Actuated g/C Ratio		0.16						0.74			0.74	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		546						2360			1348	
v/s Ratio Prot		c0.13										
v/s Ratio Perm								c0.50			0.15	
v/c Ratio		0.77						0.67			0.20	
Uniform Delay, d1		48.1						8.2			4.8	
Progression Factor		0.59						1.00			1.18	
Incremental Delay, d2		6.6						0.8			0.1	
Delay (s)		35.1						9.0			5.8	
Level of Service		D						A			A	
Approach Delay (s)		35.1			0.0			9.0			5.8	
Approach LOS		D			A			A			A	
Intersection Summary												
HCM 2000 Control Delay		13.6						HCM 2000 Level of Service			B	
HCM 2000 Volume to Capacity ratio		0.73										
Actuated Cycle Length (s)		120.0						Sum of lost time (s)		18.0		
Intersection Capacity Utilization		76.6%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
1: Tatnall Street & Martin Luther King Drive

3/11/2014
2027 Build PM Peak Hour

	→	↗	↖	←	↙	↘
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑			↑↑	↗↘	
Volume (vph)	230	240	20	140	410	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.95			0.95	0.97	
Frt	0.92			1.00	1.00	
Flt Protected	1.00			0.99	0.95	
Satd. Flow (prot)	3268			3518	3433	
Flt Permitted	1.00			0.86	0.95	
Satd. Flow (perm)	3268			3027	3433	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	269	280	23	164	479	0
RTOR Reduction (vph)	119	0	0	0	0	0
Lane Group Flow (vph)	430	0	0	187	479	0
Turn Type	NA		pm+pt	NA	NA	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Actuated Green, G (s)	71.0			71.0	57.0	
Effective Green, g (s)	71.0			71.0	57.0	
Actuated g/C Ratio	0.51			0.51	0.41	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1657			1535	1397	
v/s Ratio Prot	c0.13				c0.14	
v/s Ratio Perm				0.06		
v/c Ratio	0.26			0.12	0.34	
Uniform Delay, d1	19.6			18.1	28.6	
Progression Factor	1.00			1.10	1.00	
Incremental Delay, d2	0.4			0.0	0.7	
Delay (s)	20.0			19.9	29.3	
Level of Service	B			B	C	
Approach Delay (s)	20.0			19.9	29.3	
Approach LOS	B			B	C	
Intersection Summary						
HCM 2000 Control Delay			23.6		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.31			
Actuated Cycle Length (s)			140.0		Sum of lost time (s)	18.0
Intersection Capacity Utilization			44.6%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

2: Walnut Street & Martin Luther King Drive

3/11/2014
2027 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  		  		  	  	  	  
Volume (vph)	0	340	10	30	100	0	90	0	70	10	10	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	1.00	1.00	
Frt		1.00			1.00		1.00		0.85	1.00	0.93	
Flt Protected		1.00			0.99		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3524			3499		1770		1583	1770	1723	
Flt Permitted		1.00			0.81		0.74		1.00	0.95	1.00	
Satd. Flow (perm)		3524			2851		1381		1583	1770	1723	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	0	397	12	35	117	0	105	0	82	12	12	12
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	50	0	7	0
Lane Group Flow (vph)	0	408	0	0	152	0	105	0	32	12	17	0
Turn Type		NA		pm+pt	NA		custom		custom	custom	NA	
Protected Phases		2		1	6							
Permitted Phases				6			4		4	8	8	
Actuated Green, G (s)		74.0			74.0		54.0		54.0	54.0	54.0	
Effective Green, g (s)		74.0			74.0		54.0		54.0	54.0	54.0	
Actuated g/C Ratio		0.53			0.53		0.39		0.39	0.39	0.39	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		1862			1506		532		610	682	664	
v/s Ratio Prot		c0.12										
v/s Ratio Perm					0.05		c0.08		0.02	0.01	0.01	
v/c Ratio		0.22			0.10		0.20		0.05	0.02	0.03	
Uniform Delay, d1		17.6			16.4		28.6		27.0	26.6	26.7	
Progression Factor		0.63			1.24		1.00		1.00	1.00	1.00	
Incremental Delay, d2		0.3			0.0		0.8		0.2	0.0	0.1	
Delay (s)		11.4			20.5		29.4		27.1	26.6	26.7	
Level of Service		B			C		C		C	C	C	
Approach Delay (s)		11.4			20.5			28.4			26.7	
Approach LOS		B			C			C			C	
Intersection Summary												
HCM 2000 Control Delay			17.9			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.22									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			40.4%			ICU Level of Service				A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

3: Northside Drive & Martin Luther King Drive

3/11/2014
2027 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	150	10	130	30	20	50	0	900	10	400	2140	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95			0.86	
Frt	1.00	1.00	0.85		1.00	0.85		1.00			0.99	
Flt Protected	0.95	0.96	1.00		0.97	1.00		1.00			0.99	
Satd. Flow (prot)	1681	1696	1583		1808	1583		3533			6310	
Flt Permitted	0.45	0.44	1.00		0.76	1.00		1.00			0.72	
Satd. Flow (perm)	792	785	1583		1413	1583		3533			4548	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	175	12	152	35	23	58	0	1052	12	467	2500	164
RTOR Reduction (vph)	0	0	100	0	0	54	0	0	0	0	5	0
Lane Group Flow (vph)	93	94	52	0	58	4	0	1064	0	0	3126	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm		NA		pm+pt	NA	
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4		4	8		8				6		
Actuated Green, G (s)	20.9	20.9	20.9		9.9	9.9		107.1			107.1	
Effective Green, g (s)	20.9	20.9	20.9		9.9	9.9		107.1			107.1	
Actuated g/C Ratio	0.15	0.15	0.15		0.07	0.07		0.76			0.76	
Clearance Time (s)	6.0	6.0	6.0		6.0	6.0		6.0			6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0			3.0	
Lane Grp Cap (vph)	149	149	236		99	111		2702			3479	
v/s Ratio Prot	0.02	c0.02						0.30				
v/s Ratio Perm	0.07	c0.07	0.03		0.04	0.00					c0.69	
v/c Ratio	0.62	0.63	0.22		0.59	0.04		0.39			1.30dl	
Uniform Delay, d1	55.4	55.9	52.4		63.1	60.6		5.5			12.4	
Progression Factor	0.75	0.75	0.40		1.00	1.00		1.05			1.00	
Incremental Delay, d2	7.8	8.3	0.5		8.6	0.1		0.3			3.5	
Delay (s)	49.6	50.5	21.6		71.6	60.7		6.1			15.9	
Level of Service	D	D	C		E	E		A			B	
Approach Delay (s)		37.3			66.2			6.1			15.9	
Approach LOS		D			E			A			B	

Intersection Summary

HCM 2000 Control Delay	16.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	98.3%	ICU Level of Service	F
Analysis Period (min)	15		
dl Defacto Left Lane. Recode with 1 though lane as a left lane.			
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

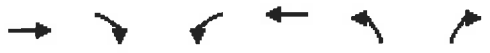
4: Northside Drive & Mitchell Street

3/11/2014
2027 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱↲		↱	↱↲		↱	↱↲↲	
Volume (vph)	0	190	50	260	370	260	60	640	150	450	2300	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor		1.00		1.00	0.95		1.00	0.95		1.00	0.91	
Frt		0.97		1.00	0.94		1.00	0.97		1.00	1.00	
Flt Protected		1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1811		1770	3320		1770	3439		1770	5072	
Flt Permitted		1.00		0.42	1.00		0.09	1.00		0.13	1.00	
Satd. Flow (perm)		1811		781	3320		170	3439		234	5072	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	0	222	58	304	432	304	70	748	175	526	2687	47
RTOR Reduction (vph)	0	7	0	0	91	0	0	14	0	0	1	0
Lane Group Flow (vph)	0	273	0	304	645	0	70	909	0	526	2733	0
Turn Type		NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases				8			2			6		
Actuated Green, G (s)		42.0		42.0	42.0		49.4	43.8		86.0	74.4	
Effective Green, g (s)		42.0		42.0	42.0		49.4	43.8		86.0	74.4	
Actuated g/C Ratio		0.30		0.30	0.30		0.35	0.31		0.61	0.53	
Clearance Time (s)		6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		543		234	996		123	1075		540	2695	
v/s Ratio Prot		0.15			0.19		0.02	0.26		c0.25	c0.54	
v/s Ratio Perm				c0.39			0.18			0.35		
v/c Ratio		0.50		1.30	0.65		0.57	0.85		0.97	1.01	
Uniform Delay, d1		40.4		49.0	42.6		62.7	44.9		41.1	32.8	
Progression Factor		1.00		0.70	0.59		1.00	1.00		0.83	0.80	
Incremental Delay, d2		0.7		162.0	1.4		5.9	8.2		25.8	18.0	
Delay (s)		41.1		196.5	26.6		68.6	53.1		59.9	44.2	
Level of Service		D		F	C		E	D		E	D	
Approach Delay (s)		41.1			76.2			54.2			46.8	
Approach LOS		D			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			53.3			HCM 2000 Level of Service				D		
HCM 2000 Volume to Capacity ratio			1.13									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			104.5%			ICU Level of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 5: Mitchell Street & Martin Luther King Drive

3/11/2014
2027 Build PM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑	↑	↑
Volume (vph)	240	550	0	700	40	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0	6.0
Lane Util. Factor	0.95	1.00		0.95	1.00	1.00
Frt	1.00	0.85		1.00	1.00	0.85
Flt Protected	1.00	1.00		1.00	0.95	1.00
Satd. Flow (prot)	3539	1583		3539	1770	1583
Flt Permitted	1.00	1.00		1.00	0.95	1.00
Satd. Flow (perm)	3539	1583		3539	1770	1583
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	280	643	0	818	47	12
RTOR Reduction (vph)	0	92	0	0	0	11
Lane Group Flow (vph)	280	551	0	818	47	1
Turn Type	NA	Perm		NA	NA	Perm
Protected Phases	2				4	
Permitted Phases		2		6		4
Actuated Green, G (s)	120.0	120.0		120.0	8.0	8.0
Effective Green, g (s)	120.0	120.0		120.0	8.0	8.0
Actuated g/C Ratio	0.86	0.86		0.86	0.06	0.06
Clearance Time (s)	6.0	6.0		6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	3033	1356		3033	101	90
v/s Ratio Prot	0.08				c0.03	
v/s Ratio Perm		c0.35		0.23		0.00
v/c Ratio	0.09	0.41		0.27	0.47	0.01
Uniform Delay, d1	1.6	2.2		1.9	63.9	62.3
Progression Factor	1.54	6.75		1.04	0.94	0.91
Incremental Delay, d2	0.0	0.5		0.2	3.4	0.0
Delay (s)	2.4	15.3		2.1	63.4	56.9
Level of Service	A	B		A	E	E
Approach Delay (s)	11.4			2.1	62.1	
Approach LOS	B			A	E	
Intersection Summary						
HCM 2000 Control Delay		8.8		HCM 2000 Level of Service		A
HCM 2000 Volume to Capacity ratio		0.41				
Actuated Cycle Length (s)		140.0		Sum of lost time (s)	12.0	
Intersection Capacity Utilization		42.8%		ICU Level of Service		A
Analysis Period (min)		15				
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

8: Centennial Olympic Parkway & Martin Luther King Drive

3/11/2014
2027 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑		↑		↑	↑↑	↑↑↑	
Volume (vph)	0	220	20	20	510	0	10	0	20	700	490	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Lane Util. Factor		0.95			0.95		1.00		1.00	0.97	0.91	
Frt		0.99			1.00		1.00		0.85	1.00	0.96	
Flt Protected		1.00			1.00		0.95		1.00	0.95	1.00	
Satd. Flow (prot)		3496			3533		1770		1583	3433	4881	
Flt Permitted		1.00			0.94		0.95		1.00	0.95	1.00	
Satd. Flow (perm)		3496			3320		1770		1583	3433	4881	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	0	257	23	23	596	0	12	0	23	818	573	210
RTOR Reduction (vph)	0	5	0	0	0	0	0	0	20	0	47	0
Lane Group Flow (vph)	0	275	0	0	619	0	12	0	3	818	736	0
Turn Type		NA		pm+pt	NA		custom		custom	Split	NA	
Protected Phases		6		5	2		3		3	4	4	
Permitted Phases				2			3		3			
Actuated Green, G (s)		26.0			48.0		18.0		18.0	56.0	56.0	
Effective Green, g (s)		26.0			48.0		18.0		18.0	56.0	56.0	
Actuated g/C Ratio		0.19			0.34		0.13		0.13	0.40	0.40	
Clearance Time (s)		6.0			6.0		6.0		6.0	6.0	6.0	
Vehicle Extension (s)		3.0			3.0		3.0		3.0	3.0	3.0	
Lane Grp Cap (vph)		649			1162		227		203	1373	1952	
v/s Ratio Prot		0.08			c0.06		c0.01		0.00	c0.24	0.15	
v/s Ratio Perm					c0.12							
v/c Ratio		0.42			0.53		0.05		0.01	0.60	0.38	
Uniform Delay, d1		50.4			37.0		53.5		53.3	33.1	29.7	
Progression Factor		0.91			0.19		1.00		1.00	1.00	1.00	
Incremental Delay, d2		2.0			1.2		0.4		0.1	1.9	0.6	
Delay (s)		47.7			8.4		54.0		53.4	35.0	30.2	
Level of Service		D			A		D		D	C	C	
Approach Delay (s)		47.7			8.4			53.6			32.7	
Approach LOS		D			A			D			C	
Intersection Summary												
HCM 2000 Control Delay			28.7			HCM 2000 Level of Service				C		
HCM 2000 Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			24.0			
Intersection Capacity Utilization			62.1%			ICU Level of Service			B			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 10: Spring Street & Martin Luther King Drive

3/11/2014
2027 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	0	820	100	430	110	100	310	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0		6.0	6.0	6.0			6.0				
Lane Util. Factor	1.00		1.00	1.00	0.95			0.95				
Frt	1.00		0.85	1.00	0.97			1.00				
Flt Protected	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (prot)	1770		1583	1770	3431			3497				
Flt Permitted	0.95		1.00	0.95	1.00			0.99				
Satd. Flow (perm)	1770		1583	1770	3431			3497				
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	140	0	958	117	502	129	117	362	0	0	0	0
RTOR Reduction (vph)	0	0	58	0	17	0	0	0	0	0	0	0
Lane Group Flow (vph)	140	0	900	117	614	0	0	479	0	0	0	0
Turn Type	Prot		custom	Prot	NA		Split	NA				
Protected Phases	7		2 4	3	8		2	2				
Permitted Phases					8							
Actuated Green, G (s)	17.0		114.1	13.9	29.0			76.0				
Effective Green, g (s)	17.0		114.1	13.9	29.0			76.0				
Actuated g/C Ratio	0.12		0.81	0.10	0.21			0.54				
Clearance Time (s)	6.0			6.0	6.0			6.0				
Vehicle Extension (s)	3.0			3.0	3.0			3.0				
Lane Grp Cap (vph)	214		1290	175	710			1898				
v/s Ratio Prot	c0.08		c0.57	0.07	c0.18			0.14				
v/s Ratio Perm												
v/c Ratio	0.65		0.70	0.67	0.87			0.25				
Uniform Delay, d1	58.7		5.6	60.8	53.6			17.0				
Progression Factor	1.48		3.46	1.00	1.00			1.19				
Incremental Delay, d2	12.5		1.4	9.3	10.7			0.3				
Delay (s)	99.5		20.6	70.1	64.3			20.4				
Level of Service	F		C	E	E			C				
Approach Delay (s)		30.7			65.3			20.4			0.0	
Approach LOS		C			E			C			A	
Intersection Summary												
HCM 2000 Control Delay			39.7			HCM 2000 Level of Service					D	
HCM 2000 Volume to Capacity ratio			0.75									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)				18.0		
Intersection Capacity Utilization			72.5%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 11: Spring Street & Mitchell Street

3/11/2014
2027 Build PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	80	260	440	0	0	0	30	320	40	110	800	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0						6.0			6.0	
Lane Util. Factor		0.95						0.95			0.95	
Frt		0.92						0.98			1.00	
Flt Protected		0.99						1.00			0.99	
Satd. Flow (prot)		3223						3471			3512	
Flt Permitted		0.99						0.80			0.79	
Satd. Flow (perm)		3223						2775			2786	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor (vph)	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%	111%
Adj. Flow (vph)	93	304	514	0	0	0	35	374	47	129	935	12
RTOR Reduction (vph)	0	110	0	0	0	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	801	0	0	0	0	0	451	0	0	1076	0
Turn Type	Split	NA					pm+pt	NA		pm+pt	NA	
Protected Phases	4	4					5	2		1	6	
Permitted Phases							2	2		6	6	
Actuated Green, G (s)		40.9						87.1			87.1	
Effective Green, g (s)		40.9						87.1			87.1	
Actuated g/C Ratio		0.29						0.62			0.62	
Clearance Time (s)		6.0						6.0			6.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		941						1726			1733	
v/s Ratio Prot		c0.25										
v/s Ratio Perm								0.16			c0.39	
v/c Ratio		0.85						0.26			0.62	
Uniform Delay, d1		46.7						11.9			16.3	
Progression Factor		0.80						1.00			0.71	
Incremental Delay, d2		7.3						0.1			0.5	
Delay (s)		44.7						12.0			12.0	
Level of Service		D						B			B	
Approach Delay (s)		44.7			0.0			12.0			12.0	
Approach LOS		D			A			B			B	
Intersection Summary												
HCM 2000 Control Delay		24.2						HCM 2000 Level of Service		C		
HCM 2000 Volume to Capacity ratio		0.73										
Actuated Cycle Length (s)		140.0						Sum of lost time (s)		18.0		
Intersection Capacity Utilization		81.9%						ICU Level of Service		D		
Analysis Period (min)		15										
c Critical Lane Group												

APPENDIX C: HISTORIC VOLUMES & GROWTH RATE CALCULATIONS

Historic Traffic Count Data: Growth Trends for Roadways Near Proposed Stadium Site

Traffic Counter: 5049 (Northside Drive North of MLK)

YEAR	RCLINK	Beginning Milepoint	Ending Milepoint	Directional	Actual/ Estimate	Direction 1	Direction 2	Total AADT	Trendline AADT	Truck%
2005	1211000300	7.27	8.66	Bi-Directional	Actual	10830 (North)	10070 (South)	20900	19446	-
2006	1211000300	7.27	8.66	Bi-Directional	Actual	10760 (North)	11290 (South)	22050	20468	-
2007	1211000300	7.27	8.66	Bi-Directional	Actual	10140 (North)	9240 (South)	19380	21490	-
2008	1211000300	7.59	8.68	Non-Directional	Actual	()	()	22200	22512	4
2009	1211000300	7.59	8.68	Non-Directional	Estimate	()	()	21880	23533	-
2010	1211000300	8.06	8.69	Directional	Actual	11460 (North)	10620 (South)	22080	24555	3
2011	1211000300	8.06	8.69	Directional	Actual	13280 (North)	14330 (South)	27610	25577	2
2012	1211000300	8.06	8.69	Non-Directional	Estimate	()	()	28080	26599	-

Growth Rate:	5.3%
---------------------	-------------

Traffic Counter: 6140 (MLK west of Northside)

YEAR	RCLINK	Beginning Milepoint	Ending Milepoint	Directional	Actual/ Estimate	Direction 1	Direction 2	Total AADT	Trendline AADT	Truck%
2005	1213379003	0.72	2.97	Non-Directional	Estimate	()	()	13670	12650	-
2006	1213379003	0.7	3.09	Non-Directional	Estimate	()	()	13810	11862	-
2007	1213379003	0.7	3.09	Non-Directional	Actual	()	()	9220	11074	-
2008	1213379003	0.7	3.09	Non-Directional	Estimate	()	()	8680	10285	-
2009	1213379003	0.7	3.09	Non-Directional	Estimate	()	()	8440	9497	-
2010	1213379003	0.7	3.09	Non-Directional	Estimate	()	()	8460	8709	-
2011	1213379003	0.57	3.14	Non-Directional	Estimate	()	()	8450	7921	-
2012	1213379003	0.57	3.14	Non-Directional	Estimate	()	()	8400	7133	-

Growth Rate:	-6.2%
---------------------	--------------

Traffic Counter: 6142 (MLK east of Centennnnial Olympic)

YEAR	RCLINK	Beginning Milepoint	Ending Milepoint	Directional	Actual/ Estimate	Direction 1	Direction 2	Total AADT	Trendline AADT	Truck%
2005	1213379003	0	0.41	Non-Directional	Estimate	()	()	12890	10931	-
2006	1213379003	0	0.69	Non-Directional	Actual	()	()	9400	10722	-
2007	1213379003	0	0.69	Non-Directional	Estimate	()	()	9490	10513	-
2008	1213379003	0	0.69	Non-Directional	Actual	()	()	10190	10303	-
2009	1213379003	0	0.69	Non-Directional	Estimate	()	()	9910	10094	-
2010	1213379003	0	0.69	Non-Directional	Estimate	()	()	9930	9885	-
2011	1213379003	0.09	0.57	Non-Directional	Estimate	()	()	9920	9676	-
2012	1213379003	0.09	0.57	Non-Directional	Estimate	()	()	9860	9467	-

Growth Rate:	-1.9%
---------------------	--------------

Traffic Counter: 0240 (Centennial Olympic Parkway South of Mitchell Street)

YEAR	RCLINK	Beginning Milepoint	Ending Milepoint	Directional	Actual/ Estimate	Direction 1	Direction 2	Total AADT	Trendline AADT	Truck%
2005	1213239703	0.7	1.14	Non-Directional	Estimate	()	()	4350	3740	-
2006	1213239703	0	1.14	Non-Directional	Actual	()	()	3740	3808	-
2007	1213239703	0	1.14	Non-Directional	Actual	()	()	3420	3876	-
2008	1213239703	0	1.14	Non-Directional	Estimate	()	()	3220	3944	-
2009	1213239703	0	1.14	Non-Directional	Actual	()	()	4270	4011	-
2010	1213239703	0	1.14	Non-Directional	Estimate	()	()	4280	4079	-
2011	1213239703	0	1.14	Non-Directional	Estimate	()	()	4280	4147	-
2012	1213239703	0	1.14	Non-Directional	Estimate	()	()	4260	4215	-

Growth Rate:	1.8%
---------------------	-------------

Traffic Counter: 5052 (Northside Drive North of Ivan Allen Boulevard)

YEAR	RCLINK	Beginning Milepoint	Ending Milepoint	Directional	Actual/ Estimate	Direction 1	Direction 2	Total AADT	Trendline AADT	Truck%
2005	1211000300	8.78	9.29	Non-Directional	Estimate	()	()	23490	25133	-
2006	1211000300	8.69	9.19	Bi-Directional	Estimate	12600 (South)	12600 (North)	25200	24766	-
2007	1211000300	8.69	9.19	Bi-Directional	Estimate	12600 (North)	12600 (South)	25200	24400	-
2008	1211000300	8.69	9.19	Non-Directional	Estimate	()	()	24190	24033	-
2009	1211000300	8.69	9.19	Bi-Directional	Actual	11610 (North)	12470 (South)	24080	23667	-
2010	1211000300	8.69	9.2	Non-Directional	Estimate	()	()	24110	23300	-
2011	1211000300	8.69	9.2	Non-Directional	Estimate	()	()	24340	22934	-
2012	1211000300	8.69	9.2	Directional	Actual	9730 (North)	10460 (South)	20190	22568	-

Growth Rate:	-1.5%
--------------	-------

APPENDIX D: VISSIM ANALYSIS RESULTS

ATLANTA FALCONS STADIUM
VISSIM Analysis Results - Alternative 6C

Intersection	Approach	Movement	2017 AM Peak Hour						2017 PM Peak Hour							
			Input Volume	Simulated Volume	Delay (sec)	LOS		Avg. Queue (ft)	Max. Queue (ft)	Input Volume	Simulated Volume	Delay (sec)	LOS		Avg. Queue (ft)	Max. Queue (ft)
MLK Dr at Northside Dr	Eastbound	EBL	243	222	46.1	D	D	65.1	340.3	139	126	29.6	C	C	37.8	252.2
		EBT	10	10	52.3	D	D	65.1	340.3	10	10	52.7	D	D	37.8	252.2
		EBR	64	67	43.3	D	D	65.1	340.3	131	132	43.6	D	D	37.8	252.2
	Westbound	WBL	10	11	30.5	C	C	4.7	67.3	10	11	34.4	C	C	3.8	65.6
		WBT	10	10	41.9	D	D	4.7	67.3	10	10	24.8	C	C	3.8	65.6
		WBR	10	9	28.0	C	C	4.6	67.5	10	9	16.7	B	B	3.7	65.7
	Northbound	NBT	1,912	1,871	3.9	A	A	23.6	213.6	932	866	7.9	A	A	24.4	130.5
		NBR	10	11	0.6	A	A	23.6	213.6	10	6	0.3	A	A	24.3	130.6
		SBL	10	10	24.9	C	C	10.2	117.4	10	9	45.8	D	D	182.8	751.2
	Southbound	SBT	624	652	6.4	A	A	10.2	117.4	2,554	2,576	33.6	C	C	182.8	751.2
		SBR	71	62	4.7	A	A	7.7	117.2	168	155	31.8	C	C	181.9	751.0
		EBT	279	280	46.2	D	D	84.4	376.4	185	193	50.8	D	D	68.3	420.2
Mitchell St at Northside Dr	Eastbound	EBR	24	29	41.0	D	D	83.3	376.4	47	59	38.0	D	D	66.4	420.2
		WBL	36	52	48.7	D	D	34.3	142.9	145	154	53.7	D	D	115.2	671.7
		WBT	97	109	41.5	D	D	28.4	131.8	495	537	45.8	D	D	115.2	671.7
	Westbound	WBR	270	248	15.3	B	B	23.3	132.0	252	207	6.6	A	A	113.2	671.8
		NBL	88	89	16.8	B	B	4.9	77.8	150	147	51.9	D	D	40.0	274.0
		NBT	1,617	1,631	24.8	C	C	134.5	664.7	656	661	48.4	D	D	138.2	574.2
	Northbound	NBR	91	91	25.8	C	C	134.4	664.6	148	135	41.0	D	D	138.1	574.1
		SBL	161	160	27.8	C	C	24.4	144.2	458	450	24.1	C	C	77.4	281.4
		SBT	489	536	5.7	A	A	24.4	144.2	2,182	2,217	6.5	A	A	77.4	281.4
	Southbound	SBR	37	34	3.7	A	A	6.5	144.4	44	51	1.2	A	A	60.0	281.6